

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



**Motor type : 1AV2090D**

**INNOMOTICS GP - 90 S - IM B5 - 8p**

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]	$\eta^{(3)}$			$\cos\phi^{(3)}$			$I_A/I_N$	$M_A/M_N$	$M_R/M_N$	IE-CL
								4/4	3/4	2/4	4/4	3/4	2/4	$I_V/I_N$	$T_A/T_N$	$T_R/T_N$	
<b>DOL duty (S1) - 155(F) to 130(B)</b>																	
220	$\Delta$	50	0.37	-/-	2.45	675	5.2	56.1	55.6	49.6	0.71	0.60	0.47	2.6	1.4	1.7	IE2
380	Y	50	0.37	-/-	1.41	675	5.2	56.1	55.6	49.6	0.71	0.60	0.47	2.6	1.4	1.7	IE2
440	Y	60	0.43	-/-	1.39	830	5.0	58.0	57.5	52.5	0.70	0.59	0.46	2.9	1.4	1.8	IE2
440	Y	60	0.37	-/-	1.31	845	4.2	58.0	55.8	49.5	0.64	0.54	0.42	3.0	1.6	2.1	IE2

IM B5 / IM 3001	FS 90 S	IP55	UKCA	IEC/EN 60034	IEC, DIN, ISO, VDE, EN
-----------------	---------	------	------	--------------	------------------------

Environmental conditions : -20 °C - +40 °C / 1000 m

Locked rotor time (hot / cold) : 43.60 s | 68.00 s

**Mechanical data**

Sound level (SPL / SWL) at 50Hz 60Hz	53.0 / 65.0 dB(A) <small>2) 3)</small>	57.0 / 69.0 dB(A) <small>2) 3)</small>	Vibration severity grade	A
Moment of inertia	0.0019 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	Without		Net weight of the motor (IM B3)	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	(A) without (Standard)
External earthing terminal	Without		Method of cooling	IC411 - self ventilated, surface cooled
			Carbon footprint (without options)	46kg

**Terminal box**

Terminal box position	top	Max. cross-sectional area	4.0 mm <sup>2</sup>
Material of terminal box	Aluminium	Main cable entry	1xM25x1.5
Type of terminal box	TB1 E00	Main cable gland	1 plug
Contact screw thread	3xM4		

$I_A/I_N$  = locked rotor current / current nominal  
 $M_R/M_N$  = locked rotor torque / torque nominal  
 $M_V/M_N$  = 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

Transmittal, reproduction, dissemination and/or editing of this document as well as utilization of its contents and communication thereof to others without express authorization are prohibited. Offenders will be held liable for payment of damages. All rights created by patent grant or registration of a utility model or design patent are reserved.

Responsible department IN LVM	Technical reference	Created by IPC	Approved by	<b>Technical data are subject to change! There may be discrepancies between calculated and rating plate values.</b>
<b>INNOMOTICS</b>	Document type Technical data sheet	Document status Released		
	Document title <b>1LE1001-OED02-1FA4</b>	Document number TDS-250915-125334		
Restricted © Innomotics 2025		Revision AA	Creation date 2025-09-15	Language en   Page 1/1