

TECHNICAL DATA SHEET



ALTERNATOR E1C13S D/4

Single-Phase brushless synchronous alternator with capacitor - 4 poles

E1C13S D/4

COMMON DATA

Rated Power at 50Hz	kVA	9,0	
Rated Power at 60Hz	kVA	11,0	
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	4,9 at 50Hz	5,9 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	0,35 at 20°C	
Rotor Winding Resistance	Ω	1,13 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

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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	9,0	11,0
Rated Power in Class F (105°C/40°C)	kW	8,5	10,0
Rated Power Standby (150°C/40°C)	kW	10,0	12,0
Rated Power Standby (163°C/27°C)	kW	10,5	12,5

EFFICIENCY IN CL. H

4/4	79,5%	80,0%
3/4	80,0%	81,0%
2/4	75,0%	75,5%
1/4	72,0%	72,5%

MECHANICAL DATA

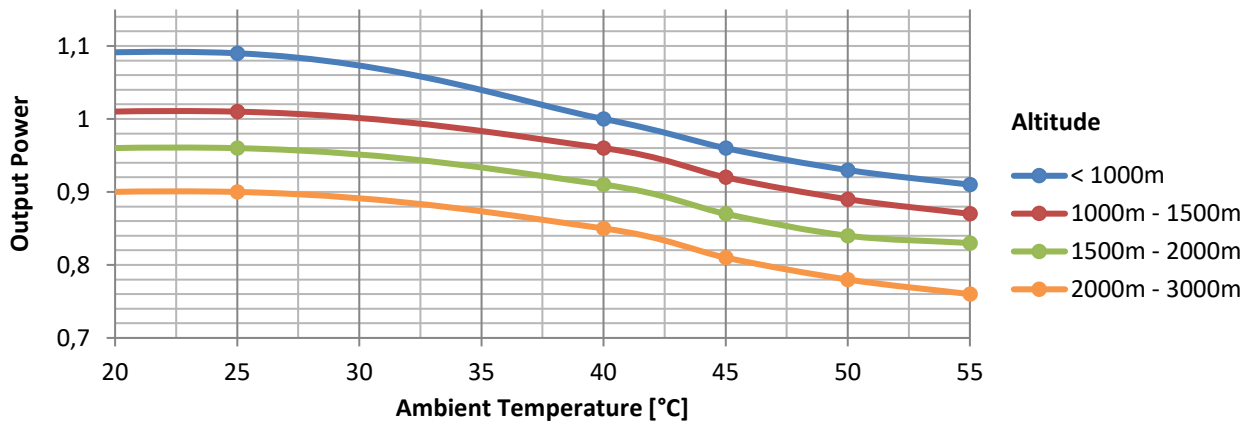
Bearing non drive end		6305-2Z-C3
Bearing drive end (B3/B14 form)		6208-2Z-C3
Weight of generator	in B2	kg 68,5
	in B3/B14	kg 64,4
	in B3/B9	kg 61,5

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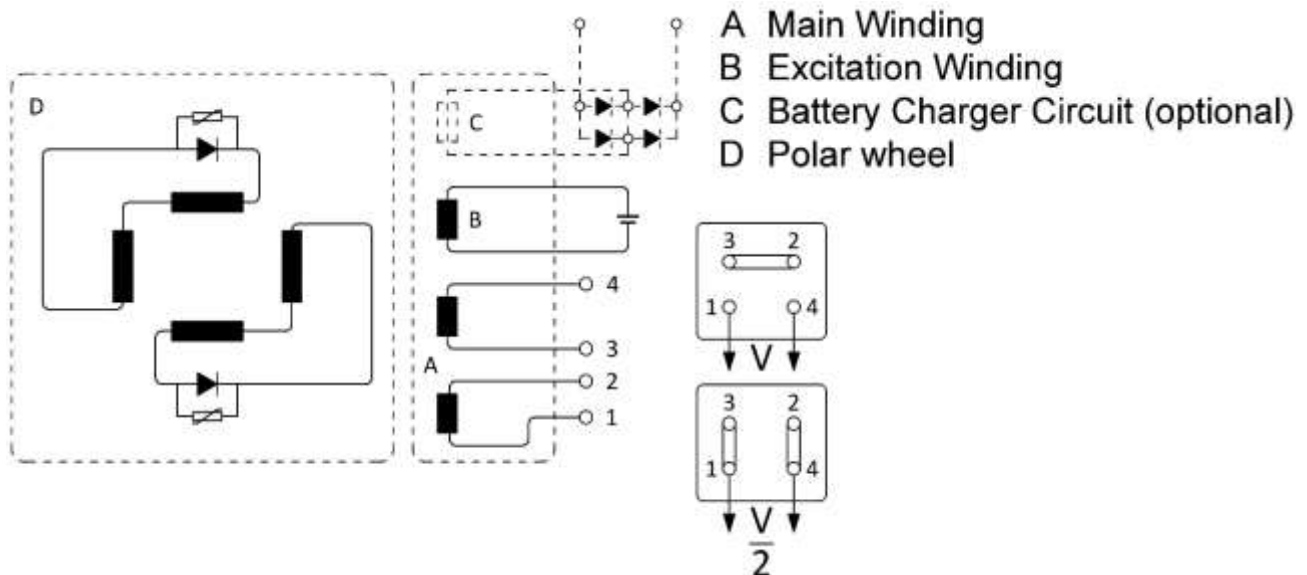
MOMENT OF INERZIA

B3/B9	kg·m ²	0,06
B2	kg·m ²	0,06
B3/B14	kg·m ²	0,06

DERATING CURVES

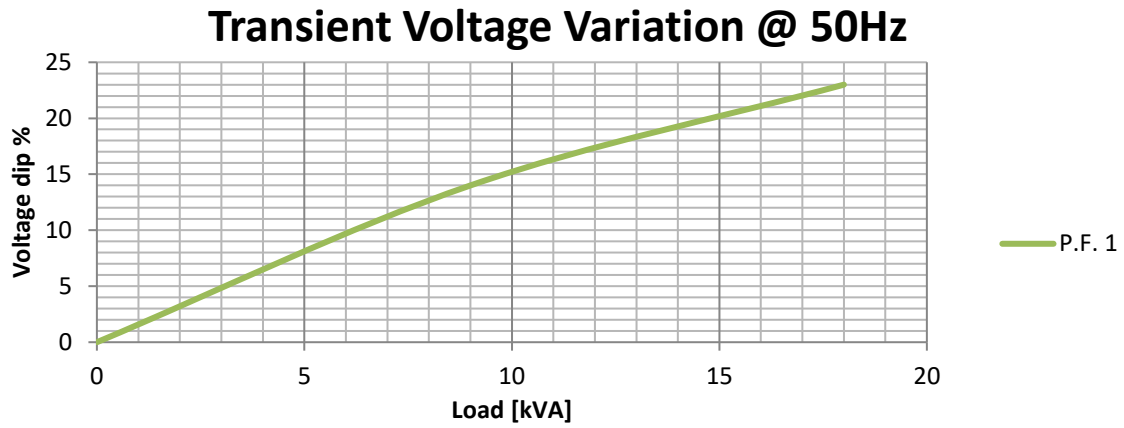


WIRING DIAGRAM

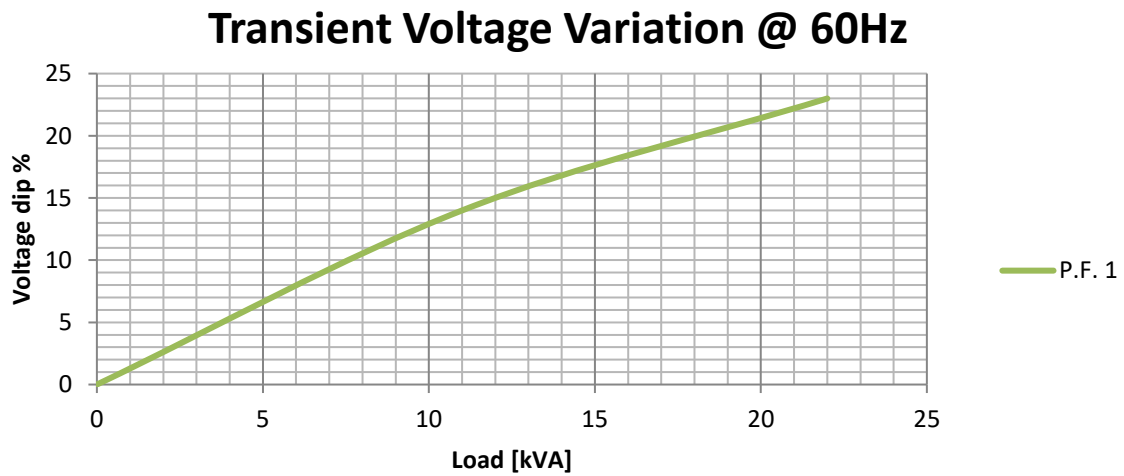


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TRANSIENT VOLTAGE VARIATION 50Hz



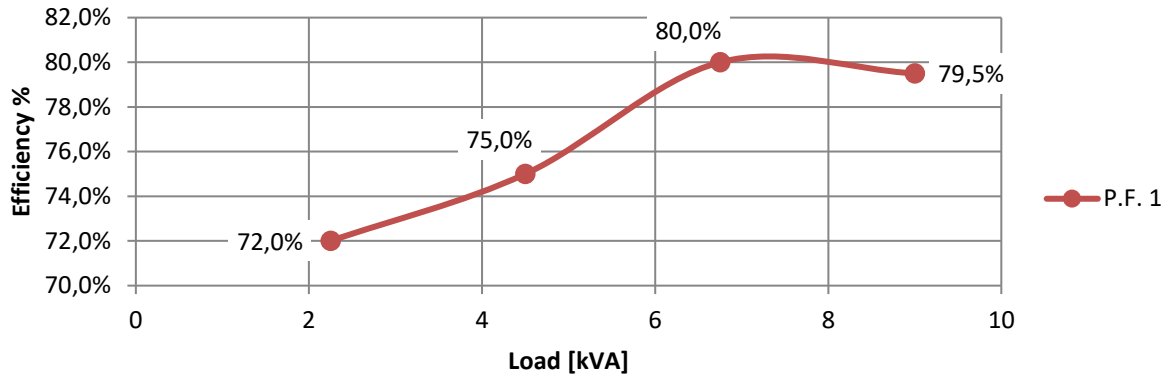
TRANSIENT VOLTAGE VARIATION 60Hz



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EFFICIENCY 50Hz

Efficiency Curves @ 50Hz



EFFICIENCY 60Hz

Efficiency Curves @ 60Hz

