

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

Motor type : 1CV3164A

SIMOTICS SD - 160 L - IM B3 - 2p

Client order no.	Item-No.	Offer no.
Order no.	Consignment no.	Project
Remarks		

Electrical data

Safe Area

U [V]	Δ / Y	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	4/4	$\eta^{(3)}$ 3/4	2/4	4/4	$\cos\phi^{(3)}$ 3/4	2/4	I_A/I_N I_I/I_N	M_A/M_N T_I/T_N	M_K/M_N T_B/T_N	IE-CL
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DOL duty (S1) - 155(F) to 130(B)																	
400	Δ	50	18.50	-/-	32.00	2955	60.0	92.4	92.8	92.4	0.90	0.87	0.80	9.0	2.8	4.2	IE3
690	Y	50	18.50	-/-	18.60	2955	60.0	92.4	92.8	92.4	0.90	0.87	0.80	9.0	2.8	4.2	IE3
460	Δ	60	21.30	-/-	32.00	3555	57.0	91.7	91.5	90.3	0.91	0.88	0.80	9.0	2.6	4.2	IE3
460	Δ	60	18.50	-/-	28.50	3560	49.5	91.7	91.5	90.3	0.89	0.86	0.78	10.2	3.0	4.8	IE3
IMR2 / IUM 1001			ES 160 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) : 13.5 s | 19.9 s

Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	70 / 82 dB(A) ²⁾³⁾	77 / 89 dB(A) ²⁾³⁾	External earthing terminal	Without
Moment of inertia	0.0680 kg m ²		Vibration severity grade	A
Bearing DE NDE	6309 Z C3	6309 Z C3	Thermal class	F
bearing lifetime			Duty type	S1
L _{10mh} F _{Rad min} for coupling operation 50 60Hz ¹⁾	40000 h	32000 h	Direction of rotation	bidirectional
Relubrication interval/quantity DE NDE	10 g 10 g 8000 h		Frame material	cast iron
Lubricants	Unirex N3		Net weight of the motor (IM B3)	127 kg
Regreasing device	With (standard)		Coating (paint finish)	Special paint finish C3
Grease nipple	M8x1 DIN 71412		Color, paint shade	RAL7030
Type of bearing	Locating bearing NDE		Motor protection	(B) 3 PTC thermistors - for tripping (standard) (2 terminals)
Condensate drainage holes	With (standard)		Method of cooling	IC411 - self ventilated, surface cooled

Terminal box

Terminal box position	top	Max. cross-sectional area	16 mm ²
Material of terminal box	cast iron	Cable diameter from ... to ...	19 mm - 28 mm
Type of terminal box	TB1 J01	Cable entry	2xM40x1,5-1xM16x1,5
Contact screw thread	M5	Cable gland	3 plugs

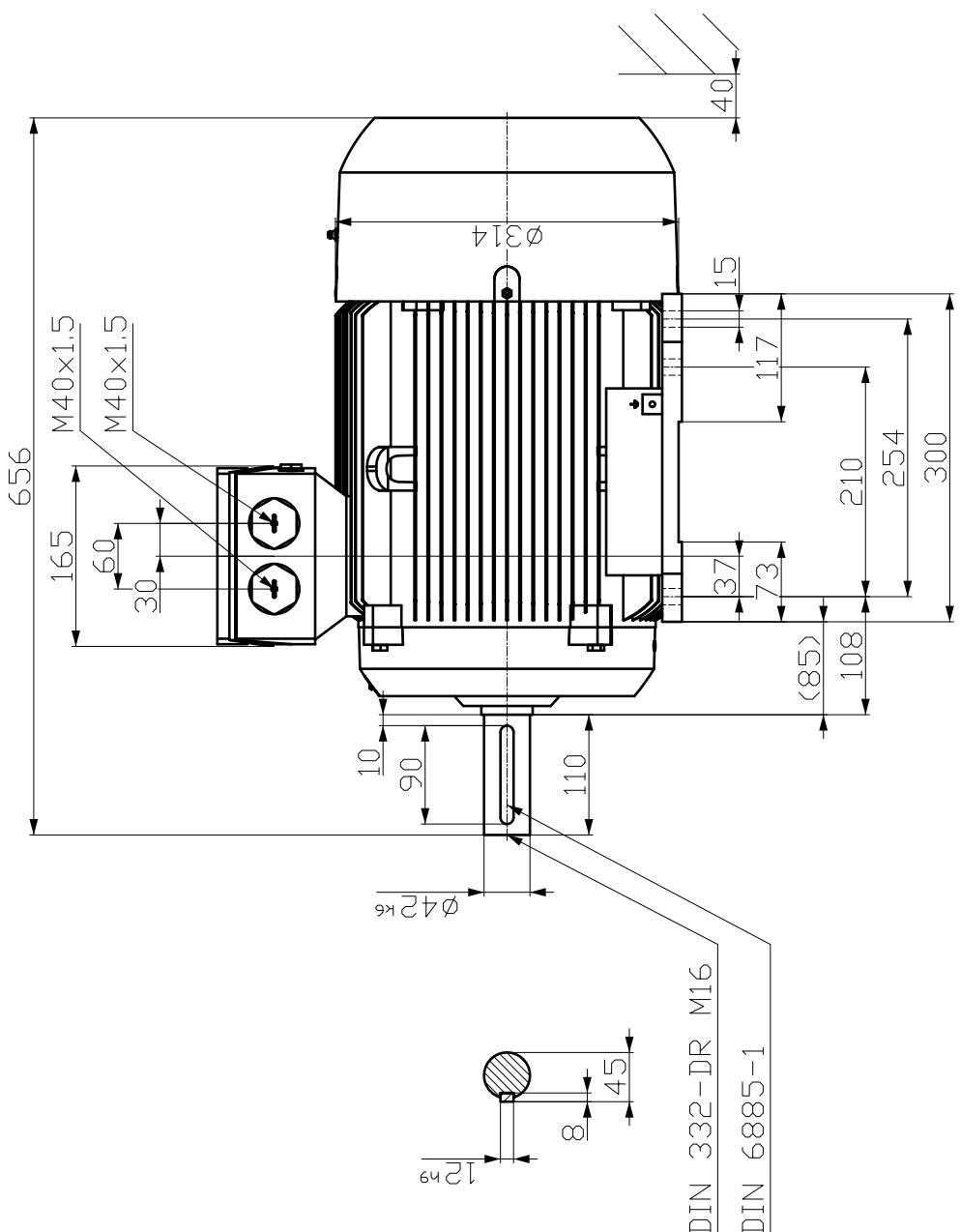
Notes:

I_A/I_N = locked rotor current / current nominal
 M_A/M_N = locked rotor torque / torque nominal

1) L10mh according to DIN ISO 281 10/2010

3) Value is valid only for DOL operation with motor design IC411

M _d /M _N = break down torque / nominal torque						
responsible dep. DI MC LVM	technical reference	created by DT Configurator	approved by	Technical data are subject to change! There may be discrepancies between calculated and rating plate values.	Link documents	
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Tolerance	Surface	Material	Weight	Scale mm
1LE1603-1DA43-4AB4	Author Cetnor Approval Department Change Order	DTK Maßzeichnung	Dimensional drawing	-
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Technische Änderungen vorbehalten!
Technical data are subject to change!

Conclusão Como se pode ver, os resultados mostram que o problema de optimização da rede de distribuição é complexo e depende de muitos fatores. No entanto, com uma abordagem sistemática e considerando todos os fatores relevantes, é possível encontrar soluções eficientes para otimizar a rede de distribuição.