# ROBUST MOTORIZED SOLUTIONS FOR RAILWAYS







# ABOUT CROUZET MOTORS

All around the world for more than 50 years, Crouzet Motors has been providing an innovative engineering expertise, high quality service and a complete offer of standard and customized direct drives, geared motors and motion control solutions for all applications where performance is key.

Crouzet Motors is a brand of InnoVista Sensors™.

www.crouzet-motors.com

With a long-term commitment to technological excellence, the engineering teams have mastered the following core technologies and know-how:

- > Electromagnetism
- > Thermal dynamics
- > Electromechanical systems
- > Electronic drives

Covering the power range from 1 to 1000 W peak (1/100 to 1HP+) and available with spur, worm and planetary gearboxes, plus adapted controllers,our offer is specifically designed for access control systems, pumps and valves, railway applications, electrical equipment, medical equipment and the industry.



PENPORS

InnoVista Sensors™: your trusted partner of choice to face industrial challenges of today and tomorrow.

InnoVista Sensors™ is a worldwide industrial specialist of sensors, controllers and actuators for automated systems.

Through its brands, Crouzet Aerospace, Crouzet Automation, Crouzet Control, Crouzet Motors, Crouzet Switches and Systron Donner Inertial,

InnoVista Sensors™ offers a wide range of reliable, efficient and customizable components dedicated to the Aerospace & Defense, Transportation and Industrial market and segments.

Thanks to the recognized expertise of its teams and a strong innovation policy, InnoVista Sensors™ brings performance enhancing solutions to its customers worldwide.

www.innovistasensors.com

# **Designs & Manufactures**







Controls



Actuators

# For



Aerospace & Defense



**Transportation** 



Industry

# With commercial brands













# **CROUZET MOTORS OFFER**

# **RELIABILTY, ROBUSTNESS, EASY MAINTENANCE**

Railways worldwide require robust material that can support extreme environments and the harshest operating conditions. For more than 30 years Crouzet Motors has been contributing to safe and comfortable railway transportation through innovative solutions: DCmind Brush motors and DC Brush geared motors.

# **DCmind Brush motor**



- > Exceptionally quiet: 35dBA
- > 80% + efficiency
- > 5000 to 24,000 hour service life
- UL 1004 / CE / ROHS



- > Extremely quiet
- > Long working life
- > Highly efficient
- > Robust

# **DC Brush Geared Motor**



- > Very low noise
- > High starting torque
- > Speed range from 0.3 to 600rpm
- > Planetary, worm, parallel shaft gearboxes available
- > UL approved



- > Long service life
- > Compact solutions, easy to integrate
- > Numerous combinations to fit your needs

# **Gearboxes**

- > Planetary
- Worm





# **Accessories & options**

- > Brakes from 0.25 Nm to 1.5 Nm
- > Encoders from 1 to 1000 pulses/revolution 1 or 2 channels
- ) IP65 / IP67 / IP69K





# COMPLIANT TO RAILWAY STANDARDS

Suitable for operation in humid or heavily polluted environments, our motors are designed to meet specific railway standards relevant to:

- > EN 50155: electronic protection, control and regulation equipment
- > IEC 61373: schock and vibration requirements
- > EN 45545: inflammability of material







# **DRIVE UNITS FOR**

# RAILWAY APPLICATIONS

Our DC Brush geared motors and DCmind Brush Motors have a wide range of power and torque ratings, long life, reduced vibration and low operating sound level. They are reliable and robust motorized solutions, certified to all relevant standards of the rail market, and are widely used in many on- and off-board electrical applications.

# **Platform Screen Doors**



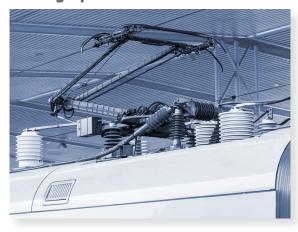
# **Reduced Mobility Access Ramps**



# Internal train doors



# **Pantographs**



# **BENEFITS**

# **HIGH RELIABILITY**

Today's rail systems need to be efficient, competitive and safe. We make reliability one of our highest goals from the very start of the product's design in order to achieve excellent performance.

# **RUGGED PERFORMANCE**

Product technology, functionality & durability have been our keys to success. We guarantee the impeccable design & quality combined with cost-effectiveness & minimal environmental impact of our motors.

# **EASY MAINTENANCE**

Railway infrastructure performance requires high frequency and speed of trains, while time for maintenance work decreases. We design easy-integration, low-maintenance, low-noise & low-vibration motors leading to huge financial savings & superior service to public.

# **CUSTOMIZED SOLUTIONS**

# FOR UNIQUE PROJECTS

To meet market expectations and provide you with the right solutions within the shortest timeframes, Crouzet Motors has structured all company processes around the different types of product: standard products, adapted products or products specially developed for a customer.

# GEARBOX AND OUTPUT SHAFT

- Gearing to meet your speed, torque, back drivability
- Output shaft strength and configuration requirements
- > Environmental protection

# MOTOR SPECIFICATIONS

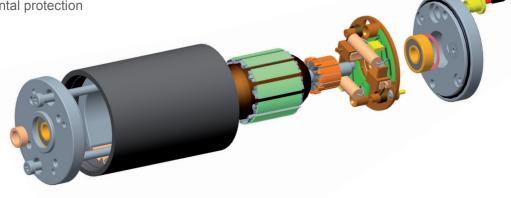
- Fiter EMC 2KV / EN 55022 B class
- Wide range of power choices

# ELECTRICAL CONNECTION

Motors with the cabling and connectors already attached

# ADDITIONNAL OPTIONS

Motors delivered with brakes and/or encoders



# AND ALSO...





- > Limit switches
- Microswitches
- Manually operated switches



Limit switches



Microswitches



- Millenium 3 Logic Controllers
- em4 nano-PLCs



Millenium 3



e**m4** nano-PLC



- > Logic elements
- > Position / Detectors
- > Electro-pneumatic valves



Position detectors

# **EUROPE / MIDDLE EAST / AFRICA**

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