



## **ALTERNATOR E1C13S C/4**

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

Technical Data Sheet

**E1C13S C/4**

**COMMON DATA**

Rated Power at 50Hz	kVA	8	
Rated Power at 60Hz	kVA	9.75	
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 <sup>3</sup> /min	5.1 at 50Hz	6.1 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	(50Hz)	0.41Ω at 20°C
Rotor Winding Resistance		1.83Ω at 20°C
Auxiliary Stator Resistance	(50Hz)	1.44Ω at 20°C
THD at full load		< 7%
THD at no load		< 7%

**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	8		9.75	
Rated Power in Class F (105°C/40°C)	kW	7.3		8.8	
Rated Power Standby (150°C/40°C)	kW	8.8		10.5	
Rated Power Standby (163°C/27°C)	kW	9.2		11	

**EFFICIENCY IN CL. H**

4/4	79.0%			80.0%	
3/4	80.0%			80.5%	
2/4	74.0%			74.6%	
1/4	70.0%			71.0%	

**MECHANICAL DATA**

Bearing non drive end	6305-2Z-C3				
Bearing drive end (B3/B14 form)	6208-2Z-C3				
Weight of generator	in B2	kg	64.1		
	in B3/B14	kg	60		
	in B3/B9	kg	57.1		

**E1C13S C/4**

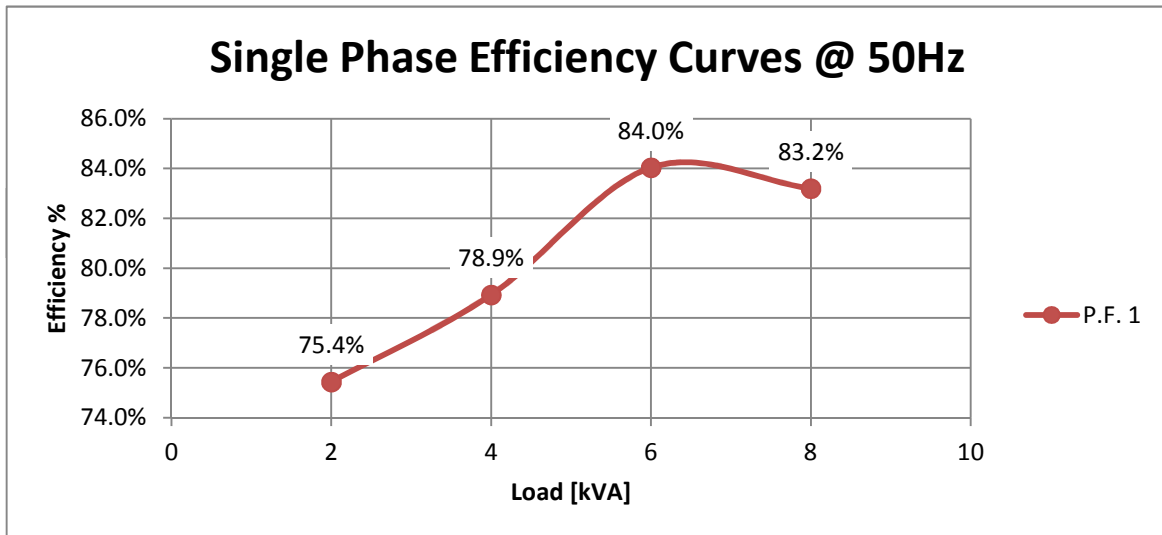
**MOMENT OF INERZIA**

B2	kg·m <sup>2</sup>	0.061
B3/B14	kg·m <sup>2</sup>	0.055

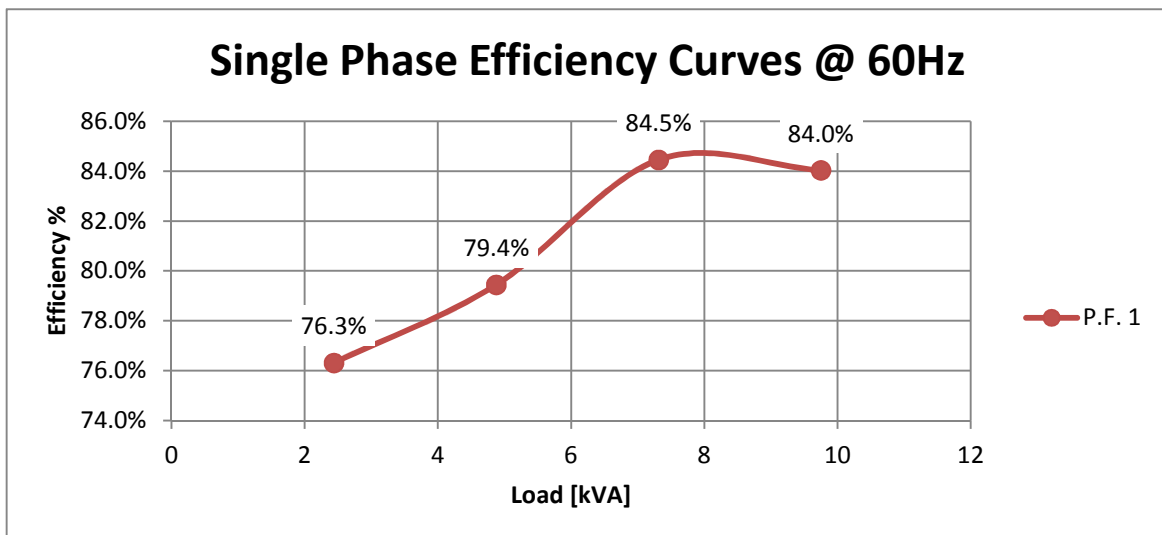
**POWER VARIATION ACCORDING TO TEMPERATURE AND ALTITUDE**

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

**EFFICIENCY 50Hz**

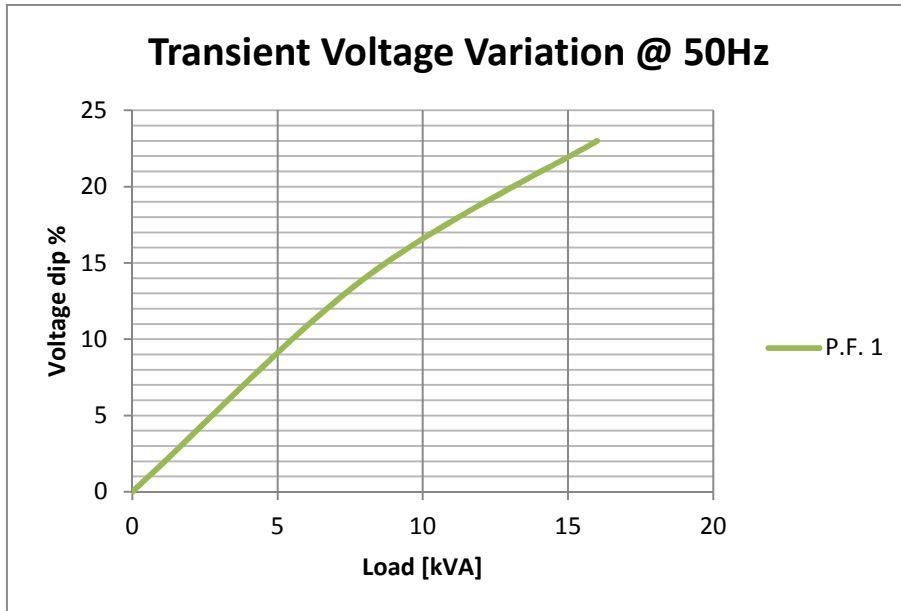


**EFFICIENCY 60Hz**

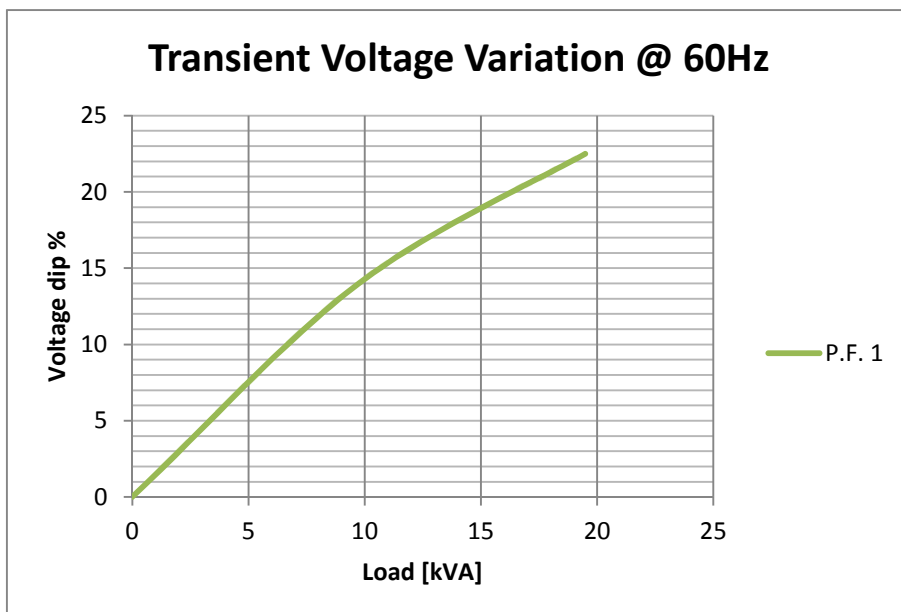


**E1C13S C/4**

**TRANSIENT VOLTAGE VARIATION 50Hz**

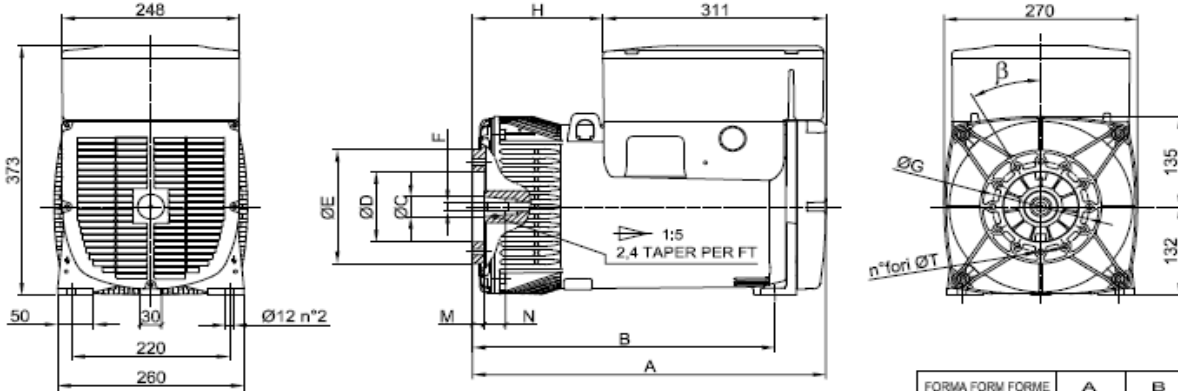


**TRANSIENT VOLTAGE VARIATION 60Hz**



**E1C13S C/4**

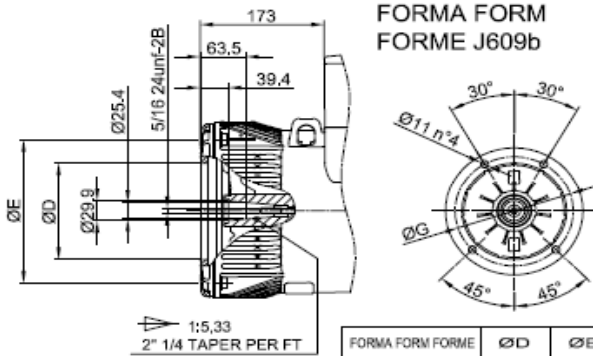
**FORMA FORM FORME B3/B9**



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°

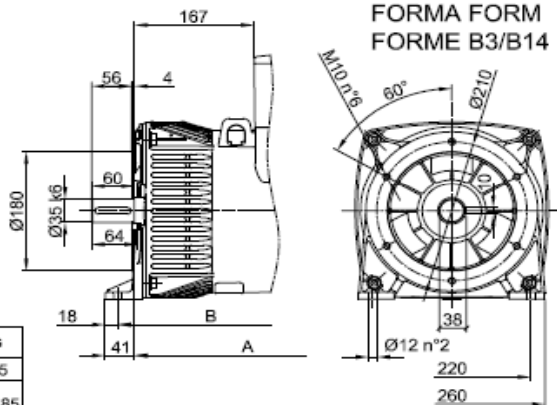
FORMA FORM FORME	A	B
B3B9 cono Ø30	493	422
B3B9 c.Ø38-J609b	484	413
B3/B14	478	430
MD35 - LOMB. STD	526	455

**FORMA FORM FORME J609b**

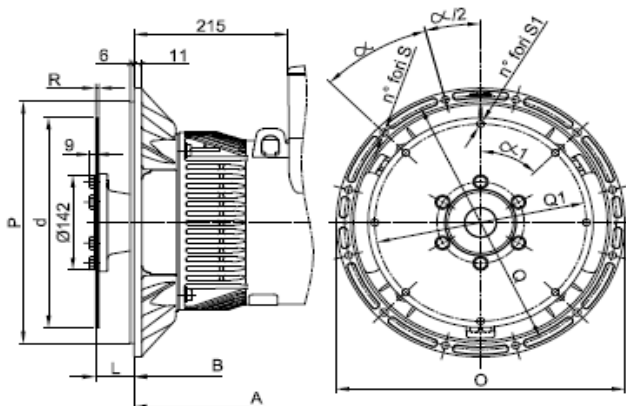


FORMA FORM FORME	ØD	ØE	ØG
J609b	Ø146	Ø192	Ø165
	Ø163.6	Ø216	Ø196.85
	Ø177.8		

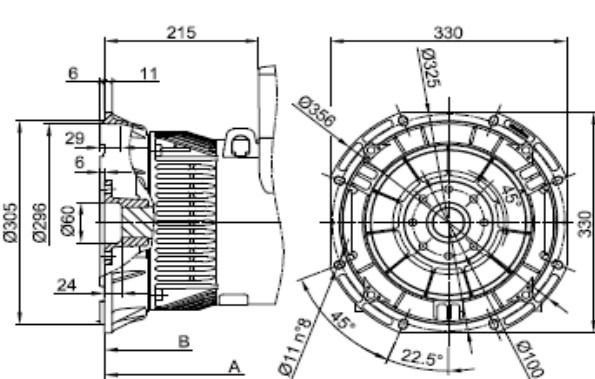
**FORMA FORM FORME B3/B14**



**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	11
4	403	362	381	12	11
3	451	409.6	428.6	12	11

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°	3
7 1/2	30,2	241,3	222,25	8	9	45°	3
8	62	263,52	244,47	6	10,5	60	3
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°	4.5