

# BLDC 85

S23K- 48V MAXIMUM POWER DESIGN\*  
 21P2.1.100Y

preliminary datasheet

Rated voltage [ V ]	No load speed**** [ rpm ]	Rated speed** [ rpm ]	Rated power** [ W ]	Rated torque** [ mNm ]	Rated current** [ A ]	Max. Efficiency [ % ]	Max. torque*** [ Nm ]
48	3750	3530****	310	841****	7.4	92	9

\*) Rotor magnets are protected against impacts

\*\*\*) Based on heat test results with winding temperature rise of T= 70K and no heat conduction to outside. Measured at 25°C ambient temperature (also valid for motor characteristics on 2nd page).

\*\*\*\*) Theoretical stall current, I<sub>stall</sub>= 13,6 A

\*\*\*\*\*) Highly dependent on installation situation

## General Information

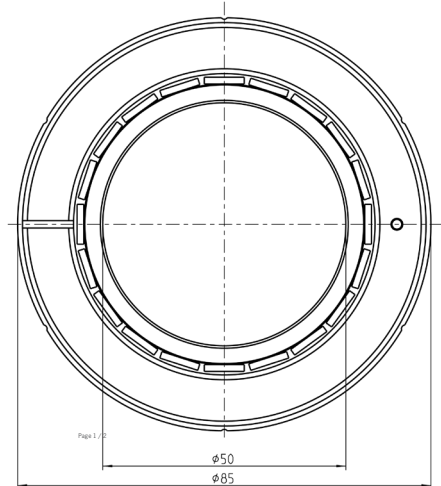
- Class of protection: IP20
- Duty cycle: up to 100 %
- Torque constant: 127 mNm/A
- Weight: 700 g
- Ambient Temp Range: 0 °C to +40 °C
- Insulation class for winding: B (130 °C)
- Max. Temp. Rise: 70 K
- Direction of Rotation: CW / CCW
- Number of Poles: 20
- Terminal resistance [R<sub>ph-ph</sub>]: 128 mOhm
- Terminal inductance [L<sub>ph-ph</sub>]: 220 µH
- Thermal resistance winding-air: 2.23 K/W

## Features

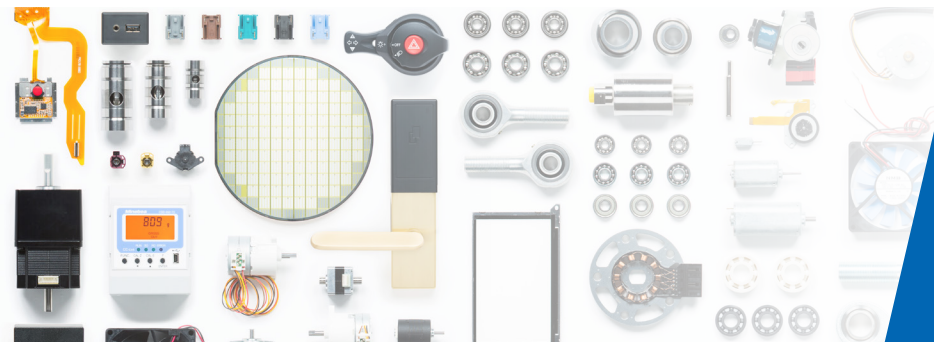
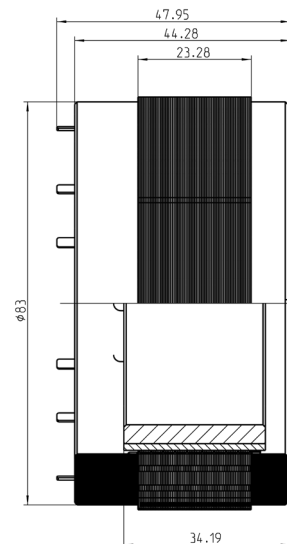
- High power-to-volume ratio
- High efficiency at duty point
- High reliability

## Options

- Sensorless Operation: Yes



Stator: 1520-016-00043  
 Rotor: 1520-014-00024



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