CROUZET

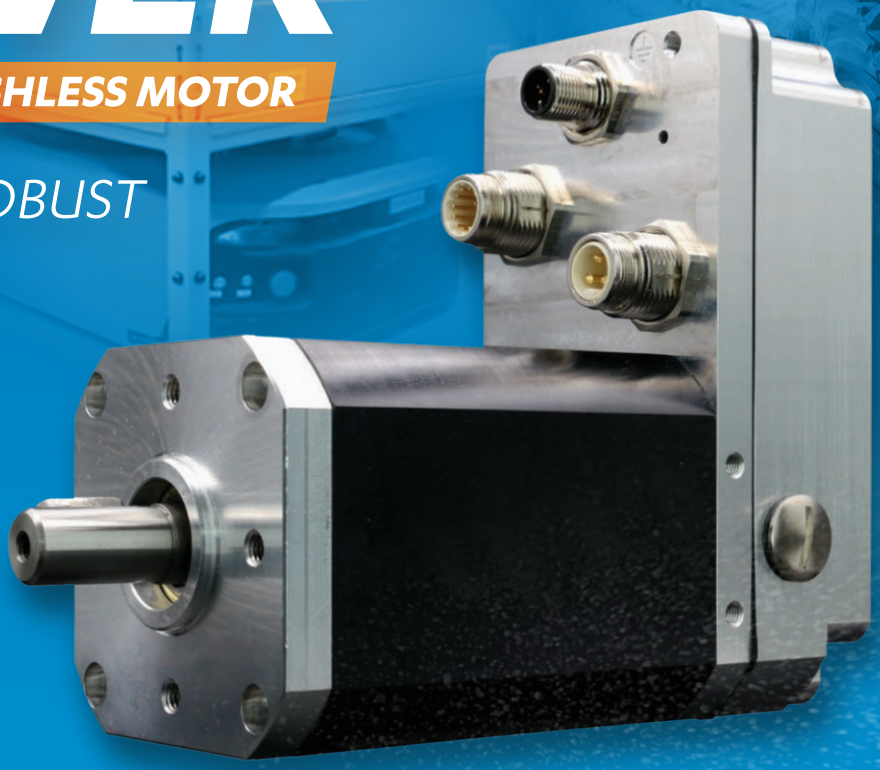
MOTION

SMART POWER

dcmind BRUSHLESS MOTORS

SQ75 DCmind BRUSHLESS MOTOR

+EASY +SAFE +ROBUST



www.crouzet.com

MEET CROUZET'S MOST POWERFUL BRUSHLESS MOTOR | SQ75 DCmind Brushless

The accuracy and efficiency you need - the ease of use you desire

Voltage (V)	Power Range (W)	Torque Range (mNm)	Speed Range (rpm)
9 - 75 Applied: 24/32/48	310 - 600	1000 - 1900	1 - 5000

- **Front face:** 75 mm
- **Integrated magnetic encoder:** 4096 ppr
- **Rating:** IP67 & IP69
  Except front face & shaft

+CANopen Interface

STANDARD OFFER

dcmind BRUSHLESS MOTORS

P/N family:	80350	80360	80370
Applied Voltage	24 V	32 V	48 V
Nominal Power	310 W	400 W	600 W
Nominal Torque	1.0 Nm	1.3 Nm	1.9 Nm
Nominal Speed	3000 rpm	2960 rpm	3130 rpm
Peak Power	600 W	900 W	1400 W
Peak Torque	2.5 Nm	4 Nm	6 Nm
Integrated CANopen	✓	✓	✓

To learn more about SQ75, visit **www.crouzet.com**

KEY BENEFITS

Easy Installation & Set-up

You are the master of your application, we make it simple for you

- Easily start your motor with a **standard USB cable and a PC**
- You are **protected against wrong polarity** in case of wrong wiring
- **Quickly set-up** your application with **DCmind soft + CANopen FREE software**
  - Easily define **motion profiles** (speed, torque, position)
  - Use the **pre-loaded application programs** to test your set-up
  - Draw curves, edit performance reports, tune regulation loops and more
- Constantly **check the motor's status** using the LED on the front face

Communication & Diagnosis

SQ75: at the heart of your network, yet locally empowered

- **CANopen interface** as per CiA 301 (certified) and CiA 402 for use as a slave in a **new or existing equipment**
- **USB and CAN dual communication** to perform **local set-up and diagnosis**
- Collect data for feedback and implement **preventive maintenance functions**

Security & Protection

We help you protect your application & people

- **SQ75 operates with up to 75 V input voltage**, or in case of regenerated voltage due to high inertial brake level
- The **energy rejection module** protects the motor during **high acceleration and deceleration phases**, using a software-enabled ballast resistor (customer added external resistor standard)
- **Emergency stop** management via 2 Safe Torque Off (STO) inputs
- **Galvanic isolation** of the CAN bus to prevent the control signal from interfering with the CAN network

Water & Dust Proof

SQ75 is made for harsh environments

IP67 IP69

The SQ75 is rated **IP67 and IP69** (except front face and shaft) as per IEC 60529; even the optional software-enabled 4.5 Nm brake version

Ready for Battery Operation

12 V or 24 V battery voltage - No problem!

The SQ75's **performance starts as low as 9V**- perfect for battery-operated applications such as service robots



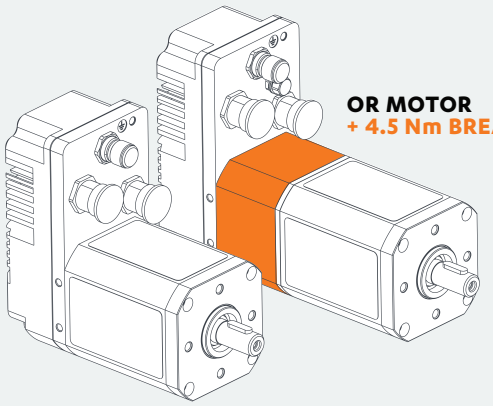
* UL Pending (2019)



A WIDE RANGE OF POSSIBLE COMBINATIONS!

1 Choose The Motor

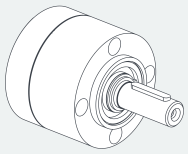
80350
80360
80370



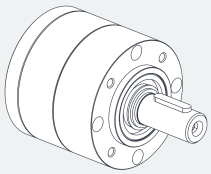
OR MOTOR
+ 4.5 Nm BREAK

2 Choose The Gearbox

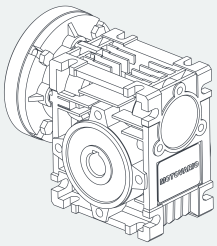
PLANETARY GEARBOX | PM72
1 - 2 - 3 Stages



PLANETARY GEARBOX | P81
1 - 2 - 3 Stages



RIGHT-ANGLE WORM GEARBOX | RAD20



NEED EVEN MORE?

With **90+ years' experience** in precision motor engineering, Crouzet can provide the right solution for you. If you're looking for a reliable, experienced and trustworthy motion control partner, **Crouzet's DesignLAB** team is ready to help you. Contact our engineers now and we will be glad to discuss your specific needs.

DESIGN LAB

SQ75 COMMON APPLICATIONS

Access Control



Wrapping Machines



Conveyor Belts



Peristaltic Pumps



Intralogistics



Industrial Service Robots



Agbots



Defense Robotics



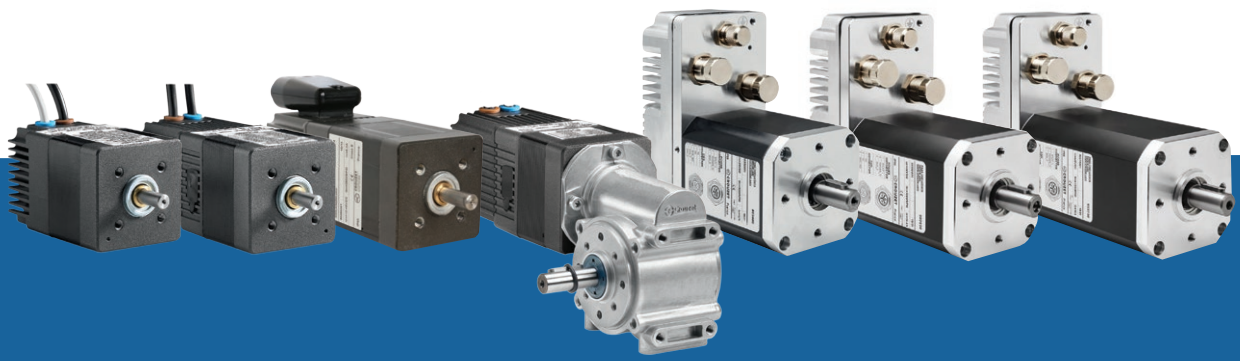
UNDERSTANDING CROUZET'S
DCMIND BRUSHLESS MOTORS OFFERING





	SQ57 FAMILY		SQ75 FAMILY
Front Face (mm)	**57**		**75**
Nominal power range (W)	77 - 170		310 – 600
Integrated electronics	TNi21	SMi21 SMi21 CAN	SMi22 CAN
Range of power supply (V)	10 - 36	9 - 75	9 - 75
Nominal velocity (rpm)	3250 – 4000	2865 – 3900	2960 - 3130
Nominal torque (mNm)	185 – 390	225 – 565	1000 - 1900
Encoder resolution (ppr)	12 – 24	4096	4096
Communication	USB	USB & CANopen	USB & CANopen
Programming Software	No	DCmind Soft & DCmind Soft + CANopen	DCmind Soft + CANopen
Control functionalities	Speed & Torque Control	Position, Speed & Torque Control	Position, Speed & Torque Control
IP level	IP54, up IP65* (please contact us)		IP67* & IP69*
Holding Brake option	External - 0.5 Nm		Internal - 4.5 Nm
Planetary gearboxes	P52, P62, P81		PM72, P81
Right-angle Worm gearboxes	RAD10		RAD20

* Except front face and shaft



CROUZET

MOTION

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