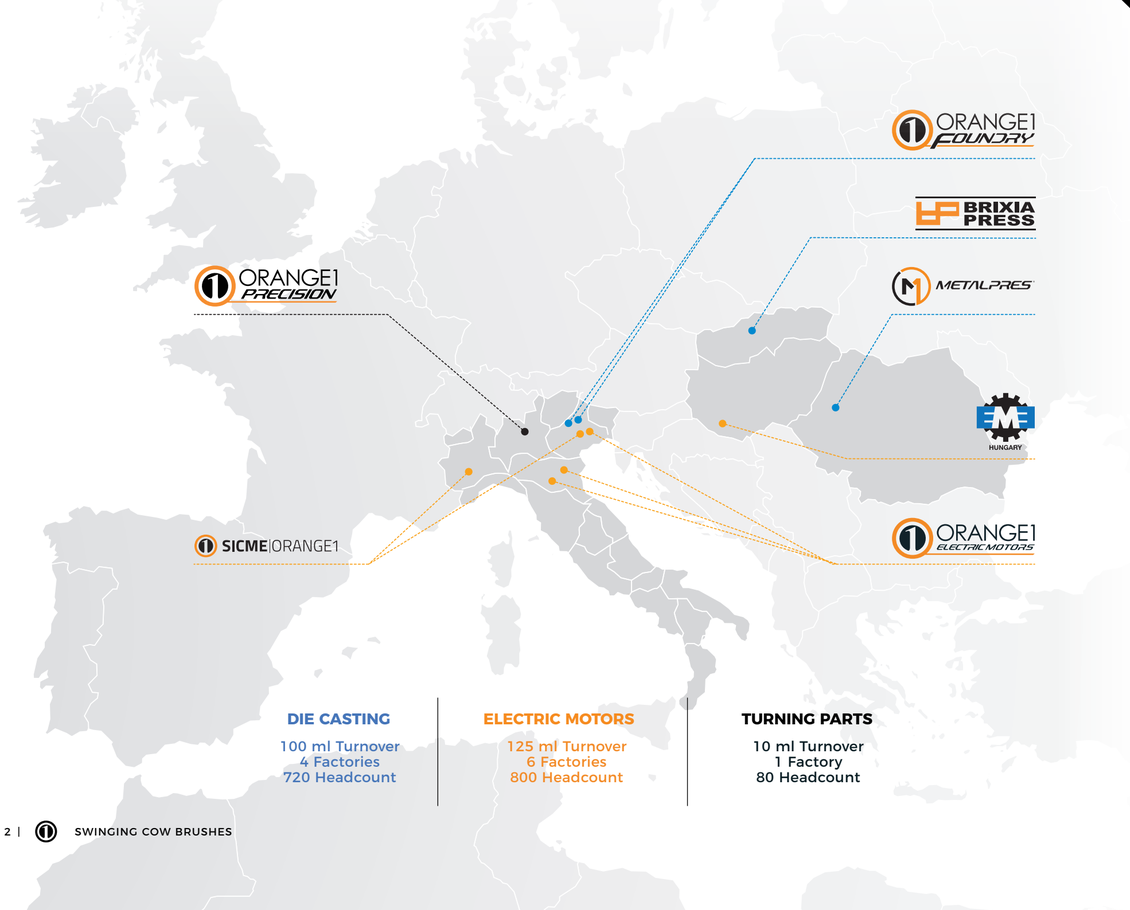
Swinging Cow Brushes

Orange1 Electric Motors

ORANGE1 HOLDING



DIE CASTING

100 ml Turnover
4 Factories
720 Headcount

ELECTRIC MOTORS

125 ml Turnover
6 Factories
800 Headcount

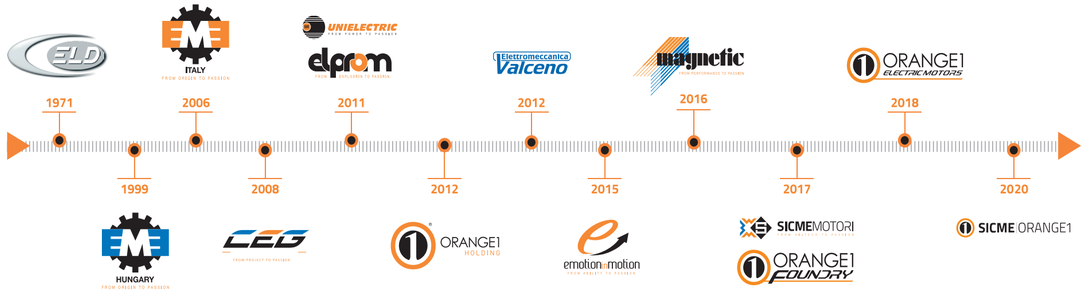
TURNING PARTS

10 ml Turnover
1 Factory
80 Headcount

ORANGE1 HOLDING

A dynamic, strong and ambitious Group

Orange1 Holding is an international renown Group, one of the most important European manufacturers of single-phase and three-phase asynchronous electric motors. It has an annual capacity of more than 1 million motors and 5 million electric stators with an annual turnover of approx 235 million euro and more than 1600 workers in 15 production facilities. 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.



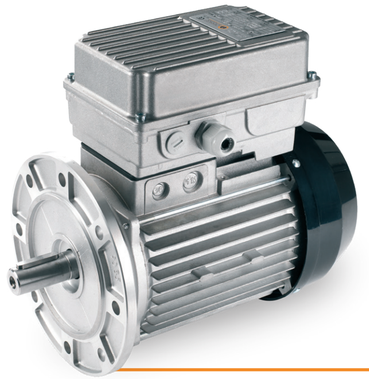
€ 235.000.000 TURNOVER
11 COMPANIES
1600 HEADCOUNT

ORANGE1 ELECTRIC MOTORS

Elettromeccanica Leone Donazzan was established on 1971 in Bassano del Grappa. In 1983 the company turned into Eld Spa.
In 1998 Armando Donazzan took over the running of the company; thanks to his determination and intuition he applied new financial and commercial policies which increased the level of reliability and visibility. In March 2006 the company changed its name to EME Spa and finally become Orange1 Electric Motors in 2018.
The aim of O1EM is to manufacture custom made motors to meet clients and market expectations. The actual production covers a large range of AC and DC motors, as well as brushless motors and Variable Frequency Drives , to provide total solution. This know how in supplying products to the Textile markets makes O1EM reliable and skilled for the ideal motor settings to secure long terms performances in heavy environment conditions.

Swinging Cow Brushes Motors

Comfort for the animal and its hygiene are decisive factors in a company and Swinging Cow Brushes ensure superior comfort and ideal hygiene of the barn.
Orange1 offers a wide range of motors specially engineered to achieve reduced dimensions, high performances in variable speed applications with flux vector type controllers that can ensure a safe cow-friendly speed.



The introduction of the INVERTER in the industrial automation has started an epochal turning point, giving the possibility to regulate the speed of the induction motors and, in particular, of the asynchronous ones with short-circuited rotor (squirrel cage), at low cost and with relative simplicity of use. The drive by an inverter requires, however, a special prearrangement of the motor, both concerning the materials used and the electrical and mechanical finishes. In addition to this, some specific accessory components, such as axial servo ventilation, can be installed on the motor, which can guarantee the correct motor cooling even in case of prolonged operation at speeds below the nominal level, also reducing noise at the maximum rpm.

Electrical Data

Drives for AC Motors

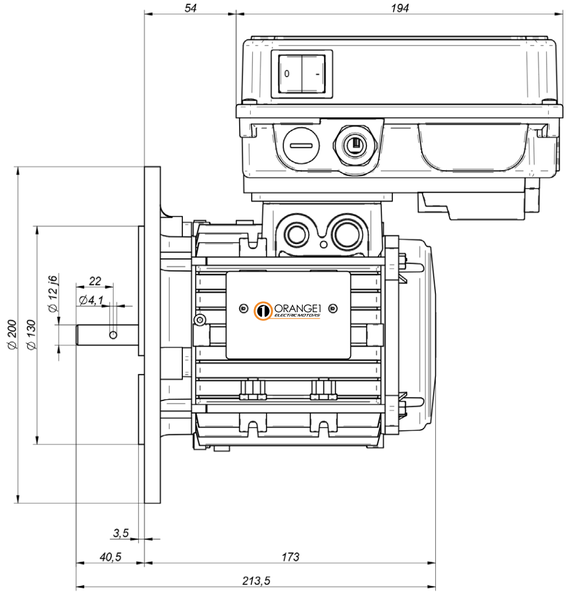
EM01-Plus All in One
230Vac VFD Asynchronous motor
Protection IP55 full options

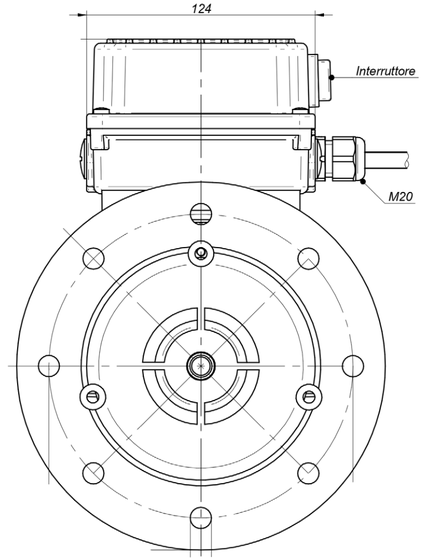
		CODE (PARTIAL)		X0104...	X0107 ...	X0111...	X0115...	X0122...
STANDARD	INPUT ELECTRICAL DATA	Vin- type		Single phase				
		Voltage input (Vin)	V	230 ± 15%				
		Frequency input	Hz	47 ÷ 63				
		Input protection		None				
	OUTPUT ELECTRICAL DATA	Output Motor Power*	kW	0,4	0,75	1,1	1,5	2,2
		Output Current	(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				

* Recommeded motor power (IE2 efficiency level)

OPTION	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

Technical Drawing





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.

After sales, replacement & service

Orange1 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 Service can provide an innovative diagnostic tools for electrical testing and analysis to pinpoint immediately specific motor issues, and can provide a service of reparation for motors.

MOTORS production

DRIVE MOTORS

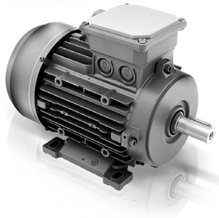
O1EM develops and manufactures Variable Frequency Drive for AC, Brushless and PM motors. O1EM range includes Single and Three phase input and Three phase output. The drives could be directly mounted on the motors as a unique kit. The internal R&D offers custom solution for the firmware according to the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

AC MOTORS

O1EM customs electrically and mechanically a large portfolio of AC motors. The range covers single phase, double speed and three phase motors. The motors can work worldwide in adjusting the voltage and frequency according to the machines destinations. The motors size is from 56 IEC to 250 IEC. According to the European norms all the motors are **High Efficiency** to save ENERGY. The internal technical and laboratory department work in co-engineering with our clients' network. O1EM **encapsulates the winding** on demand. With this solution the motor is resistant to the most hostile environments in terms of presence of water and humidity. This solution improves also the heating transmission and electrical insulation of the winding.

PM 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.



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PARTNER SINCE 2016

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