

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



Motor type : 1CV4314B

SIMOTICS SD - 315 L - 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>			cosφ <sup>3)</sup>			I <sub>A</sub> /I <sub>N</sub> I <sub>I</sub> /I <sub>N</sub>	M <sub>A</sub> /M <sub>N</sub> T <sub>I</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	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	
690	Y	50	160.00	-/-	163.00	1490	1030.0	96.6	96.8	96.6	0.85	0.81	0.73	7.9	3.3	3.1	IE4	
460	Δ	60	160.00	-/-	250.00	1791	850.0	96.5	96.5	96.0	0.84	0.80	0.71	8.9	3.7	3.4	IE4	
460	Δ	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 B3 / IM1001			FS 315 L			IP55		UKCA		IEC/EN 60034			IEC, DIN, ISO, VDE, EN					
Environmental conditions : -20 °C - +40 °C / 1,000 m										Locked rotor time (hot / cold) : 30.3 s   45.9 s								

**Mechanical data**

Sound level (SPL / SWL) at 50Hz 60Hz	68 / 83 dB(A) <sup>2) 3)</sup>	72 / 87 dB(A) <sup>2) 3)</sup>	Condensate drainage holes	(Standard) Yes
Moment of inertia	3.7900 kg m <sup>2</sup>		External earthing terminal	(Standard) Yes
Bearing DE   NDE	6319 C3		Vibration severity grade	Grade A
permissible lateral force on (N) (N)	X <sub>0</sub> : 9300	X <sub>0.5</sub> : 8650	X <sub>max</sub> : 8000	Thermal class
<b>bearing lifetime</b>			Duty type	S1
L <sub>10mh</sub> F <sub>Rad</sub> min for coupling operation 50 60Hz <sup>1)</sup>	40000 h		32000 h	Direction of rotation
Relubrication interval/quantity DE   NDE	40 g   40 g		6000 h	Frame material
Lubricants	UNIREX N3		Net weight of the motor	1200 kg
Regreasing device	-/-		Coating (paint finish)	Standard paint finish C2
Grease nipple	-/-		Color, paint shade	RAL7030
Type of bearing	Locating bearing DE		Motor protection	3 resistance thermometers PT100 (6 terminals)
Bearing insulation DE / Bearing insulation NDE	Yes (Non-drive end)		Method of cooling	IC416 - separately ventilated, surface cooled

**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

**Notes:**

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

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>	<a href="#">Link documents</a>	
	document type datasheet	document status released				
	title 1LE5504-3AB43-4AH4-Z F70+G11+L51+M11+Q02	document number				
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## Special design

F70	Mounting of separately driven fan	M11	Stainless steel rating plate
G11	Rotary pulse encoder Sendix 5020 (HTL)	Q02	Anti-condensation heating for 230 V (2 terminals)
L51	Bearing insulation NDE		

## Additional information:

### Space heaters

Technical data: 1-phase, 230V, 218W

## Notes:

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<b>SIEMENS</b>	document type datasheet	document status released			
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