

# 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]	$\Delta / Y$	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	$\eta$ <sup>3)</sup>			$\cos\phi$ <sup>3)</sup>			$I_A/I_N$ $I_i/I_N$	$M_A/M_N$ $T_i/T_N$	$M_K/M_N$ $T_B/T_N$	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4				
230	$\Delta$	50	1.10	-/-	4.55	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	1.10	-/-	2.60	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	1.27	-/-	2.50	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	kg	IP55	IEC/EN 60034	IEC, DIN, ISO, VDE, EN
Environmental conditions : -20 °C - +40 °C / 1,000 m				Locked rotor time (hot / cold) : 12.4 s   23.2 s	

## Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	56.0 / 67.0 dB(A) <sup>2)</sup>	54.0 / 65.0 dB(A) <sup>2)</sup>	External earthing terminal	No
Moment of inertia	0.0050 kg m <sup>2</sup>		Vibration severity grade	A
Bearing DE   NDE	6205 2Z C3	6004 2Z C3	Insulation	155(F) to 130(B)
<b>bearing lifetime</b>			Duty type	S1
L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup>	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 <sup>2</sup>
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	1) L10mh 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. 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>			
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