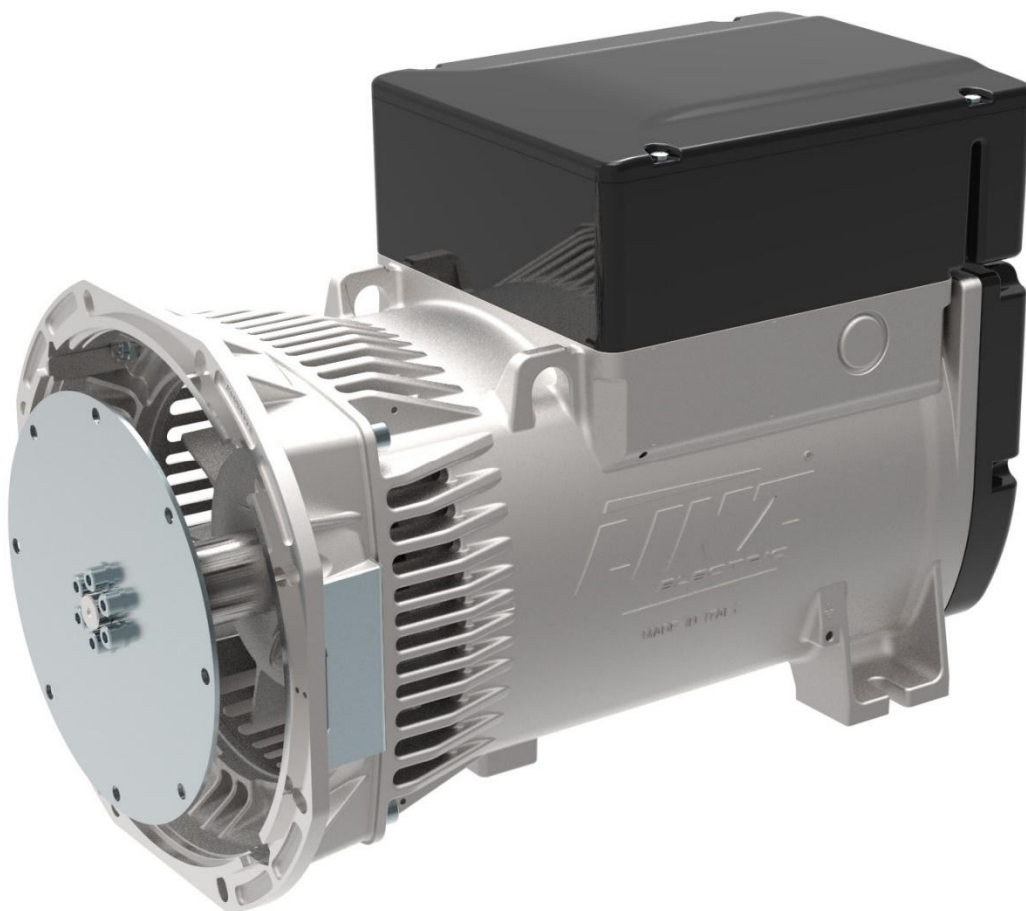


TECHNICAL DATA SHEET



**ALTERNATOR E1C13M F/4**

*Single-Phase brushless synchronous alternator with capacitor - 4 poles*

## E1C13M F/4

### COMMON DATA

Rated Power at 50Hz	kVA	12,5	
Rated Power at 60Hz	kVA	15,0	
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 <sup>3</sup> /min	4,6 at 50Hz	5,5 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	0,2 at 20°C	
Rotor Winding Resistance	Ω	1,41 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

## E1C13M F/4

### ELECTRICAL DATA

Frequency		50Hz - 1500rpm	60Hz - 1800rpm
Voltage Series Star	V	<b>115/230</b>	<b>110/220</b>
Rated Power in Class H (125°C/40°C)	kW	12,5	15,0
Rated Power in Class F (105°C/40°C)	kW	11,0	13,0
Rated Power Standby (150°C/40°C)	kW	13,5	16,0
Rated Power Standby (163°C/27°C)	kW	14,0	16,5

### EFFICIENCY IN CL. H

4/4	81,5%	81,5%
3/4	82,0%	82,5%
2/4	77,5%	79,0%
1/4	74,2%	75,5%

### MECHANICAL DATA

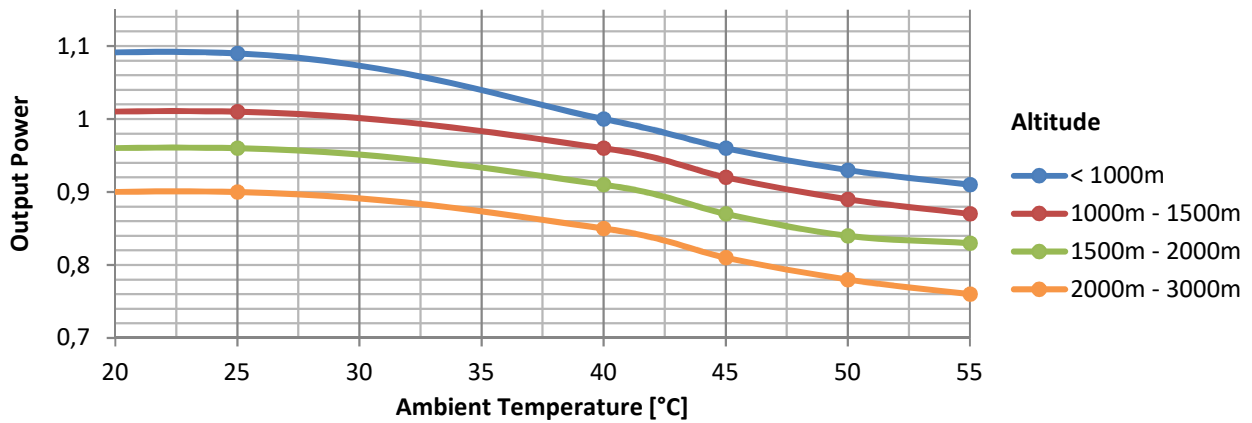
Bearing non drive end		6305-2Z-C3
Bearing drive end (B3/B14 form)		6208-2Z-C3
Weight of generator	in B2	kg 87,1
	in B3/B14	kg 83,0
	in B3/B9	kg 80,1

# E1C13M F/4

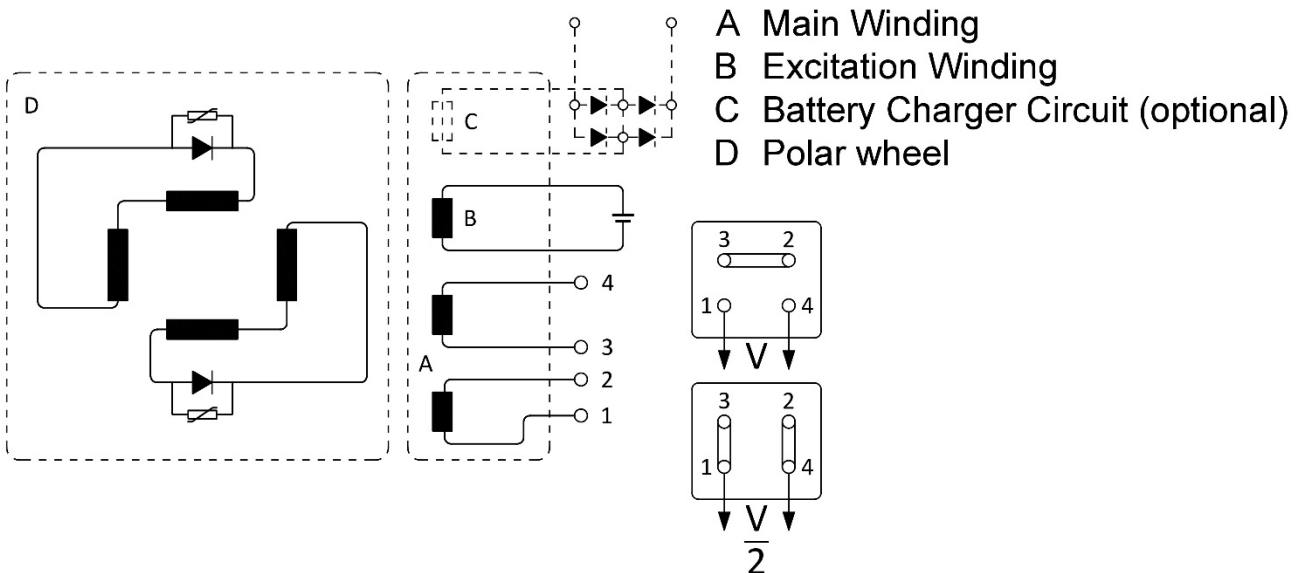
## MOMENT OF INERZIA

B3/B9	kg·m <sup>2</sup>	0,075
B2	kg·m <sup>2</sup>	0,077
B3/B14	kg·m <sup>2</sup>	0,075

## DERATING CURVES

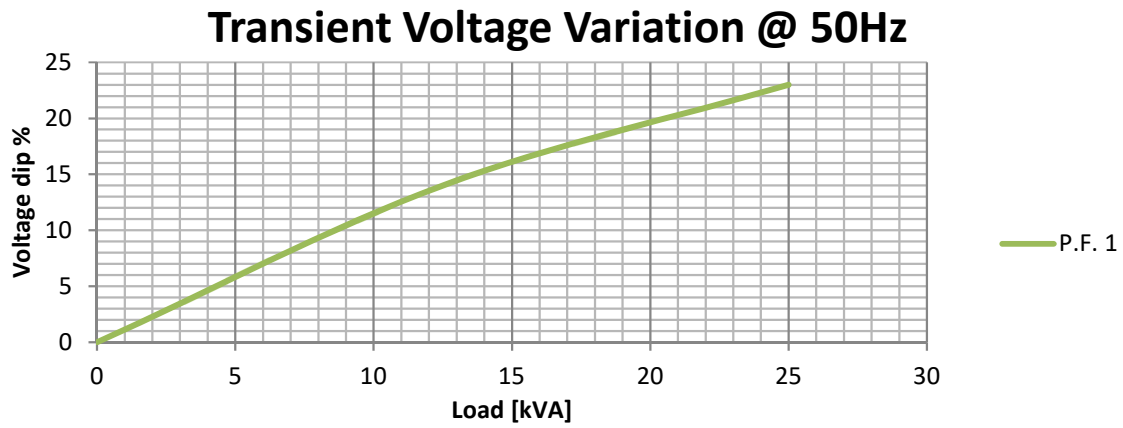


## WIRING DIAGRAM

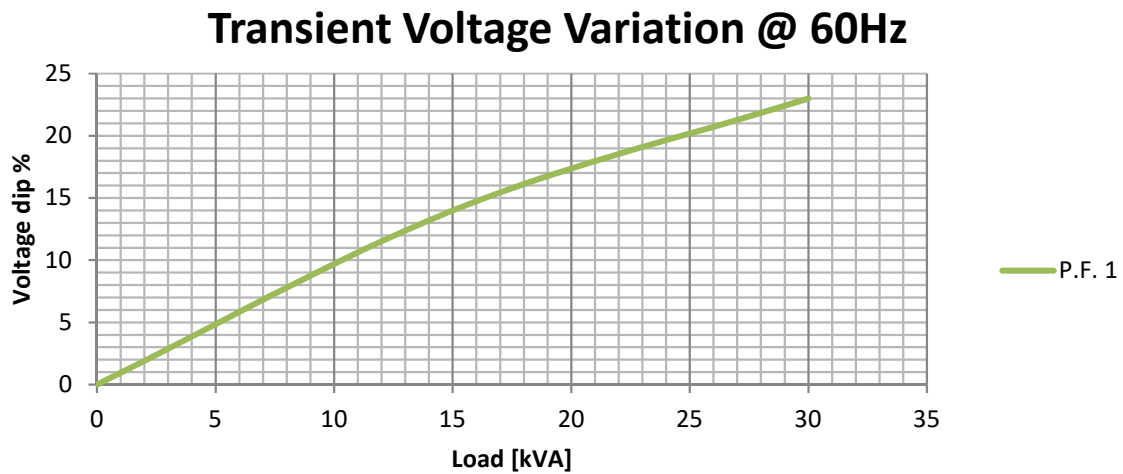


# E1C13M F/4

## TRANSIENT VOLTAGE VARIATION 50Hz



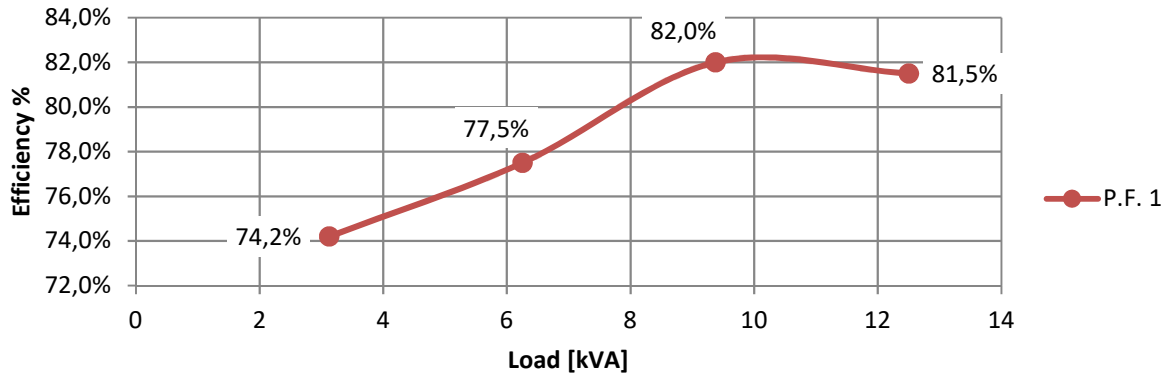
## TRANSIENT VOLTAGE VARIATION 60Hz



# E1C13M F/4

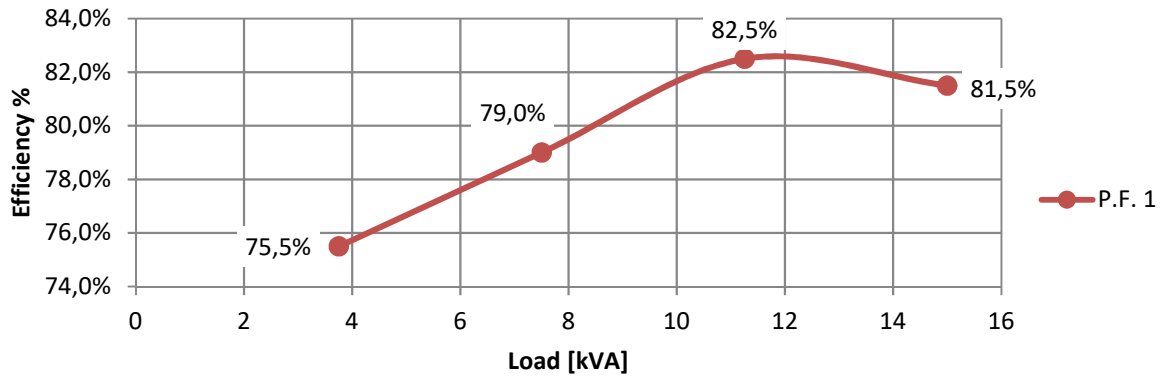
## EFFICIENCY 50Hz

### Efficiency Curves @ 50Hz



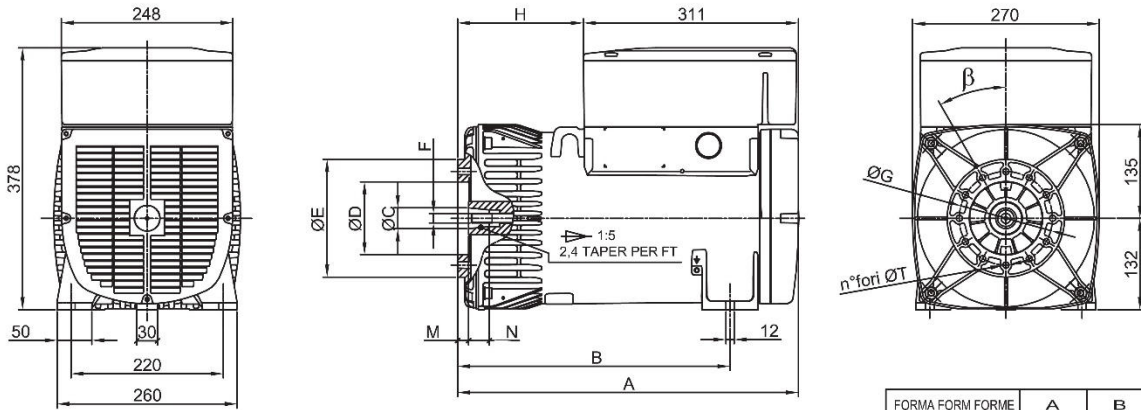
## EFFICIENCY 60Hz

### Efficiency Curves @ 60Hz



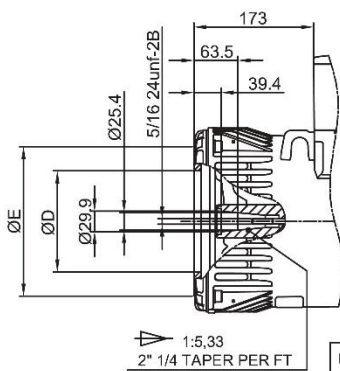
# E1C13M F/4

## FORMA FORM FORME B3/B9



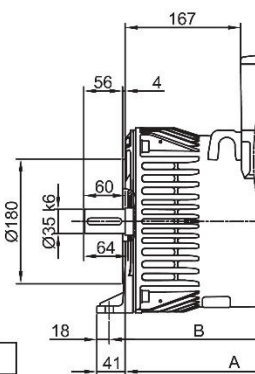
FORMA FORM FORME	ØC	ØD	ØE	F	ØG	H	M	N	n° fori	ØT	β
cono Ø30	Ø30	Ø105	Ø170	M14x1.5	Ø135	182	16	30	12	Ø9	30°
cono Ø38	Ø38	Ø125	Ø185	M18x1.5	Ø150	173	5	30	4	Ø11	β/2 45°

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



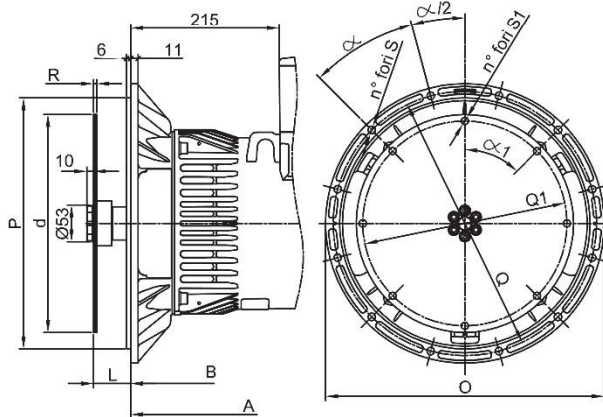
## FORMA FORM FORME J609b

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

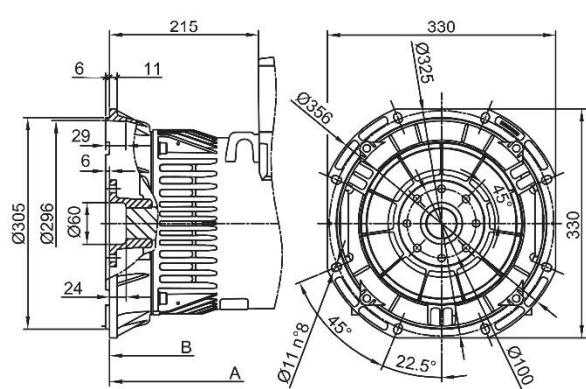


## FORMA FORM FORME B3/B14

## 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	R
6 1/2	30.2	215.9	200	6	9	60°	
7 1/2	30.2	241.3	222.25	8	9	45°	3
8	62	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°	