

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



Motor type : 1CV4280B

SIMOTICS SD - 280 S - IM B5 - 4p

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

Remarks **Safe Area**

**Electrical data**

-/-

U [V]	Δ / Y	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	η <sup>3)</sup>			cos φ <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>																		
400	Δ	50	75.00	-/-	130.00	1490	480.0	96.0	96.2	96.0	0.87	0.84	0.76	8.5	2.8	3.4	IE4	
690	Y	50	75.00	-/-	75.00	1490	480.0	96.0	96.2	96.0	0.87	0.84	0.76	8.5	2.8	3.4	IE4	
460	Δ	60	75.00	-/-	114.00	1792	400.0	96.2	96.2	95.7	0.86	0.82	0.74	10.0	3.2	3.8	IE4	
460	Δ	60	86.00	-/-	129.00	1790	460.0	96.2	96.4	96.1	0.87	0.85	0.78	8.9	2.8	3.3	IE4	
IM B5 / IM3001			FS 280 S			IP55		UKCA		IEC/EN 60034			IEC, DIN, ISO, VDE, EN					

Environmental conditions : -20 °C - +40 °C / 1000 m

Locked rotor time (hot / cold) : 32.7 s | 46 s

**Mechanical data**

Sound level (SPL / SWL) at 50Hz 60Hz	64 / 78 dB(A) <sup>2) 3)</sup>	67 / 82 dB(A) <sup>2) 3)</sup>	Condensate drainage holes	(Standard) Yes	
Moment of inertia	1.7400 kg m <sup>2</sup>		External earthing terminal	(Standard) Yes	
Bearing DE   NDE	6316 C3 S0	6316 C3 S0	Vibration severity grade	Grade A	
permissible lateral force on (N) (N)	X <sub>0</sub> : 8600	X <sub>0.5</sub> : 7900	X <sub>max</sub> : 7200	Thermal class	F
<b>bearing lifetime</b>				Duty type	S1
L <sub>10mh</sub> F <sub>Rad, min</sub> for coupling operation 50 60Hz <sup>1)</sup>	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	620 kg
Regreasing device	Flat type lubricating nipple			Coating (paint finish)	Standard paint finish C2
Grease nipple	M10x1 DIN 3404 A			Color, paint shade	RAL7030
Type of bearing	Locating bearing DE			Motor protection	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

**Terminal box**

Terminal box position	box at the top	Max. cross-sectional area	120 mm <sup>2</sup>
Material of terminal box	cast iron	Cable diameter from ... to ...	34 mm - 45 mm
Type of terminal box	TB4N01	Cable entry	2xM63x1,5 - 2xM20x1,5
Contact screw thread	6xM10	Cable gland	-/-

I<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal      1) L<sub>10mh</sub> according to DIN ISO 281 10/2010      3) Value is valid only for DOL operation with motor design IC411  
M<sub>A</sub>/M<sub>N</sub> = locked rotor torque / torque nominal      2) at rated power / at full load  
M<sub>K</sub>/M<sub>N</sub> = break down torque / nominal torque

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Responsible department IN LVM	Technical reference	Created by SPC	Approved by Created automatically	<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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## Special design

B02 Acceptance test certificate 3.1 acc. to EN 10204 L51 Bearing insulation NDE

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