

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



Motor type : 1CV3280B

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

-/-

Electrical data

U [V]	Δ / Y	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	$\eta^{3)}$			$\cos\phi^{3)}$			I_A/I_N I_f/I_N	M_A/M_N T_f/T_N	M_k/M_N T_B/T_N	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4				
DOL duty (S1) - 155(F) to 130(B)																	
400	Δ	50	75.00	-/-	133.00	1485	480.0	95.0	95.3	95.0	0.86	0.83	0.75	6.9	2.5	3.0	IE3

Converter duty (S9) - 155(F) to 130(B)

49	Δ	5	4.25		87	141	288				0.79	Type of converter Voltage source converter, general.					
205	Δ	25	31		111	738	401			0.84							
380	Δ	50	56		105	1,488	359			0.85							
380	Δ	100	45.5		100	2975	146			0.79							

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) : 29.7 s 47.7 s	

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	69 / 83 dB(A) ^{2) 3)}	77 / 91 dB(A) ^{2) 3)}	External earthing terminal	With (standard)
Moment of inertia	1.3900 kg m ²		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)	570 kg
Regreasing device	With (standard)		Coating (paint finish)	Special paint finish C3
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
 M_A/M_N = locked rotor torque / torque nominal
 M_k/M_N = break down torque / nominal torque
¹⁾ L_{10mh} according to DIN ISO 281 10/2010
²⁾ at rated power / at full load
³⁾ Value is valid only for DOL operation with motor design IC411

responsible dep. IN LVM	technical reference	created by SPC	approved by	<i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i>	Link documents
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Special design

B02	Acceptance test certificate 3.1 acc. to EN 10204	L22	Bearing design for increased cantilever forces
B43	Version for converter operation with operating data on voltage-source DC link converter	M4B	400 VD for 50 Hz
B91	Documentation Package "Advanced"	N31	Increased air humidity/temperature with 60 to 100 g water per m3 air

Notes:

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