

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

Motor type : 1AV3094B

SIMOTICS GP - 90 L - IM B5 - 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]	$\eta^{3)}$			$\cos\varphi^{3)}$			$I_A/I_N$ $I_f/I_N$	$M_A/M_N$ $T_f/T_N$	$M_K/M_N$ $T_B/T_N$	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	1.50	-/-	5.50	1445	9.9	85.3	85.7	84.4	0.80	0.73	0.60	7.3	2.9	3.5	IE3
400	Y	50	1.50	-/-	3.15	1445	9.9	85.3	85.7	84.4	0.80	0.73	0.60	7.3	2.9	3.5	IE3
460	Y	60	1.75	-/-	3.15	1740	9.6	86.5	86.7	85.4	0.80	0.74	0.62	7.7	2.9	3.7	IE3
460	Y	60	1.50	-/-	2.85	1755	8.2	86.5	86.6	84.7	0.77	0.69	0.57	8.6	3.4	4.3	IE3
IM B5 / IM 3001		FS 90 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) : 17.3 s   21.5 s							

## Mechanical data


Sound level (SPL / SWL) at 50Hz 60Hz	56 / 68 dB(A) <sup>2) 3)</sup>	58 / 70 dB(A) <sup>2) 3)</sup>	Vibration severity grade	A
Moment of inertia	0.0049 kg m <sup>2</sup>		Thermal class	F
Bearing DE   NDE	6205 2Z C3	6004 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	No		Net weight of the motor (IM B3)	19 kg
Grease nipple	-/-		Coating (paint finish)	Standard paint finish C2
Type of bearing	Preloaded bearing DE		Color, paint shade	RAL7030
Condensate drainage holes	No		Motor protection	(F) 1 temperature sensor KTY84-130 (2 terminals)
External earthing terminal	No		Method of cooling	IC411 - self ventilated, surface cooled

## Terminal box

Terminal box position	top	Max. cross-sectional area	1.5 mm <sup>2</sup>
Material of terminal box	Aluminium	Cable diameter from ... to ...	9 mm - 17 mm
Type of terminal box	TB1 E10	Cable entry	1xM25x1,5-1xM16x1,5
Contact screw thread	M4	Cable gland	2 plugs

## Notes:

$I_A/I_N$ = locked rotor current / current nominal	1) L10mh according to DIN ISO 281 10/2010	3) Value is valid only for DOL operation with motor design IC411
$M_K/M_N$ = locked rotor torque / torque nominal	2) at rated power / at full load	
$M_B/M_N$ = break down torque / nominal torque		

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>	<a href="#">Link documents</a>
	document type datasheet	document status released		document number	
	title 1LE1003-0EB42-2FF4-Z F01+F12	rev. 929	creation date 2023-01-05		
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### Special design

F01	Mounting a brake	F12	Brake supply voltage 400 V AC, 50/60 Hz
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### Additional information:

#### Brake:

Description:	BFK458-10	Current:	.17 A
Voltage:	AC 400 V	Moment of inertia:	0.000160 kgm <sup>2</sup>

### Notes:

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