

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

Data sheet for three-phase Squirrel-Cage-Motors



Motor type / Motor type : 1CV4280B

SIMOTICS SD - 280 S - IM B3 - 4p

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

Remarks / Remarks

## Safe Area

-/-

## Electrical data / Electrical data

U [V]	$\Delta / Y$	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				
<b>DOL duty (S1) / DOL duty (S1) - 155(F) to 130(B)</b>																	
400	$\Delta$	50	75.00	-/-	133.00	1490	480.0	96.0	96.1	95.6	0.85	0.81	0.70	9.2	3.4	3.8	IE4
690	Y	50	75.00	-/-	77.00	1490	480.0	96.0	96.1	95.6	0.85	0.81	0.70	9.2	3.4	3.8	IE4
460	$\Delta$	60	86.00	-/-	132.00	1788	460.0	96.2	96.2	95.6	0.85	0.81	0.72	9.1	3.4	3.6	IE4
460	$\Delta$	60	75.00	-/-	116.00	1791	400.0	96.2	96.0	95.2	0.84	0.79	0.68	10.0	4.0	4.2	IE4
IM B3 / IM 1001		FS 280 S		IP55		UKCA		IEC/EN 60034			IEC, DIN, ISO, VDE, EN						

Environmental conditions / Environmental conditions : -20 °C - +40 °C / 1000 m Locked rotor time (hot / cold) / Locked rotor time (hot / cold) : 29.9 s | 45.6 s

## Mechanical data / Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz Sound level (SPL / SWL) at 50Hz 60Hz	69 / 83 dB(A) <sup>2) 3)</sup>	74 / 88 dB(A) <sup>2) 3)</sup>	Condensate drainage holes Condensate drainage holes	With (standard) With (standard)
Moment of inertia Moment of inertia	1.7000 kg m <sup>2</sup>		External earthing terminal External earthing terminal	With (standard) With (standard)
Bearing DE   NDE Bearing DE   NDE	6317 C3	6317 C3	Vibration severity grade Vibration severity grade	A A
<b>bearing lifetime / bearing lifetime</b>			Thermal class Thermal class	F F
$L_{10mh}$ , $F_{Rad min}$ for coupling operation 50 60Hz <sup>1)</sup>	40000 h	32000 h	Duty type Duty type	S1
$L_{10mh}$ , $F_{Rad min}$ for coupling operation 50 60Hz <sup>1)</sup>			Direction of rotation Direction of rotation	bidirectional bidirectional
Relubrication interval/quantity DE   NDE	30 g   30 g	8000 h	Frame material Frame material	cast iron cast iron
Relubrication interval/quantity DE   NDE Lubricants	Unirex N3		Net weight of the motor (IM B3) Net weight of the motor (IM B3)	670 kg
Regreasing device Regreasing device	With (standard) With (standard)		Coating (paint finish) Coating (paint finish)	Special paint finish C3 Special paint finish C3
Grease nipple Grease nipple	M10x1 DIN 3404 A		Color, paint shade Color, paint shade	RAL7030
Type of bearing Type of bearing	Locating bearing DE Locating bearing DE		Motor protection Motor protection	(B) 3 PTC thermistors - for tripping (standard) (2 terminals) (B) 3 PTC thermistors - for tripping (standard) (2 terminals)
Bearing insulation DE / Bearing insulation NDE	Yes (non-drive end) Yes (non-drive end)		Method of cooling Method of cooling	IC411 - self ventilated, surface cooled IC411 - self ventilated, surface cooled

## Terminal box / Terminal box

Terminal box position Terminal box position	top	Max. cross-sectional area Max. cross-sectional area	120 mm <sup>2</sup>
Material of terminal box Material of terminal box	cast iron	Cable diameter from ... to ... Cable diameter from ... to ...	34 mm - 45 mm
Type of terminal box Type of terminal box	TB1 N01	Cable entry Cable entry	2xM63x1,5-2xM20x1,5
Contact screw thread Contact screw thread	M10	Cable gland Cable gland	4 plugs 4 plugs

### Notes:

$I_A/I_N$  = locked rotor current / current nominal 1)  $L_{10mh}$  according to DIN ISO 281 10/2010 3) Value is valid only for DOL operation with motor design IC411  
 $M_A/M_N$  = locked rotor torque / torque nominal 2) at rated power / at full load  
 $M_K/M_N$  = break down torque / nominal torque

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

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