

# 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 <sup>3)</sup>			cos φ <sup>3)</sup>			I <sub>A</sub> /I <sub>N</sub> I <sub>f</sub> /I <sub>N</sub>	M <sub>A</sub> /M <sub>N</sub> T <sub>f</sub> /T <sub>N</sub>	M <sub>K</sub> /M <sub>N</sub> T <sub>B</sub> /T <sub>N</sub>	IE-CL	
								4/4	3/4	2/4	4/4	3/4	2/4					
<b>DOL duty (S1) - 155(F) to 130(B)</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 B3 / IM1001			FS 315 M			IP55		UKCA		IEC/EN 60034			IEC, DIN, ISO, VDE, EN					
Environmental conditions : -20 °C - +40 °C / 1000 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) <sup>2) 3)</sup>	72 / 86 dB(A) <sup>2) 3)</sup>	External earthing terminal	(Standard) Yes
Moment of inertia	2.9100 kg m <sup>2</sup>		Vibration severity grade	Grade A
Bearing DE   NDE	NU 319	6319 C3	Thermal class	F
permissible lateral force on (N)	X <sub>0</sub> <sup>2)</sup> 34000	X <sub>0.5</sub> <sup>2)</sup> 23000	Duty type	S1
<b>bearing lifetime</b>			Direction of rotation	bidirectional
L <sub>10mh</sub> F <sub>Rad, min</sub> for coupling operation 50 60Hz <sup>1)</sup>	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)	No paint finish, however with primer
Regreasing device	Flat type lubricating nipple		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 <sup>2</sup>
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

I<sub>A</sub>/I<sub>N</sub> = locked rotor current / current nominal  
 M<sub>A</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  
 M<sub>K</sub>/M<sub>N</sub> = break down torque / nominal torque  
 1) L<sub>10mh</sub> 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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Responsible department IN LVM	Technical reference	Created by SPC	Approved by Created automatically	<i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i>	<a href="#">Link documents</a>
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## Special design

L22	Bearing design for increased cantilever forces	S01	No paint finish, however with primer
R12	Terminal box rotated through 180°		

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