

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	Δ / Y	f	P	P	I	n	M	η ³⁾			cosφ ³⁾			I _A /I _N	M _A /M _N	M _K /M _N	IE-CL
[V]		[Hz]	[kW]	[hp]	[A]	[1/min]	[Nm]	4/4	3/4	2/4	4/4	3/4	2/4	I _I /I _N	T _I /T _N	T _B /T _N	
DOL duty (S1) - 155(F) to 130(B)																	
230	Δ	50	1.10	-/-	4.35	1425	7.4	81.4	82.3	81.1	0.78	0.71	0.57	5.6	2.3	2.9	IE2
400	Y	50	1.10	-/-	2.50	1425	7.4	81.4	82.3	81.1	0.78	0.71	0.57	5.6	2.3	2.9	IE2
460	Y	60	1.27	-/-	2.45	1725	7.0	84.0	84.6	83.5	0.78	0.71	0.59	6.1	2.3	3.0	IE2
460	Y	60	1.10	-/-	2.20	1740	6.0	84.0	83.9	81.9	0.74	0.66	0.54	7.0	2.7	3.6	IE2
IM B5 / IM 3001		FS 90 S				IP55			IEC/EN 60034		IEC, DIN, ISO, VDE, EN						
Environmental conditions : -20 °C - +40 °C / 1,000 m									Locked rotor time (hot / cold) : 19.3 s 25.7 s								

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	56 / 68 dB(A) ²⁾	58 / 70 dB(A) ²⁾	Vibration severity grade	A
Moment of inertia	0.0028 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 ¹⁾ for coupling operation	40000 h	32000 h	Frame material	aluminum
Lubricants	Unirex N3		Net weight of the motor (IM B3)	13 kg
Regreasing device	No		Coating (paint finish)	Standard paint finish C2
Grease nipple	-/-		Color, paint shade	RAL7030
Type of bearing	Preloaded bearing DE		Motor protection	(B) 1 PTC thermistor - for tripping (2 terminals)
Condensate drainage holes	No		Method of cooling	IC411 - self ventilated, surface cooled
External earthing terminal	No			

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 E10	Cable entry	1xM25x1,5-1xM16x1,5
Contact screw thread	M4	Cable gland	2 plugs

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 _K /M _N = locked rotor torque / torque nominal	2) at rated power / at full load	
M _B /M _N = break down torque / nominal torque		

responsible dep.	technical reference	created by	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.		Link documents	
DI MC LVM		DT Configurator					
	document type			document status			
	datasheet			released			
	title			document number			
	1LE1001-0EB02-2FB4-Z						
	F01+F12			rev.	creation date	language	Page
© Siemens AG 2021				01	2021-12-07	en	1/2

SIMOTICS GP - 90 S - IM B5 - 4p

Special design

F01	Mounting a brake	F12	Brake supply voltage 400 V AC, 50/60 Hz
-----	------------------	-----	---

Additional information:

Brake:

Description:	BFK458-10	Current:	.17 A
Voltage:	AC 400 V	Moment of inertia:	0.000160 kgm ²

Notes:

responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.		Link documents	
SIEMENS	document type datasheet			document status released			
	title 1LE1001-OEB02-2FB4-Z			document number			
© Siemens AG 2021	F01+F12			rev. 01	creation date 2021-12-07	language en	Page 2/2