



ALTERNATOR E1C13S A/4

Single-phase brushless synchronous alternator with capacitor - 4 poles

Technical Data Sheet

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COMMON DATA

Rated Power at 50Hz	kVA	5.5	
Rated Power at 60Hz	kVA	7	
Rated Power Factor		1	
Nominal Temperature	°C	40	
Control System		Self excited	
Execution		brushless	
Regulation Type		capacitor	
Insulation Class		H	
Protection		IP23	
Maximum Overspeed	rpm	2250	
Overload		110% of rated power for one hour in a cycle of 6 hours	
Air Flow Requirement	m ³ /min	3.1 at 50Hz	3.6 at 60Hz
Telephone Interference		<2%	
R.F.I. Suppression		Standard EN55011	

REGULATION DATA

capacitor	Aluminium technology	
Sensing	Single phase	
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 Winding	4	
Stator Winding Resistance	0.25Ω at 20°C	
Rotor Winding Resistance	1.52Ω at 20°C	
Auxiliary Stator Resistance	1.6Ω at 20°C	
THD at full load	<7%	
THD at no load	<5%	

STANDARD

References	EN60034-1, ISO8538, EN55011
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ELECTRICAL DATA

Frequency		50Hz - 1500rpm		60Hz - 1800rpm	
Voltage Series Delta	V	115/230		110/220	
Rated Power in Class H (125°C/40°C)	kW	5.5		7	
Rated Power in Class F (105°C/40°C)	kW	5		6.5	
Rated Power Standby (150°C/40°C)	kW	5.8		7.5	
Rated Power Standby (163°C/27°C)	kW	6		7.8	

EFFICIENCY IN CL. H

4/4	77.0%			78.0%	
3/4	78.0%			78.5%	
2/4	73.0%			74.0%	
1/4	71.5%			72.0%	

MECHANICAL DATA

Bearing non drive end	6305-2Z-C3				
Bearing drive end (B3/B14 form)	6208-2Z-C3				
Weight of generator	in B2	kg	51.1		
	in B3/B14	kg	47		

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MOMENT OF INERZIA

SAE	kg·m ²	0.048
B3/B14	kg·m ⁴	0.044

POWER VARIATION ACCORDING TO TEMPERATURE AND ALTITUDE

Ambient temperature					
Altitude	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

DIMENSIONS

FORMA - FORM B3/B9

FORMA - FORM	ØD	ØE	ØG	F	ØG	H	M	N	n°fori	ØT	β
cono Ø30	Ø105	Ø170	M14x1.5	Ø135	92	16	30	12	Ø9	30°	
cono Ø38	Ø125	Ø185	M18x1.5	Ø150	83	5	30	4	Ø11	β/2 45°	

FORMA - FORM J609b

FORMA - FORM	ØD	ØE	ØG
J609b	Ø148	Ø192	Ø165
	Ø163,6	Ø216	Ø196,85
	Ø177,8		

FORMA - FORM B3/B14

FORMA - FORM MD35

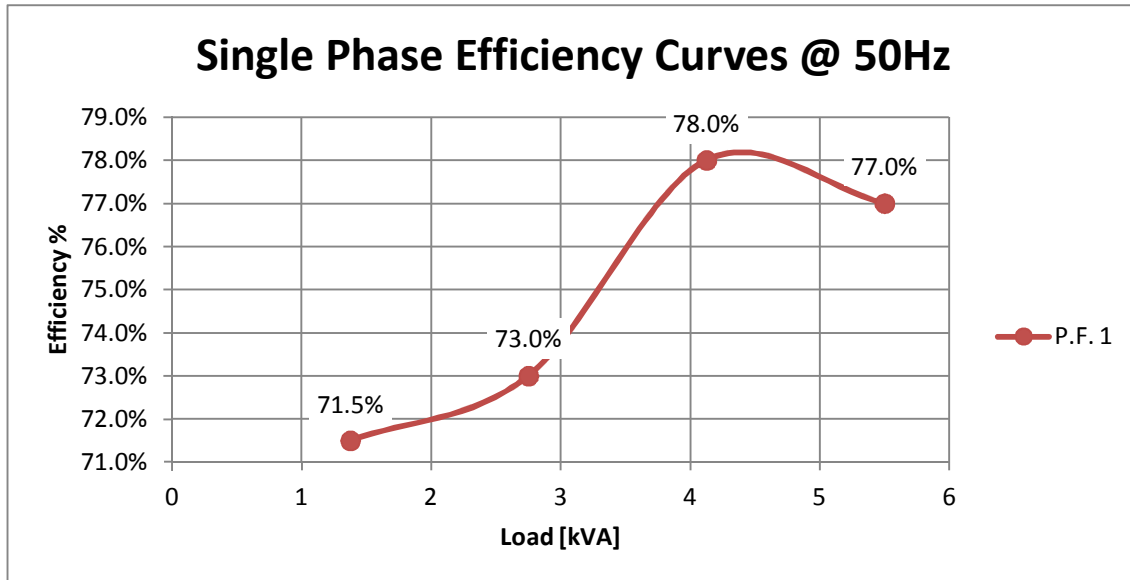
FORMA - FORM LOMBARDINI STD

SAE	FLANGE - FLANGES - BRIDAS				
N.	Ø	P	Q	n. fori	Ø
5	356	314,3	333,4	8	45°
4	403	362	381	12	30°
3	451	409,6	428,6	12	30°

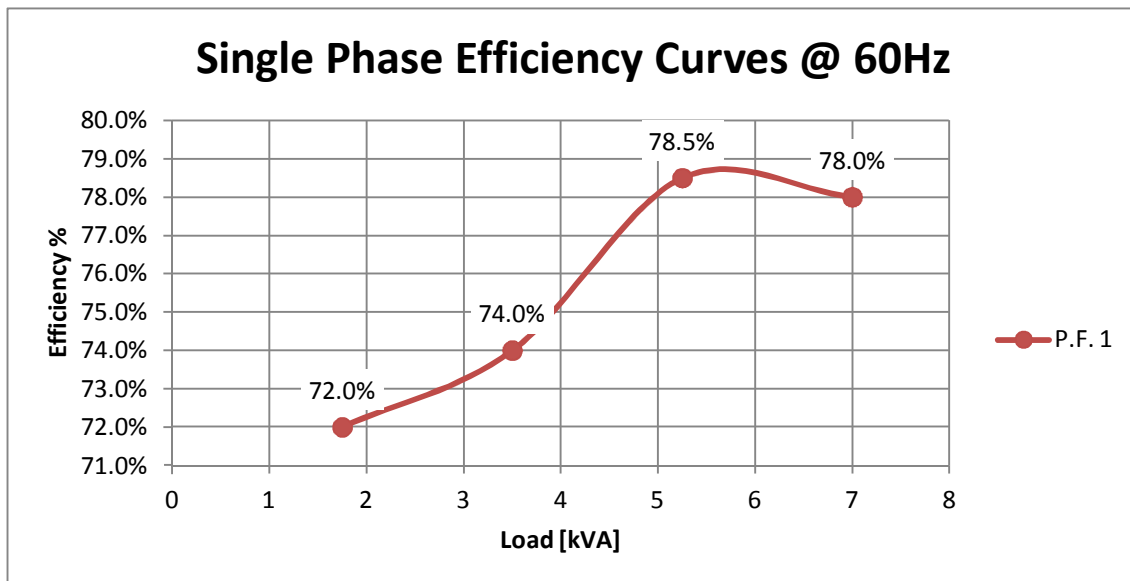
SAE	GIUNTI A DISCO - COUPLING DISCS - JUNTAS A DISCOS					
N.	L	d	Q1	n. fori	Ø1	Ø1
6 1/2	30,2	215,9	200	6	9	60°
7 1/2	30,2	241,3	222,25	8	9	45°
8	62	263,52	244,47	6	10,5	60°
10	53,8	314,32	295,27	8	10,5	45°
11 1/2	38,5	352,42	333,37	8	10,5	45°

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EFFICIENCY 50Hz

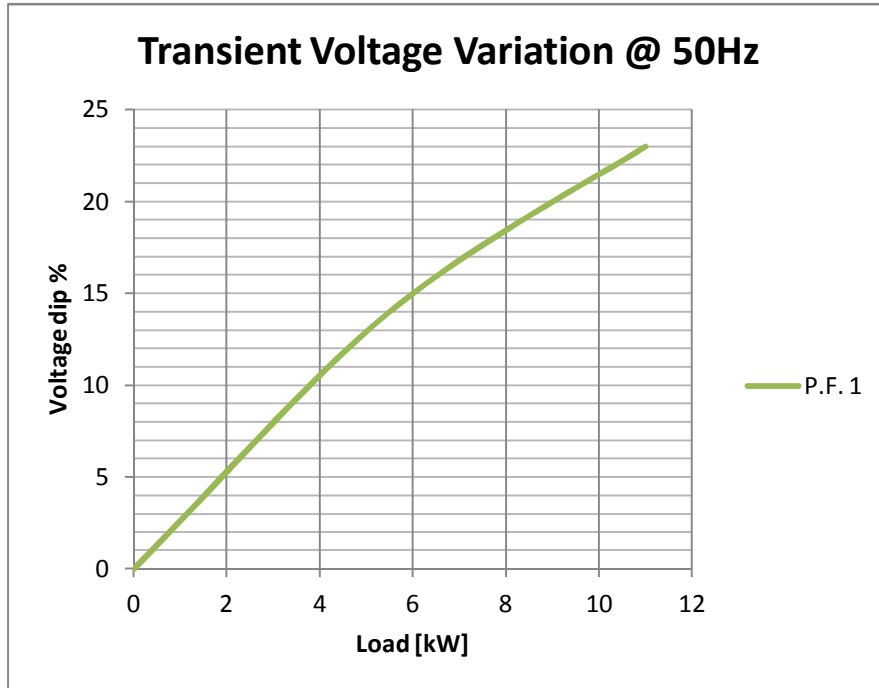


EFFICIENCY 60Hz



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TRANSIENT VOLTAGE VARIATION 50Hz



TRANSIENT VOLTAGE VARIATION 60Hz

