



A.C. Motors for Railway



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.



TURNING PARTS

ELECTRIC MOTORS

DIE CASTING



A.C. Motor for Railway Auxiliary Application

The execution of different reparations carried out by Sicme Motori in the time, on the auxiliary system installed on board of locomotives, for the main producers and users of rolling stock, enabled the Orange 1 Group, of which Sicme motori is member, to study, design and construct a line of AC motors suitable for specific needs. This product line, available in classical configurations with flange, feet or PAD attachment sees its use in different applications.

The conception of the internal transmission mechanics and the protections applied, make this line of product perfectly suited to the principals technical requiremets required in the field of rail applications. Possible applications on borad of train:

- Resistor fan motor
- Traction motor ventilation
- Climatic system

The motors is available with fan or without fan of refrescing.



Execution

Protection IP55
Thermal class/Temperature rise H/F
Winding Suitable for inverter duty
Duty Time S1
Max ambient temperature 60°C
Housing Aluminium; removable feet
Shields Cast iron
Bearings: life 40.000h C3; permanent lubrication; electrical insulation
DE bearing locked: suitable for mounting B3 (IMV6-IM1031) B5 (IMV3-IM3031)
Execution vent holes; waterproof on the shaft
Terminal box in aluminium (two components); possibility to rotate
Fan: aluminium material
Fan cover: steel zinc-plated
Painting black RAL 9005

On demand

PT100 on the winding (thermal protection)
PT100 on the bearing side (thermal protection)
Bearings lubrication system
Accelerometer on the shield
Free wires, without terminal box
Certified power cables

Three phase motors for rail

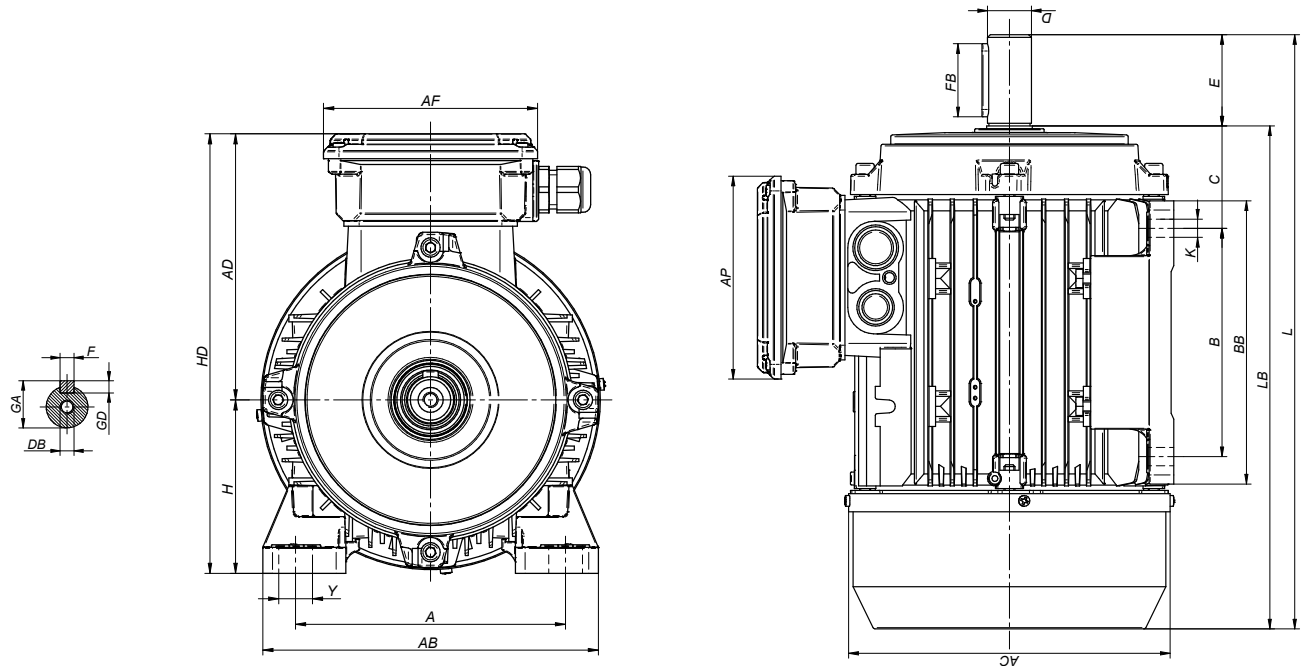


3600rpm -Single speed motors
450V - 60Hz - 2 poles - S1- Inverter duty
Insulation class H; Temperature rise B

Type	Rated Power		Rated current at 450V	Rated speed	Rated Torque	Efficiency full load	Efficiency 3/4 load	Efficiency 1/2 load	Power factor	Starting current Rated current	Starting torque Rated torque	Breakdown torque Rated torque	Moment of inertia
	Pn		In	n	Mn	η	η	η	COS φ	Is/In	Ms /Mn	Mb/Mn	J
	kW	HP	A	rpm	Nm	%	%	%					10 ⁻³ kgm ²
RM 90S A2	1,7	2,3	3,2	3462	4,7	84,8	85,4	84,1	0,81	7,9	3,8	3,9	4,90
RM 90L D2	2,5	3,4	4,8	3480	6,9	86,1	86,3	84,4	0,77	8,0	4,7	4,9	6,00
RM 100L A2	3,5	4,7	5,7	3474	9,6	87,9	88,8	88,1	0,90	8,4	4,0	4,0	11,58
RM 112M A2	4,6	6,2	7,4	3522	12,5	89,0	88,5	86,5	0,89	11,7	4,2	5,5	16,42
RM 112M C2	6,3	8,4	10,1	3510	17,1	89,2	89,0	87,6	0,89	10,4	3,6	5,0	19,00
RM 132S A2	6,3	8,4	10,6	3522	17,1	89,2	88,8	87,2	0,86	7,7	3,4	4,8	39,65
RM 132S B2	8,6	11,5	14,2	3522	23,3	90,1	89,7	88,5	0,86	7,9	2,9	3,9	54,83
RM 132M D2	10,5	14,1	17,0	3528	28,4	90,9	90,5	89,4	0,87	8,0	3,4	4,1	56,58
RM 132M E2	12,5	16,8	19,4	3534	33,8	91,2	91,7	91,4	0,91	8,0	3,2	3,9	60,16
RM 160M A2	12,5	16,8	19,4	3538	33,7	91,2	91,8	91,5	0,91	8,0	3,0	3,7	106,89
RM 160M B2	17,0	22,8	26,5	3538	45,9	91,9	91,4	90,1	0,90	10,3	4,7	4,6	142,51
RM 160L D2	21,5	28,8	32,8	3540	58,0	92,4	91,9	90,5	0,91	9,0	3,3	3,5	161,11
RM 160L E2	25,0	33,5	38,4	3546	67,3	92,7	92,1	91,2	0,90	8,0	3,5	3,7	161,11
RM 180M A2	25,0	33,5	37,6	3552	67,2	93,2	92,6	92,5	0,91	6,8	3,5	5,2	255,63
RM 180L D2	34,5	46,2	51,2	3552	92,8	93,4	93,1	92,3	0,93	6,1	3,1	4,5	280,92

Motors for Rail

With shields in cast iron



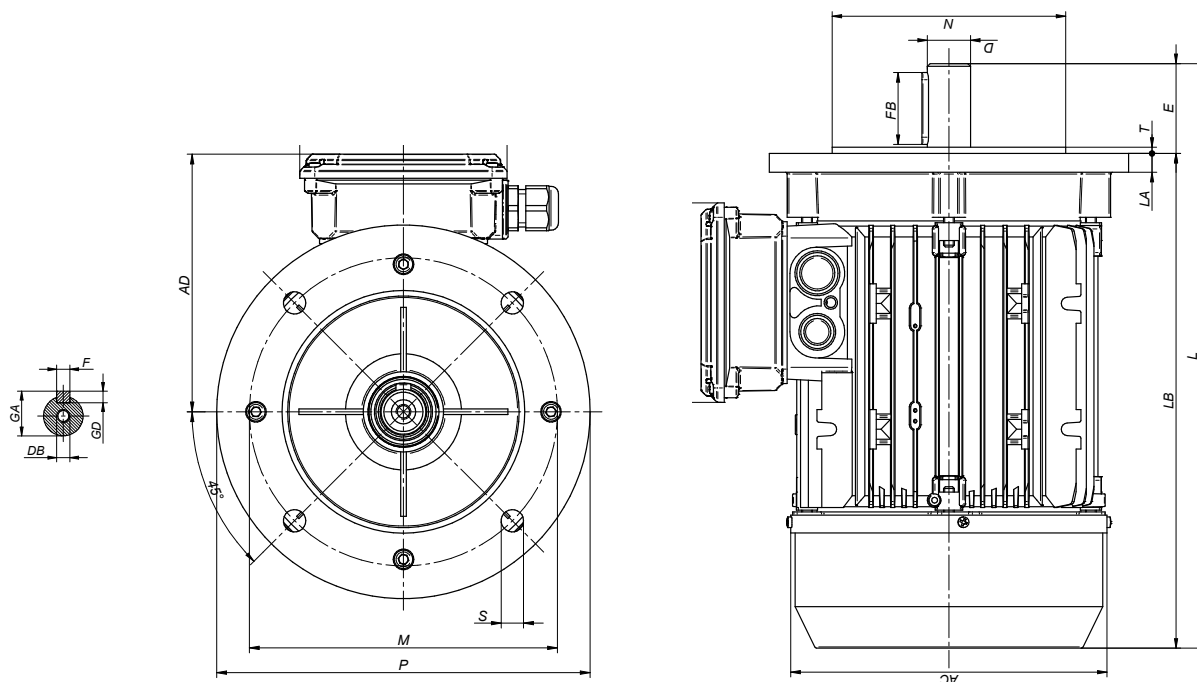
B3 (IMV6-IM1031)

Size	A	AB	B	BB	C	D	E	H	HD	L	K	Y	AC	AD	AF	AP	F	FB	GA	GD	DB	LB
90S	140	175	100	129	57	24	50	90	225	303	10	17,5	176	135	111	111	8	40	27	7	M8	253
90L	140	175	125	155	56	24	50	90	225	325	10	17,5	176	135	111	111	8	40	27	7	M8	275
100	156,5	192	140	175	63	28	60	100	246	380	12,5	22,5	194	146	111	111	8	50	31	7	M10	320
112M	190	223	140	176,5	70	28	60	112	270	398	12	22	220	158	111	111	8	50	31	7	M10	338
132S	216	260	140	180	89	38	80	132	328	460	12	28	264	196	133	133	10	70	41	8	M12	380
132M	216	260	178	218	89	38	80	132	328	500	12	28	264	196	133	133	10	70	41	8	M12	420
160M	254	318	210	260	108	42	110	160	403	610	15	30	317	243	185	185	12	90	45	8	M16	500
160L	254	318	254	304	108	42	110	160	403	650	15	30	317	243	185	185	12	90	45	8	M16	540
180M	279	345	241	291	121	48	110	180	440	720	13	38	352	260	185	185	14	90	51,5	9	M16	610
180L	279	345	279	330	121	48	110	180	440	720	13	38	352	260	185	185	14	90	51,5	9	M16	610

Dimension in mm

Motors for Rail

With shields in cast iron



B5 (IMV3-IM3031)

Size	A	AB	B	BB	C	D	E	H	HD	L	K	Y	AC	AD	AF	AP	F	FB	GA	GD	DB	LB	P-B5	N-B5	M-B5	T-B5	S-B5	LA-B5
90S	140	175	100	129	57	24	50	90	225	303	10	17,5	176	135	111	111	8	40	27	7	M8	253	200	130	165	3,5	12	10,5
90L	140	175	125	155	56	24	50	90	225	325	10	17,5	176	135	111	111	8	40	27	7	M8	275	200	130	165	3	12	10,5
100	156,5	192	140	175	63	28	60	100	246	380	12,5	22,5	194	146	111	111	8	50	31	7	M10	320	250	180	215	4	14	15
112M	190	223	140	176,5	70	28	60	112	270	398	12	22	220	158	111	111	8	50	31	7	M10	338	250	180	215	4	14	11,5
132S	216	260	140	180	89	38	80	132	328	460	12	28	264	196	133	133	10	70	41	8	M12	380	300	230	265	4	14	14
132M	216	260	178	218	89	38	80	132	328	500	12	28	264	196	133	133	10	70	41	8	M12	420	300	230	265	4	14	14
160M	254	318	210	260	108	42	110	160	403	610	15	30	317	243	185	185	12	90	45	8	M16	500	350	250	300	5	18,5	15
160L	254	318	254	304	108	42	110	160	403	650	15	30	317	243	185	185	12	90	45	8	M16	540	350	250	300	5	18,5	15
180M	279	345	241	291	121	48	110	180	440	720	13	38	352	260	185	185	14	90	51,5	9	M16	610	350	250	300	5	18,5	19
180L	279	345	279	330	121	48	110	180	440	720	13	38	352	260	185	185	14	90	51,5	9	M16	610	350	250	300	5	18,5	19

Dimension in mm



PARTNER SINCE 2016



ORANGE1
Electric Motors Spa

Administrative Headquarter

Piazza della Repubblica 28
20124 - Milano Italy

info@orange1.eu
www.orange1.eu

follow us   

Production plants

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

Via A. Grandi 23
47030 - San Mauro Pascoli (FC) Italy
T. +39 0541 815611
F. +39 0541 815684

Via Mantova nr. 93
43122 Parma (PR) Italy
T. +39 0521 272383
F. +39 0521 272686

