

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



Motor type : 1AV1090B

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]	η ³⁾			$\cos\phi$ ³⁾			I_A/I_N I_f/I_N	M_A/M_N T_f/T_N	M_R/M_N T_B/T_N	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4				
DOL duty (S6 60%) - 155(F) to 130(B)																	
230	Δ	50	1.20	-/-	4.95	1405	7.5	75.0	75.9	73.6	0.81	0.72	0.58	4.5	2.1	2.3	IE1
400	Y	50	1.20	-/-	2.85	1405	7.5	75.0	75.9	73.6	0.81	0.72	0.58	4.5	2.1	2.3	IE1
460	Y	60	1.40	-/-	2.75	1705	7.1	79.0	79.8	77.7	0.81	0.73	0.59	5.0	2.2	2.5	IE1
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) : 12.1 s 22.7 s								

Mechanical data

Sound level (SPL / SWL) at 50Hz/60Hz	56 / 67 dB(A) ^{2) 3)}	54 / 65 dB(A) ^{2) 3)}	Vibration severity grade	A
Moment of inertia	0.0050 kg m ²		Thermal class	F
Bearing DE NDE	6205 2Z C3	6004 2Z C3	Duty type	S6 60%
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)	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	(A) without (Standard)
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
Contact screw thread	M4	Cable gland	1 plug

Notes:
 I_A/I_N = locked rotor current / current nominal
 M_A/M_N = locked rotor torque / torque nominal
 M_R/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. DI MC LVM	technical reference	created by DT Configurator	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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Special design

Y99 special motor design S6 60%

Notes:

I_L/I_N = locked rotor current / current nominal
 M_L/M_N = locked rotor torque / torque nominal
 M_b/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 1C411

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