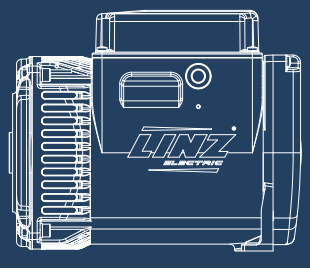
TECHNICAL DATA SHEET



E1C10S E - 60Hz

Single-Phase brushless synchronous alternator with capacitor - 2 poles

COMMON DATA		
Rated Power at 60Hz	kVA	4.3
Rated Power Factor		1
Nominal Temperature	°C	40
Control System		self-excited
Execution		brushless
Regulation Type		capacitor
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	4.7 at 60Hz
R.F.I. Suppression		Standard EN55011

REGULATION DATA		
Capacitor		Capacitor
Capacitor	µF	20
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	Ω	1.1 at 20°C
Rotor Winding Resistance	Ω	3.48 at 20°C
THD at full load		<6%
THD at no load		<5%

TECHNICAL DATA SHEET
E1C10S E - 60Hz
Single-Phase brushless synchronous alternator with capacitor - 2 poles

REFERENCES

EN60034-1 ISO8528-3 EN55011

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

CAN/CSA - C22.2 No. 100-14 (R2009) Motors and Generators, UL1004-1 2nd ed. Rotating Electrical Machines - General Requirements, UL1004-4 2nd ed. Electric Generators

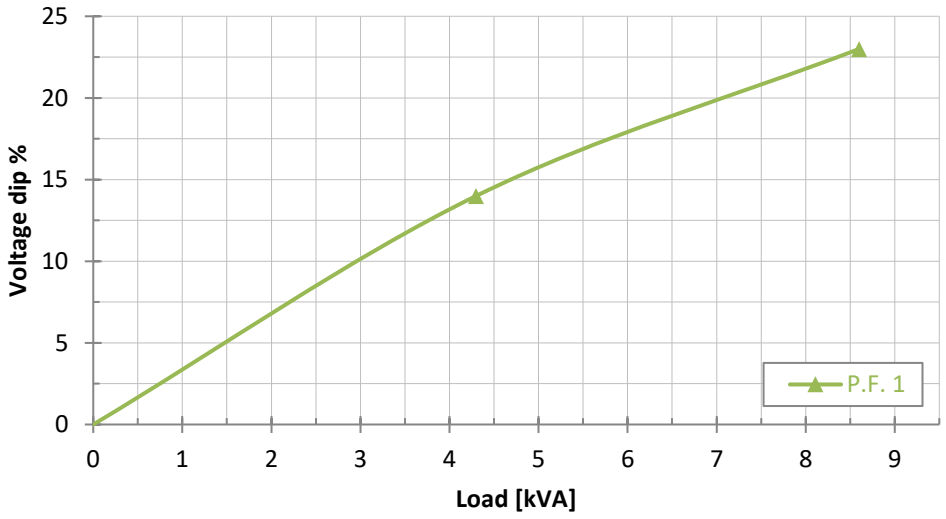
ELECTRICAL DATA @60Hz - 1 P.F.

Frequency		60Hz - 3600rpm
Voltage	V	1 Phase - Parallel/Series **120/240**
Rated Power in Class H (125°C/40°C)	kVA	4.3
	kW	4.3
Rated Power in Class F (105°C/40°C)	kVA	3.9
	kW	3.9
Rated Power Standby (150°C/40°C)	kVA	4.7
	kW	4.7
Rated Power in Class B (80°C/40°C)	kVA	3.4
	kW	3.4

EFFICIENCY IN CL. H OF RATED POWER @60Hz - 1 P.F.

4/4 (100%)	76.5%
3/4 (75%)	77.0%

TRANSIENT VOLTAGE VARIATION 60Hz



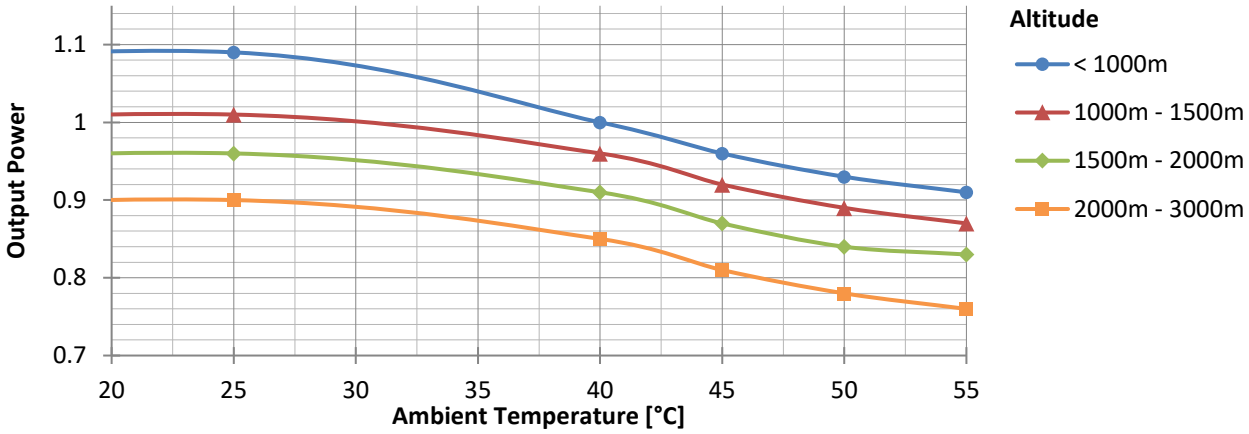
MECHANICAL DATA

Bearing non drive end			6204-2Z-C3
Bearing drive end (B3/B14 form)			6305-2Z-C3
Weight of generator	in B2	lbs/kg	/
	in B3/B14	lbs/kg	45.6/20.7
	in B3/B9	lbs/kg	44/20

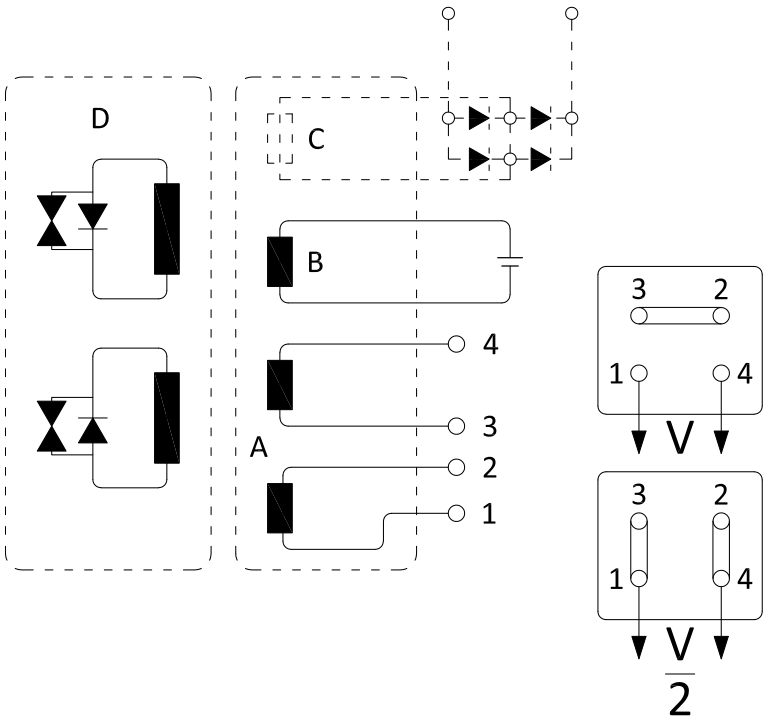
MOMENT OF INERZIA

B3/B9	kg·m²	0.0115
B3/B14	kg·m²	0.0115

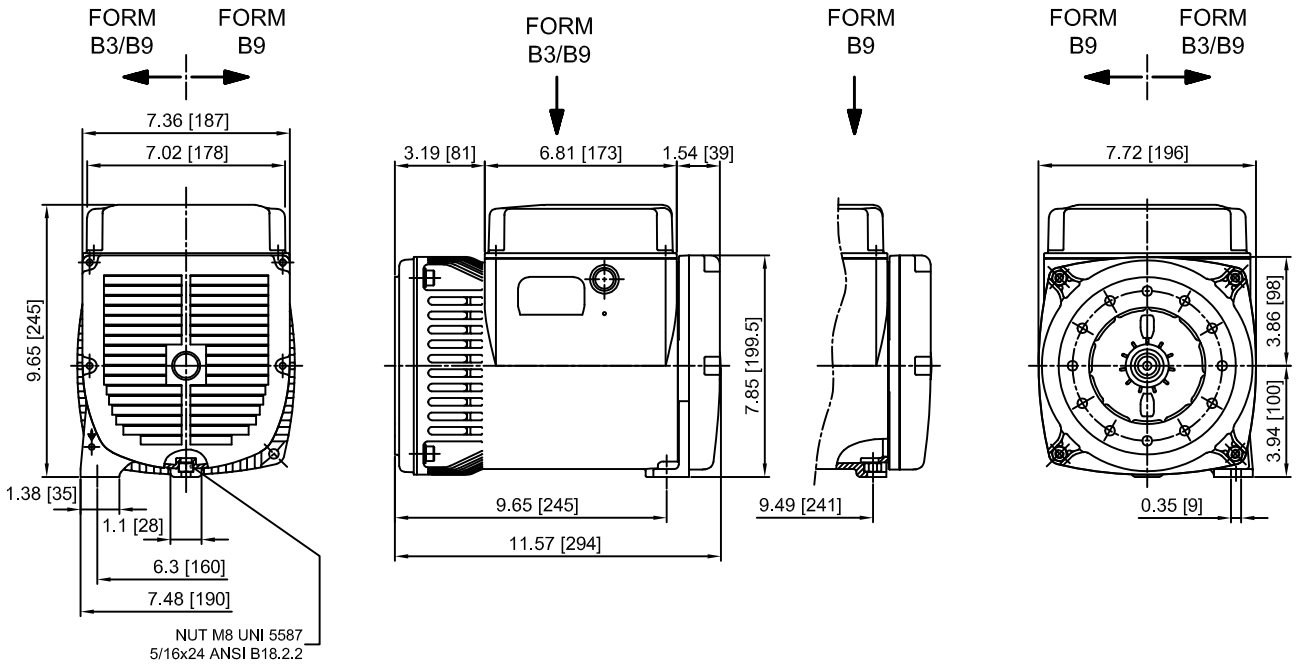
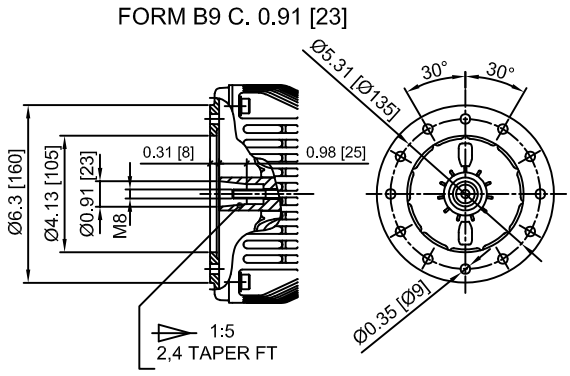
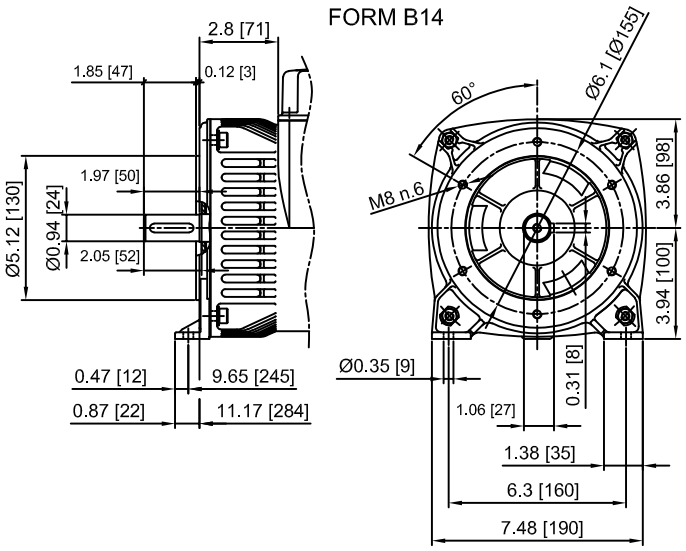
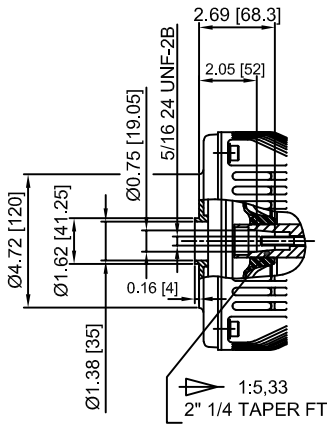
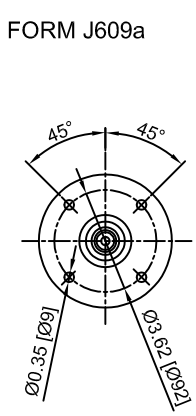
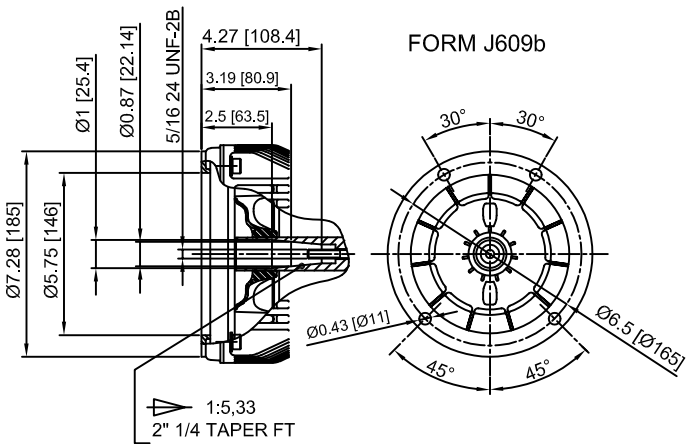
DERATING CURVES



WIRING DIAGRAM



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

OVERALL DIMENSIONS

Dimensions in inches and [millimeters]