



## **ALTERNATOR E1C11M B**

*single-phase brushless synchronous alternator with capacitor - 2 poles*

Technical Data Sheet

## E1C11M B

### COMMON DATA

Rated Power at 50Hz	kVA	10	
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 Overspeed	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		0.286 at 20°C	
Rotor Winding Resistance		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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## 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		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

# E1C11M B

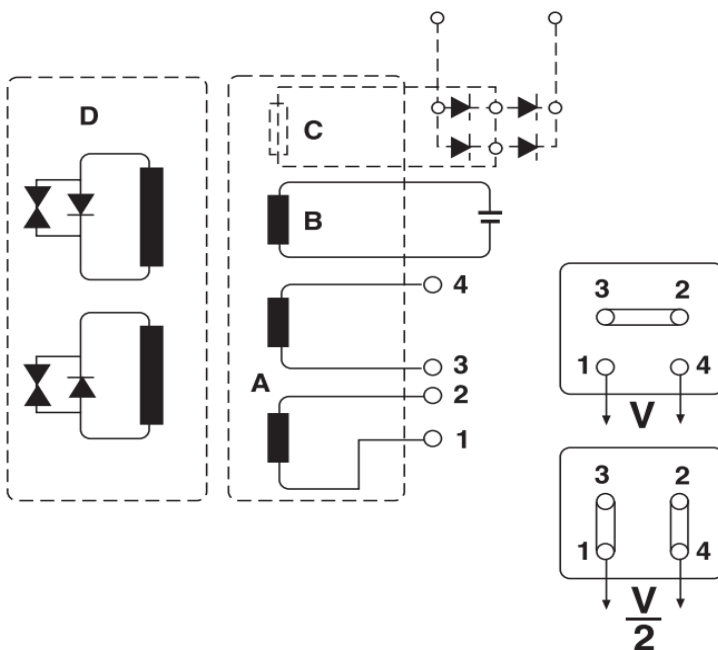
**MOMENT OF INERZIA**

B3/B9	kg·m <sup>2</sup>	0.025
B3/B14	kg·m <sup>2</sup>	0.025

**POWER VARIATION ACCORDING TO TEMPERATURE AND ALTITUDE**

Altitude	Ambient temperature				
	25°C	40°C	45°C	50°C	55°C
< 1000m	1.09	1	0.96	0.93	0.91
1000m - 1500m	1.01	0.96	0.92	0.89	0.87
1500m - 2000m	0.96	0.91	0.87	0.84	0.83
2000m - 3000m	0.9	0.85	0.81	0.78	0.76

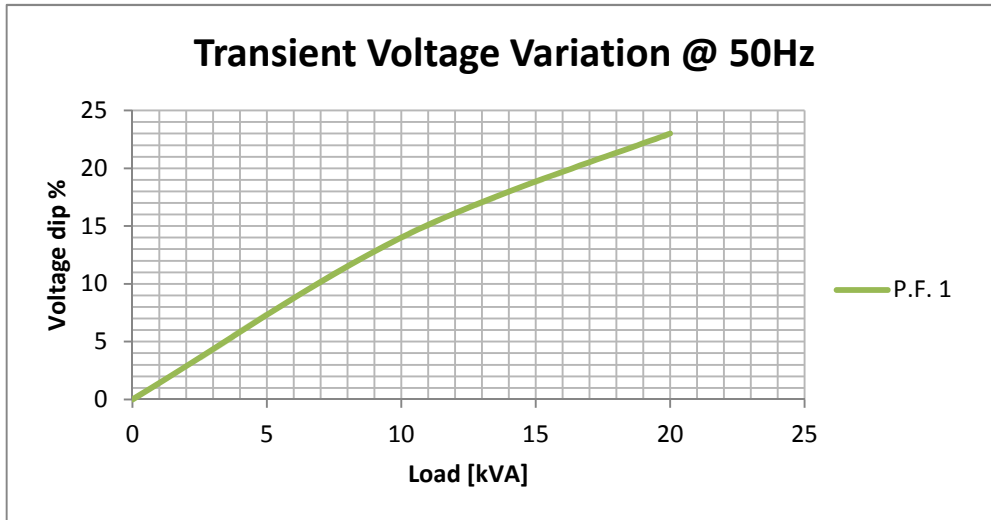
**WIRING DIAGRAM**



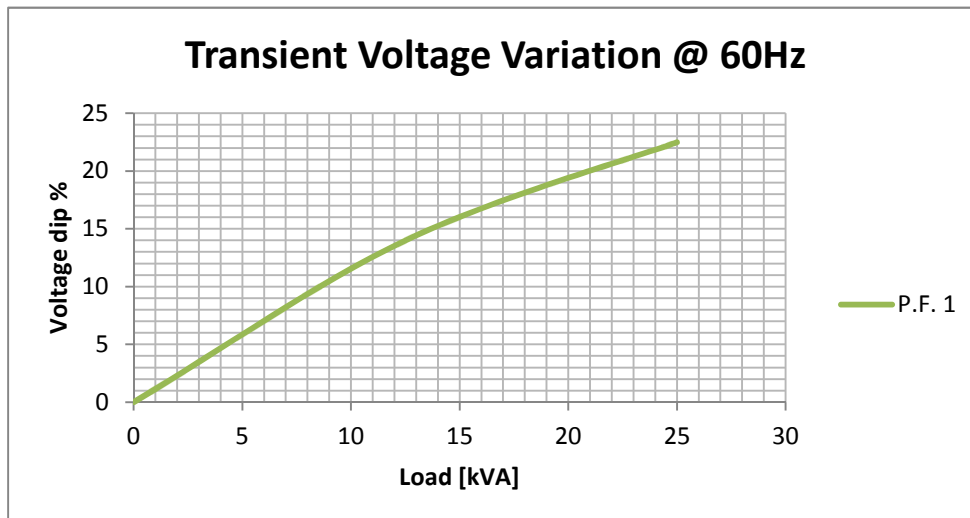
- A Main Winding**
- B Excitation Winding**
- C Battery Charger Circuit**
- D Polar wheel**

# E1C11M B

## TRANSIENT VOLTAGE VARIATION 50Hz

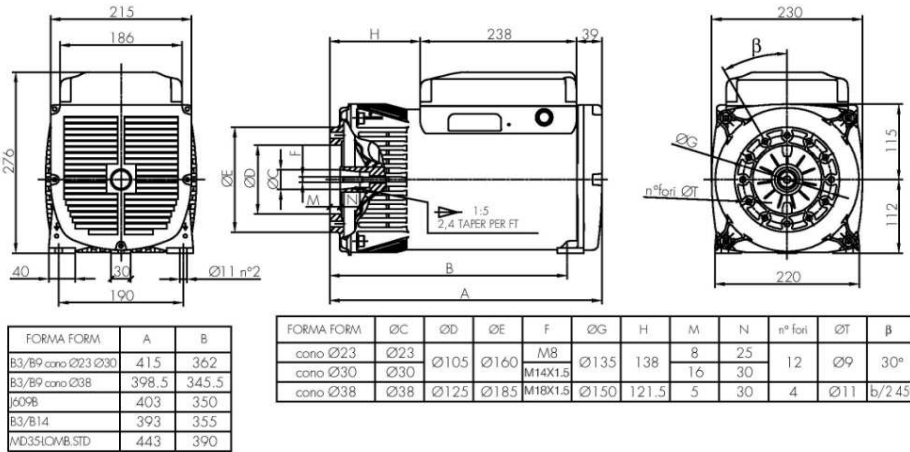


## TRANSIENT VOLTAGE VARIATION 60Hz

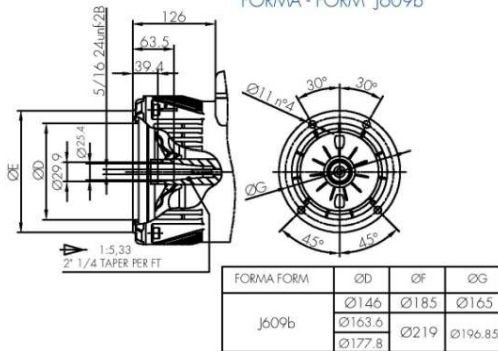


# E1C11M B

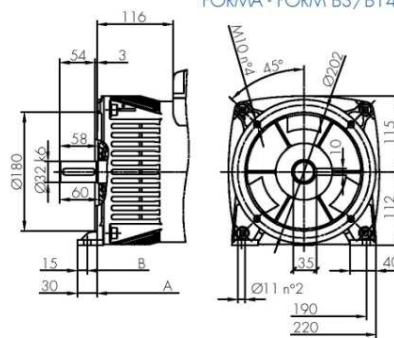
FORMA - FORM B3/B9



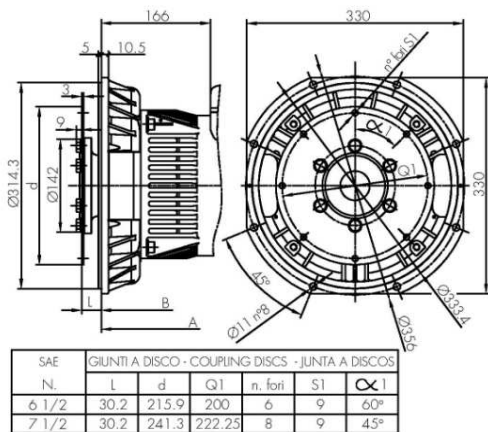
FORMA - FORM J609b



FORMA - FORM B3/B14



FORMA - FORM MD35



FORMA - FORM LOMBARDINI STD

