

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



Motor type : 1AV3090B

SIMOTICS GP - 90 S - IM B5 - 4p

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

Electrical data

Safe Area

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) - 155(F) to 130(B)																	
220	Δ	50	1.10	-/-	4.40	1440	7.3	84.1	84.7	83.4	0.78	0.70	0.58	6.9	2.9	3.6	IE3
380	Y	50	1.10	-/-	2.55	1440	7.3	84.1	84.7	83.4	0.78	0.70	0.58	6.9	2.9	3.6	IE3
440	Y	60	1.27	-/-	2.50	1740	7.0	84.0	84.4	83.1	0.79	0.72	0.60	7.4	2.9	3.8	IE2
440	Y	60	1.10	-/-	2.20	1750	6.0	86.5	86.4	84.2	0.75	0.67	0.54	8.2	3.4	4.4	IE3
IM B5 / IM 3001		FS 90 S		IP55		UKCA		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							
Environmental conditions : -20 °C - +40 °C / 1,000 m										Locked rotor time (hot / cold) : 21.1 s 25.4 s							

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	56 / 68 dB(A) ^{2) 3)}	58 / 70 dB(A) ^{2) 3)}	Vibration severity grade	A
Moment of inertia	0.0036 kg m ²		Thermal class	F
Bearing DE NDE	6205 2Z C3	6004 2Z C3	Duty type	S1
bearing lifetime			Direction of rotation	bidirectional
L_{10mh} $F_{Rad min}$ for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Frame material	aluminum
Regreasing device	Without		Net weight of the motor (IM B3)	16 kg
Grease nipple	-/-		Coating (paint finish)	Standard paint finish C2
Type of bearing	Preloaded bearing DE		Color, paint shade	RAL7030
Condensate drainage holes	Without		Motor protection	(B) 1 PTC thermistor - for tripping (2 terminals)
External earthing terminal	Without		Method of cooling	IC411 - self ventilated, surface cooled

Terminal box

Terminal box position	top	Max. cross-sectional area	1.5 mm ²
Material of terminal box	Aluminium	Cable diameter from ... to ...	9 mm - 17 mm
Type of terminal box	TB1 E00	Cable entry	1xM25x1,5-1xM16x1,5
Contact screw thread	M4	Cable gland	2 plugs

Notes:

I_A/I_N = locked rotor current / current nominal
 M_K/M_N = locked rotor torque / torque nominal
 M_f/M_N = break down torque / nominal torque
 1) L10mh according to DIN ISO 281 10/2010
 2) at rated power / at full load
 3) Value is valid only for DOL operation with motor design IC411

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