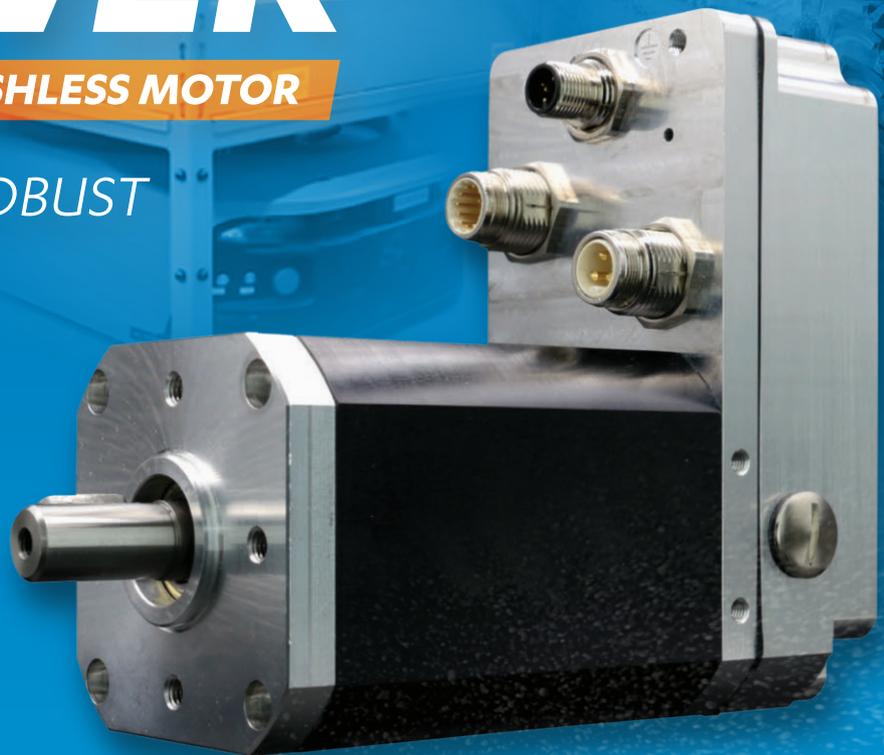


SMART POWER

SQ75 DCmind BRUSHLESS MOTOR

+EASY +SAFE +ROBUST

dcmind
BRUSHLESS
MOTORS



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



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



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

CANopen

+



+



CE



REACH



ciA 301 & 402

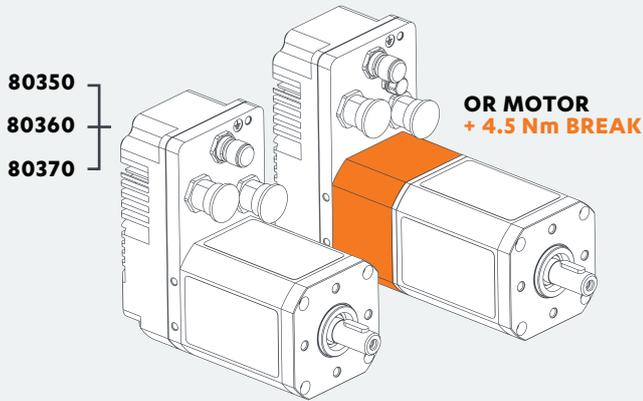


* UL Pending (2019)



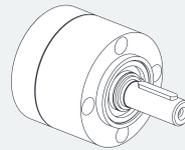
A WIDE RANGE OF POSSIBLE COMBINATIONS!

1 Choose The Motor

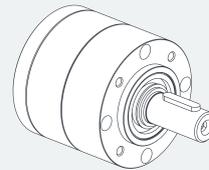


2 Choose The Gearbox

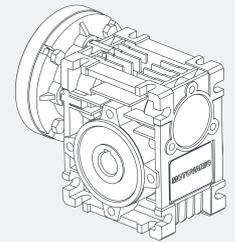
PLANETARY GEARBOX | **PM72**
1 - 2 - 3 Stages



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



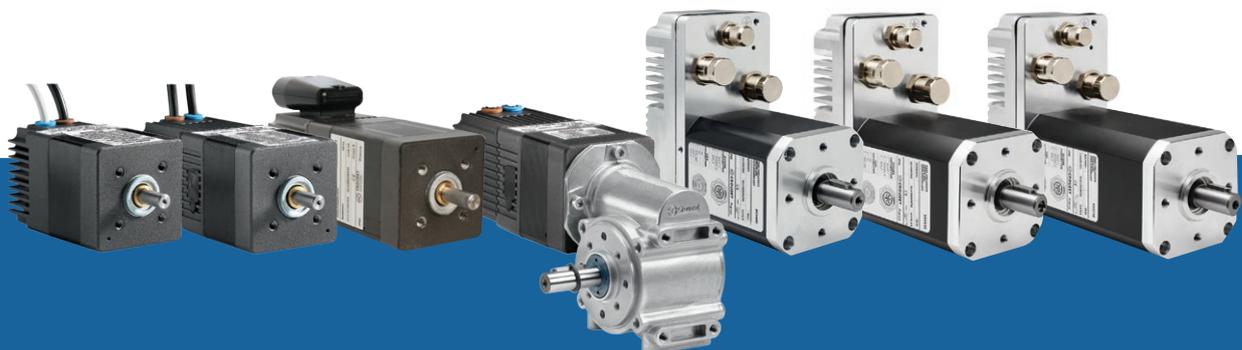
SQ57 FAMILY



SQ75 FAMILY

| | 57 | | 75 |
|----------------------------|------------------------------------|--|----------------------------------|
| 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



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