

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



Motor type : 1AV3090A

SIMOTICS XP - 90 S - IM B5 - 2p

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

Remarks

II 2D Ex tb IIIC T 120°C Db

-/-

Electrical data

U [V]	Δ / Y	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	η ³⁾			cosφ ³⁾			I _A /I _N I _I /I _N	M _A /M _N T _I /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)																	
230	Δ	50	1.50	-/-	5.20	2910	4.9	84.2	84.6	83.2	0.86	0.80	0.69	8.1	2.7	4.2	IE3
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
460	Y	60	1.75	-/-	2.95	3510	4.8	85.5	85.6	84.0	0.87	0.82	0.72	8.7	2.6	4.2	IE3
460	Y	60	1.50	-/-	2.60	3525	4.0	85.5	84.8	82.3	0.84	0.77	0.66	9.8	3.1	4.9	IE3
IM B5 / IM 3001		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} 50 60Hz ¹⁾ for coupling operation	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_A/I_N = locked rotor current / current nominal
M_K/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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