

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



Motor type : 1CV2280B

SIMOTICS XP - 280 S - IM B3 - 4p

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

Remarks

II 3D Ex tc IIIB T 120°C Dc -/-																	
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Electrical data

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	Δ	50	75.00	-/-	132.00	1485	480.0	94.0	94.2	93.8	0.87	0.85	0.78	6.8	2.5	3.0	IE2

Converter duty (S9) - 155(F) to 130(B)																	
49	Δ	5	4.45		108	140	303.5				0.89	Type of converter SINAMICS G120 PM240-2					
205	Δ	25	32.5		114	736	421.7				0.86						
380	Δ	50	59		109	1,486	379.1				0.87						
380	Δ	100	48		105	2975	154.1				0.80						
IM B3 / IM 1001		FS 280 S				IP55		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							

Environmental conditions : -20 °C - +40 °C / 1,000 m									Locked rotor time (hot / cold) : 24.1 s 47.1 s								
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Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	71 / 85 dB(A) ^{2) 3)}	79 / 92 dB(A) ^{2) 3)}	External earthing terminal	With (standard)
Moment of inertia	1.3000 kg m²		Vibration severity grade	A
Bearing DE NDE	NU 317	6317 C3	Thermal class	F
bearing lifetime			Duty type	S1
L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Direction of rotation	bidirectional
Relubrication interval/quantity DE NDE	30 g 30 g 8000 h		Frame material	cast iron
Lubricants	Unirex N3		Net weight of the motor (IM B3)	550 kg
Regreasing device	With (standard)		Coating (paint finish)	Standard paint finish C2
Grease nipple	M10x1 DIN 3404 A		Color, paint shade	RAL7030
Type of bearing	Locating bearing NDE		Motor protection	(B) 3 PTC thermistors - for tripping (2 terminals)
Bearing insulation DE / Bearing insulation NDE	Yes (non-drive end)		Method of cooling	IC411 - self ventilated, surface cooled
Condensate drainage holes	With (standard)			

Terminal box

Terminal box position		top	Max. cross-sectional area		120 mm ²
Material of terminal box		cast iron	Cable diameter from ... to ...		34 mm - 45 mm
Type of terminal box		TB1 N01	Cable entry		2xM63x1,5-2xM20x1,5
Contact screw thread		M10			

Notes:		
I_A/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_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.	technical reference	created by	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.		Link documents		
IN LVM		SPC						
	document type	datasheet			document status			
	released							
		title	1MB1521-2DB09-0AB4-Z					document number
	B02+B40+L22+M4B							
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B02	Acceptance test certificate 3.1 acc. to EN 10204	L22	Bearing design for increased cantilever forces
B40	Design for converter operation, as standard with data SINAMICS G120 with PM240-2.	M4B	400 VD for 50 Hz

Notes:

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