

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



Motor type : 1AV3090A

SIMOTICS XP - 90 S - IM B3 - 2p

Client order no.	Item-No.	Offer no.
Order no.	Consignment no.	Project

Remarks

Electrical data	II 2D Ex tb IIIC T 120°C Db -/-
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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)																	
400	Y	50	1.50	-/-	3.00	2910	4.9	84.2	84.6	83.2	0.86	0.80	0.69	8.1	2.7	4.2	IE3
Converter duty (S9) - 155(F) to 130(B)																	
49	Y	5	.067		1.97	235	2.72				0.75	Type of converter Voltage source converter, general.					
205	Y	25	.6		2.5	1,430	4.01				0.84						
380	Y	50	1.13		2.4	2,900	3.72				0.83						
380	Y	100	1.13		2.85	5660	1.91				0.77						
IM B3 / IM 1001			FS 90 S			IP65		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							
Environmental conditions : -20 °C - +40 °C / 1,000 m									Locked rotor time (hot / cold) : 8 s 10.7 s								

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	65 / 77 dB(A) ^{2) 3)}	69 / 81 dB(A) ^{2) 3)}	Vibration severity grade	A
Moment of inertia	0.0021 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} for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Frame material	aluminum
Regreasing device	Without		Net weight of the motor (IM B3)	15 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	(B) 3 PTC thermistors - for tripping (2 terminals)
External earthing terminal	With (standard)		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 mm - 17 mm
Type of terminal box	TB1 E00	Cable entry	1xM25x1,5-1xM16x1,5
Contact screw thread	M4		

Notes:		
I _L /I _N = locked rotor current / current nominal	1) L _{10mh} according to DIN ISO 281 10/2010	3) Value is valid only for DOL operation with motor design IC411
M _L /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. IN LVM	technical reference	created by SPC	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.		Link documents 		
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Special design

B43	Version for converter operation with operating data on voltage-source DC link converter	M4A	400 VY for 50 Hz
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