

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	Δ / Y	f	P	P	I	n	M	η ³⁾			cosφ ³⁾			I _A /I _N	M _A /M _N	M _K /M _N	IE-CL
[V]		[Hz]	[kW]	[hp]	[A]	[1/min]	[Nm]	4/4	3/4	2/4	4/4	3/4	2/4	I _A /I _N	T _I /T _N	T _B /T _N	
DOL duty (S1) / DOL duty (S1) - 155(F) to 130(B)																	
400	Δ	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	Δ	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	Δ	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	69 / 83 dB(A) ^{2) 3)}	74 / 88 dB(A) ^{2) 3)}	Condensate drainage holes	With (standard)
Sound level (SPL / SWL) at 50Hz 60Hz			Condensate drainage holes	With (standard)
Moment of inertia	1.7000 kg m ²		External earthing terminal	With (standard)
Moment of inertia			External earthing terminal	With (standard)
Bearing DE NDE	6317 C3	6317 C3	Vibration severity grade	A
Bearing DE NDE			Vibration severity grade	A
bearing lifetime / bearing lifetime			Thermal class	F
L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Thermal class	F
L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾			Duty type	S1
Relubrication interval/quantity DE NDE	30 g 30 g	8000 h	Duty type	
Relubrication interval/quantity DE NDE			Direction of rotation	bidirectional
Lubricants	Unirex N3		Direction of rotation	bidirectional
Lubricants			Frame material	cast iron
Regreasing device	With (standard)		Frame material	cast iron
Regreasing device	With (standard)		Net weight of the motor (IM B3)	670 kg
Grease nipple	M10x1 DIN 3404 A		Net weight of the motor (IM B3)	
Grease nipple			Coating (paint finish)	Special paint finish C3
Type of bearing	Locating bearing DE		Coating (paint finish)	Special paint finish C3
Type of bearing	Locating bearing DE		Color, paint shade	RAL7030
Bearing insulation DE / Bearing insulation NDE	Yes (non-drive end)		Color, paint shade	
Bearing insulation DE / Bearing insulation NDE	Yes (non-drive end)		(B) 3 PTC thermistors - for tripping (standard) (2 terminals)	
			(B) 3 PTC thermistors - for tripping (standard) (2 terminals)	
			Method of cooling	IC411 - self ventilated, surface cooled
			Method of cooling	IC411 - self ventilated, surface cooled

Terminal box / Terminal box

Terminal box position	top	Max. cross-sectional area	120 mm ²
Terminal box position	top	Max. cross-sectional area	
Material of terminal box	cast iron	Cable diameter from ... to ...	34 mm - 45 mm
Material of terminal box	cast iron	Cable diameter from ... to ...	
Type of terminal box	TB1 N01	Cable entry	2xM63x1,5-2xM20x1,5
Type of terminal box		Cable entry	
Contact screw thread	M10	Cable gland	4 plugs
Contact screw thread		Cable gland	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.	technical reference	created by	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.		Link documents		
IN LVM		SPC						
SIEMENS	document type	datasheet			document status			
	released							
	title	1LE1604-2DB03-4AB4-Z			document number			
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Special design / *Special design*

Notes:

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