



## TECHNICAL DATA SHEET



## ALTERNATOR E1E13M E

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



## E1E13M E

### COMMON DATA

Rated Power at 50Hz	kVA	18,0	
Rated Power at 60Hz	kVA	21,6	
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	9,0 at 50Hz	10,8 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	0,18 at 20°C	
Rotor Winding Resistance	Ω	14,0 at 20°C	
THD at full load		<4%	
THD at no load		<4%	
Excitation at no Load	Adc	2,1	
Excitation at full Load	Adc	5,4	

### STANDARD

References	EN60034-1 ISO8528-3 EN55011
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## E1E13M E

### 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	18,0	21,6
Rated Power in Class F (105°C/40°C)	kW	16,5	19,7

### EFFICIENCY IN CL. H

4/4	83,0%	83,6%
3/4	83,5%	84,0%
2/4	81,2%	81,8%
1/4	80,2%	81,8%

### 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	91,6
	in B3/B9	kg	88,7

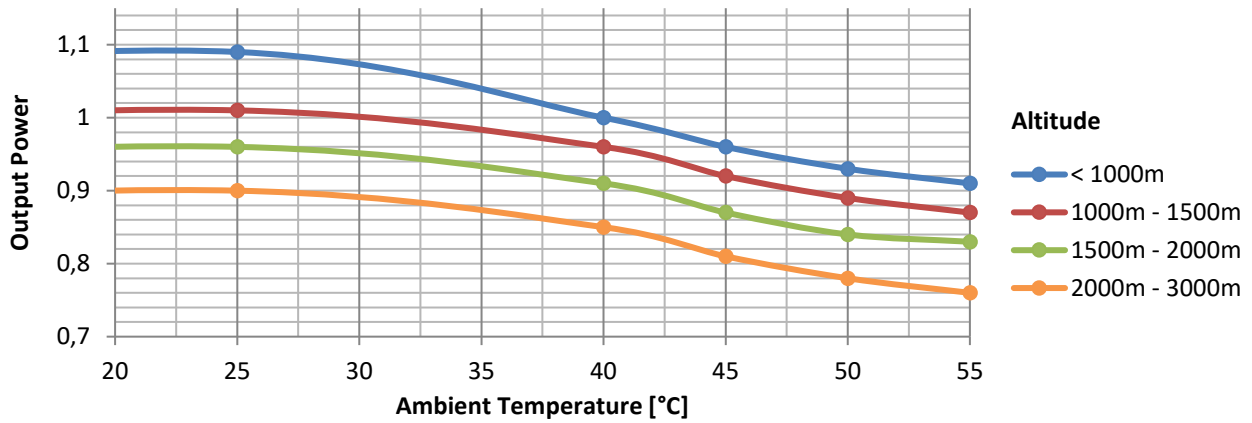


# E1E13M E

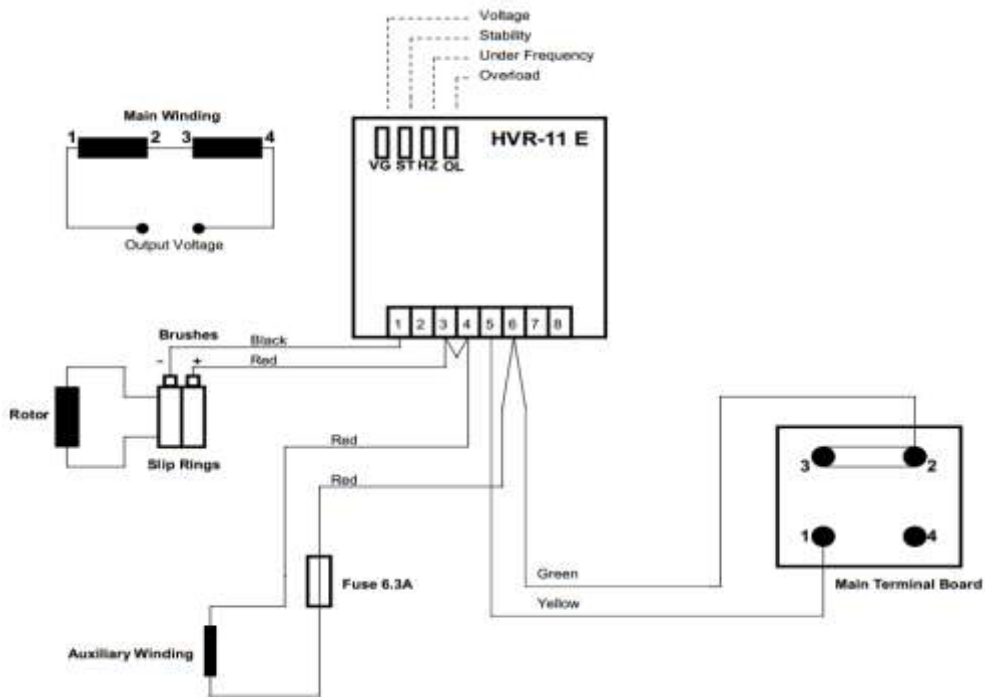
## MOMENT OF INERZIA

B3/B9	kg·m <sup>2</sup>	0,069
B3/B14	kg·m <sup>2</sup>	0,069

## DERATING CURVES



## WIRING DIAGRAM

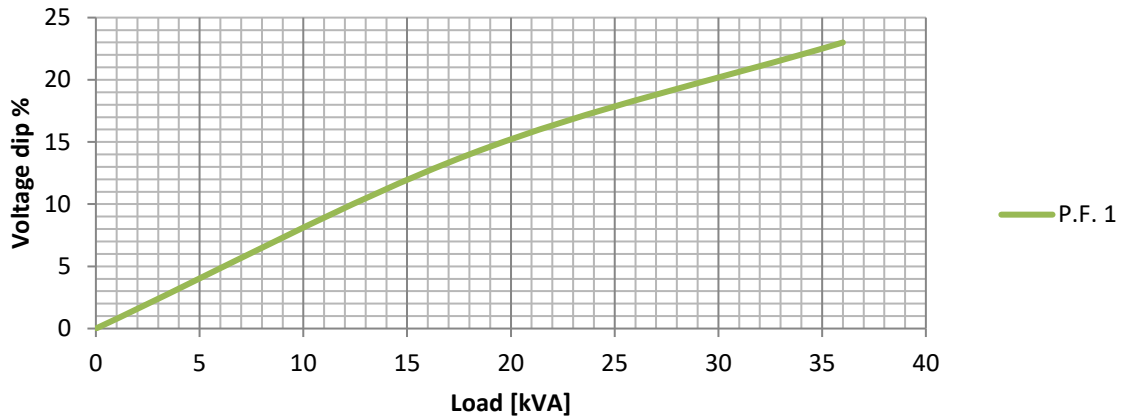




# E1E13M E

## TRANSIENT VOLTAGE VARIATION 50Hz

### Transient Voltage Variation @ 50Hz



## TRANSIENT VOLTAGE VARIATION 60Hz

### Transient Voltage Variation @ 60Hz

