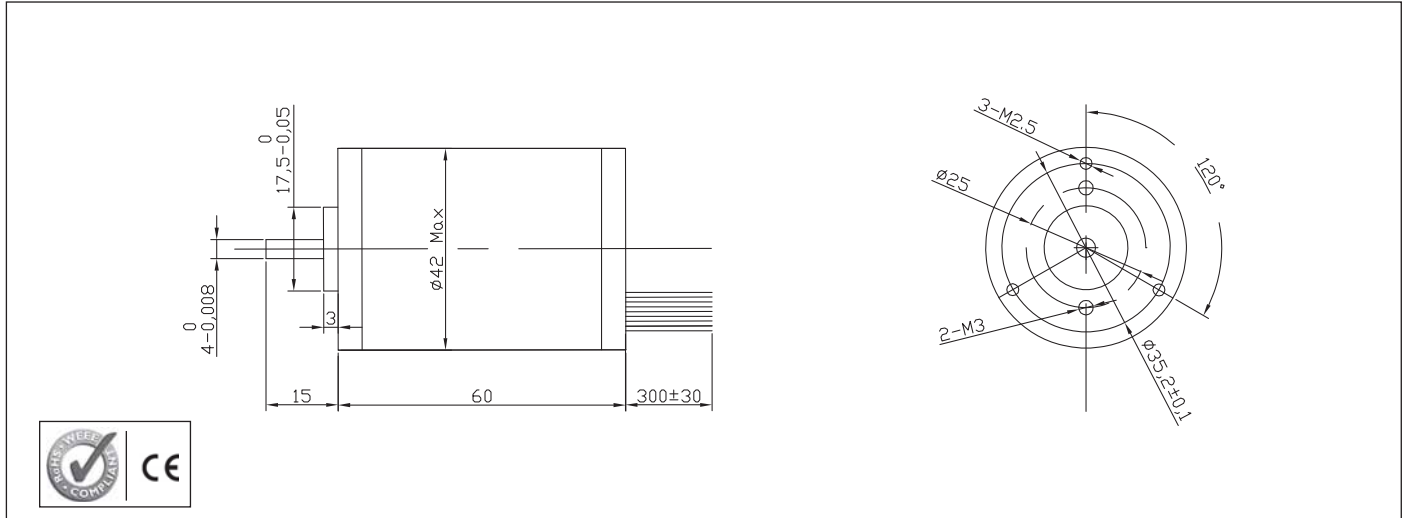


# 42RBL Brushless Motor



## Characteristics

<b>HALL EFFECT ANGLE</b> 120° electric angle
<b>SHAFT RUN OUT</b> 0,025 mm
<b>INSULATION CLASS</b> B
<b>RADIAL PLAY</b> 0,02 mm 450g load
<b>AXIAL PLAY</b> 0,08 mm 450g load
<b>MAX RADIAL FORCE</b> 15N 10mm from flange
<b>max axial force</b> 10N
<b>DIELECTRIC STRENGTH</b> 500 VDC for one minute
<b>INSULATION RESISTANCE</b> 100 M ohm min. 500 VDC

## Specification

Model	42RBL60	42RBL85
1 N° OF POLE	8	8
2 N° OF PHASE	3	3
3 RATED VOLTAGE V	24	24
4 RATED SPEED RPM	4000	4000
5 RATED TORQUE NM	0,08	0,15
6 MAX PEAK TORQUE NM	0,24	0,45
7 TORQUE CONSTANT NM/A	0,0385	0,036
8 LINE TO LINE RESISTANCE $\Omega$	1,6	0,71
9 LINE TO LINE INDUCTANCE mH	1,94	0,86
10 MAX PEAK CURRENT A	5	12
11 LENGTH MM	60	85
12 ROTOR INERTIA G-CM <sup>2</sup>	48	65
13 WEIGHT KG	0,4	0,6

## Connection

LEAD N°	COLOR	GAUGE	FUNCTION
1	Yellow	UL1430 AWG26	Vcc Hall Sensor +5 to +24 Vdc
2	Blue	UL1430 AWG26	Hall A
3	Orange	UL1430 AWG26	Hall B
4	Brown	UL1430 AWG26	Hall C
5	White	UL1430 AWG26	GND Hall Sensor Ground
6	Green	UL1430 AWG22	Phase U
7	Red	UL1430 AWG22	Phase V
8	Black	UL1430 AWG22	Phase W