

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

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Motor type / Motor type : 1AV4112B

SIMOTICS GP - 112 M - IM B3 - 4p

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

Remarks / Remarks

Safe Area

-/-

Electrical data / Electrical data

U [V]	Δ / Y	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	$\eta^{3)}$			$\cos\phi^{3)}$			I_A/I_N I_f/I_N	M_A/M_N T_f/T_N	M_K/M_N T_B/T_N	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4				
DOL duty (S1) / DOL duty (S1) - 155(F) to 130(B)																	
400	Δ	50	4.00	-/-	7.80	1465	26.0	91.1	91.6	91.0	0.81	0.75	0.63	8.3	3.1	4.3	IE4
690	Y	50	4.00	-/-	4.55	1465	26.0	91.1	91.6	91.0	0.81	0.75	0.63	8.3	3.1	4.3	IE4
460	Δ	60	4.55	-/-	7.60	1765	24.5	91.0	91.3	90.6	0.82	0.76	0.65	8.5	3.0	4.3	IE4
460	Δ	60	3.70	-/-	6.50	1770	20.0	91.0	90.8	89.5	0.78	0.71	0.58	10.0	3.7	5.4	IE4
IM B3 / IM 1001		FS 112 M		IP55		UKCA		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							

Environmental conditions / Environmental conditions : -20 °C - +40 °C / 1000 m Locked rotor time (hot / cold) / Locked rotor time (hot / cold) : 20.5 s | 26.1 s

Mechanical data / Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz Sound level (SPL / SWL) at 50Hz 60Hz	65 / 77 dB(A) ^{2) 3)}	68 / 80 dB(A) ^{2) 3)}	Vibration severity grade Vibration severity grade	A A
Moment of inertia Moment of inertia	0.0200 kg m ²		Thermal class Thermal class	F F
Bearing DE NDE Bearing DE NDE	6206 2Z C3	6206 2Z C3	Duty type Duty type	S1
bearing lifetime / bearing lifetime				Direction of rotation Direction of rotation
$L_{10mh} F_{Rad min}$ for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Frame material Frame material	bidirectional bidirectional aluminum aluminum
$L_{10mh} F_{Rad min}$ for coupling operation 50 60Hz ¹⁾			Net weight of the motor (IM B3) Net weight of the motor (IM B3)	46 kg
Regreasing device Regreasing device	Without Without		Coating (paint finish) Coating (paint finish)	Standard paint finish C2 Standard paint finish C2
Grease nipple Grease nipple	-/-		Color, paint shade Color, paint shade	RAL7030
Type of bearing Type of bearing	Preloaded bearing DE Preloaded bearing DE		Motor protection Motor protection	(B) 3 PTC thermistors - for tripping (2 terminals) (B) 3 PTC thermistors - for tripping (2 terminals)
Condensate drainage holes Condensate drainage holes	Without Without		Method of cooling Method of cooling	IC411 - self ventilated, surface cooled IC411 - self ventilated, surface cooled
External earthing terminal External earthing terminal	Without Without			

Terminal box / Terminal box

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

Notes:

I_A/I_N = locked rotor current / current nominal ¹⁾ L_{10mh} according to DIN ISO 281 10/2010 ³⁾ Value is valid only for DOL operation with motor design IC411
 M_A/M_N = locked rotor torque / torque nominal ²⁾ at rated power / at full load
 M_K/M_N = break down torque / nominal torque

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