



ALTERNATOR E1C13M E/2

single-phase brushless synchronous alternator with capacitor - 2 poles

Technical Data Sheet

E1C13M E/2

COMMON DATA

Rated Power at 50Hz	kVA	18	
Rated Power at 60Hz	kVA	22	
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 ³ /min	9 at 50Hz	10.8 at 60Hz
R.F.I. Suppression		Standard EN55011	

REGULATION DATA

capacitor		Capacitor with aluminium Technology	
Capacitor	µF	40+40+40	
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		0.155 at 20°C	
Rotor Winding Resistance		5.87 at 20°C	
THD at full load		<5%	
THD at no load		<5%	

STANDARD

References		EN60034-1 ISO8528-3 EN55011	
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ELECTRICAL DATA

Frequency		50Hz - 3000rpm		60Hz - 3600rpm	
Voltage Series Star	V		115/230		110/220
Rated Power in Class H (125°C/40°C)	kW		18		22
Rated Power in Class F (105°C/40°C)	kW		16.5		20

EFFICIENCY IN CL. H

4/4		81.0%			82.1%
3/4		81.4%			82.6%

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	91.3
	in B3/B9	kg	88.4

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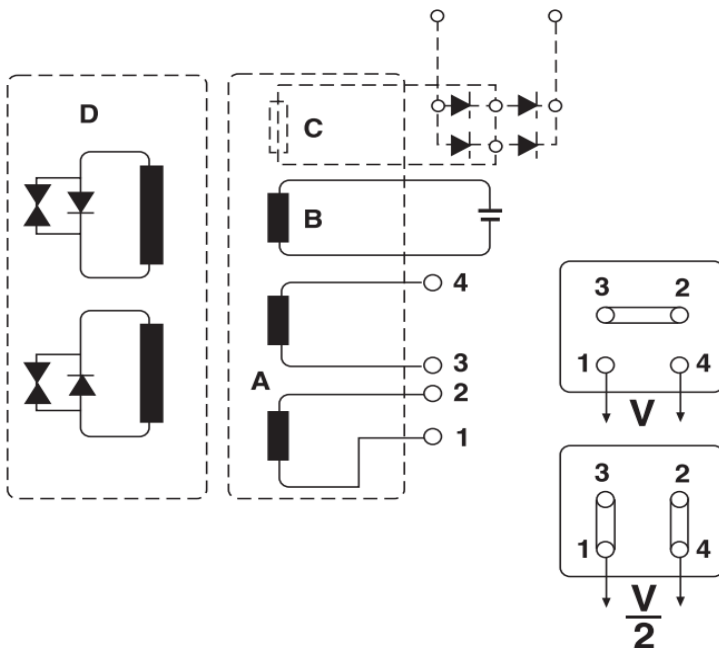
MOMENT OF INERZIA

B3/B9	kg·m ²	0.069
B3/B14	kg·m ²	0.069

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

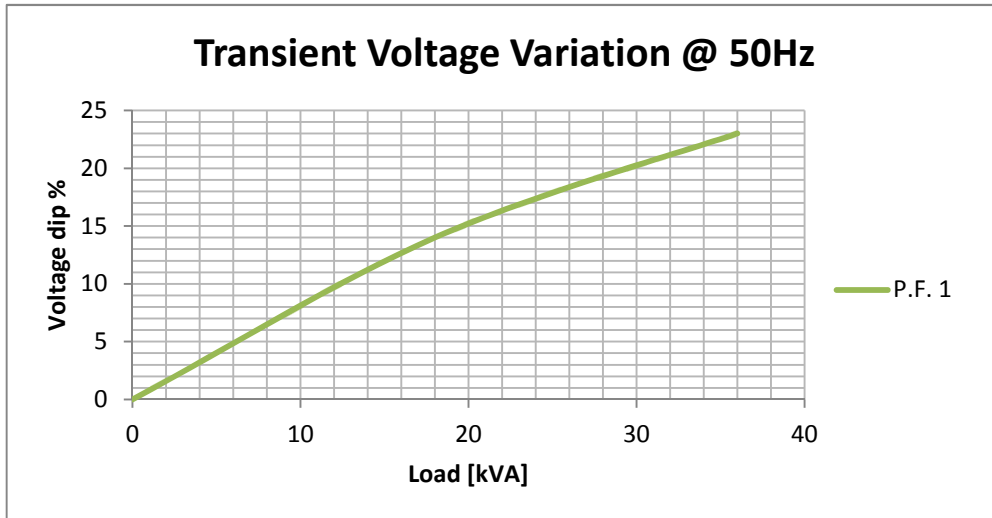
WIRING DIAGRAM



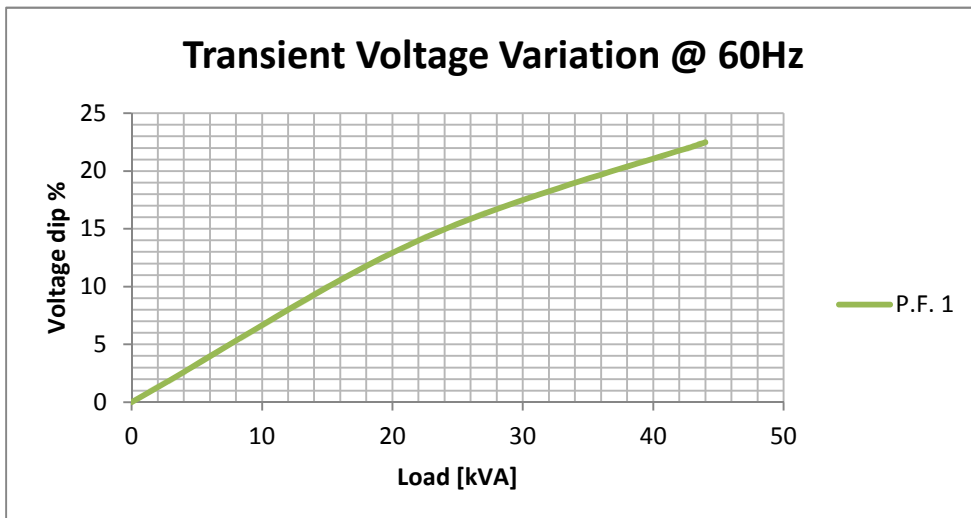
- A Main Winding**
- B Excitation Winding**
- C Battery Charger Circuit**
- D Polar wheel**

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TRANSIENT VOLTAGE VARIATION 50Hz

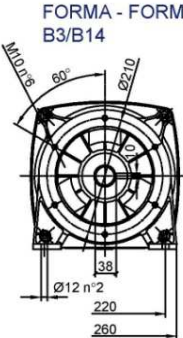
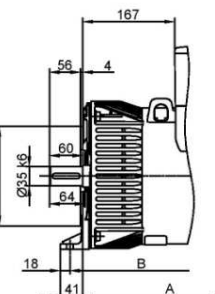
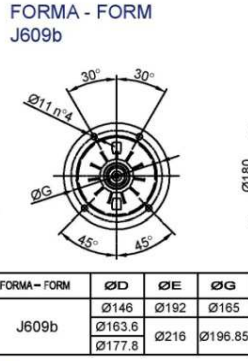
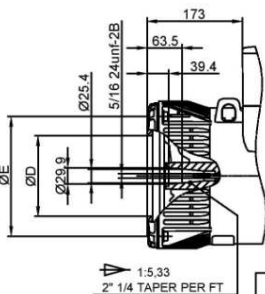
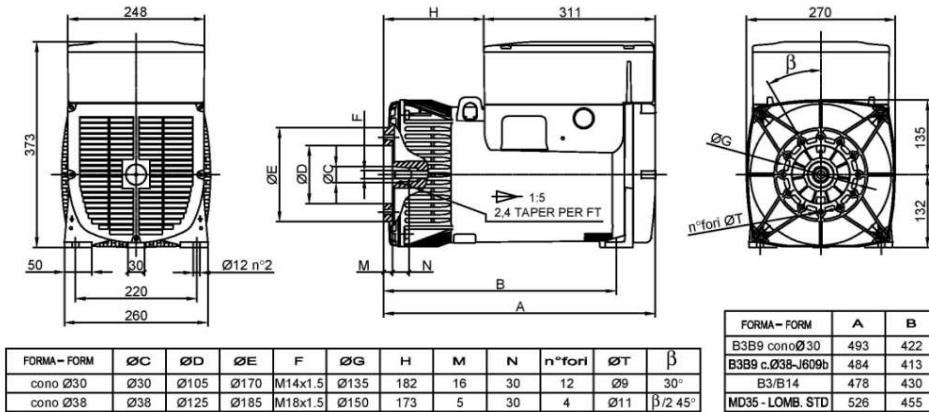


TRANSIENT VOLTAGE VARIATION 60Hz

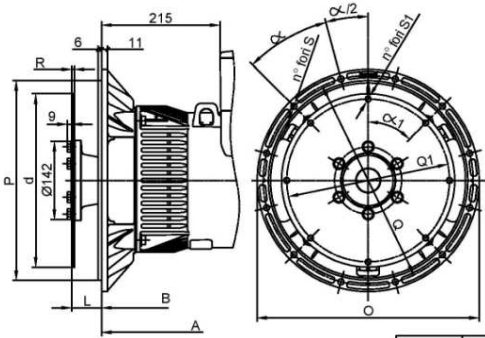


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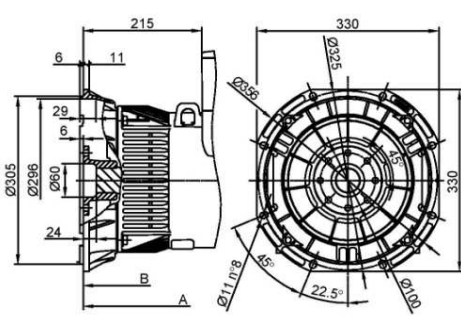
FORMA - FORM B3/B9



FORMA - FORM MD35



FORMA - FORM LOMBARDINI STD



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

SAE		GIUNTI A DISCO - COUPLING DISCS - JUNTAS A DISCOS						
N.	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°		