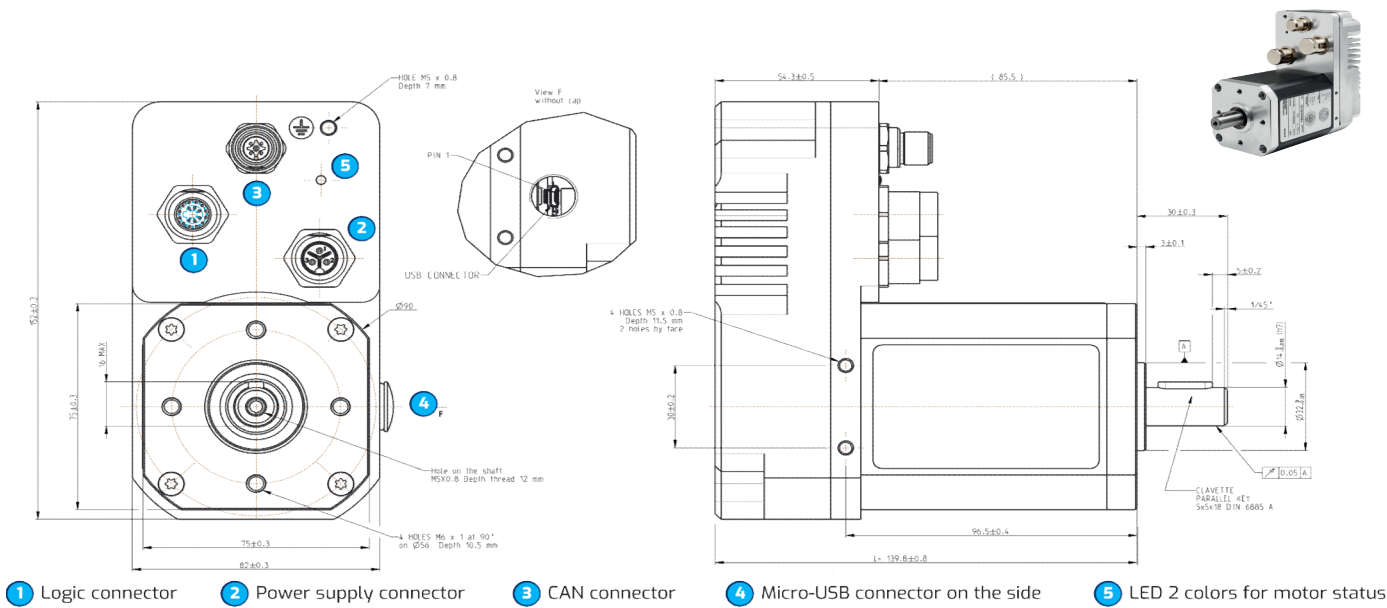




General characteristics

Power supply		
Direct current voltage supply		✓
Nominal voltage range	Vdc	9 -> 75
Max. current	A	75

Motor characteristics (1)		12 Vdc	24 Vdc	32 Vdc	
At no load					
Max. output speed	rpm	1 700	3 230	4 500	
Current at the max output speed	A	1,1	1	2,4	
Standby current	mA	50	50	50	+/-10%
At nominal					
Speed	rpm	1 380	3 000	3 845	+/-10%
Torque (2)	N.m	1	1	1	
Output power	W	145	314	400	+/-10%
Current	A	15,4	15,4	15,4	
Efficiency	%	78	85	82	
At max. output power					
Speed	rpm	1 000	2 310	3 100	
Torque	N.m	2,5	2,5	2,5	
Output power	W	262	600	750	
Current	A	34,5	34,5	34,5	
Efficiency	%	60	74	68	
At peak torque					
Speed	rpm	1 000	2 310	3 100	
Torque	N.m	2,5	2,5	2,5	
Output power	W	262	605	750	
Current	A	34,5	34,5	34,5	

Others		
Life	h	20 000
Rotor inertia	gcm ²	426
Rotor poles		8
Cogging torque	mNm	45
Weight	kg	2,4
Noise level	dBA	55

Connecting		
I/O M16 connector 18 pins	Pin N°	
Optional logic supply	1	
0 Volt	2	
Input 6 (analogic 1)	3	
Input 5 (analogic 2)	4	
Input 1 (digital)	5	
Input 2 (digital)	6	
Input 3 (digital)	7	
Input 4 (digital)	8	
0 Volt	9	
Output 1 (digital - PWM)	10	
Output 2 (digital - PWM)	11	
Output 3 (digital)	12	
Output 4 (digital)	13	
0 Volt	14	
STO 2 -	15	
STO 2 +	16	
STO 1 -	17	
STO 1 +	18	
Power supply M16 connector 3 pins	Pin N°	
Output ballast	1	
+VDC	2	
0 Volt	3	
CAN M12 Connector - 5 pins	Pin N°	
Not connected	1 / 2	
CAN_GND	3	
CAN_H	4	
CAN_L	5	

Drive		
Type	SMI22 CAN	
Built-in drive	✓	
Internal magnetic encoder	4096 pulses/rev	
Setting software on PC	DCmind soft+CANopen	
Control		
Position - speed - torque	✓	
4 quadrants	✓	
With regenerative energy absorber (3)	✓	
Type" Field Oriented Control"	✓	
Security		
Wrong polarity from power supply	✓	
Output shortcut	✓	
Input inverted	✓	
Low voltage	Vdc	<9
Overvoltage (4)	Vdc	> 75
Internal drive temperature protection	°C	110
Temperature drive allowing to restart	°C	90

Generic parameters		
Output shaft with ball bearings	✓	
2 Safe Torque Off inputs	IEC61800-5-2/62061, ISO13849	✓
Max. radial force (16mm from front face)	N	140
Max. axial force	N	47
Temperature range	IEC60068-2-1/2	°C -30 -> +70
Storage temperature		°C -40 -> +80
Dielectric (1s/2mA)	UL1004-1	Vdc 1 955
Motor insulation	IEC60085	class E
Salt spray	ISO9227	severity 48h
Degree of protection (output shaft not included)	IEC60529	IP65
EMC		
Electrostatic discharge	IEC61000-4-2	level 3
Radiated field	IEC61000-4-3	level 3
Electrical fast transient/burst test	IEC61000-4-4	level 3
Surge test	IEC61000-4-5	level 1
Conducted disturbances	IEC61000-4-6	level 3
Radiated emission	EN55022	class B

Approvals		
ROHS	2011/65/CE	✓
EC		✓
UL		On demand
CAN Open	CIA DS 301/402	✓
Communication		
USB (Setting, monitoring)	Micro-USB B	
CAN open: address - node ID (factory settings)		0x20
CAN open: baud rate (factory settings)		kbaud 1000

Notes	
Values without tolerances are average production values.	
(1) Cold motor, 20°C ambient temp., full speed, sinusoidal commutation	
(2) Nominal torque for continuous operation at 20 °C, decrease this value for higher ambient temperature	
(3) Ballast resistor to be added	
Crouzet	
* V1: see label on product	

Additional information is available in the SQ75 product user manual and in the starter kit manual, available in www.crouzet.com

