

CROUZET - BLDC SQ57 MOTOR WITH INTEGRATED SMI21 DRIVE

80140XXX SMI21
 BLDC motor with Internal drive 92W 12→48Vdc
 3900rpm 225mNm

- 12→48 V dc, 92→170 W, 225→685 mNm, 1100→4000 rpm
- Speed, torque & position control
- 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.

Motion programming, configuring & set-up performed through the dedicated user friendly DCmind-soft PC software. The program can be controlled via basic switches or by external PLC.

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), just increasing the motor length for more power/torque options.

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.

* Product datasheets & 3D drawing for standard IP65 cable version attached as an example. Further information for braked version available upon request. Full documentation & user manuals also available upon request.

TECHNICAL DATA

Diameter	57 mm
Integrated control	SMi21
IP class	IP65
Length	123 mm
Life span	20,000h
Nominal torque	0,225 Nm
Number of pulses per revolution	4096
Positioning feedback	Yes
Power	92 W

Shaft diameter

8 mm

Speed options

1460rpm→4000rpm

Supply voltage

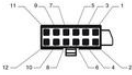
12 V DC, 24 V DC, 48 V DC

Weight

1,17 kg

Connection

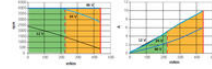
Connector (Molex 0430251200)



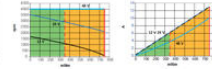
Pin	Logic Label	Wires	Power cable	Wires
	Description	Color	Description	Color
1	Input 1 - logic	Green	+12 VDC → 48 VDC	Brown
2	Input 2 - logic	Yellow	0 VDC	Blue
3	Input 3 - logic	White		
4	Input 4 - logic	White-brown		
5	Input 5 - analog	Blue		
6	Input 6 - analog	Orange		
7	0 VDC	Black		
8	0 VDC	White-black		
9	Output 1 - PWM	Brown		
10	Output 2 - PWM	Purple		
11	Output 3 - logic	Red		
12	Output 4 - logic	Grey		

Curves

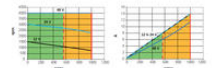
Speed / Torque 80140 SM21 - Current / Torque 80140 SM21



Speed / Torque 80180 SM21 - Current / Torque 80180 SM21



Speed / Torque 80280 SM21 - Current / Torque 80280 SM21



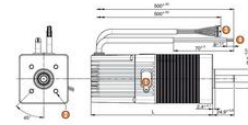
Speed / Torque 80140 SM21 - Current / Torque 80140 SM21



Continuous running area
 Cycling running area
 Maximum continuous torque
 Maximum peak torque

Dimensions (mm)

80140 - 80180 - 80280 SM21



- ① USB connection type B
- ② 4 x M5 over Ø 40 depth 4.5
- ③ Command cable 12 x AWG26
- ④ Power cable 2 x AWG16

L: 80140: 123 max
 L: 80180 / 80280: 143 max
 More information: see page 16