

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



Motor type : 1AV2090B

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	M_A/M_N	M_K/M_N	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4	I_i/I_N	T_i/T_N	T_B/T_N	
230	Δ	50	1.01	-/-	4.15	1430	6.8	81.5	81.4	78.8	0.75	0.67	0.51	6.1	2.5	3.1	IE2
400	Y	50	1.01	-/-	2.35	1430	6.8	81.5	81.4	78.8	0.75	0.67	0.51	6.1	2.5	3.1	IE2
460	Y	60	1.16	-/-	2.30	1730	6.4	84.2	84.3	82.3	0.76	0.68	0.55	6.6	2.5	3.3	IE2
460	Y	60	1.10	-/-	2.20	1740	6.0	84.0	83.7	81.2	0.74	0.65	0.52	7.0	2.7	3.6	IE2
IM B5 / IM 3001		FS 90 S		13 kg		IP55		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							

Environmental conditions : -20 °C - +50 °C / 1,000 m

Locked rotor time (hot / cold) : 19.2 s | 25.7 s

These values are calculated. The final rating plate data will be calculated when the order is placed

The efficiency values and efficiency class according to EuP directive are valid for standard power ratings under standard conditions.

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	56.0 / 68.0 dB(A) ²⁾	58.0 / 70.0 dB(A) ²⁾	External earthing terminal	No
Moment of inertia	0.0028 kg m ²		Vibration severity grade	A
Bearing DE NDE	6205 2Z C3	6004 2Z C3	Insulation	155(F) to 130(B)
bearing lifetime			Duty type	S1
L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Direction of rotation	bidirectional
Lubricants	Unirex N3		Frame material	aluminum
Regreasing device	No		Coating (paint finish)	Standard paint finish C2
Grease nipple	-/-		Color, paint shade	RAL7030
Type of bearing	Preloaded bearing DE		Motor protection	(A) without (Standard)
Condensate drainage holes	-/-		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 ...	9.0 mm - 17.0 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_K/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.	technical reference	created by	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.			
DI MC LVM		DT Configurator					
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G40	Prepared for mounted components, only centering hole	N06	Temperature class 155 (F), utilised to 130 (B), cooling medium temperature 50°C, power reduced
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