

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



Motor type : 1AV4112B

SIMOTICS GP - 112 M - IM B3 - 4p

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

Remarks

## Electrical data

## Safe Area

U [V]	$\Delta / Y$	f [Hz]	P [kW]	P [hp]	I [A]	n [1/min]	M [Nm]	$\eta$ <sup>3)</sup>			$\cos\phi$ <sup>3)</sup>			$I_A/I_N$ $I_i/I_N$	$M_A/M_N$ $T_i/T_N$	$M_K/M_N$ $T_B/T_N$	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4				
400	$\Delta$	50	4.00	-/-	7.80	1465	26.0	91.1	91.6	91.0	0.81	0.75	0.63	8.3	3.1	4.3	IE4
690	Y	50	4.00	-/-	4.55	1465	26.0	91.1	91.6	91.0	0.81	0.75	0.63	8.3	3.1	4.3	IE4
460	$\Delta$	60	4.55	-/-	7.60	1765	24.5	91.0	91.3	90.6	0.82	0.76	0.65	8.5	3.0	4.3	IE4
460	$\Delta$	60	3.70	-/-	6.50	1770	20.0	91.0	90.8	89.5	0.78	0.71	0.58	10.0	3.7	5.4	IE4

IM B3 / IM 1001	FS 112 M	46 kg	IP55	IEC/EN 60034	IEC, DIN, ISO, VDE, EN
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Environmental conditions : -20 °C - +40 °C / 1,000 m

Locked rotor time (hot / cold) : 20.4 s | 26 s

## Mechanical data

Sound level (SPL / SWL) at 50Hz 60Hz	65.0 / 77.0 dB(A) <sup>2)</sup>	68.0 / 80.0 dB(A) <sup>2)</sup>	External earthing terminal	No
Moment of inertia	0.0200 kg m <sup>2</sup>		Vibration severity grade	A
Bearing DE   NDE	6206 2Z C3	6206 2Z C3	Insulation	155(F) to 130(B)
<b>bearing lifetime</b>			Duty type	S1
L <sub>10mh</sub> F <sub>Rad min</sub> for coupling operation 50 60Hz <sup>1)</sup>	40000 h	32000 h	Direction of rotation	bidirectional
Lubricants	Unirex N3		Frame material	aluminum
Regreasing device	No		Coating (paint finish)	Standard paint finish C2
Grease nipple	-/-		Color, paint shade	RAL7030
Type of bearing	Preloaded bearing DE		Motor protection	(A) without (Standard)
Condensate drainage holes	-/-		Method of cooling	IC411 - self ventilated, surface cooled

## Terminal box

Terminal box position	top	Max. cross-sectional area	4.0 mm <sup>2</sup>
Material of terminal box	Aluminium	Cable diameter from ... to ...	11.0 mm - 21.0 mm
Type of terminal box	TB1 F00	Cable entry	2xM32x1,5
Contact screw thread	M4	Cable gland	2 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) L10mh 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. DI MC LVM	technical reference	created by DT Configurator	approved by	<i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i>
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