

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



Motor type : 1CV4280B

SIMOTICS SD - 280 S - IM V1 - 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>	M <sub>A</sub> /M <sub>N</sub>	M <sub>K</sub> /M <sub>N</sub>	IE-CL	
								4/4	3/4	2/4	4/4	3/4	2/4	I <sub>I</sub> /I <sub>N</sub>	T <sub>I</sub> /T <sub>N</sub>	T <sub>B</sub> /T <sub>N</sub>		
<b>DOL duty (S1) - 155(F) to 130(B)</b>																		
380	Δ	50	75.00	-/-	136.00	1490	480.0	96.0	96.2	96.0	0.87	0.84	0.76	8.5	2.8	3.4	IE4	
660	Y	50	75.00	-/-	79.00	1490	480.0	96.0	96.2	96.0	0.87	0.84	0.76	8.5	2.8	3.4	IE4	
440	Δ	60	75.00	-/-	119.00	1792	400.0	96.2	96.2	95.7	0.86	0.82	0.74	10.0	3.2	3.8	IE4	
440	Δ	60	86.00	-/-	135.00	1790	460.0	96.2	96.4	96.1	0.87	0.85	0.78	8.9	2.8	3.3	IE4	
IM V1 / IM3011			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>	External earthing terminal	(Standard) Yes
Moment of inertia	1.7400 kg m <sup>2</sup>		Vibration severity grade	Grade A
Bearing DE   NDE	6316 C3 S0		Thermal class	F
permissible lateral force on (N)	X <sub>0:</sub> <sup>2)</sup>	X <sub>0.5:</sub> <sup>2)</sup>	Duty type	S1
(N)	8600	7900	Direction of rotation	bidirectional
<b>bearing lifetime</b>			Frame material	cast iron
L <sub>10mh</sub> F <sub>Rad, min</sub> for coupling operation 50 60Hz <sup>1)</sup>	20000 h	16000 h	Net weight of the motor	620 kg
Relubrication interval/quantity DE   NDE	30 g   30 g 8000 h		Coating (paint finish)	Standard paint finish C2
Lubricants	UNIREX N3		Color, paint shade	RAL7030
Regreasing device	Flat type lubricating nipple		Motor protection	3 PTC thermistors - for tripping (2 terminals)
Grease nipple	M10x1 DIN 3404 A		Method of cooling	IC411 - self ventilated, surface cooled
Type of bearing	Locating bearing NDE		Condensate drainage holes	(Standard) Yes

**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  
 M<sub>A</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

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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

B12 Sea worthy packaging N30 Increased air humidity/temperature with 30 to 60 g water per m3 air

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