

TECHNICAL DATA SHEET



**ALTERNATOR E1C11M B**

*Single-Phase brushless synchronous alternator with capacitor - 2 poles*

## E1C11M B

### COMMON DATA

Rated Power at 50Hz	kVA	10,0	
Rated Power at 60Hz	kVA	12,5	
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 <sup>3</sup> /min	4,9 at 50Hz	5,9 at 60Hz
R.F.I. Suppression		Standard EN55011	

### REGULATION DATA

Capacitor		Capacitor	
Capacitor	μF	30+35	
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	0,286 at 20°C	
Rotor Winding Resistance	Ω	5,83 at 20°C	
THD at full load		<5%	
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

## E1C11M B

### ELECTRICAL DATA

Frequency		50Hz - 3000rpm	60Hz - 3600rpm
Voltage Series Star	V	<b>115/230</b>	<b>110/220</b>
Rated Power in Class H (125°C/40°C)	kW	10,0	12,5
Rated Power in Class F (105°C/40°C)	kW	9,5	11,5

### EFFICIENCY IN CL. H

4/4	79,5%	80,0%
3/4	80,5%	81,0%

### MECHANICAL DATA

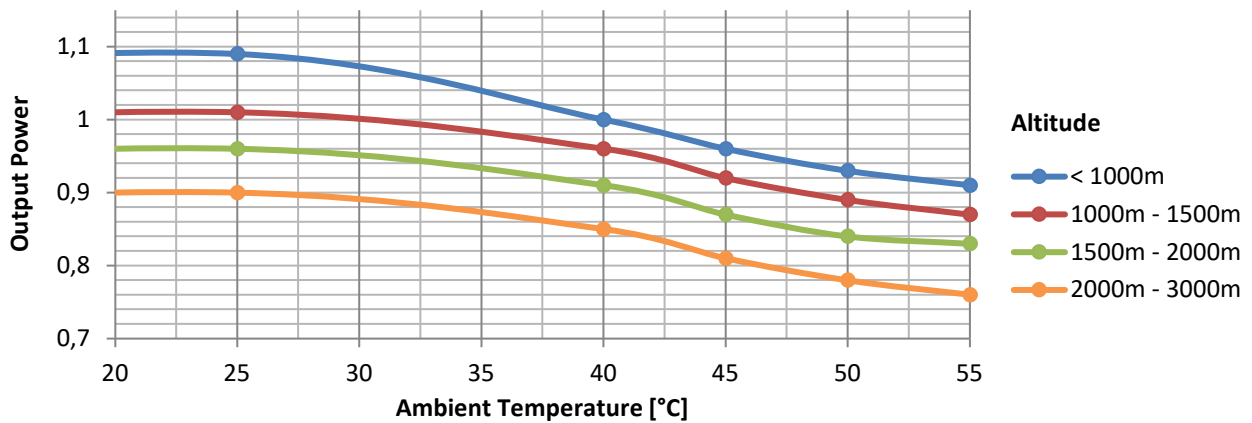
Bearing non drive end			6205-2Z-C3
Bearing drive end (B3/B14 form)			6207-2Z-C3
Weight of generator	in B2	kg	\
	in B3/B14	kg	48,5
	in B3/B9	kg	47,8

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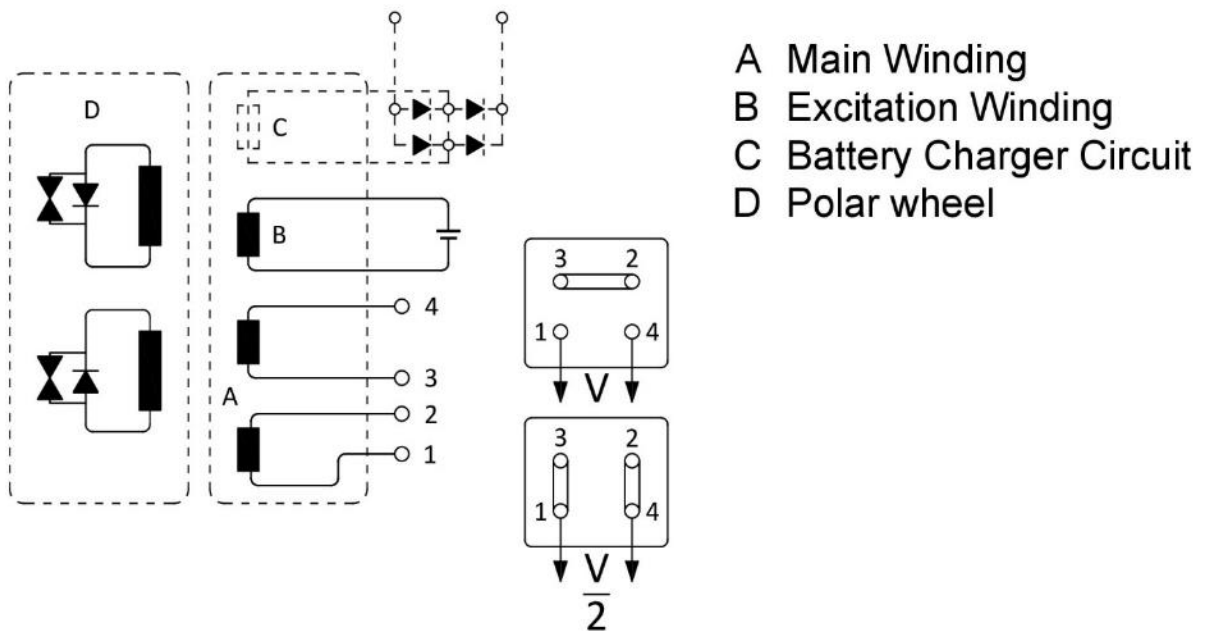
## MOMENT OF INERZIA

B3/B9	kg·m <sup>2</sup>	0,025
B3/B14	kg·m <sup>2</sup>	0,025

## DERATING CURVES



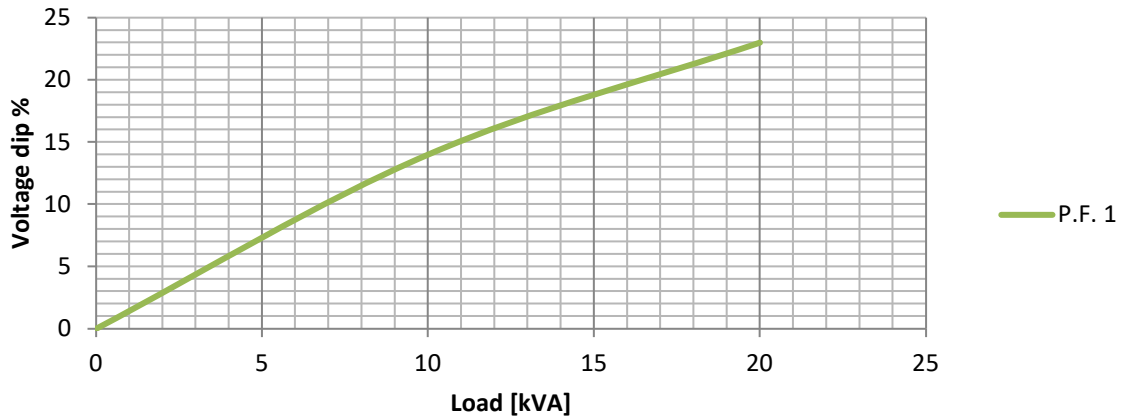
## WIRING DIAGRAM



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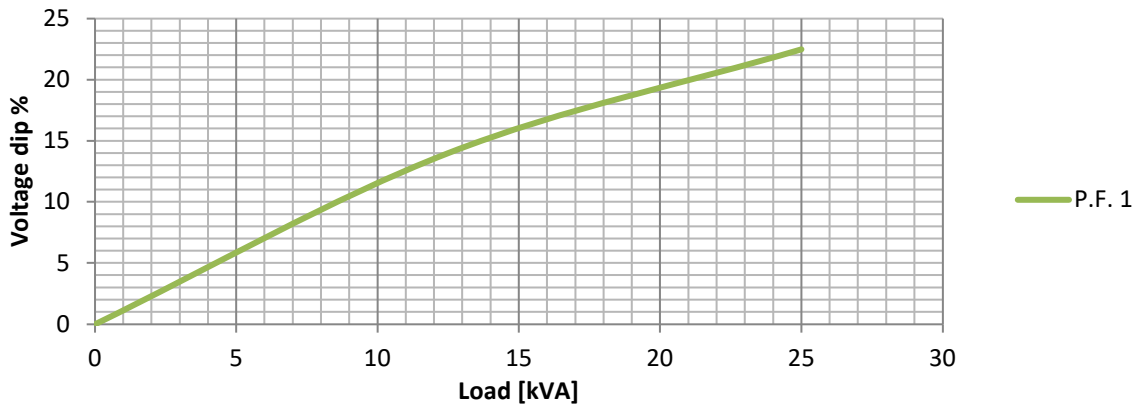
## TRANSIENT VOLTAGE VARIATION 50Hz

### Transient Voltage Variation @ 50Hz



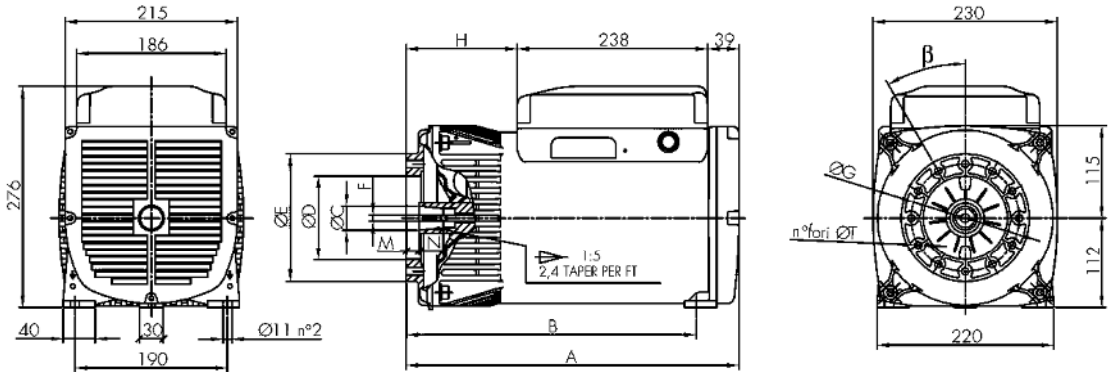
## TRANSIENT VOLTAGE VARIATION 60Hz

### Transient Voltage Variation @ 60Hz



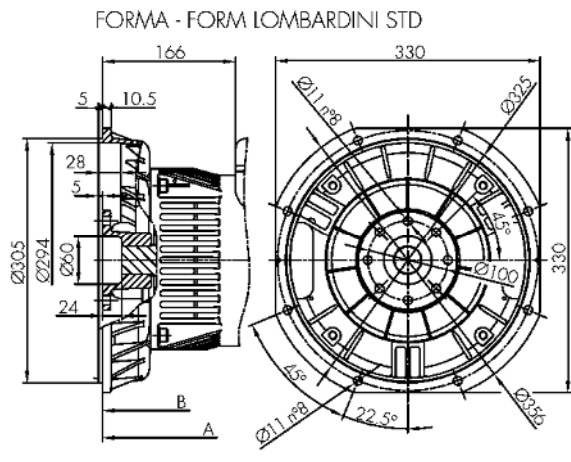
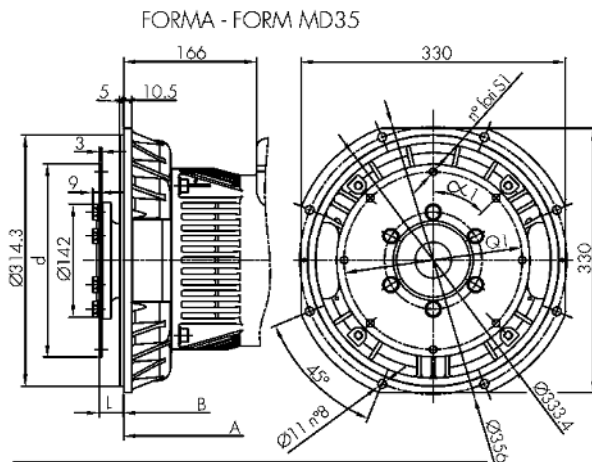
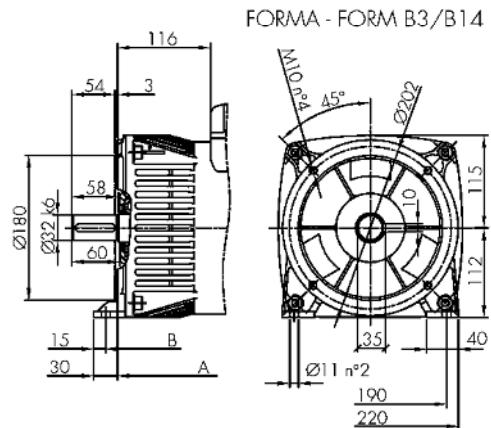
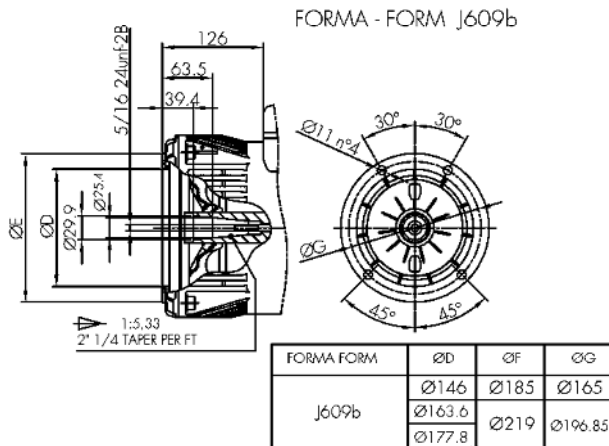
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## FORMA - FORM B3/B9



FORMA FORM	A	B
B3/B9 cono Ø23 Ø30	415	362
B3/B9 cono Ø38	398.5	345.5
J609B	403	350
B3/B14	393	355
MD35/OMB.STD	443	390

FORMA FORM	ØC	ØD	ØE	F	ØG	H	M	N	n° fori	ØT	β
cono Ø23	Ø23	Ø10.5	Ø160	M8	Ø135	138	8	25	12	Ø9	30°
cono Ø30	Ø30	Ø10.5	Ø160	M14x1.5	Ø135	138	16	30	12	Ø9	30°
cono Ø38	Ø38	Ø12.5	Ø185	M18x1.5	Ø150	121.5	5	30	4	Ø11	b/2 45°



SAE N.	L	d	Q1	n. fori	S1	α1
6 1/2	30.2	215.9	200	6	9	60°
7 1/2	30.2	241.3	222.25	8	9	45°