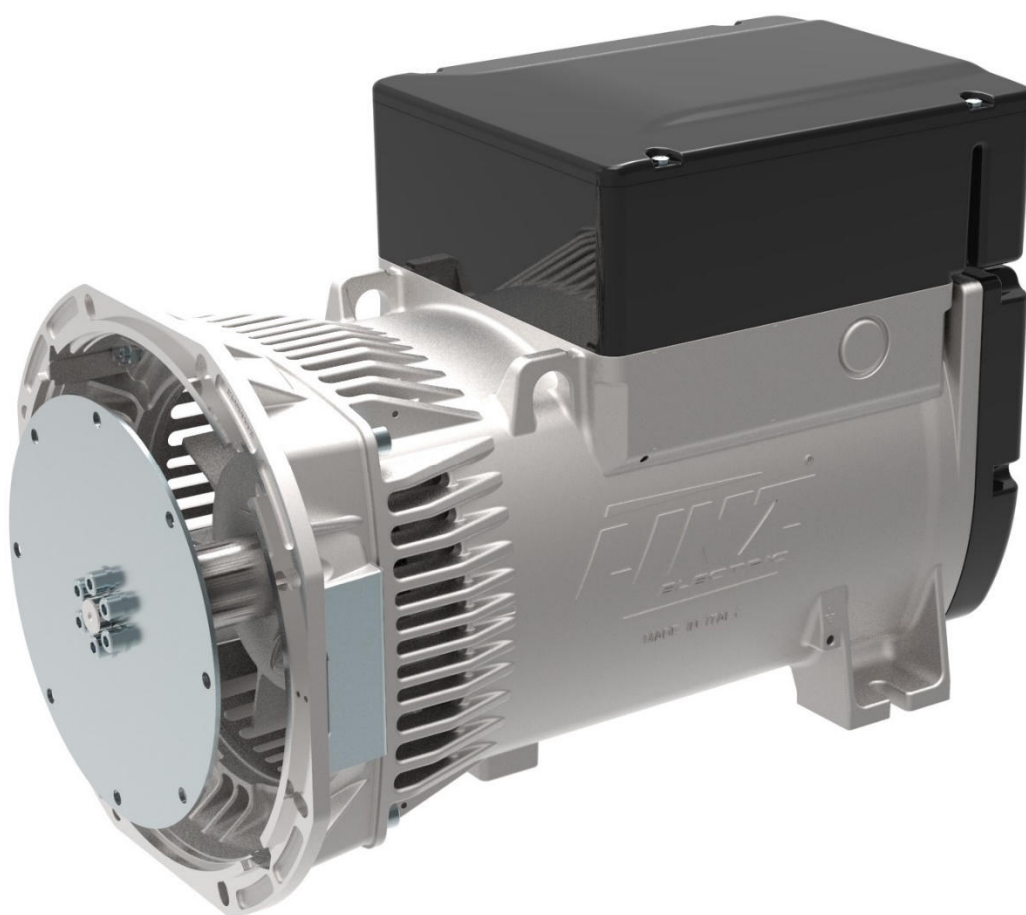


TECHNICAL DATA SHEET



ALTERNATOR E1C13M F/4

Single-Phase brushless synchronous alternator with capacitor - 4 poles

E1C13M F/4

COMMON DATA

Rated Power at 50Hz	kVA	12,5
Rated Power at 60Hz	kVA	15,0
Rated Power Factor		1,0
Nominal Temperature	°C	40
Control System		self-excited
Execution		brushless
Regulation Type		Capacitor
Insulation Class		H
Protection		IP21
Maximum Over speed	rpm	2250
Overload		110% of rated power for one hour in a cycle of 6 hours
Air Flow Requirement	m ³ /min	4,6 at 50Hz 5,5 at 60Hz
R.F.I. Suppression		Standard EN55011

REGULATION DATA

Capacitor	Capacitor with Aluminum Technology
Voltage Regulation	±5%
Sustained Short Circuit	> 250% of rated current

WINDING DATA

Stator Winding	Single layer with auxiliary winding
Rotor Winding	with damping cage
Number of Leads of Stator	4
Stator Winding Resistance	Ω 0,2 at 20°C
Rotor Winding Resistance	Ω 1,41 at 20°C
THD at full load	<5,5%
THD at no load	<5,0%

STANDARD

References	EN60034-1 ISO8528-3 EN55011
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ON REQUEST

UL 1446, Systems of Insulating Materials - General CSA-C22.2 No. 0, Appendix B, General Requirements - Canadian Electrical Code, Part I

CAN/CSA - C22.2 No. 100-14 (R2009) Motors and Generators, UL1004-1 2nd ed. Rotating Electrical Machines - General Requirements, UL1004-4 2nd ed. Electric Generators

E1C13M F/4

ELECTRICAL DATA

Frequency		50Hz - 1500rpm	60Hz - 1800rpm
Voltage Series Star	V	115/230	110/220
Rated Power in Class H (125°C/40°C)	kW	12,5	15,0
Rated Power in Class F (105°C/40°C)	kW	11,0	13,0
Rated Power Standby (150°C/40°C)	kW	13,5	16,0
Rated Power Standby (163°C/27°C)	kW	14,0	16,5

EFFICIENCY IN CL. H

4/4	81,5%	81,5%
3/4	82,0%	82,5%
2/4	77,5%	79,0%
1/4	74,2%	75,5%

MECHANICAL DATA

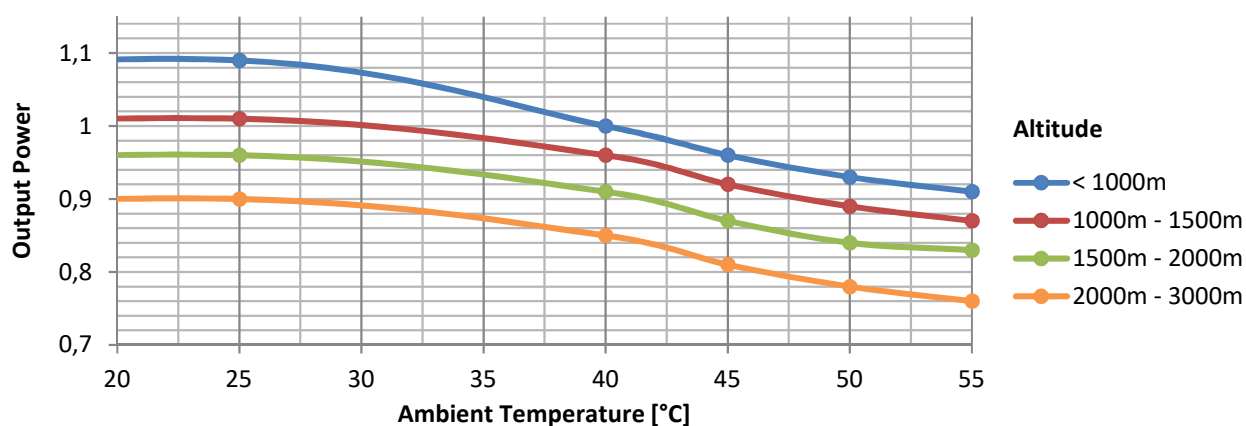
Bearing non drive end			6305-2Z-C3
Bearing drive end (B3/B14 form)			6208-2Z-C3
Weight of generator	in B2	kg	87,1
	in B3/B14	kg	83,0
	in B3/B9	kg	80,1

E1C13M F/4

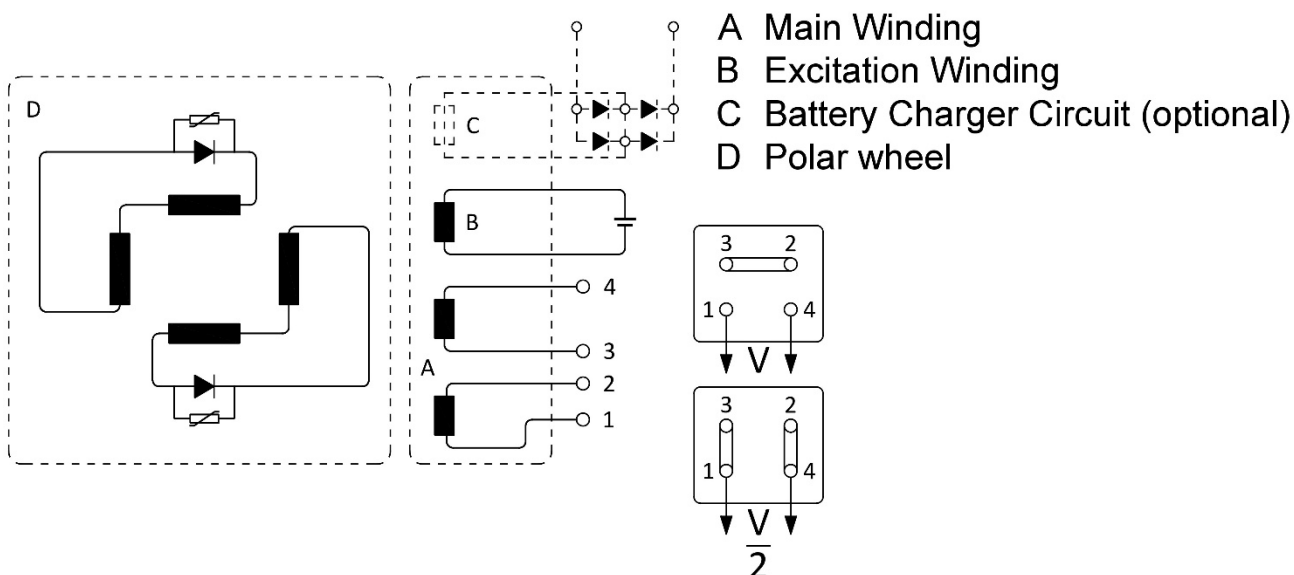
MOMENT OF INERZIA

B3/B9	kg·m ²	0,075
B2	kg·m ²	0,077
B3/B14	kg·m ²	0,075

DERATING CURVES

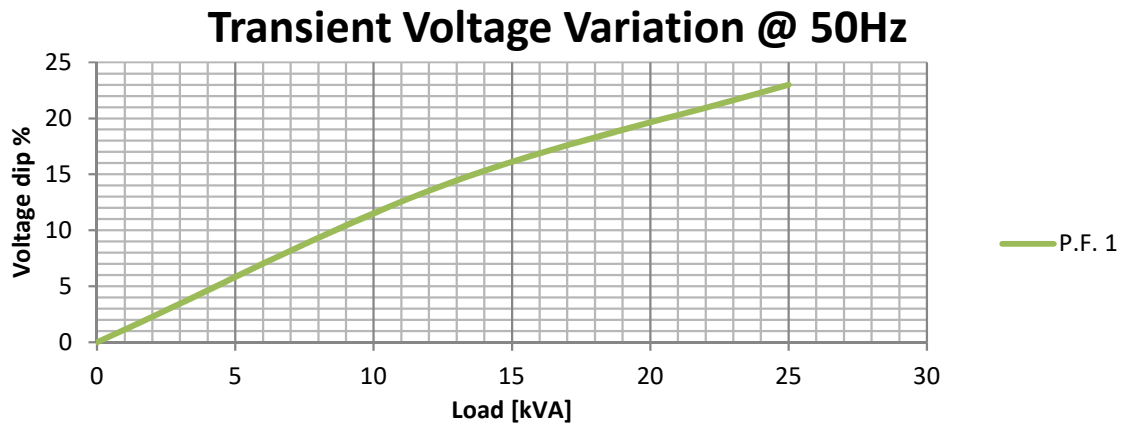


WIRING DIAGRAM

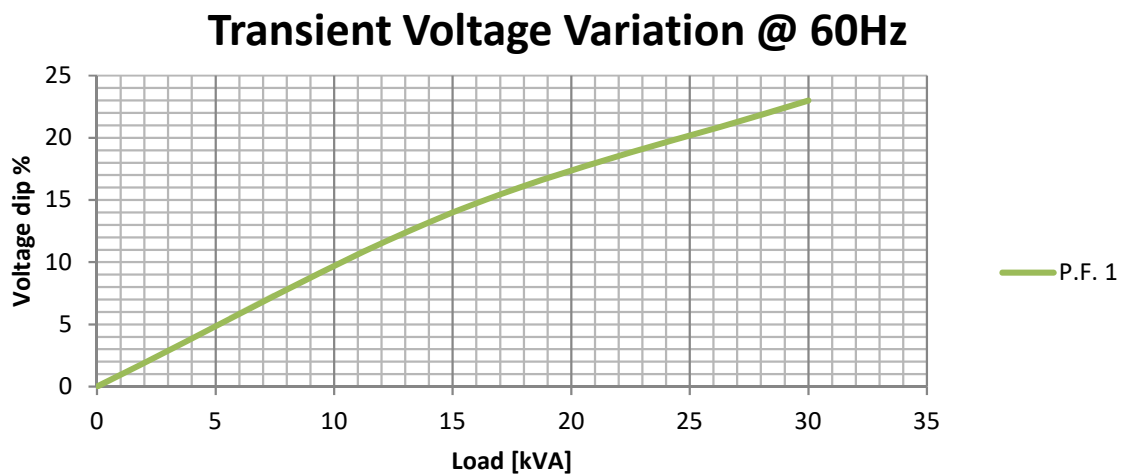


E1C13M F/4

TRANSIENT VOLTAGE VARIATION 50Hz



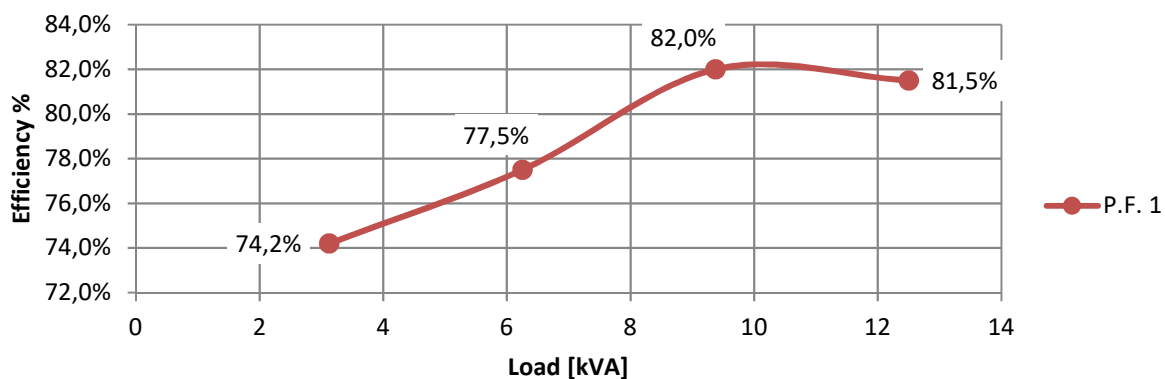
TRANSIENT VOLTAGE VARIATION 60Hz



E1C13M F/4

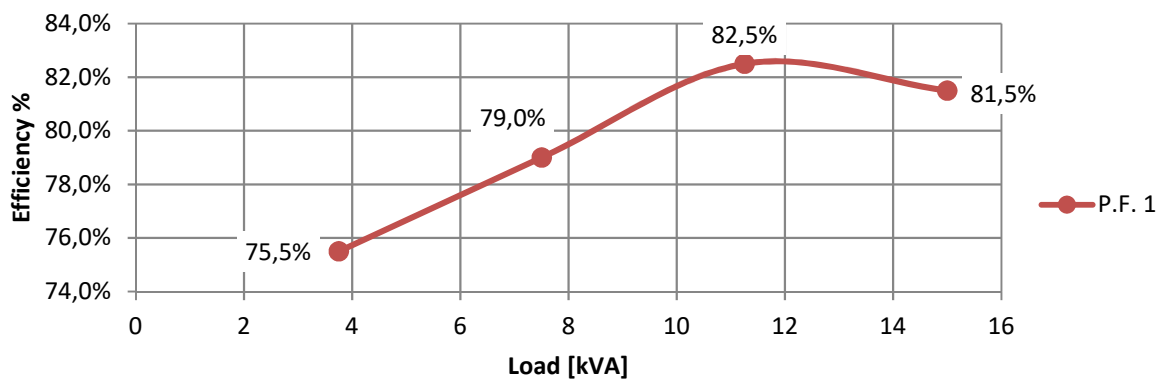
EFFICIENCY 50Hz

Efficiency Curves @ 50Hz



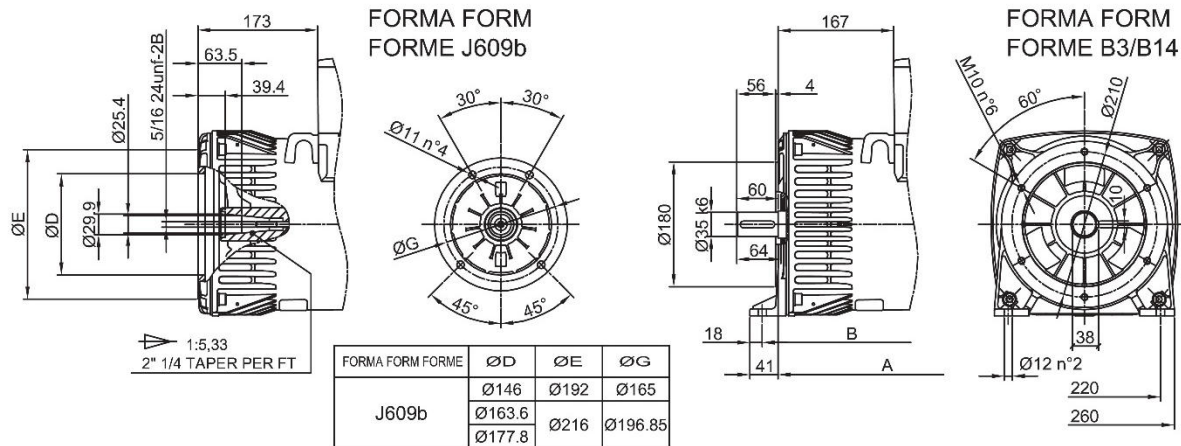
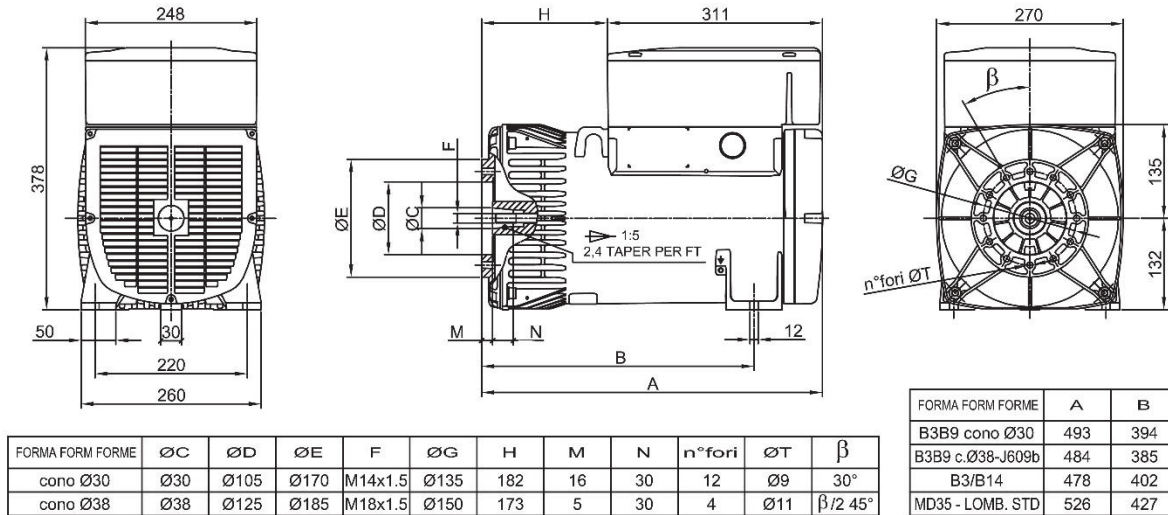
EFFICIENCY 60Hz

Efficiency Curves @ 60Hz

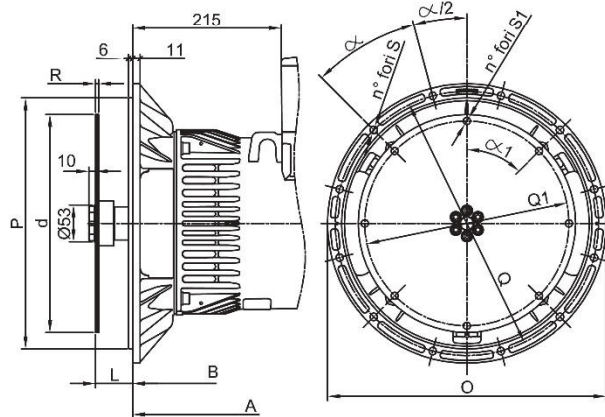


E1C13M F/4

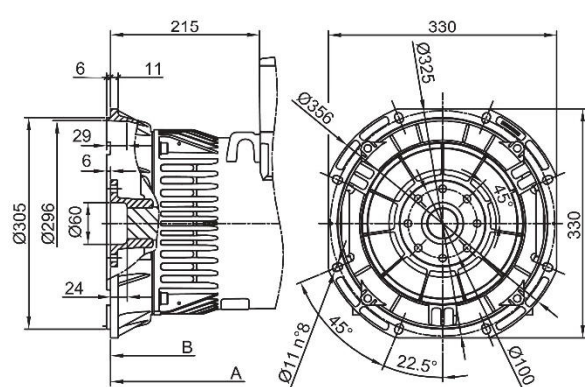
FORMA FORM FORME B3/B9



FORMA FORM FORME MD35



FORMA FORM FORME LOMBARDINI STD



SAE N.	FLANGIE - BRIDE - FLANGE					
	O	P	Q	n. fori	S	α
5	356	314.3	333.4	8	11	45°
4	403	362	381	12		30
3	451	409.6	428.6	12		30

SAE N.	GIUNTI A DISCO - DISC COUPLING - ACC. DISQUE						
	L	d	Q1	n. fori	S1	α1	R
6 1/2	30.2	215.9	200	6	9	60°	3
7 1/2	30.2	241.3	222.25	8	9	45°	
8	62	263.52	244.47	6	10.5	60	
10	53.8	314.32	295.27	8	10.5	45°	4.5
11 1/2	39.6	352.42	333.37	8	10.5	45°	