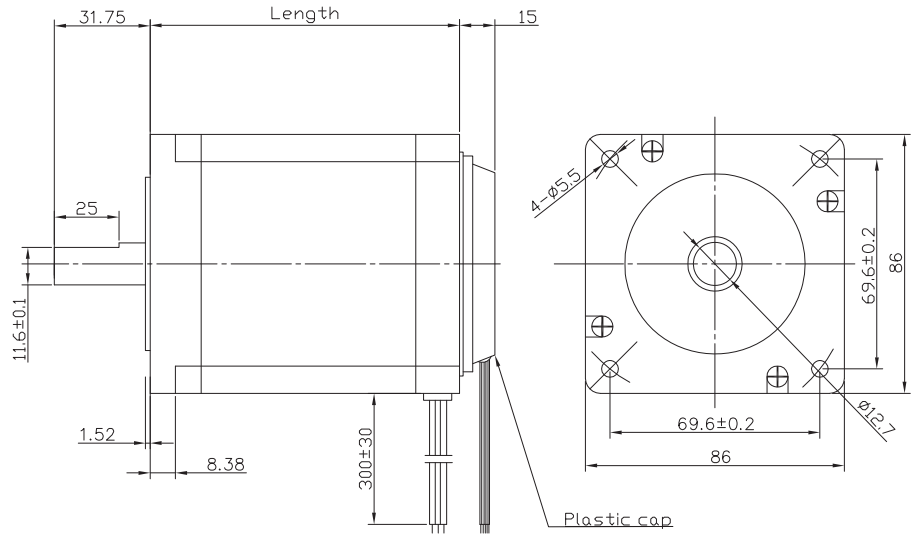


# Brushless MOTOR

86BLS



BE version: rear shaft 13mm- 2x M2.5 on diam. 46 mm

## Characteristics

HALL EFFECT ANGLE  
120 ° ELECTRIC ANGLE

SHAFT RUN OUT  
0,05 MM

INSULATION CLASS  
B

RADIAL PLAY  
0,02 MM (450 G LOAD)

AXIAL PLAY  
0,08 MM (450 G LOAD)

MAX RADIAL FORCE  
220 N (20 MM FROM FLANGE)

MAX AXIAL FORCE  
60 N

DIELECTRIC STRENGTH  
500 VDC FOR ONE MINUTE

INSULATION RESISTANCE  
100 M OHM MIN. 500 VDC

## Specification

| Model                              | 86BLS58 | 86BLS71 | 86BLS98 | 86BLS125 |
|------------------------------------|---------|---------|---------|----------|
| 1 N° OF POLE                       | 8       | 8       | 8       | 8        |
| 2 N° OF PHASE                      | 3       | 3       | 3       | 3        |
| 3 RATED VOLTAGE V                  | 48      | 48      | 48      | 48       |
| 4 RATED SPEED RPM                  | 3000    | 3000    | 3000    | 3000     |
| 5 RATED TORQUE NM                  | 0,35    | 0,7     | 1,4     | 2,1      |
| 6 MAX PEAK TORQUE NM               | 1,05    | 2,1     | 4,2     | 6,3      |
| 7 TORQUE CONSTANT NM/A             | 0,116   | 0,124   | 0,127   | 0,128    |
| 8 LINE TO LINE RESISTANCE Ω        | 0,90    | 0,34    | 0,16    | 0,10     |
| 9 LINE TO LINE INDUCTANCE mH       | 2,60    | 1,00    | 0,50    | 0,31     |
| 10 MAX PEAK CURRENT A              | 9,5     | 20      | 24      | 56       |
| 11 LENGTH MM                       | 58      | 71      | 98      | 125      |
| 12 ROTOR INERTIA g-cm <sup>2</sup> | 400     | 800     | 1600    | 2400     |
| 13 WEIGHT KG                       | 1,6     | 2,12    | 3,15    | 4,2      |

## Connection

| LEAD N° | COLOR                  | GAUGE        | FUNCTION                        |
|---------|------------------------|--------------|---------------------------------|
| 1       | RED                    | UL1332 AWG22 | VCC HALLSENSOR<br>+5 TO +24 Vdc |
| 2       | BLUE                   | UL1332 AWG22 | HALL A                          |
| 3       | GREEN                  | UL1332 AWG22 | HALL B                          |
| 4       | WHITE                  | UL1332 AWG22 | HALL C                          |
| 5       | BLACK                  | UL1332 AWG22 | GND HALL SENSOR                 |
| 6       | YELLOW<br>YELLOW/WHITE | UL1332 AWG18 | PHASE U                         |
| 7       | RED<br>RED/WHITE       | UL1332 AWG18 | PHASE V                         |
| 8       | BLACK<br>BLACK/WHITE   | UL1332 AWG18 | PHASE W                         |

