

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



Motor type : 1CV4314B

SIMOTICS SD - 315 L - IM B5 - 4p

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

Electrical data

Safe Area

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 _I /I _N	T _I /T _N	T _B /T _N		
DOL duty (S1) - 155(F) to 130(B)																		
230	Δ	50	160.00	-/-	490.00	1490	1030.0	96.6	96.8	96.6	0.85	0.81	0.73	7.9	3.3	3.1	IE4	
400	Y	50	160.00	-/-	280.00	1490	1030.0	96.6	96.8	96.6	0.85	0.81	0.73	7.9	3.3	3.1	IE4	
460	Y	60	184.00	-/-	280.00	1790	980.0	96.5	96.6	96.4	0.86	0.83	0.75	7.9	3.2	3.0	IE4	
IM B5 / IM3001			FS 315 L				IP55	UKCA		IEC/EN 60034								
Environmental conditions : -20 °C - +40 °C / 1000 m									Locked rotor time (hot / cold) : 29.7 s 45 s									

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	68 / 83 dB(A) ^{2) 3)}	72 / 87 dB(A) ^{2) 3)}	External earthing terminal	(Standard) Yes
Moment of inertia	3.7900 kg m ²		Vibration severity grade	Grade A
Bearing DE NDE	6319 C3	6319 C3	Thermal class	F
permissible lateral force on (N)	X ₀ : 9300	X _{0.5} : 8650	Duty type	S1
		X _{max} : 8000	Direction of rotation	bidirectional
bearing lifetime			Frame material	cast iron
L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Net weight of the motor	1250 kg
Relubrication interval/quantity DE NDE	40 g 40 g 6000 h		Coating (paint finish)	Special paint finish C3
Lubricants	UNIREX N3		Color, paint shade	RAL7030
Regreasing device	with conical grease nipple acc. DIN 71412A		Motor protection	3 PTC thermistors - for tripping (2 terminals)
Grease nipple	M10x1 DIN 71412 A		Method of cooling	IC411 - self ventilated, surface cooled
Type of bearing	Locating bearing DE		'SIMOTICS Connect 400' in IP65	No
Bearing insulation DE / Bearing insulation NDE	Yes (Non-drive end)			
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	TB1Q61	Cable entry	2xM63x1,5 - 2xM20x1,5
Contact screw thread	6xM12	Cable gland	4 plugs

Notes:

I_A/I_N = locked rotor current / current nominal 1) L10mh 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
DI MC LVM		DT Configurator			
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Special design

F74	Sheet steel fan cowl	M11	Stainless steel rating plate
L19	Regreasing device with regreasing nipple M10X1 acc.to DIN 71412-A	R52	Drilled removable entry plate
L51	Bearing insulation NDE	S02	Special paint finish C3

Notes:

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