

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



Motor type : 1CV4310B

SIMOTICS SD - 315 S - IM B3 - 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 ³⁾			cosφ ³⁾			I _A /I _N I _I /I _N	M _A /M _N T _I /T _N	M _K /M _N T _B /T _N	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4				
DOL duty (S1) - 155(F) to 130(B)																	
400	Δ	50	110.00	-/-	192.00	1491	700.0	96.3	96.4	96.0	0.86	0.83	0.74	8.6	3.3	3.3	IE4
690	Y	50	110.00	-/-	111.00	1491	700.0	96.3	96.4	96.0	0.86	0.83	0.74	8.6	3.3	3.3	IE4
460	Δ	60	110.00	-/-	169.00	1792	590.0	96.2	96.1	95.4	0.85	0.81	0.72	9.7	3.7	3.6	IE4
460	Δ	60	127.00	-/-	193.00	1790	680.0	96.2	96.2	95.8	0.86	0.83	0.76	8.5	3.2	3.1	IE4
IM B3 / IM1001		FS 315 S		IP55		UKCA		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							
Environmental conditions : -20 °C - +40 °C / 1000 m										Locked rotor time (hot / cold) : 30.8 s 44.1 s							

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	66 / 80 dB(A) ^{2) 3)}	71 / 85 dB(A) ^{2) 3)}	External earthing terminal	(Standard) Yes
Moment of inertia	2.7400 kg m ²		Vibration severity grade	Grade A
Bearing DE NDE	NU 319		Thermal class	F
permissible lateral force on (N)	X ₀ : 31000	X _{0.5} : 8650	Duty type	S1
bearing lifetime	L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾		Direction of rotation	bidirectional
	40000 h		Frame material	cast iron
Relubrication interval/quantity DE NDE	40 g 40 g 6000 h		Net weight of the motor	922 kg
Lubricants	UNIREX N3		Coating (paint finish)	Standard paint finish C2
Regreasing device			Color, paint shade	RAL7030
Grease nipple	M10x1 DIN 3404 A		Motor protection	3 PTC thermistors - for tripping (2 terminals)
Type of bearing	Locating bearing NDE		Method of cooling	IC411 - self ventilated, surface cooled
Condensate drainage holes	(Standard) Yes			

Terminal box

Terminal box position	box at the top	Max. cross-sectional area	240 mm ²
Material of terminal box	cast iron	Cable diameter from ... to ...	34 mm - 45 mm
Type of terminal box	TB1Q01	Cable entry	2xM63x1,5 - 2xM20x1,5
Contact screw thread	6xM12	Cable gland	4 plugs

Notes:

I_A/I_N = locked rotor current / current nominal
 M_K/M_N = locked rotor torque / torque nominal
 M_K/M_N = break down torque / nominal torque
 1) L_{10mh} 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>	Link documents
	document type datasheet	document status released			
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Special design

L22 Bearing design for increased cantilever forces

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