

Data sheet for three-phase Squirrel-Cage-Motors SIMOTICS



Motor type : 1AV3112B

SIMOTICS GP - 112 M - IM V3 - 4p

Client order no.	Item-No.	Offer no.
Order no.	Consignment no.	Project

Remarks

Electrical data

Safe Area

U	Δ / Y	f	P	P	I	n	M	η ³⁾			cosφ ³⁾			I _A /I _N	M _A /M _N	M _K /M _N	IE-CL
[V]		[Hz]	[kW]	[hp]	[A]	[1/min]	[Nm]	4/4	3/4	2/4	4/4	3/4	2/4	I _I /I _N	T _I /T _N	T _B /T _N	
DOL duty (S1) - 155(F) to 130(B)																	
220	Δ	50	4.00	-/-	14.40	1460	26.0	88.6	89.2	88.6	0.82	0.76	0.65	7.1	2.4	3.7	IE3
380	Y	50	4.00	-/-	8.40	1460	26.0	88.6	89.2	88.6	0.82	0.76	0.65	7.1	2.4	3.7	IE3
440	Y	60	4.55	-/-	8.00	1760	24.5	89.5	90.0	89.3	0.83	0.78	0.67	7.3	2.5	3.8	IE3
440	Y	60	3.70	-/-	6.80	1770	20.0	89.5	89.4	87.7	0.80	0.73	0.61	8.2	2.9	4.3	IE3
IM V3 / IM 3031			FS 112 M			IP55		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							
Environmental conditions : -20 °C - +40 °C / 1,000 m									Locked rotor time (hot / cold) : 16.1 s 21.8 s								

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	58 / 70 dB(A) ^{2) 3)}	62 / 74 dB(A) ^{2) 3)}	Vibration severity grade	A
Moment of inertia	0.0170 kg m ²		Thermal class	F
Bearing DE NDE	6206 2Z C3	6206 2Z C3	Duty type	S1
bearing lifetime			Direction of rotation	bidirectional
L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾	20000 h	16000 h	Frame material	aluminum
Lubricants	Unirex N3		Net weight of the motor (IM B3)	34 kg
Regreasing device	No		Coating (paint finish)	Standard paint finish C2
Grease nipple	-/-		Color, paint shade	RAL7030
Type of bearing	Preloaded bearing DE		Motor protection	(G) 2 temperature sensors KTY84-130 (4 terminals)
Condensate drainage holes	Yes		Method of cooling	IC411 - self ventilated, surface cooled
External earthing terminal	No			

Terminal box

Terminal box position	top	Max. cross-sectional area	4 mm ²
Material of terminal box	Aluminium	Cable diameter from ... to ...	11 mm - 21 mm
Type of terminal box	TB1 F00	Cable entry	2xM32x1,5-1xM16x1,5
Contact screw thread	M4	Cable gland	3 plugs

Notes:

I _A /I _N = locked rotor current / current nominal	1) L10mh according to DIN ISO 281 10/2010	3) Value is valid only for DOL operation with motor design IC411
M _K /M _N = locked rotor torque / torque nominal	2) at rated power / at full load	
M _B /M _N = break down torque / nominal torque		

responsible dep.	technical reference	created by	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.	Link documents
DI MC LVM		DT Configurator			
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Special design

F01	Mounting a brake	H03	Condensation drain holes in end shield
F11	Brake supply voltage, 230 V AC, 50/60 Hz	H07	Stainless steel screws and bolts (outside the motor)
F50	Mechanical manual brake release with lever (cannot be locked)	Q02	Anti-condensation heating for 230 V (2 terminals)
G11	Rotary pulse encoder Sendix 5020 (HTL)		

Additional information:

Space heaters

Technical data: 1-phase, 230 V 25W

Brake:

Description:	BFK458-14	Current:	.25 A
Voltage:	AC 230 V	Moment of inertia:	0.000630 kgm ²

Notes:

responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.		Link documents	
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