

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



Motor type : 1AV3094A

SIMOTICS XP - 90 L - IM B3 - 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 <sup>3)</sup>			cosφ <sup>3)</sup>			I <sub>A</sub> /I <sub>N</sub> I <sub>I</sub> /I <sub>N</sub>	M <sub>A</sub> /M <sub>N</sub> T <sub>I</sub> /T <sub>N</sub>	M <sub>K</sub> /M <sub>N</sub> T <sub>B</sub> /T <sub>N</sub>	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4				
<b>DOL duty (S1) - 155(F) to 130(B)</b>																	
230	Δ	50	2.20	-/-	7.30	2910	7.2	85.9	86.8	86.1	0.88	0.83	0.73	8.3	2.6	4.0	IE3
400	Y	50	2.20	-/-	4.20	2910	7.2	85.9	86.8	86.1	0.88	0.83	0.73	8.3	2.6	4.0	IE3
460	Y	60	2.55	-/-	4.25	3510	6.9	85.5	86.0	84.9	0.88	0.84	0.75	8.3	2.6	4.2	IE2
460	Y	60	2.20	-/-	3.65	3530	6.0	86.5	86.4	84.5	0.87	0.82	0.71	9.6	3.0	4.9	IE3
IM B3 / IM 1001		FS 90 L		IP65		IEC/EN 60034		IEC, DIN, ISO, VDE, EN									

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

Locked rotor time (hot / cold) : 5.9 s | 8.5 s

## Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	65 / 77 dB(A) <sup>2) 3)</sup>	69 / 81 dB(A) <sup>2) 3)</sup>	Vibration severity grade	A
Moment of inertia	0.0031 kg m <sup>2</sup>		Thermal class	F
Bearing DE   NDE	6205 2Z C3	6004 2Z C3	Duty type	S1
<b>bearing lifetime</b>			Direction of rotation	bidirectional
L <sub>10mh</sub> , F <sub>Rad min</sub> 50 60Hz <sup>1)</sup> for coupling operation	40000 h	32000 h	Frame material	aluminum
Regreasing device	Without		Net weight of the motor (IM B3)	19 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 <sup>2</sup>
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<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal  
M<sub>K</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
M<sub>K</sub>/M<sub>N</sub> = break down torque / nominal torque

1) L<sub>10mh</sub> 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>	<a href="#">Link documents</a>
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