

CROUZET - BLDC GEARED MOTOR WITH INTEGRATED SMI21 DRIVE & CANOPEN NETWORK

802897XX SMI21 CANOPEN
Planetary 81mm gearmotor 141W 12-48Vdc 10-
476rpm 120Nm max



- 12→48 V dc, 10→120 Nm, worm and planetary gears
- Speed, torque & position control. CANopen network
- Reduce control panel space & cabling
- Long life (>20,000 hours)
- IP65 as standard

PRODUCT DESCRIPTION

The SMI21 integrated drive is ideal for applications where speed, torque & positional control is required.

The motor also incorporates a high resolution 4096ppr incremental encoder ideal for precise positioning applications.

With CANopen communication the motor can be connected & controlled via the master CANopen control network.

The long lifetime of the brushless motor (>20,000 hours with rated load) means it is ideal for continuous or long duty applications.

Having the drive integrated into the motor can also save control panel space, reduce cabling and save set-up time.

3 motor sizes available with the same diameter (57mm x 57mm), with increasing motor lengths for more power/torque.

Planetary & worm gearbox options available for reducing the speed & increasing the output torque.

The motors are rated to IP65 dust/water protection class as standard.

Options for adaptation to the standard motor include adding a holding brake, special output shaft, special connectors, upgraded IP protection & special firmware developed according to your specific application requirements.

* Full documentation & user manuals available upon request.

TECHNICAL DATA

Diameter	81 mm
Integrated control	SMi21 CANopen
IP class	IP65
Life span	20,000h
Max. torque	120
Number of pulses per revolution	4096
Positioning feedback	Yes
Power	141 W
Ratio	i=5→236:1
Shaft diameter	19 mm
Speed options	10rpm→476rpm
Supply voltage	12 V DC, 24 V DC, 48 V DC
Type of gearbox	Planetary 1→3 stages

GEARBOXES FOR DCmind BRUSHLESS RANGE

4 to 120 Nm

- Planetary and worm gearboxes
- Shafts on ball bearings
- Long service life
- IP65



Part numbers

Gearbox	Planetary D 01	Planetary D 02	Planetary D 03	Worm
Type	P10495	P10496	P10497	P10410
Output power	100 W	100 W	100 W	100 W
Ratio	10:1	10:1	10:1	10:1
Rated torque	10 Nm	10 Nm	10 Nm	10 Nm
Rated speed	1000 rpm	1000 rpm	1000 rpm	1000 rpm
Efficiency	85%	85%	85%	85%
Weight	1.5 kg	1.5 kg	1.5 kg	1.5 kg
Dimensions	100 mm	100 mm	100 mm	100 mm
Material	Aluminum	Aluminum	Aluminum	Aluminum
Temperature range	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C	-20°C to +70°C
Standard reduction ratios	1:1, 2:1, 3:1, 4:1, 5:1, 6:1, 8:1, 10:1, 15:1, 20:1, 30:1, 40:1, 60:1, 80:1, 100:1	1:1, 2:1, 3:1, 4:1, 5:1, 6:1, 8:1, 10:1, 15:1, 20:1, 30:1, 40:1, 60:1, 80:1, 100:1	1:1, 2:1, 3:1, 4:1, 5:1, 6:1, 8:1, 10:1, 15:1, 20:1, 30:1, 40:1, 60:1, 80:1, 100:1	1:1, 2:1, 3:1, 4:1, 5:1, 6:1, 8:1, 10:1, 15:1, 20:1, 30:1, 40:1, 60:1, 80:1, 100:1

Other ratios possible

Options

- 01 planetary gearbox: Metal gears on all stages. IP65 apart from the output shaft.
- 02 planetary gearbox: On the first stage, the lateral gears are made of composite materials which improve efficiency and service life. On the other stages, the metal gears turn on needle bearings. IP65 apart from the output shaft.
- 03 planetary gearbox: All gears are metal and turn on needle bearings, resulting in excellent robustness and a very long service life. IP65 apart from the output shaft.
- Worm gearbox: This gearbox combines a hardened steel worm and a hard bronze helical gear wheel, thus ensuring a long service life. The wheel is coated with grease, ensuring an excellent slip coefficient and good heat dissipation. Cuttings and shavings are used in combination with a compression spring to create a tight seal at the gearbox output shaft and the motor input shaft. IP65 gearbox.

The casing is made of aluminum to maximize heat exchanges with its supporting surface on the machine. However, due to the high power that can be transmitted by this gearbox and the low efficiency inherent in large worm gearbox reduction ratios, make sure that the gearbox casing temperature does not exceed 70°C during operation. The output shaft can be placed on the right or left, or can be a double shaft (shaft output on both sides).

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