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## Planet cycloidal speed reducer

### Preface

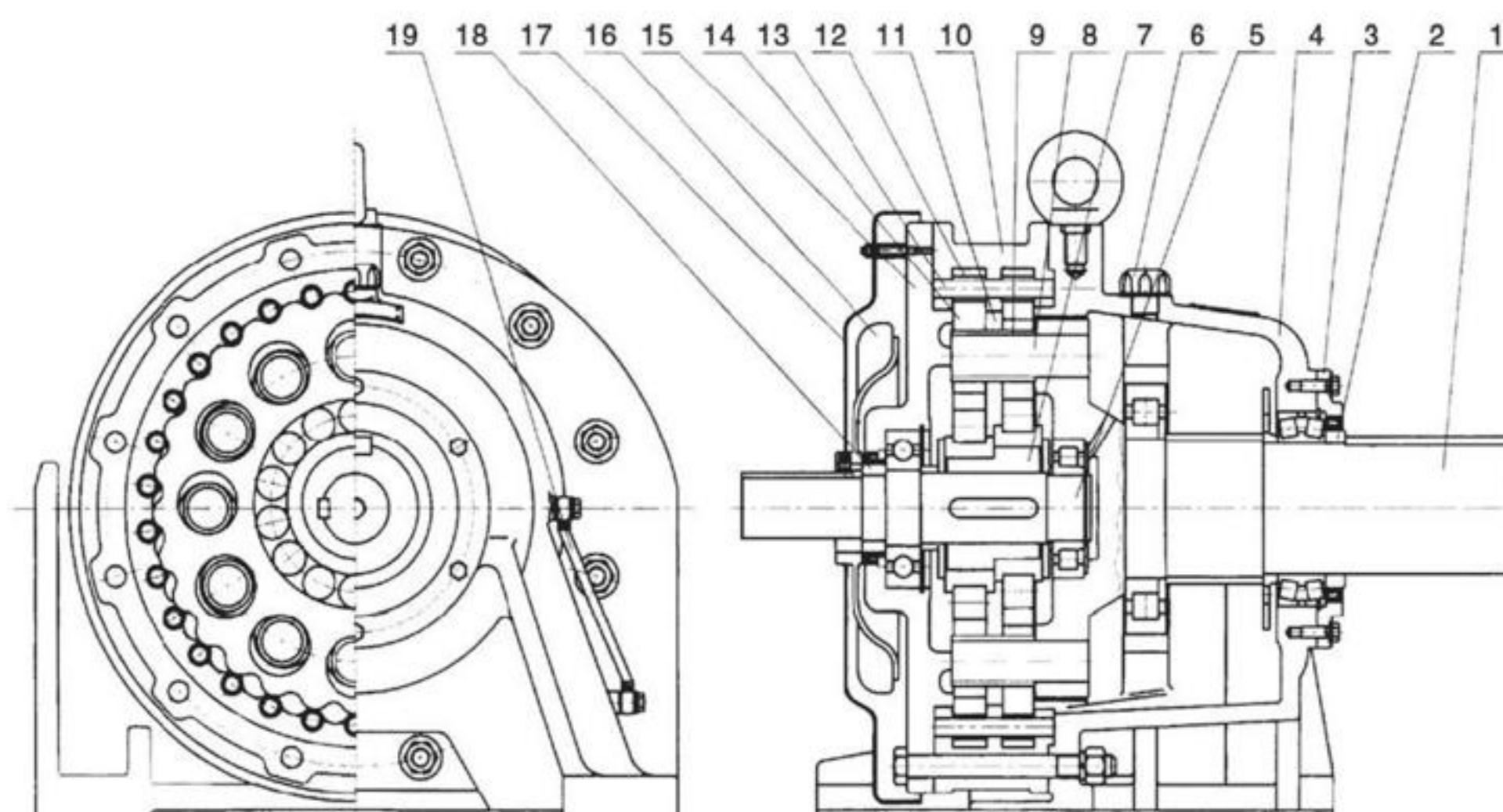
Cycloidal pin wheel reducer, which is applies the planet transmission principle, and adopts cycloidal gear mesh, the advanced design, and novelty structure of hard gear reducer product. This reducer can be widely apply for kinds of reducing gear of transmission machinery, for example: machinery transmission of lifting, transport, metallurgy, mine, environmental protection, petrification, printing and dyeing, food, light industry, pharmacy, rubber, plastic, packing, beer, building road, grain and oil and so on.

### Structure

All of gearing are divide into three parts: input part, reducer part, output part.

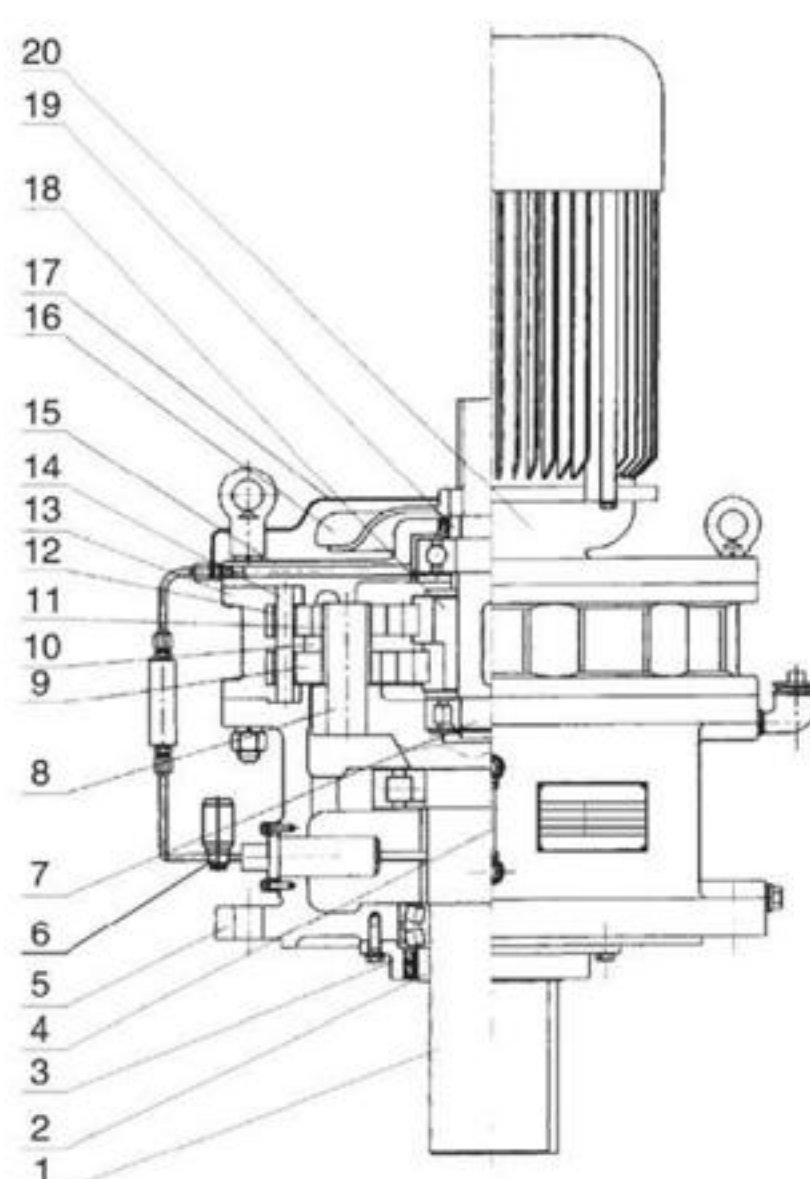
Direct coupling reducer can be connect with Y series specified motor and derive motor together, as Y series motor, YB explosion-proof motor, YCT speed regulation motor, YEJ braking motor and so on. Meanwhile it can connect with kinds of stander type motor and power producer, with flange, as NEMA, IEC, Y, YA, YB, YEJ series, and kinds of motor and connect with hydraulic pressure pump to realize the connection.

### The structure chart of cycloidal speed reducer as NO.:1,NO.:2,NO.:3



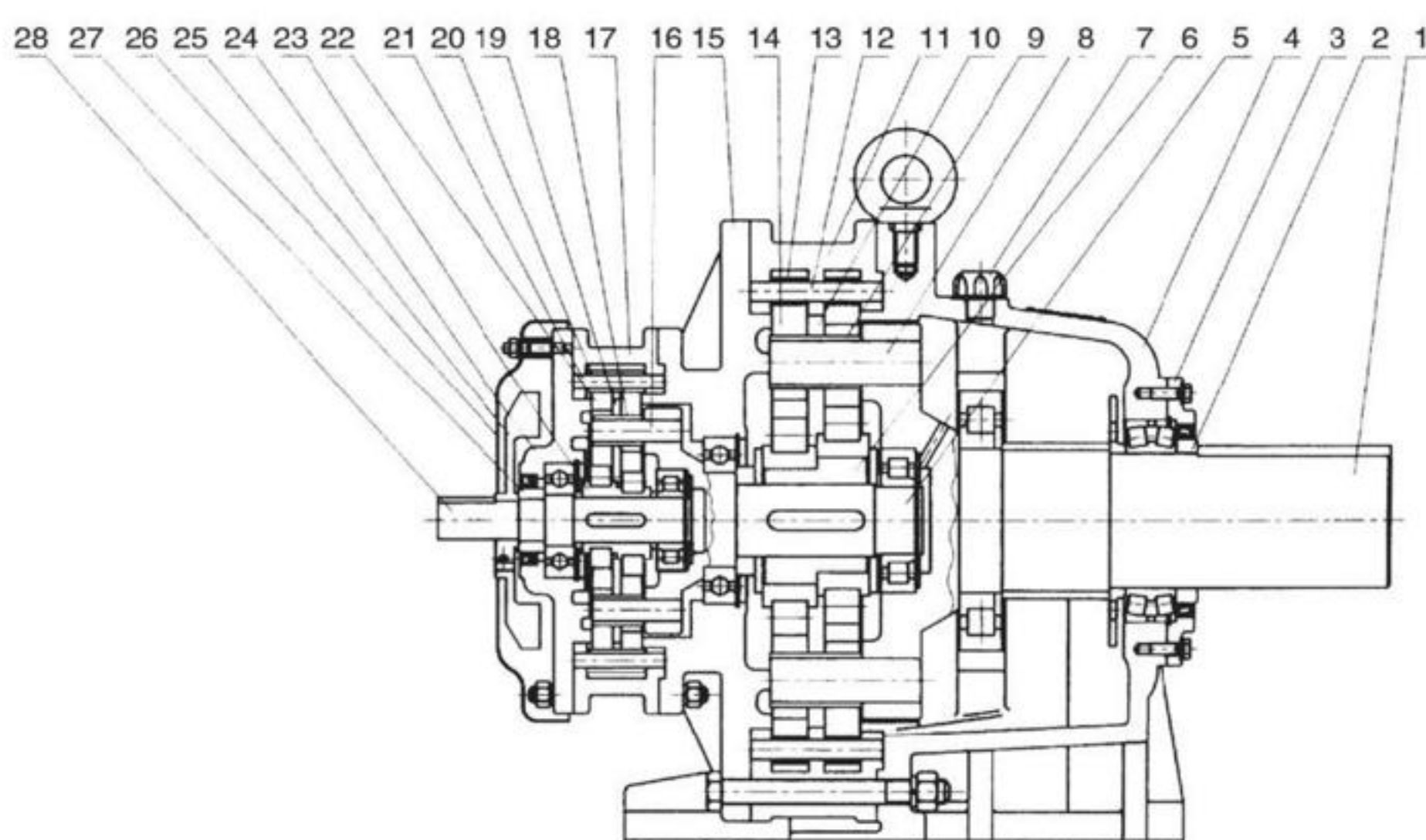
NO.:1 structure chart of single horizontal and double-shaft type

1.output shaft 2.output shaft ferrules 3. gland 4. base 5.input shaft 6.vent cap 7.eccentricity bearing 8.pin 9.pin bush  
10.pin wheel housing 11.distance ring 12.wheel roller 13.wheel pin 14.cycloid wheel 15.flange disc 16.fan blades 17. fan cowl  
18.input shaft ferrules 19.indinator



NO.:2 structure chart of single vertical and double-shaft with connect-directly motor type speed reducer

- 1.output shaft 2.output shaft ferrules 3.gland 4.indicator 5.base 6.oil pump 7.input shaft 8.pin 9.cycloid wheel  
10.distance ring 11. pin bush 12.wheel roller 13.pin wheel housing 14. wheel pin 15.flange disc 16.fan blades 17. fan cowl  
18. eccentricity bearing 19.input shaft ferrules 20.direct coupling motor



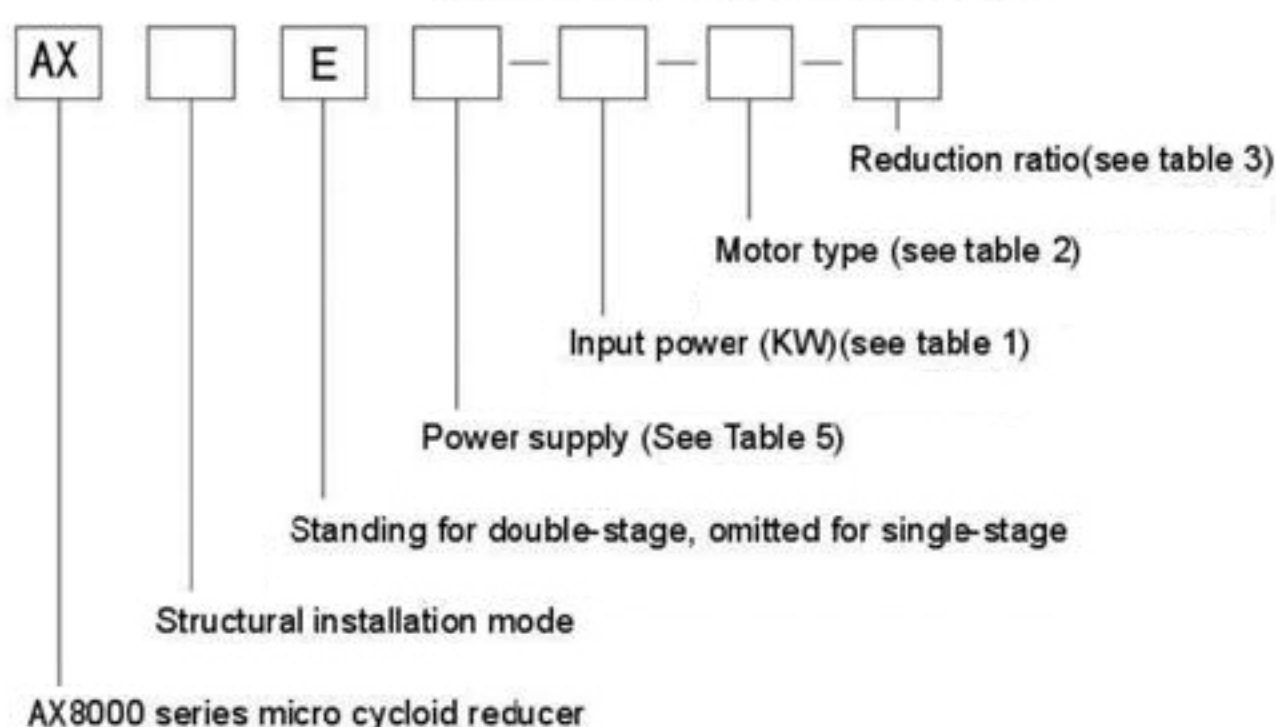
NO.:3 Structure chart of double-stage horizontal and double-shaft type speed reducer

- 1.output shaft 2.output shaft ferrules 3.gland 4. base 5.intermediate shaft 6.eccentricity bearing 7.vent cap 8.16.pin  
9.18. pin bush 10.19. distance ring 11.17. pin wheel housing 12.21. wheel pin 13.20. wheel roller 14.22. cycloid wheel  
15. spacer flange 23.eccentricity bearing 24.flange disc 25.fan blades 26.fan cowl 27.input shaft ferrules 28. Input shaft

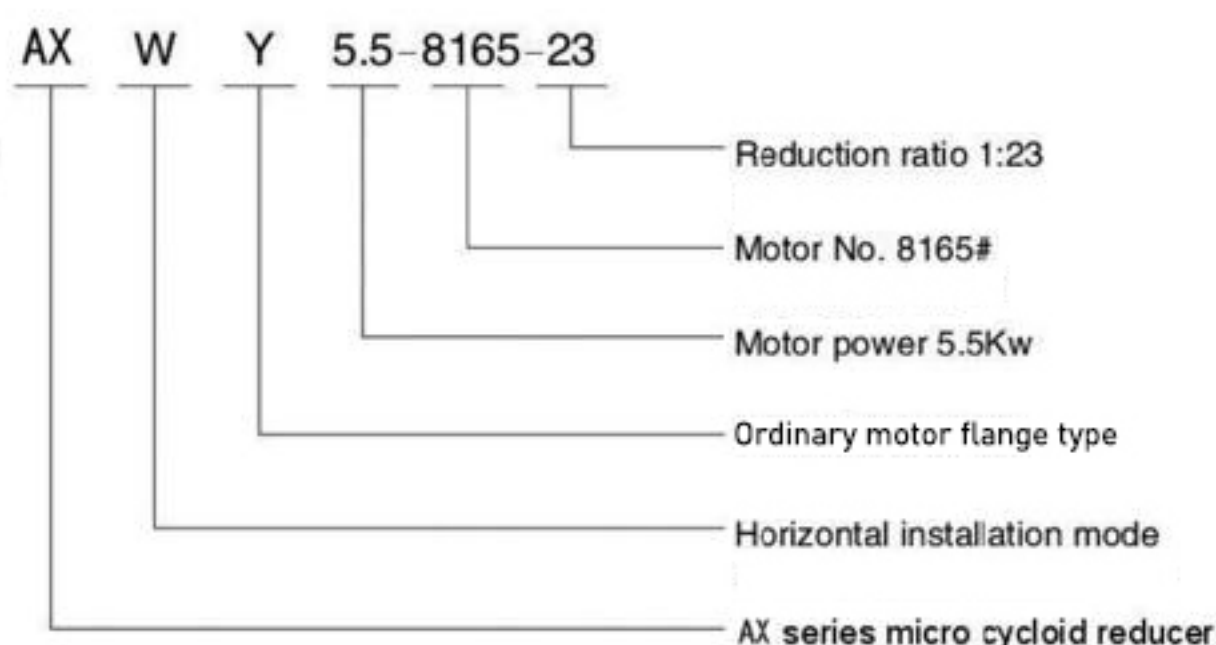
## Characteristics

1. Big transmission ratio: when the transmission ratio of single state is 1/9–1/87, the transmission ratio is 1/99–1/7569, it can change more combination accords to your need.
2. High transmission efficiency: the single state transmission efficiency reach to 92%, the double state transmission efficiency can reach to 88%, because of the machine meshing parts adopt the rolling mesh.
3. Small volume, light weight: the machine adopts the planetary transmission principle, the input and output shafts are in the same axis, and unit is combined with motor in one line, so the machine structure compact.
4. Little problem, long life span: the main gearing parts of machine were made by bearing steel, It' s has good mechanical property, by rolling attrition, so it's less problem and long life span.
5. Stable reliable running, the unit has working by teeth meshing as 67%, so it works stable reliable and low noisy, high efficiency of anti-overloading.
6. Ease disassembly and maintaining: with professional design, the unit is disassembly and maintain easily.
7. This machine has high attacking and less inertia torque, the unit can be used in case of frequency starting and reversing.

### Type designation of AX series



### Illustration 1



### Input power

Table 1

| Input power only uses for DC motors (KW) |      |      |      |      |      |      |     |     |     |     |     |     |     |    |    |      |    |    |    |    |    |    |
|------------------------------------------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|----|----|------|----|----|----|----|----|----|
| 4                                        | 0.09 | 0.18 | 0.25 | 0.37 | 0.55 | 0.75 | 1.1 | 1.5 | 2.2 | 3.0 | 4.0 | 5.5 | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 |
| 6                                        |      |      |      |      |      |      |     |     |     |     |     |     | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 |

Remark: in this catalogue all frequency match motor as 50Hz, if you need 60Hz motor, we also can provide for you, please clearly it in the contract.

### Type

Table 2

| Single state | Double state | Input end | Output end | Double state | Input end | Output end |
|--------------|--------------|-----------|------------|--------------|-----------|------------|
| 8065         | 8075/07      | 8075      | 8065       | 8185/13      | 8185      | 8135       |
| 8075         | 8085/07      | 8085      | 8065       | 8195/13      | 8195      | 8135       |
| 8085         | 8095/08      | 8095      | 8075       | 8205/13      | 8205      | 8135       |
| 8095         | 8105/08      | 8105      | 8075       | 8215/13      | 8215      | 8135       |
| 8105         | 8115/07      | 8115      | 8075       | 8215/16      | 8215      | 8165       |
| 8115         | 8115/09      | 8115      | 8095       | 8225/13      | 8225      | 8135       |
| 8125         | 8135/09      | 8135      | 8095       | 8225/17      | 8225      | 8175       |
| 8135         | 8135/10      | 8135      | 8105       | 8235/16      | 8235      | 8165       |
| 8145         | 8145/09      | 8145      | 8095       | 8235/18      | 8235      | 8185       |
| 8155         | 8145/10      | 8145      | 8105       | 8245/16      | 8245      | 8165       |
| 8165         | 8165/09      | 8165      | 8095       | 8245/18      | 8245      | 8185       |
| 8175         | 8165/10      | 8165      | 8105       | 8255/17      | 8255      | 8175       |
| 8185         | 8165/11      | 8165      | 8115       | 8255/19      | 8255      | 8195       |
| 8195         | 8175/10      | 8175      | 8105       | 8265/19      | 8265      | 8195       |
| 8205         | 8175/11      | 8175      | 8115       | 8275/19      | 8275      | 8195       |
| 8215         |              |           |            |              |           |            |
| 8225         |              |           |            |              |           |            |
| 8235         |              |           |            |              |           |            |
| 8245         |              |           |            |              |           |            |
| 8255         |              |           |            |              |           |            |
| 8265         |              |           |            |              |           |            |
| 8275         |              |           |            |              |           |            |

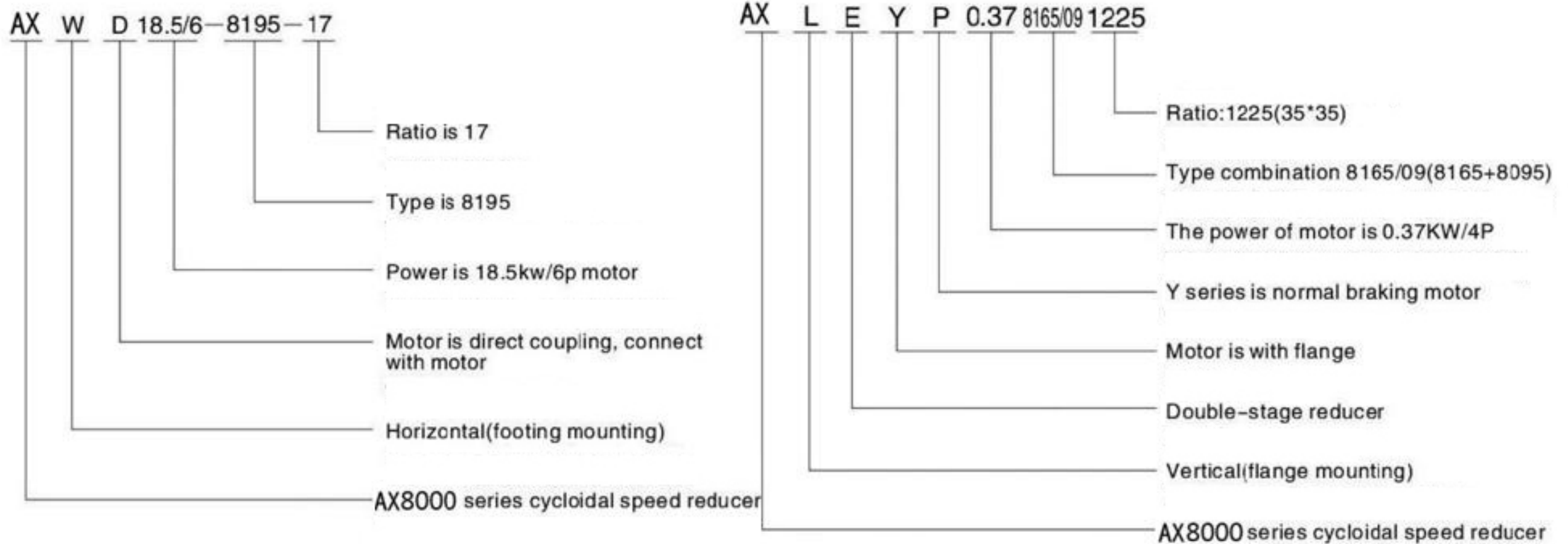
### Ratio

Table 3

| Single state | Double state                                |
|--------------|---------------------------------------------|
| 29           | 99 (11 × 9) 649 (59 × 11) 1849 (43 × 43)    |
| 35           | 121 (11 × 11) 731 (43 × 17) 2065 (59 × 35)  |
| 9 43         | 187 (17 × 11) 841 (29 × 29) 2537 (59 × 43)  |
| 11 59        | 289 (17 × 17) 1003 (59 × 17) 3045 (87 × 35) |
| 15 71        | 253 (11 × 23) 1225 (35 × 35) 3481 (59 × 59) |
| 17 87        | 319 (29 × 11) 1247 (43 × 29) 5133 (87 × 59) |
| 21           | 473 (43 × 11) 1479 (87 × 17) 6177 (87 × 71) |
| 23           | 559 (35 × 17) 1505 (43 × 35) 7569 (87 × 87) |

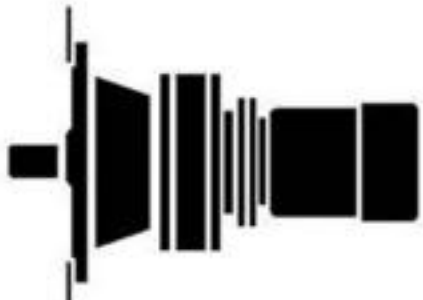
Remark: which single state can provides transmission ratio, double state also can provides for you, if no transmission ratio show in this table, and if you need the third state speed transmission combination, please contact with our factory.

## Example for specification and type:



## Structure installation forms

NO.:4

| Stander installation forms                                                          | special structure installation forms                                                |                                                                                      |                                                                                       |                                                                                                                                        |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| W-footing &horizontal mounting                                                      | C-footing type install on left                                                      | U-footing type install on right                                                      | S-footing type spindle install upward                                                 | X-footing type spindle install downward                                                                                                |
|  |  |  |  |                                                   |
| L-flange &vertical mounting                                                         | Y-footing backstroke installation                                                   | D-flanged converse step installation                                                 | P-flanged &horizontal installation                                                    | Note                                                                                                                                   |
|  |  |  |  | Note: if users need special power supply or special structure installation forms, please contact and in the contract to illustrate it. |

## Power supply type

NO.:5

|   |                                                  |   |                                                |                                  |                                                                                          |                        |
|---|--------------------------------------------------|---|------------------------------------------------|----------------------------------|------------------------------------------------------------------------------------------|------------------------|
| D | AX series stands for direct type dedicated motor |   | A                                              | YA series increased-safety motor | Z                                                                                        | DC speed control motor |
| Y | AX series stands for flange type normal motor    |   | B                                              | YB series explosion-proof motor  | S                                                                                        | Quiet motor            |
| P | YEJ series planar brake motor                    | T | YCJ series electromagnetic speed control motor | M                                | Note: please ask us if you need single-phase motor, multi-speed motor, servo motor, etc. |                        |
| N | Inner cone brake motor                           | V | Frequency conversion and speed control motor   |                                  |                                                                                          |                        |

## Working coefficient table

NO.:6

| Working coefficient     | Load classify(load property) |                    |             |
|-------------------------|------------------------------|--------------------|-------------|
|                         | I                            | II                 | III         |
| Use hours/day           | Stable                       | Intermediate shock | Great shock |
| Cut-off 3hours          | 0.8                          | 1.0                | 1.35        |
| 8~10hours               | 1.0                          | 1.2                | 1.5         |
| Continuously 10~24hours | 1.2                          | 1.35               | 1.6         |

Reference table of reducer usage and load

NO.:7

| Purpose                                               |                                           | load property |
|-------------------------------------------------------|-------------------------------------------|---------------|
| Agitator                                              | pure liquid                               | I             |
|                                                       | Liquid and solid liquid(variable density) | II            |
|                                                       | centrifugal type                          | I             |
| Blower                                                | blade type                                | I             |
|                                                       | impeller type                             | II            |
|                                                       | centrifugal type                          | I             |
| Air compressor compressor                             | impeller type                             | II            |
|                                                       | reciprocating type(multi-cylinder)        | II            |
|                                                       | reciprocating type(single-cylinder)       | III           |
|                                                       | plate type                                | I             |
| Conveyer (stable load)                                | strap type                                | I             |
|                                                       | hopper type                               | I             |
|                                                       | chain type                                | I             |
|                                                       | screw type                                | I             |
| Conveyer(heavy load and non-uniform material feeding) | plate type                                | II            |
|                                                       | strap type                                | II            |
|                                                       | hopper type                               | II            |
|                                                       | chain type                                | II            |
|                                                       | reciprocating type                        | II            |
|                                                       | screw type                                | II            |
|                                                       | vibration type                            | III           |

| Purpose                          |                                    | load property |
|----------------------------------|------------------------------------|---------------|
| Plastic extruding machine        | diaphragm                          | I             |
|                                  | rods                               | I             |
|                                  | pipes                              | I             |
|                                  | plastic blowing machine            | II            |
| Winding machine (winding engine) | heavy-duty                         | II            |
|                                  | medium-duty                        | II            |
| Rolling path                     |                                    | II            |
| Cracking machine(ores)           |                                    | II            |
| Hammer type pulverizing machine  |                                    | II            |
| Concrete blending machine        |                                    | II            |
| Oil industry                     | colloid pressure filtering machine | II            |
|                                  | crystal products,condenser         | II            |
| Rubber and plastic industry      | pulverizing machine                | II            |
|                                  | mixing refinery machine            | II            |
|                                  | refinery machine                   | II            |
|                                  | rubber pressing machine            | II            |
| Textile industry                 | weaving machine                    | II            |
|                                  | carding machine                    | II            |
|                                  | mangling machine                   | II            |
|                                  | spinning machine                   | II            |
|                                  | washing machine                    | II            |

### Procurement guide:

A blender, only the liquid and solid material are input for blending is known, it works continuously for 24 hours, rotation speed is 32r/min, power is 11kw, how to select the type of speed reducer and motor?

1.checking the load classify chart is II type; 2. checking the working coefficient chart is 1.35

So know  $11 \times 1.35 = 14.85$ , so the power is 15kw, motor is 6P, rotation speed is 32r/min, ratio =  $1000/23 = 43.48$ , so the ration is 43.

To calculate the maximum torque allowed on speed reducer,  $N.m = \text{input power} \times 9550 / \text{output rotation speed} \times \text{efficiency coefficient}$ , that is  $15 \times 9550 / 32 \times 0.90 \times 1.365 = 5499.45$ , so it is 5499N.m.

According to chart of type and parameters, as:  $i = 43$ , 5499(N.m), so AX8215 15KW,5772(N.m), as per requirements.

Then the type shall be AXLD15(6P)-8215-43, that is AX8215 vertical cycloid reducer, with motor directly coupled, power is 15kw(6P), ratio is 43.

### Using and lubrication

- 1.this machine is suit for continuous working 24 hours/day, and forward、reversed rotation is allowed. The using temperature is -15-50 C.
- 2.when input and output shaft connect with other parts, it not allowed to hammer, in case of damage.
- 3.On output and input shaft (diameter of axle coordinate is h6), the size of flatkeys shall be in according to standard(GB1096-79) for choosing and using.The tolerance of front edge diameter D4 of vertival reducer out-put flange is according with (GB1801-79)h9 standard.
- 4.Using coupling connect with working machine or motor shall be make the axes in concentric; reducer' s installation tolerance shall be not greater than the coulping' s allowable error value.
- 5.After installing speed reducer, with hand to flexible run it.
- 6.Stander horizontal reducer means the output shaft' s axle on the horizontal working; the mounting foot on underneath, if the reducer need it in an inclined manner, note the incline direction and angle in the contract.
- 7.The output shaft of stander reducer shall be vertical and downward, look at NO.:4, and other installation means check with NO.:4 to choose it.
- 8.After installing speed reducer, have to test and run it before using it: under the circumstance of no-load running is normal, then upload step by step to run.
- 9.When impact load is great and start is quite frequent, the base and motor need to cover with positioning dowel, and shall set up hydraulic coupler, or other buffering mechanism.
- 10.If the ambient temperate of speed reducer exceed or under the first stated, please note it in contract so that the corresponding measures to ensure the normal operation of the speed reducer, if have other not-conformity with the conditions mentioned above other working condition, all note in the specified on the contract.

## Lubrication

1. Lubricating grease: in tables(NO.:4) which listed lubrication grease modes type, before they leave factory have been injected, so you can use machine directly. Maintenance-free grease lubrication reducer, the injection from surface to ensure that choose the high quality lubrication during operation of the maintenance-free, each after operating 10000 hours, you have to change to extend the service life of the product.

2. Lubrication oil: the modes which used lubrication oil, the oil has put clean before they leave factory, please make sure accords to the standard requirements before you add the oil. The machine is forced lubrication oil pump by micro-type three-phase asynchronous motor drives special. Before you start the oil pump motor, depending on whether the oil pump supply oil, or should be the motor wiring commutation, because the oil pump is assigned the functioning of the direction. After the oil pump's normal running, should make oil surface level in the midline position of standard oil, oil pump oil filters should be installed firm, to regular cleaning, jam in case, affects the lubrication effect. After two weeks running of first oil should be replaced new oil, and clean the internal. After each 3-6 months should be change new oil. If the environmental temperature is higher or damp should be appropriately shorten the change oil time, during operation in the slow when oil must keep the oil level of provisions height, should not be too much or too little, open the base of the flange plate or air opening map can complement refueling.

3. Some of double-state speed reducer's oil add lubrication methods for high speed to the lubrication, the low lubrication oil, which has grease packed, you need to add the oil before using machine. recomand the lubrication oil (see : table 5 ).

## Lubrication

The means of lubrication of vertical and horizontal type should be operate in the vertical and horizontal, to make sure that appropriate to lubrication. Grease and pipe Lubrication system should be according to the gearbox model size. Pls refer the following table:

The standard lubrication

Table 4

|                            |                 |                               |                    |                    |         |         |         |         |                    |                  |                    |         |                    |         |                    |                    |                    |                    |         |         |      |      |      |
|----------------------------|-----------------|-------------------------------|--------------------|--------------------|---------|---------|---------|---------|--------------------|------------------|--------------------|---------|--------------------|---------|--------------------|--------------------|--------------------|--------------------|---------|---------|------|------|------|
| single-state speed reducer | Type            | 8065                          | 8075               | 8085               | 8095    | 8105    | 8115    | 8125    | 8135               | 8145             | 8155               | 8165    | 8175               | 8185    | 8195               | 8205               | 8215               | 8225               | 8235    | 8245    | 8255 | 8265 | 8275 |
|                            | horizontal type | oil(maintenance-free)         |                    |                    |         |         |         |         |                    | bath lubrication |                    |         |                    |         |                    |                    |                    |                    |         |         |      |      |      |
|                            | vertical type   | oil(maintenance-free)         |                    |                    |         |         |         |         |                    | bath lubrication |                    |         | forced lubrication |         |                    |                    |                    |                    |         |         |      |      |      |
| Double-state speed reducer | Type            | 8065/06<br>8085/06<br>8095/07 | 8115/07<br>8115/09 | 8135/09<br>8135/10 | 8145/10 | 8165/10 | 8175/10 | 8185/10 | 8165/11            | 8175/11          | 8185/11<br>8185/13 | 8195/13 | 8205/13            | 8215/16 | 8225/13<br>8225/17 | 8235/16<br>8235/18 | 8245/16<br>8245/18 | 8255/17<br>8255/19 | 8265/19 | 8275/19 |      |      |      |
|                            | horizontal type | oil(maintenance-free)         |                    | oil (replenish)    |         |         |         |         | bath lubrication   |                  |                    |         |                    |         |                    |                    |                    |                    |         |         |      |      |      |
|                            | vertical type   | oil(maintenance-free)         |                    | oil (replenish)    |         |         |         |         | forced lubrication |                  |                    |         |                    |         |                    |                    |                    |                    |         |         |      |      |      |

Need oil lubrication of reducers

Table 5

| Environment temperature | maintenance-free oil                               | replenish oil                            | lubricant oil                                     |
|-------------------------|----------------------------------------------------|------------------------------------------|---------------------------------------------------|
| -15℃ ~ 50℃              | Mobil Lux EP 2#<br>Shell total synthesis of grease | Mobil Lux EP 2#<br>Shell of grease NO.:2 | Mobil gear 630<br>Domestic extremely gear oil 320 |

## Single selection table with 4 pole Motor

Selection table

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 9           | 50                      | 166                               | 1500                          | 4    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 1.1         | 58.3                    | 2.50                              | 8105                          |      |
| 1.5         | 79.6                    | 1.83                              | 8105                          |      |
| 2.2         | 117                     | 1.25                              | 8105                          |      |
|             |                         | 2.30                              | 8115                          |      |
| 3.0         | 159                     | 1.69                              | 8115                          |      |
|             |                         | 2.45                              | 8135                          |      |
| 4.0         | 212                     | 1.27                              | 8115                          |      |
|             |                         | 1.84                              | 8135                          |      |
| 5.5         | 292                     | 1.34                              | 8135                          |      |
|             |                         | 1.8                               | 8145                          |      |
| 7.5         | 398                     | 1.32                              | 8135                          |      |
|             |                         | 1.35                              | 8145                          |      |
|             |                         | 1.75                              | 8155                          |      |
| 11          | 584                     | 1.20                              | 8155                          |      |
|             |                         | 1.64                              | 8165                          |      |
| 15          | 796                     | 1.20                              | 8165                          |      |
|             |                         | 1.67                              | 8175                          |      |
| 18.5        | 982                     | 1.35                              | 8175                          |      |
| 22          | 1167                    | 1.25                              | 8185                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 11          | 50                      | 136                               | 1500                          | 4    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09        | 5.7                     | 2.78                              | 8075                          |      |
| 0.18        | 11.4                    | 1.38                              | 8075                          |      |
|             |                         | 2.22                              | 8085                          |      |
| 0.37        | 23.4                    | 1.08                              | 8085                          |      |
|             |                         | 3.32                              | 8095                          |      |
| 0.55        | 35.7                    | 2.23                              | 8095                          |      |
| 0.75        | 48.7                    | 1.64                              | 8095                          |      |
| 1.1         | 71.3                    | 2.50                              | 8105                          |      |
| 1.5         | 97.3                    | 1.83                              | 8105                          |      |
| 2.2         | 143                     | 1.25                              | 8105                          |      |
|             |                         | 2.30                              | 8115                          |      |
| 3.0         | 195                     | 1.69                              | 8115                          |      |
|             |                         | 2.45                              | 8135                          |      |
| 4.0         | 253                     | 1.27                              | 8115                          |      |
|             |                         | 1.84                              | 8135                          |      |
| 5.5         | 357                     | 1.34                              | 8135                          |      |
|             |                         | 1.80                              | 8145                          |      |
| 7.5         | 486                     | 1.32                              | 8135                          |      |
|             |                         | 1.35                              | 8145                          |      |
|             |                         | 1.75                              | 8155                          |      |
| 11          | 714                     | 1.45                              | 8165                          |      |
|             |                         | 1.64                              | 8175                          |      |
| 15          | 973                     | 1.20                              | 8165                          |      |
|             |                         | 1.67                              | 8175                          |      |
| 18.5        | 1196                    | 1.35                              | 8175                          |      |
|             |                         | 1.82                              | 8185                          |      |
| 22          | 1432                    | 1.25                              | 8175                          |      |
|             |                         | 1.53                              | 8185                          |      |
|             |                         | 1.66                              | 8195                          |      |
| 30          | 1942                    | 1.12                              | 8185                          |      |
|             |                         | 1.47                              | 8195                          |      |
|             |                         | 1.97                              | 8205                          |      |
| 37          | 2403                    | 1.19                              | 8195                          |      |
|             |                         | 1.59                              | 8205                          |      |
|             |                         | 1.95                              | 8215                          |      |
| 45          | 2922                    | 1.31                              | 8205                          |      |
|             |                         | 1.60                              | 8215                          |      |
| 55          | 3569                    | 1.31                              | 8215                          |      |
|             |                         | 1.77                              | 8225                          |      |
| 75          | 4864                    | 1.30                              | 8225                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 17          | 50                      | 88                                | 1500                          | 4    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09        | 8.7                     | 2.77                              | 8075                          |      |
| 0.18        | 17.6                    | 1.38                              | 8075                          |      |
|             |                         | 2.22                              | 8085                          |      |
| 0.37        | 36.2                    | 1.08                              | 8085                          |      |
|             |                         | 2.94                              | 8095                          |      |
| 0.55        | 55.1                    | 1.98                              | 8095                          |      |
| 0.75        | 75.2                    | 1.46                              | 8095                          |      |
|             |                         | 2.84                              | 8105                          |      |
| 1.1         | 110                     | 1.94                              | 8105                          |      |
| 1.5         | 150                     | 1.42                              | 8105                          |      |
|             |                         | 3.18                              | 8115                          |      |
| 2.2         | 221                     | 2.17                              | 8115                          |      |
|             |                         | 1.59                              | 8115                          |      |
| 3.0         | 301                     | 1.70                              | 8125                          |      |
|             |                         | 2.02                              | 8135                          |      |
| 4.0         | 390                     | 1.19                              | 8115                          |      |
|             |                         | 1.27                              | 8125                          |      |
|             |                         | 1.51                              | 8135                          |      |
| 5.5         | 551                     | 1.10                              | 8135                          |      |
|             |                         | 1.30                              | 8135                          |      |
| 7.5         | 752                     | 1.69                              | 8145                          |      |
|             |                         | 1.24                              | 8145                          |      |
| 11          | 1098                    | 1.47                              | 8165                          |      |
|             |                         | 2.04                              | 8175                          |      |
| 15          | 1500                    | 1.39                              | 8165                          |      |
|             |                         | 1.79                              | 8175                          |      |
|             |                         | 1.02                              | 8165                          |      |
| 18.5        | 1853                    | 1.31                              | 8175                          |      |
|             |                         | 1.63                              | 8185                          |      |
|             |                         | 1.06                              | 8175                          |      |
| 22          | 2206                    | 1.32                              | 8180                          |      |
|             |                         | 1.65                              | 8185                          |      |
|             |                         | 1.11                              | 8180                          |      |
| 30          | 3010                    | 1.38                              | 8185                          |      |
|             |                         | 1.66                              | 8195                          |      |
|             |                         | 1.02                              | 8185                          |      |
| 37          | 3707                    | 1.22                              | 8195                          |      |
|             |                         | 1.19                              | 8195                          |      |

Please inquire with manufacturer when you will purchase types with  in catalogue

## Single selection table with 4 pole Motor

Selection table

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 23          | 50                      | 65                                | 1500                          | 4    |
|             |                         |                                   |                               |      |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.75        | 102                     | 1.93                              | 8105                          |      |
| 1.1         | 149                     | 1.32                              | 8105                          |      |
| 1.5         | 203                     | 2.17                              | 8115                          |      |
| 2.2         | 298                     | 1.48                              | 8115                          |      |
|             |                         | 1.56                              | 8125                          |      |
|             |                         | 1.85                              | 8135                          |      |
| 3.0         | 407                     | 1.72                              | 8135                          |      |
|             |                         | 1.99                              | 8145                          |      |
| 4.0         | 542                     | 1.28                              | 8135                          |      |
|             |                         | 1.49                              | 8145                          |      |
| 5.5         | 746                     | 1.25                              | 8155                          |      |
|             |                         | 1.61                              | 8165                          |      |
| 7.5         | 1017                    | 1.57                              | 8165                          |      |
|             |                         | 1.72                              | 8175                          |      |
| 11          | 1492                    | 1.43                              | 8175                          |      |
|             |                         | 1.68                              | 8185                          |      |
| 15          | 2034                    | 1.05                              | 8175                          |      |
|             |                         | 1.55                              | 8185                          |      |
|             |                         | 2.00                              | 8195                          |      |
| 18.5        | 2509                    | 1.25                              | 8185                          |      |
|             |                         | 1.62                              | 8195                          |      |
| 22          | 2983                    | 1.06                              | 8185                          |      |
|             |                         | 1.59                              | 8195                          |      |
| 30          | 4068                    | 1.00                              | 8190                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 29          | 50                      | 52                                | 1500                          | 4    |
|             |                         |                                   |                               |      |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09        | 14.9                    | 1.55                              | 8075                          |      |
|             |                         | 2.77                              | 8085                          |      |
| 0.18        | 29.7                    | 1.38                              | 8085                          |      |
|             |                         | 3.77                              | 8095                          |      |
| 0.37        | 61.2                    | 1.83                              | 8095                          |      |
| 0.55        | 94.0                    | 2.51                              | 8105                          |      |
| 0.75        | 129                     | 1.83                              | 8105                          |      |
| 1.1         | 188                     | 2.64                              | 8115                          |      |
| 1.5         | 257                     | 1.93                              | 8115                          |      |
| 2.2         | 377                     | 1.32                              | 8115                          |      |
|             |                         | 2.03                              | 8135                          |      |
| 3.0         | 513                     | 1.49                              | 8135                          |      |
| 4.0         | 633                     | 1.10                              | 8135                          |      |
|             |                         | 1.48                              | 8155                          |      |
| 5.5         | 941                     | 1.08                              | 8155                          |      |
|             |                         | 1.79                              | 8165                          |      |
| 7.5         | 1285                    | 1.32                              | 8165                          |      |
|             |                         | 1.93                              | 8175                          |      |
| 11          | 1883                    | 1.32                              | 8175                          |      |
|             |                         | 1.70                              | 8185                          |      |
| 15          | 2569                    | 1.25                              | 8185                          |      |
|             |                         | 2.04                              | 8195                          |      |
| 18.5        | 3167                    | 1.01                              | 8185                          |      |
|             |                         | 1.66                              | 8195                          |      |
| 22          | 3766                    | 1.39                              | 8195                          |      |
|             |                         | 1.80                              | 8205                          |      |
| 30          | 5129                    | 1.32                              | 8205                          |      |
|             |                         | 1.63                              | 8215                          |      |
| 37          | 6324                    | 1.32                              | 8215                          |      |
|             |                         | 1.58                              | 8225                          |      |
| 45          | 7698                    | 1.30                              | 8225                          |      |
| 55          | 9404                    | 1.06                              | 8225                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 35          | 50                      | 43                                | 1500                          | 4    |
|             |                         |                                   |                               |      |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09        | 15.5                    | 1.37                              | 8075                          |      |
|             |                         | 2.74                              | 8085                          |      |
| 0.18        | 31.0                    | 1.37                              | 8085                          |      |
|             |                         | 2.79                              | 8095                          |      |
| 0.37        | 74.0                    | 1.35                              | 8095                          |      |
|             |                         | 2.53                              | 8105                          |      |
| 0.55        | 113                     | 1.89                              | 8105                          |      |
| 0.75        | 115                     | 1.38                              | 8105                          |      |
|             |                         | 3.29                              | 8115                          |      |
| 1.1         | 227                     | 2.25                              | 8115                          |      |
| 1.5         | 310                     | 1.65                              | 8115                          |      |
| 2.2         | 454                     | 1.34                              | 8135                          |      |
|             |                         | 1.68                              | 8145                          |      |
| 3.0         | 600                     | 1.23                              | 8135                          |      |
| 4.0         | 800                     | 1.24                              | 8155                          |      |
|             |                         | 2.19                              | 8165                          |      |
| 5.5         | 1140                    | 1.30                              | 8165                          |      |
|             |                         | 1.75                              | 8175                          |      |
| 7.5         | 1549                    | 1.17                              | 8165                          |      |
|             |                         | 1.68                              | 8175                          |      |
| 11          | 2265                    | 1.15                              | 8175                          |      |
|             |                         | 1.70                              | 8185                          |      |
| 15          | 3099                    | 1.25                              | 8185                          |      |
|             |                         | 1.62                              | 8195                          |      |
| 18.5        | 3815                    | 1.01                              | 8185                          |      |
|             |                         | 1.31                              | 8195                          |      |
| 22          | 4540                    | 1.10                              | 8195                          |      |

Please inquire with manufacturer when you will purchase types with  in catalogue

## Single selection table with 4 pole Motor

Selection table

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 43          | 50                      | 35                                | 1500                          | 4    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09        | 22.1                    | 1.12                              | 8075                          |      |
|             |                         | 2.23                              | 8085                          |      |
| 0.18        | 44.2                    | 1.11                              | 8085                          |      |
|             |                         | 2.79                              | 8095                          |      |
| 0.37        | 90.9                    | 1.35                              | 8095                          |      |
|             |                         | 2.53                              | 8105                          |      |
| 0.55        | 139                     | 1.71                              | 8105                          |      |
| 0.75        | 190                     | 1.25                              | 8105                          |      |
|             |                         | 2.62                              | 8115                          |      |
| 1.1         | 279                     | 1.78                              | 8115                          |      |
| 1.5         | 381                     | 1.31                              | 8115                          |      |
|             |                         | 1.99                              | 8135                          |      |
| 2.2         | 558                     | 1.36                              | 8135                          |      |
|             |                         | 1.79                              | 8155                          |      |
| 3.0         | 737                     | 1.31                              | 8155                          |      |
| 4.0         | 981                     | 1.70                              | 8165                          |      |
| 5.5         | 1390                    | 1.24                              | 8165                          |      |
|             |                         | 1.70                              | 8175                          |      |
| 7.5         | 1902                    | 1.25                              | 8175                          |      |
|             |                         | 2.00                              | 8185                          |      |
| 11          | 2785                    | 1.37                              | 8185                          |      |
|             |                         | 1.68                              | 8195                          |      |
| 15          | 3805                    | 1.40                              | 8195                          |      |
|             |                         | 1.83                              | 8205                          |      |
| 18.5        | 4687                    | 1.49                              | 8205                          |      |
|             |                         | 2.03                              | 8215                          |      |
| 22          | 5580                    | 1.25                              | 8205                          |      |
|             |                         | 1.70                              | 8215                          |      |
| 30          | 7610                    | 1.25                              | 8215                          |      |
|             |                         | 1.54                              | 8225                          |      |
| 37          | 9384                    | 1.01                              | 8215                          |      |
|             |                         | 1.25                              | 8225                          |      |
| 45          | 11408                   | 1.03                              | 8225                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 59          | 50                      | 25                                | 1500                          | 4    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09        | 31.9                    | 1.33                              | 8085                          |      |
|             |                         | 3.68                              | 8095                          |      |
| 0.18        | 61.9                    | 1.84                              | 8095                          |      |
| 0.37        | 127                     | 1.65                              | 8105                          |      |
|             |                         | 3.78                              | 8115                          |      |
| 0.55        | 191                     | 2.55                              | 8115                          |      |
| 0.75        | 261                     | 1.87                              | 8115                          |      |
| 1.1         | 383                     | 1.59                              | 8135                          |      |
| 1.5         | 522                     | 1.45                              | 8135                          |      |
|             |                         | 1.92                              | 8145                          |      |
| 2.2         | 765                     | 1.31                              | 8145                          |      |
|             |                         | 1.35                              | 8155                          |      |
|             |                         | 1.68                              | 8165                          |      |
| 3.0         | 1033                    | 1.23                              | 8165                          |      |
| 4.0         | 1373                    | 1.24                              | 8165                          |      |
|             |                         | 1.79                              | 8175                          |      |
| 5.5         | 1912                    | 1.30                              | 8175                          |      |
|             |                         | 1.70                              | 8185                          |      |
| 7.5         | 2609                    | 1.25                              | 8185                          |      |
|             |                         | 2.03                              | 8195                          |      |
| 11          | 3824                    | 1.38                              | 8195                          |      |
|             |                         | 1.75                              | 8205                          |      |
| 15          | 5217                    | 1.02                              | 8195                          |      |
|             |                         | 1.28                              | 8205                          |      |
|             |                         | 1.87                              | 8215                          |      |
| 18.5        | 6433                    | 1.04                              | 8205                          |      |
|             |                         | 1.52                              | 8215                          |      |
|             |                         | 1.82                              | 8225                          |      |
| 22          | 7649                    | 1.27                              | 8215                          |      |
|             |                         | 1.53                              | 8225                          |      |
| 30          | 10394                   | 1.12                              | 8225                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 71          | 50                      | 21                                | 1500                          | 4    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09        | 36.9                    | 2.90                              | 8095                          |      |
| 0.18        | 73.7                    | 1.45                              | 8095                          |      |
|             |                         | 2.77                              | 8105                          |      |
| 0.37        | 152                     | 1.35                              | 8105                          |      |
|             |                         | 2.65                              | 8115                          |      |
| 0.55        | 230                     | 1.79                              | 8115                          |      |
| 0.75        | 314                     | 1.31                              | 8115                          |      |
|             |                         | 1.38                              | 8125                          |      |
| 1.1         | 460                     | 1.15                              | 8135                          |      |
| 1.5         | 628                     | 1.22                              | 8135                          |      |
|             |                         | 1.42                              | 8145                          |      |
|             |                         | 1.57                              | 8155                          |      |
|             |                         | 2.16                              | 8165                          |      |
| 2.2         | 921                     | 1.07                              | 8155                          |      |
|             |                         | 1.88                              | 8165                          |      |
| 3.0         | 1256                    | 1.38                              | 8165                          |      |
| 4.0         | 1638                    | 1.03                              | 8165                          |      |
|             |                         | 1.51                              | 8175                          |      |
| 5.5         | 2304                    | 1.54                              | 8185                          |      |
|             |                         | 2.00                              | 8195                          |      |
| 7.5         | 3138                    | 1.13                              | 8185                          |      |
|             |                         | 1.80                              | 8195                          |      |
| 11          | 4609                    | 1.23                              | 8195                          |      |

Please inquire with manufacturer when you will purchase types with  in catalogue

## Single selection table with 4 pole Motor

Selection table

| Ratio       | Fre-quency<br>Hz        | Motor output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|--------------------------------|-------------------------------|------|
|             |                         |                                | Motor input<br>speed<br>r/min | Pole |
| 87          | 50                      | 35                             | 1500                          | 4    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K         | Type                          |      |
| 0.09        | 40.5                    | 2.75                           | 8095                          |      |
| 0.18        | 80.9                    | 1.37                           | 8095                          |      |
|             |                         | 2.76                           | 8105                          |      |
| 0.37        | 167                     | 1.34                           | 8105                          |      |
|             |                         | 2.53                           | 8115                          |      |
| 0.55        | 282                     | 1.71                           | 8115                          |      |
| 0.75        | 385                     | 1.25                           | 8115                          |      |
|             |                         | 1.97                           | 8135                          |      |
| 1.1         | 564                     | 1.35                           | 8135                          |      |
| 1.5         | 770                     | 1.32                           | 8145                          |      |
|             |                         | 1.70                           | 8165                          |      |
| 2.2         | 1130                    | 1.353                          | 8165                          |      |
| 3.0         | 1539                    | 1.62                           | 8175                          |      |
| 4.0         | 1804                    | 1.21                           | 8175                          |      |
|             |                         | 1.85                           | 8185                          |      |
| 5.5         | 2824                    | 1.35                           | 8185                          |      |
|             |                         | 1.63                           | 8195                          |      |
| 7.5         | 3844                    | 1.57                           | 8195                          |      |
|             |                         | 1.83                           | 8205                          |      |
| 11          | 5638                    | 1.07                           | 8195                          |      |
|             |                         | 1.25                           | 8205                          |      |
|             |                         | 1.67                           | 8215                          |      |
| 15          | 7698                    | 1.22                           | 8215                          |      |
|             |                         | 1.54                           | 8225                          |      |
| 18.5        | 9492                    | 1.25                           | 8225                          |      |
| 22          | 11277                   | 1.05                           | 8225                          |      |

Please inquire with manufacturer when you will purchase types with  in catalogue

## Single selection table with 6 pole Motor

Selection table

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 11          | 50                      | 91                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 18.5        | 1790                    | 1.60                              | 8185                          |      |
|             |                         | 1.91                              | 8195                          |      |
| 22          | 2130                    | 1.35                              | 8185                          |      |
|             |                         | 1.61                              | 8195                          |      |
| 30          | 2910                    | 1.18                              | 8195                          |      |
|             |                         | 1.59                              | 8205                          |      |
| 37          | 3590                    | 1.29                              | 8205                          |      |
|             |                         | 1.67                              | 8215                          |      |
| 45          | 4370                    | 1.38                              | 8215                          |      |
|             |                         | 1.80                              | 8225                          |      |
| 55          | 5350                    | 1.48                              | 8225                          |      |
|             |                         | 1.70                              | 8235                          |      |
| 75          | 7290                    | 1.25                              | 8235                          |      |
|             |                         | 1.58                              | 8245                          |      |
|             |                         | 1.92                              | 8255                          |      |
| 90          | 8750                    | 1.04                              | 8235                          |      |
|             |                         | 1.32                              | 8245                          |      |
|             |                         | 1.60                              | 8255                          |      |
| 110         | 10600                   | 1.08                              | 8245                          |      |
|             |                         | 1.31                              | 8255                          |      |
|             |                         | 1.57                              | 8265                          |      |
| 132         | 12800                   | 1.09                              | 8255                          |      |
|             |                         | 1.31                              | 8265                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 17          | 50                      | 58                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 18.5        | 2770                    | 1.23                              | 8185                          |      |
|             |                         | 1.88                              | 8195                          |      |
| 22          | 3300                    | 1.58                              | 8195                          |      |
|             |                         | 1.62                              | 8205                          |      |
| 30          | 4500                    | 1.19                              | 8205                          |      |
|             |                         | 1.60                              | 8215                          |      |
| 37          | 5550                    | 1.29                              | 8215                          |      |
|             |                         | 1.75                              | 8225                          |      |
| 45          | 6750                    | 1.44                              | 8225                          |      |
|             |                         | 1.66                              | 8235                          |      |
| 55          | 8250                    | 1.36                              | 8235                          |      |
|             |                         | 1.75                              | 8245                          |      |
| 75          | 11200                   | 1.28                              | 8245                          |      |
|             |                         | 1.58                              | 8255                          |      |
|             |                         | 1.92                              | 8265                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 23          | 50                      | 43                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 18.5        | 3750                    | 1.42                              | 8195                          |      |
|             |                         | 1.52                              | 8205                          |      |
|             |                         | 2.02                              | 8215                          |      |
| 22          | 4460                    | 1.28                              | 8205                          |      |
|             |                         | 1.70                              | 8215                          |      |
|             |                         | 2.14                              | 8225                          |      |
| 30          | 6090                    | 1.24                              | 8215                          |      |
|             |                         | 1.57                              | 8225                          |      |
|             |                         | 1.87                              | 8235                          |      |
| 37          | 7510                    | 1.27                              | 8225                          |      |
|             |                         | 1.52                              | 8235                          |      |
|             |                         | 1.90                              | 8245                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 29          | 50                      | 34                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 18.5        | 4730                    | 1.24                              | 8195                          |      |
|             |                         | 1.52                              | 8205                          |      |
|             |                         | 2.02                              | 8215                          |      |
| 22          | 5630                    | 1.28                              | 8205                          |      |
|             |                         | 1.70                              | 8215                          |      |
|             |                         | 2.14                              | 8225                          |      |
| 30          | 7680                    | 1.24                              | 8215                          |      |
|             |                         | 1.57                              | 8225                          |      |
|             |                         | 1.88                              | 8235                          |      |
| 37          | 9490                    | 1.52                              | 8235                          |      |
|             |                         | 1.90                              | 8245                          |      |
|             |                         | 1.25                              | 8235                          |      |
| 45          | 11500                   | 1.57                              | 8245                          |      |
|             |                         | 2.14                              | 8255                          |      |
|             |                         | 1.02                              | 8235                          |      |
| 55          | 14100                   | 1.28                              | 8245                          |      |
|             |                         | 1.75                              | 8255                          |      |
|             |                         | 1.28                              | 8255                          |      |
| 75          | 19200                   | 1.83                              | 8265                          |      |
|             |                         | 1.07                              | 8255                          |      |
|             |                         | 1.53                              | 8265                          |      |
| 90          | 23000                   | 1.60                              | 8275                          |      |
|             |                         | 1.25                              | 8265                          |      |
|             |                         | 1.04                              | 8265                          |      |
| 110         | 28200                   |                                   | 8265                          |      |
| 132         | 33800                   |                                   | 8265                          |      |

Please inquire with manufacturer when you will purchase types with  in catalogue

## Single selection table with 6 pole Motor

Selection table

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 35          | 50                      | 28                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 18.5        | 5710                    | 1.13                              | 8205                          |      |
|             |                         | 1.51                              | 8215                          |      |
|             |                         | 1.84                              | 8225                          |      |
| 22          | 6800                    | 1.27                              | 8215                          |      |
|             |                         | 1.55                              | 8225                          |      |
|             |                         | 1.97                              | 8235                          |      |
| 30          | 9270                    | 1.14                              | 8225                          |      |
|             |                         | 1.44                              | 8235                          |      |
|             |                         | 1.88                              | 8245                          |      |
| 37          | 11400                   | 1.17                              | 8235                          |      |
|             |                         | 1.52                              | 8245                          |      |
|             |                         | 1.85                              | 8255                          |      |
| 45          | 13900                   | 1.25                              | 8245                          |      |
|             |                         | 1.52                              | 8255                          |      |
|             |                         | 2.14                              | 8265                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 43          | 50                      | 23                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 18.5        | 7020                    | 1.13                              | 8205                          |      |
|             |                         | 1.51                              | 8215                          |      |
|             |                         | 1.84                              | 8225                          |      |
|             |                         | 2.34                              | 8235                          |      |
| 22          | 8360                    | 1.97                              | 8235                          |      |
| 30          | 11400                   | 1.45                              | 8235                          |      |
|             |                         | 1.88                              | 8245                          |      |
|             |                         | 1.17                              | 8235                          |      |
| 37          | 14000                   | 1.53                              | 8245                          |      |
|             |                         | 1.86                              | 8255                          |      |
|             |                         | 1.26                              | 8245                          |      |
| 45          | 17100                   | 1.53                              | 8255                          |      |
|             |                         | 2.14                              | 8265                          |      |
|             |                         | 1.03                              | 8245                          |      |
| 55          | 20900                   | 1.25                              | 8255                          |      |
|             |                         | 1.75                              | 8265                          |      |
|             |                         | 1.28                              | 8265                          |      |
| 75          | 28500                   | 1.70                              | 8275                          |      |
|             |                         | 1.07                              | 8265                          |      |
| 90          | 34200                   | 1.41                              | 8275                          |      |
|             |                         |                                   |                               |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 59          | 50                      | 17                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 15          | 7810                    | 1.38                              | 8215                          |      |
|             |                         | 1.66                              | 8225                          |      |
|             |                         | 2.02                              | 8235                          |      |
| 18.5        | 9640                    | 1.12                              | 8215                          |      |
|             |                         | 1.34                              | 8225                          |      |
|             |                         | 1.64                              | 8235                          |      |
| 22          | 11400                   | 1.38                              | 8235                          |      |
|             |                         | 1.78                              | 8245                          |      |
| 30          | 15600                   | 1.01                              | 8235                          |      |
|             |                         | 1.31                              | 8245                          |      |
|             |                         | 1.88                              | 8255                          |      |
| 37          | 19300                   | 1.06                              | 8245                          |      |
|             |                         | 1.52                              | 8255                          |      |
|             |                         | 2.04                              | 8265                          |      |
| 45          | 23400                   | 1.25                              | 8255                          |      |
|             |                         | 1.68                              | 8265                          |      |
|             |                         | 1.02                              | 8255                          |      |
| 55          | 28700                   | 1.38                              | 8265                          |      |
|             |                         | 1.01                              | 8265                          |      |
|             |                         | 1.36                              | 8275                          |      |
| 75          | 39100                   |                                   |                               |      |
|             |                         |                                   |                               |      |

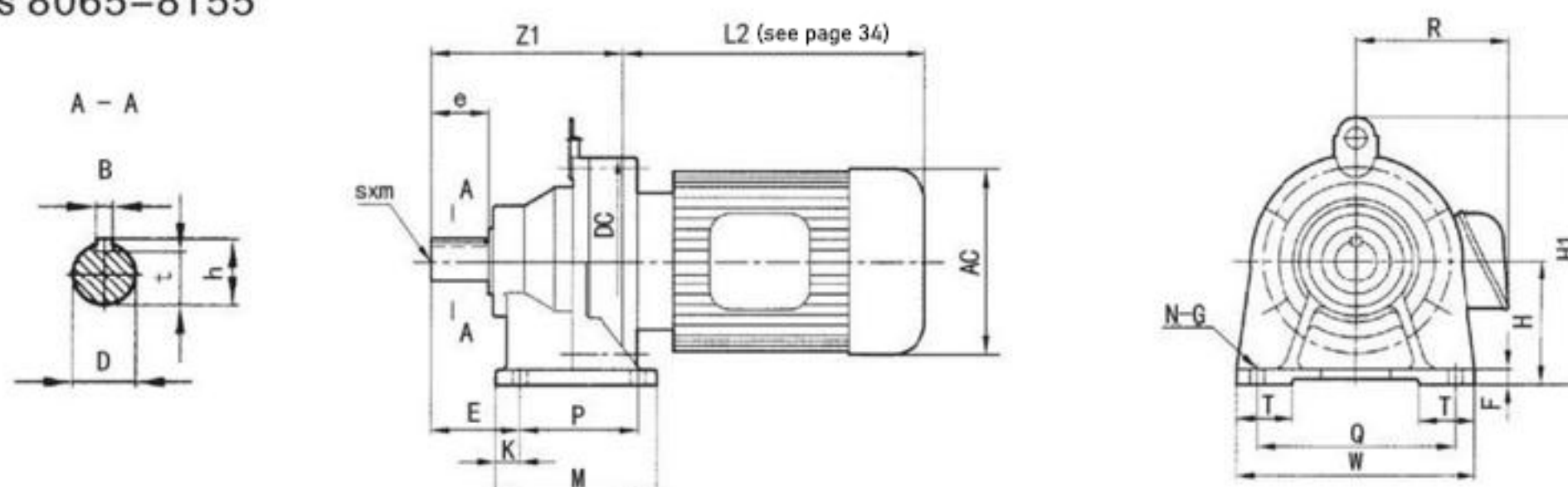
| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 71          | 50                      | 14                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 18.5        | 11600                   | 1.13                              | 8235                          |      |
|             |                         | 1.44                              | 8245                          |      |
|             |                         | 1.85                              | 8255                          |      |
| 22          | 13700                   | 1.21                              | 8245                          |      |
|             |                         | 1.56                              | 8255                          |      |
|             |                         | 2.08                              | 8265                          |      |

| Ratio       | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-------------|-------------------------|-----------------------------------|-------------------------------|------|
|             |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 87          | 50                      | 11                                | 1000                          | 6    |
| Power<br>kw | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 15          | 11500                   | 1.40                              | 8235                          |      |
|             |                         | 1.78                              | 8245                          |      |
| 18.5        | 14200                   | 1.14                              | 8235                          |      |
|             |                         | 1.45                              | 8245                          |      |
|             |                         | 1.86                              | 8255                          |      |
| 22          | 16900                   | 1.22                              | 8245                          |      |
|             |                         | 1.56                              | 8255                          |      |
|             |                         | 2.09                              | 8265                          |      |
| 30          | 23000                   | 1.15                              | 8255                          |      |
|             |                         | 1.53                              | 8265                          |      |
| 37          | 28400                   | 1.24                              | 8265                          |      |
|             |                         | 1.39                              | 8275                          |      |
| 45          | 34600                   | 1.02                              | 8265                          |      |
|             |                         |                                   |                               |      |

Please inquire with manufacturer when you will purchase types with  in catalog.

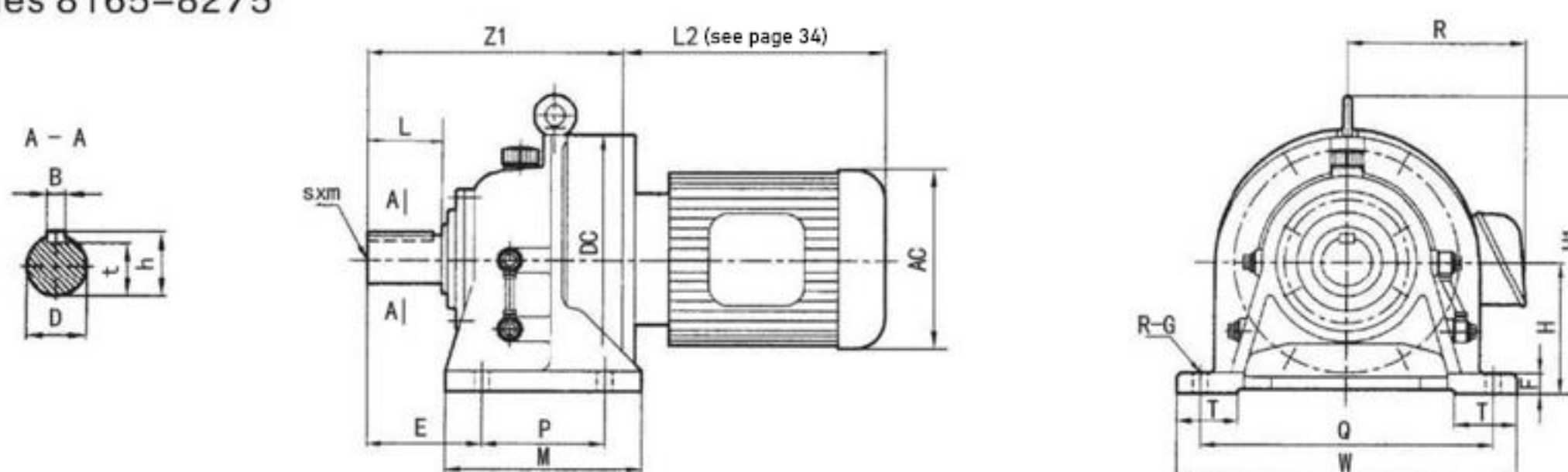
## Overall and installation dimensions chart of single connect-directly and horizontal type speed reducer

### AXWD series 8065–8155



| Type | Size | Z1  | H   | DC  | P   | Q   | M   | W   | E   | K  | H1  | F  | T  | N-G   | Output terminal |    |    |      |      |          |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|----|-------|-----------------|----|----|------|------|----------|
|      |      |     |     |     |     |     |     |     |     |    |     |    |    |       | D               | e  | B  | t    | h    | s × m    |
| 8065 |      | 92  | 80  | 110 | 60  | 120 | 88  | 148 | 42  | 14 | 138 | 10 | 35 | 4-Φ9  | 14              | 25 | 5  | 11   | 16   | —        |
| 8075 |      | 98  | 80  | 110 | 60  | 120 | 88  | 148 | 47  | 14 | 138 | 10 | 35 | 4-Φ9  | 18              | 30 | 6  | 14.5 | 20.5 | —        |
| 8085 |      | 129 | 90  | 134 | 75  | 120 | 101 | 148 | 52  | 14 | 157 | 13 | 35 | 4-Φ9  | 22              | 35 | 6  | 18.5 | 25   | —        |
| 8095 |      | 142 | 100 | 150 | 90  | 150 | 135 | 180 | 60  | 15 | 207 | 15 | 40 | 4-Φ11 | 28              | 35 | 8  | 24   | 31   | —        |
| 8105 |      | 156 | 100 | 150 | 90  | 150 | 135 | 180 | 60  | 15 | 207 | 15 | 40 | 4-Φ11 | 28              | 35 | 8  | 24   | 31   | —        |
| 8115 |      | 186 | 120 | 204 | 115 | 190 | 155 | 230 | 82  | 20 | 257 | 15 | 55 | 4-Φ14 | 38              | 55 | 10 | 33   | 41   | —        |
| 8125 |      | 186 | 140 | 204 | 115 | 190 | 155 | 230 | 82  | 20 | 277 | 15 | 60 | 4-Φ14 | 38              | 55 | 10 | 33   | 41   | —        |
| 8135 |      | 240 | 150 | 230 | 145 | 290 | 195 | 330 | 100 | 25 | 300 | 22 | 65 | 4-Φ18 | 50              | 70 | 14 | 44.5 | 53.5 | M10 × 18 |
| 8145 |      | 260 | 150 | 230 | 145 | 290 | 195 | 330 | 120 | 25 | 300 | 22 | 65 | 4-Φ18 | 50              | 90 | 14 | 44.5 | 53.5 | M10 × 18 |
| 8155 |      | 260 | 160 | 230 | 145 | 290 | 195 | 330 | 120 | 25 | 310 | 22 | 70 | 4-Φ18 | 50              | 90 | 14 | 44.5 | 53.5 | M10 × 18 |

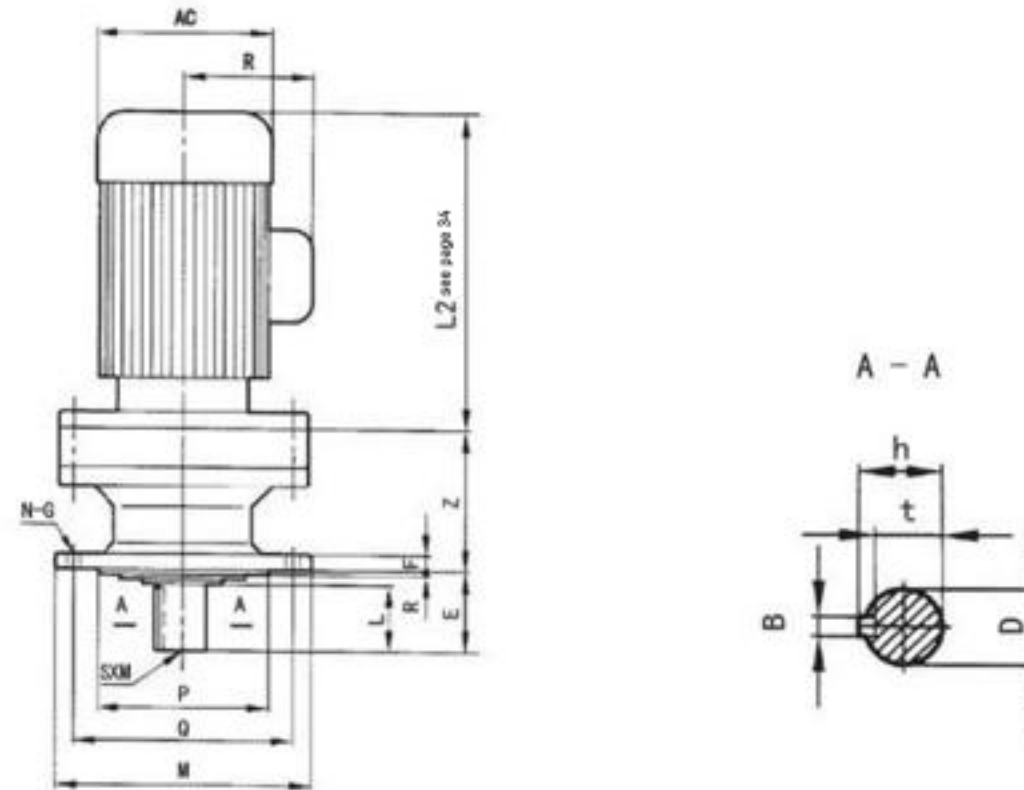
### AXWD series 8165–8275



| Type | Size | Z1   | H   | DC  | P       | Q    | M    | W    | E   | H1   | F  | T   | N-G   | Output terminal |     |    |      |      |          |
|------|------|------|-----|-----|---------|------|------|------|-----|------|----|-----|-------|-----------------|-----|----|------|------|----------|
|      |      |      |     |     |         |      |      |      |     |      |    |     |       | D               | L   | B  | t    | h    | s × m    |
| 8165 |      | 308  | 160 | 300 | 150     | 370  | 238  | 410  | 139 | 356  | 25 | 75  | 4-Φ18 | 60              | 90  | 18 | 53   | 64   | M10 × 18 |
| 8175 |      | 352  | 200 | 340 | 275     | 380  | 335  | 430  | 125 | 425  | 30 | 80  | 4-Φ22 | 70              | 90  | 20 | 62.5 | 74.5 | M12 × 24 |
| 8185 |      | 389  | 220 | 370 | 320     | 420  | 380  | 470  | 145 | 460  | 30 | 85  | 4-Φ22 | 80              | 110 | 22 | 71   | 85   | M12 × 24 |
| 8195 |      | 465  | 250 | 430 | 380     | 480  | 440  | 530  | 170 | 529  | 35 | 90  | 4-Φ26 | 95              | 135 | 25 | 86   | 100  | M20 × 34 |
| 8205 |      | 512  | 250 | 448 | 360     | 440  | 440  | 530  | 215 | 530  | 35 | 100 | 4-Φ26 | 100             | 165 | 28 | 90   | 106  | M20 × 34 |
| 8215 |      | 531  | 265 | 485 | 395     | 480  | 475  | 580  | 210 | 575  | 40 | 110 | 4-Φ26 | 110             | 165 | 28 | 100  | 116  | M20 × 34 |
| 8225 |      | 566  | 280 | 526 | 420     | 540  | 520  | 620  | 230 | 610  | 40 | 115 | 4-Φ33 | 120             | 165 | 32 | 109  | 127  | M20 × 34 |
| 8235 |      | 630  | 300 | 562 | 460     | 580  | 560  | 670  | 260 | 667  | 45 | 120 | 4-Φ33 | 130             | 200 | 32 | 119  | 137  | M24 × 41 |
| 8245 |      | 661  | 335 | 614 | 480     | 630  | 580  | 720  | 263 | 729  | 45 | 128 | 4-Φ39 | 140             | 200 | 36 | 128  | 148  | M24 × 41 |
| 8255 |      | 788  | 375 | 670 | 520     | 670  | 630  | 780  | 320 | 815  | 50 | 140 | 4-Φ39 | 160             | 240 | 40 | 147  | 169  | M30 × 49 |
| 8265 |      | 892  | 400 | 736 | 590     | 770  | 700  | 880  | 390 | 874  | 55 | 160 | 4-Φ45 | 170             | 300 | 40 | 157  | 179  | M30 × 49 |
| 8275 |      | 1151 | 540 | 986 | 420 × 2 | 1050 | 1040 | 1160 | 485 | 1161 | 60 | 200 | 6-Φ45 | 180             | 330 | 50 | 165  | 190  | M42 × 80 |

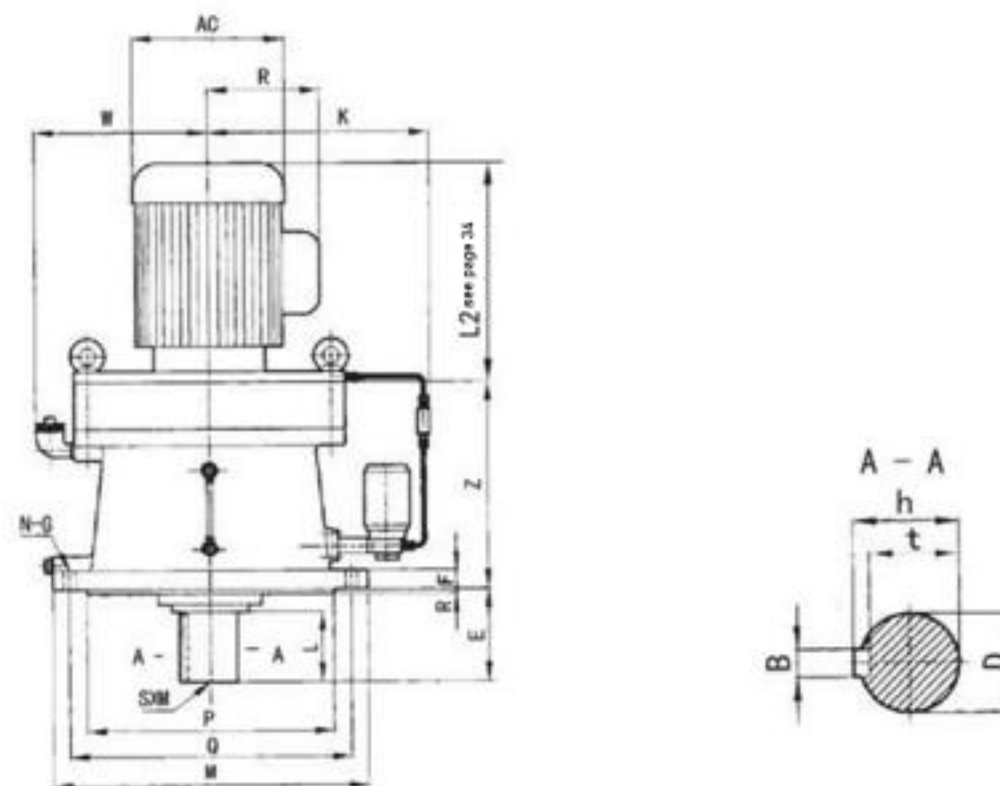
# Overall and installation dimensions chart of single connect-directly and vertical type speed reducer

AXLD series 8065–8155



| Type | Size | Z   | E  | F  | R | M   | Q   | P   | N-G   | Output terminal |    |    |      |      |          |
|------|------|-----|----|----|---|-----|-----|-----|-------|-----------------|----|----|------|------|----------|
|      |      |     |    |    |   |     |     |     |       | D               | L  | B  | t    | h    | s × m    |
| 8065 |      | 58  | 34 | 8  | 3 | 120 | 102 | 80  | 6-Φ9  | 14              | 25 | 5  | 11   | 16   | —        |
| 8075 |      | 56  | 42 | 9  | 3 | 160 | 134 | 110 | 4-Φ11 | 18              | 30 | 6  | 14.5 | 20.5 | —        |
| 8085 |      | 94  | 48 | 9  | 3 | 160 | 134 | 110 | 4-Φ11 | 18              | 35 | 6  | 14.5 | 20.5 | —        |
| 8095 |      | 94  | 48 | 9  | 3 | 160 | 134 | 110 | 4-Φ11 | 28              | 35 | 8  | 24   | 31   | —        |
| 8105 |      | 108 | 48 | 9  | 3 | 160 | 134 | 110 | 4-Φ11 | 28              | 35 | 8  | 24   | 31   | —        |
| 8115 |      | 120 | 69 | 13 | 4 | 210 | 180 | 140 | 6-Φ11 | 38              | 55 | 10 | 33   | 41   | —        |
| 8125 |      | 120 | 69 | 13 | 4 | 210 | 180 | 140 | 6-Φ11 | 38              | 55 | 10 | 33   | 41   | —        |
| 8135 |      | 164 | 76 | 15 | 4 | 260 | 230 | 200 | 6-Φ11 | 50              | 61 | 14 | 44.5 | 53.5 | M10 × 18 |
| 8145 |      | 164 | 96 | 15 | 4 | 260 | 230 | 200 | 6-Φ11 | 50              | 81 | 14 | 44.5 | 53.5 | M10 × 18 |
| 8155 |      | 164 | 96 | 15 | 4 | 260 | 230 | 200 | 6-Φ11 | 50              | 81 | 14 | 44.5 | 53.5 | M10 × 18 |

AXLD series 8165–8275

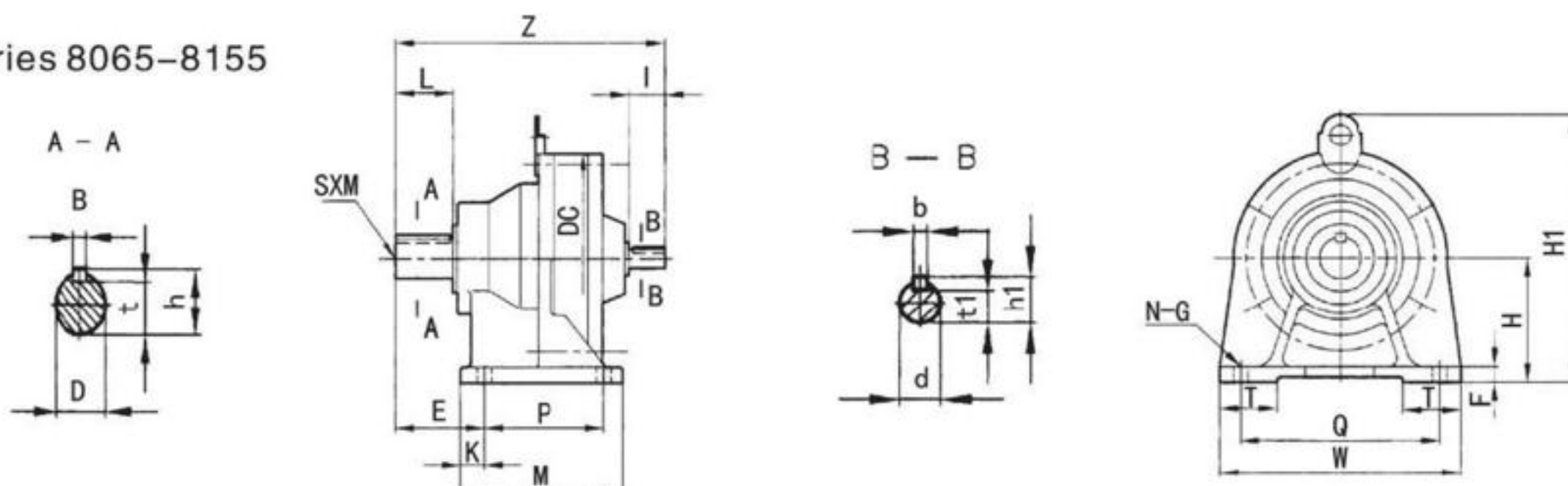


| Type | Size | Z   | E   | F  | R  | M    | Q    | P   | N-D    | K   | W   | Output terminal |     |    |      |      |
|------|------|-----|-----|----|----|------|------|-----|--------|-----|-----|-----------------|-----|----|------|------|
|      |      |     |     |    |    |      |      |     |        |     |     | D               | L   | B  | t    | h    |
| 8165 |      | 219 | 89  | 20 | 4  | 340  | 310  | 270 | 6-Φ11  | 217 | 200 | 60              | 80  | 18 | 53   | 64   |
| 8175 |      | 258 | 94  | 22 | 5  | 400  | 360  | 316 | 8-Φ14  | 222 | 225 | 70              | 84  | 20 | 62.5 | 74.5 |
| 8185 |      | 279 | 110 | 22 | 5  | 430  | 390  | 345 | 8-Φ18  | 237 | 240 | 80              | 100 | 22 | 71   | 85   |
| 8195 |      | 320 | 145 | 30 | 6  | 490  | 450  | 400 | 12-Φ18 | 360 | 200 | 95              | 125 | 25 | 86   | 100  |
| 8205 |      | 308 | 204 | 30 | 5  | 455  | 405  | 355 | 8-Φ22  | 376 | 287 | 100             | 165 | 28 | 90   | 106  |
| 8215 |      | 328 | 203 | 35 | 7  | 490  | 440  | 390 | 8-Φ24  | 400 | 290 | 110             | 165 | 28 | 100  | 116  |
| 8225 |      | 356 | 210 | 35 | 10 | 535  | 475  | 415 | 8-Φ27  | 400 | 326 | 120             | 165 | 32 | 109  | 127  |
| 8235 |      | 380 | 250 | 40 | 10 | 570  | 510  | 450 | 8-Φ27  | 413 | 344 | 130             | 200 | 32 | 119  | 137  |
| 8245 |      | 411 | 250 | 40 | 10 | 635  | 560  | 485 | 8-Φ33  | 420 | 365 | 140             | 200 | 36 | 128  | 148  |
| 8255 |      | 493 | 295 | 45 | 10 | 685  | 610  | 535 | 8-Φ33  | 432 | 425 | 160             | 240 | 40 | 147  | 169  |
| 8265 |      | 532 | 360 | 50 | 10 | 750  | 660  | 570 | 8-Φ39  | 460 | 431 | 170             | 30  | 40 | 157  | 179  |
| 8275 |      | 796 | 355 | 60 | 10 | 1160 | 1020 | 900 | 8-Φ39  | 610 | 613 | 180             | 320 | 45 | 165  | 190  |

Remark: the "K" size is the distance of centerline of speed reducer to the oil indicator, and this size is forced lubrication of oil pump, others lubrication means have no "K" size.

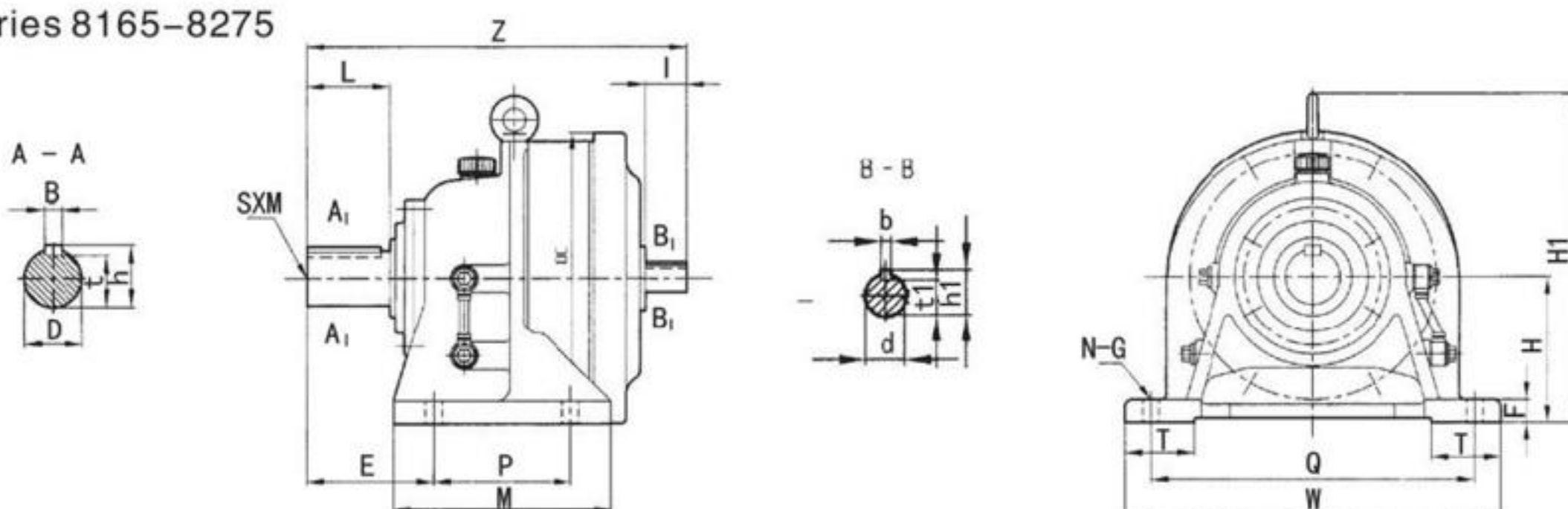
## Overall and installation dimensions chart of single & double shaft and horizontal type to double-shaft speed reducer

### AXW series 8065-8155



| Type | Size | Z   | H   | DC  | P   | Q   | M   | W   | E   | K  | H1  | F  | T  | N-G   | Input Terminal |    |   |      |      | Output Terminal |    |    |      |      |          | Weight<br>kg |
|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|----|-------|----------------|----|---|------|------|-----------------|----|----|------|------|----------|--------------|
|      |      |     |     |     |     |     |     |     |     |    |     |    |    |       | d              | l  | b | t1   | h1   | D               | L  | B  | t    | h    | s × m    |              |
| 8065 |      | 145 | 80  | 110 | 60  | 120 | 88  | 148 | 42  | 14 | 138 | 10 | 35 | 4-Φ9  | 12             | 25 | 4 | 9.5  | 13.5 | 14              | 25 | 5  | 11   | 16   | -        | 5            |
| 8075 |      | 151 | 80  | 110 | 60  | 120 | 88  | 148 | 47  | 14 | 138 | 10 | 35 | 4-Φ9  | 12             | 25 | 4 | 9.5  | 13.5 | 18              | 30 | 6  | 14.5 | 20.5 | -        | 5            |
| 8085 |      | 179 | 90  | 134 | 75  | 120 | 101 | 148 | 52  | 14 | 157 | 13 | 35 | 4-Φ9  | 12             | 25 | 4 | 9.5  | 13.5 | 22              | 35 | 6  | 18.5 | 25   | -        | 6            |
| 8095 |      | 202 | 100 | 150 | 90  | 150 | 135 | 180 | 60  | 15 | 207 | 15 | 40 | 4-Φ11 | 15             | 25 | 5 | 12   | 17   | 28              | 35 | 8  | 24   | 31   | -        | 11           |
| 8105 |      | 208 | 100 | 150 | 90  | 150 | 135 | 180 | 60  | 15 | 207 | 15 | 40 | 4-Φ11 | 15             | 25 | 5 | 12   | 17   | 28              | 35 | 8  | 24   | 31   | -        | 13           |
| 8115 |      | 259 | 120 | 204 | 115 | 190 | 155 | 230 | 82  | 20 | 257 | 15 | 55 | 4-Φ14 | 18             | 35 | 6 | 14.5 | 20.5 | 38              | 55 | 10 | 33   | 41   | -        | 24           |
| 8125 |      | 259 | 140 | 204 | 115 | 190 | 155 | 230 | 82  | 20 | 277 | 15 | 60 | 4-Φ14 | 18             | 35 | 6 | 14.5 | 20.5 | 38              | 55 | 10 | 33   | 41   | -        | 25           |
| 8135 |      | 321 | 150 | 230 | 145 | 290 | 195 | 330 | 100 | 25 | 300 | 22 | 65 | 4-Φ18 | 22             | 40 | 6 | 18.5 | 24.5 | 50              | 70 | 14 | 44.5 | 53.5 | M10 × 18 | 43           |
| 8145 |      | 341 | 150 | 230 | 145 | 290 | 195 | 330 | 120 | 25 | 300 | 22 | 65 | 4-Φ18 | 22             | 40 | 6 | 18.5 | 24.5 | 50              | 90 | 14 | 44.5 | 53.5 | M10 × 18 | 44           |
| 8155 |      | 341 | 160 | 230 | 145 | 290 | 195 | 330 | 120 | 25 | 310 | 22 | 70 | 4-Φ18 | 22             | 40 | 6 | 18.5 | 24.5 | 50              | 90 | 14 | 44.5 | 53.5 | M10 × 18 | 46           |

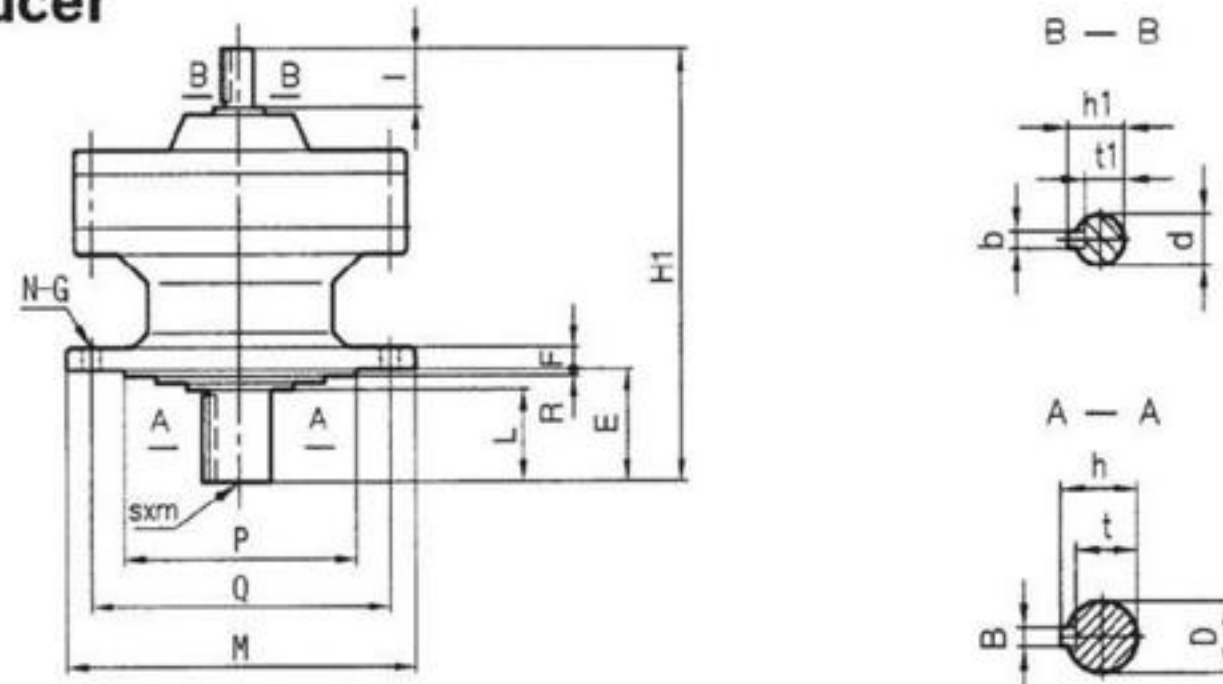
### AXW series 8165-8275



| Type\Size | Z    | H   | DC  | P     | Q    | M    | W    | E   | H1   | F  | T   | N-G    | Input Terminal |     |    |      |      | Output Terminal |     |    |      |      |          | Weight<br>kg |
|-----------|------|-----|-----|-------|------|------|------|-----|------|----|-----|--------|----------------|-----|----|------|------|-----------------|-----|----|------|------|----------|--------------|
|           |      |     |     |       |      |      |      |     |      |    |     |        | d              | l   | b  | t1   | h1   | D               | L   | B  | t    | h    | s × m    |              |
| 8165      | 413  | 160 | 318 | 150   | 370  | 238  | 410  | 139 | 356  | 25 | 75  | 4— Φ18 | 30             | 45  | 8  | 26   | 33   | 60              | 90  | 18 | 53   | 64   | M10 × 18 | 84           |
| 8175      | 477  | 200 | 362 | 275   | 380  | 335  | 430  | 125 | 425  | 30 | 80  | 4— Φ22 | 35             | 55  | 10 | 30   | 38   | 70              | 90  | 20 | 62.5 | 74.5 | M12 × 24 | 125          |
| 8185      | 527  | 220 | 390 | 320   | 420  | 380  | 470  | 145 | 460  | 30 | 85  | 4— Φ22 | 40             | 65  | 12 | 35   | 43   | 80              | 110 | 22 | 71   | 85   | M12 × 24 | 163          |
| 8195      | 620  | 250 | 451 | 380   | 480  | 440  | 530  | 170 | 529  | 35 | 90  | 4— Φ26 | 45             | 70  | 14 | 39.5 | 48.5 | 95              | 135 | 25 | 86   | 100  | M20 × 34 | 240          |
| 8205      | 678  | 250 | 471 | 360   | 440  | 440  | 530  | 215 | 530  | 35 | 100 | 4— Φ26 | 45             | 82  | 14 | 39.5 | 48.5 | 100             | 165 | 28 | 90   | 106  | M20 × 34 | 255          |
| 8215      | 708  | 265 | 507 | 395   | 480  | 475  | 580  | 210 | 575  | 40 | 110 | 4— Φ26 | 50             | 82  | 14 | 44.5 | 53.5 | 110             | 165 | 28 | 100  | 116  | M20 × 34 | 336          |
| 8225      | 752  | 280 | 549 | 420   | 540  | 520  | 620  | 230 | 610  | 40 | 115 | 4— Φ33 | 55             | 82  | 16 | 49   | 59   | 120             | 165 | 32 | 109  | 127  | M20 × 34 | 409          |
| 8235      | 839  | 300 | 591 | 460   | 580  | 560  | 670  | 260 | 667  | 45 | 120 | 4— Φ33 | 60             | 105 | 18 | 53   | 64   | 130             | 200 | 32 | 119  | 137  | M24 × 41 | 503          |
| 8245      | 877  | 335 | 637 | 480   | 630  | 580  | 720  | 263 | 729  | 45 | 128 | 4— Φ39 | 65             | 105 | 18 | 58   | 69   | 140             | 200 | 36 | 128  | 148  | M24 × 41 | 614          |
| 8255      | 1040 | 375 | 703 | 520   | 670  | 630  | 780  | 320 | 815  | 50 | 140 | 4— Φ39 | 80             | 130 | 22 | 71   | 85   | 160             | 240 | 40 | 147  | 169  | M30 × 49 | 957          |
| 8265      | 1150 | 400 | 772 | 510   | 776  | 766  | 880  | 390 | 874  | 55 | 160 | 4— Φ45 | 80             | 130 | 22 | 71   | 85   | 170             | 300 | 46 | 157  | 179  | M30 × 49 | 1190         |
| 8275      | 1474 | 540 | 980 | 420×2 | 1050 | 1040 | 1160 | 485 | 1161 | 60 | 200 | 6— Φ45 | 90             | 150 | 25 | 81   | 95   | 180             | 330 | 45 | 165  | 190  | M42 × 80 | 2460         |

# Overall and installation dimensions chart of single & double shaft and vertical type to double-shaft speed reducer

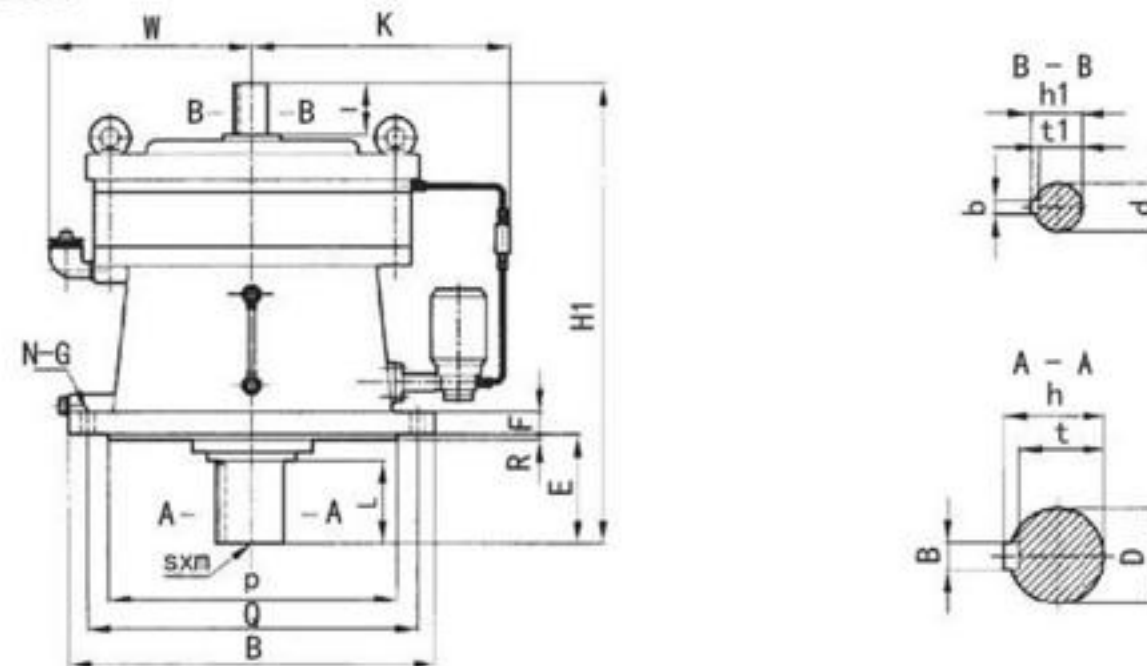
AXL series 8065-8155



| Type\Size | H1  | R | F  | E  | N-G   | M   | Q   | P   | Input Terminal |    |   |      |      | Output Terminal |    |    |      |      | Weight<br>kg |       |
|-----------|-----|---|----|----|-------|-----|-----|-----|----------------|----|---|------|------|-----------------|----|----|------|------|--------------|-------|
|           |     |   |    |    |       |     |     |     | d              | l  | b | t1   | h1   | D               | L  | B  | t    | h    |              | s × m |
| 8065      | 145 | 3 | 8  | 34 | 6-Φ9  | 120 | 102 | 80  | 12             | 25 | 4 | 9.5  | 13.5 | 14              | 25 | 5  | 11   | 16   | -            | 5     |
| 8075      | 151 | 3 | 9  | 42 | 4-Φ11 | 160 | 134 | 110 | 12             | 25 | 4 | 9.5  | 13.5 | 18              | 30 | 6  | 14.5 | 20.5 | -            | 5     |
| 8085      | 179 | 3 | 9  | 48 | 4-Φ11 | 160 | 134 | 110 | 12             | 25 | 4 | 9.5  | 13.5 | 18              | 35 | 6  | 14.5 | 20.5 | -            | 5     |
| 8095      | 202 | 3 | 9  | 48 | 4-Φ11 | 160 | 134 | 110 | 15             | 25 | 5 | 12   | 17   | 28              | 35 | 8  | 24   | 31   | -            | 9     |
| 8105      | 208 | 3 | 9  | 48 | 6-Φ11 | 160 | 134 | 110 | 15             | 25 | 5 | 12   | 17   | 28              | 35 | 8  | 24   | 31   | -            | 11    |
| 8115      | 259 | 4 | 13 | 69 | 6-Φ11 | 210 | 180 | 140 | 18             | 35 | 6 | 14.5 | 20.5 | 38              | 55 | 10 | 33   | 41   | -            | 23    |
| 8125      | 259 | 4 | 13 | 69 | 6-Φ11 | 210 | 180 | 140 | 18             | 35 | 6 | 14.5 | 20.5 | 38              | 55 | 10 | 33   | 41   | -            | 23    |
| 8135      | 321 | 4 | 15 | 76 | 6-Φ11 | 260 | 230 | 200 | 22             | 40 | 6 | 18.5 | 24.5 | 50              | 61 | 14 | 44.5 | 53.5 | M10×18       | 42    |
| 8145      | 341 | 4 | 15 | 96 | 6-Φ11 | 260 | 230 | 200 | 22             | 40 | 6 | 18.5 | 24.5 | 50              | 81 | 14 | 44.5 | 53.5 | M10×18       | 43    |
| 8155      | 341 | 4 | 15 | 96 | 6-Φ11 | 260 | 230 | 200 | 22             | 40 | 6 | 18.5 | 24.5 | 50              | 81 | 14 | 44.5 | 53.5 | M10×18       | 43    |

# Overall and installation dimensions chart of single & double shaft and vertical type to double-shaft speed reducer

AXW series 8165-8275



| Type\Size | H1   | R  | F  | E   | N-G    | M    | Q    | P   | K   | W   | Input Terminal |     |    |      |      | Output Terminal |     |    |      |      |          | Weight<br>kg |
|-----------|------|----|----|-----|--------|------|------|-----|-----|-----|----------------|-----|----|------|------|-----------------|-----|----|------|------|----------|--------------|
|           |      |    |    |     |        |      |      |     |     |     | d              | l   | b  | t1   | h1   | D               | L   | B  | h    | t    | s × m    |              |
| 8165      | 413  | 4  | 20 | 89  | 6-Φ11  | 340  | 310  | 270 | 217 | 200 | 30             | 45  | 8  | 26   | 33   | 60              | 80  | 18 | 53   | 64   | M18 × 18 | 79           |
| 8175      | 477  | 5  | 22 | 94  | 8-Φ14  | 400  | 360  | 316 | 222 | 225 | 35             | 55  | 10 | 30   | 38   | 70              | 84  | 20 | 62.5 | 74.5 | M12 × 24 | 121          |
| 8185      | 527  | 5  | 22 | 110 | 8-Φ18  | 430  | 390  | 345 | 237 | 240 | 40             | 65  | 12 | 35   | 43   | 80              | 100 | 22 | 71   | 85   | M12 × 24 | 150          |
| 8195      | 620  | 6  | 30 | 145 | 12-Φ18 | 490  | 450  | 400 | 360 | 200 | 45             | 70  | 14 | 39.5 | 48.5 | 95              | 125 | 25 | 86   | 100  | M20 × 34 | 225          |
| 8205      | 678  | 5  | 30 | 204 | 8-Φ22  | 455  | 405  | 355 | 376 | 287 | 45             | 82  | 14 | 39.5 | 48.5 | 100             | 165 | 28 | 90   | 106  | M20 × 34 | 245          |
| 8215      | 708  | 7  | 35 | 203 | 8-Φ24  | 490  | 440  | 390 | 400 | 290 | 50             | 82  | 14 | 44.5 | 53.5 | 110             | 165 | 28 | 100  | 116  | M20 × 34 | 320          |
| 8225      | 752  | 10 | 35 | 210 | 8-Φ27  | 535  | 475  | 415 | 400 | 326 | 55             | 82  | 16 | 49   | 59   | 120             | 165 | 32 | 109  | 127  | M20 × 34 | 400          |
| 8235      | 839  | 10 | 40 | 250 | 8-Φ27  | 570  | 510  | 450 | 413 | 344 | 60             | 105 | 18 | 53   | 64   | 130             | 200 | 32 | 119  | 137  | M24 × 41 | 480          |
| 8245      | 877  | 10 | 40 | 250 | 8-Φ33  | 635  | 560  | 485 | 420 | 365 | 65             | 105 | 18 | 58   | 69   | 140             | 200 | 36 | 128  | 148  | M24 × 41 | 570          |
| 8255      | 1040 | 10 | 45 | 295 | 8-Φ33  | 685  | 610  | 535 | 432 | 425 | 80             | 130 | 22 | 71   | 85   | 160             | 240 | 40 | 147  | 169  | M30 × 49 | 870          |
| 8265      | 1150 | 10 | 50 | 360 | 8-Φ39  | 750  | 660  | 570 | 460 | 431 | 80             | 130 | 22 | 71   | 85   | 170             | 300 | 40 | 157  | 179  | M30 × 49 |              |
| 8275      | 1474 | 10 | 60 | 355 | 8-Φ39  | 1160 | 1020 | 900 | 610 | 613 | 90             | 150 | 25 | 81   | 95   | 180             | 320 | 45 | 165  | 1900 | M42 × 80 | 2500         |

**Selection table of Double model size combination.**

| Ratio        | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|--------------|-------------------------|-----------------------------------|-------------------------------|------|
|              |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 99<br>(11×9) | 50                      | 15                                | 1500                          | 4    |
| Power<br>kw  | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 1.1          | 608                     | *                                 | 8135/10                       |      |
| 1.5          | 756                     | *                                 | 8135/10                       |      |
| 2.2          | 765                     | *                                 | 8135/09                       |      |
|              | 1030                    | *                                 | 8145/10                       |      |
|              | 1180                    | 1.23                              | 8165/10                       |      |
| 3.0          | 1520                    | *                                 | 8165/11                       |      |
| 4.0          | 1810                    | *                                 | 8165/11                       |      |
| 5.5          | 2860                    | *                                 | 8175/11                       |      |
|              | 2750                    | *                                 | 8175/11                       |      |

| Ratio          | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 289<br>(17×17) | 50                      | 5.2                               | 1500                          | 4    |
| Power<br>kw    | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09           | 25.5                    | *                                 | 8075/07                       |      |
|                | 51.0                    | *                                 | 8085/07                       |      |
|                | 128                     | *                                 | 8095/07                       |      |
|                | 141                     | 1.66                              | 8105/08                       |      |
| 0.18           | 255                     | *                                 | 8105/08                       |      |
|                | 281                     | 1.66                              | 8115/08                       |      |
| 0.37           | 510                     | *                                 | 8115/08                       |      |
| 0.75           | 608                     | *                                 | 8135/09                       |      |
|                | 765                     | *                                 | 8135/09                       |      |
|                | 1030                    | *                                 | 8145/09                       |      |
| 1.5            | 1810                    | *                                 | 8165/10                       |      |
|                | 2260                    | *                                 | 8175/10                       |      |
| 2.2            | 2750                    | *                                 | 8175/11                       |      |
|                | 3240                    | *                                 | 8185/10                       |      |
| 3.0            | 4070                    | *                                 | 8185/13                       |      |
| 4.0            | 4070                    | *                                 | 8185/13                       |      |
|                | 5690                    | *                                 | 8195/13                       |      |
| 5.5            | 7260                    | *                                 | 8195/13                       |      |
| 7.5            | 8490                    | *                                 | 8215/13                       |      |
| 11             | 11300                   | *                                 | 8225/17                       |      |
|                | 14200                   | *                                 | 8235/16                       |      |
| 15             | 18100                   | *                                 | 8245/18                       |      |
| 18.5           | 23500                   | *                                 | 8255/17                       |      |
| 22             | 30400                   | *                                 | 8265/17                       |      |

| Ratio          | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 121<br>(11×11) | 50                      | 12                                | 1500                          | 4    |
| Power<br>kw    | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09           | 25.5                    | *                                 | 8075/07                       |      |
|                | 46.0                    | *                                 | 8085/07                       |      |
|                | 59.0                    | 1.77                              | 8095/08                       |      |
| 0.18           | 106                     | *                                 | 8095/08                       |      |
|                | 118                     | 1.72                              | 8105/08                       |      |
| 0.37           | 206                     | *                                 | 8105/08                       |      |
|                | 242                     | 1.08                              | 8115/08                       |      |
| 0.55           | 333                     | 1.38                              | 8115/09                       |      |
| 0.75           | 491                     | 1.01                              | 8115/09                       |      |
| 1.1            | 608                     | *                                 | 8130/10                       |      |
| 1.5            | 765                     | *                                 | 8135/10                       |      |
|                | 951                     | *                                 | 8145/10                       |      |
| 2.2            | 951                     | *                                 | 8145/10                       |      |
|                | 1440                    | 1.05                              | 8165/11                       |      |
| 3.0            | 1520                    | *                                 | 8165/11                       |      |
| 4.0            | 1520                    | *                                 | 8165/11                       |      |
|                | 2260                    | *                                 | 8175/11                       |      |
| 5.5            | 2550                    | *                                 | 8175/11                       |      |
|                | 3240                    | *                                 | 8185/13                       |      |
| 7.5            | 4910                    | 1.08                              | 8195/13                       |      |
| 11             | 7210                    | 1.01                              | 8215/16                       |      |
| 15             | 9480                    | *                                 | 8225/17                       |      |
| 18.5           | 9480                    | *                                 | 8225/17                       |      |
|                | 11300                   | *                                 | 8235/17                       |      |
| 22             | 11300                   | *                                 | 8235/18                       |      |
|                | 14200                   | *                                 | 8235/18                       |      |
| 30             | 18100                   | *                                 | 8255/19                       |      |
| 37             | 23500                   | *                                 | 8265/19                       |      |

| Ratio          | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 187<br>(17×11) | 50                      | 8.0                               | 1500                          | 4    |
| Power<br>kw    | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09           | 25.5                    | *                                 | 8075/07                       |      |
|                | 51.0                    | *                                 | 8085/07                       |      |
|                | 91.2                    | 1.33                              | 8095/08                       |      |
| 0.18           | 182                     | 1.33                              | 8105/08                       |      |
| 0.37           | 255                     | *                                 | 8105/08                       |      |
|                | 374                     | 1.08                              | 8115/08                       |      |
| 0.55           | 510                     | *                                 | 8115/09                       |      |
| 0.75           | 510                     | *                                 | 8115/09                       |      |
|                | 765                     | *                                 | 8135/09                       |      |
| 1.5            | 1030                    | *                                 | 8145/10                       |      |
|                | 1520                    | *                                 | 8165/10                       |      |
| 2.2            | 1810                    | *                                 | 8165/11                       |      |
|                | 2229                    | 1.01                              | 8175/11                       |      |
| 4.0            | 2750                    | *                                 | 8175/11                       |      |
|                | 4052                    | 1.01                              | 8185/13                       |      |
| 5.5            | 4070                    | *                                 | 8185/13                       |      |
|                | 5572                    | 1.02                              | 8195/13                       |      |
| 7.5            | 6350                    | *                                 | 8195/13                       |      |
|                | 6870                    | *                                 | 8205/13                       |      |
| 11             | 8490                    | *                                 | 8215/16                       |      |
|                | 11100                   | 1.06                              | 8225/17                       |      |
| 15             | 11300                   | *                                 | 8225/17                       |      |
|                | 14100                   | *                                 | 8235/17                       |      |
| 18.5           | 14100                   | *                                 | 8235/18                       |      |
|                | 18100                   | *                                 | 8245/18                       |      |
| 22             | 22200                   | 1.05                              | 8255/19                       |      |

**Remark:**

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35-37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

Selection table of Double model size combination.

| Ratio          | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 319<br>(29×11) | 50                      | 4.7                               | 1500                          | 4    |
| Power<br>kw    | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09           | 25.5                    | *                                 | 8075/07                       |      |
|                | 51.0                    | *                                 | 8085/07                       |      |
|                | 128                     | *                                 | 8095/08                       |      |
|                | 155                     | 1.68                              | 8105/08                       |      |
| 0.18           | 255                     | *                                 | 8105/08                       |      |
|                | 311                     | 1.68                              | 8115/08                       |      |
| 0.37           | 510                     | *                                 | 8115/08                       |      |
|                | 608                     | *                                 | 8135/08                       |      |
| 0.55           | 608                     | *                                 | 8135/09                       |      |
| 0.75           | 756                     | *                                 | 8135/09                       |      |
|                | 1030                    | *                                 | 8145/09                       |      |
| 1.1            | 1810                    | *                                 | 8165/10                       |      |
| 1.5            | 1810                    | *                                 | 8165/10                       |      |
| 2.2            | 2750                    | *                                 | 8175/10                       |      |
|                | 2750                    | *                                 | 8175/11                       |      |
|                | 3810                    | 1.07                              | 8185/10                       |      |
| 3.0            | 4070                    | *                                 | 8185/13                       |      |
| 4.0            | 4070                    | *                                 | 8185/13                       |      |
| 5.5            | 7260                    | *                                 | 8195/13                       |      |
|                | 9510                    | 1.01                              | 8215/13                       |      |
| 7.5            | 9610                    | *                                 | 8215/13                       |      |
|                | 12800                   | *                                 | 8225/13                       |      |
| 11             | 12800                   | *                                 | 8225/17                       |      |
|                | 15500                   | *                                 | 8235/16                       |      |
|                | 1900                    | 1.05                              | 8245/16                       |      |
| 15             | 20300                   | *                                 | 8245/18                       |      |
|                | 25900                   | 1.02                              | 8255/17                       |      |
| 18.5           | 26500                   | *                                 | 8255/17                       |      |
| 22             | 35300                   | *                                 | 8265/19                       |      |
|                | 38000                   | 1.31                              | 8270/19                       |      |
| 30             | 49700                   | *                                 | 8270/19                       |      |
|                | 51900                   | 1.11                              | 8275/19                       |      |
| 37             | 57500                   | *                                 | 8275/19                       |      |

| Ratio          | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 473<br>(43×11) | 50                      | 3.2                               | 1500                          | 4    |
| Power<br>kw    | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09           | 25.5                    | *                                 | 8075/07                       |      |
|                | 51.0                    | *                                 | 8085/07                       |      |
|                | 128                     | *                                 | 8095/08                       |      |
|                | 255                     | 1.00                              | 8105/08                       |      |
| 0.18           | 510                     | *                                 | 8115/08                       |      |
| 0.37           | 765                     | *                                 | 8135/08                       |      |
|                | 948                     | 1.08                              | 8145/08                       |      |
| 0.55           | 1030                    | *                                 | 8145/09                       |      |
| 0.75           | 1030                    | *                                 | 8145/09                       |      |
|                | 1520                    | *                                 | 8165/09                       |      |
| 1.1            | 1810                    | *                                 | 8165/09                       |      |
| 1.5            | 2750                    | *                                 | 8175/10                       |      |
| 2.2            | 4070                    | *                                 | 8185/10                       |      |
| 3.0            | 5690                    | *                                 | 8195/11                       |      |
| 4.0            | 7260                    | *                                 | 8195/13                       |      |
|                | 8490                    | *                                 | 8205/13                       |      |
| 5.5            | 8490                    | *                                 | 8205/11                       |      |
|                | 11300                   | *                                 | 8215/13                       |      |
|                | 14100                   | 1.01                              | 8225/13                       |      |
| 7.5            | 14200                   | *                                 | 8225/13                       |      |
|                | 18100                   | *                                 | 8235/16                       |      |
| 11             | 23500                   | *                                 | 8245/16                       |      |
|                | 28200                   | 1.08                              | 8255/17                       |      |
| 15             | 30400                   | *                                 | 8255/19                       |      |
|                | 38700                   | 1.06                              | 8265/19                       |      |
| 18.5           | 40700                   | *                                 | 8265/19                       |      |
| 22             | 50500                   | *                                 | 8270/10                       |      |
|                | 56400                   | 1.07                              | 8275/19                       |      |
| 30             | 60500                   | *                                 | 8275/19                       |      |

| Ratio          | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 731<br>(43×17) | 50                      | 2.1                               | 1500                          | 4    |
| Power<br>kw    | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09           | 25.5                    | *                                 | 8075/07                       |      |
|                | 51.0                    | *                                 | 8085/07                       |      |
|                | 128                     | *                                 | 8095/08                       |      |
|                | 255                     | *                                 | 8105/08                       |      |
|                | 356                     | 1.44                              | 8115/08                       |      |
| 0.18           | 510                     | *                                 | 8115/08                       |      |
|                | 713                     | 1.11                              | 8135/08                       |      |
| 0.37           | 1030                    | *                                 | 8145/08                       |      |
|                | 1465                    | 1.08                              | 8165/09                       |      |
| 0.55           | 1520                    | *                                 | 8165/09                       |      |
| 0.75           | 1810                    | *                                 | 8165/09                       |      |
|                | 2750                    | *                                 | 8175/09                       |      |
| 1.1            | 3240                    | *                                 | 8185/10                       |      |
| 1.5            | 4070                    | *                                 | 8185/10                       |      |
|                | 5690                    | *                                 | 8195/11                       |      |
| 2.2            | 7260                    | *                                 | 8195/11                       |      |
| 3.0            | 8490                    | *                                 | 8205/13                       |      |
| 4.0            | 11300                   | *                                 | 8215/13                       |      |
|                | 14200                   | *                                 | 8225/13                       |      |
| 5.5            | 14200                   | *                                 | 8225/13                       |      |
|                | 18100                   | *                                 | 8235/16                       |      |
|                | 21800                   | 1.08                              | 8245/16                       |      |
| 7.5            | 23500                   | *                                 | 8245/16                       |      |
|                | 29700                   | 1.02                              | 8255/17                       |      |
| 11             | 30400                   | *                                 | 8255/17                       |      |
|                | 40700                   | *                                 | 8265/19                       |      |
| 15             | 40700                   | *                                 | 8265/19                       |      |
|                | 50500                   | *                                 | 8270/19                       |      |
|                | 59400                   | 1.02                              | 8275/19                       |      |
| 18.5           | 60800                   | *                                 | 8275/19                       |      |

## Remark:

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35-37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

**Selection table of Double model size combination.**

| Ratio          | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 841<br>(29×29) | 50                      | 1.8                               | 1500                          | 4    |
| Power<br>kw    | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09           | 25.5                    | *                                 | 8075/07                       |      |
|                | 51.0                    | *                                 | 8085/07                       |      |
|                | 128                     | *                                 | 8095/08                       |      |
|                | 255                     | *                                 | 8105/08                       |      |
|                | 410                     | 1.22                              | 8115/08                       |      |
| 0.18           | 510                     | *                                 | 8115/08                       |      |
|                | 765                     | *                                 | 8135/08                       |      |
| 0.37           | 1030                    | *                                 | 8145/08                       |      |
|                | 1686                    | 1.08                              | 8165/09                       |      |
| 0.55           | 1810                    | *                                 | 8165/09                       |      |
| 0.75           | 1810                    | *                                 | 8165/09                       |      |
|                | 2750                    | *                                 | 8175/10                       |      |
| 1.1            | 3240                    | *                                 | 8175/10                       |      |
| 1.5            | 4070                    | *                                 | 8185/10                       |      |
|                | 6840                    | 1.06                              | 8195/11                       |      |
| 2.2            | 7260                    | *                                 | 8195/11                       |      |
|                | 9610                    | *                                 | 8215/13                       |      |
| 3.0            | 9610                    | *                                 | 8215/13                       |      |
| 4.0            | 12800                   | *                                 | 8225/13                       |      |
|                | 16200                   | *                                 | 8235/16                       |      |
| 5.5            | 16200                   | *                                 | 8235/16                       |      |
|                | 20600                   | *                                 | 8245/16                       |      |
|                | 25100                   | 1.06                              | 8255/17                       |      |
| 7.5            | 26500                   | *                                 | 8255/17                       |      |
|                | 34100                   | 1.03                              | 8265/19                       |      |
| 11             | 35300                   | *                                 | 8265/19                       |      |
| 15             | 60800                   | *                                 | 8275/19                       |      |
| 18.5           | 60800                   | *                                 | 8275/19                       |      |

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 1003<br>(59×17) | 50                      | 1.5                               | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 51.0                    | *                                 | 8085/07                       |      |
|                 | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 489                     | 1.11                              | 8115/08                       |      |
|                 | 765                     | *                                 | 8135/08                       |      |
| 0.18            | 978                     | 1.11                              | 8145/08                       |      |
|                 | 1810                    | *                                 | 8165/09                       |      |
| 0.37            | 1810                    | *                                 | 8165/09                       |      |
| 0.75            | 2750                    | *                                 | 8175/10                       |      |
|                 | 4070                    | 1.00                              | 8185/10                       |      |
| 1.1             | 4070                    | *                                 | 8185/10                       |      |
| 1.5             | 4070                    | *                                 | 8185/10                       |      |
|                 | 6991                    | *                                 | 8195/11                       |      |
| 2.2             | 7260                    | *                                 | 8195/11                       |      |
|                 | 8490                    | *                                 | 8205/13                       |      |
|                 | 11300                   | *                                 | 8215/13                       |      |
| 3.0             | 11300                   | *                                 | 8215/13                       |      |
| 4.0             | 14200                   | *                                 | 8225/13                       |      |
|                 | 18100                   | *                                 | 8235/16                       |      |
|                 | 23500                   | *                                 | 8245/16                       |      |
| 5.5             | 29900                   | 1.02                              | 8255/17                       |      |
|                 | 30400                   | *                                 | 8255/17                       |      |
| 7.5             | 40700                   | 1.00                              | 8265/19                       |      |
|                 | 40700                   | *                                 | 8265/19                       |      |
| 11              | 59800                   | 1.02                              | 8275/19                       |      |
|                 | 40700                   | *                                 | 8265/19                       |      |
| 15              | 60800                   | *                                 | 8275/19                       |      |

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 1225<br>(35×35) | 50                      | 1.2                               | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 25.5                    | *                                 | 8075/07                       |      |
|                 | 51.0                    | *                                 | 8085/07                       |      |
|                 | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/08                       |      |
| 0.18            | 765                     | *                                 | 8135/08                       |      |
|                 | 1030                    | *                                 | 8145/08                       |      |
| 0.37            | 1810                    | *                                 | 8165/09                       |      |
| 0.55            | 2750                    | *                                 | 8175/09                       |      |
| 0.75            | 2750                    | *                                 | 8175/09                       |      |
|                 | 4070                    | *                                 | 8185/10                       |      |
| 1.5             | 5690                    | *                                 | 8190/11                       |      |
|                 | 7260                    | *                                 | 8195/11                       |      |
| 2.2             | 8490                    | *                                 | 8205/11                       |      |
|                 | 11300                   | *                                 | 8215/13                       |      |
| 3.0             | 14200                   | *                                 | 8225/13                       |      |
| 4.0             | 18100                   | *                                 | 8235/16                       |      |
|                 | 23500                   | *                                 | 8245/16                       |      |
| 5.5             | 30400                   | *                                 | 8255/19                       |      |
|                 | 36400                   | 1.11                              | 8265/19                       |      |
| 7.5             | 40700                   | *                                 | 8265/19                       |      |

**Remark:**

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35-37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

Selection table of Double model size combination.

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 1247<br>(43×29) | 50                      | 1.2                               | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 25.5                    | *                                 | 8075/07                       |      |
|                 | 51.0                    | *                                 | 8085/07                       |      |
|                 | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/08                       |      |
| 0.18            | 765                     | *                                 | 8135/08                       |      |
|                 | 1030                    | *                                 | 8145/08                       |      |
| 0.37            | 1810                    | *                                 | 8165/09                       |      |
| 0.75            | 2750                    | *                                 | 8175/10                       |      |
|                 | 4070                    | *                                 | 8185/10                       |      |
| 1.1             | 5690                    | *                                 | 8195/11                       |      |
| 1.5             | 7260                    | *                                 | 8195/11                       |      |
| 2.2             | 8480                    | *                                 | 8205/13                       |      |
|                 | 11300                   | *                                 | 8215/13                       |      |
|                 | 14200                   | *                                 | 8225/13                       |      |
| 3.0             | 14200                   | *                                 | 8225/13                       |      |
| 4.0             | 18100                   | *                                 | 8235/16                       |      |
|                 | 23500                   | *                                 | 8245/16                       |      |
| 5.5             | 23500                   | *                                 | 8245/16                       |      |
|                 | 30400                   | *                                 | 8255/17                       |      |
|                 | 37200                   | 1.10                              | 8265/19                       |      |
| 7.5             | 40700                   | *                                 | 8265/19                       |      |
|                 | 50500                   | *                                 | 8275/19                       |      |
| 11              | 50500                   | *                                 | 8275/19                       |      |
|                 | 60800                   | *                                 | 8275/19                       |      |

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 1479<br>(87×17) | 50                      | 1.0                               | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/08                       |      |
| 0.18            | 765                     | *                                 | 8135/09                       |      |
|                 | 1030                    | *                                 | 8145/08                       |      |
| 0.37            | 1810                    | *                                 | 8165/09                       |      |
|                 | 3220                    | *                                 | 8175/09                       |      |
| 0.55            | 2750                    | *                                 | 8175/09                       |      |
| 0.75            | 4070                    | *                                 | 8185/10                       |      |
| 1.1             | 7260                    | *                                 | 8195/11                       |      |
| 1.5             | 7260                    | *                                 | 8195/11                       |      |
|                 | 9420                    | *                                 | 8215/13                       |      |
| 2.2             | 12800                   | *                                 | 8225/13                       |      |
|                 | 16200                   | *                                 | 8235/16                       |      |
| 3.0             | 20600                   | *                                 | 8245/16                       |      |
| 4.0             | 20600                   | *                                 | 8245/18                       |      |
|                 | 26500                   | *                                 | 8255/17                       |      |
| 5.5             | 26500                   | *                                 | 8255/17                       |      |
|                 | 35300                   | *                                 | 8265/19                       |      |
|                 | 44000                   | 1.37                              | 8275/19                       |      |
| 7.5             | 50500                   | *                                 | 8275/19                       |      |
| 11              | 60800                   | *                                 | 8275/19                       |      |

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 1505<br>(43×35) | 50                      | 1.00                              | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 25.5                    | *                                 | 8075/07                       |      |
|                 | 51.0                    | *                                 | 8085/07                       |      |
|                 | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/08                       |      |
| 0.18            | 765                     | *                                 | 8135/08                       |      |
|                 | 1030                    | *                                 | 8145/08                       |      |
| 0.37            | 2750                    | *                                 | 8175/09                       |      |
| 0.55            | 4070                    | *                                 | 8185/10                       |      |
| 0.75            | 4070                    | *                                 | 8185/10                       |      |
|                 | 6115                    | 1.19                              | 8195/11                       |      |
| 1.5             | 8490                    | *                                 | 8205/13                       |      |
|                 | 9420                    | *                                 | 8215/13                       |      |
| 2.2             | 12800                   | *                                 | 8225/13                       |      |
|                 | 16200                   | *                                 | 8235/16                       |      |
| 4.0             | 20600                   | *                                 | 8245/16                       |      |
|                 | 26500                   | *                                 | 8255/17                       |      |
| 5.5             | 35300                   | *                                 | 8265/19                       |      |
|                 | 44700                   | 1.12                              | 8275/19                       |      |
| 7.5             | 50500                   | *                                 | 8275/19                       |      |
| 11              | 60800                   | *                                 | 8275/19                       |      |

## Remark:

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35-37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

## Selection table of Double model size combination.

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 1849<br>(43×43) | 50                      | 0.81                              | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 25.5                    | *                                 | 8075/08                       |      |
|                 | 51.0                    | *                                 | 8085/08                       |      |
|                 | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/08                       |      |
| 0.18            | 765                     | *                                 | 8135/09                       |      |
|                 | 1030                    | *                                 | 8145/08                       |      |
| 0.37            | 2750                    | *                                 | 8175/09                       |      |
| 0.75            | 4070                    | *                                 | 8185/10                       |      |
|                 | 7260                    | *                                 | 8195/11                       |      |
| 11              | 7260                    | *                                 | 8195/11                       |      |
| 1.5             | 8490                    | *                                 | 8205/11                       |      |
|                 | 11300                   | *                                 | 8215/13                       |      |
|                 | 14200                   | *                                 | 8225/13                       |      |
| 2.2             | 14200                   | *                                 | 8225/13                       |      |
|                 | 18100                   | *                                 | 8235/16                       |      |
|                 | 22100                   | 1.07                              | 8245/16                       |      |
| 3.0             | 23500                   | *                                 | 8245/16                       |      |
| 4.0             | 23500                   | *                                 | 8245/16                       |      |
|                 | 30400                   | *                                 | 8255/17                       |      |
| 5.5             | 40700                   | *                                 | 8265/19                       |      |
|                 | 50500                   | *                                 | 8270/19                       |      |
| 7.5             | 50500                   | *                                 | 8270/19                       |      |
|                 | 60800                   | *                                 | 8275/19                       |      |

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 2065<br>(59×35) | 50                      | 0.73                              | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 51.0                    | *                                 | 8085/07                       |      |
|                 | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/08                       |      |
|                 | 765                     | *                                 | 8135/08                       |      |
| 0.18            | 1030                    | *                                 | 8145/08                       |      |
|                 | 1810                    | *                                 | 8165/09                       |      |
| 0.37            | 2750                    | *                                 | 8175/09                       |      |
| 0.55            | 4070                    | *                                 | 8185/10                       |      |
| 0.75            | 7260                    | *                                 | 8195/11                       |      |
| 1.1             | 7260                    | *                                 | 8195/11                       |      |
| 1.5             | 11300                   | *                                 | 8215/13                       |      |
|                 | 14200                   | *                                 | 8225/13                       |      |
| 2.2             | 18100                   | *                                 | 8235/16                       |      |
|                 | 23500                   | *                                 | 8245/16                       |      |
| 3.0             | 23500                   | *                                 | 8245/16                       |      |
| 4.0             | 30400                   | *                                 | 8255/17                       |      |
| 5.5             | 40700                   | *                                 | 8265/19                       |      |
|                 | 50500                   | *                                 | 8270/19                       |      |
| 7.5             | 60800                   | *                                 | 8275/19                       |      |

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 2537<br>(59×43) | 50                      | 0.59                              | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 51.0                    | *                                 | 8085/07                       |      |
|                 | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/08                       |      |
|                 | 765                     | *                                 | 8135/08                       |      |
| 0.18            | 1030                    | *                                 | 8145/08                       |      |
|                 | 1810                    | *                                 | 8165/09                       |      |
| 0.37            | 4070                    | *                                 | 8185/10                       |      |
| 0.55            | 4070                    | *                                 | 8185/10                       |      |
| 0.75            | 7260                    | *                                 | 8195/11                       |      |
|                 | 8490                    | *                                 | 8205/11                       |      |
| 1.1             | 11300                   | *                                 | 8215/13                       |      |
| 1.5             | 11300                   | *                                 | 8215/13                       |      |
|                 | 14200                   | *                                 | 8225/13                       |      |
| 2.2             | 18100                   | *                                 | 8235/16                       |      |
|                 | 23500                   | *                                 | 8245/16                       |      |
| 3.0             | 30400                   | *                                 | 8255/17                       |      |
| 4.0             | 30400                   | *                                 | 8255/19                       |      |
| 5.5             | 40700                   | *                                 | 8265/19                       |      |
|                 | 50500                   | *                                 | 8270/19                       |      |
| 7.5             | 60800                   | *                                 | 8275/19                       |      |

### Remark:

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35-37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

Selection table of Double model size combination.

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 3045<br>(87×35) | 50                      | 0.49                              | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/08                       |      |
| 0.18            | 765                     | *                                 | 8135/08                       |      |
|                 | 1030                    | *                                 | 8145/08                       |      |
|                 | 1810                    | *                                 | 8165/09                       |      |
|                 | 2750                    | *                                 | 8175/09                       |      |
| 0.37            | 4070                    | *                                 | 8185/10                       |      |
| 0.55            | 4070                    | *                                 | 8185/10                       |      |
| 0.75            | 7260                    | *                                 | 8195/11                       |      |
| 1.1             | 9420                    | *                                 | 8215/13                       |      |
| 1.5             | 9420                    | *                                 | 8215/13                       |      |
|                 | 12800                   | *                                 | 8225/13                       |      |
| 2.2             | 16200                   | *                                 | 8235/16                       |      |
|                 | 20600                   | *                                 | 8245/16                       |      |
| 3.0             | 26500                   | *                                 | 8255/17                       |      |
| 4.0             | 26500                   | *                                 | 8255/17                       |      |
| 5.5             | 35300                   | *                                 | 8265/19                       |      |
|                 | 50500                   | *                                 | 8270/19                       |      |
| 7.5             | 60800                   | *                                 | 8275/19                       |      |

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 3481<br>(59×59) | 50                      | 0.43                              | 1500                          | 4    |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 128                     | *                                 | 8095/08                       |      |
|                 | 255                     | *                                 | 8105/08                       |      |
|                 | 510                     | *                                 | 8115/09                       |      |
| 0.18            | 765                     | *                                 | 8135/08                       |      |
|                 | 1030                    | *                                 | 8145/08                       |      |
|                 | 1810                    | *                                 | 8165/09                       |      |
|                 | 2750                    | *                                 | 8175/09                       |      |
| 0.37            | 4070                    | *                                 | 8185/10                       |      |
| 0.55            | 4070                    | *                                 | 8185/10                       |      |
| 0.75            | 7260                    | *                                 | 8195/11                       |      |
|                 | 8490                    | *                                 | 8205/11                       |      |
| 1.1             | 11300                   | *                                 | 8215/13                       |      |
| 1.5             | 11300                   | *                                 | 8215/13                       |      |
|                 | 14200                   | *                                 | 8225/13                       |      |
| 2.2             | 18100                   | *                                 | 8235/16                       |      |
|                 | 23500                   | *                                 | 8245/16                       |      |
| 3.0             | 30400                   | *                                 | 8255/17                       |      |
| 4.0             | 30400                   | *                                 | 8255/17                       |      |
| 5.5             | 40700                   | *                                 | 8265/19                       |      |
|                 | 50500                   | *                                 | 8270/19                       |      |
| 7.5             | 60800                   | *                                 | 8275/19                       |      |

| Ratio                     | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|---------------------------|-------------------------|-----------------------------------|-------------------------------|------|
|                           |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 5133<br>(87×59)<br>#59×87 | 50                      | 0.59                              | 1500                          | 4    |
| Power<br>kw               | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09                      | 128                     | *                                 | 8095/08                       |      |
|                           | 255                     | *                                 | 8105/08                       |      |
|                           | 510                     | *                                 | 8115/08                       |      |
| 0.18                      | 765                     | *                                 | 8135/08                       |      |
|                           | 1030                    | *                                 | 8145/08                       |      |
|                           | 1810                    | *                                 | 8165/09                       |      |
|                           | 2750                    | *                                 | 8175/09                       |      |
| 0.37                      | 4070                    | *                                 | 8185/10                       |      |
| 0.55                      | 4070                    | *                                 | 8185/10                       |      |
| 0.75                      | 7260                    | *                                 | 8195/11                       |      |
|                           | 8490                    | *                                 | #8205/11                      |      |
| 1.5                       | 11300                   | *                                 | #8215/13                      |      |
|                           | 14200                   | *                                 | #8225/13                      |      |
| 2.2                       | 18100                   | *                                 | #8235/16                      |      |
|                           | 23500                   | *                                 | #8245/16                      |      |
| 3.0                       | 30400                   | *                                 | #8255/17                      |      |
| 4.0                       | 30400                   | *                                 | #8255/17                      |      |
| 5.0                       | 40700                   | *                                 | #8265/19                      |      |
|                           | 50500                   | *                                 | #8270/19                      |      |
| 7.5                       | 60800                   | *                                 | #8275/19                      |      |

## Remark:

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35-37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

## Double selection table with 4 pole Motor

| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 6177<br>(59×59) | 50                      | 0.24                              | 1500                          | 4    |
|                 |                         |                                   |                               |      |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 510                     | *                                 | 8115/09                       |      |
| 0.18            | 765                     | *                                 | 8135/09                       |      |
|                 | 1030                    | *                                 | 8145/09                       |      |
|                 | 1810                    | *                                 | 8165/09                       |      |
|                 | 2750                    | *                                 | 8175/09                       |      |
| 0.37            | 4070                    | *                                 | 8185/10                       |      |
| 0.55            | 4070                    | *                                 | 8185/10                       |      |
| 0.75            | 7260                    | *                                 | 8195/11                       |      |
| 1.1             | 9420                    | *                                 | 8215/13                       |      |
| 1.5             | 9420                    | *                                 | 8215/13                       |      |
|                 | 12800                   | *                                 | 8225/13                       |      |
| 2.2             | 16200                   | *                                 | 8235/16                       |      |
|                 | 20600                   | *                                 | 8245/16                       |      |
| 3.0             | 26500                   | *                                 | 8255/17                       |      |
| 4.0             | 26500                   | *                                 | 8255/17                       |      |
| 5.5             | 35300                   | *                                 | 8265/19                       |      |
|                 | 50500                   | *                                 | 8270/19                       |      |
| 7.5             | 60800                   | *                                 | 8275/19                       |      |

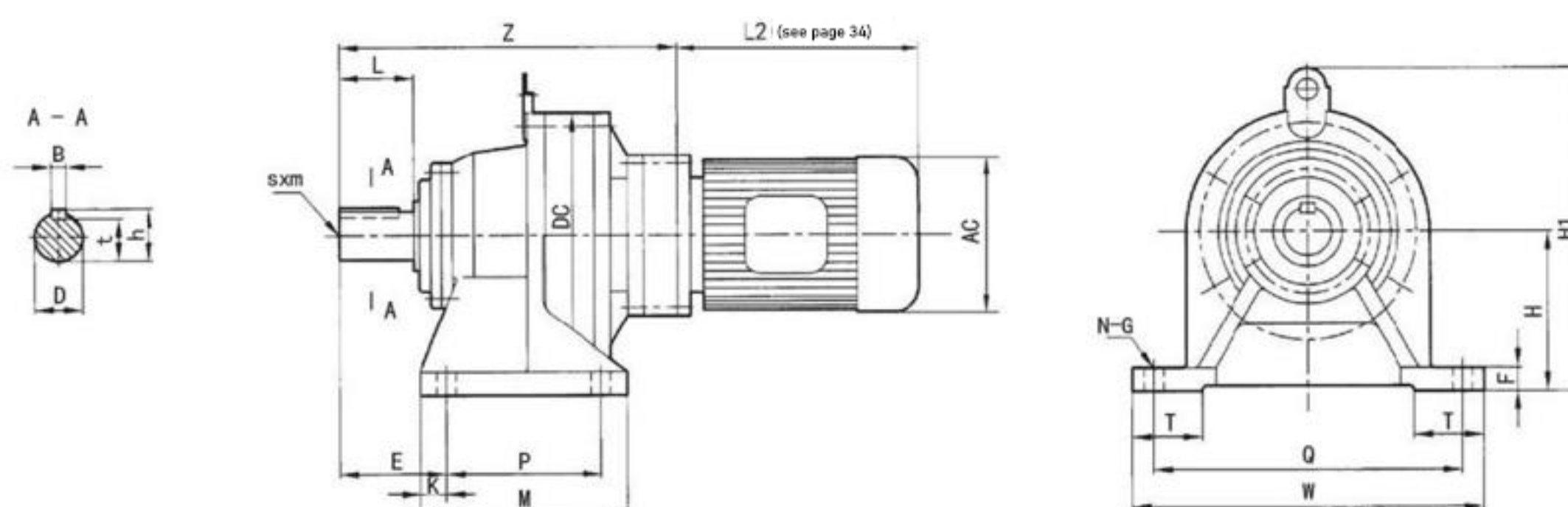
| Ratio           | Fre-<br>quency<br>Hz    | Motor<br>output<br>speed<br>r/min | Electromotor                  |      |
|-----------------|-------------------------|-----------------------------------|-------------------------------|------|
|                 |                         |                                   | Motor input<br>speed<br>r/min | Pole |
| 7569<br>(87×87) | 50                      | 0.43                              | 1500                          | 4    |
|                 |                         |                                   |                               |      |
| Power<br>kw     | Output<br>torque<br>N.m | Service<br>factor<br>K            | Type                          |      |
| 0.09            | 510                     | *                                 | 8115/09                       |      |
| 0.18            | 765                     | *                                 | 8135/09                       |      |
|                 | 1030                    | *                                 | 8145/09                       |      |
|                 | 1810                    | *                                 | 8165/09                       |      |
|                 | 2750                    | *                                 | 8175/09                       |      |
| 0.37            | 4070                    | *                                 | 8185/10                       |      |
| 0.55            | 4070                    | *                                 | 8185/10                       |      |
| 0.75            | 7260                    | *                                 | 8195/11                       |      |
| 1.1             | 9420                    | *                                 | 8215/13                       |      |
| 1.5             | 9420                    | *                                 | 8215/13                       |      |
|                 | 12800                   | *                                 | 8225/13                       |      |
| 2.2             | 16200                   | *                                 | 8235/16                       |      |
|                 | 20600                   | *                                 | 8245/16                       |      |
| 3.0             | 26500                   | *                                 | 8255/17                       |      |
| 4.0             | 26500                   | *                                 | 8255/17                       |      |
| 5.5             | 35300                   | *                                 | 8265/19                       |      |
|                 | 50500                   | *                                 | 8270/19                       |      |
| 7.5             | 60800                   | *                                 | 8275/19                       |      |

### Remark:

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35-37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

## Overall and installation dimensions chart of double-state connect-driectly and horizontal type speed reducer

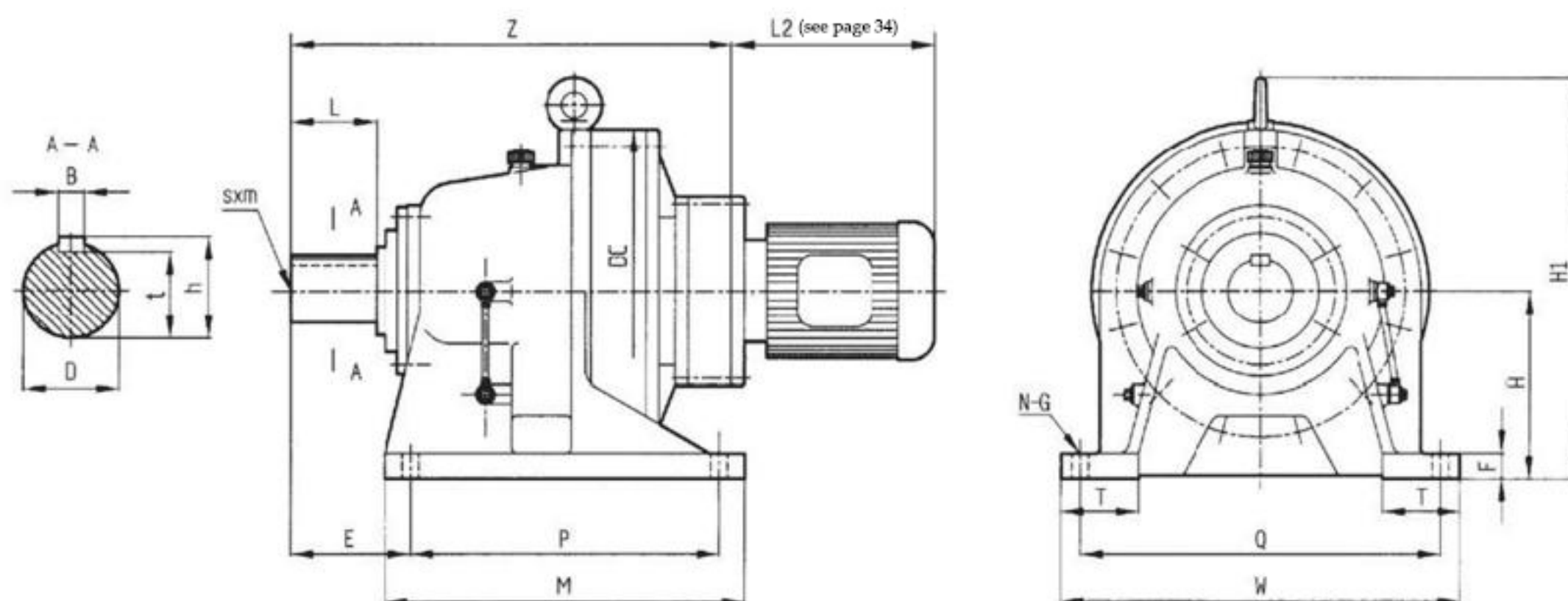
AXWED series 8065/06–8145/10



| Size<br>Type | Z   | H   | DC  | P   | Q   | M   | W   | E   | K  | H1  | F  | T  | N-G   | Output Terminal |    |    |      |      |        |
|--------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|----|-------|-----------------|----|----|------|------|--------|
|              |     |     |     |     |     |     |     |     |    |     |    |    |       | D               | L  | B  | t    | h    | s × m  |
| 8065/06      | 125 | 80  | 110 | 60  | 120 | 88  | 148 | 42  | 14 | 138 | 10 | 35 | 4-Φ9  | 14              | 25 | 5  | 11   | 16   | —      |
| 8075/06      | 131 | 80  | 110 | 60  | 120 | 88  | 148 | 47  | 14 | 138 | 10 | 35 | 4-Φ9  | 14              | 30 | 6  | 14.5 | 20.5 | —      |
| 8085/06      | 135 | 90  | 134 | 75  | 120 | 101 | 148 | 52  | 14 | 157 | 13 | 35 | 4-Φ9  | 22              | 35 | 6  | 18.5 | 25   | —      |
| 8095/07      | 190 | 100 | 150 | 90  | 150 | 130 | 180 | 60  | 15 | 207 | 15 | 40 | 4-Φ11 | 28              | 35 | 8  | 24   | 31   | —      |
| 8105/07      | 204 | 100 | 150 | 90  | 150 | 135 | 180 | 60  | 15 | 207 | 15 | 40 | 4-Φ11 | 28              | 35 | 8  | 24   | 31   | —      |
| 8115/07      | 240 | 120 | 204 | 115 | 190 | 155 | 230 | 82  | 20 | 257 | 15 | 55 | 4-Φ14 | 38              | 55 | 10 | 33   | 41   | —      |
| 8115/09      | 252 | 120 | 204 | 115 | 190 | 155 | 230 | 82  | 20 | 257 | 15 | 55 | 4-Φ14 | 38              | 55 | 10 | 33   | 41   | M10×18 |
| 8135/07      | 294 | 150 | 230 | 145 | 290 | 195 | 330 | 100 | 25 | 300 | 22 | 65 | 4-Φ18 | 50              | 70 | 14 | 44.5 | 53.5 | M10×18 |
| 8135/09      | 303 | 150 | 230 | 145 | 290 | 195 | 330 | 100 | 25 | 300 | 22 | 65 | 4-Φ18 | 50              | 70 | 14 | 44.5 | 53.5 | M10×18 |
| 8135/10      | 317 | 150 | 230 | 145 | 290 | 195 | 330 | 100 | 25 | 300 | 22 | 65 | 4-Φ18 | 50              | 70 | 14 | 44.5 | 53.5 | M10×18 |
| 8145/07      | 314 | 150 | 230 | 145 | 290 | 195 | 330 | 120 | 25 | 300 | 22 | 65 | 4-Φ18 | 50              | 90 | 14 | 44.5 | 53.5 | M10×18 |
| 8145/09      | 323 | 150 | 230 | 145 | 290 | 195 | 330 | 120 | 25 | 300 | 22 | 65 | 4-Φ18 | 50              | 90 | 14 | 44.5 | 53.5 | M10×18 |
| 8145/10      | 337 | 150 | 230 | 145 | 290 | 195 | 330 | 120 | 25 | 300 | 22 | 65 | 4-Φ18 | 50              | 90 | 14 | 44.5 | 53.5 | M10×18 |

## Overall and installation dimensions chart of double-state connect-driectly and horizontal type speed reducer

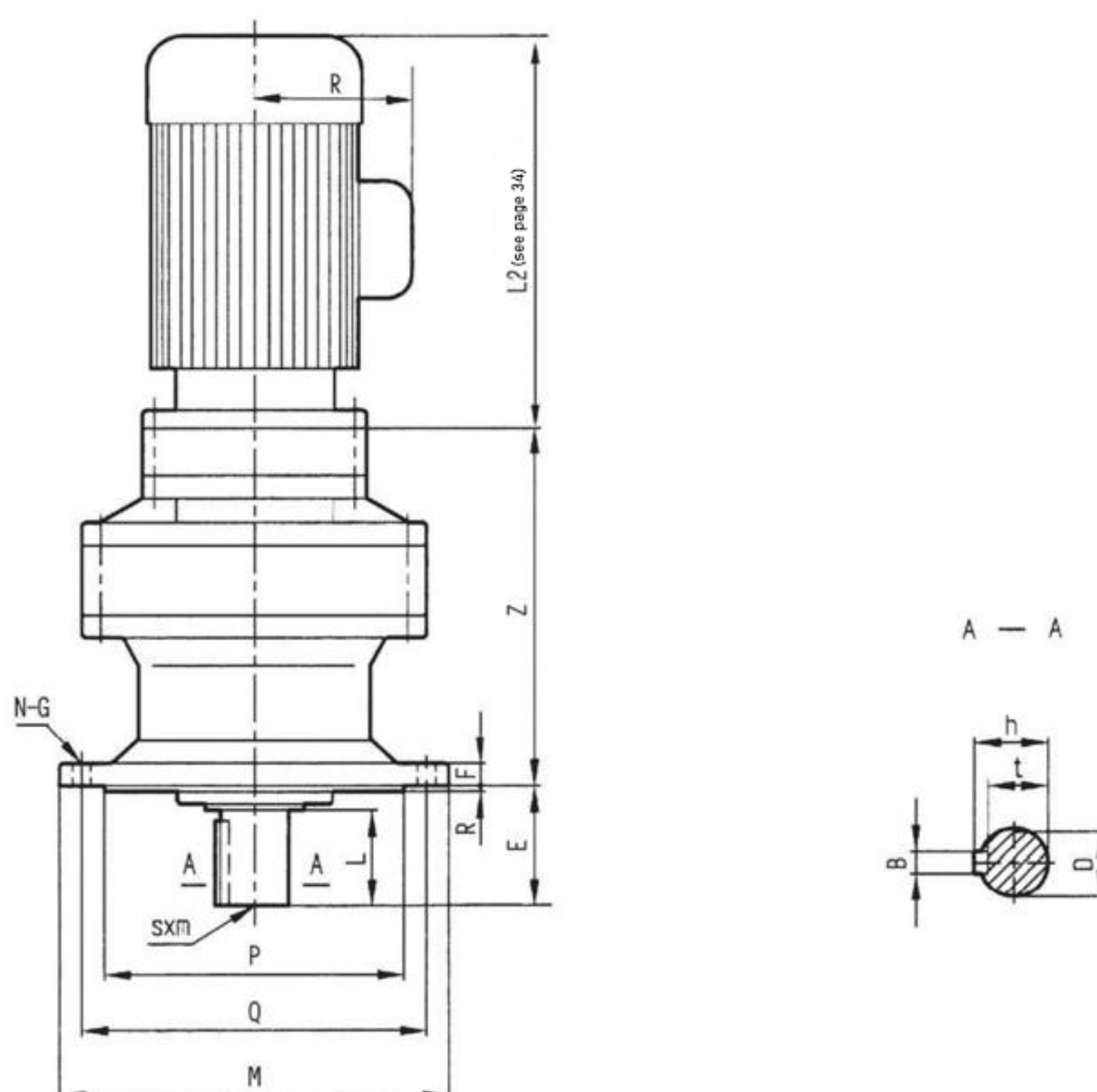
AXWED series 8165/09-8275/19



| Size<br>Type | Z    | H   | DC  | P     | Q    | M    | W    | E   | H1   | F  | T   | N-G   | Output Terminal |     |    |      |      |          |
|--------------|------|-----|-----|-------|------|------|------|-----|------|----|-----|-------|-----------------|-----|----|------|------|----------|
|              |      |     |     |       |      |      |      |     |      |    |     |       | D               | L   | B  | t    | h    | s x m    |
| 8165/09      | 373  | 160 | 300 | 150   | 370  | 238  | 410  | 139 | 356  | 25 | 75  | 4-Φ18 | 60              | 90  | 18 | 53   | 64   | M10 x 18 |
| 8165/10      | 384  | 160 | 300 | 150   | 370  | 238  | 410  | 139 | 356  | 25 | 75  | 4-Φ18 | 60              | 90  | 18 | 53   | 64   | M10 x 18 |
| 8165/11      | 389  | 160 | 300 | 150   | 370  | 238  | 410  | 139 | 356  | 25 | 75  | 4-Φ18 | 60              | 90  | 18 | 53   | 64   | M10 x 18 |
| 8175/09      | 418  | 200 | 340 | 275   | 380  | 335  | 430  | 125 | 425  | 30 | 80  | 4-Φ22 | 70              | 90  | 20 | 62.5 | 74.5 | M12 x 24 |
| 8175/10      | 432  | 200 | 340 | 275   | 380  | 335  | 430  | 125 | 425  | 30 | 80  | 4-Φ22 | 70              | 90  | 20 | 62.5 | 74.5 | M12 x 24 |
| 8175/11      | 436  | 200 | 340 | 275   | 380  | 335  | 430  | 125 | 425  | 30 | 80  | 4-Φ22 | 70              | 90  | 20 | 62.5 | 74.5 | M12 x 24 |
| 8185/10      | 474  | 220 | 370 | 320   | 420  | 380  | 470  | 145 | 460  | 30 | 85  | 4-Φ22 | 80              | 110 | 22 | 71   | 85   | M12 x 24 |
| 8185/13      | 496  | 220 | 370 | 320   | 420  | 380  | 470  | 145 | 460  | 30 | 85  | 4-Φ22 | 80              | 110 | 22 | 71   | 85   | M12 x 24 |
| 8195/11      | 556  | 250 | 430 | 380   | 480  | 440  | 530  | 170 | 529  | 35 | 90  | 4-Φ26 | 95              | 135 | 25 | 86   | 100  | M20 x 34 |
| 8195/13      | 572  | 250 | 430 | 380   | 480  | 440  | 530  | 170 | 529  | 35 | 90  | 4-Φ26 | 95              | 135 | 25 | 86   | 100  | M20 x 34 |
| 8205/11      | 602  | 250 | 448 | 360   | 440  | 440  | 530  | 215 | 530  | 35 | 100 | 4-Φ26 | 100             | 165 | 28 | 90   | 106  | M20 x 34 |
| 8205/13      | 628  | 250 | 448 | 360   | 440  | 440  | 530  | 215 | 530  | 35 | 100 | 4-Φ26 | 100             | 165 | 28 | 90   | 106  | M20 x 34 |
| 8215/13      | 650  | 265 | 485 | 395   | 480  | 475  | 580  | 210 | 575  | 40 | 110 | 4-Φ26 | 110             | 165 | 28 | 100  | 116  | M20 x 34 |
| 8215/16      | 675  | 265 | 485 | 395   | 480  | 475  | 580  | 210 | 575  | 40 | 110 | 4-Φ26 | 110             | 165 | 28 | 100  | 116  | M20 x 34 |
| 8215/17      | 692  | 280 | 526 | 420   | 540  | 520  | 620  | 230 | 610  | 40 | 115 | 4-Φ33 | 120             | 165 | 32 | 109  | 127  | M20 x 34 |
| 8235/16      | 736  | 280 | 526 | 420   | 540  | 520  | 620  | 230 | 610  | 40 | 115 | 4-Φ33 | 120             | 165 | 32 | 109  | 127  | M20 x 34 |
| 8235/18      | 778  | 300 | 562 | 460   | 580  | 560  | 670  | 260 | 667  | 45 | 120 | 4-Φ33 | 130             | 200 | 32 | 119  | 137  | M24 x 41 |
| 8245/16      | 800  | 300 | 562 | 460   | 580  | 560  | 670  | 260 | 667  | 45 | 120 | 4-Φ33 | 130             | 200 | 32 | 119  | 137  | M24 x 41 |
| 8245/18      | 816  | 335 | 614 | 480   | 630  | 580  | 720  | 263 | 729  | 45 | 128 | 4-Φ39 | 140             | 200 | 36 | 128  | 148  | M24 x 41 |
| 8255/18      | 837  | 335 | 614 | 480   | 630  | 580  | 720  | 263 | 729  | 45 | 128 | 4-Φ39 | 140             | 200 | 36 | 128  | 148  | M24 x 41 |
| 8255/17      | 956  | 375 | 670 | 520   | 670  | 630  | 780  | 320 | 815  | 50 | 140 | 4-Φ39 | 160             | 240 | 40 | 147  | 169  | M24 x 49 |
| 8255/19      | 978  | 375 | 670 | 520   | 670  | 630  | 780  | 320 | 815  | 50 | 140 | 4-Φ39 | 160             | 240 | 40 | 147  | 169  | M24 x 49 |
| 8265/19      | 1088 | 400 | 736 | 590   | 770  | 764  | 880  | 390 | 874  | 55 | 160 | 4-Φ45 | 170             | 300 | 40 | 157  | 179  | M30 x 49 |
| 8275/19      | 1351 | 540 | 950 | 420x2 | 1050 | 1046 | 1160 | 485 | 1163 | 60 | 200 | 6-Φ45 | 180             | 330 | 45 | 165  | 190  | M42 x 80 |

# Overall and installation dimensions chart of double-state connect-driectly and vertical type speed reducer

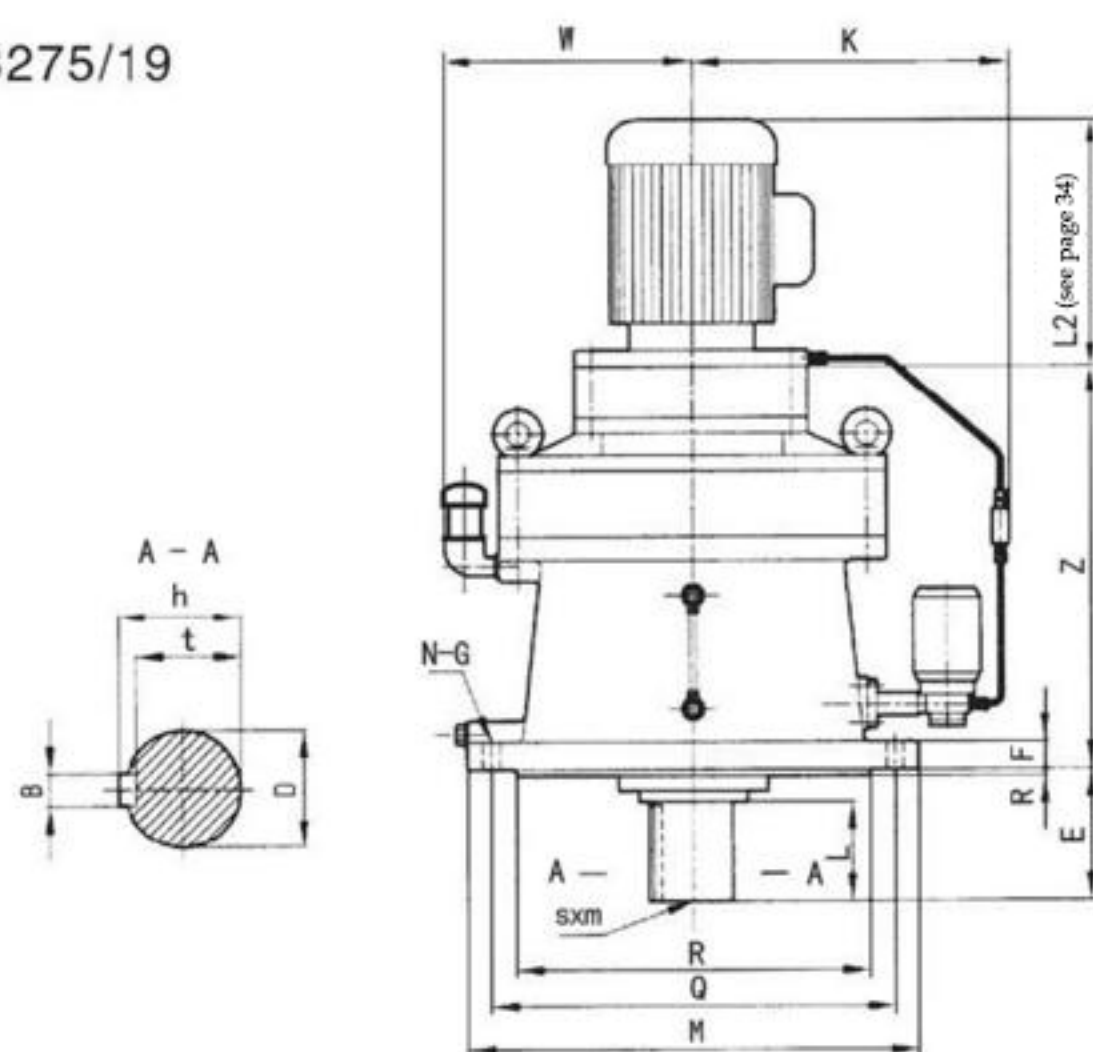
AXLED series 8065/06-8145/10



| Size<br>Type | Z   | E  | F  | R | M   | Q   | P   | N-G   | Output Terminal |    |    |      |      |        |
|--------------|-----|----|----|---|-----|-----|-----|-------|-----------------|----|----|------|------|--------|
|              |     |    |    |   |     |     |     |       | D               | L  | B  | t    | h    | s x m  |
| 8065/06      | 111 | 34 | 8  | 3 | 120 | 102 | 80  | 6-Φ9  | 14              | 25 | 5  | 11   | 16   | -      |
| 8075/06      | 124 | 42 | 9  | 3 | 160 | 134 | 110 | 4-Φ11 | 18              | 30 | 6  | 14.5 | 20.5 | -      |
| 8085/06      | 135 | 48 | 9  | 3 | 160 | 134 | 110 | 4-Φ11 | 18              | 30 | 6  | 14.5 | 20.5 | -      |
| 8095/07      | 142 | 48 | 9  | 3 | 160 | 134 | 110 | 4-Φ11 | 28              | 35 | 8  | 24   | 31   | -      |
| 8105/07      | 156 | 48 | 9  | 3 | 160 | 134 | 110 | 4-Φ11 | 28              | 35 | 8  | 24   | 31   | -      |
| 8115/07      | 171 | 69 | 13 | 4 | 210 | 180 | 140 | 6-Φ11 | 38              | 55 | 10 | 33   | 41   | -      |
| 8115/09      | 183 | 69 | 13 | 4 | 210 | 180 | 140 | 6-Φ11 | 38              | 55 | 10 | 33   | 41   | -      |
| 8135/07      | 218 | 76 | 15 | 4 | 260 | 230 | 200 | 6-Φ11 | 50              | 61 | 14 | 44.5 | 53.5 | M10×18 |
| 8135/09      | 227 | 76 | 15 | 4 | 260 | 230 | 200 | 6-Φ11 | 50              | 61 | 14 | 44.5 | 53.5 | M10×18 |
| 8135/10      | 241 | 76 | 15 | 4 | 260 | 230 | 200 | 6-Φ11 | 50              | 61 | 14 | 44.5 | 53.5 | M10×18 |
| 8145/07      | 218 | 96 | 15 | 4 | 260 | 230 | 200 | 6-Φ11 | 50              | 61 | 14 | 44.5 | 53.5 | M10×18 |
| 8145/09      | 227 |    |    |   |     |     |     |       |                 |    |    |      |      |        |
| 8145/10      | 241 |    |    |   |     |     |     |       |                 |    |    |      |      |        |

## Overall and installation dimensions chart of double-state connect-driectly and vertical type speed reducer

AXLED series 8165/09-8275/19



| Size<br>Type | Z   | E   | F  | R  | M   | Q   | P   | N-G    | K   | W   | Output Terminal |     |    |      |      |          |
|--------------|-----|-----|----|----|-----|-----|-----|--------|-----|-----|-----------------|-----|----|------|------|----------|
|              |     |     |    |    |     |     |     |        |     |     | D               | L   | B  | t    | h    | S × m    |
| 8165/10      | 285 | 89  | 20 | 4  | 340 | 310 | 270 | 6-Φ11  | 217 | 200 | 60              | 80  | 18 | 53   | 64   | M10 × 18 |
| 8165/11      | 299 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8165/11      | 300 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8175/10      | 324 | 94  | 22 | 5  | 400 | 360 | 316 | 8-Φ14  | 222 | 225 | 70              | 84  | 20 | 62.5 | 74.5 | M12 × 24 |
| 8175/11      | 338 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8175/13      | 342 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8185/10      | 364 | 110 | 22 | 5  | 430 | 390 | 345 | 8-Φ18  | 237 | 240 | 80              | 100 | 22 | 71   | 85   | M12 × 24 |
| 8185/13      | 386 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8195/13      | 411 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8195/16      | 427 | 145 | 30 | 6  | 490 | 450 | 400 | 12-Φ18 | 360 | 200 | 95              | 125 | 25 | 86   | 100  | M20 × 34 |
| 8205/11      | 398 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8205/13      | 424 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8215/16      | 447 | 203 | 35 | 7  | 490 | 440 | 390 | 8-Φ24  | 400 | 290 | 110             | 165 | 28 | 106  | 116  | M20 × 34 |
| 8215/17      | 472 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8225/16      | 482 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8225/17      | 526 | 210 | 35 | 10 | 535 | 475 | 415 | 8-Φ27  | 400 | 326 | 120             | 165 | 32 | 116  | 127  | M20 × 34 |
| 8235/16      | 529 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8235/18      | 551 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8245/17      | 566 | 250 | 40 | 10 | 635 | 560 | 485 | 8-Φ33  | 420 | 365 | 140             | 200 | 36 | 137  | 148  | M24 × 41 |
| 8245/18      | 587 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8255/18      | 661 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8255/19      | 684 | 295 | 45 | 10 | 685 | 610 | 535 | 8-Φ33  | 432 | 425 | 160             | 240 | 40 | 148  | 169  | M30 × 49 |
| 8265/19      | 728 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |
| 8275/19      | 994 |     |    |    |     |     |     |        |     |     |                 |     |    |      |      |          |

Remark: the "K" size is the distance of centerline of speed reducer to the oil indicator, and this size is forced lubrication of oil pump, others lubrication means have no "K" size.

Double-stage and double shaft type reducer selection table

( Input speed ) 1500r/min

| Ratio                 | 99<br>( 11×9 ) |               | 121<br>( 11×11 ) |               | 187<br>( 17×11 ) |               | 289<br>( 17×17 ) |               | 319<br>( 29×11 ) |               | 473<br>( 43×11 ) |               | 595<br>( 35×17 ) |               | 649<br>( 59×11 ) |               | 731<br>( 43×17 ) |               | 841<br>( 29×29 ) |               | 1003<br>( 59×17 ) |               |
|-----------------------|----------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|------------------|---------------|-------------------|---------------|
| Output speed<br>r/min | 15.1           |               | 12               |               | 8.0              |               | 5.2              |               | 4.7              |               | 3.2              |               | 2.5              |               | 2.3              |               | 2.1              |               | 1.8              |               | 1.5               |               |
| Model                 | Power<br>kW    | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW      | Torque<br>N·m | Power<br>kW       | Torque<br>N·m |
| 8075/06               | —              | —             | 0.10             | *25.5         | 0.10             | *25.5         | 0.10             | *25.5         | 0.10             | *25.5         | 0.10             | *25.5         | 0.10             | *25.5         | —                | —             | 0.10             | *25.5         | 0.10             | *25.5         | —                 | —             |
| 8085/06               | —              | —             | 0.10             | *46.0         | 0.10             | *25.5         | 0.10             | *51.0         | 0.10             | *51.0         | 0.10             | *51.0         | 0.10             | *51.0         | 0.10             | *51.0         | 0.10             | *51.0         | 0.10             | *51.0         | 0.10              | *51.0         |
| 8095/07               | —              | —             | 0.16             | 106           | 0.12             | 128           | 0.10             | *128          | 0.10             | *128          | 0.10             | *128          | 0.10             | *128          | 0.10             | *128          | 0.10             | *128          | 0.10             | *128          | 0.10              | *128          |
| 8105/07               | —              | —             | 0.31             | 206           | 0.25             | 255           | 0.15             | 255           | 0.15             | 255           | 0.10             | *255          | 0.10             | *255          | 0.10             | *255          | 0.10             | *255          | 0.10             | *255          | 0.10              | *255          |
| 8115/07               | —              | —             | 0.40             | 262           | 0.40             | 405           | 0.32             | 510           | 0.30             | 510           | 0.20             | 510           | 0.17             | 510           | 0.17             | 510           | 0.13             | 510           | 0.11             | 510           | 0.10              | *510          |
| 8115/09               | —              | —             | 0.76             | 497           | 0.50             | 510           | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8135/09               | —              | —             | —                | —             | —                | —             | —                | —             | —                | —             | 0.30             | 765           | 0.23             | 765           | 0.22             | 765           | 0.20             | *765          | 0.20             | *765          | 0.20              | *765          |
| 8135/10               | —              | —             | 1.06             | 695           | 0.75             | 765           | 0.49             | 765           | 0.44             | 765           | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8135/11               | 1.36           | 579           | 1.17             | 765           | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8145/09               | —              | —             | —                | —             | —                | —             | —                | —             | —                | —             | 0.40             | 1030          | 0.32             | 1030          | 0.29             | 1030          | 0.26             | 1030          | 0.23             | 1030          | 0.20              | *1030         |
| 8145/10               | —              | —             | —                | —             | 0.85             | 860           | 0.65             | 1030          | 0.60             | 1030          | 0.40             | 1030          | —                | —             | —                | —             | —                | —             | 0.23             | 1030          | —                 | —             |
| 8145/11               | 1.83           | 982           | 1.45             | 951           | 0.98             | 1000          | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8165/09               | —              | —             | —                | —             | —                | —             | 1.05             | 1810          | 1.05             | 1810          | 0.71             | 1810          | 0.56             | 1810          | 0.52             | 1810          | 0.46             | 1810          | 0.40             | 1810          | 0.40              | *1810         |
| 8165/10               | —              | —             | —                | —             | 1.78             | 1810          | 1.23             | 1810          | 1.05             | 1810          | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8165/11               | 3.22           | 1727          | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8175/11               | —              | —             | —                | —             | —                | —             | —                | —             | —                | —             | 1.06             | 2730          | 0.85             | 2730          | 0.78             | 2750          | 0.69             | 2750          | 0.60             | 2750          | 0.51              | 2750          |
| 8175/11               | —              | —             | —                | —             | 2.71             | 2750          | 1.75             | 2750          | 1.59             | 2750          | 1.07             | 2750          | 0.85             | 2750          | 0.78             | 2750          | —                | —             | 0.60             | 2750          | —                 | —             |
| 8175/13               | 4.87           | 2612          | 3.89             | 2750          | 2.71             | 2750          | 1.75             | 2750          | 1.59             | 2750          | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8185/10               | —              | —             | —                | —             | —                | —             | 2.60             | 4070          | 2.35             | 4070          | 1.59             | 4070          | 1.26             | 4070          | 1.16             | 4070          | 1.03             | 4070          | 0.89             | 4070          | 0.75              | *4070         |
| 8185/13               | —              | —             | 5.00             | 3340          | 4.02             | 4070          | 2.60             | 4070          | 2.35             | 4070          | —                | —             | 1.26             | 4070          | 1.16             | 4070          | —                | —             | —                | —             | —                 | —             |
| 8195/13               | —              | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | 1.67             | 6600          | 1.59             | 7260          | 1.29              | 6990          |
| 8195/16               | —              | —             | —                | —             | 6.00             | 6079          | 4.51             | 7060          | 4.20             | 7060          | 2.83             | 7260          | 2.25             | 7260          | 2.06             | 7260          | 1.83             | 7260          | 1.59             | 7260          | 1.34              | 7260          |
| 8205/13               | —              | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8205/16               | —              | —             | 8.69             | 5690          | 6.79             | 6870          | 4.51             | 7060          | 4.20             | 7060          | 3.31             | 8490          | 2.64             | 8490          | 2.41             | 8490          | 2.20             | *8490         | —                | —             | 2.20              | *8490         |
| 8215/13               | —              | —             | 9.91             | 6500          | 8.39             | 8490          | 5.43             | 8490          | 5.56             | 8490          | 4.40             | 11300         | 3.51             | 11300         | 3.21             | 11300         | 2.85             | 11300         | 2.20             | *9610         | 2.20              | *11300        |
| 8215/16               | —              | —             | 11.1             | 7260          | 8.39             | 8490          | 5.43             | 8490          | 5.56             | 8490          | 4.40             | 11300         | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8225/16               | —              | —             | —                | —             | —                | —             | 7.23             | 11300         | 7.38             | 11300         | 5.55             | 14200         | 4.41             | 14200         | 4.04             | 14200         | 3.59             | 14200         | 2.80             | 12800         | 2.62              | 14200         |
| 8225/17               | —              | —             | 14.5             | 9480          | 11.7             | 11300         | 7.23             | 11300         | 7.38             | 11300         | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8235/16               | —              | —             | 17.2             | 11300         | 13.9             | 14100         | 9.08             | 14200         | 8.99             | 14200         | 7.08             | 18100         | 5.62             | 18100         | 5.16             | 18100         | 4.58             | 18100         | 3.55             | 16200         | 3.34              | 18100         |
| 8235/18               | —              | —             | 17.2             | 11300         | 13.9             | 14100         | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8245/17               | —              | —             | —                | —             | 17.2             | 17400         | 11.6             | 18100         | 11.6             | 18100         | 9.18             | 23500         | 7.30             | 23500         | 6.69             | 23500         | 5.94             | 23500         | 4.52             | 20600         | 4.43              | 23500         |
| 8245/18               | —              | —             | 21.7             | 14200         | 17.9             | 18100         | 11.6             | 18100         | 11.7             | 18100         | 9.18             | 23500         | 7.30             | 23500         | 6.69             | 23000         | —                | —             | —                | —             | —                 | —             |
| 8255/18               | —              | —             | 27.5             | 18100         | 23.2             | 23500         | 15.0             | 23500         | 15.3             | 23500         | 11.9             | 30400         | 9.44             | 30400         | 8.65             | 30400         | 7.68             | 30400         | 5.81             | 26500         | 5.59              | 30400         |
| 8255/19               | —              | —             | 27.7             | 18100         | 23.2             | 23500         | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                | —             | —                 | —             |
| 8265/19               | —              | —             | 35.9             | 23500         | 30.0             | 30400         | 19.4             | 30400         | 20.1             | 30400         | 15.9             | 40700         | 12.6             | 40700         | 11.6             | 40700         | 10.3             | 40700         | 7.75             | 35300         | 7.49              | 40700         |
| 8275/19               | —              | —             | —                | —             | —                | —             | —                | —             | 28.8             | —             | 19.7             | 50500         | —                | —             | 14.4             | 50500         | 12.8             | 50500         | 11.1             | 50500         | 9.29              | 20500         |

## Remark:

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8275/19, 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35-37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

## Double-stage and double shaft type reducer selection table

( Input speed ) 1500r/min

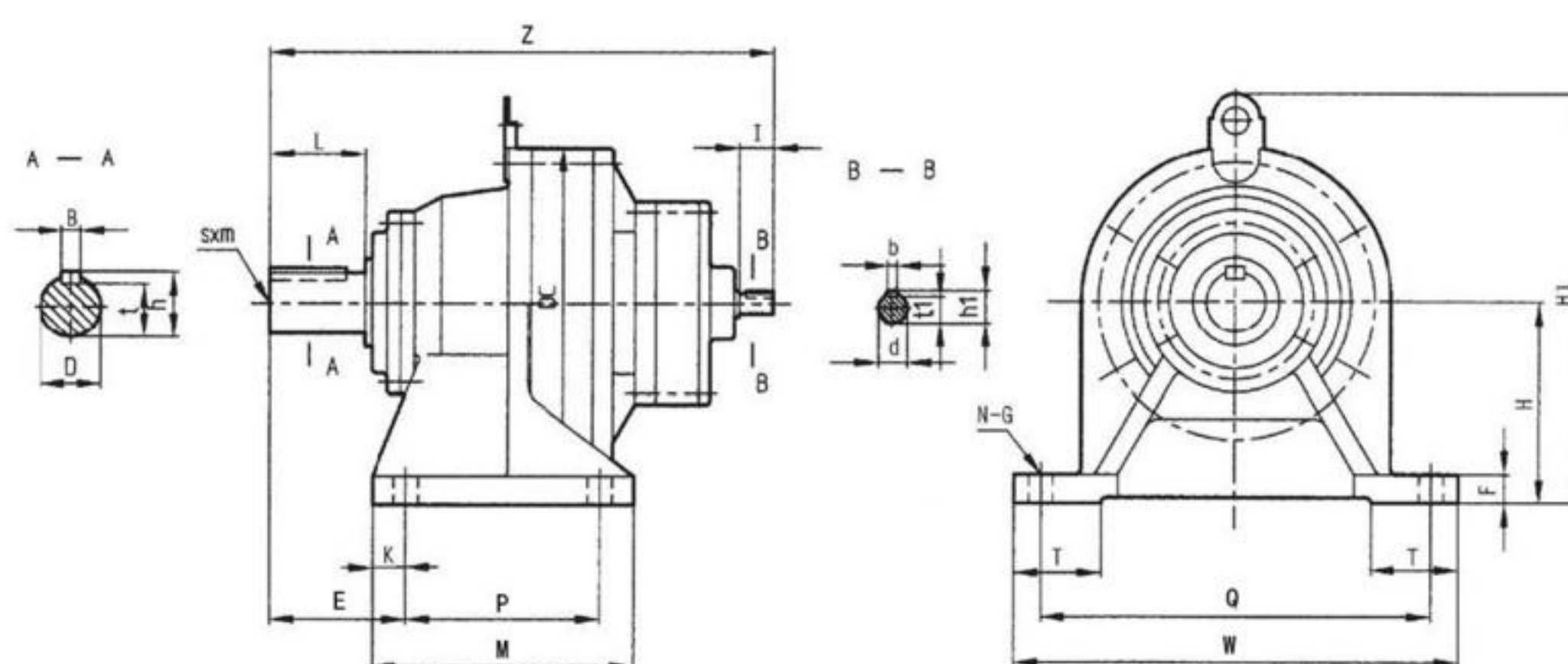
| Ratio                 | 1225<br>( 35×35 ) |               | 1247<br>( 43×29 ) |               | 1479<br>( 87×17 ) |               | 1505<br>( 43×35 ) |               | 1849<br>( 43×43 ) |               | 2065<br>( 59×35 ) |               | 2537<br>( 59×43 ) |               | 3045<br>( 87×35 ) |               | 3481<br>( 59×59 ) |               | 5133<br>( 87×59 )<br># ( 59×87 ) |               | 6177<br>( 87×71 ) |               | 7569<br>( 87×87 ) |               |
|-----------------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|----------------------------------|---------------|-------------------|---------------|-------------------|---------------|
| Output speed<br>r/min | 1.2               |               | 1.2               |               | 1                 |               | 0.99              |               | 0.81              |               | 0.73              |               | 0.59              |               | 0.49              |               | 0.43              |               | 0.29                             |               | 0.24              |               | 0.20              |               |
| Model                 | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW                      | Torque<br>N·m | Power<br>kW       | Torque<br>N·m | Power<br>kW       | Torque<br>N·m |
| 8075/06               | 0.10              | *25.5         | 0.10              | *25.5         | —                 | —             | 0.10              | *25.5         | 0.10              | *25.5         | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8085/06               | 0.10              | *51.0         | 0.10              | *51.0         | —                 | —             | 0.10              | *51.0         | 0.10              | *51.0         | 0.10              | *51.0         | 0.10              | *51.0         | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8095/07               | 0.10              | *128          | 0.10              | *128          | 0.10              | *128          | 0.10              | *128          | 0.10              | *128          | 0.10              | *128          | 0.10              | *128          | 0.10              | *128          | 0.10              | *128          | 0.10                             | *128          | —                 | —             | —                 | —             |
| 8105/07               | 0.10              | *255          | 0.10              | *255          | 0.10              | *255          | 0.10              | *255          | 0.10              | *255          | 0.10              | *255          | 0.10              | *255          | 0.10              | *255          | 0.10              | *255          | 0.10                             | *255          | —                 | —             | —                 | —             |
| 8115/07               | 0.10              | *510          | 0.10              | *510          | 0.10              | *510          | 0.10              | *510          | 0.10              | *510          | 0.10              | *510          | 0.10              | *510          | 0.10              | *510          | 0.10              | *510          | 0.10                             | *510          | —                 | —             | —                 | —             |
| 8115/09               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | 0.10              | *510          | 0.10              | *510          |
| 8135/09               | 0.20              | *765          | 0.20              | *765          | 0.20              | *765          | 0.20              | *765          | 0.20              | *765          | 0.20              | *765          | 0.20              | *765          | 0.20              | *765          | 0.20              | *765          | 0.20                             | *765          | —                 | —             | —                 | —             |
| 8135/10               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | 0.20              | *765          | 0.20              | *765          |
| 8135/11               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8145/09               | 0.20              | *1030         | 0.20              | *1030         | 0.20              | *1030         | 0.20              | *1030         | 0.20              | *1030         | 0.20              | *1030         | 0.20              | *1030         | 0.20              | *1030         | 0.20              | *1030         | 0.20                             | *1030         | —                 | —             | —                 | —             |
| 8145/10               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | 0.20              | *1030         | 0.20              | *1030         |
| 8145/11               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8165/09               | 0.40              | *1810         | 0.40              | *1810         | 0.40              | *1810         | 0.20              | *1810         | 0.20              | *1810         | 0.20              | *1810         | 0.20              | *1810         | 0.20              | *1810         | 0.20              | *1810         | 0.20                             | *1810         | 0.20              | *1810         | 0.20              | *1810         |
| 8165/10               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8165/11               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8175/11               | 0.41              | 2750          | 0.41              | 2750          | 0.40              | *2750         | 0.40              | *2750         | 0.40              | *2750         | 0.40              | *2750         | 0.20              | *2750         | 0.20              | *2750         | 0.20              | *2750         | 0.20                             | #2750         | 0.20              | #2750         | 0.20              | #2750         |
| 8175/11               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8175/13               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8185/10               | 0.75              | *4070         | 0.75              | *4070         | 0.75              | *4070         | 0.75              | *4070         | 0.75              | *4070         | 0.40              | *4070         | 0.40              | *4070         | 0.40              | *4070         | 0.40              | *4070         | 0.40                             | *4070         | 0.40              | *4070         | 0.40              | *4070         |
| 8185/13               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8195/13               | 1.07              | 7260          | 1.07              | 7260          | 0.91              | 7260          | 0.75              | *7260         | 0.75              | *7260         | 0.75              | *7260         | 0.75              | *7260         | 0.75              | *7260         | 0.75              | *7260         | 0.75                             | *7260         | 0.75              | *7260         | 0.75              | *7260         |
| 8195/16               | 1.09              | 7260          | —                 | —             | 0.91              | 7260          | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8205/13               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | 1.50              | *8120         | —                 | —             | 0.75              | *8420         | —                 | —             | 0.75              | *8490         | #0.75                            | *8490         | —                 | —             | —                 | —             |
| 8205/16               | 2.20              | *8490         | 2.20              | *8490         | —                 | —             | 1.50              | *8490         | 1.50              | *8490         | 1.50              | *8490         | 0.75              | *8490         | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8215/13               | 2.20              | *11300        | 2.20              | *11300        | 1.50              | *9420         | 1.50              | *9420         | 1.50              | *11300        | 1.50              | *11300        | 1.50              | *11300        | 1.50              | *9420         | 1.50              | *11300        | #1.50                            | *11300        | 1.50              | *9420         | 1.50              | *9420         |
| 8215/16               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8225/16               | 2.20              | *14200        | 2.20              | *14200        | 2.20              | *12800        | 2.20              | *12800        | 1.50              | *14200        | 1.50              | *14200        | 1.50              | *14200        | 1.50              | *12800        | 1.50              | *14200        | #1.50                            | *14200        | 1.50              | *12800        | 1.50              | *12800        |
| 8225/17               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8235/16               | 2.73              | 18100         | 2.69              | 18100         | 2.20              | *16200        | 2.20              | *16200        | 2.20              | *18100        | 2.20              | *18100        | 2.20              | *18100        | 2.20              | *16200        | 2.20              | *18100        | #2.20                            | *18100        | 2.20              | *16200        | 2.20              | *16200        |
| 8235/18               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8245/17               | 3.54              | 23500         | 3.48              | 23500         | 2.57              | 20600         | 2.53              | 20600         | 2.35              | 23500         | 2.20              | *23500        | 2.20              | *23500        | 2.20              | *20600        | 2.20              | *23500        | #2.20                            | *23500        | 2.20              | *20600        | 2.20              | *20600        |
| 8245/18               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8255/18               | 4.59              | 30400         | 4.50              | 30400         | 3.70              | *26500        | 3.70              | *26500        | 3.70              | *30400        | 3.70              | *30400        | 3.70              | *30400        | 3.70              | *26500        | 3.70              | *30400        | #3.70                            | *30400        | 3.70              | *26500        | 3.70              | *26500        |
| 8255/19               | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                 | —             | —                                | —             | —                 | —             | —                 | —             |
| 8265/19               | 6.14              | 40700         | 6.02              | 40700         | 5.50              | *35300        | 5.50              | *35300        | 5.50              | *40700        | 5.50              | *40700        | 5.50              | *40700        | 5.50              | *35300        | 5.50              | *40700        | #5.50                            | *40700        | 5.50              | *35300        | 5.50              | *35300        |
| 8275/19               | —                 | —             | 7.48              | 50500         | 6.30              | 50500         | 6.20              | 50500         | 5.50              | *50500        | 5.50              | *50500        | 5.50              | *50500        | 5.50              | *50500        | 5.50              | *50500        | 5.50                             | *50500        | 5.50              | *50500        | 5.50              | *50500        |

### Remark:

1. service factor with \* that means can not use the full power of motor, it shall be under the allowable torque of output shaft, in order to protect the host, the user add one safety device please.
2. if you choose 8275/19, 8265/19, contact with the manufacturer please.
3. the allowable radial loading of kinks of type, look at P35–37 Please, when you choose one type.
4. the general principle of ratio combination of double-stage is: the high speed port is the small ratio, and the low speed port is the big ratio.

# Overall and installation dimensions chart of double-state and double shaft and horizontal type speed reducer

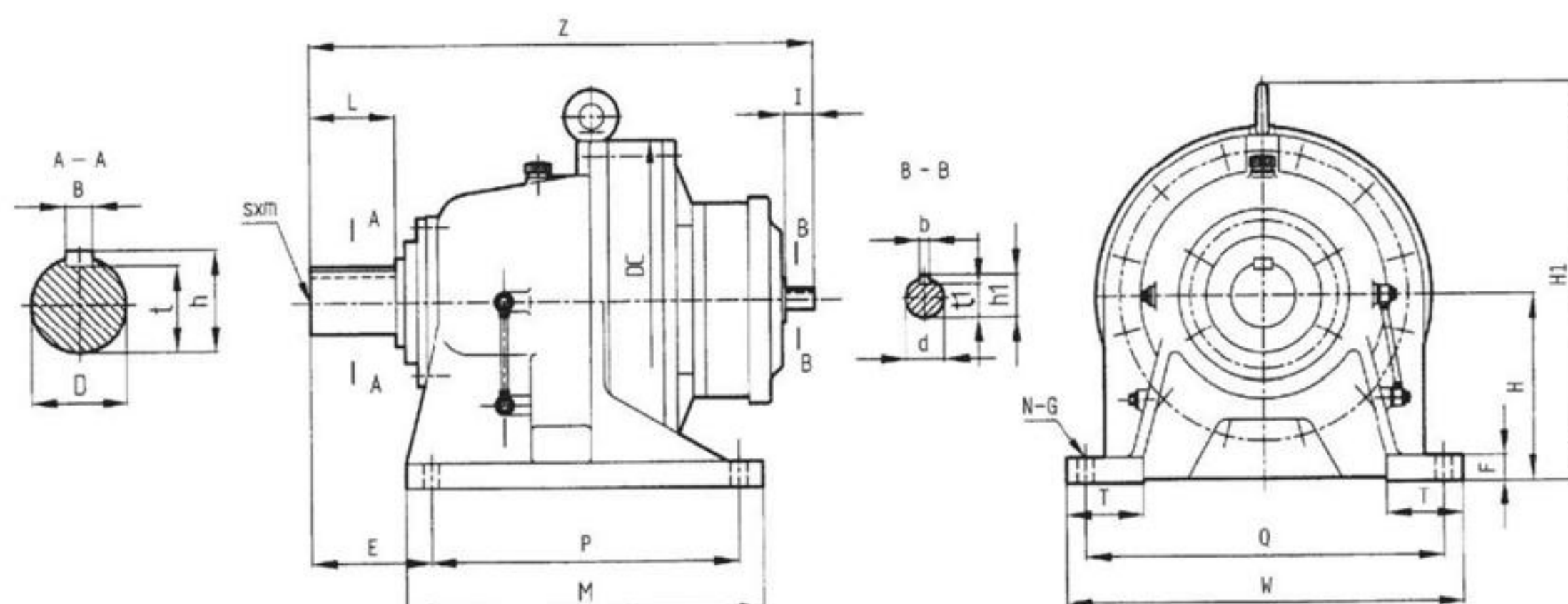
AXWE series 8065/06-8145/10



| Type \ Size | Z   | H   | DC  | P   | Q   | M   | W   | E   | K  | H1  | F  | T  | N-G   | Input Terminal |    |   |     |      | Output Terminal |    |    |      |      | Weight<br>kg |       |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|----|-------|----------------|----|---|-----|------|-----------------|----|----|------|------|--------------|-------|
|             |     |     |     |     |     |     |     |     |    |     |    |    |       | d              | l  | b | t1  | h1   | D               | L  | B  | t    | h    |              | s × m |
| 8065/06     | 178 | 80  | 110 | 60  | 120 | 88  | 148 | 42  | 14 | 135 | 10 | 35 | 4-Φ9  | 12             | 25 | 4 | 9.5 | 13.5 | 14              | 25 | 5  | 11   | 16   | -            | 4.5   |
| 8075/06     | 184 | 80  | 110 | 60  | 120 | 88  | 148 | 47  | 14 | 135 | 10 | 35 | 4-Φ9  | 12             | 25 | 4 | 9.5 | 13.5 | 18              | 30 | 6  | 14.5 | 20.5 | -            | 4.5   |
| 8085/06     | 218 | 90  | 134 | 75  | 120 | 101 | 148 | 52  | 14 | 157 | 13 | 35 | 4-Φ9  | 12             | 25 | 4 | 9.5 | 13.5 | 22              | 35 | 6  | 18.5 | 25   | -            | 5.2   |
| 8095/07     | 243 | 100 | 150 | 90  | 150 | 135 | 180 | 60  | 15 | 207 | 15 | 40 | 4-Φ11 | 12             | 25 | 4 | 9.5 | 13.5 | 28              | 35 | 8  | 24   | 31   | -            | 13    |
| 8105/07     | 257 | 100 | 150 | 90  | 150 | 135 | 180 | 60  | 15 | 207 | 15 | 40 | 4-Φ11 | 12             | 25 | 4 | 9.5 | 13.5 | 28              | 35 | 8  | 24   | 31   | -            | 16    |
| 8115/07     | 293 | 120 | 204 | 115 | 190 | 155 | 230 | 82  | 20 | 257 | 15 | 55 | 4-Φ14 | 12             | 25 | 4 | 9.5 | 13.5 | 38              | 55 | 10 | 33   | 41   | -            | 25    |
| 8115/09     | 312 |     |     |     |     |     |     |     |    |     |    |    |       | 15             | 25 | 5 | 12  | 17   |                 |    |    |      |      |              | 30    |
| 8135/07     | 347 | 150 | 230 | 145 | 290 | 195 | 330 | 100 | 25 | 300 | 22 | 65 | 4-Φ18 | 12             | 25 | 4 | 9.5 | 13.5 | 50              | 70 | 14 | 44.5 | 53.5 | M10 × 18     | 42    |
| 8135/09     | 363 | 150 | 230 | 145 | 290 | 195 | 330 | 100 | 25 | 300 | 22 | 65 | 4-Φ18 | 15             | 25 | 5 | 12  | 17   | 50              | 70 | 14 | 44.5 | 53.5 | M10 × 18     | 46    |
| 8135/10     | 369 | 150 | 230 | 145 | 290 | 195 | 330 | 100 | 25 | 300 | 22 | 65 | 4-Φ18 | 15             | 25 | 5 | 12  | 17   | 50              | 70 | 14 | 44.5 | 53.5 | M10 × 18     | 51    |
| 8145/07     | 367 | 150 | 230 | 145 | 290 | 195 | 330 | 120 | 25 | 300 | 22 | 65 | 4-Φ18 | 12             | 25 | 4 | 9.5 | 13.5 | 50              | 90 | 14 | 44.5 | 53.5 | M10 × 18     | 41    |
| 8145/09     | 383 |     |     |     |     |     |     |     |    |     |    |    |       | 15             | 25 | 5 | 12  | 17   |                 |    |    |      |      |              | 46    |
| 8145/10     | 389 |     |     |     |     |     |     |     |    |     |    |    |       | 15             | 25 | 5 | 12  | 17   |                 |    |    |      |      |              | 51    |

## Overall and installation dimensions chart of double-state and double-shaft and vertical type speed reducer

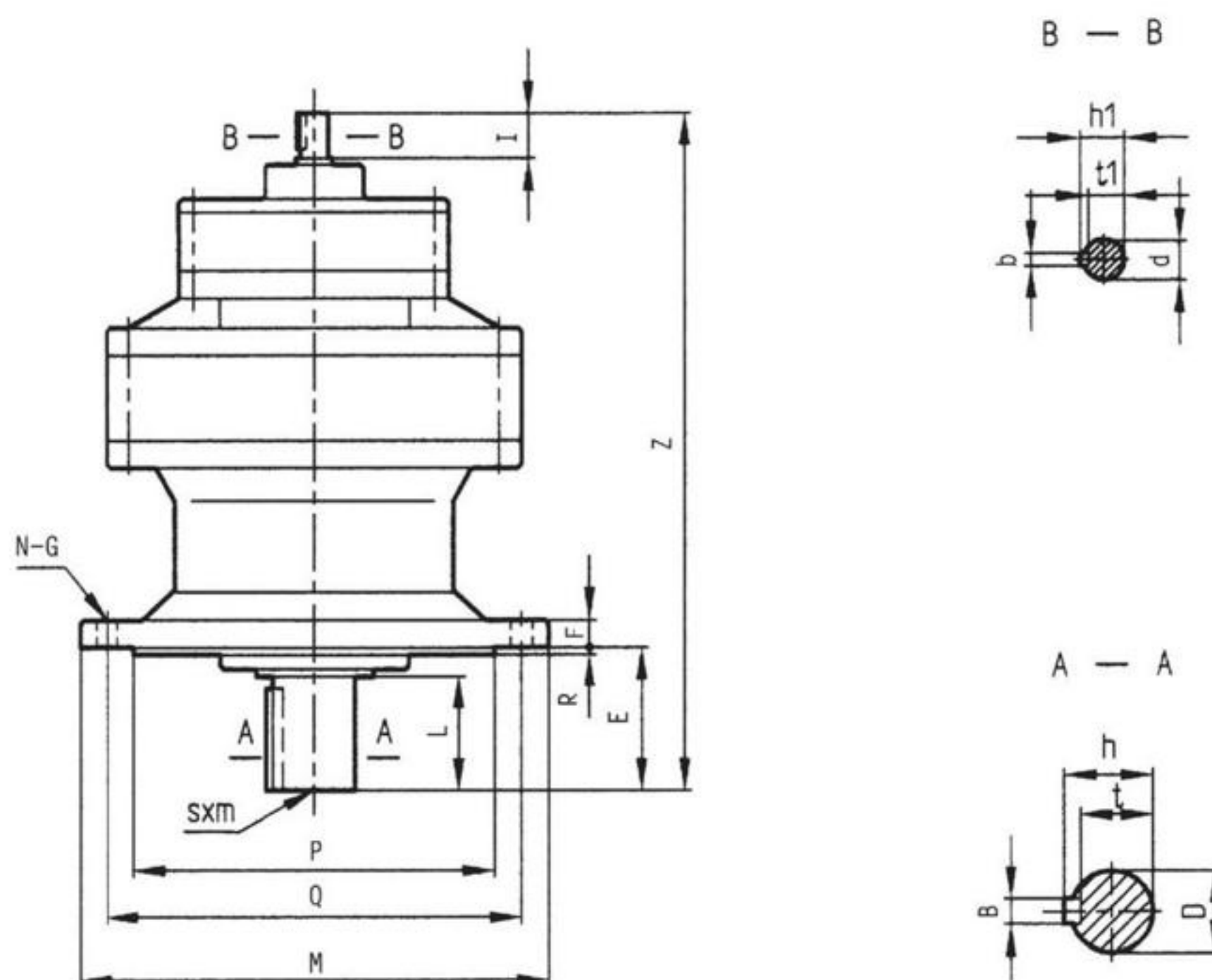
AXWE series 8165/09-8275/19



| Type    | Size | Z   | H   | DC    | P    | Q    | M    | W   | E    | H1 | F   | T     | N-G | Input Terminal |    |      |      |     | Output Terminal |    |      |      |          | Weight kg |
|---------|------|-----|-----|-------|------|------|------|-----|------|----|-----|-------|-----|----------------|----|------|------|-----|-----------------|----|------|------|----------|-----------|
|         |      |     |     |       |      |      |      |     |      |    |     |       |     | d              | l  | b    | t1   | h1  | D               | L  | B    | t    | h        | s x m     |
| 8165/09 | 433  | 160 | 300 | 150   | 370  | 238  | 410  | 139 | 356  | 25 | 75  | 4-Φ18 | 15  | 25             | 5  | 12   | 17   | 60  | 90              | 18 | 53   | 64   | M10 x 18 | 86        |
| 8165/10 | 439  | 160 | 300 | 150   | 370  | 238  | 410  | 139 | 356  | 25 | 75  | 4-Φ18 | 15  | 25             | 5  | 12   | 17   | 60  | 90              | 18 | 53   | 64   | M10 x 18 | 88        |
| 8165/11 | 462  | 160 | 300 | 150   | 370  | 238  | 410  | 139 | 356  | 25 | 75  | 4-Φ18 | 18  | 35             | 6  | 14.5 | 20.5 | 60  | 90              | 18 | 53   | 64   | M10 x 18 | 94        |
| 8175/09 | 478  | 200 | 340 | 275   | 380  | 335  | 430  | 125 | 425  | 30 | 80  | 4-Φ22 | 15  | 25             | 5  | 12   | 17   | 70  | 90              | 20 | 62.5 | 74.5 | M12 x 24 | 120       |
| 8175/10 | 484  | 200 | 340 | 275   | 380  | 335  | 430  | 125 | 425  | 30 | 80  | 4-Φ22 | 15  | 25             | 5  | 12   | 17   | 70  | 90              | 20 | 62.5 | 74.5 | M12 x 24 | 125       |
| 8175/11 | 509  | 200 | 340 | 275   | 380  | 335  | 430  | 125 | 425  | 30 | 80  | 4-Φ22 | 18  | 35             | 6  | 14.5 | 20.5 | 70  | 90              | 20 | 62.5 | 74.5 | M12 x 24 | 130       |
| 8185/10 | 526  | 220 | 370 | 320   | 420  | 380  | 470  | 145 | 460  | 30 | 85  | 4-Φ22 | 15  | 25             | 5  | 12   | 17   | 80  | 110             | 22 | 71   | 85   | M12 x 24 | 166       |
| 8185/13 | 577  | 220 | 370 | 320   | 420  | 380  | 470  | 145 | 460  | 30 | 85  | 4-Φ22 | 22  | 40             | 6  | 18.5 | 24.5 | 80  | 110             | 22 | 71   | 85   | M12 x 24 | 185       |
| 8195/13 | 629  | 250 | 430 | 380   | 480  | 440  | 530  | 170 | 529  | 35 | 90  | 4-Φ26 | 18  | 35             | 6  | 14.5 | 20.5 | 95  | 135             | 25 | 86   | 100  | M20 x 34 | 240       |
| 8195/16 | 653  | 250 | 430 | 380   | 480  | 440  | 530  | 170 | 529  | 35 | 90  | 4-Φ26 | 22  | 40             | 6  | 18.5 | 24.5 | 95  | 135             | 25 | 86   | 100  | M20 x 34 | 250       |
| 8205/13 | 670  | 250 | 448 | 360   | 440  | 440  | 530  | 215 | 530  | 35 | 100 | 4-Φ26 | 18  | 35             | 6  | 14.5 | 20.5 | 100 | 165             | 28 | 90   | 106  | M20 x 34 | 261       |
| 8205/16 | 705  |     |     |       |      |      |      |     |      |    |     |       | 22  | 40             | 6  | 18.5 | 24.5 |     |                 |    |      |      |          | 275       |
| 8215/13 | 731  | 365 | 485 | 395   | 480  | 475  | 580  | 210 | 575  | 40 | 110 | 4-Φ26 | 22  | 40             | 6  | 18.5 | 24.5 | 110 | 165             | 28 | 100  | 116  | M20 x 34 | 355       |
| 8215/16 | 780  |     |     |       |      |      |      |     |      |    |     |       | 30  | 45             | 8  | 26   | 33   |     |                 |    |      |      |          | 375       |
| 8225/16 | 773  | 280 | 526 | 420   | 540  | 520  | 620  | 230 | 610  | 40 | 115 | 4-Φ33 | 22  | 40             | 6  | 18.5 | 24.5 | 120 | 165             | 32 | 109  | 127  | M20 x 34 | 430       |
| 8225/17 | 860  |     |     |       |      |      |      |     |      |    |     |       | 35  | 55             | 10 | 30   | 38   |     |                 |    |      |      |          | 475       |
| 8235/16 | 883  | 300 | 562 | 460   | 580  | 560  | 670  | 260 | 667  | 45 | 120 | 4-Φ33 | 30  | 45             | 8  | 26   | 33   | 130 | 200             | 32 | 119  | 137  | M24 x 41 | 550       |
| 8235/18 | 938  |     |     |       |      |      |      |     |      |    |     |       | 40  | 65             | 12 | 35   | 43   |     |                 |    |      |      |          | 583       |
| 8245/17 | 921  | 335 | 614 | 480   | 630  | 580  | 720  | 263 | 729  | 45 | 128 | 4-Φ39 | 30  | 45             | 8  | 26   | 33   | 140 | 200             | 36 | 128  | 148  | M24 x 41 | 655       |
| 8245/18 | 975  |     |     |       |      |      |      |     |      |    |     |       | 40  | 65             | 12 | 35   | 43   |     |                 |    |      |      |          | 688       |
| 8255/18 | 1081 | 375 | 670 | 520   | 670  | 630  | 780  | 320 | 815  | 50 | 140 | 4-Φ39 | 35  | 55             | 10 | 30   | 38   | 160 | 240             | 40 | 147  | 169  | M30 x 49 | 1012      |
| 8255/19 | 1133 |     |     |       |      |      |      |     |      |    |     |       | 45  | 70             | 14 | 39.5 | 48.5 |     |                 |    |      |      |          | 1087      |
| 8265/19 | 1243 | 400 | 736 | 590   | 770  | 700  | 880  | 390 | 874  | 55 | 160 | 4-Φ45 | 45  | 70             | 14 | 39.5 | 48.5 | 170 | 300             | 40 | 157  | 179  | M30 x 49 | 1540      |
| 8275/19 | 1504 | 540 | 950 | 420x2 | 1050 | 1040 | 1160 | 485 | 1161 | 60 | 200 | 6-Φ45 | 45  | 70             | 14 | 39.5 | 48.5 | 180 | 330             | 45 | 165  | 190  | M42 x 80 | 2740      |

## Overall and installation dimensions chart of double-state and double-shaft and vertical type speed reducer

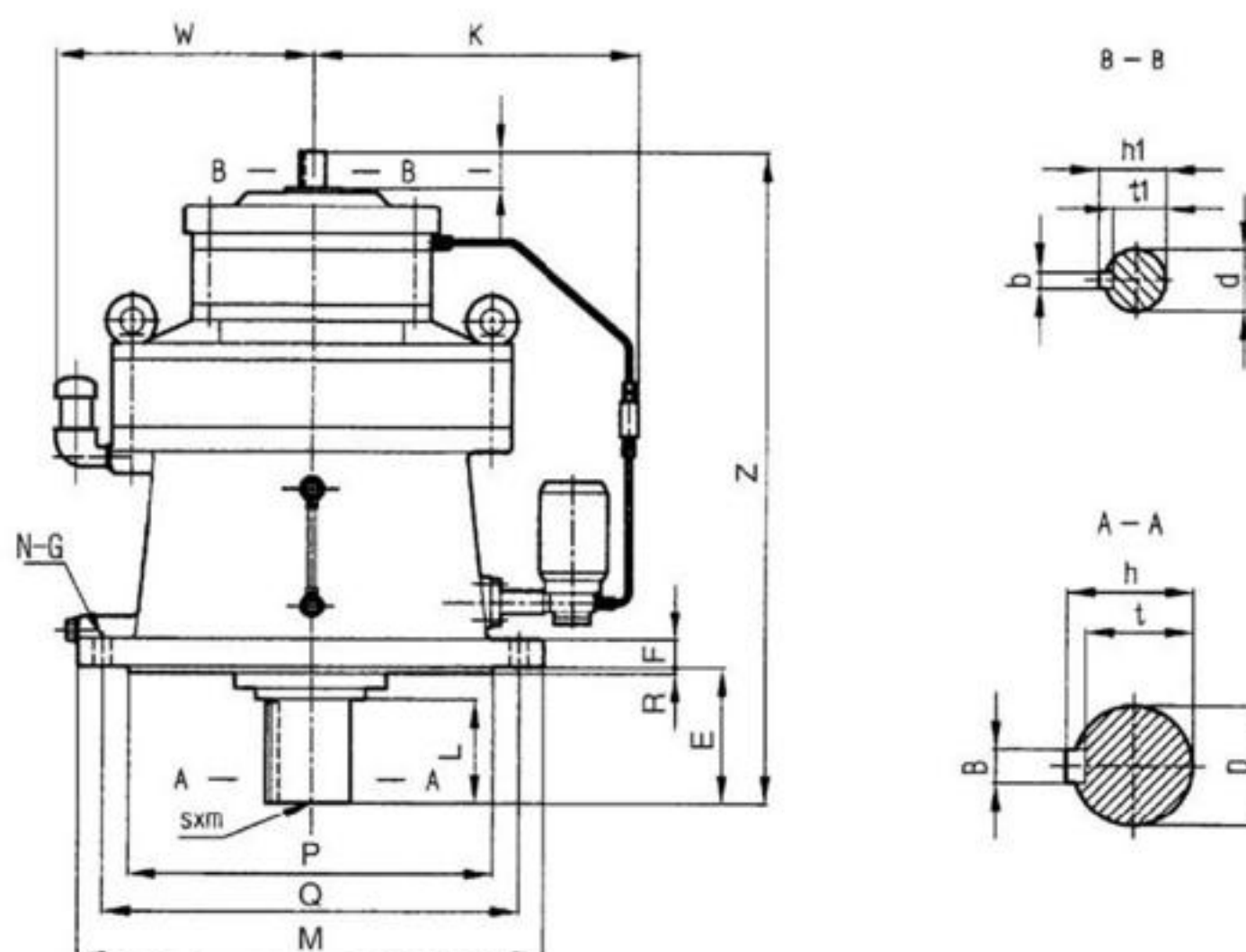
AXLE series 8165/06-8145/10



| Size<br>Type | Z   | R | F  | E  | N-G   | M   | Q   | P   | Input Terminal |    |   |     |      | Output Terminal |    |    |      |      |        | Weight |
|--------------|-----|---|----|----|-------|-----|-----|-----|----------------|----|---|-----|------|-----------------|----|----|------|------|--------|--------|
|              |     |   |    |    |       |     |     |     | d              | l  | b | t1  | h1   | D               | L  | B  | h    | t    | s×m    |        |
| 8065/06      | 178 | 3 | 8  | 34 | 6-Φ9  | 120 | 102 | 80  | 12             | 25 | 4 | 9.5 | 13.5 | 14              | 25 | 5  | 16   | 11   | -      | 4.3    |
| 8075/06      | 184 | 3 | 9  | 42 | 4-Φ11 | 160 | 134 | 110 | 12             | 25 | 4 | 9.5 | 13.5 | 18              | 30 | 6  | 20.5 | 14.5 | -      | 4.3    |
| 8085/06      | 215 | 3 | 9  | 48 | 4-Φ9  | 160 | 134 | 110 | 12             | 25 | 4 | 9.5 | 13.5 | 22              | 35 | 6  | 18.5 | 25   | -      | 5.2    |
| 8095/07      | 243 | 3 | 9  | 48 | 4-Φ11 | 160 | 134 | 110 | 12             | 25 | 4 | 9.5 | 13.5 | 28              | 35 | 8  | 31   | 24   | -      | 13     |
| 8105/07      | 257 | 3 | 9  | 48 | 4-Φ11 | 160 | 134 | 110 | 12             | 25 | 4 | 9.5 | 13.5 | 28              | 35 | 8  | 31   | 24   | -      | 16     |
| 8115/07      | 293 | 4 | 13 | 69 | 6-Φ11 | 210 | 180 | 140 | 12             | 25 | 4 | 9.5 | 13.5 | 38              | 55 | 10 | 41   | 33   | -      | 25     |
| 8115/09      | 312 |   |    |    |       |     |     |     | 15             | 25 | 5 | 12  | 17   |                 |    |    |      |      |        | 30     |
| 8135/07      | 347 | 4 | 15 | 76 | 6-Φ11 | 260 | 230 | 200 | 12             | 25 | 4 | 9.5 | 13.5 | 50              | 61 | 14 | 53.5 | 44.5 | M10×18 | 42     |
| 8135/09      | 363 | 4 | 15 | 76 | 6-Φ11 | 260 | 230 | 200 | 15             | 25 | 5 | 12  | 17   | 50              | 61 | 14 | 53.5 | 44.5 | M10×18 | 46     |
| 8135/10      | 369 | 4 | 15 | 76 | 6-Φ11 | 260 | 230 | 200 | 15             | 25 | 5 | 12  | 17   | 50              | 61 | 14 | 53.5 | 44.5 | M10×18 | 51     |
| 8145/09      | 367 | 4 | 15 | 96 | 6-Φ11 | 260 | 230 | 200 | 12             | 25 | 4 | 9.5 | 13.5 | 50              | 81 | 14 | 53.5 | 44.5 | M10×18 | 41     |
| 8145/10      | 383 |   |    |    |       |     |     |     | 15             | 25 | 5 | 12  | 17   |                 |    |    |      |      |        | 46     |
| 8145/11      | 389 |   |    |    |       |     |     |     | 15             | 25 | 5 | 12  | 17   |                 |    |    |      |      |        | 51     |

## Overall and installation dimensions chart of double-state and double-shaft and vertical type speed reducer

AXLE series 8165/09-8275/19

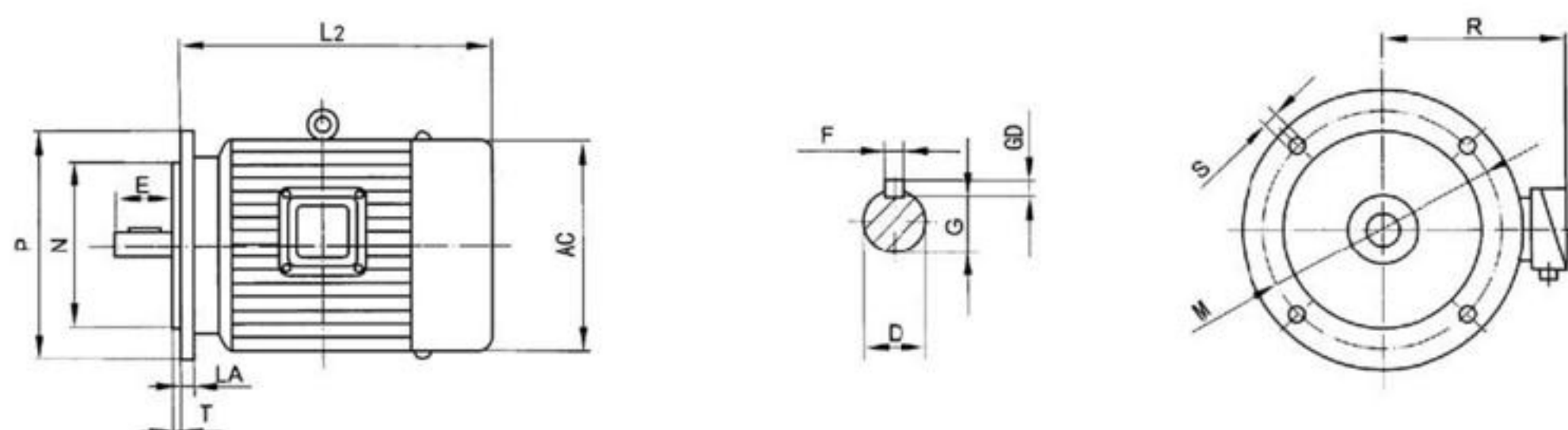


| Type    | Size | Z  | R  | F   | E      | N-G  | M    | Q   | P   | K   | W  | Input Terminal |    |      |      |     | Output Terminal |    |      |      |        | Weight kg |
|---------|------|----|----|-----|--------|------|------|-----|-----|-----|----|----------------|----|------|------|-----|-----------------|----|------|------|--------|-----------|
|         |      |    |    |     |        |      |      |     |     |     |    | d              | l  | b    | t1   | h1  | D               | e  | b    | h    | t      | s x m     |
| 8165/09 | 433  | 4  | 20 | 89  | 6-Φ11  | 340  | 310  | 270 | 217 | 200 | 15 | 25             | 5  | 12   | 17   | 60  | 80              | 18 | 64   | 53   | M10×18 | 86        |
| 8165/10 | 439  | 4  | 20 | 89  | 6-Φ11  | 340  | 310  | 270 | 217 | 200 | 15 | 25             | 5  | 12   | 17   | 60  | 80              | 18 | 64   | 53   | M10×18 | 88        |
| 8165/11 | 462  | 4  | 20 | 89  | 6-Φ11  | 340  | 310  | 270 | 217 | 200 | 18 | 35             | 6  | 14.5 | 20.5 | 60  | 80              | 18 | 64   | 53   | M10×18 | 94        |
| 8175/09 | 478  | 5  | 22 | 94  | 8-Φ14  | 400  | 360  | 316 | 222 | 225 | 15 | 25             | 5  | 12   | 17   | 70  | 84              | 20 | 74.5 | 62.5 | M12×24 | 120       |
| 8175/10 | 484  | 5  | 22 | 94  | 8-Φ14  | 400  | 360  | 316 | 222 | 225 | 15 | 25             | 5  | 12   | 17   | 70  | 84              | 20 | 74.5 | 62.5 | M12×24 | 125       |
| 8175/11 | 509  | 5  | 22 | 94  | 8-Φ14  | 400  | 360  | 316 | 222 | 225 | 18 | 35             | 6  | 14.5 | 20.5 | 70  | 84              | 20 | 74.5 | 62.5 | M12×24 | 130       |
| 8185/10 | 526  | 5  | 22 | 110 | 8-Φ18  | 430  | 390  | 345 | 237 | 240 | 15 | 25             | 5  | 12   | 17   | 80  | 100             | 22 | 85   | 71   | M12×24 | 166       |
| 8185/13 | 577  | 5  | 22 | 110 | 8-Φ18  | 430  | 390  | 345 | 237 | 240 | 22 | 40             | 6  | 18.5 | 24.5 | 80  | 100             | 22 | 85   | 71   | M12×24 | 185       |
| 8195/13 | 629  | 6  | 30 | 145 | 12-Φ18 | 490  | 450  | 400 | 360 | 200 | 18 | 35             | 6  | 14.5 | 20.5 | 95  | 125             | 25 | 100  | 86   | M20×34 | 240       |
| 8195/16 | 653  | 6  | 30 | 145 | 12-Φ18 | 490  | 450  | 400 | 360 | 200 | 22 | 40             | 6  | 18.5 | 24.5 | 95  | 125             | 25 | 100  | 86   | M20×34 | 250       |
| 8205/13 | 670  | 5  | 30 | 204 | 8-Φ22  | 455  | 405  | 355 | 376 | 287 | 18 | 35             | 6  | 14.5 | 20.5 | 100 | 165             | 28 | 106  | 90   | M20×34 | 261       |
| 8205/16 | 705  |    |    |     |        |      |      |     |     |     | 22 | 40             | 6  | 18.5 | 24.5 |     |                 |    |      |      |        | 275       |
| 8215/13 | 731  | 7  | 35 | 203 | 8-Φ24  | 490  | 440  | 390 | 400 | 290 | 22 | 40             | 6  | 18.5 | 24.5 | 110 | 165             | 28 | 116  | 100  | M20×34 | 355       |
| 8215/16 | 780  |    |    |     |        |      |      |     |     |     | 30 | 45             | 8  | 26   | 33   |     |                 |    |      |      |        | 375       |
| 8225/16 | 773  | 10 | 35 | 210 | 8-Φ27  | 535  | 475  | 415 | 400 | 326 | 22 | 40             | 6  | 18.5 | 24.5 | 120 | 165             | 32 | 127  | 109  | M20×34 | 430       |
| 8225/17 | 860  |    |    |     |        |      |      |     |     |     | 35 | 55             | 10 | 30   | 38   |     |                 |    |      |      |        | 475       |
| 8235/16 | 883  | 10 | 40 | 250 | 8-Φ27  | 570  | 510  | 450 | 413 | 344 | 30 | 45             | 8  | 26   | 33   | 130 | 200             | 32 | 137  | 119  | M24×41 | 550       |
| 8235/18 | 938  |    |    |     |        |      |      |     |     |     | 40 | 65             | 12 | 35   | 43   |     |                 |    |      |      |        | 583       |
| 8245/17 | 921  | 10 | 40 | 250 | 8-Φ33  | 635  | 560  | 485 | 420 | 365 | 30 | 45             | 8  | 26   | 33   | 140 | 200             | 36 | 148  | 128  | M24×41 | 655       |
| 8245/18 | 975  |    |    |     |        |      |      |     |     |     | 40 | 65             | 12 | 35   | 43   |     |                 |    |      |      |        | 688       |
| 8255/18 | 1081 | 10 | 45 | 295 | 8-Φ33  | 685  | 610  | 535 | 432 | 435 | 35 | 55             | 10 | 30   | 38   | 160 | 240             | 40 | 169  | 147  | M30×49 | 1012      |
| 8255/19 | 1133 |    |    |     |        |      |      |     |     |     | 45 | 70             | 14 | 39.5 | 48.5 |     |                 |    |      |      |        | 1087      |
| 8265/19 | 1243 | 10 | 50 | 360 | 8-Φ39  | 750  | 660  | 570 | 460 | 431 | 45 | 70             | 14 | 39.5 | 48.5 | 170 | 230             | 40 | 179  | 157  | M30×49 |           |
| 8275/19 | 1504 | 10 | 60 | 355 | 8-Φ39  | 1160 | 1020 | 900 | 610 | 613 | 45 | 70             | 14 | 39.5 | 48.5 | 180 | 320             | 45 | 190  | 165  | M42×80 | 2740      |

Remark: the "K" size is the distance of centerline of speed reducer to the oil indicator, and this size is forced lubrication of oil pump, others lubrication means have no "K" size.

**Table of B5 motor installation and coupling flange L2 sizes**

B5 motor installation dimension



| Norm              | Motor power  |              | (mm) Size |          |         |      |     |     |     |         |     |     |     |    |                |
|-------------------|--------------|--------------|-----------|----------|---------|------|-----|-----|-----|---------|-----|-----|-----|----|----------------|
|                   | 4P           | 6P           | D         | E        | F × GD  | G    | M   | N   | P   | S       | T   | AC  | R   | LA | L <sub>2</sub> |
| 63                | 0.12<br>0.18 | -            | 11        | 23       | 4 × 4   | 9    | 115 | 95  | 140 | 4 × Φ10 | 3   | 130 | 70  | 12 | 204            |
| 71                | 0.25<br>0.37 | 0.18<br>0.25 | 14        | 30       | 5 × 5   | 11   | 130 | 110 | 160 | 4 × Φ10 | 3.5 | 145 | 110 | 13 | 225            |
| 80                | 0.55<br>0.75 | 0.37<br>0.55 | 19        | 40       | 6 × 6   | 15.5 | 165 | 130 | 200 | 4 × Φ12 | 3.5 | 170 | 150 | 13 | 225            |
| 90S               | 1.1          | 0.75         | 24        | 50       | 8 × 7   | 20   | 165 | 130 | 200 | 4 × Φ12 | 3.5 | 180 | 155 | 13 | 270            |
| 90L               | 1.5          | 1.1          |           |          |         |      |     |     |     |         |     |     |     |    | 295            |
| 100L              | 2.2<br>3     | 1.5          | 28        | 60       | 8 × 7   | 24   | 215 | 180 | 250 | 4 × Φ15 | 4   | 210 | 180 | 14 | 325            |
| 112M              | 4            | 2.2          | 28        | 60       | 8 × 7   | 24   | 215 | 180 | 250 | 4 × Φ15 | 4   | 230 | 190 | 14 | 340            |
| 132S              | 5.5          | 3            | 38        | 80<br>80 | 10 × 8  | 33   | 265 | 230 | 300 | 4 × Φ15 | 4   | 270 | 210 | 15 | 390            |
| 132M              | 7.5          | 4<br>5.5     |           |          |         |      |     |     |     |         |     |     |     |    | 430            |
| 160M              | 11           | 7.5          | 42        | 110      | 12 × 8  | 37   | 300 | 250 | 350 | 4 × Φ19 | 5   | 330 | 255 | 16 | 505            |
| 160L              | 15           | 11           |           |          |         |      |     |     |     |         |     |     |     |    | 560            |
| 180M              | 18.5         | -            | 48        | 110      | 14 × 9  | 42.5 | 300 | 250 | 350 | 4 × Φ19 | 5   | 380 | 285 | 18 | 590            |
| 180L              | 22           | 15           |           |          |         |      |     |     |     |         |     |     |     |    | 630            |
| 200L <sub>1</sub> | 30           | 18.5<br>22   | 55        | 110      | 16 × 10 | 49   | 350 | 300 | 400 | 4 × Φ19 | 5   | 420 | 315 | 20 | 660            |
| 225S              | 37           | -            | 60        | 140      | 18 × 11 | 53   | 400 | 350 | 450 | 8 × Φ19 | 5   | 475 | 345 | 20 | 675            |
| 225M              | 45           | 30           |           |          |         |      |     |     |     |         |     |     |     |    | 705            |
| 250M              | 55           | 37           | 65        | 140      | 18 × 11 | 58   | 500 | 450 | 550 | 8 × Φ19 | 5   | 515 | 385 | 22 | 770            |

note: L<sub>2</sub> shall be increased by 10% when explosion-proof motor is attached

## Allowable radial force

If the cycloidal speed reducer contacts with gear, chain wheel, pulley, please used within the limited of allowable radial force, if it will exceed the allowable, you can choose more big machine or consult our company.

Design Formulas:  $P = \frac{T}{R} \leq \frac{P_x}{L_f \cdot C_f \cdot F_s} (N)$

P: actual need radial force

T: the actual transmission torque in shaft

R: Pitch radius of chain wheel gear and pulley

P<sub>x</sub>: allowable radial force

L<sub>f</sub>: load coefficient

C<sub>f</sub>: connection factor (table 6)

F<sub>s</sub>: impact coefficient (table 7)

(C<sub>f</sub>) Coupling coefficient

Table 6

| Connection mode | C <sub>f</sub> |
|-----------------|----------------|
| Chain wheel     | 1              |
| gear            | 1.25           |
| V type belt     | 1.5            |

(F<sub>s</sub>) Impact coefficient

Table 7

| Impact level | F <sub>s</sub> |
|--------------|----------------|
| No impact    | 1              |
| Light impact | 1 ~ 1.2        |
| Heavy impact | 1.4 ~ 1.6      |

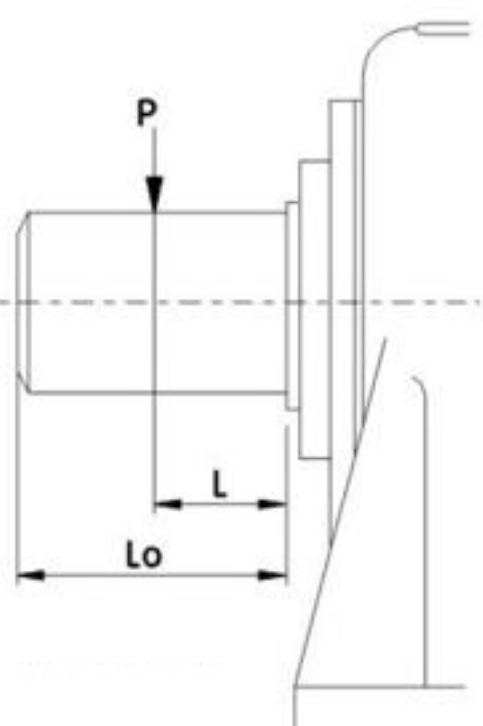
## Allowable radial force of output shaft P<sub>x</sub>(N)

| Type | (r/min) output speed (r/min) |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |       |       |       |       |       |
|------|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
|      | 1                            | 2      | 3      | 4      | 5      | 6      | 8      | 10     | 15     | 20     | 25     | 30     | 35     | 40     | 50     | 60     | 80     | 100    | 125   | 150   | 200   | 250   | 300   |       |
| 8065 | 1140                         | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1140   | 1070   | 980    | 910    | 840   | 790   | 720   | —     | —     |       |
| 8075 |                              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |       |       |       |       |       |
| 8085 |                              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |       |       |       |       |       |
| 8095 | 3200                         | 3200   | 3200   | 3200   | 3200   | 3200   | 3200   | 3200   | 3200   | 3200   | 2970   | 3010   | 3040   | 3050   | 2970   | 3010   | 2910   | 2700   | 2510  | 2360  | 2140  | 2000  | 1880  |       |
| 8105 | 5300                         | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 5300   | 4820   | 4480   | 4150  | 3920  | 3560  | 3310  | 3140  |       |
| 8115 | 9240                         | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 9240   | 8070   | 7330   | 6810   | 6320  | 5960  | 5420  | 5030  | 4720  |       |
| 8125 |                              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |       |       |       |       |       |
| 8135 | 15690                        | 15690  | 15690  | 15690  | 15690  | 15690  | 15690  | 15690  | 15690  | 15690  | 15690  | 15690  | 15690  | 14990  | 13930  | 13120  | 11944  | 11080  | 10290 | 9690  | 8810  | 8190  | 7710  |       |
| 8145 |                              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |       |       |       |       |       |
| 8155 |                              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |       |       |       |       |       |
| 8165 | 19200                        | 19200  | 19200  | 19200  | 19200  | 19200  | 19200  | 19200  | 19200  | 19200  | 18000  | 17100  | 16400  | 15200  | 14300  | 13000  | 12100  | 11200  | 10600 | 9600  | 8900  | 8400  |       |       |
| 8175 | 27400                        | 27400  | 27400  | 27400  | 27400  | 27400  | 27400  | 27400  | 27400  | 27400  | 24900  | 23100  | 21700  | 20700  | 19800  | 18400  | 17300  | 15700  | 14600 | 13600 | 12800 | 11600 | 10800 | 10100 |
| 8185 | 37200                        | 37200  | 37200  | 37200  | 37200  | 37200  | 37200  | 37200  | 37200  | 37200  | 33700  | 31300  | 29500  | 28000  | 26800  | 24900  | 23500  | 21300  | 19800 | 18400 | 17300 | 15800 | —     | —     |
| 8195 | 51900                        | 51900  | 51900  | 51900  | 51900  | 51900  | 51900  | 51900  | 51900  | 51900  | 47400  | 44000  | 41400  | 39400  | 37700  | 35000  | 32900  | 30000  | 27800 | 25800 | 24200 | 22100 | —     | —     |
| 8205 | 69000                        | 69000  | 69000  | 69000  | 69000  | 69000  | 69000  | 69000  | 69000  | 65100  | 59700  | 55900  | 52900  | 50500  | 48500  | 45400  | 43000  | 39500  | 36800 | 34400 | 32600 | 29900 | —     | —     |
| 8215 | 86000                        | 86000  | 86000  | 86000  | 86000  | 86000  | 86000  | 86000  | 86000  | 82900  | 75000  | 71100  | 67400  | 64300  | 61700  | 57800  | 54800  | 50300  | 46900 | 43900 | 41500 | 38100 | —     | —     |
| 8225 | 145000                       | 145000 | 141000 | 130300 | 122000 | 11500  | 10600  | 99000  | 87000  | 80000  | 74800  | 71000  | 67600  | 65100  | 61000  | 58000  | 52000  | 49400  | 46000 | 43700 | 40200 | —     | —     |       |
| 8235 | 178000                       | 178000 | 176400 | 161700 | 15090  | 143000 | 131300 | 122500 | 108000 | 100000 | 93000  | 88200  | 84300  | 81000  | 75700  | 71600  | 65800  | 61500  | 57400 | —     | —     | —     | —     |       |
| 8245 | 208000                       | 208000 | 196000 | 180000 | 168000 | 160000 | 146000 | 137000 | 122000 | 110000 | 104000 | 98000  | 94000  | 90000  | 84400  | 79900  | 73300  | 68500  | 64000 | —     | —     | —     | —     |       |
| 8255 | 257000                       | 257000 | 240100 | 220500 | 206000 | 195000 | 179000 | 167000 | 148000 | 136000 | 127000 | 121000 | 114700 | 110700 | 102900 | 97600  | 89600  | 83800  | 78400 | —     | —     | —     | —     |       |
| 8265 | 257000                       | 275000 | 275000 | 269000 | 251000 | 238000 | 219000 | 205000 | 180000 | 166000 | 155000 | 147000 | 140000 | 135000 | 126000 | 120000 | 110000 | 102000 | 96000 | —     | —     | —     | —     |       |
| 8275 | 196000                       | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | 196000 | —      | —      | —      | —     | —     | —     | —     | —     |       |

Remark: please reference for the low speed type's value for double-state.

## Allowable radial force

Radial force action position coefficients of output shaft.  $L_f$

| Type \ L     | 5    | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   | 60   | 70   | 80   | 90   | 100  | 120  | 140  | 160  | 180                                                                                                                                           | 200  | 225  | 250  | 275  | 300  |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|------|------|
| 8065         | 0.83 | 0.94 | 1.19 | -    |      | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |  <p>eg *<math>L=L_0/2</math>,<br/><math>L_f=1</math>.</p> |      |      |      |      |      |
| 8075         | 0.83 | 0.94 | 1.19 | 1.56 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 8085         | 0.82 | 0.91 | 1.00 | 1.29 | -    | 1.88 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 8095         | 0.86 | 0.91 | 0.97 | 1.13 | 1.59 | 1.64 | 1.90 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 8105         | 0.86 | 0.92 | 0.97 | 1.13 | 1.38 | 1.64 | 1.90 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 8115<br>8125 | -    | 0.82 | 0.87 | 0.92 | 1.38 | 1.08 | 1.25 | 1.42 | 1.59 | 1.76 | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 8135         | -    | -    | 0.83 | 0.87 | 0.97 | 0.96 | 1.00 | 1.13 | 1.25 | 1.38 | 1.63 | 1.88 | -    | -    | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 8145<br>8155 | -    | -    | -    | 0.66 | 0.92 | 0.80 | 0.87 | 0.93 | 1.00 | 1.10 | 1.30 | 1.50 | 1.70 | 1.90 | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 9165         | -    | -    | -    | 0.83 | 0.73 | 0.90 | 0.93 | 0.97 | 1.00 | 1.11 | 1.32 | 1.53 | 1.75 | 1.96 | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 8175         | -    | -    | -    | 0.86 | 0.87 | 0.92 | 0.94 | 0.97 | 1.00 | 1.11 | 1.32 | 1.53 | 1.75 | 1.96 | -    | -    | -    | -    |                                                                                                                                               |      |      |      |      |      |
| 8185         | -    | -    | -    | -    | 0.89 | 0.87 | 0.90 | 0.93 | 0.95 | 0.98 | 1.09 | 1.26 | 1.43 | 1.60 | 1.78 | -    | -    | -    | -                                                                                                                                             | -    | -    | -    | -    | -    |
| 8195         | -    | -    | -    | -    | 0.85 | 0.85 | 0.87 | 0.89 | 0.91 | 0.93 | 0.97 | 1.04 | 1.18 | 1.32 | 1.46 | 1.75 | -    | -    | -                                                                                                                                             | -    | -    | -    | -    | -    |
| 8205         | -    | -    | -    | -    | -    | -    | -    | 0.70 | 0.74 | 0.77 | 0.84 | 0.91 | 0.98 | 1.05 | 1.12 | 1.26 | 1.40 | 1.54 | -                                                                                                                                             | -    | -    | -    | -    | -    |
| 8215         | -    | -    | -    | -    | -    | -    | -    | 0.70 | 0.73 | 0.77 | 0.84 | 0.91 | 0.98 | 1.05 | 1.13 | 1.27 | 1.41 | 1.56 | -                                                                                                                                             | -    | -    | -    | -    | -    |
| 8225         | -    | -    | -    | -    | -    | -    | -    | 0.86 | 0.88 | 0.90 | 0.93 | 0.96 | 0.99 | 1.02 | 1.06 | 1.12 | 1.19 | 1.25 | -                                                                                                                                             | -    | -    | -    | -    | -    |
| 8235         | -    | -    | -    | -    | -    | -    | -    | 0.82 | 0.84 | 0.85 | 0.88 | 0.91 | 0.94 | 0.97 | 1.00 | 1.06 | 1.12 | 1.18 | 1.24                                                                                                                                          | 1.30 | -    | -    | -    | -    |
| 8245         | -    | -    | -    | -    | -    | -    | -    | 0.83 | 0.84 | 0.86 | 0.89 | 0.92 | 0.94 | 0.97 | 1.00 | 1.06 | 1.11 | 1.17 | 1.23                                                                                                                                          | 1.29 | -    | -    | -    | -    |
| 8255         | -    | -    | -    | -    | -    | -    | -    | -    | -    | 0.83 | 0.85 | 0.88 | 0.90 | 0.93 | 0.95 | 1.00 | 1.05 | 1.10 | 1.22                                                                                                                                          | 1.36 | 1.52 | 1.69 | -    | -    |
| 8265         | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 0.83 | 0.85 | 0.88 | 0.90 | 0.94 | 0.98 | 1.04 | 1.17                                                                                                                                          | 1.29 | 1.45 | 1.61 | 1.77 | 1.93 |
| 8275         | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | 0.67 | 0.71 | 0.75 | 0.82 | 0.90 | 0.98 | 1.09                                                                                                                                          | 1.21 | 1.35 | 1.50 | 1.65 | 1.79 |

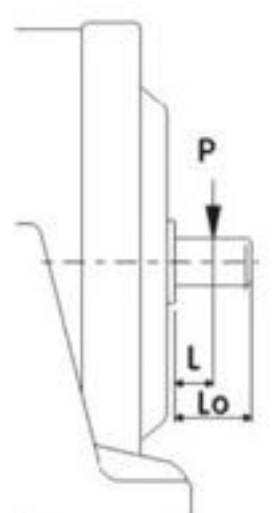
Remark: please reference for the low speed type's value for double-state.

## Allowable radial force

| Type | Speed ratio | speed torque of input(r/min) |       |       |       |       |      |      |
|------|-------------|------------------------------|-------|-------|-------|-------|------|------|
|      |             | 600                          | 750   | 900   | 1000  | 1200  | 1500 | 1800 |
| 8065 | 11-43       | 55                           | 55    | 55    | 55    | 55    | 55   | 55   |
| 8075 | 11-43       | 70                           | 70    | 70    | 70    | 70    | 70   | 70   |
| 8085 | 11-43       | 140                          | 140   | 140   | 140   | 90    | 90   | 90   |
| 8095 | 9-43        | 240                          | 240   | 190   | 190   | 190   | 190  | 140  |
| 8105 | 9-87        | 530                          | 530   | 530   | 490   | 390   | 340  | 340  |
| 8115 | 9-17        | 780                          | 780   | 780   | 680   | 680   | 580  | 580  |
| 8125 | 23-87       | 780                          | 780   | 530   | 490   | 490   | 440  | 390  |
| 8135 | 23-87       | 1760                         | 1470  | 1170  | 1120  | 1070  | 1030 | 930  |
| 8145 | 23-87       | 1760                         | 1470  | 1170  | 1120  | 1070  | 1030 | 930  |
| 8155 | 9-23        | 1070                         | 980   | 780   | 680   | 680   | 630  | 580  |
| 8155 | 29-87       | 880                          | 580   | 580   | 490   | 490   | 440  | 440  |
| 8165 | 11-17       | 1960                         | 1960  | 1960  | 1860  | 1760  | 1660 | 1610 |
| 8165 | 23-87       | 1660                         | 1520  | 1270  | 1170  | 1070  | 930  | 880  |
| 8175 | 11-17       | 2640                         | 2400  | 2350  | 2250  | 1960  | 1860 | 1860 |
| 8175 | 23-87       | 2450                         | 2150  | 2150  | 1760  | 1760  | 1520 | 1520 |
| 8185 | 11-87       | 3420                         | 3280  | 2990  | 2940  | 2740  | 2550 | 2550 |
| 8195 | 11-23       | 3920                         | 3920  | 3570  | 3430  | 3130  | 2940 | 2940 |
| 8195 | 29-87       | 3570                         | 3230  | 3040  | 2940  | 2740  | 2450 | 2450 |
| 8205 | 11-87       | 6170                         | 6220  | 6080  | 5880  | 5390  | 4900 | 5390 |
| 8215 | 11-87       | 7250                         | 6810  | 6320  | 6120  | 5440  | 5090 | 5730 |
| 8225 | 11-87       | 7500                         | 6960  | 6610  | 6420  | 5980  | 5780 | 6610 |
| 8235 | 11-87       | 8720                         | 8970  | 9160  | 9510  | 10000 | -    | -    |
| 8245 | 11-87       | 11100                        | 10500 | 10100 | 10100 | 11000 | -    | -    |
| 8255 | 11-87       | 13100                        | 12200 | 11200 | 10700 | 11700 | -    | -    |
| 8265 | 17-87       | 13100                        | 12200 | 11200 | 10700 | 11700 | -    | -    |
| 8275 | 17-87       | 14700                        | 14700 | 14700 | 14700 | 14700 | -    | -    |

Remark: please reference for the high speed type's value for double-state.

## Radial force action position coefficients of input shaft. Lf

| L<br>Type | 5    | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   | 60   | 70   | 80   | 90   | 100  | 120  | 140                                                                                                             | 160  | 180  | 200  |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------------------------------------------------------------------------------------------------------|------|------|------|
| 8065      | 0.73 | 0.91 | 1.20 | 1.60 | 2.00 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |  <p>eg "L=Lo/2", Lf=1.</p> |      |      |      |
| 8075      | 0.73 | 0.91 | 1.20 | 1.60 | 2.00 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8085      | 0.73 | 0.91 | 1.20 | 1.60 | 2.00 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8095      | 0.88 | 0.96 | 1.20 | 1.59 | 2.00 | 2.38 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8105      | 0.91 | 0.97 | 1.20 | 1.59 | 2.00 | 2.38 | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8115 8125 | -    | 0.81 | 0.93 | 1.14 | 1.41 | 1.67 | 1.96 | 2.22 | -    | -    | -    | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8135      | -    | 0.78 | 0.89 | 1.00 | 1.23 | 1.45 | 1.69 | 1.92 | 2.13 | -    | -    | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8145      | -    | 0.78 | 0.89 | 1.00 | 1.23 | 1.45 | 1.69 | 1.92 | 2.13 | -    | -    | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8155      | -    | 0.78 | 0.89 | 1.00 | 1.23 | 1.45 | 1.69 | 1.92 | 2.13 | -    | -    | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8165      | -    | 0.92 | 0.95 | 0.98 | 1.05 | 1.18 | 1.28 | 1.41 | 1.52 | 1.64 | 1.85 | -    | -    | -    | -    | -    |                                                                                                                 |      |      |      |
| 8175      | -    | -    | 0.93 | 0.96 | 0.99 | 1.05 | 1.16 | 1.28 | 1.39 | 1.49 | 1.72 | 1.92 | 2.17 | -    | -    | -    |                                                                                                                 |      |      |      |
| 8185      | -    | -    | -    | 0.93 | 0.96 | 0.99 | 1.05 | 1.15 | 1.25 | 1.35 | 1.56 | 1.75 | 1.96 | 2.17 | -    | -    |                                                                                                                 |      |      |      |
| 8195      | -    | -    | -    | 0.93 | 0.95 | 0.98 | 1.00 | 1.09 | 1.16 | 1.25 | 1.41 | 1.59 | 1.75 | 1.92 | 2.08 | -    | -                                                                                                               | -    | -    | -    |
| 8205      | -    | -    | -    | -    | 0.93 | 0.95 | 0.97 | 1.00 | 1.04 | 1.10 | 1.22 | 1.33 | 1.45 | 1.56 | 1.68 | 1.91 | -                                                                                                               | -    | -    | -    |
| 8215      | -    | -    | -    | -    | 0.93 | 0.95 | 0.98 | 1.00 | 1.03 | 1.08 | 1.19 | 1.29 | 1.40 | 1.51 | 1.61 | 1.82 | -                                                                                                               | -    | -    | -    |
| 8225      | -    | -    | -    | -    | 0.94 | 0.96 | 0.98 | 0.89 | 1.02 | 1.04 | 1.08 | 1.14 | 1.24 | 1.33 | 1.42 | 1.60 | -                                                                                                               | -    | -    | -    |
| 8235      | -    | -    | -    | -    | 0.84 | 0.86 | 0.87 | 0.96 | 0.93 | 0.98 | 1.07 | 1.16 | 1.25 | 1.34 | 1.44 | 1.62 | -                                                                                                               | -    | -    | -    |
| 8245      | -    | -    | -    | -    | 0.91 | 0.92 | 0.94 | 0.93 | 0.98 | 0.99 | 1.07 | 1.15 | 1.24 | 1.33 | 1.42 | 1.59 | -                                                                                                               | -    | -    | -    |
| 8255      | -    | -    | -    | -    | -    | -    | 0.92 | 0.93 | 0.94 | 0.96 | 0.99 | 1.03 | 1.09 | 1.16 | 1.22 | 1.34 | 1.47                                                                                                            | 1.60 | 1.72 | -    |
| 8265      | -    | -    | -    | -    | -    | -    | 0.92 | 0.93 | 0.94 | 0.96 | 0.99 | 1.03 | 1.09 | 1.16 | 1.22 | 1.34 | 1.47                                                                                                            | 1.60 | 1.72 | -    |
| 8275      | -    | -    | -    | -    | -    | -    | -    | -    | 0.93 | 0.94 | 0.97 | 0.99 | 1.04 | 1.14 | 1.22 | 1.31 | 1.56                                                                                                            | 1.72 | 1.92 | 2.08 |

Remark: please reference for the high speed type's value for double-state.