

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



Motor type : 1AV2090B

SIMOTICS GP - 90 S - IM B3 - 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	
415	Δ	50	1.10	-/-	2.40	1425	7.4	81.4	81.8	80.0	0.78	0.70	0.56	5.6	2.3	2.9	IE2
480	Δ	60	1.27	-/-	2.35	1725	7.0	84.0	84.7	83.3	0.78	0.71	0.59	6.1	2.3	3.0	IE2
480	Δ	60	1.10	-/-	2.15	1740	6.0	84.0	83.7	81.2	0.74	0.65	0.52	7.0	2.7	3.6	IE2
IM B3 / IM 1001		FS 90 S		13 kg		IP55		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							

Environmental conditions : -20 °C - +40 °C / 1,000 m

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

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} 50 60Hz ¹⁾ for coupling operation	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	(F) 1 temperature sensor KTY84-130 (2 terminals)
Condensate drainage holes	No		Method of cooling	IC411 - self ventilated, surface cooled

Terminal box

Terminal box position	left	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 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.				
DI MC LVM		DT Configurator						
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	datasheet			released				
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Special design

B02	Acceptance test certificate 3.1 acc. to EN 10204	M11	Stainless steel rating plate
F01	Mounting a brake	Y82	Auxiliary name plate with customer data
F10	Brake supply voltage 24 V DC		

Additional information:

Brake:

Description:	BFK458-10	Current:	1.25 A
Voltage:	DC 24 V	Moment of inertia:	.00016 Nm

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.			
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