ORANGE1
ELECTRIC MOTORS

Applications

SNOW GUNS

Electric Motors Production

Member of
ORANGE1
HOLDING

Welcome to ORANGE1 World

Orange1 Holding is european leader in designing and manufacturing of Electric Motors, Windings, Aluminium Foundry and Turning Parts

A strong, dynamic and ambitious group.

Orange1 Holding is an international renown Group, one of the most important European manufacturer of single-phase and three-phase asynchronous electric motors, foundry and turning parts.

Present in over 70 countries the group annually produces over 1 million single-phase and three-phase asynchronous motors, 5 million windings for asynchronous motors, 60,000 drives for electric motors, 12.500 tons of die-cast aluminum and over 12 million high precision turning parts for the automotive sector.

The group, established in 1971 by Leone Donazzan, chaired today by his son Armando Donazzan, is strongly focused on technological innovation, performance and customization to meet individual clients requirements.

OUR PHILOSOPHY

CREATIVITY

We strongly believe that imagination is the engine that opens up new avenues for innovation. We take care of the details, we want to stand out for our originality, because we believe in the art of making the difference.

PASSION

We carry out our work with passion, because passion is the engine that moves the world. We work with dedication and joy, we believe in what we do, we believe that what we do is unique.

AUDACITY

Our goals are important and our projects ambitious; we are convinced that daring dreams are the indispensable fuel for the engine of doing.

SPEED

We are committed to riding the time and we must keep our beliefs. There is no room for hesitations, we move decisively between the gears of an increasingly complex market.

ORANGE1 ELECTRIC MOTORS

Elettromeccanica Leone Donazzan was founded in 1971 in Bassano del Grappa. In 1983 the company was transformed into Eld Spa. In 1998 Armando Donazzan took over the management of the company and thanks to his determination and intuition he applied new financial and commercial policies that increased the reliability and visibility levels. In March 2006 the company changed its name to EME Spa and finally became Orange1 Electric Motors in 2018.
The goal of O1EM is to produce motors which are tailored to meet the customers and market expectations. The production covers a wide range of AC and DC motors, as well as brushless motors and variable frequency units. This is to provide a total solution.

PRODUCTION PLANTS

LOCATION	MOTORS PRODUCTION
ARSIÈ - ITALY 32030 (BL) Via A. Messedaglia 4	SINGLE AND THREE PHASE MOTORS HOLLOW SHAFT MOTORS IE2 AND IE3 MOTORS INVERTER AND MOTORINVERTER
S. MAURO PASCOLI - ITALY 47030 (FC) Via A. Grandi 23	GRADUAL BRAKE MOTORS HIGH TORQUE BRAKE MOTORS LOW CENTER MOTORS MOTORS FOR BURNERS
PARMA - ITALY 43122 (PR) Via Mantova 93	ATEX MOTORS HYDRAULIC MOTORS ENCAPSULATED WATERPROOF MOTORS OIL SUBMERGED MOTORS

SNOW GUNS MOTORS

The most important part of any snowmaking system is the snow guns.
Thanks to the great experience in the mountain sector gained with the production of motors for pumps, compressor and cableway systems, Orange1 Electric Motors is able to satisfy every customer need in terms of power and reliability even in the most difficult climatic conditions.
Orange1 offers a wide range of motors specially engineered to achieve reduced dimensions, high performances in variable speed applications, in order to ensure the best snow coverage with the minimum size.

MOTORS PRODUCTION
for snow guns application

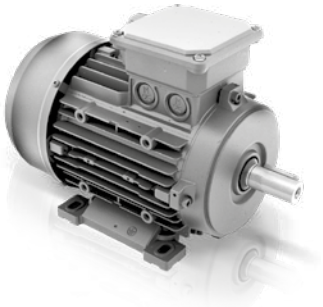
DRIVE MOTORS
Orange1 Electric Motors

O1EM develops and manufactures Variable Frequency Drive for AC, Brushless and PM motors. O1EM range includes Single and Three phase input and Three phase output. The drives could be directly mounted on the motors as a unique kit. The internal R&D offers custom solution for the firmware according to the client's special applications. Variable speed applications is the main know-how.

ENCAPSULATED WATERPROOF MOTORS
Orange1 Electric Motors

We have developed a process using a special resin material that makes the electric internal parts of the motors completely waterproof. The motors are resistant to the most hostile environments in terms of presence of water and humidity. All the motors of our range could be manufactured with this technology with no restrictions.

PM MOTORS
Orange1 Electric Motors



O1EM has launched this new solution. Motors are in IEC frame. This range improves the AC motor characteristics with **High Efficiency, better performances and smaller dimension.** PM motors have up IE4 efficiency for **Energy Savings**. O1EM manufactures the drive build on the motor as total solution, on demand.

BENEFIT OF ORANGE1 ELECTRIC MOTORS

Automatic start of the operating cycle, thanks to the present feedback.

Torque / current control, with settable set-point, and relative automatic gear inversion when the set set-point is reached.

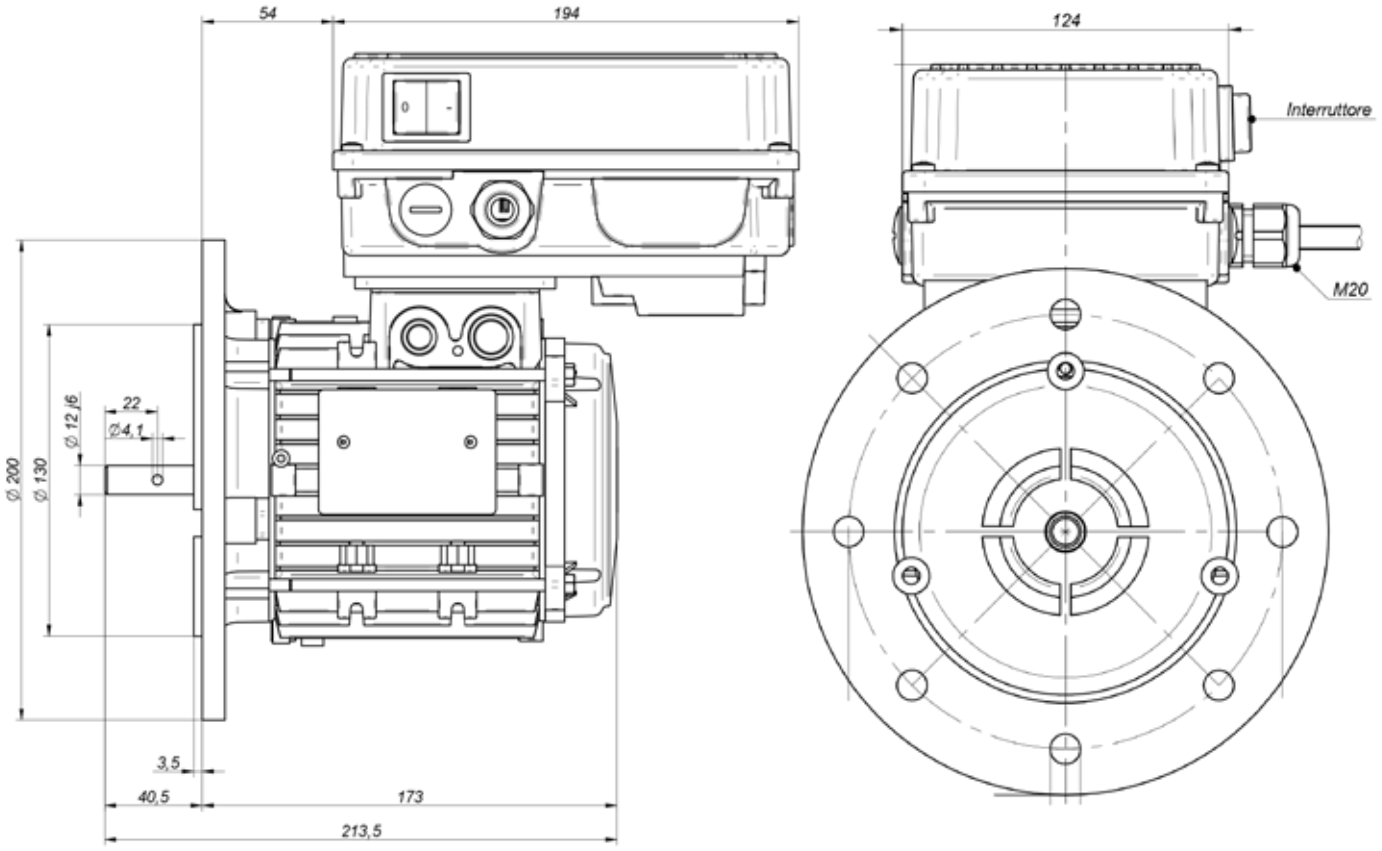
Automatic stop of the motor, after a certain settable time, through the feedback of the current.

Overload management and cycle repetition, by defined and settable number. Then produced on stand-by for a defined time.

Product with cable with socket and ON / OFF switch.

Option with completely encapsulated motor. A special process using epoxy resin, makes the internal electrical parts completely waterproof.
The motor is resistant to the most hostile environments in terms of presence of water and condensation of humidity.

TECHNICAL DRAWINGS



ELECTRICAL DATA

Drives for AC Motors

EM01-Plus All in One - 230Vac VFD Asynchronous motor - Protection IP55 full options

CODE (PARTIAL)			X0104...	X0107 ...	X0111...	X0115...	X0122...
INPUT ELECTRICAL DATA	Vin- type		Single phase				
	Voltage input (Vin)	V	230 ± 15%				
	Frequency input	Hz	47 ÷ 63				
	Input protection		None				
OUTPUT ELECTRICAL DATA	Output Motor Power*	kW	0,4	0,75	1,1	1,5	2,2
	Output Current	(A)	1,9	3,0	4,8	6,1	8,1
	Opertations mode		S1	S1	S1	S1	S2/S3
	Output Voltage	V	0 ÷ Vin				
	Output Voltage		Three phase				
	Frequency Output	Hz	0 ÷ 200 Hz				
PERFOMANCE DATA	Switching mode		PWM- V/F linear and V/F quadratic				
	Switching Frequency	kHz	10				
	Frequency Resolution	Hz	0,1				
	Range voltage of Boost	%	0 ÷ 90				
SIGNALS DATA	Signals: input		3 digital input NPN (multifunctional optoinsulated)				
	Connections		1 serial TTL (proprietary protocol and Modbus RTU)				
SETTING DATA	Acceleration time	s	0,1 ÷ 99,9				
	Deceleration time	s	0,1 ÷ 99,9				
	Alarm		Over voltage –Under voltage - Over current- Overload (I^2xt) –Over temperature				
	Overload range	%	100 ÷ 150 (200% for 1s)				
	Brake Energy Management		Direct input CC only ramp				
GENERAL DATA	Box type (see drawings)		A	A	A	B	B
	Cooling system		Natural				
	Working temperature	°C	-5 / 45				
	Storage temperature	°C	-15 / +80				
	Relative humidity	%	20 ÷ 85 (No condensation)				
	EMC rate		Class A ; category C3				

PERFORMANCE	MBM207A	2 Analog Input (setting 0÷5Vdc/0÷10Vdc/0÷20mA ; 1 Relay (dry contact) 24V-3A
	MART238	1 Analog input 0÷5Vdc; 1 Digital Output (relay 24V-3A); 1 Analog output; Serial RS485
BUILT-IN CONTROL	P1 (Option board with Analog Input is required)	Potentiometer - 10kOhm
	S1	Toggle switch
	HMI7S	Display 7 segments; 4 buttons for comands and setting
	HMI7S-P1 (Option board with Analog Input is required)	Display 7 segments; 4 buttons for comands and setting; Potentiometer-10kOhm ; status led
	P1-S1 (Option board with Analog Input is required)	Potentiometer-10kOhm ; Toggle switch ; status led
REMOTE CONTROL SYSTEM	HMI7S-Box	Display 7 segments; 4 buttons for comands and setting
EMC LINE FILTER	F105	Internal filter; C2 Category-upto 1,1kW- 230V Single Phase; up to 5A
	F110	Internal filter; C2 Category- upto 2,2kW- 230V Single Phase; up to 10A

ORANGE1 SICME SERVICE

Orange1 Sicme quality and technical team, together with a dedicated internal department, offers a full service system able to satisfy any specific request into electric motor maintenance. Orange1 Sicme Service can provide an innovative diagnostic tools for electrical testing and analysis to pinpoint immediately specific motor issues. For this purpose an equipped in-house testing room is available, in order to handle tests, inspections and issue detailled test report for each motor.

More than 15.000 motors running for wire & steel application with worldwide presence, in the most severe and various working conditions

ORANGE1 HOLDING

ORANGE1
ELECTRIC MOTORS

info@orange1.eu
www.orange1.eu

ORANGE1 ELECTRIC MOTORS
Production plants
Via Angelo Messedaglia 4
32030 - Arsiè (BL) - Italy
T. +39 0439 750067

Via A. Grandi 23
47030 - San Mauro Pascoli (FC) - Italy
T. +39 0541 815611

Via Mantova nr. 93
43122 Parma (PR) - Italy
T. +39 0521 272383

Member of
ORANGE1
HOLDING

#03 - 01/2025