

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



Motor type : 1AV3164A

SIMOTICS GP - 160 L - IM B3 - 2p

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

Remarks

## Safe Area

-/-

## Electrical data

U [V]	$\Delta / Y$	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	$\eta^{3)}$			$\cos\phi^{3)}$			$I_A/I_N$ $I_f/I_N$	$M_A/M_N$ $T_f/T_N$	$M_K/M_N$ $T_B/T_N$	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4				
<b>DOL duty (S1) - 155(F) to 155(F)</b>																	
380	$\Delta$	50	18.50	-/-	34.00	2955	60.0	92.4	92.8	92.4	0.90	0.87	0.80	9.0	2.8	4.2	IE3
660	Y	50	18.50	-/-	19.50	2955	60.0	92.4	92.8	92.4	0.90	0.87	0.80	9.0	2.8	4.2	IE3
440	$\Delta$	60	21.30	-/-	33.50	3555	57.0	91.7	91.5	90.3	0.91	0.88	0.80	9.0	2.6	4.2	IE3
440	$\Delta$	60	18.50	-/-	29.50	3560	49.5	91.7	91.5	90.3	0.89	0.86	0.78	10.2	3.0	4.8	IE3
IM B3 / IM 1001		FS 160 L		IP55		UKCA		IEC/EN 60034			IEC, DIN, ISO, VDE, EN						

Environmental conditions : -20 °C - + °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) <sup>2) 3)</sup>	77 / 89 dB(A) <sup>2) 3)</sup>	Vibration severity grade	A
Moment of inertia	0.0680 kg m <sup>2</sup>		Thermal class	F
Bearing DE   NDE	6309 2Z C3	6209 2Z C3	Duty type	S1
<b>bearing lifetime</b>			Direction of rotation	bidirectional
$L_{10mh}$ , $F_{Rad}$ min 50 60Hz <sup>1)</sup> for coupling operation	40000 h	32000 h	Frame material	aluminum
Regreasing device	Without		Net weight of the motor (IM B3)	94 kg
Grease nipple	-/-		Coating (paint finish)	Special paint finish C3
Type of bearing	Locating bearing NDE		Color, paint shade	RAL7030
Condensate drainage holes	With (standard)		Motor protection	(B) 3 PTC thermistors - for tripping (2 terminals)
External earthing terminal	Without		Method of cooling	IC411 - self ventilated, surface cooled

## Terminal box

Terminal box position	right	Max. cross-sectional area	16 mm <sup>2</sup>
Material of terminal box	Aluminium	Cable diameter from ... to ...	19 mm - 28 mm
Type of terminal box	TB1 J00	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  
 $M_K/M_N$  = 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

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			document number
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## Special design

L05	Second standard shaft extension	N31	Increased air humidity/temperature with 60 to 100 g water per m3 air
L22	Bearing design for increased cantilever forces	R12	Terminal box rotated through 180°
N03	Temperature class 155 (F), utilised to 155 (F), with increased cooling medium temperature		

## Notes:

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