

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



Motor type : 1CV4312B

SIMOTICS SD - 315 M - 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⁾			$\cos\phi$ 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				
DOL duty (S1) - 155(F) to 155(F)																	
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	151.79	-/-	230.00	1785	812.1	96.5	96.8	96.6	0.86	0.84	0.76	8.0	3.1	3.1	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 B3 / IM1001	SF:	FS 315 M		IP55	UKCA	IEC/EN 60034	IEC, DIN, ISO, VDE, EN	
Environmental conditions : -20 °C - +40 °C / 1,000 m						Locked rotor time (hot / cold) : 25.4 s 39.5 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	NU 319	6319 C3	Thermal class	F	
permissible lateral force on (N)	$X_{0:}$ 34000	$X_{0.5:}$ 23000	$X_{max:}$ 15000	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	942 kg	
Lubricants	UNIREX N3		Coating (paint finish)	Standard paint finish C2	
Regreasing device	(Standard) Flat type lubricating nipple acc. DIN 3404		Color, paint shade		
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	at the right	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_A/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

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Special design

L02	Full-key balancing	N01	Temperature class 155 (F), utilised to 155 (F), with service factor (SF)
L22	Bearing design for increased cantilever forces	Y53	Paint finish in other standard RAL colours

Notes:

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