

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



Motor type : 1CV4314B

SIMOTICS SD Pro - 315 L - IM V1 - 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	160.00	-/-	280.00	1492	1020.0	96.6	96.7	96.4	0.85	0.81	0.72	8.3	2.8	3.2	IE4
690	Y	50	160.00	-/-	163.00	1492	1020.0	96.6	96.7	96.4	0.85	0.81	0.72	8.3	2.8	3.2	IE4
460	Δ	60	160.00	-/-	250.00	1793	850.0	96.5	96.4	95.8	0.84	0.80	0.70	9.1	3.1	3.5	IE4
460	Δ	60	184.00	-/-	280.00	1791	980.0	96.5	96.6	96.2	0.85	0.82	0.74	8.1	2.7	3.0	IE4
460	Δ	60		200	235.00	1794	800.0	96.5	96.3	95.6	0.84	0.80	0.70	9.7	3.3	3.7	MG1
IM V1 / IM3011		FS 315 L			IP55		UKCA	IEC/EN 60034			IEC, EN, UL, CSA, NEMA MG1-12						

Environmental conditions : -20 °C - +40 °C / 1000 m

Locked rotor time (hot / cold) : 36.7 s | 55.5 s

**Mechanical data**

Sound level (SPL / SWL) at 50Hz 60Hz	69 / 84 dB(A) <sup>2) 3)</sup>	76 / 91 dB(A) <sup>2) 3)</sup>	External earthing terminal	(Standard) Yes	
Moment of inertia	3.9000 kg m <sup>2</sup>		Vibration severity grade	Grade A	
Bearing DE   NDE	6319 C3	6319 C3	Thermal class	F	
permissible lateral force on (N) (N)	X <sub>0</sub> : 9300	X <sub>0.5</sub> : 8650	X <sub>max</sub> : 8000	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>	20000 h	16000 h	Frame material	cast iron	
Relubrication interval/quantity DE   NDE	40 g   40 g 6000 h		Net weight of the motor	1280 kg	
Lubricants	UNIREX N3		Coating (paint finish)	Standard paint finish C2	
Regreasing device	Flat type lubricating nipple		Color, paint shade	RAL7030	
Grease nipple	M10x1 DIN 3404 A		Motor protection	1 temperature sensor KTY84-130 (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      1) L<sub>10mh</sub> according to DIN ISO 281 10/2010      3) Value is valid only for DOL operation with motor design IC411  
M<sub>A</sub>/M<sub>N</sub> = locked rotor torque / torque nominal      2) at rated power / at full load  
M<sub>K</sub>/M<sub>N</sub> = break down torque / nominal torque

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