

DCmind BRUSHLESS MOTORS

SQ75 motor with integrated SMi22 CANopen electronic board



- › DC Brushless motor for position, speed and torque control applications
- › High precision thanks to the 4096 position per turn magnetic encoder
- › CANopen Communication bus (CiA 301 compliant and implemented with CiA 402 drive profile)
- › Enhanced safety via 2 Safe Torque Off (STO) inputs
- › IP67 & IP69 direct drive according to IEC 60259 (except front face & shaft output)
- › Protection against wrong polarity



General characteristics

Type	80350			80360			80370			
Part numbers	80350001			80360001			80370001			
Nominal operating range	V ₋₋₋	9 - 75			9 - 75			9 - 75		
No-load characteristics		12V₋₋₋	24V₋₋₋	32V₋₋₋	24V₋₋₋	32V₋₋₋	48V₋₋₋	32V₋₋₋	48V₋₋₋	60V₋₋₋
Speed of rotation	rpm	1 700	3 230	4 500	2 601	3 270	5 000	2 300	3 420	4 320
Absorbed current	A	1.1	1	2.4	1	1	0.9	1	1	1
Standby current ± 10 %	mA	50	50	50	50	50	50	50	50	50
Nominal characteristics		12V₋₋₋	24V₋₋₋	32V₋₋₋	24V₋₋₋	32V₋₋₋	48V₋₋₋	32V₋₋₋	48V₋₋₋	60V₋₋₋
Speed ± 10 %	rpm	1 380	3 000	3 845	2 230	2 960	4 540	2 000	3 130	3 890
Torque	N.m	1	1	1	1.3	1.3	1.3	1.9	1.9	1.9
Absorbed current	A	15.4	15.4	15.4	14.4	14.4	14.4	15.1	15.1	15.1
Output power ± 10 %	W	145	314	400	304	403	618	398	623	700
Efficiency	%	78	85	82	85	87	87	80	86	78
Maximal characteristics		12V₋₋₋	24V₋₋₋	32V₋₋₋	24V₋₋₋	32V₋₋₋	48V₋₋₋	32V₋₋₋	48V₋₋₋	60V₋₋₋
Speed	rpm	1 000	2 310	3 100	1 650	2 160	3 540	1 650	2 340	3 170
Torque	N.m	2.5	2.5	2.5	4	4	4	5	6	6
Output power ± 10 %	W	262	600	750	691	905	1 483	864	1 470	1 800
Absorbed current	A	34.5	34.5	34.5	42	42	42	40	44	44
Efficiency	%	60	74	68	67	69	71	67	70	68
Other characteristics										
Cogging Torque	mNm	45	45	45	50	50	50	55	55	55
Weight	Kg	2.4	2.4	2.4	2.7	2.7	2.7	3.3	3.3	3.3

Accessories

Description	Part numbers
Starter kit: Dcmind Soft+CANopen software - Power/logic/CAN 3 m cables - USB to CANopen adaptor - CAN terminal resistor - CAN double connector	79513105
Power supply cable M16, 3 m length AWG18	79298664
Input-Output cable M16, 3 m length AWG24	79513106
CAN cable M12, 1 m length AWG26	27358015

Combinations

① Choose The Motor

80350
80360
80370

② Choose The Gearbox

**OR MOTOR
+ 4.5 Nm BREAK**

**PLANETARY
GEARBOX | PM72**

1 - 2 - 3 Stages

**PLANETARY
GEARBOX | P81**

1 - 2 - 3 Stages

**RIGHT-ANGLE WORM
GEARBOX | RAD20**

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Description:

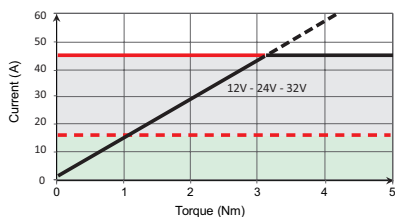
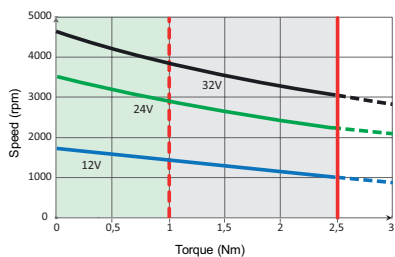
The new SQ75 DCmind Brushless motors have an integrated drive and CANopen communication bus for Motion Control applications up to 600 W nominal power and up to 6 Nm peak torque. More power, accurate precision, as well as enhanced safety and security features to secure your application.

For more information about Crouzet's SQ75 range, please visit www.crouzet.com.

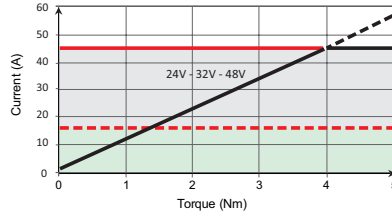
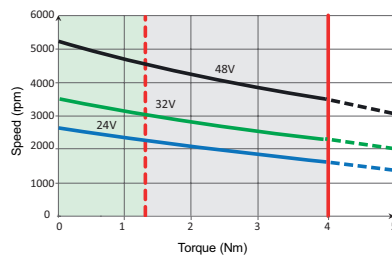
Curves

Speed-torque and current-torque

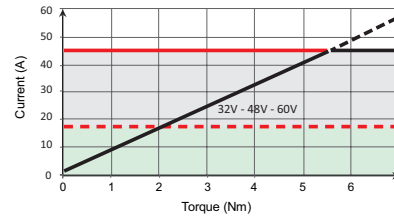
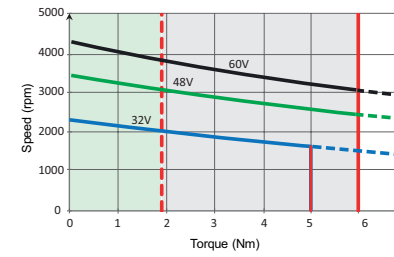
80350



80360



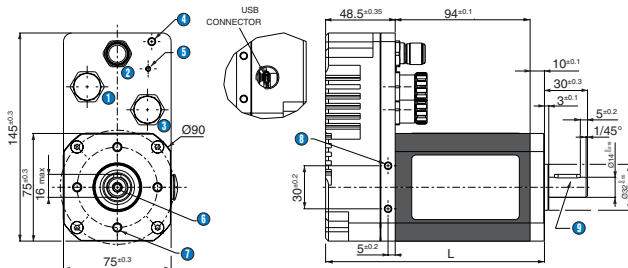
80370



--- Nominal torque
— Peak torque
 Continuous running area
 Cycling running area

Dimensions (mm)

80350 - 80360 - 80370



- 1 Logic connector
- 2 CAN connector
- 3 Power supply connector
- 4 M5 x 0.8 depth 7
- 5 2 colors LED for motor status
- 6 M5 x 0.8 depth thread 12
- 7 M6 x 1 at 90° on Ø56 depth 10.5
- 8 M5 x 0.8 depth 11.5
- 9 Parallel key 5 x 5 x 18 DIN 6885 A

L: 80350 140.6 max - L: 80360 153.1 max - L: 80370 178.1 max

Connection

Input / Output M16 connector - 18 pins			
Pin	Description	Pin	Description
1	Optional logic supply	14	0 volt
2	0 volt	15	STO2-
3	Input 6 (analogic 1)	16	STO2+
4	Input 5 (analogic 2)	17	STO1-
5	Input 1 (digital)	18	STO1+
6	Input 2 (digital)		
7	Input 3 (digital)		
8	Input 4 (digital)		
9	0 volt		
10	Output 1 (digital - PMW)		
11	Output 2 (digital - PMW)		
12	Output 3 (digital)		
13	Output 4 (digital)		

Pin	Power supply M16 - 3 pins
	Description
1	Output ballast
2	+VDC
3	0 volt

Pin	CAN - M12 - 5 pins
	Description
1	Not connected
2	Not connected
3	CAN_GND
4	CAN_H
5	CAN_L

User information

Product User Manual available on website, please read it before use.

Products on request

Please contact our Design LAB on www.crouzet.com. Examples: special shaft - board adaptation...

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