

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



Motor type : 1AV3112B

SIMOTICS GP - 112 M - IM B3 - 4p

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 130(B)</b>																	
230	$\Delta$	50	4.00	-/-	13.80	1460	26.0	88.6	89.2	88.6	0.82	0.76	0.65	7.1	2.4	3.7	IE3
400	Y	50	4.00	-/-	7.90	1460	26.0	88.6	89.2	88.6	0.82	0.76	0.65	7.1	2.4	3.7	IE3
460	Y	60	4.55	-/-	7.70	1760	24.5	89.5	90.0	89.3	0.83	0.78	0.67	7.3	2.5	3.8	IE3
460	Y	60	4.00	-/-	6.90	1770	21.5	89.5	90.0	88.3	0.81	0.72	0.60	8.2	2.9	4.3	IE3
IM B3 / IM 1001		FS 112 M		IP55		UKCA		IEC/EN 60034		IEC, DIN, ISO, VDE, EN							
Environmental conditions : -20 °C - +40 °C / 1000 m										Locked rotor time (hot / cold) : 16.1 s   21.8 s							

Mechanical data




Sound level (SPL / SWL) at 50Hz 60Hz	58 / 70 dB(A) <sup>2) 3)</sup>	62 / 74 dB(A) <sup>2) 3)</sup>	Vibration severity grade	A
Moment of inertia	0.0170 kg m <sup>2</sup>		Thermal class	F
Bearing DE   NDE	6206 2Z C3	6206 2Z C3	Duty type	S1
<b>bearing lifetime</b>			Direction of rotation	bidirectional
$L_{10mh}$ $F_{Rad, min}$ for coupling operation 50 60Hz <sup>1)</sup>	40000 h	32000 h	Frame material	aluminum
Regreasing device	Without		Net weight of the motor (IM B3)	34 kg
Grease nipple	-/-		Coating (paint finish)	Standard paint finish C2
Type of bearing	Preloaded bearing DE		Color, paint shade	RAL7030
Condensate drainage holes	Without		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	top	Max. cross-sectional area	4 mm <sup>2</sup>
Material of terminal box	Aluminium	Cable diameter from ... to ...	11 mm - 21 mm
Type of terminal box	TB1 F00	Cable entry	2xM32x1,5-1xM16x1,5
Contact screw thread	M4	Cable gland	3 plugs

$I_A/I_N$  = locked rotor current / current nominal  
 $M_A/M_N$  = locked rotor torque / torque nominal  
 $M_K/M_N$  = break down torque / nominal torque  
<sup>1)</sup>  $L_{10mh}$  according to DIN ISO 281 10/2010  
<sup>2)</sup> at rated power / at full load  
<sup>3)</sup> Value is valid only for DOL operation with motor design IC411

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Responsible department IN LVM	Technical reference	Created by SPC	Approved by Created automatically	<i>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</i>	<a href="#">Link documents</a> 
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## Special design

D47	TR CU product safety certificate EAC for the Eurasian Customs Union	F10	Brake supply voltage 24 V DC
F01	Mounting of holding brake	F50	Mechanical manual brake release with lever (cannot be locked)

## Additional information:

### Brake:

Description:	BFK458-14	Current:	2.1 A
Voltage:	DC 24 V	Moment of inertia:	0.000630 kgm <sup>2</sup>

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