

# A.C. Motors High Pressure Pumps

Industrial application



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.



Established in 1971 by Leone Donazzan for technical assistance and motor windings, the company name was Eme Spa. In the late Eighties the company started to target foreign markets like France, Germany and Greece and begun the production of surface pumps sold in the national and international market. In 1998 Armando Donazzan took over the running of the company.

The history of Eme Spa has always been characterized by solid investments in research, development and product innovation. Thanks to the extensive range of industrial equipments available the company can offer a wide range of highly and appropriately qualified products. This also optimizes efficiency with consequent reduction in costs. Eme Spa is strongly oriented towards the market; it tries to meet the specific needs of its customers and at the same time guarantee the qualitative standards of its product and service. Eme Spa has earned a reputation for innovation, quality and performance. The large number of motors targets a range of sectors and applications such as pumps for whirlpools, compressors, professional cleaning machines, lifting systems, construction equipment and machinery, heating systems, textile machinery, wine-making machines and many other.

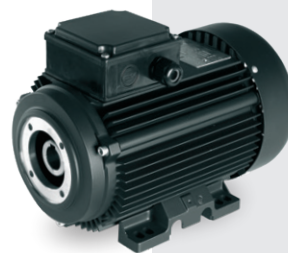
On February 2018 from the merger of EME SpA and CEG srl the company ORANGE1 ELECTRIC MOTORS SPA is born to gather, in the next future, all the companies producing electric motors and make them evolve into a real division. This new division will join the new born Orange1 FOUNDRY.

# Index

## Hollow shaft motors

---

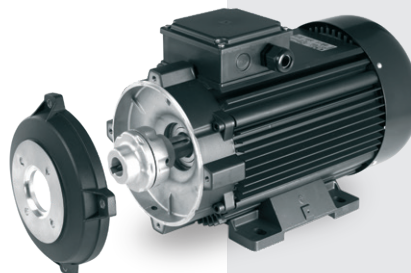
Pag. 4



## Double flange motors

---

Pag. 8



## Solid shaft motors

---

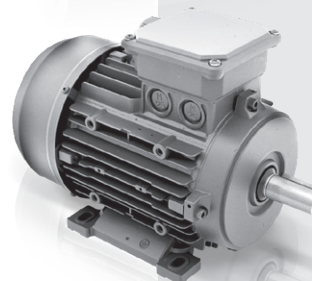
Pag. 12



## IE3 Efficiency motors

---

Pag. 16



## Motors for burners

---

Pag. 18



## Motors pumps system with VFD up to 8 units

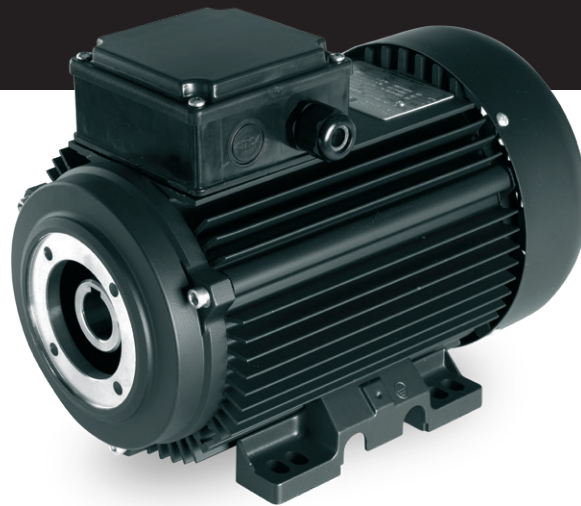
---

Pag. 18



# Hollow shaft motors

Motors for high pressure pumps with hollow shafts and single bearings are designed for direct coupling. This provides a perfect match between the electric motor and the majority of hydraulic pumps. This system makes sure that the alignment between the two rotating assemblies is perfect. Not only is this method cost effective, it also reduces downtime and has a small footprint. These motors are designed to allow interchangeability and ease of installation. In conclusion, these motors guarantee high performance, reliability and efficiency.



## Standard Manufacturing

<b>Rated voltage</b>	230V 50Hz (single phase) - 230/400V 50Hz (three phase) - 400/690V 50Hz (three phase)	
<b>Duty</b>	S1	
<b>Cooling</b>	Self ventilation	
<b>Room Temperature</b>	40°	
<b>Appliance Class</b>	F	
<b>Copper wire</b>	Class H enamel and tropicalised varnish impregnation	
<b>Aluminium Frame</b>	Extruded Aluminium, removable feet	Die-cast Aluminium, fixed feet
<b>Flange</b>	Hollow shaft	
<b>Assembly Arrangement</b>	Top terminal box	
<b>IP Code</b>	IP54	
<b>Terminal box</b>	Two components ABS	One component aluminium
<b>Lifting</b>	Eyebolt starting from M112	
<b>Bearing</b>	1ZZ	
<b>Painting</b>	Black RAL 9005	
<b>Fan cover</b>	Steel Zinc Plated	
<b>Cable glands</b>	M80 - n°1 M20x1,5 M90L - n°1 M20x1,5 M100 - n°1 M25x1,5 M112 - n°1 M25x1,5 M132 - n°1 M25x1,5	

# Hollow shaft motors

Electric data - 230V 50Hz-single phase; 400V 50Hz- three phase



NAME	SIZE	Pn		n	In	Cosφ	η	Mn	Mm/Mn	Ms/Mn	Is/In	J	Weight
		kW	Hp	min <sup>-1</sup>	A		%	Nm				10 <sup>-3</sup> Kgm <sup>2</sup>	Kg

## 2 Poles Single phase

HYDRO-010	P80	1,85	2,5	2800	11,6	0,940	73	6,34	1,7	0,44	3,8	1,30	7,5
HYDRO-015	P90L	2,2	3,0	2870	12,2	0,980	80	7,32	2,0	0,62	4,8	2,11	17

## 4 Poles Single phase

HYDRO-020	E90L	2,2	3	1370	14,1	0,950	71,5	15,34	1,6	0,4	2,8	3,70	19
HYDRO-030	P100	2,2	3	1400	14,3	0,940	71,2	15,01	1,7	0,46	3,3	5,97	23
HYDRO-035	P100	3,0	4,0	1365	18,3	0,750	74,5	21,02	1,6	0,5	3,2	6,67	24

## 2 Poles Three phase

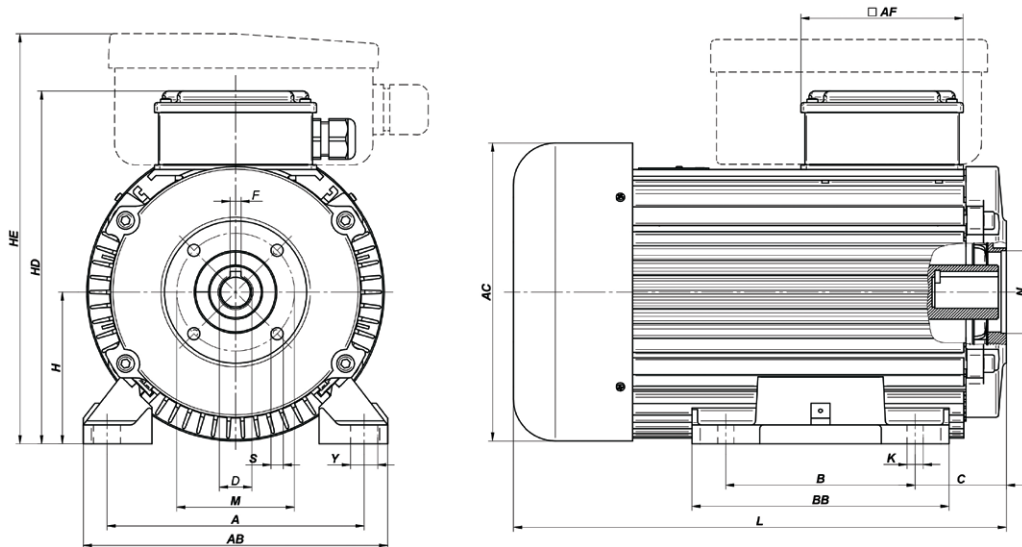
HYDRO-040	E90L	4	5,5	2860	8,7	0,784	84,3	13,36	3,3	3,3	7,9	2,24	19
-----------	------	---	-----	------	-----	-------	------	-------	-----	-----	-----	------	----

## 4 Poles Three phase

HYDRO-047	P90L	1,1	1,5	1420	2,8	0,800	73,3	7,4	2,5	2,5	4,3	2,27	13
HYDRO-048	P90L	1,5	2,0	1430	4,0	0,700	77,3	10,0	3,2	3,4	5,3	2,90	15
HYDRO-049	P90L	2,2	3,0	1400	5,3	0,790	78,0	15,0	2,7	3,0	5,0	3,64	19
HYDRO-050	E90L	2,6	3,5	1420	6,7	0,695	81,0	19,0	2,7	2,7	5,0	3,92	19
HYDRO-055	P100	2,2	3,0	1430	5,2	0,730	83,3	14,7	3,0	2,8	5,9	4,66	23
HYDRO-060	P100	3,0	4,0	1420	6,7	0,800	82,0	20,0	2,5	2,6	5,1	5,49	23
HYDRO-070	P100	4,0	5,5	1400	9,2	0,773	81,1	27,3	2,9	2,5	5,2	6,28	25
HYDRO-075	E100	4,0	5,5	1400	9,2	0,773	81,1	27,3	2,9	2,5	5,2	6,28	25
HYDRO-080	P112	4,0	5,5	1450	9,0	0,770	84,0	26,0	2,8	3,2	5,9	7,06	28
HYDRO-090	P112	5,5	7,5	1440	12,1	0,785	83,0	36,5	2,9	2,0	5,3	11,40	32
HYDRO-095	P112	6,3	8,5	1420	14,2	0,790	81,4	42,4	2,6	2,3	5,5	12,50	36
HYDRO-100	E112B	6,6	9,0	1445	14,7	0,760	85,0	43,6	3,1	3,1	6,8	14,20	40
HYDRO-110	E112B	7,5	10,0	1440	16,9	0,744	86,6	49,7	3,0	2,3	5,8	14,19	40
HYDRO-120	E132BSc	7,5	10,0	1440	16,9	0,744	86,6	49,7	3,0	2,3	5,8	14,19	40
HYDRO-130	P132S	7,5	10,0	1425	16,2	0,792	84,4	50,3	2,3	2,5	6,9	15,69	44
HYDRO-140	P132M	9,2	12,5	1445	18,2	0,830	88,0	60,8	2,9	2,9	6,3	31,03	48
HYDRO-150	P132M	11,0	15,0	1440	22,7	0,780	89,6	72,7	2,5	2,5	5,3	34,15	58

# Hollow shaft motors

## Extruded aluminium

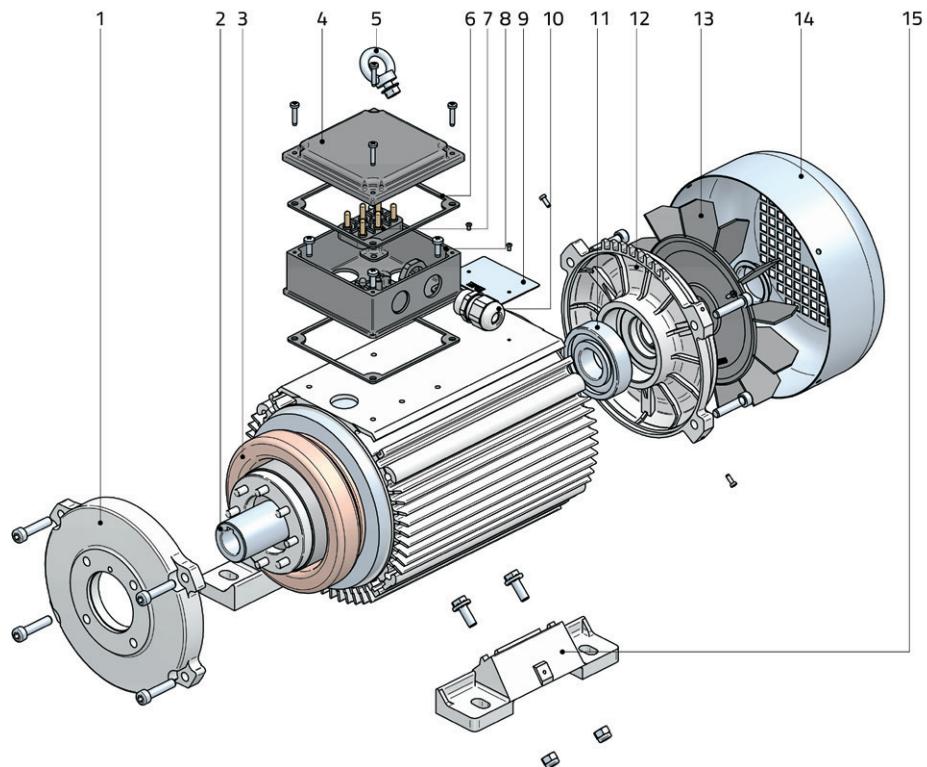


Dimension in mm

Frame size	EXTRUDED ALUMINIUM																	
	A	AB	AC	AF	B	BB	C	D	F	H	HD	HE*	L	M	N	S	K	Y
E90L	140	166	176	102	125	150	59,5	24	8	90	213	223	290	75	90	7	9	15
E100	160	196	197	102	140	180	62,5	24	8	100	235		307	87	61	9	12	20
E112B	190	225	220	120	140	190	67,5	24	8	112	261		364	87	61	9	12	20
E132BSc	216	263	220	120	140	190	84	24	8	132	281		364	87	61	9	12	20

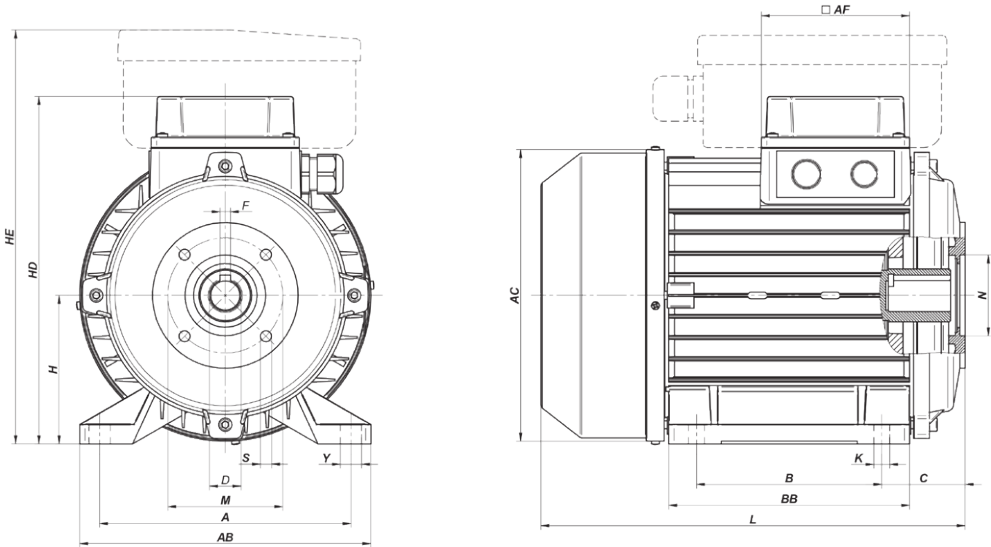
\* Applicable to single phase motors

1	Hollow shaft flange
2	Shaft with rotor
3	Stator assembly
4	Terminal box cover
5	Eyebolt
6	Gasket
7	Terminal board
8	Terminal box
9	Name plate
10	Cable gland
11	Bearing
12	Rear Shield
13	Cooling fan
14	Fan cover
15	Foot



# Hollow shaft motors

## Die-cast aluminium

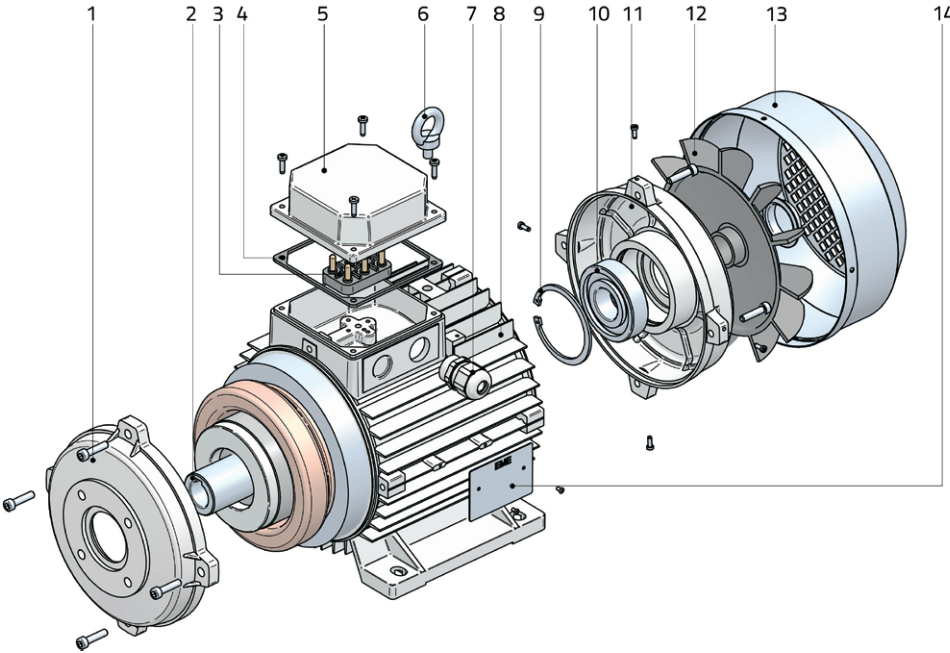


Dimension in mm

Frame size	EXTRUDED ALUMINIUM																	
	A	AB	AC	AF	B	BB	C	D	F	H	HD	HE*	L	M	N	S	K	Y
P80	125	154	155	140	100	125	52	24	8	80	233	233	248	75	90	7	10	17,5
P90L	139	174	180	90	125	155	50,5	24	8	90	220	246	271	75	90	7	10	17,5
P100	160	192	194	90	140	175	54	24	8	100	240	267	298	87	61	9	11	24
P112	190	220	220	112	140	182	63	24	8	112	262		321	87	61	9	12	16
P132S	216	260	259	112	140	181	85	24	8	132	311		375	87	61	9	13	22,5
P132M	216	260	259	112	178	219	84	24	8	132	311		411	87	61	9	13	22,5

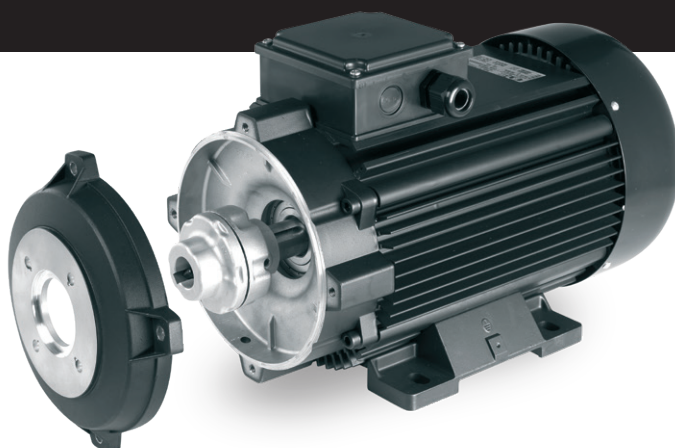
\* Applicable to single phase motors

1	Hollow shaft flange
2	Shaft with rotor
3	Terminal board
4	Gasket
5	Terminal box
6	Eyebolt
7	Cable gland
8	Stator assembly
9	Circlip
10	Bearing
11	Rear Shield
12	Cooling fan
13	Fan cover
14	Name plate



## Double flange motors

Motors for high pressure pumps are fitted with double flanges, two bearings and a flexible coupling. This build has reduced dimensions to combine the advantages of hollow shaft motors (i.e. both limited cost and dimensions) but retaining the features of standard motors (i.e. ease of maintenance). Orange1 Electric Motors Spa offers you the possibility of purchasing the motor totally encapsulated. The insulation is drastically increased, thus avoiding problems relating to condensation. This allows the motor to be used in very high levels of humidity. In conclusion, these motors guarantee high performance, reliability and efficiency.



### Standard Manufacturing

<b>Rated voltage</b>	400/690V 50Hz	
<b>Duty</b>	S1; for EU only S6-70%	
<b>Cooling</b>	Self ventilation	
<b>Room Temperature</b>	40°	
<b>Insulation class</b>	F	
<b>Copper wire</b>	Class H enamel and tropicalised varnish impregnation	
<b>Frame</b>	Extruded aluminum, removable feet	Die Casting Alluminium, fixed feet
<b>Face mounting</b>	Hollow shaft	
<b>Assembly Arrangement</b>	Top terminal box	
<b>IP Code</b>	IP54	
<b>Terminal box</b>	Two components ABS	One component aluminium
<b>Kit Lifting</b>	Eyebolt	
<b>Balancing</b>	Full shaft key	
<b>Bearings</b>	ZZ	
<b>Painting</b>	Black RAL 9005	
<b>Fan cover</b>	Steel Zinc Plated	
<b>Cable glands</b>	M112 - M132c M132 - M160c	n°1 M25x1,5 - n°1 M25x1,5 n°1 M32x1,5 - n°1 M25x1,5

# Double flange motors

## Electrical Data - 400V 50Hz

NAME	SIZE	Pn		n	In (400V)	Cosφ	η	Mn	Mm/Mn	Ms/Mn	Is/In	J	Weight
		kW	Hp	min-1	A		%	Nm				10 <sup>-3</sup> Kg·m <sup>2</sup>	Kg

### 4 Poles Three phase

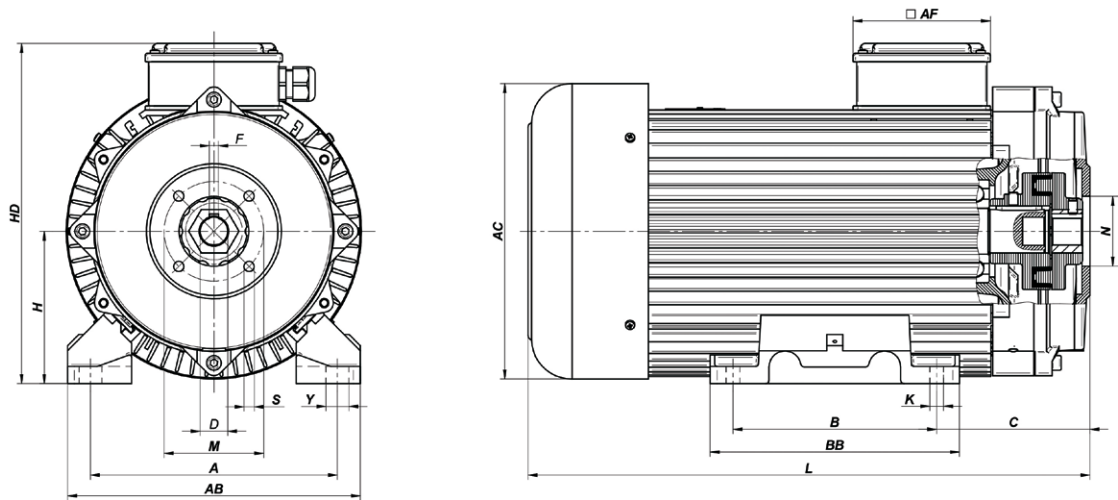
HYDROG-010	P112	4	5,5	1450	9	0,770	84	26,00	2,8	3,2	5,9	9,96	28
HYDROG-020	P112	5,5	7,5	1420	12,7	0,771	80,9	36,99	2,7	2,5	5,3	11,40	30
HYDROG-030	P112	6,3	8,5	1420	14,2	0,780	82,1	42,37	2,7	2,3	6,0	12,46	32
HYDROG-040	E112B	6,6	9	1445	14,7	0,760	85	43,62	3,1	3,1	6,8	13,98	36
HYDROG-050	E112B	7,5	10	1440	16,9	0,744	86,6	49,74	3,0	2,3	5,8	14,11	41
HYDROG-060	E132BSc	6,6	9	1445	14,7	0,760	85	43,62	3,1	3,1	6,8	13,98	37
HYDROG-070	E132BSc	7,5	10	1440	16,9	0,744	86,6	49,74	3,0	2,3	5,8	14,11	41
HYDROG-075	P132S	7,5	10	1425	16,2	0,792	84,4	50,3	2,3	2,5	6,9	15,69	44
HYDROG-080	P132M	9,2	12,5	1445	18,2	0,830	88	60,81	2,9	2,9	6,3	31,03	49
HYDROG-090	P132M	11	15	1440	22,7	0,780	89,6	72,71	2,5	2,5	5,3	34,15	53
HYDROG-100	E132MB	15	20	1440	29,7	0,830	87,7	99,49	3,4	3,3	7,1	45,51	69
HYDROG-110	E160Mc	11	15	1440	22,7	0,780	89,6	72,71	2,5	2,5	5,3	34,15	54
HYDROG-120	E160MBc	15	20	1440	29,7	0,830	87,7	99,49	3,4	3,3	7,1	45,51	68

### 6 Poles Three phase

HYDROG-130	P112	2,2	3	955	5,3	0,770	78	22,00	2,6	1,5	5,1	17,22	34
HYDROG-140	P112	3	4	955	7,4	0,780	75	30,00	2,5	1,6	4,7	18,35	37
HYDROG-150	E112B	4	5,5	950	9,0	0,790	81	40,20	2,5	1,7	5,1	21,83	44
HYDROG-160	E132BSc	4	5,5	950	9,0	0,790	81	40,20	2,5	1,7	5,1	21,83	44
HYDROG-170	P132M	5,5	7,5	950	11,9	0,800	84	55,30	2,3	1,3	2,7	40,65	54
HYDROG-180	P132M	6,5	8,8	950	13,9	0,801	84	64,90	2,5	2,3	4,9	47,01	60
HYDROG-190	E132M	7,5	10	960	16,0	0,800	86	74,60	2,5	2,3	5,0	53,71	69
HYDROG-200	E160Mc	7,5	10	960	16,0	0,800	86	74,60	2,5	2,3	5,0	53,71	70

# Double flange motors

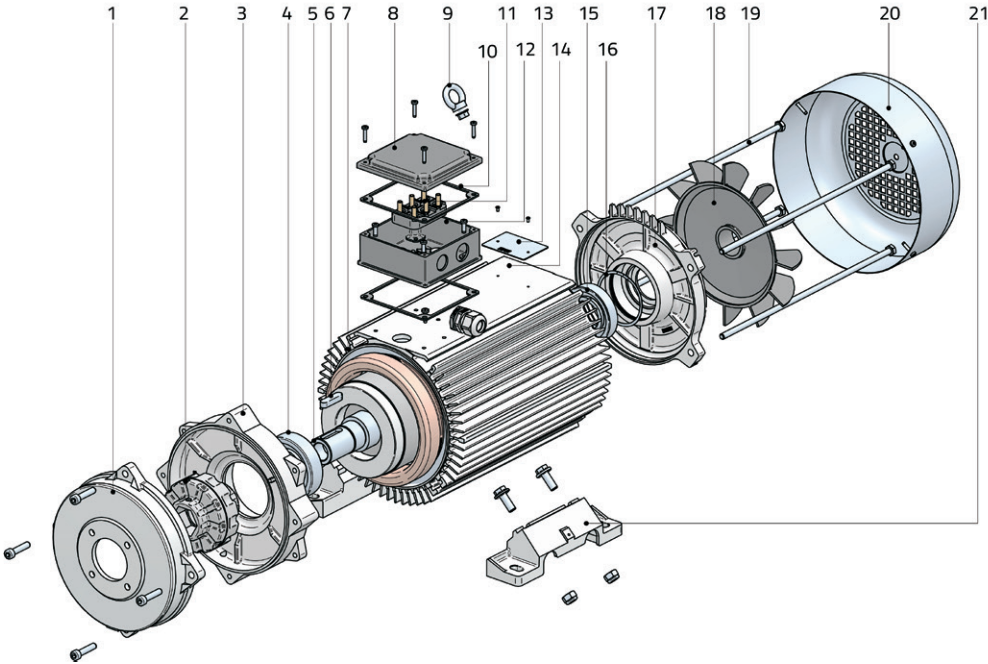
## Extrude aluminium



Dimension in mm

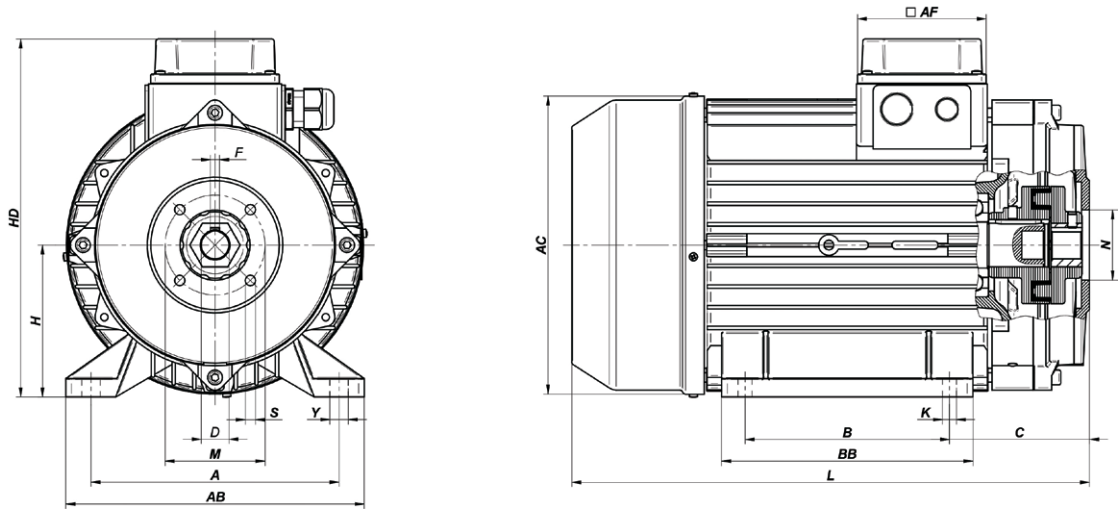
Frame size	EXTRUDED ALUMINIUM																
	A	AB	AC	AF	B	BB	C	D	F	H	HD	L	M	N	S	K	Y
E112B	190	225	220	120	140	190	126,5	24	8	112	261	404	87	61	9	12	20
E132BSc	216	263	220	120	140	190	143	24	8	132	281	404	87	61	9	12	20
E132M	216	256	258	120	178	218	134	24	8	132	297	491	87	61	9	12	20
E132MB	216	256	258	120	178	218	134	24	8	132	297	561	87	61	9	12	20
E160Mc	254	300	258	120	210	256	153	24	8	160	324	491	87	61	9	15	23
E160MBc	254	300	258	120	210	256	153	24	8	160	324	561	87	61	9	15	23

1	Hollow shaft flange
2	Elastic coupling
3	Intermediate flange
4	Bearing
5	Shaft with rotor
6	Shaft Key
7	Stator assembly
8	Terminal box cover
9	Eyebolt
10	Gasket
11	Terminal board
12	Terminal box
13	Name plate
14	Cable gland
15	Bearing
16	Shim
17	Black side shield
18	Cooling fan
19	Staybolt
20	Fan cover
21	Foot assembly



# Double flange motors

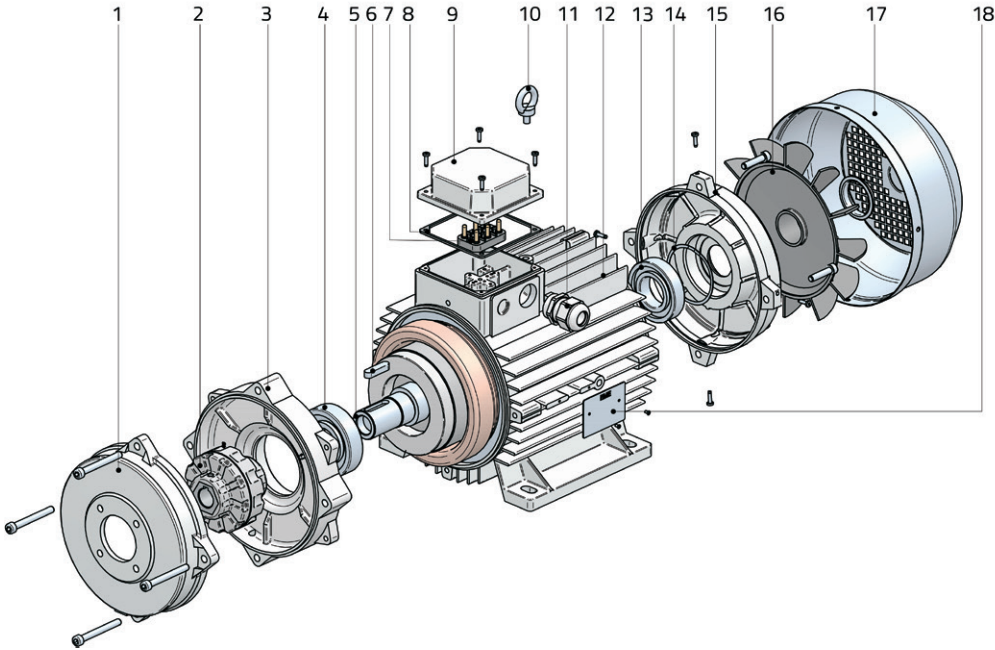
## Die-cast aluminium



Dimensions in mm

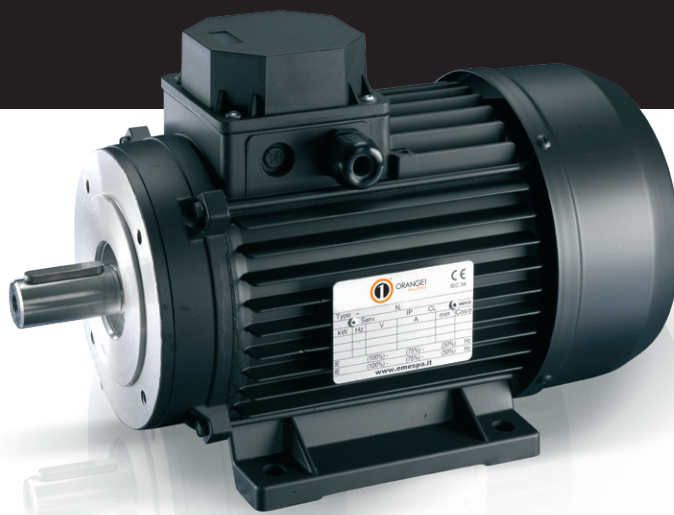
Frame size	DIE-CAST ALUMINIUM																
	A	AB	AC	AF	B	BB	C	D	F	H	HD	L	M	N	S	K	Y
P112	190	220	220	112	140	182	113	24	8	112	262	370	87	61	9	12	16
P132S	216	260	259	112	140	182	122	24	8	132	311	411	87	61	9	12	16
P132M	216	260	259	112	178	219	122	24	8	132	311	451	87	61	9	12	16

1	Hollow shaft flange
2	Elastic coupling
3	Intermediate flange
4	Bearing
5	Shaft with rotor
6	Shaft Key
7	Terminal board
8	Gasket
9	Terminal box
10	Eyebolt
11	Cable gland
12	Stator assembly
13	Bearing
14	Ring
15	Rear shield
16	Cooling fan
17	Fan cover
18	Name plate



# Solid shaft motors

Orange1 Electric Motors Spa offers a solid shaft motors B34, for high pressure pumps.



## Standard Manufacturing

<b>Rated voltage</b>	230V-50Hz (Single phase) - 230/400V 50Hz (three phase) - 400/690V50Hz (three phase)	
<b>Duty</b>	S1; for EU only S6-70%	
<b>Cooling</b>	Self ventilation	
<b>Room Temperature</b>	40°	
<b>Appliance Class</b>	F	
<b>Copper wire</b>	Class H enamel and tropicalised varnish impregnation	
<b>Frame</b>	Extruded aluminum, removable feet	Die Casting Alluminium, fixed feet
<b>Flange</b>	Standard B34	
<b>Assembly Arrangement</b>	Top terminal box	
<b>IP Code</b>	IP54	
<b>Terminal box</b>	Top terminal box	One component aluminium
<b>Lifting</b>	Eyebolt from M112	
<b>Bearings</b>	ZZ	
<b>Painting</b>	Black RAL9005	
<b>Fan cover</b>	Steel Zinc Pated	
<b>Cable glands</b>	M100 - M112 M132 - M160c	n°1 M25x1,5 - n°1 M25x1,5 n°1 M25x1,5 - n°1 M25x1,5

# Standard shaft motors

Electrical Data - 230V 50Hz-single phase; 400V 50Hz- three phase

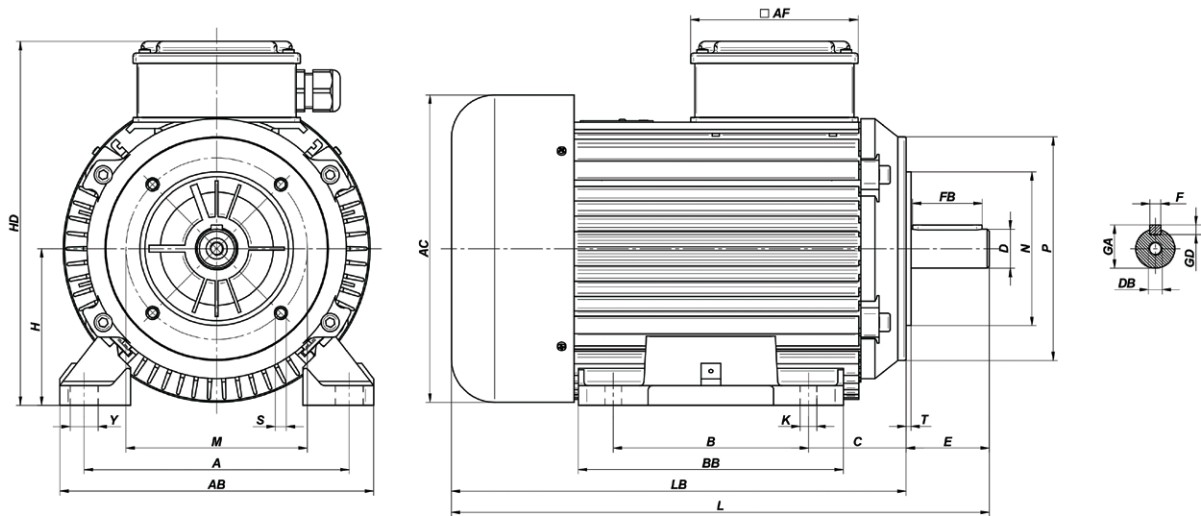
NAME	SIZE	Pn		n	In	Cosφ	η	Mn	Mm/Mn	Ms/Mn	Is/In	J	Weight
		kW	Hp	min-1	A		%	Nm				10 <sup>-3</sup> Kgm <sup>2</sup>	Kg

## 4 Poles Single phase

HYDROAM-010	P100	2,2	3	1400	14,3	0,940	71,2	15,01	1,7	0,46	3,3	6,30	24
HYDROAM-015	P100	3,0	4,0	1365	18,3	0,750	74,5	21,02	1,6	0,5	3,2	6,67	24

## 4 Poles Three phase

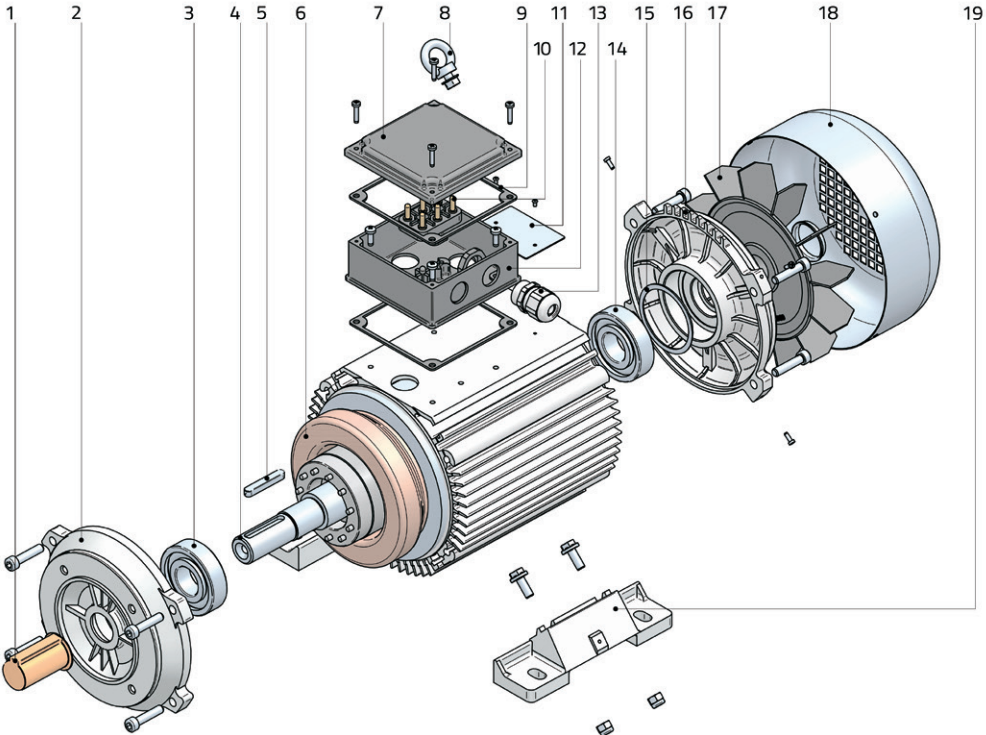
HYDROAM-020	P100	4	5,5	1430	8,6	0,820	83	27,00	2,8	2,7	5,2	6,96	25
HYDROAM-030	P112	4	5,5	1450	9	0,770	84	26,00	2,8	3,2	5,9	10,03	29
HYDROAM-040	P112	5,5	7,5	1420	12,7	0,771	80,9	36,99	2,7	2,5	5,3	11,40	33
HYDROAM-050	E112B	6,6	9	1445	14,7	0,760	85	43,62	3,1	3,1	6,8	17,20	36
HYDROAM-060	E112B	7,5	10	1440	16,9	0,744	86,6	49,74	3,0	2,3	5,8	14,07	40
HYDROAM-070	E132BSc	7,5	10	1440	16,9	0,744	86,6	49,74	3,0	2,3	5,8	14,26	43
HYDROAM-080	P132S	7,5	10	1425	16,2	0,792	84,4	50,27	2,3	2,5	6,9	20,23	50
HYDROAM-090	P132M	9,2	12,5	1445	18,2	0,830	88	60,81	2,9	2,9	6,3	38,94	55
HYDROAM-100	P132M	11	15	1440	22,7	0,780	89,6	72,71	2,5	2,5	5,3	42,97	59
HYDROAM-110	E132MB	15	20	1440	29,7	0,830	87,7	99,49	3,4	3,3	7,1	56,05	70
HYDROAM-120	E160Mc	11	15	1440	22,7	0,780	89,6	72,71	2,5	2,5	5,3	43,44	61
HYDROAM-130	E160MBc	15	20	1440	29,7	0,830	87,7	99,49	3,4	3,3	7,1	56,05	71



Dimensions in mm

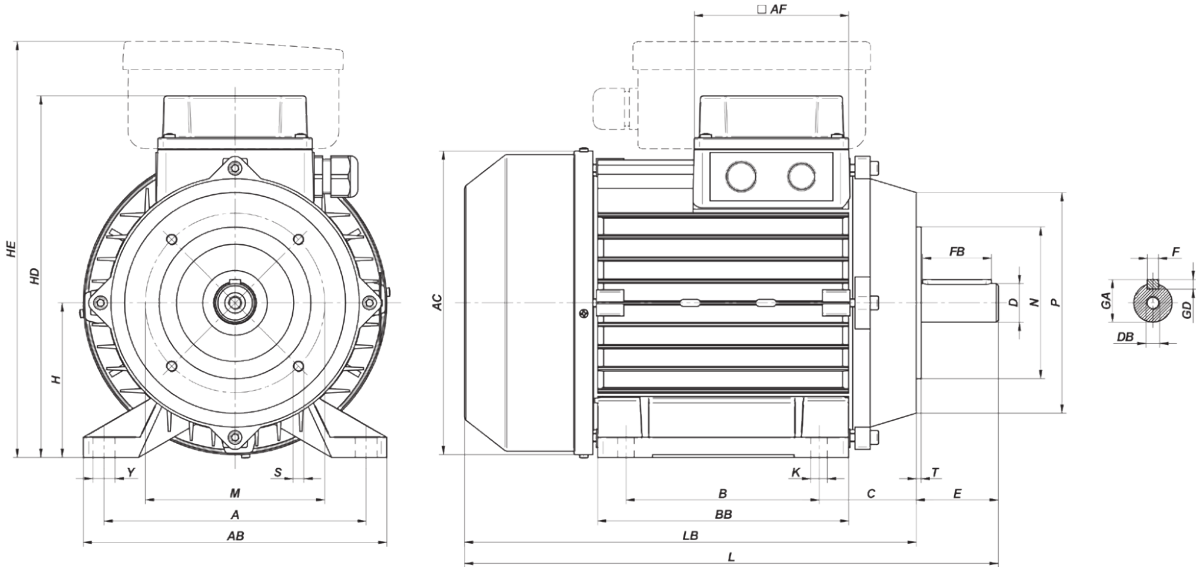
Size	EXTRUDED ALUMINIUM																								
	A	AB	B	BB	C	D	E	H	HD	L	K	Y	AC	AF	F	FB	GA	GD	DB	LB	P	N	M	T	S
E112B	190	225	140	190	70	28	60	112	261	427	12	20	220	120	8	50	31	7	M10	367	160	110	130	3,5	M8
E132BSc	216	263	140	190	89	38	80	132	281	450	12	20	220	120	10	70	41	8	M12	370	200	130	165	4	M10
E132MB	216	256	178	218	89	38	80	132	297	647	12	20	258	120	10	70	41	8	M12	567	200	130	165	4	M10
E160Mc	254	300	210	256	108	38	80	160	324	577	15	23	258	120	10	70	41	8	M12	497	200	130	165	4	M10
E160MBc	254	300	210	256	108	38	80	160	324	647	15	23	258	120	10	70	41	8	M12	567	200	130	165	4	M10

1	Shaft protection
2	B14 flange
3	Bearing
4	Shaft with rotor
5	Shaft Key
6	Stator assembly
7	Terminal box cover
8	Eyebolt
9	Gasket
10	Terminal board
11	Name plate
12	Terminal box
13	Cable gland
14	Bearing
15	Ring
16	Rear Shield
17	Cooling fan
18	Fan cover
19	Foot assembly



# Solid Shaft Motors

## Die-cast aluminium

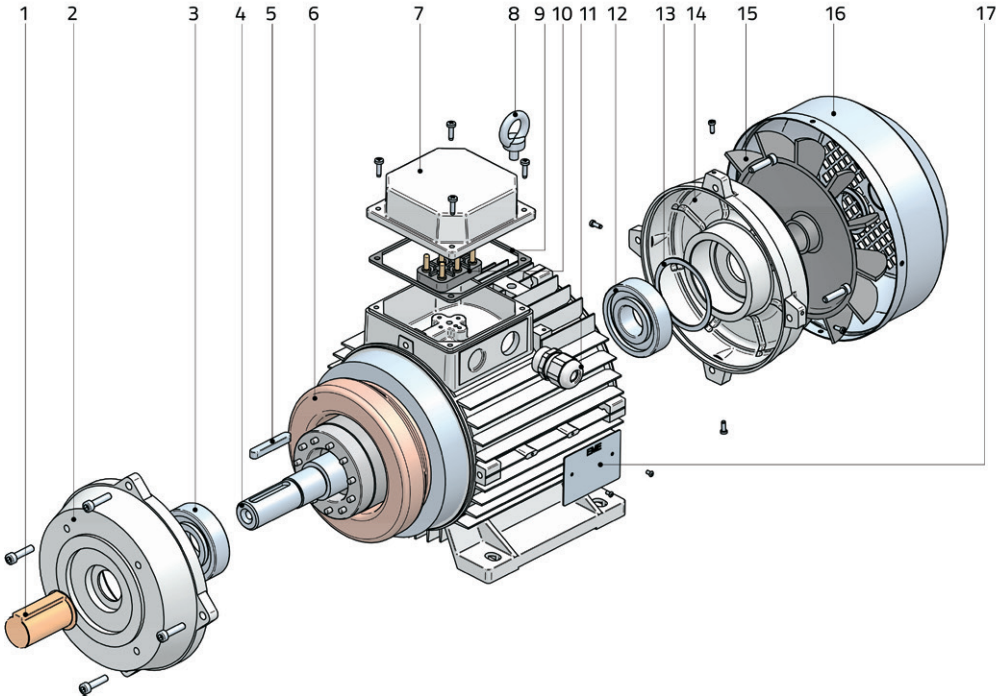


Dimensions in mm

Size	DIE-CAST ALUMINIUM																									
	A	AB	B	BB	C	D	E	H	HD	HE*	L	K	Y	AC	AF	F	FB	GA	GD	DB	LB	P	N	M	T	S
P100	160	192	140	170	63	28	60	100	239	268	380	12	18	194	88	8	50	31	7	M10	320	160	110	130	3,5	M8
P112	190	220	140	182	70	28	60	112	262		389	12	16	220	112	8	50	31	7	M10	329	160	110	130	3,5	M8
P132S	216	260	140	181	89	38	80	132	311		459	12	16	259	112	10	70	41	8	M12	379	200	130	165	4	M10
P132M	216	260	178	214	89	38	80	132	311		499	12	16	259	112	10	70	41	8	M12	419	200	130	165	4	M10

\* Applicable to single phase motors

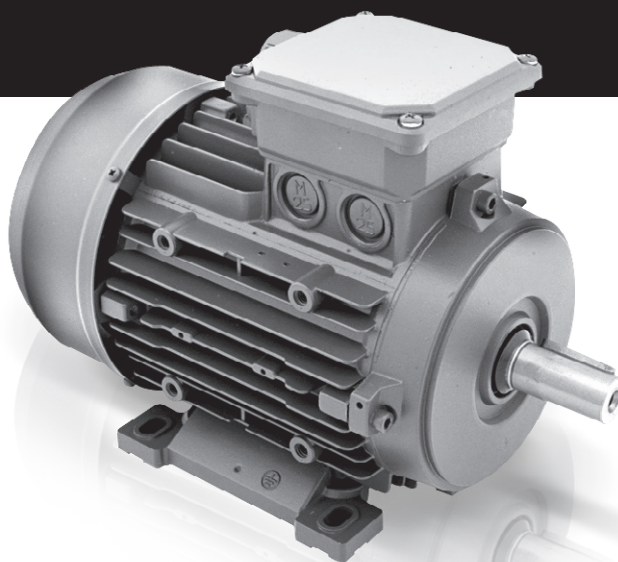
1	Shaft protection
2	B14 flange
3	Bearing
4	Shaft with rotor
5	Shaft Key
6	Stator assembly
7	Terminal box
8	Eyebolt
9	Gasket
10	Terminal board
11	Cable gland
12	Bearing
13	Ring
14	Rear Shield
15	Cooling fan
16	Fan cover
17	Name plate



# IE3 efficiency motors

Orange1 Electric Motors Spa offers a solid shaft motors B3 IE3\* efficiency, for high pressure pumps.

\*Refer to IE3 Catalogue



## Possible custom executions

This series of motors has been designed according to the OEM requirements in their different configurations dictated by the needs of the application. Below some of these possible configurations:

- Motors with thermal protector
- Motors suitable for VFD
- Motors with transducer (encoder)
- Motors with VFD mounted (EiM range)
- Customised execution (shaft, flange, IP, aggressive environments).
- Thermal class H (high ambient temperature)
- Without fan (IC410/TENV) or forced ventilated (IC416/TEFV).

## Application sectors

Considering the efficiency level and the high flexibility of these motors, below we report some of the possible applications:

- Pumps, vacuum pumps
- Fans
- Textile machine
- Automatic machine
- Wood machine
- Food machine ( i.e: kneading)
- HVAC/R
- Compressors

### CONFIGURATION

<b>Protection</b>	IP55
<b>Thermal class/Temperature rise</b>	F/B
<b>Duty Time</b>	S1
<b>Housing</b>	Aluminium; removable feet
<b>Terminal box</b>	Aluminium (two components); possibility to rotate
<b>Fan cover</b>	Steel zinc-plated
<b>Coating</b>	No painting

# Motors for burners

Burner motors are designed for gas and fuel burners, hot air generators and drying kilns. They have reduced dimensions and increased protection, from IP20 to IP55 with class F or H insulation. They have the possibility of coupling to different flanges depending on the power required. On demand these motors can be ordered with double shaft configuration, allowing it to be coupled with a pump by means of a flexible coupling that will be supplied with the motor.



Standard  
Manufacturing

Rated voltage	230V 50Hz
Duty	S1
Room Temperature	40°
Appliance Class	F
Copper wire	Class H enamel and tropicalised varnish impregnation
Flange	Counter flange
IP Code	IP44
Bearings	ZZ
Painting	Not painted

# Motors for burners

## Electrical Data

NAME	Pn		n	In (400V)	Cosφ	η	Mn	Mm/Mn	Ms/Mn	Is/In	J	peso
	kW	Hp	min-1	A		%	Nm				Kgm2	Kg

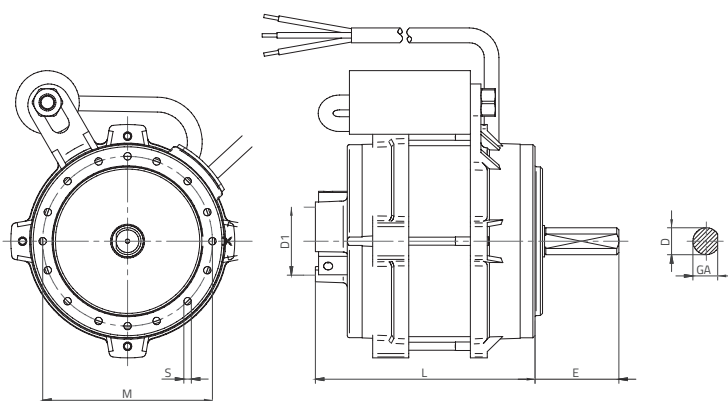
### 2 Poles Single phase

<b>MBR-010</b>	0,110	0,150	2800	0,80	0,98	61	0,38	2,40	0,80	4,35	0,00012	2,1
<b>MBR-020</b>	0,150	0,204	2800	0,80	0,90	71	0,51	2,44	0,74	3,45	0,00015	2,7
<b>MBR-030</b>	0,180	0,245	2850	1,34	0,94	62	0,61	2,23	0,75	3,02	0,00016	3,0
<b>MBR-040</b>	0,230	0,313	2750	1,80	0,94	59	0,80	1,63	0,69	2,21	0,00019	3,3

## Dimension

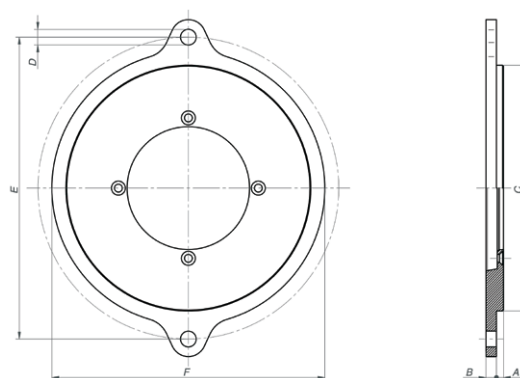
Dimensions in mm

MOTORS							
Pn (kW)	D	D1	E	GA	L	M	S
0,110	12,7	32	40,5	11,7	102,5	80	M4
0,150	12,7	32	40,5	11,7	112,5	80	M4
0,180	12,7	32	40,5	11,7	117,5	80	M4
0,230	12,7	32	40,5	11,7	122,5	80	M4



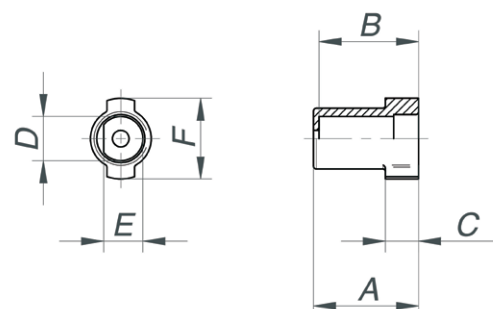
Dimensions in mm

COUNTERFLANGE						
Tipo	A	B	C	D	E	F
B060	4	5	110	7	130	120
B061	4	6	140	9	172	156
B062	3	6	150	9	184	170
B063	3	6	162	9	184	170

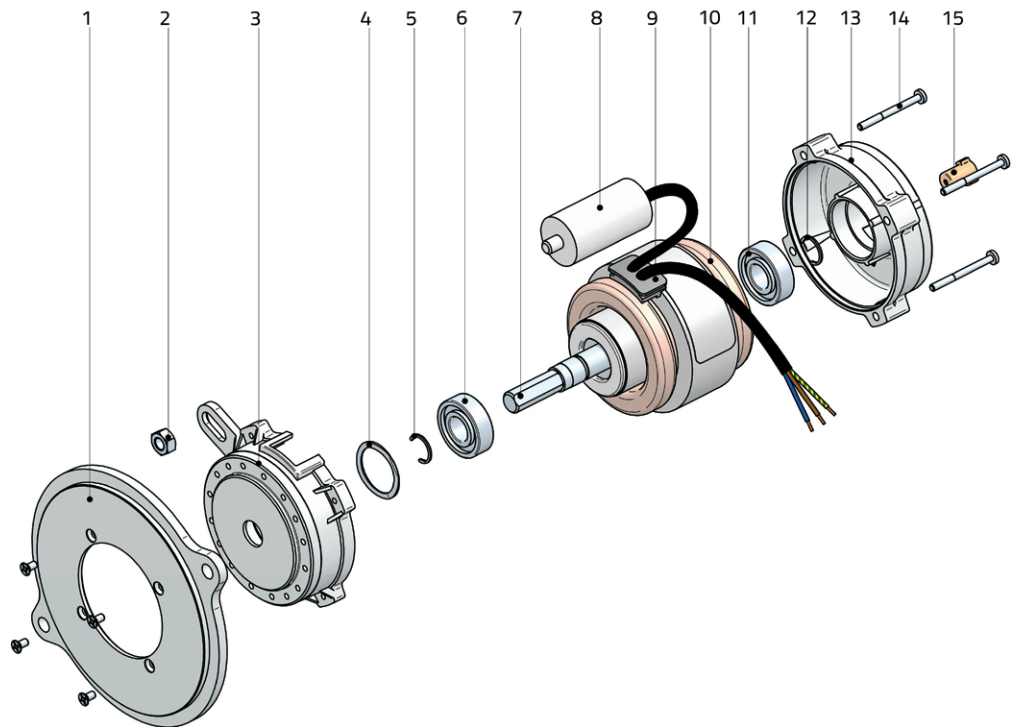


Dimensions in mm

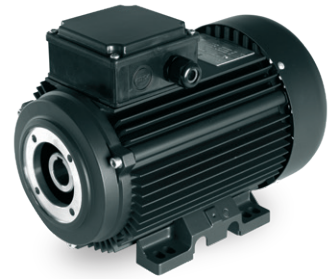
JOINT						
Tipo	A	B	C	D	E	F
B055	14,5	13,5	6,5	8	7	14,6
B057	19	18	6	8	7	14,6
B058	10	10	6	6	5	14,6





1	Counter flange
2	Nut
3	Flange
4	Shim
5	Circlip
6	Bearing
7	Shaft with rotor
8	Capacitor
9	Fairlead rubber
10	Wound stator
11	Bearing
12	Circlip
13	Rear Shield
14	Stay bolt
15	Joint

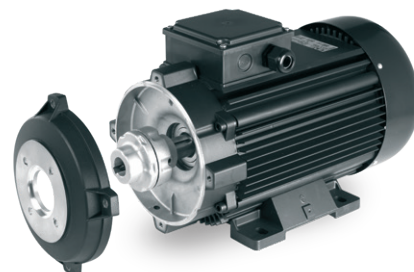


## On demand for Hollow shaft motors only



NAME	SIZE	Pn		OPTION					
		kW	HP	PROTECTION SWITCH ON MOTOR 	DE BEARING	WINDING ENCAPSULATED 	THERMAL PROTECTION	PAINTING (AGAINST CORROSION)	PAINTING (DIFFERENT COLORS)
2 Poles Single phase									
HYDRO-010	P80	1,85	2,5	YES	YES	YES	YES	YES	YES
HYDRO-015	P90L	2,2	3,0	YES	YES	YES	YES	YES	YES
4 Poles Single phase									
HYDRO-020	E90L	2,2	3	YES	NO	YES	YES	NO	YES
HYDRO-030	P100	2,2	3	YES	YES	YES	YES	YES	YES
2 Poles Three phase									
HYDRO-040	E90L	4	5,5	YES	NO	YES	YES	NO	YES
2 Poles Three phase									
HYDRO-047	P90L	1,1	1,5	YES	YES	YES	YES	YES	YES
HYDRO-048	P90L	1,5	2,0	YES	YES	YES	YES	YES	YES
HYDRO-049	P90L	2,2	3,0	YES	YES	YES	YES	YES	YES
HYDRO-050	E90L	2,6	3,5	YES	NO	YES	YES	NO	YES
HYDRO-055	P100	2,2	3,0	YES	YES	YES	YES	YES	YES
HYDRO-060	P100	3	4	YES	YES	YES	YES	YES	YES
HYDRO-070	P100	4	5,5	YES	YES	YES	YES	YES	YES
HYDRO-075	E100	4	5,5	YES	NO	YES	YES	NO	YES
HYDRO-080	P112	4	5,5	YES	YES	YES	YES	YES	YES
HYDRO-090	P112	5,5	7,5	YES	YES	YES	YES	YES	YES
HYDRO-095	P112	6,3	8,5	YES	YES	YES	YES	YES	YES
HYDRO-100	E112B	6,6	9	YES	NO	YES	YES	NO	YES
HYDRO-110	E112B	7,5	10	YES	NO	YES	YES	NO	YES
HYDRO-120	E132BSc	7,5	10	YES	NO	YES	YES	NO	YES
HYDRO-130	P132S	7,5	10	YES	YES	YES	YES	NO	YES
HYDRO-140	P132M	9,2	12,5	YES	YES	YES	YES	NO	YES
HYDRO-150	P132M	11	15	YES	YES	YES	YES	NO	YES

## On demand for Double flange motors only



NAME	SIZE	Pn		OPTION				
		kW	HP	PROTECTION SWITCH ON MOTOR 	WINDING ENCAPSULATED 	THERMAL PROTECTION	PAINTING (AGAINST CORROSION)	PAINTING (DIFFERENT COLORS)

### 4 Poles Three phase

HYDROG-010	P112	4	5,5	YES	YES	YES	YES	YES
HYDROG-020	P112	5,5	7,5	YES	YES	YES	YES	YES
HYDROG-030	P112	6,3	8,5	YES	YES	YES	YES	YES
HYDROG-040	E112B	6,6	9	YES	YES	YES	NO	YES
HYDROG-050	E112B	7,5	10	YES	YES	YES	NO	YES
HYDROG-060	E132BSc	6,6	9	YES	YES	YES	NO	YES
HYDROG-070	E132BSc	7,5	10	YES	YES	YES	NO	YES
HYDROG-080	P132M	9,2	12,5	YES	YES	YES	NO	YES
HYDROG-090	P132M	11	15	YES	YES	YES	NO	YES
HYDROG-100	E132MB	15	20	YES	NO	YES	NO	YES
HYDROG-110	E160Mc	11	15	YES	NO	YES	NO	YES
HYDROG-120	E160MBc	15	20	YES	NO	YES	NO	YES

### 6 Poles Three phase

HYDROG-130	P112	2,2	3	YES	YES	YES	YES	YES
HYDROG-140	P112	3	4	YES	YES	YES	YES	YES
HYDROG-150	E112B	4	5,5	YES	YES	YES	NO	YES
HYDROG-160	E132BSc	4	5,5	YES	YES	YES	NO	YES
HYDROG-170	P132M	5,5	7,5	YES	YES	YES	NO	YES
HYDROG-180	P132M	6,5	8,8	YES	YES	YES	NO	YES
HYDROG-190	E132M	7,5	10	YES	NO	YES	NO	YES
HYDROG-200	E160Mc	7,5	10	YES	NO	YES	NO	YES

## On demand for Solid shaft motors only



NAME	SIZE	Pn		OPTION				
		kW	HP	PROTECTION SWITCH ON MOTOR 	WINDING ENCAPSULATED 	THERMAL PROTECTION	PAINTING (AGAINST CORROSION)	PAINTING (DIFFERENT COLORS)

### 4 Poles Single phase

HYDROAM-010	P100	2,2	3	YES	YES	YES	YES	YES
-------------	------	-----	---	-----	-----	-----	-----	-----

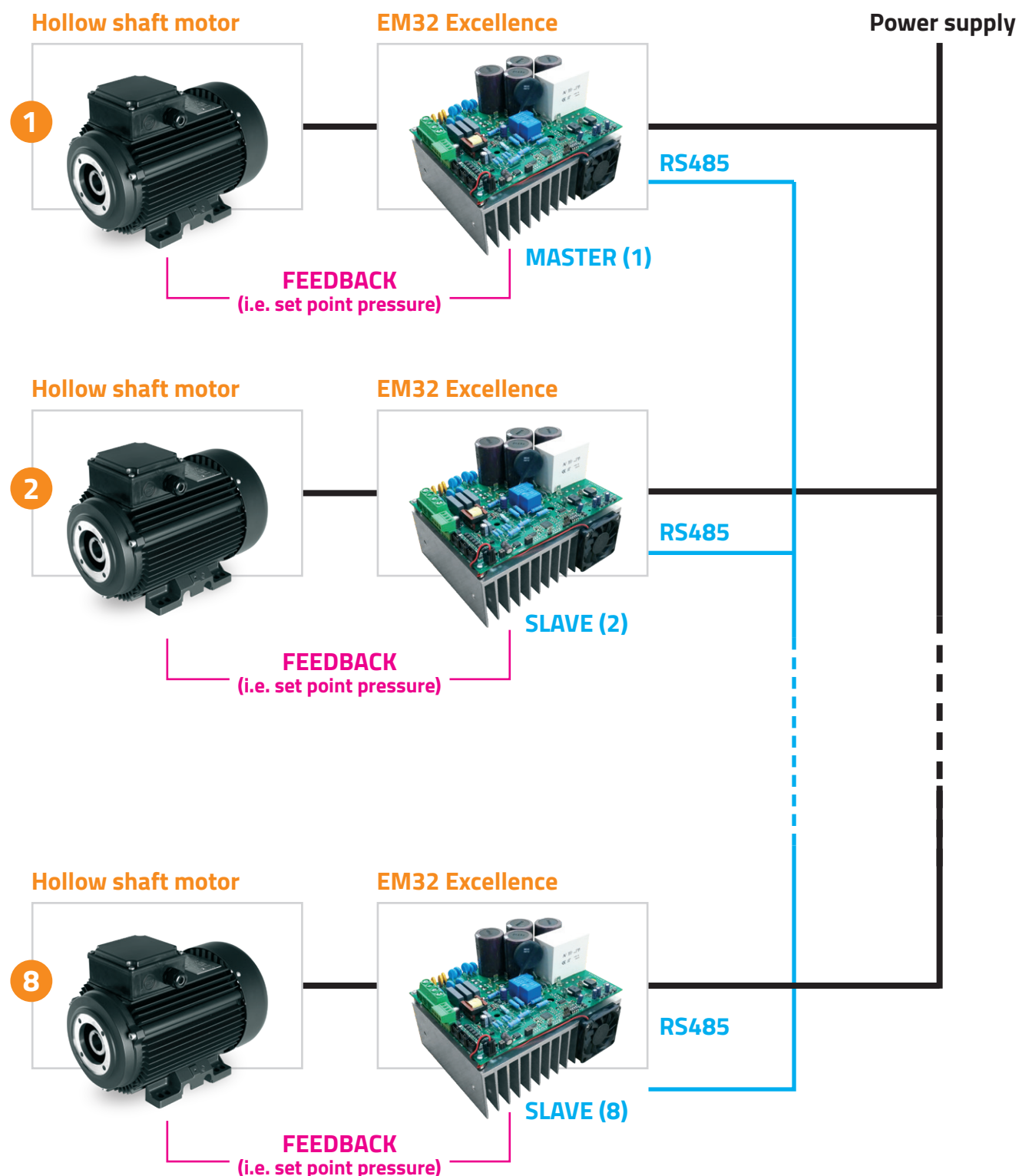
### 4 Poles Three phase

HYDROAM-020	P100	4	5,5	YES	YES	YES	YES	YES
HYDROAM-030	P112	4	5,5	YES	YES	YES	YES	YES
HYDROAM-040	P112	5,5	7,5	YES	YES	YES	YES	YES
HYDROAM-050	E112B	6,6	9	YES	YES	YES	NO	YES
HYDROAM-060	E112B	7,5	10	YES	YES	YES	NO	YES
HYDROAM-070	E132BSc	7,5	10	YES	YES	YES	NO	YES
HYDROAM-080	P132S	7,5	10	YES	YES	YES	NO	YES
HYDROAM-090	P132M	9,2	12,5	YES	YES	YES	NO	YES
HYDROAM-100	P132M	11	15	YES	YES	YES	NO	YES
HYDROAM-110	E132MB	15	20	YES	NO	YES	NO	YES
HYDROAM-120	E160Mc	11	15	YES	NO	YES	NO	YES
HYDROAM-130	E160MBc	15	20	YES	NO	YES	NO	YES

# Motors pumps system with VFD up to 8 units

Our system concept is made by motors, VFD and pump. This link communicate through a Bus and master unit manages up to 7 slave stations. Each station could have independent input data (pressure, pressure difference, ...). The control of the logic is custom made

The system talk through the proprietary protocol by RS485.



# EM32 Excellence

Pump application- Stand-alone 400Vac VFD  
Asynchronous motor  
Protection IP00 with heat sink



STANDARD	CODE (PARTIAL)		X3204...	X3207 ...	X3211...	X3215...	X3222...	
	INPUT ELECTRICAL DATA	Vin- type		Three phase				
		Voltage input (Vin)	V	400 ± 15%				
		Frequency input	Hz	47 ÷ 63				
		Input protection		None				
	OUTPUT ELECTRICAL DATA	Output Power	kW	1,5	2,2	3,7	5,5	7,5
		Output Current	(A)	3,75	5,5	9,25	13,75	18,75
		Opertations mode		S1	S1	S1	S1	S1
		Output Voltage	V	0 ÷ Vin				
		Output Voltage		Three phase				
		Frequency Output	Hz	0 ÷ 200 Hz				
	PERFOMANCE DATA	Switching mode		PWM-V/F linear				
		Switching Frequency	kHz	4				
		Frequency Resolution	Hz	0,1				
		Frequency Precision	%	0,1 (digital)- 0,1 (analog)				
		Range voltage of Boost	%	0 ÷ 20				
	SIGNALS DATA	Signals: input		3 digital input NPN;				
Connections			1 serial TTL ; 1 serial RS485- bridge other devices					
SETTING DATA	Acceleration time	s	0,1 ÷ 99,9					
	Deceleration time	s	0,1 ÷ 99,9					
	Protections		Over voltage –Under voltage - Over current- Overload (I²xt) –Over temperature					
	Over Voltage range	%	100 ÷ 150 (200% for 1s)					
	Brake Energy Management		Direct input CC only ramp					
GENERAL DATA	Dimension	mm	173x200xh145					
	Cooling system		Forced					
	Working temperature	°C	-5 / 45					
	Storage temperature	°C	-15 / +80					
	Relative humidity	%	20 ÷ 85 (No condensation)					
	EMC rate		Class A ; category C2					

OPTIONS	PERFORMANCE	MART223	4 Digital Output; 2 Analog Input
	REMOTE CONTROL SYSTEM	HMI-G	LCD grafic (64x128 dot) with Eeprom and clock circuit

## Note

[illegible]

## Note

[illegible]





ORANGE1  
HOLDING

**ORANGE1**  
**Electric Motors Spa**

**Production plants**

Via Angelo Messedaglia 4  
32030 - Arsiè (BL) Italy  
T. +39 0439 750067  
F. +39 0439 750070

info@orange1.eu  
www.orange1.eu

follow us   

