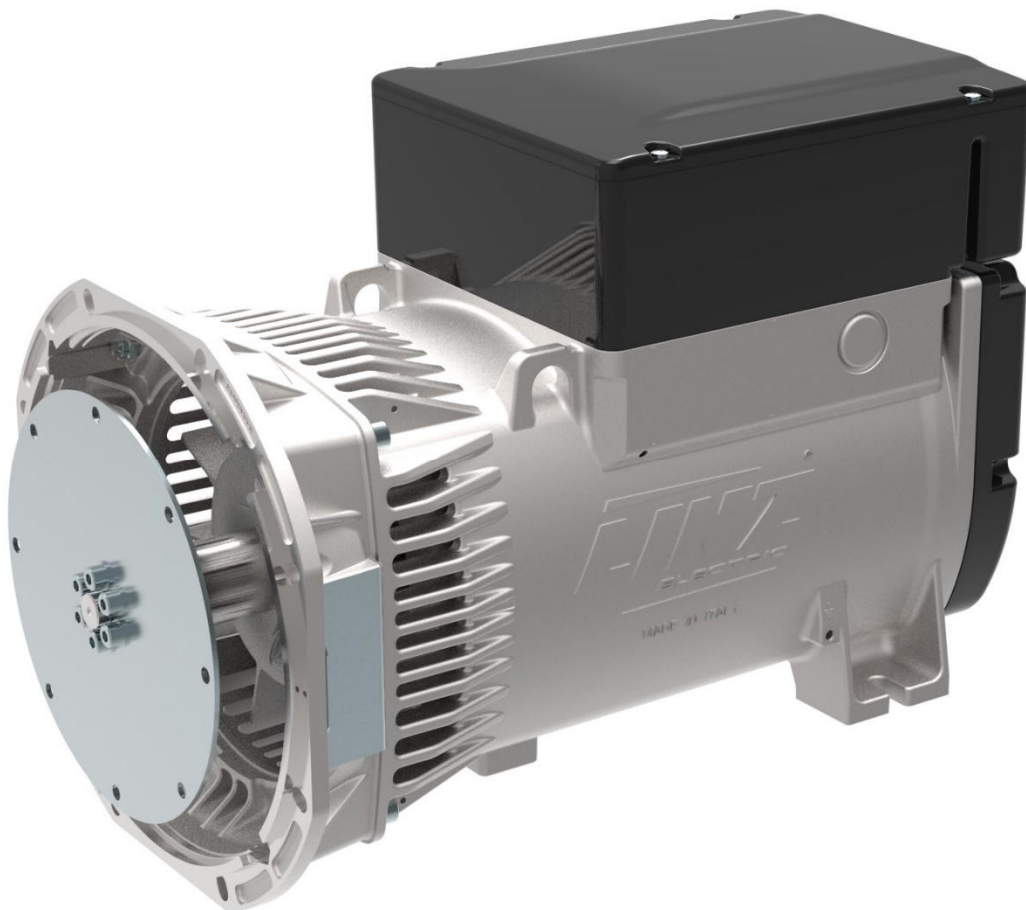


TECHNICAL DATA SHEET



**ALTERNATOR E1E13M D**

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

## E1E13M D

### COMMON DATA

Rated Power at 50Hz	kVA	15,0	
Rated Power at 60Hz	kVA	18,0	
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	9,2 at 50Hz	11,2 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	0,22 at 20°C	
Rotor Winding Resistance	Ω	12,7 at 20°C	
THD at full load		<4%	
THD at no load		<4%	
Excitation at no Load	Adc	1,8	
Excitation at full Load	Adc	5,4	

### STANDARD

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

### ELECTRICAL DATA

Frequency		50Hz - 3000rpm	60Hz - 3600rpm
Voltage Series	V	<b>115/230</b>	<b>110/220</b>
Rated Power in Class H (125°C/40°C)	kW	15,0	18,0
Rated Power in Class F (105°C/40°C)	kW	13,6	16,5

### EFFICIENCY IN CL. H

4/4	82,8%	83,3%
3/4	83,2%	83,8%
2/4	81,0%	81,5%
1/4	80,0%	81,5%

### MECHANICAL DATA

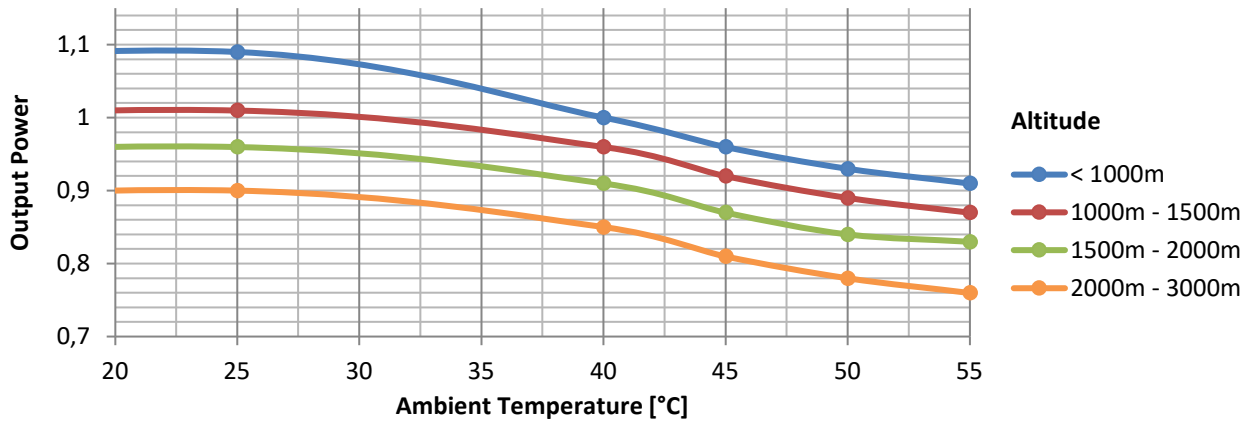
Bearing non drive end		6305-2Z-C3	
Bearing drive end (B3/B14 form)		6208-2Z-C3	
Weight of generator	in B2	kg	\
	in B3/B14	kg	80,6
	in B3/B9	kg	77,7

# E1E13M D

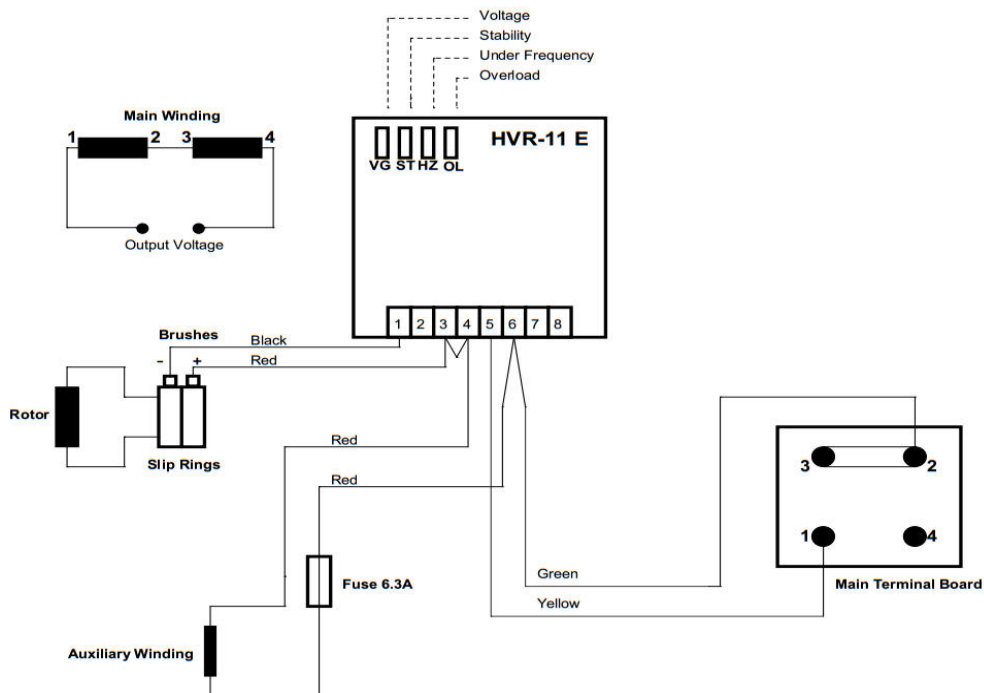
## MOMENT OF INERZIA

B3/B9	kg·m <sup>2</sup>	0,065
B3/B14	kg·m <sup>2</sup>	0,065

## DERATING CURVES



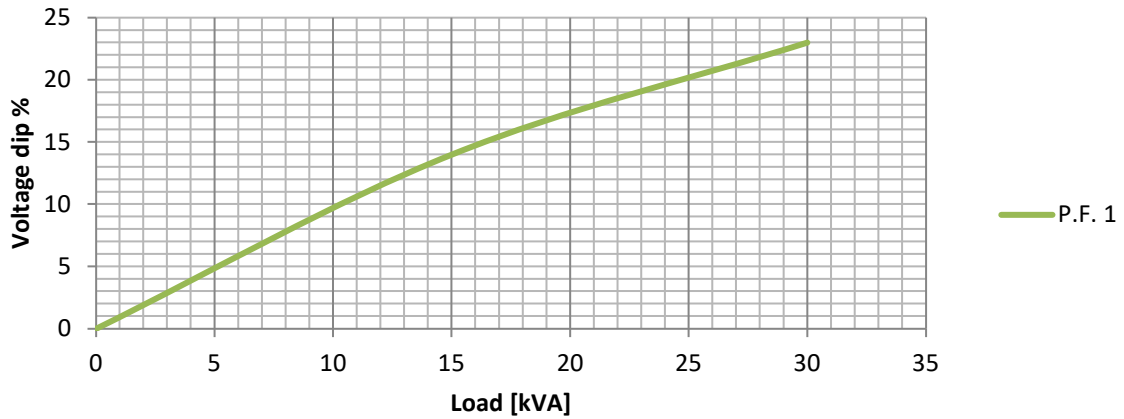
## WIRING DIAGRAM



# E1E13M D

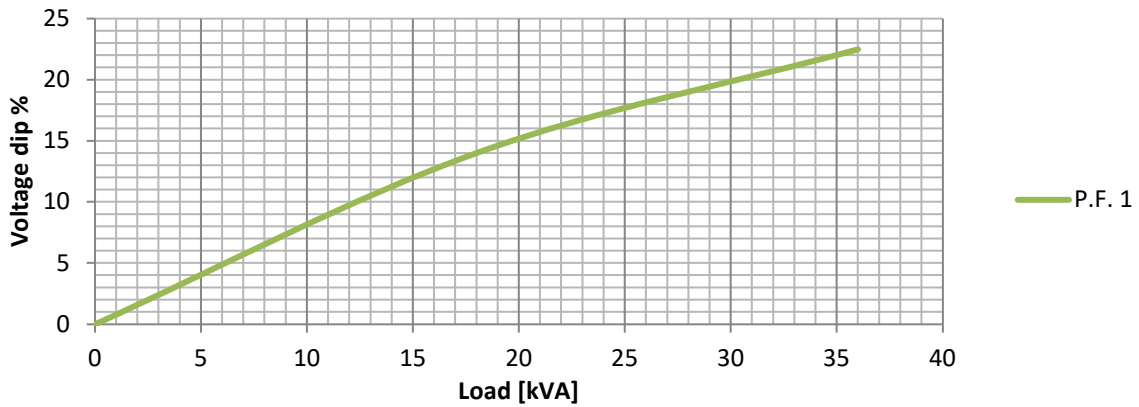
## TRANSIENT VOLTAGE VARIATION 50Hz

### Transient Voltage Variation @ 50Hz



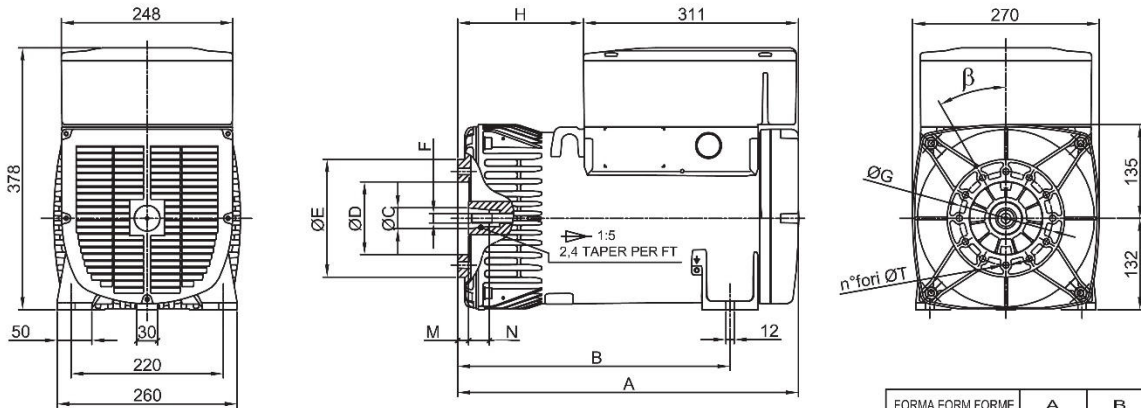
## TRANSIENT VOLTAGE VARIATION 60Hz

### Transient Voltage Variation @ 60Hz



# E1E13M D

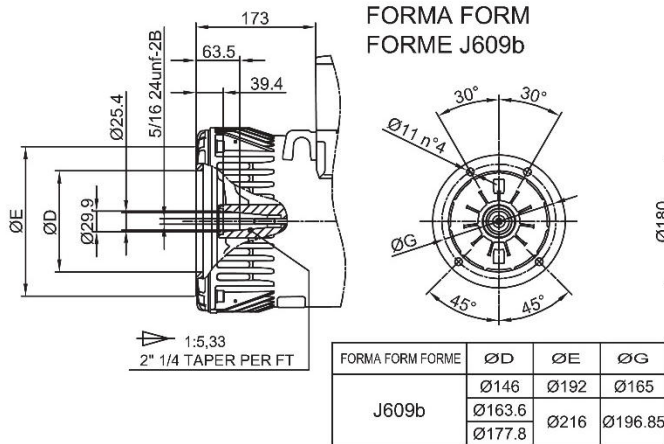
## FORMA FORM FORME B3/B9



FORMA FORM FORME	ØC	ØD	ØE	F	ØG	H	M	N	n°fori	ØT	β
cono Ø30	Ø30	Ø105	Ø170	M14x1.5	Ø135	182	16	30	12	Ø9	30°
cono Ø38	Ø38	Ø125	Ø185	M18x1.5	Ø150	173	5	30	4	Ø11	β/2 45°

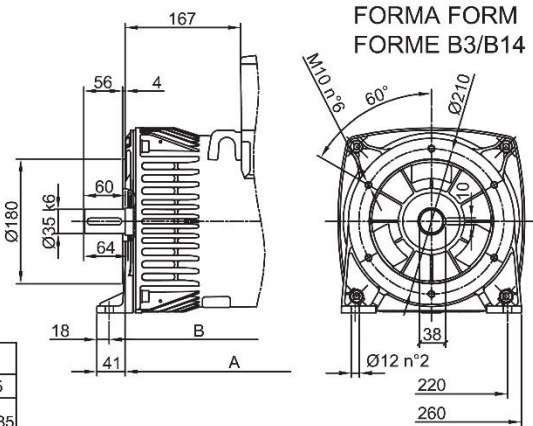
FORMA FORM FORME	A	B
B3B9 cono Ø30	493	394
B3B9 c.Ø38-J609b	484	385
B3/B14	478	402
MD35 - LOMB. STD	526	427

## FORMA FORM FORME J609b

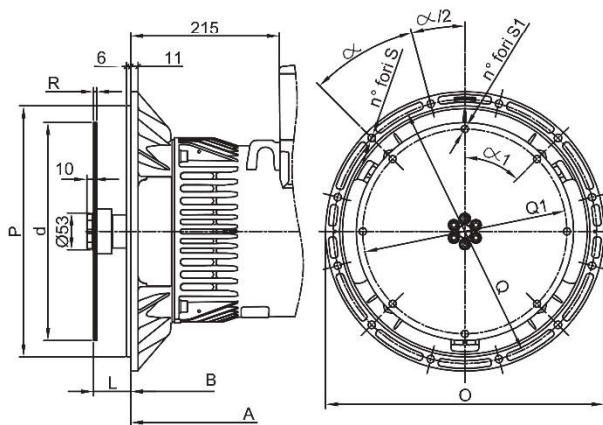


FORMA FORM FORME	ØD	ØE	ØG
J609b	Ø146	Ø192	Ø165
	Ø163.6	Ø216	Ø196.85
	Ø177.8		

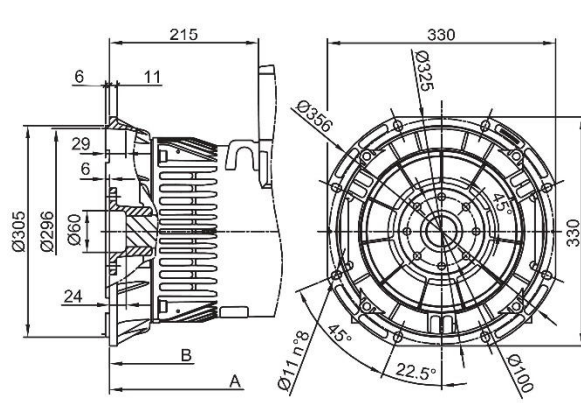
## FORMA FORM FORME B3/B14



## FORMA FORM FORME MD35



## FORMA FORM FORME LOMBARDINI STD



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

SAE N.	GIUNTI A DISCO - DISC COUPLING - ACC. DISQUE					
	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°
8	62	263.52	244.47	6	10.5	60
10	53.8	314.32	295.27	8	10.5	45°
11 1/2	39.6	352.42	333.37	8	10.5	45°