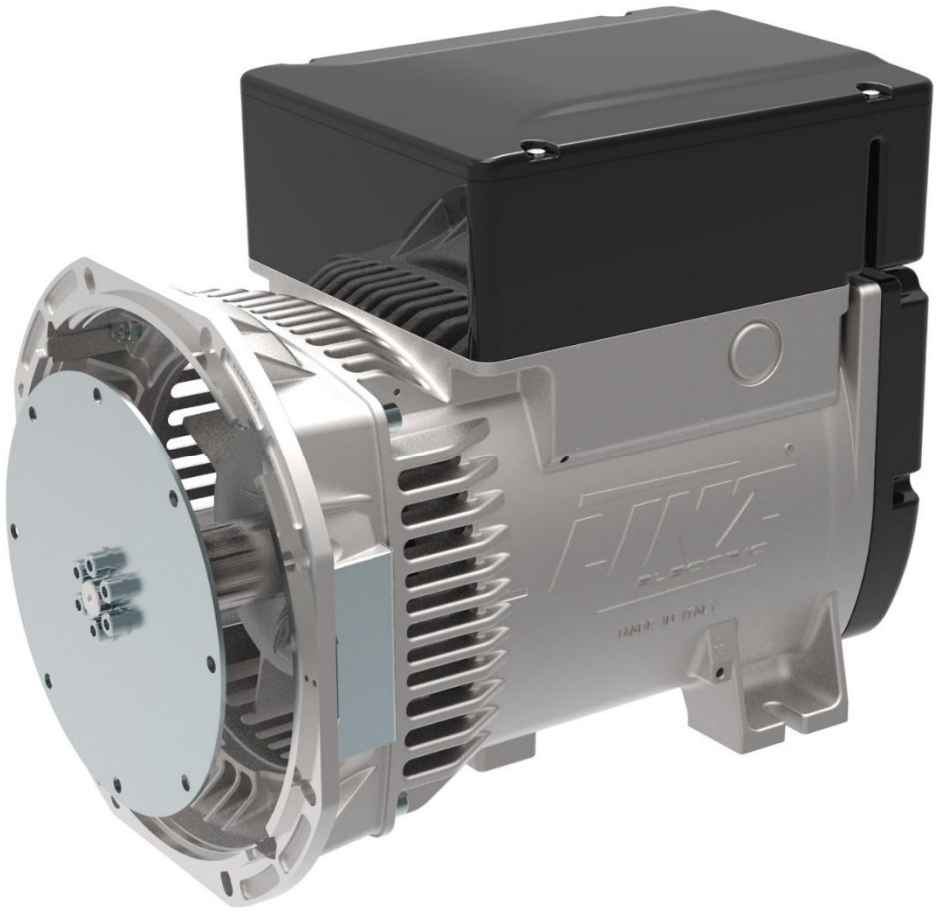
TECHNICAL DATA SHEET



ALTERNATOR E1S13S C/2

Three-Phase synchronous alternator with brushes and compound - 2 poles

E1S13S C/2

COMMON DATA

Rated Power at 50Hz	kVA	16,0	
Rated Power at 60Hz	kVA	19,2	
Rated Power Factor		0,8	
Nominal Temperature	°C	40	
Control System		self-excited	
Execution		with brushes	
Regulation Type		compound	
Insulation Class		H	
Protection		IP21	
Maximum Over speed	rpm	4500	
Overload		110% of rated power for one hour in a cycle of 6 hours	
Air Flow Requirement	m^3/min	9,4 at 50Hz	11,2 at 60Hz
R.F.I. Suppression		Standard EN55011	

REGULATION DATA

Compound	Compound
Voltage Regulation	±4%
Sustained Short Circuit	\

WINDING DATA

Stator Winding		Double layer
Rotor Winding		with damping cage
Number of Leads of Stator		6
Stator Winding Resistance	Ω	0,48 at 20°C
Rotor Winding Resistance	Ω	10,26 at 20°C
THD at full load		<4% (L-L)
THD at no load		<3% (L-L)
Excitation at no Load	Adc	2,3
Excitation at full Load	Adc	7,75

STANDARD

References	EN60034-1 ISO8528-3 EN55011

ON REQUEST

UL 1446, Systems of Insulating Materials - General CSA-C22.2 No. 0, Appendix B, General Requirements - Canadian Electrical Code, Part I

E1S13S C/2

ELECTRICAL DATA

Frequency		50Hz - 3000rpm	60Hz - 3600rpm
Voltage Series Star	V	**400/230**	**480/277**
Rated Power in Class H (125°C/40°C)	kVA	16,0	19,2
	kW	12,8	15,36
Rated Power in Class F (105°C/40°C)	kVA	14,5	17,5
	kW	11,6	14,0
Rated Power Standby (150°C/40°C)	kVA	17,5	21,0
	kW	14,0	16,8
Rated Power Standby (163°C/27°C)	kVA	18,0	21,5
	kW	14,4	17,2

EFFICIENCY IN CL. H

4/4	85,0%	85,5%
3/4	85,5%	85,7%
2/4	80,7%	81,2%
1/4	77,3%	78,0%

REACTANCES AND TIME CONSTANTS

Pcc		0,41
Xd	- dir. axis synchronous	382%
X'd	- dir. axis transient	26,0%
X''d	- dir. axis subtransient	10,0%
X_q	- quad. axis reactance	166%
T'_{do}	- O.C. field time constant	600ms
T'_d	- Transient time constant	41ms
T''_d	- Sub-transient time constant	6,0ms

MECHANICAL DATA

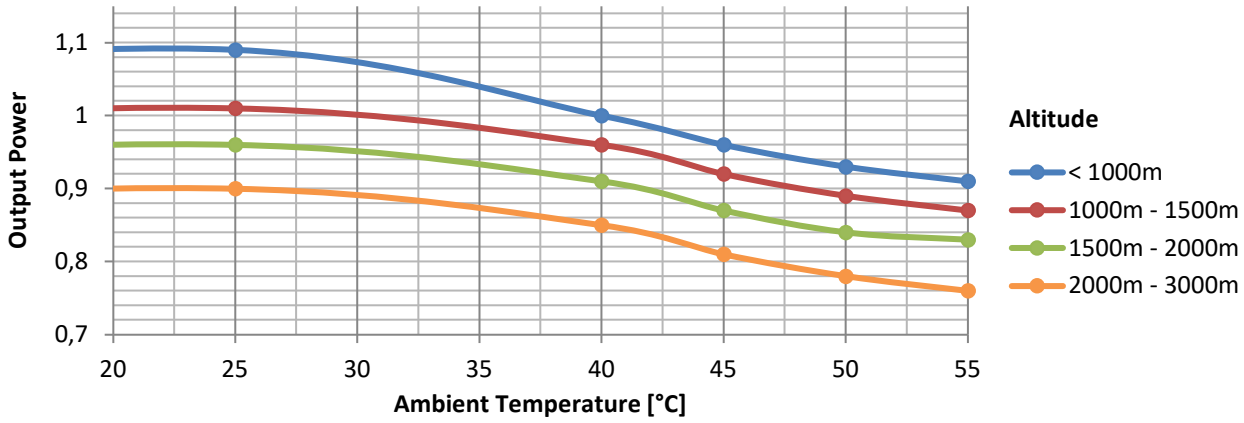
Bearing non drive end			6305-2Z-C3
Bearing drive end (B3/B14 form)			6208-2Z-C3
Weight of generator	in B2	kg	68,0
	in B3/B14	kg	63,9
	in B3/B9	kg	61,0

E1S13S C/2

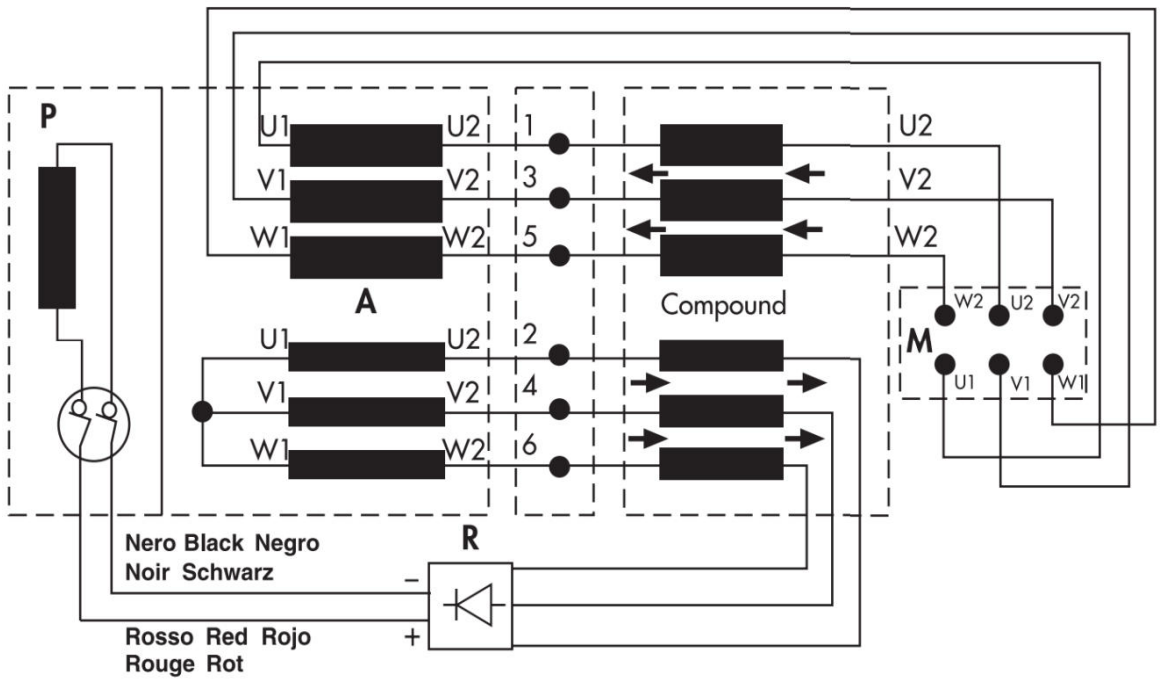
MOMENT OF INERZIA

B3/B9	kg·m²	0,058
B2	kg·m²	0,052
B3/B14	kg·m²	0,058

DERATING CURVES

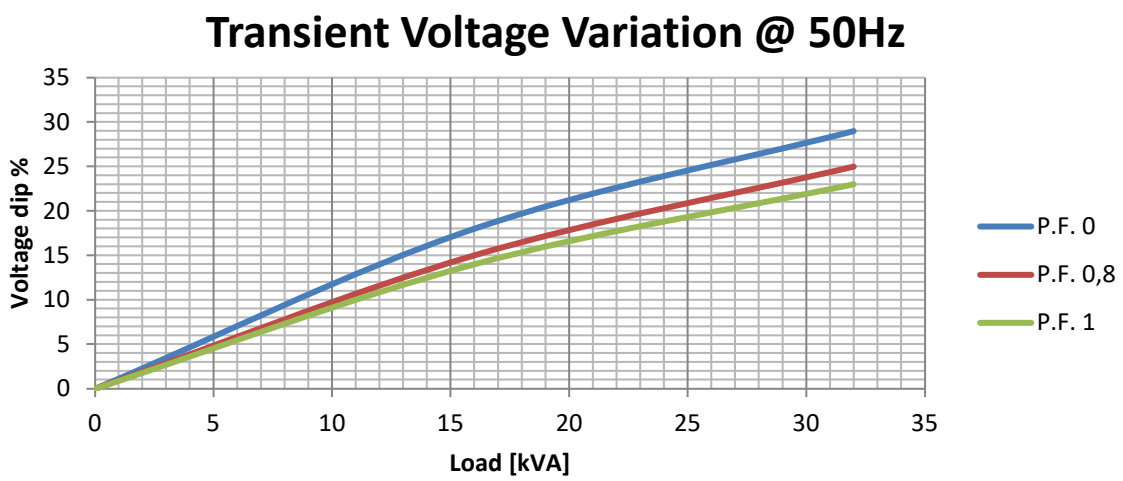


WIRING DIAGRAM

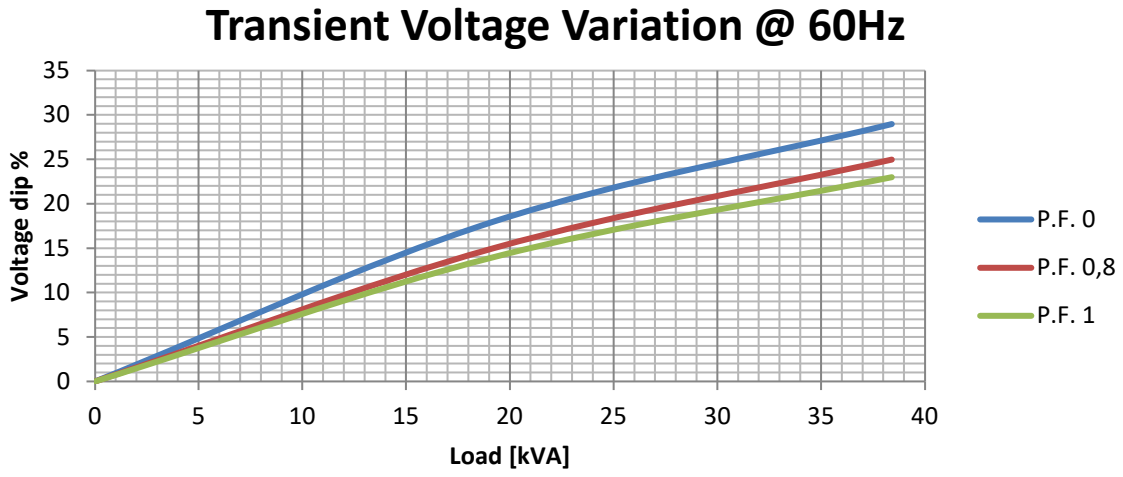


E1S13S C/2

TRANSIENT VOLTAGE VARIATION 50Hz

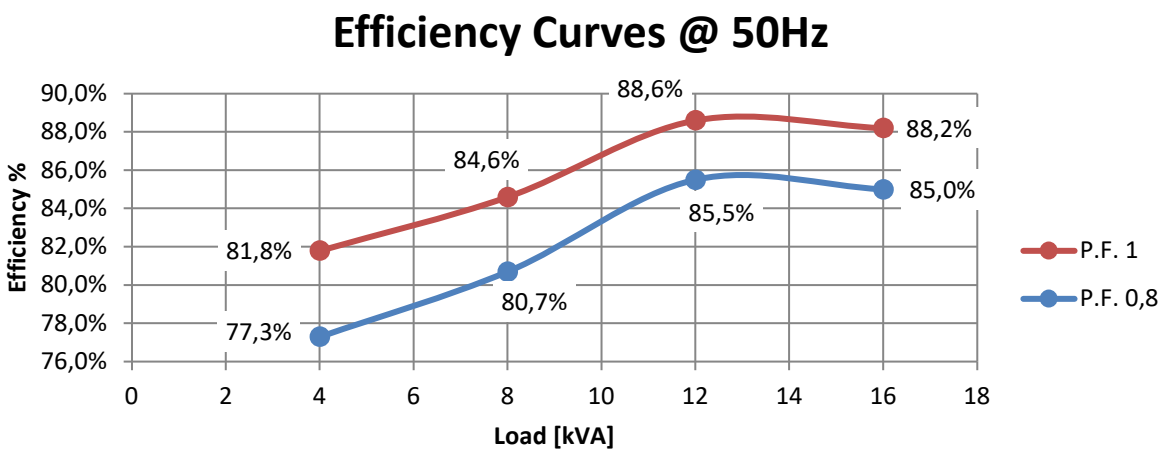


TRANSIENT VOLTAGE VARIATION 60Hz

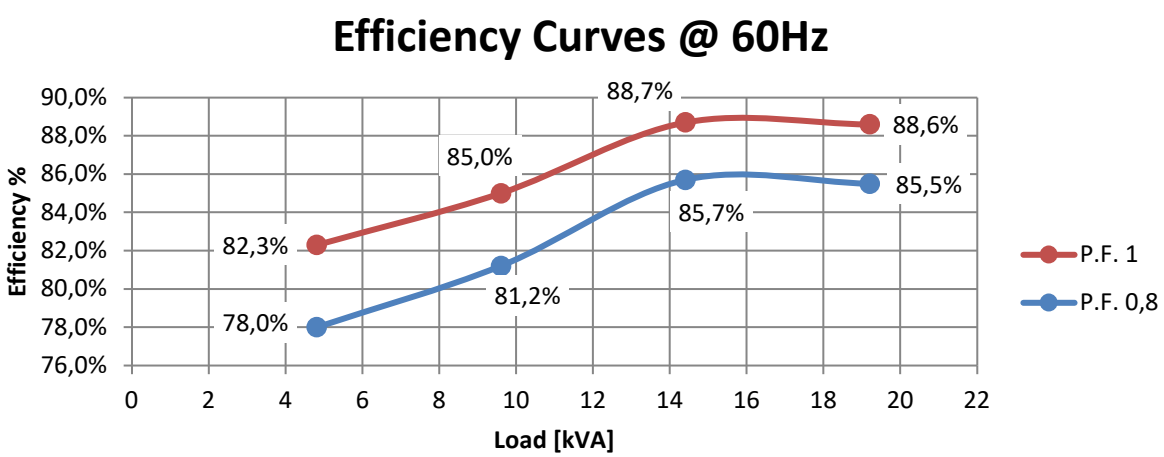


E1S13S C/2

EFFICIENCY 50Hz

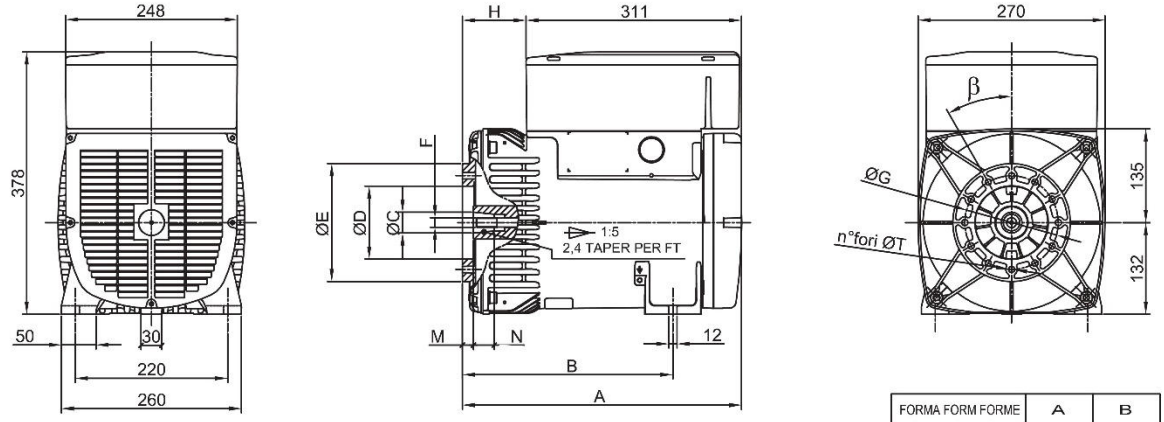


EFFICIENCY 60Hz



E1S13S C/2

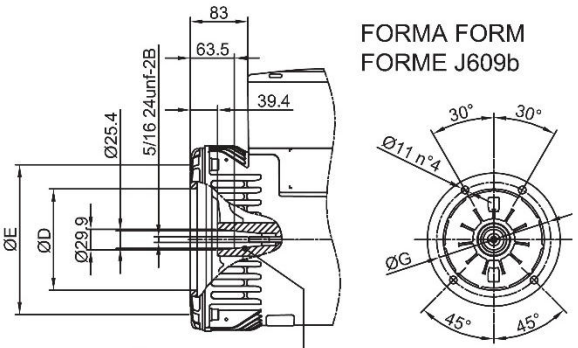
FORMA FORM FORME B3/B9



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

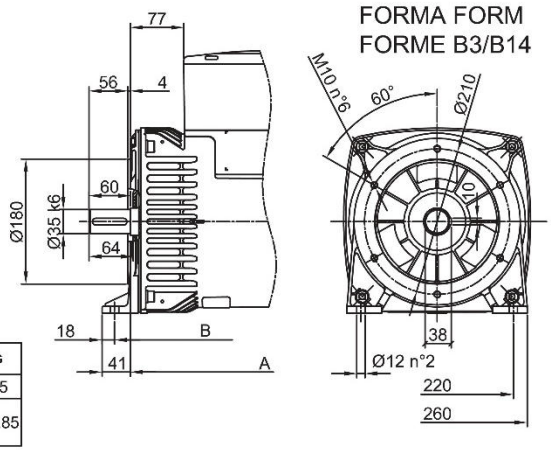
FORMA FORM FORME	A	B
B3B9 cono Ø30	403	304
B3B9 c.Ø38-J609b	394	295
B3/B14	388	312
MD35 - LOMB. STD	436	337

FORMA FORM FORME J609b

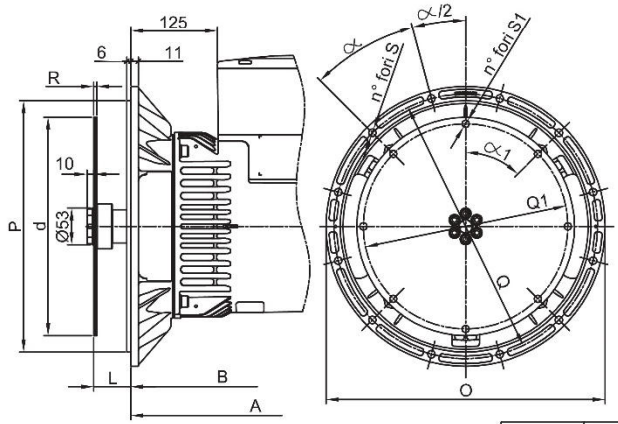


FORMA FORM FORME	ØD	ØE	ØG
J609b	Ø146	Ø192	Ø165
	Ø163.6	Ø216	Ø196.85
	Ø177.8		

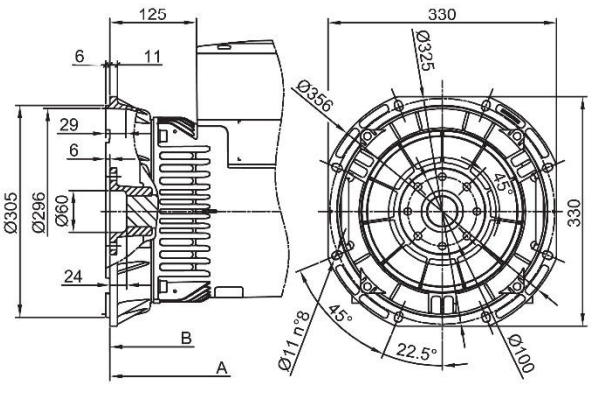
FORMA FORM FORME B3/B14



FORMA FORM FORME MD35



FORMA FORM FORME LOMBARDINI STD



SAE N.	FLANGIE - BRIDE - FLANGE					
	O	P	Q	n. fori	S	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 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°	
8	62	263.52	244.47	6	10.5	60	4.5
10	53.8	314.32	295.27	8	10.5	45°	
11 1/2	39.6	352.42	333.37	8	10.5	45°	