

# 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

Safe Area

Electrical data

-/-

U [V]	Δ / Y	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	η <sup>3)</sup>			cosφ <sup>3)</sup>			I <sub>A</sub> /I <sub>N</sub>	M <sub>A</sub> /M <sub>N</sub>	M <sub>K</sub> /M <sub>N</sub>	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4	I <sub>I</sub> /I <sub>N</sub>	T <sub>I</sub> /T <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>	
<b>DOL duty (S1) - 155(F) to 155(F)</b>																	
400	Δ	50	1.10	-/-	2.40	1440	7.3	84.1	84.7	83.4	0.78	0.70	0.58	6.9	2.9	3.6	IE3
460	Δ	60	1.27	-/-	2.40	1740	7.0	84.0	84.4	83.1	0.79	0.72	0.60	7.4	2.9	3.8	IE2
460	Δ	60	1.10	-/-	2.15	1750	6.0	86.5	86.4	84.2	0.75	0.67	0.54	8.2	3.4	4.4	MG1
IM B5 / IM 3001		FS 90 S		IP55		UKCA		IEC/EN 60034		IEC, EN, NEMA MG1-12-12			kVA Code: N				
Environmental conditions : -20 °C - +55 °C / 1000 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) <sup>2) 3)</sup>	58 / 70 dB(A) <sup>2) 3)</sup>	Vibration severity grade	A
Moment of inertia	0.0036 kg m <sup>2</sup>		Thermal class	F
Bearing DE   NDE	6205 2Z C3	6004 2Z C3	Duty type	S1
<b>bearing lifetime</b>			Direction of rotation	bidirectional
L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup>	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	(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 <sup>2</sup>
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

I<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 M<sub>A</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
 M<sub>K</sub>/M<sub>N</sub> = break down torque / nominal torque  
 1) L<sub>10mh</sub> 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

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## Special design

B99	Lattice pallet packaging	N03	Temperature class 155 (F), utilised to 155 (F), with increased cooling medium temperature
D30	Electrical design according to NEMA MG1-12		

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