

TECHNICAL DATA SHEET



ALTERNATOR E1C10S F

Single-Phase brushless synchronous alternator with capacitor - 2 poles

E1C10S F

COMMON DATA

Rated Power at 50Hz	kVA	4,2	
Rated Power at 60Hz	kVA	5,0	
Rated Power Factor		1	
Nominal Temperature	°C	40	
Control System		self-excited	
Execution		brushless	
Regulation Type		capacitor	
Insulation Class		H	
Protection		IP21	
Maximum Over speed	rpm	4500	
Overload		110% of rated power for one hour in a cycle of 6 hours	
Air Flow Requirement	m ³ /min	3,7 at 50Hz	4,6 at 60Hz
R.F.I. Suppression		Standard EN55011	

REGULATION DATA

Capacitor		Capacitor	
Capacitor	μF	25	
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	1,15 at 20°C	
Rotor Winding Resistance	Ω	3,7 at 20°C	
THD at full load		<6%	
THD at no load		<5%	

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

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ELECTRICAL DATA

Frequency		50Hz - 3000rpm	60Hz - 3600rpm
Voltage Series Star	V	115/230	110/220
Rated Power in Class H (125°C/40°C)	kW	4,2	5,0
Rated Power in Class F (105°C/40°C)	kW	3,9	4,7

EFFICIENCY IN CL. H

4/4	75,0%	76,0%
3/4	75,5%	77,0%

MECHANICAL DATA

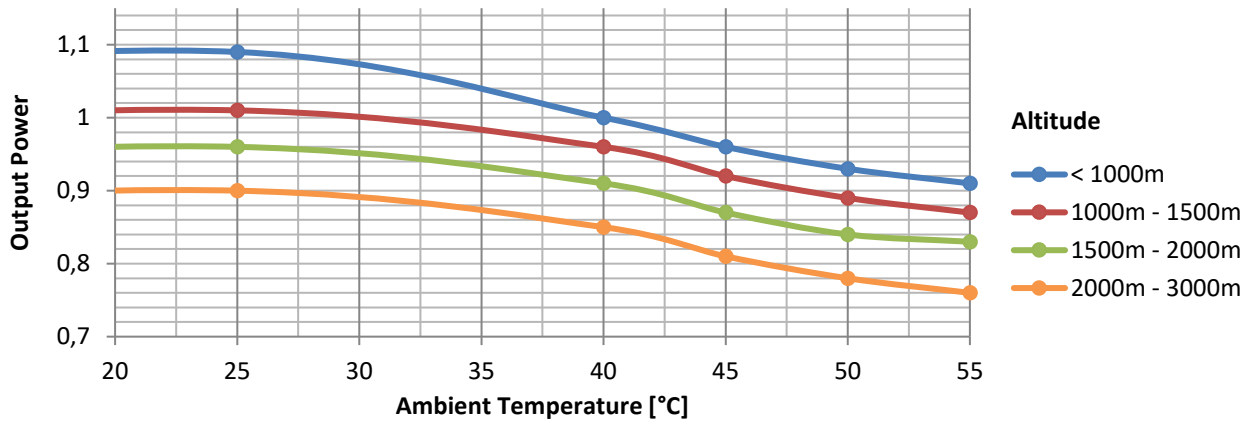
Bearing non drive end		6204-2Z-C3
Bearing drive end (B3/B14 form)		6305-2Z-C3
Weight of generator	in B2	kg
	in B3/B14	kg
	in B3/B9	kg

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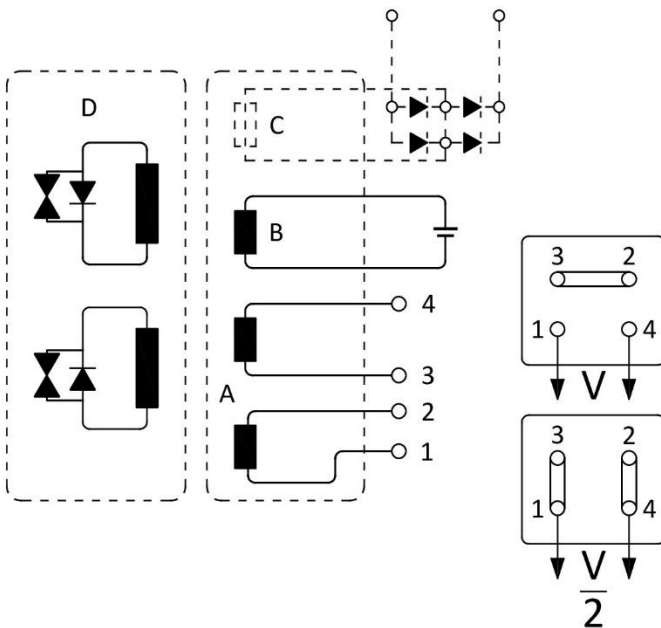
MOMENT OF INERZIA

B3/B9	kg·m ²	0,012
B3/B14	kg·m ²	0,012

DERATING CURVES



WIRING DIAGRAM

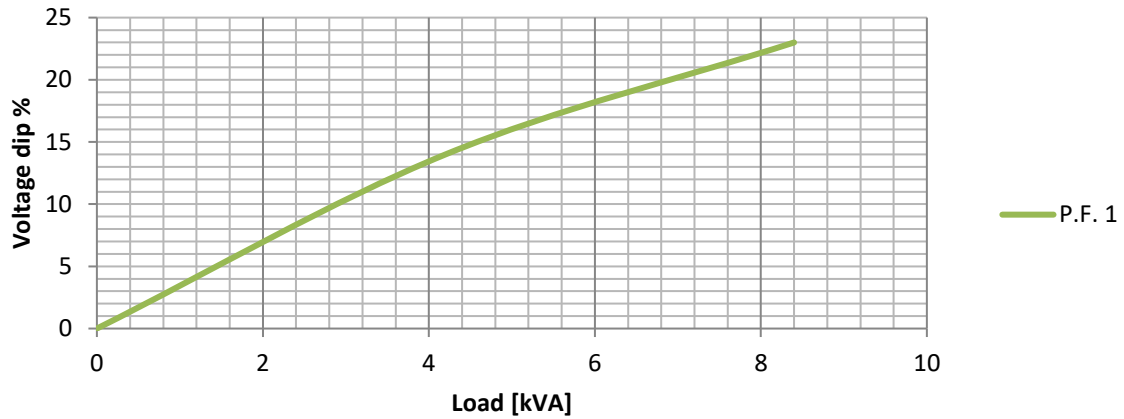


- A Main Winding
- B Excitation Winding
- C Battery Charger Circuit
- D Polar wheel

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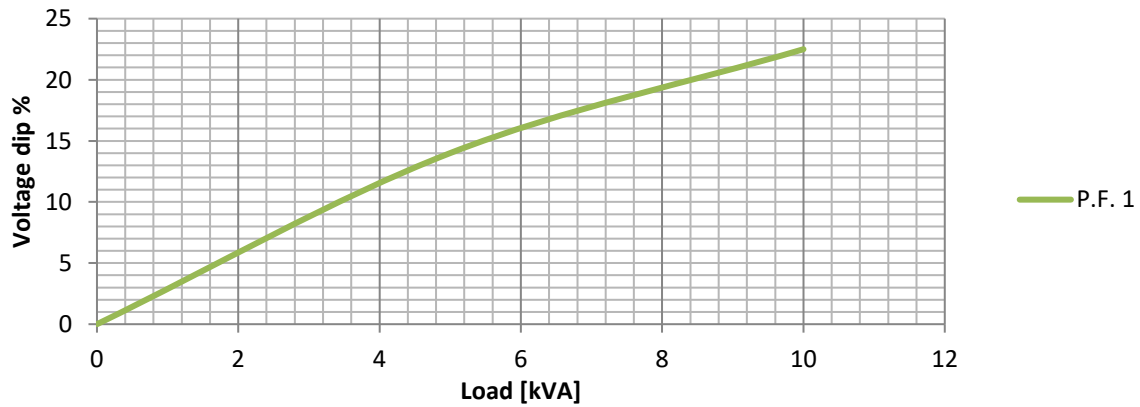
TRANSIENT VOLTAGE VARIATION 50Hz

Transient Voltage Variation @ 50Hz

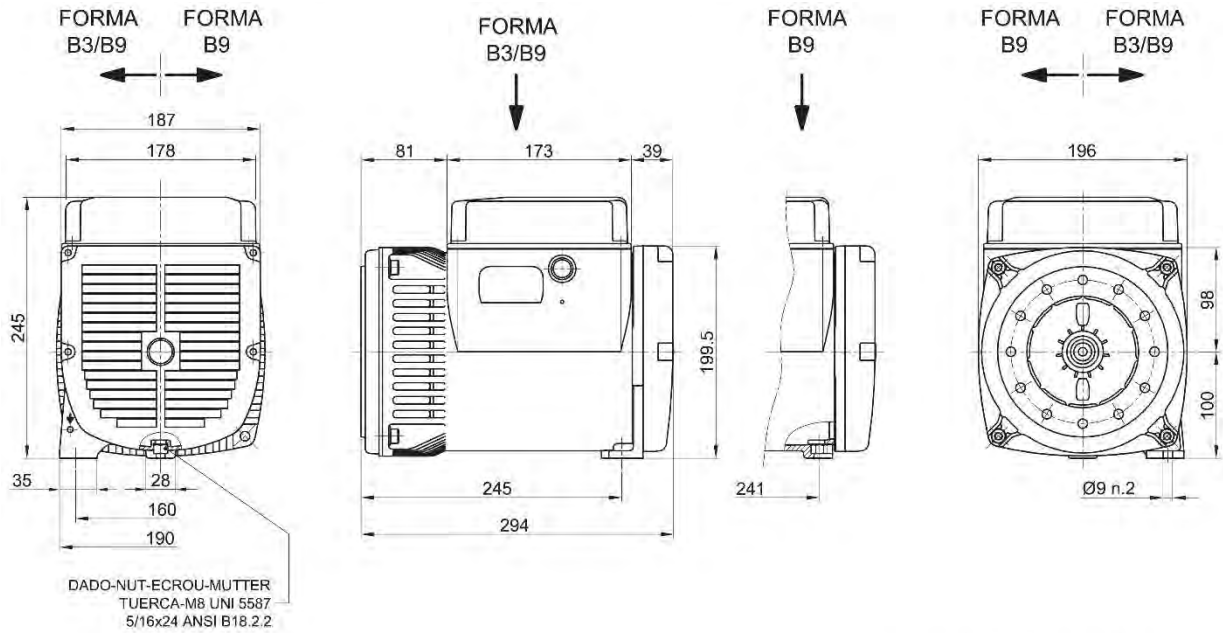


TRANSIENT VOLTAGE VARIATION 60Hz

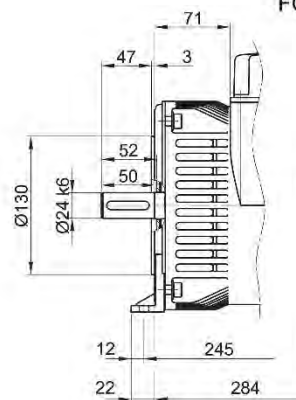
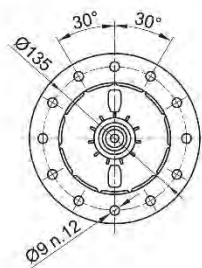
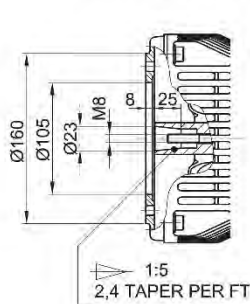
Transient Voltage Variation @ 60Hz



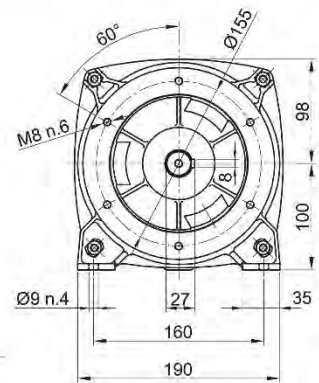
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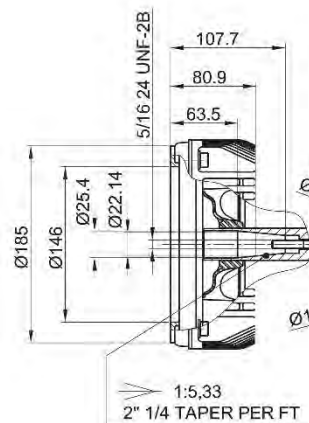
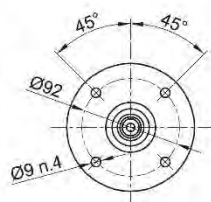
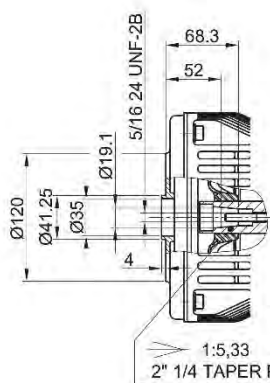
FORMA FORME B9 C.23



FORMA FORME B14



FORMA FORME J609a



FORMA FORME J609b

