



## TECHNICAL DATA SHEET



## ALTERNATOR E1E13S C

*Single-Phase synchronous alternator with brushes and AVR - 2 poles*



## E1E13S C

### COMMON DATA

Rated Power at 50Hz	kVA	13,0
Rated Power at 60Hz	kVA	15,6
Rated Power Factor		1
Nominal Temperature	°C	40
Control System		self-excited
Execution		with brushes
Regulation Type		AVR
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	9,4 at 50Hz 12,2 at 60Hz
R.F.I. Suppression		Standard EN55011

### REGULATION DATA

AVR		HVR11E
Sensing		single-phase
Voltage Regulation		±1%

### WINDING DATA

Stator Winding		Single layer with auxiliary winding
Rotor Winding		with damping cage
Number of Leads of Stator		4
Stator Winding Resistance	Ω	0,31 at 20°C
Rotor Winding Resistance	Ω	10,6 at 20°C
THD at full load		<4%
THD at no load		<4%
Excitation at no Load	Adc	2,0
Excitation at full Load	Adc	5,9

### STANDARD

References	EN60034-1 ISO8528-3 EN55011
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### 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	13,0	15,6
Rated Power in Class F (105°C/40°C)	kW	12,0	14,2

### EFFICIENCY IN CL. H

4/4	82,0%	82,4%
3/4	82,5%	82,9%
2/4	80,5%	81,0%
1/4	79,2%	81,0%

### MECHANICAL DATA

Bearing non drive end		6305-2Z-C3	
Bearing drive end (B3/B14 form)		6208-2Z-C3	
Weight of generator	in B2	kg	\
	in B3/B14	kg	65,2
	in B3/B9	kg	62,3

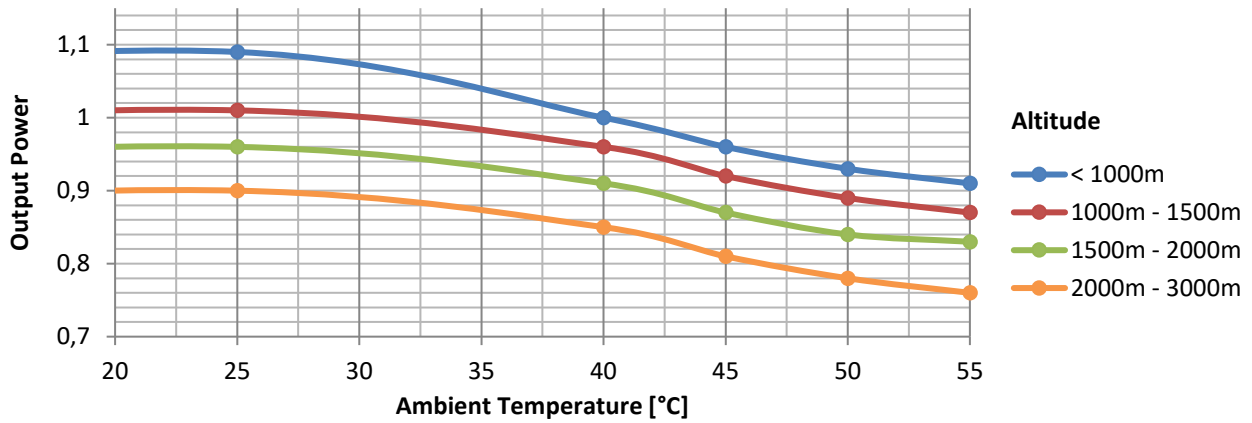


# E1E13S C

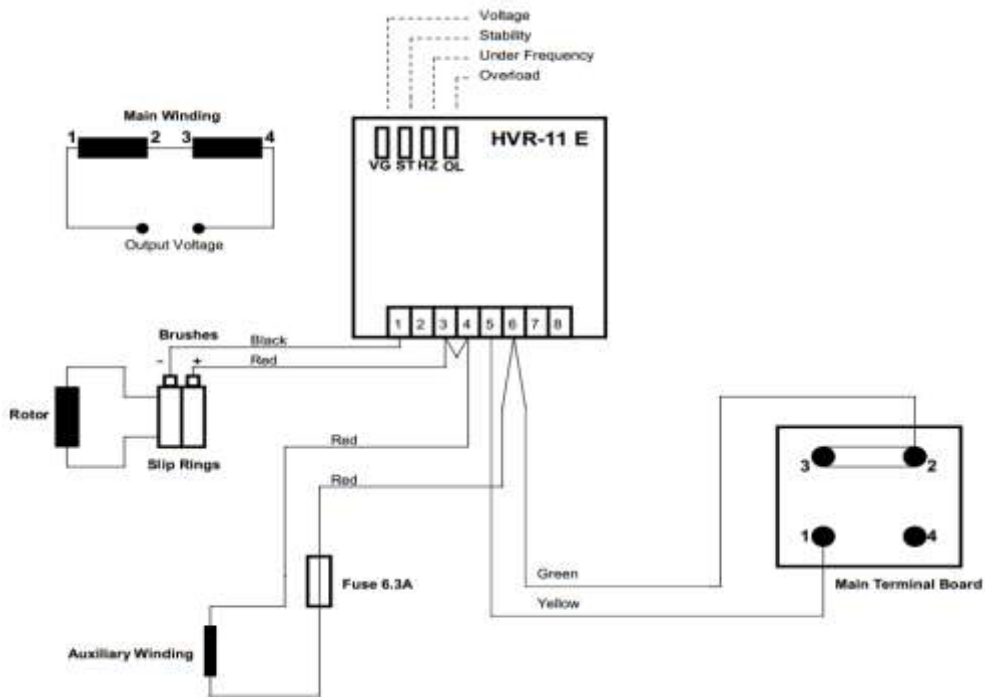
## MOMENT OF INERZIA

B3/B9	kg·m <sup>2</sup>	0,061
B3/B14	kg·m <sup>2</sup>	0,061

## DERATING CURVES



## WIRING DIAGRAM

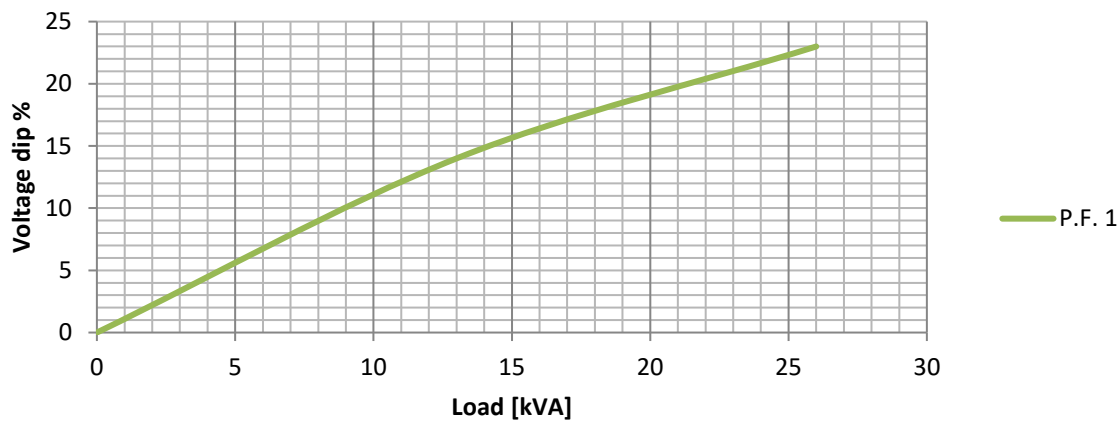




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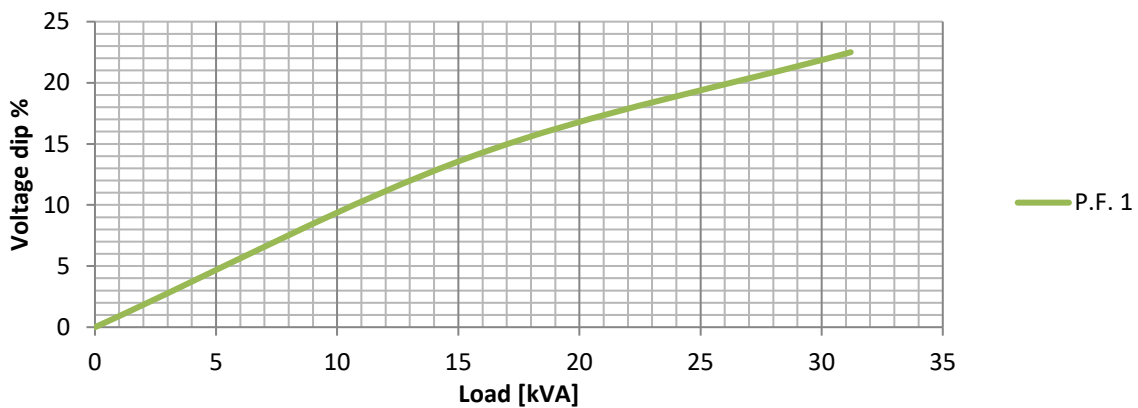
## TRANSIENT VOLTAGE VARIATION 50Hz

### Transient Voltage Variation @ 50Hz



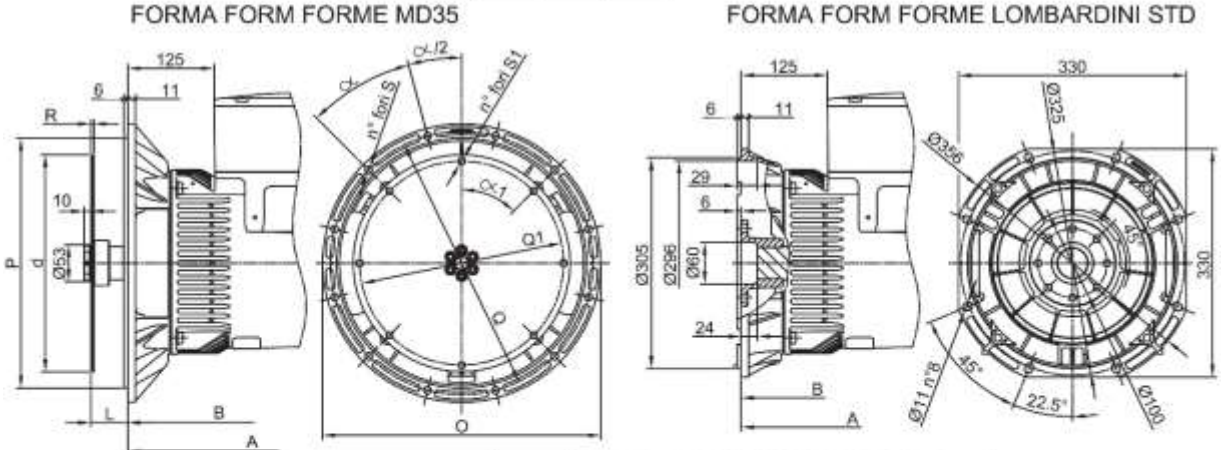
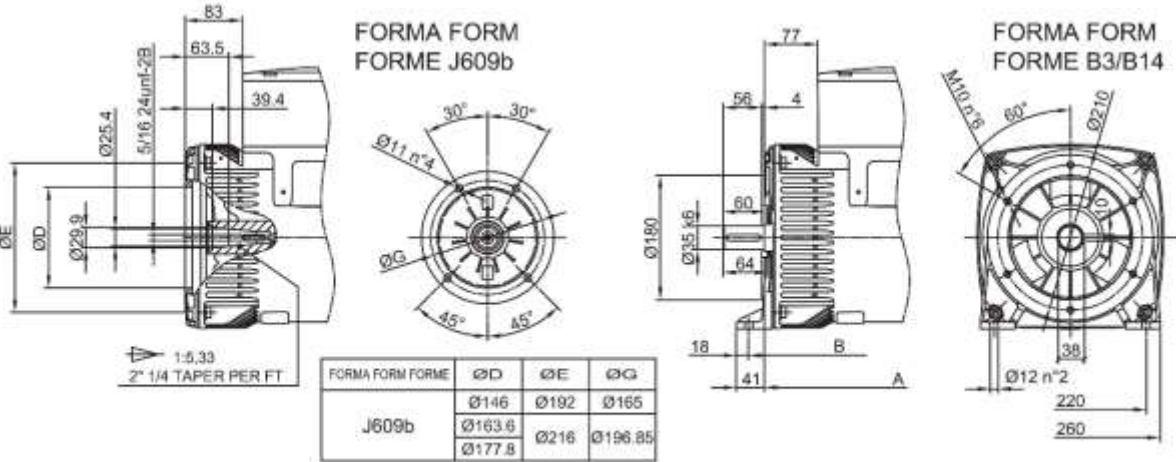
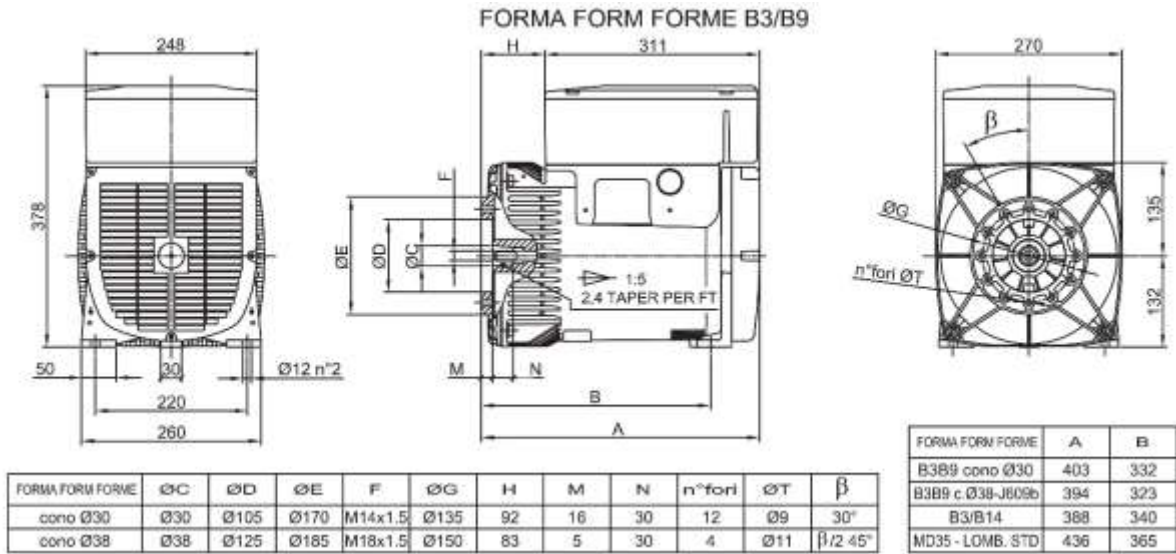
## TRANSIENT VOLTAGE VARIATION 60Hz

### Transient Voltage Variation @ 60Hz





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

SAE	GIUNTI A DISCO - DISC COUPLING - ACC. DISQUE						
	N	L	d	Q1	n. fori	S1	α1
6 1/2	30.2	215.9	230	6	9	60°	3
7 1/2	30.2	241.3	222.25	8	9	45°	
8	82	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°	