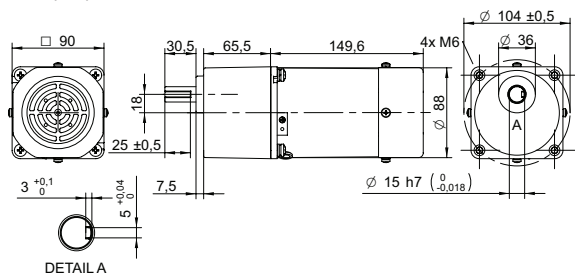
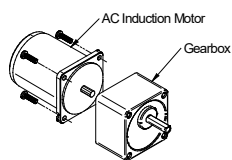


## DRAWING (mm)



AC induction motor and gearbox also sold separately.

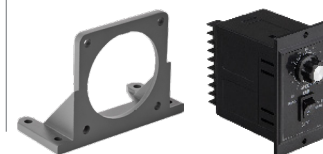
## PHOTO



## MODEL NO. DESIGNATION

AIS-120W - Voltage - Phase - Connection  
 Example: AIS-120W-120-SC S = Single phase C = Cable

## ACCESSORIES¹



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

## GEAR MOTOR DATA

|                    |     | 3   | 3.6 | 5   | 6   | 7.5 | 9   | 10  | 12.5 | 15  | 18  | 20  | 25  | 30  | 36  | 40  | 50  | 60  | 75  | 90  | 100 | 120 | 150 | 180 | 200 |     |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gear ratio         |     | 3   | 3.6 | 5   | 6   | 7.5 | 9   | 10  | 12.5 | 15  | 18  | 20  | 25  | 30  | 36  | 40  | 50  | 60  | 75  | 90  | 100 | 120 | 150 | 180 | 200 | ●   |
| Nominal torque     | Nm  | 1.8 | 2.2 | 3.0 | 3.6 | 4.6 | 5.5 | 6.1 | 7.6  | 9.1 | 11  | 11  | 14  | 16  | 20² | 20² | 20² | 20² | 20² | 20² | 20² | 20² | 20² | 20² | 20² | 20² |
| Nominal speed³     | rpm | 400 | 330 | 240 | 200 | 160 | 130 | 120 | 96   | 80  | 67  | 60  | 48  | 40  | 33  | 30  | 24  | 20  | 16  | 13  | 12  | 10  | 8   | 6.7 | 6   |     |
| Nominal power      | W   | 76  | 76  | 76  | 76  | 76  | 76  | 76  | 76   | 76  | 76  | 69  | 69  | 69  | 70  | 63  | 50  | 42  | 34  | 28  | 25  | 21  | 17  | 14  | 13  |     |
| Gearb. nom. torq.⁴ | Nm  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20   | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  | 20  |     |
| Gearbox efficiency | %   | 81  | 81  | 81  | 81  | 81  | 81  | 81  | 81   | 81  | 81  | 73  | 73  | 73  | 73  | 73  | 73  | 66  | 66  | 66  | 66  | 66  | 66  | 66  | 66  |     |
| Radial load⁵       | N   | 500 | 500 | 500 | 500 | 500 | 500 | 600 | 600  | 600 | 600 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 | 700 |     |
| Direction of rot.  |     | CW  | CW  | CW  | CW  | CW  | CW  | CCW | CCW  | CCW | CCW | CW  | CW  | CW  | CW  | CW  | CW  | CW  | CW  | CCW | CCW | CCW | CCW | CCW | CCW |     |
| Weight             | kg  | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8  | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |     |

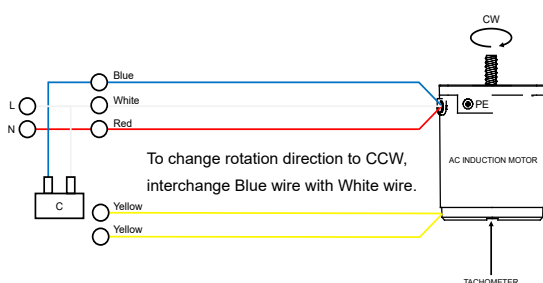
## OTHER GEAR MOTOR DATA

|                        |    |           |
|------------------------|----|-----------|
| Service life           | h  | 10000     |
| Performance tolerances |    | ± 15      |
| Operating temperature  | °C | -10 to 40 |
| IP rating              |    | IP20      |
| Manufacturing standard |    | ISO 9001  |
| CE label   UL label    |    | No   No   |

## GEARBOX DATA

|                     |   |              |
|---------------------|---|--------------|
| Shaft axial load    | N | 150          |
| Bearing type        |   | Ball bearing |
| Shaft material      |   | 40 Cr steel  |
| Housing material    |   | Aluminum     |
| Material gear stage |   | 40 Cr steel  |

## WIRING DIAGRAM AC INDUCTION MOTOR



## AC INDUCTION MOTOR DATA

|                                |     |       |
|--------------------------------|-----|-------|
| Nominal voltage                | V   | 120   |
| No. of phases                  |     | 1     |
| Frequency                      | Hz  | 60    |
| No. of poles                   |     | 4     |
| Nominal speed                  | rpm | 1200  |
| Nominal torque                 | mNm | 750   |
| Nominal current                | A   | 1.9   |
| Nominal power                  | W   | 120   |
| Stall torque                   | mNm | 720   |
| Insulation class               |     | B     |
| Motor cable                    |     | AWG18 |
| Signal cable                   |     | AWG22 |
| Motor and signal cable length  | mm  | 300   |
| Capacitor included in delivery | μF  | 20    |
| Insulation resistance          | MΩ  | 100   |
| Dielectric strength            | kV  | 1.5   |
| Max. winding temperature       | °C  | 80    |
| Weight                         | kg  | 3.3   |

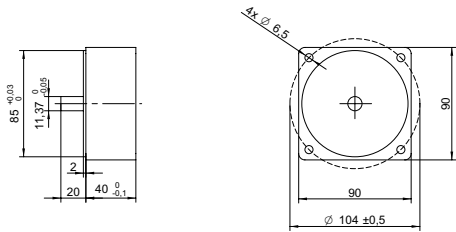
## GEAR MOTOR RANGE AIS-SERIES⁶

|                 |    |                        |
|-----------------|----|------------------------|
| Nominal voltage | V  | See separate datasheet |
| Nominal power   | W  | See separate datasheet |
| Dimension       | mm | See separate datasheet |

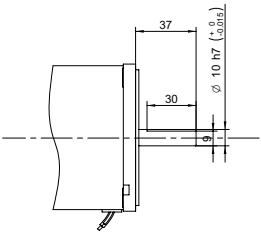
## NOTES

1. See page 2 of this catalog.
2. Gear motor torque limited by gearbox.
3. Gear motor nominal speed based on AC induction motor nominal speed of 1200 rpm.
4. Gearbox nominal torque.
5. 20 mm from shaft.
6. Visit [www.transmotec.com](http://www.transmotec.com) to view datasheets.

DECIMAL GEARBOX<sup>1</sup>



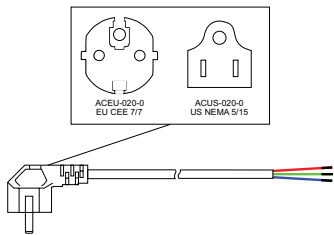
OUTPUT SHAFT D-CUT



| DECIMAL GEARBOX DATA |                                                                                                                        |
|----------------------|------------------------------------------------------------------------------------------------------------------------|
| Model designation    | S90B-Y010                                                                                                              |
| Gear ratio           | 10:1                                                                                                                   |
| Nominal torque       | Nm 20                                                                                                                  |
| Description          | Connected between AC motor and existing gearbox to decrease the speed further than the gear ratio listed in the table. |

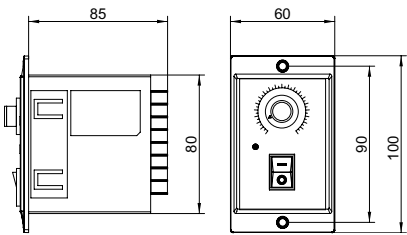
| DECIMAL GEARBOX DATA |                                  |
|----------------------|----------------------------------|
| Model designation    | Contact us for more information. |

POWER CABLE



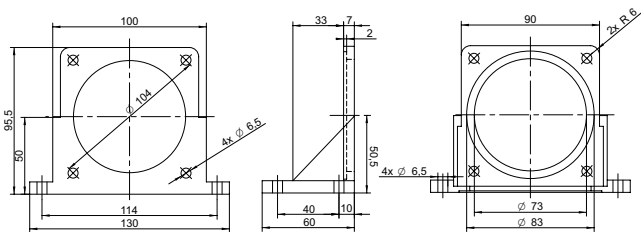
| POWER CABLE DATA  |                           |
|-------------------|---------------------------|
| Model designation | ACEU-020-0   ACUS-020-0   |
| Standard          | EU CEE 7/7   US NEMA 5/15 |
| Cable length      | m   ft 2   8              |

SPEED CONTROLLER



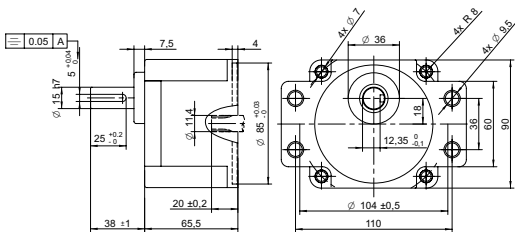
| SPEED CONTROLLER DATA |                         |
|-----------------------|-------------------------|
| Model designation     | DA-110-120   DA-230-120 |
| Voltage               | 110   230               |
| Nominal power         | W 120                   |

MOUNTING BRACKET



| MOUNTING BRACKET DATA |          |
|-----------------------|----------|
| Model designation     | AMB-090  |
| Dimensions            | mm 90x90 |

GEARBOX FLANGE MOUNTING



| GEARBOX FLANGE MOUNTING DATA |                                  |
|------------------------------|----------------------------------|
| Model designation            | Contact us for more information. |

NOTES

1. Visit [www.transmotec.com](http://www.transmotec.com) to view datasheets.