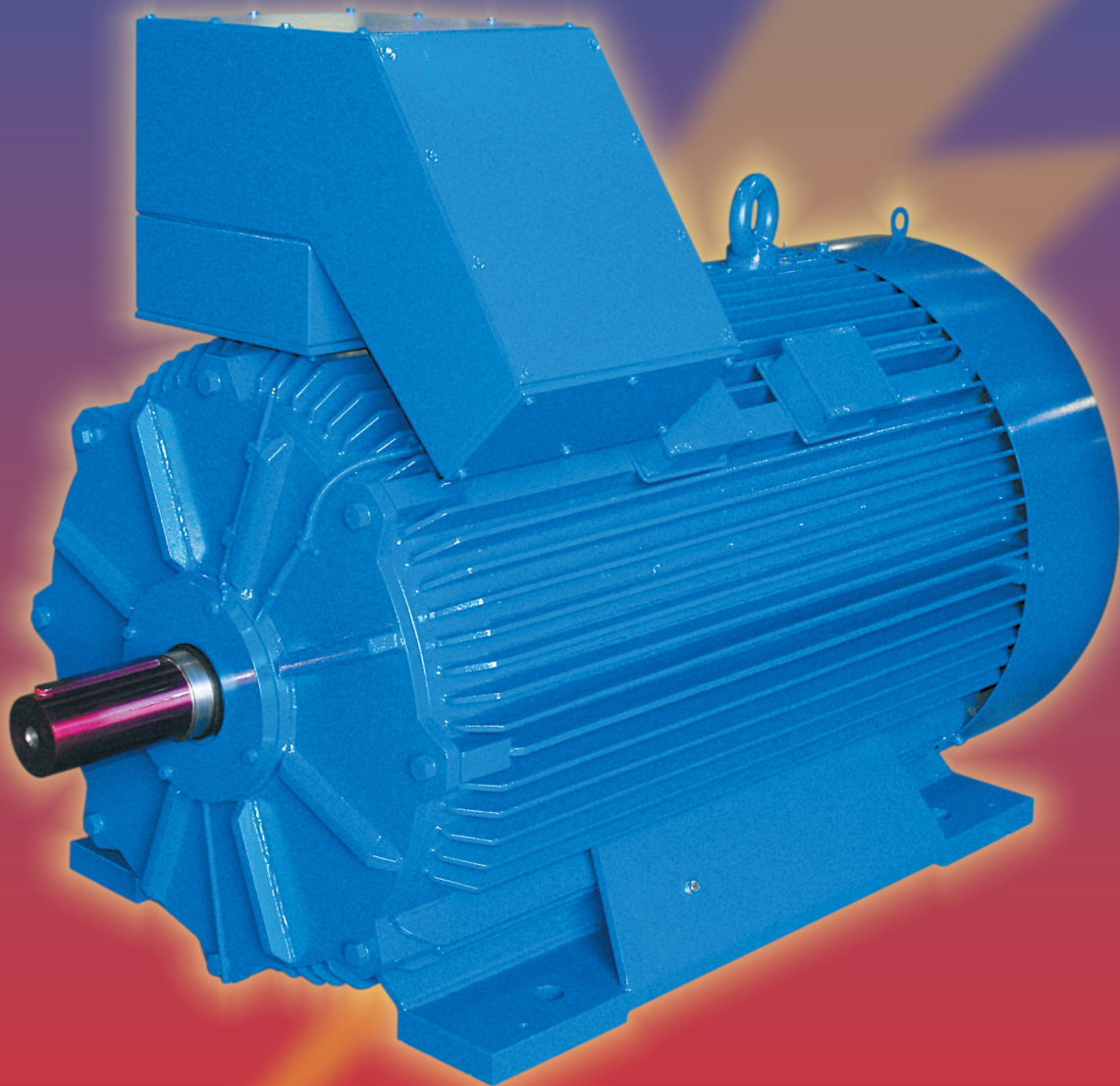


**emas**  
ELETTROMECCANICA



COSTRUZIONI ELETTROMECCANICHE s.r.l.

**ASYNCHRONOUS THREE-PHASE  
ELECTRIC MOTORS low and medium voltage  
Series MVE/MVT frame size 355-500 mm.**



Registration number: IT-34854  
ISO 9001:2008



**EMAS ELETTROMECCANICA s.r.l.**, which has been repairing electrical motors for years, since 1974, and **TEMAX COSTRUZIONI ELETTROMECCANICHE s.r.l.**, which has been constructing electrical motors, since 1986, have created a **NEW SERIES OF ELECTRICAL ROTARY MACHINES IN LOW AND MEDIUM VOLTAGE MVE/MVT**, suitable to meet the technical requirements in various fields: Blower and Compressor Systems, Energy, Chemical Processing and Naval Industries, Generators and Pumps.

## **GENERAL CHARACTERISTICS:**

GENERAL CHARACTERISTICS OF MVE/MVT MOTORS:

### **Construction Norms**

- IEC 60034
- IEC 60072
- EN 60079-15
- DIN VDE 0530
- NEMA Variation

### **Construction Forms**

- B3
- V1
- B3-B5

### **Materials and Building Processes**

- Case and shield (or flange) in STEEL
- Principal box clips gr. 355 steel or cast iron  
gr. 400-500 steel
- IP 55 and IP56 on demand
- Winding insulations with VPI (Vacuum Pressure Impregnation)
- $\Delta t$  insulation class F  $\Delta t$  class B
- Sensors PT100 on windings and bearings
- Space heaters

### **Voltage**

- Nominal voltage from 2 to 11 KV (low voltage 400 Volt and 690 Volt)
- Frequency 50 and 60 Hz
- Inverter
- Softstart

### **Cooling System**

- IC 411 (self-ventilation)
- IC 416 variation (forced-ventilation)
- Bi-directional impeller and directional impeller for high speed motors

### **Bearings**

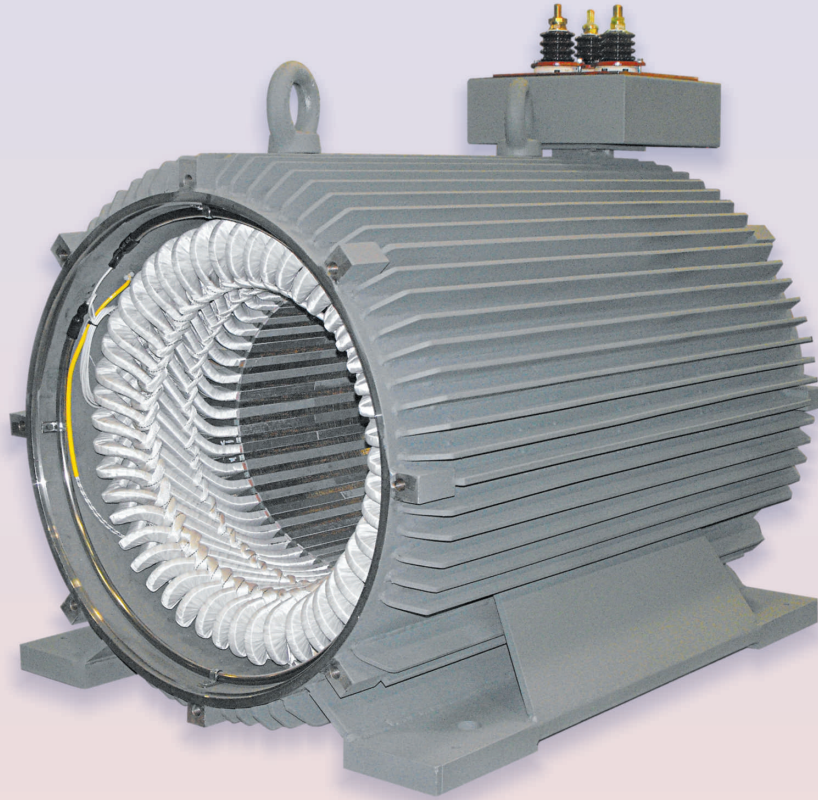
- Roll bearings SKF/FAG
- Shell and antifrictional bearings
- Grease cup

### **Noise**

- Standard  $\leq 85$  dB(A)
- Soundproof variation  $\leq 80$  dB(A)

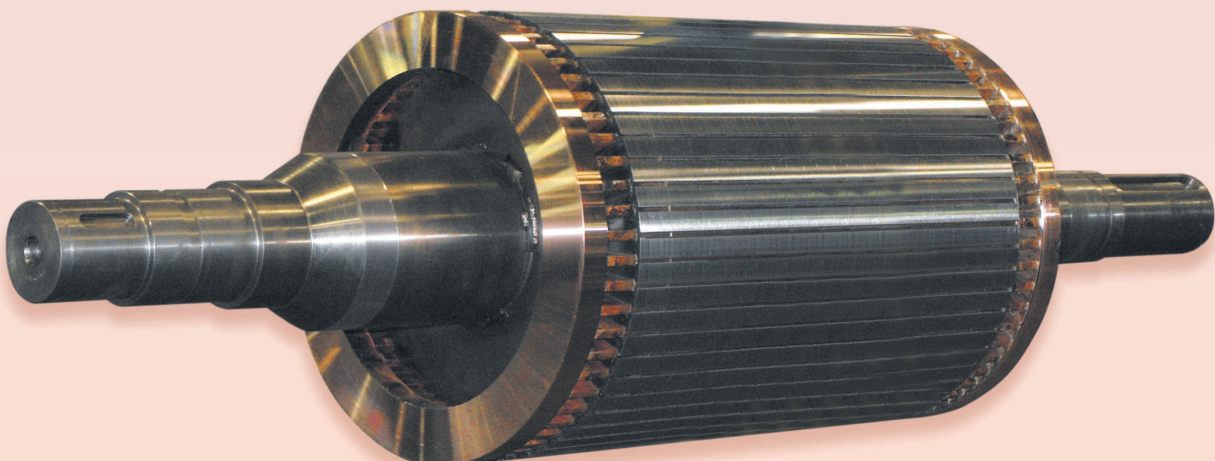
## HOUSING AND STATOR TECHNICAL WINDING

The **MVE/MVT series** shows a high efficiency due to a reduction of losses, obtained through the adoption of high quality of lamination windings used in the construction. **Emas uses the system of impregnation in resin vacuum packed VPI**, this allows it to obtain an insulated coil with thermal characteristics, excellent electrical and mechanical properties; **the construction of the coils used and the techniques are guaranteed by ISO 9001:2008 and certified by CSQ Agency.**



## CAGE ROTOR

The rotor cage is constructed in copper bars brazing on short circuit rings. The cage is purposely studied in such way to avoid movements of the bars inside and to guarantee the greatest heat exchange possible, essential to execute accelerations of long duration motors or when it is needed to maintain the rotor for some blocked period. The conformation detail of the slot rotor guarantees the resistance the highest torsional stress torque and furthermore guarantees the highest torque in rotation.



## PERFORMANCES 6000 VOLT Y 50 HZ - IC411 SERIES MVT

TYPE MVT	Kw	rpm	Amp	Eff% 4/4	Eff% 3/4	cosfi	Is/In pu	Cs/Cn pu	Cmax/Cn pu	J Kgm2	Weight Kg
355M	260	2978	29	95.7	95.5	0.90	5.2	0.60	2.2	3.8	1980
355M	310	2980	34	95.9	95.7	0.91	5.5	0.60	2.2	4.5	2160
355L	355	2980	39	96.1	96.0	0.91	5.7	0.65	2.3	5.0	2500
400M	400	2982	45	96.0	95.8	0.90	5.4	0.55	2.1	8.0	2950
400M	480	2983	53	96.2	96.0	0.91	5.6	0.55	2.2	8.8	3150
400L	530	2985	58	96.3	96.2	0.91	5.9	0.60	2.2	10.0	3450
450M	580	2985	64	96.2	96.0	0.91	5.4	0.50	2.2	15.0	4170
450M	630	2985	69	96.4	96.2	0.91	5.6	0.50	2.2	17.0	4350
450L	700	2985	76	96.6	96.4	0.92	5.9	0.55	2.3	20.0	4800

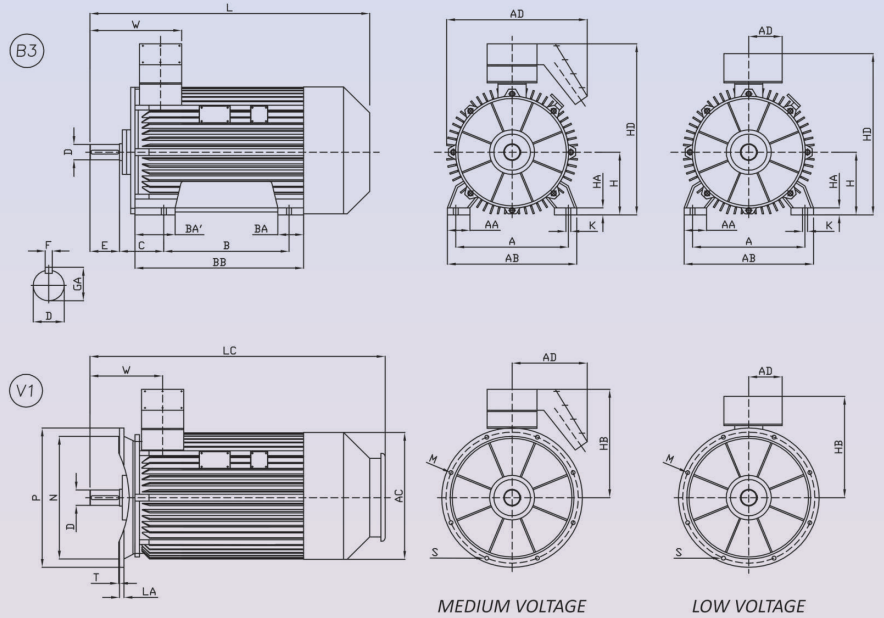
TYPE MVT	Kw	rpm	Amp	Eff% 4/4	Eff% 3/4	cosfi	Is/In pu	Cs/Cn pu	Cmax/Cn pu	J Kgm2	Weight Kg
355M	300	1485	35	96.2	96.4	0.86	5.2	0.80	2.1	4.9	2130
355M	355	1486	42	96.4	96.5	0.86	5.5	0.85	2.1	5.8	2300
355L	400	1488	45	96.3	96.4	0.87	5.8	0.90	2.2	8.0	2680
400M	450	1486	52.5	96.3	96.4	0.86	5.2	0.80	2.0	11.5	3060
400M	500	1488	58	96.5	96.6	0.86	5.5	0.85	2.1	12.5	3200
400L	560	1490	64	96.7	96.8	0.87	5.7	0.90	2.1	16.0	3600
450M	630	1488	72	96.4	96.5	0.88	5.3	0.75	2.1	23.5	4280
450M	710	1488	80	96.6	96.7	0.88	5.6	0.75	2.1	26.0	4500
450L	800	1490	89	96.8	96.9	0.89	5.8	0.80	2.2	30.0	4950
500M	900	1490	102	96.6	96.7	0.88	5.5	0.60	2.2	45	6880
500M	1000	1490	113	96.8	96.9	0.88	5.5	0.65	2.2	51	7100
500L	1120	1493	125	96.9	97.0	0.89	5.6	0.65	2.3	54	7480
500L	1250	1493	140	97.0	97.2	0.90	5.8	0.65	2.3	60	7890

TYPE MVT	Kw	rpm	Amp	Eff% 4/4	Eff% 3/4	cosfi	Is/In pu	Cs/Cn pu	Cmax/Cn pu	J Kgm2	Weight Kg
355M	230	990	29	94.6	94.7	0.81	5.0	0.75	2.1	7.5	2150
355M	270	990	34	94.8	95.0	0.82	5.3	0.75	2.1	8.5	2300
355L	315	990	39	95.2	95.4	0.82	5.5	0.80	2.2	10.0	2600
400M	360	990	44	95.8	95.9	0.83	5.4	0.85	2.0	17.5	3000
400M	430	990	52	96.2	96.2	0.83	5.6	0.85	2.1	20.0	3150
400L	530	990	63	96.5	96.5	0.84	5.8	0.90	2.1	25.0	3500
450M	580	992	69	96.4	96.4	0.84	5.4	0.80	2.0	37.0	4250
450M	630	993	75	96.8	96.9	0.85	5.5	0.80	2.0	40.0	4450
450L	710	994	83	97.0	97.1	0.85	5.8	0.85	2.1	46.0	4850
500M	800	993	92	96.8	97.0	0.87	5.2	0.65	2.0	75	6900
500M	860	993	97	97.0	97.2	0.88	5.5	0.70	2.0	80	7150
500L	1000	994	130	97.2	97.3	0.88	5.6	0.70	2.1	90	7480
500L	1150	994	130	97.3	97.5	0.88	5.6	0.70	2.1	98	7900

**POLE POSSIBILITIES 8-10-12-14-16 (POLES)**

# OVERALL DIMENSIONS

It is possible to build special motors on demand with different dimensions from those mentioned below.



## MEDIUM VOLTAGE

Size	End of shaft												
	A	AA	AB	AC	C	W	H	HA	K	D	E	F	GA
355 M-L 2 P	610	120	740	770	254	430	355	40	28	75	140	20	79,5
355 M-L 4-12 P	610	120	740	770	254	500	355	40	28	100	210	28	106
400 M-L 2 P	686	140	830	850	280	450	400	42	35	75	140	20	79,5
400 M-L 4-12 P	686	140	830	850	280	520	400	42	35	100	210	28	106
450 M-L 2 P	800	150	950	950	280	520	450	42	35	90	170	25	95
450 M-L 4-12 P	800	150	950	950	280	560	450	42	35	120	210	32	127
500 M-L 2 P	900	170	1050	1070	280	520	500	48	42	90	170	25	95
500 M-L 4-12 P	900	170	1050	1070	280	600	500	48	42	130	250	32	137

## MEDIUM VOLTAGE

Size	FLANGE BT AND MT														
	AD	B	BA	BA'	BB	HB	HD	L	LC	LA	M	N	P	S	T
355 M-L 2 P	610	780	210	250	1010	810	1170	1650	1750	25	740	680	800	24	6
355 M-L 4-12 P	610	780	210	250	1010	810	1170	1720	1820	25	740	680	800	24	6
400 M-L 2- P	610	880	250	280	1130	860	1260	1880	1910	28	940	880	1000	28	6
400 M-L 4-12 P	610	880	250	280	1130	860	1260	1810	1980	28	940	880	1000	28	6
450 M-L 2 P	610	1000	250	280	1250	920	1350	2100	2220	30	1080	1000	1150	28	6
450 M-L 4-12 P	610	1000	250	280	1250	920	1350	2180	2260	30	1080	1000	1150	28	6
500 M-L 2 P	610	1200	300	330	1300	1000	1500	2350	2470	30	1080	1000	1150	28	6
500 M-L 4-12 P	610	1200	300	330	1300	1000	1500	2430	2550	30	1080	1000	1150	28	6

## LOW VOLTAGE

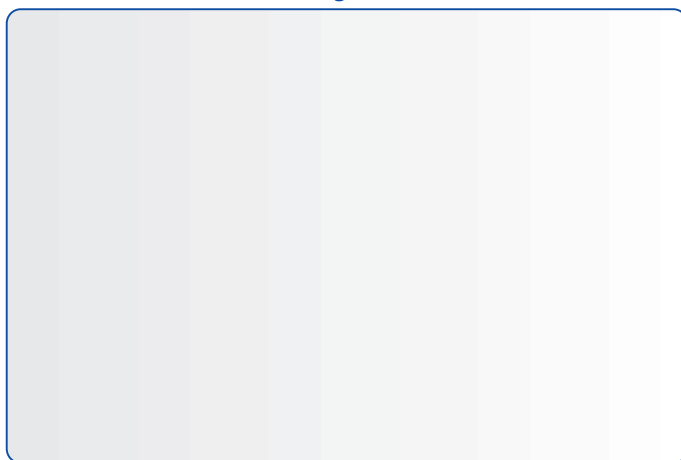
Size	AD	B	BA	BA'	BB	HB	HD	L	LC	LA	M	N	P	S	T
355 M-L 2 P	270	780	210	250	1010	605	960	1650	1750	25	740	680	800	24	6
355 M-L 4-12 P	270	780	210	250	1010	605	960	1720	1820	25	740	680	800	24	6
400 M-L 2- P	270	880	250	280	1130	650	1050	1810	1910	28	940	880	1000	28	6
400 M-L 4-12 P	270	880	250	280	1130	650	1050	1880	1980	28	940	880	1000	28	6
450 M-L 2 P	380	1000	250	280	1250	860	1310	2100	2220	30	1080	1000	1150	28	6
450 M-L 4-12 P	380	1000	250	280	1250	860	1310	2180	2260	30	1080	1000	1150	28	6
500 M-L 2 P	450	1200	300	330	1300	920	1420	2350	2470	30	1080	1000	1150	28	6
500 M-L 4-12 P	450	1200	300	330	1300	920	1420	2430	2550	30	1080	1000	1150	28	6



Registration number: IT-34854  
ISO 9001:2008



Agent



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