

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



Motor type : 1CV4312B

SIMOTICS SD - 315 M - 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)																	
400	Δ	50	132.00	-/-	235.00	1490	850.0	96.4	96.6	96.3	0.85	0.81	0.73	8.2	3.3	3.2	IE4
690	Y	50	132.00	-/-	135.00	1490	850.0	96.4	96.6	96.3	0.85	0.81	0.73	8.2	3.3	3.2	IE4
460	Δ	60	132.00	-/-	205.00	1791	700.0	96.5	96.5	95.9	0.84	0.80	0.71	9.2	3.6	3.6	IE4
460	Δ	60	152.00	-/-	235.00	1790	810.0	96.5	96.6	96.3	0.85	0.82	0.74	8.1	3.2	3.1	IE4
IM B5 / IM3001			FS 315 M			IP55	UKCA	IEC/EN 60034									
Environmental conditions : -20 °C - +40 °C / 1000 m									Locked rotor time (hot / cold) : 25.5 s 39.7 s								

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	67 / 81 dB(A) ^{2) 3)}	72 / 86 dB(A) ^{2) 3)}	External earthing terminal	(Standard) Yes
Moment of inertia	2.9100 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
bearing lifetime			Direction of rotation	bidirectional
L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Frame material	cast iron
Relubrication interval/quantity DE NDE	40 g 40 g 6000 h		Net weight of the motor	991 kg
Lubricants	UNIREX N3		Coating (paint finish)	Special paint finish C3
Regreasing device	with conical grease nipple acc. DIN 71412A		Color, paint shade	RAL7030
Grease nipple	M10x1 DIN 71412 A		Motor protection	3 PTC thermistors - for tripping (2 terminals)
Type of bearing	Locating bearing DE		Method of cooling	IC411 - self ventilated, surface cooled
Bearing insulation DE / Bearing insulation NDE	Yes (Non-drive end)		'SIMOTICS Connect 400' in IP65	No
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			
	document type				document status
	datasheet				released
	title				document number
	1LE5504-3AB23-4FB4-Z F74+L19+L51+M11+R52+S02				
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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

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