

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

**Motor type:** FS: 145TCV - 4p - 2 hp -

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

**Electrical data** Class I, Div 1 Gr. C&D; Class II, Div1, Gr. F&G

U [V]	$\Delta/Y$	f [Hz]	P [HP]	P [kW]	n [rpm]	I Load [Amps]					LRC	Nom. Eff Load [%]			Pwr. Factor Load [%]			Torque [lb-ft]	T <sub>A</sub> /T <sub>N</sub> LRT [%]	T <sub>k</sub> /T <sub>N</sub> BDT [%]
						4/4	3/4	1/2	0	4/4		3/4	2/4	4/4	3/4	2/4				
460		60	2.00	-/-	1,740	2.70	2.30	1.90	1.50	24.0	86.5	87.2	86.0	77.3	70.8	57.8	6.0	322	393	
230		60	2.00	-/-	1,740	5.40					86.5	87.2	86.0	77.3	70.8	57.8	6.0	322	393	

Frame Type: 145TCV	Type of constr.: ( L ) Round body - C-Face w/drip cover + hooks	Ins. Cl.:Insulation class F	Motor Prot.:(G) Thermostats, Klixon type, normally closed	NEMA Des.: B	S.F.: 1.15
Mtr. WT:88		Temp. Rise Cl.: B	Amb. Temp.: + to -20 °C @1000 m	kVA: L	IP IP65

**Mechanical data**

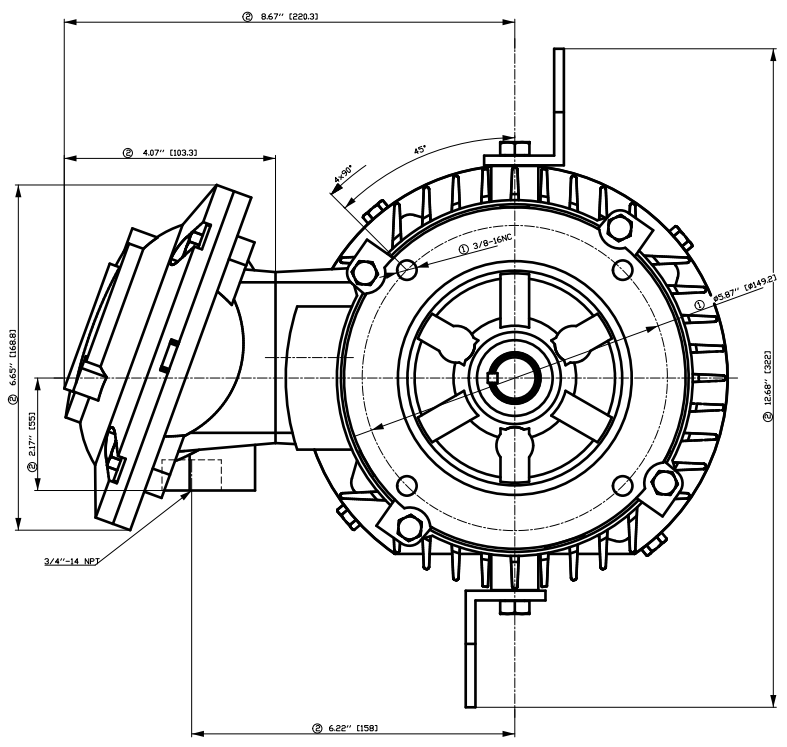
Sound level (SPL / SWL) at 60 Hz	50.0 dB(A) / 62.0 dB(A)	Thickener	Polyurea
Octave Band Center Frequencies Hertz	250 500 1000 2000 4000 8000 Hz	Safe Stall Time Hot	14 s
SPL@3		Safe Stall Time Cold	22 s
Moment of inertia	0.2 Lb-ft <sup>2</sup>	Frame material	cast iron
Ext Load Inertia Capability:	11.0 Lb ft <sup>2</sup>	Color, paint shade	
<b>Bearings</b>		Coating (paint finish)	
Bearing DE   NDE	6205 Z C3 S0   6205 Z C3 S0	<b>Ventilation Type</b>	
Bearing_Type	Ball Bearing   Ball Bearing	Method of cooling	TEFC
AFBMA:	25BC02JP30   25BC02JP30	Direction of rotation	Bidirectional
<b>Grease</b>		Fan Material	Polypropylen ESD
Capacity	0.1 oz   0.1 oz	VFD	CT: 4:1 VT: 20:1
Grease Type:	Exxon Mobile EM	Space heaters	without
		Brake:	-/-

**Terminal box**

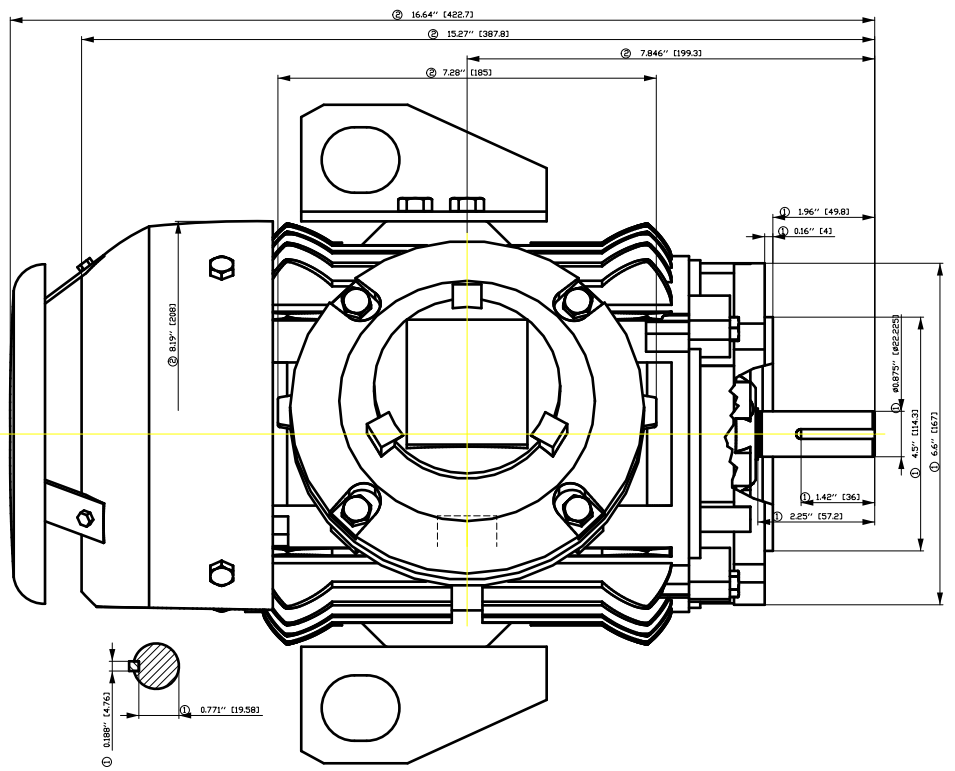
Lead Wire Connection	9 LEAD - WYE	Terminal box position	(3) Mounting - F-1
Voltage	L1 L1 L1 Connected together	Material of terminal box	
LOW	T1 T7 T2 T8 T3 T9 T4 T5 T6	Cable entry	-/-
HIGH	T1 T2 T3 T4 T7-T5 T8-T6 T9		

<p><b>Notes:</b></p> <p>I<sub>r</sub>/I<sub>N</sub> = locked rotor current / current nominal  M<sub>r</sub>/M<sub>N</sub> = locked rotor torque / torque nominal  M<sub>b</sub>/M<sub>N</sub> = break down torque / nominal torque</p>	<p>3) Value is valid only for DOL operation with motor design IC411  2) at rated power / at full load</p>
--	---

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 software and hardware versions</i>	
	document type datasheet	document status released	customer		
	title 1MB2121-1AB41-6LG3	document number	rev. 01	creation date 2022-04-08 16:21	language en
© Siemens AG 2022				Page 1/1	



- ① Tolerances according to NEMA std.
- ② All these dimensions corresponding to assemblies and castings shall have a tolerance as per DIN standard 1686-GTB 19.
- ③ Not according to NEMA std.



Tolerance	Surface	Material	Weight	Scale
FT ÖGF CF E ÖFI F E ŠÖH	Author	ÖVŠ	É	1:1
É	Creator	T aš : ^Š@` } *		
	Approval			
	Department			
	Change Order	MFB		
	Doc. State	I B EGG		
<b>SIEMENS</b>	Revision	Index RS		
© Siemens AG 2018	Project No	É		
	Ref No	É		
	Doc Type			
	Paper Size	CH		
	1st Language	^		
	2nd Language	â^		
	Sheet	F of F		

Main terminal diagram



9 LEAD WYE					
Volts	LINES			CONNECTED TOGETHER	CONN.
	L1	L2	L3		
LOW	T1 T7	T2 T6	T3 T9	T4 T5 T6	YY
HIGH	T1	T2	T3	T4 T7-T5 T8-T6 T9	Y

Motor protection

THERMOSTATS

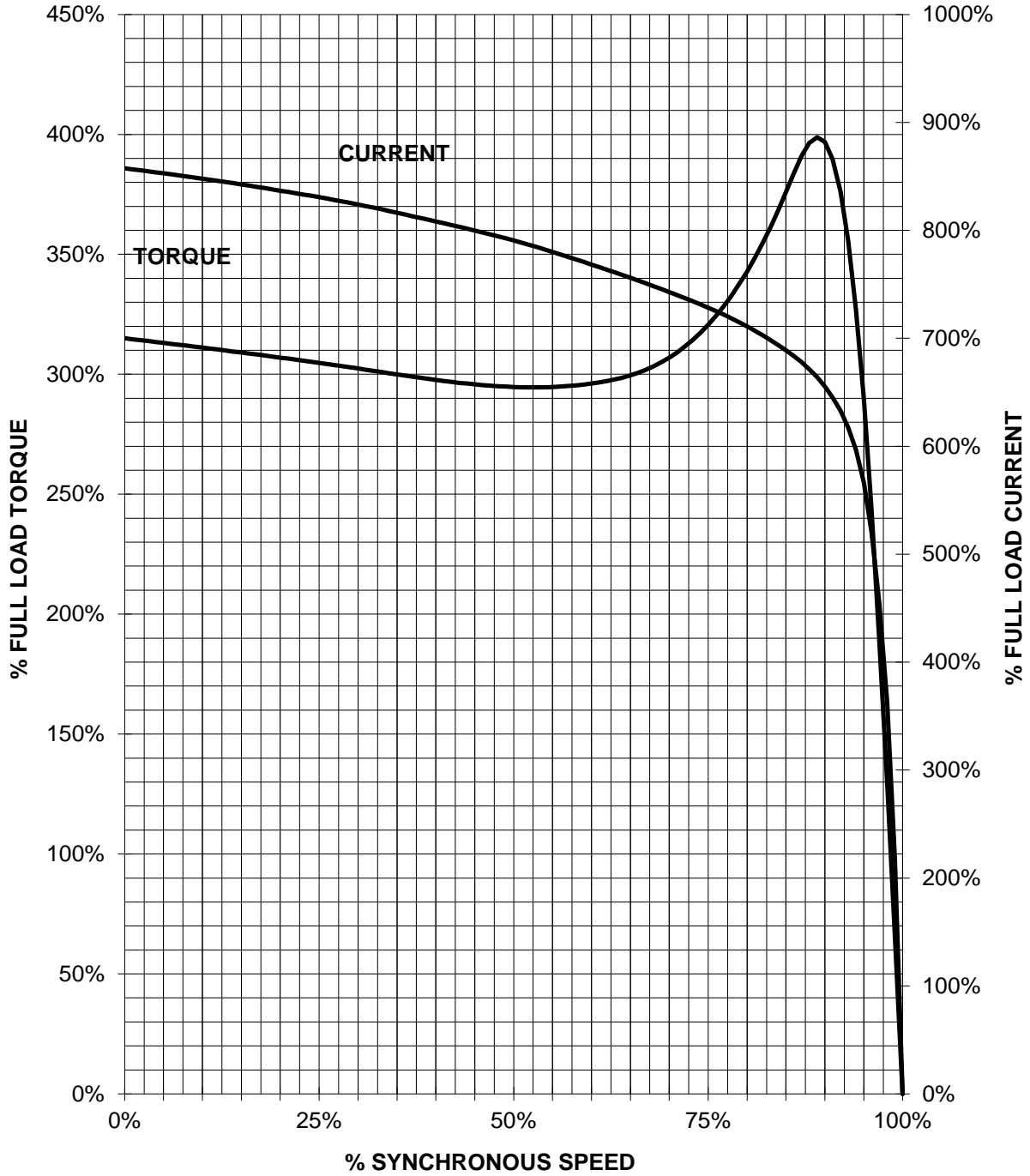


responsible dep. DI MC LVM	technical reference	created by	approved by	Project
<b>SIEMENS</b>	document type Wiring Diagram	document status free		customer
	title 1MB2121-1AB41-6LG3	document number		
© Siemens AG 2019	rev. 01	creation date 12/03/2019	language en	Page 1/1

# SIEMENS INDUSTRY, INC.

HP 2 VOLTS <600 RPM 1800 TYPE XP100  
HZ 60 PHASE 3 FRAME 145T NEMA B

## TORQUE & CURRENT VS. SPEED



CUSTOMER: \_\_\_\_\_ ORDER#: \_\_\_\_\_