

TECHNICAL DATA SHEET



**ALTERNATOR ALUMEN-X SB**

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

## ALUMEN-X SB

### COMMON DATA

Rated Power at 50Hz	kVA	3,5	
Rated Power at 60Hz	kVA	4,2	
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	2250	
Overload		110% of rated power for one hour in a cycle of 6 hours	
Air Flow Requirement	m <sup>3</sup> /min	2,2 at 50Hz	2,7 at 60Hz
R.F.I. Suppression		Standard EN55011	

### REGULATION DATA

Capacitor		Capacitor
Voltage Regulation		±5%
Sustained Short Circuit		> 300% of rated current

### WINDING DATA

Stator Winding		Single layer with auxiliary winding
Rotor Winding		with damping cage
Number of Leads of Stator		2
Stator Winding Resistance	Ω	1,96 at 20°C
Rotor Winding Resistance	Ω	0,68 at 20°C
THD at full load		<20%
THD at no load		<20%

### STANDARD

References	EN60034-1 ISO8528-3 EN55011
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### ON REQUEST

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

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

## ALUMEN-X SB

### ELECTRICAL DATA

Frequency		50Hz - 1500rpm		60Hz - 1800rpm	
Voltage Series Star	V		<b>230</b>		<b>120/240</b>
Rated Power in Class H (125°C/40°C)	kW		3,5		4,2
Rated Power in Class F (105°C/40°C)	kW		3,2		3,5
Rated Power Standby (150°C/40°C)	kW		3,8		5,0
Rated Power Standby (163°C/27°C)	kW		4,0		4,8

### EFFICIENCY IN CL. H

4/4		76,1%		78,4%
3/4		78,7%		80,4%

### MECHANICAL DATA

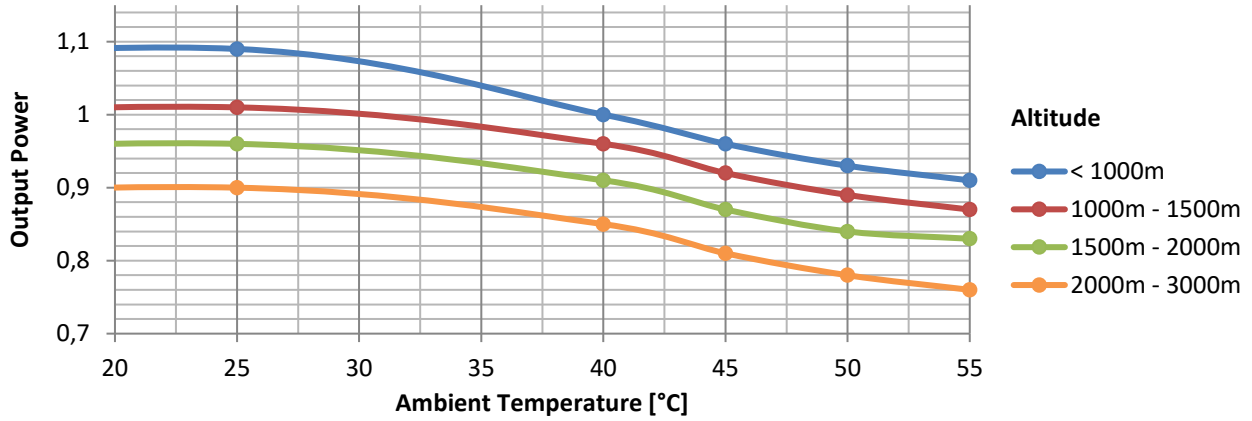
Bearing non drive end		6305-2Z-C3
Weight of generator in B2	kg	30,5

### MOMENT OF INERZIA

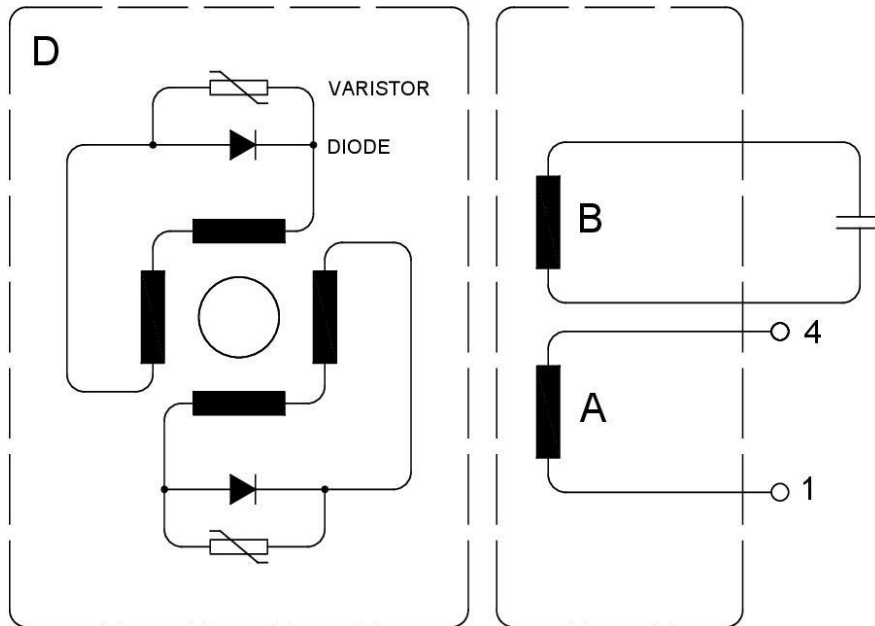
SAE	kg·m <sup>2</sup>	0,0401
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# ALUMEN-X SB

## DERATING CURVES



## WIRING DIAGRAM

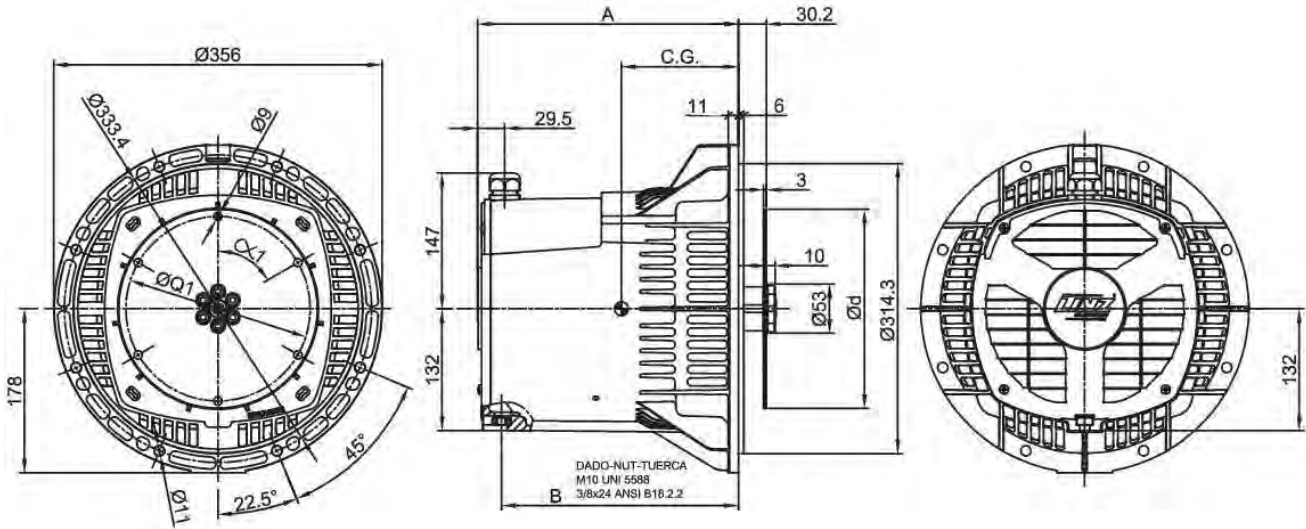


### WIRING DIAGRAMS

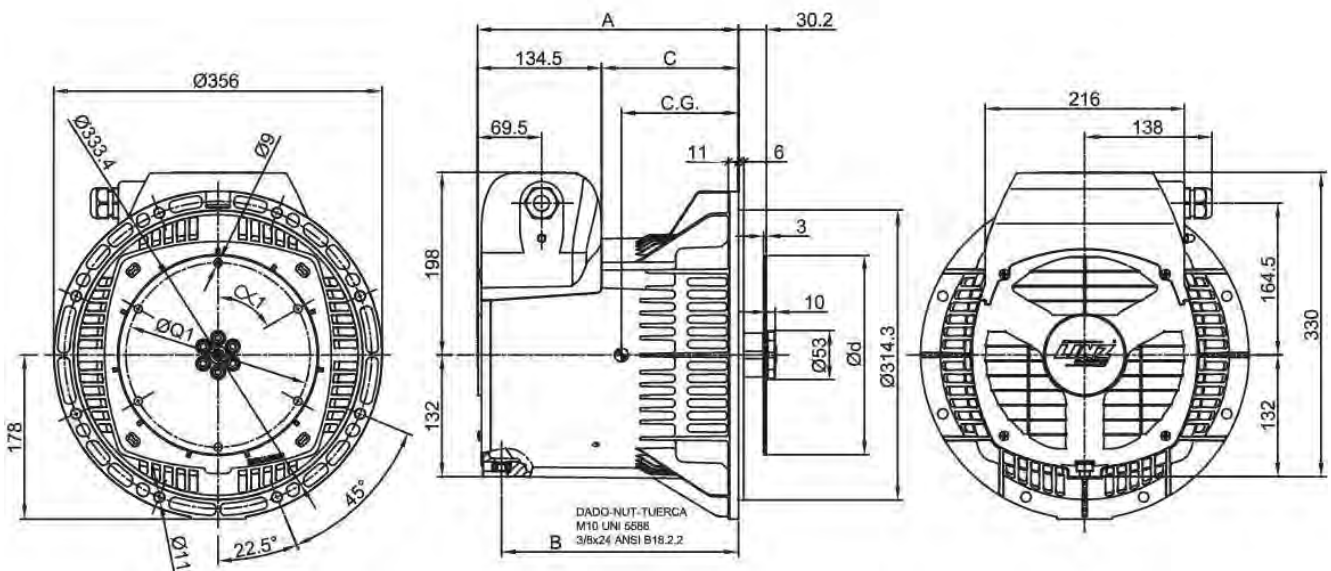
- A** Main Winding
- B** Excitation Winding
- D** Main Rotor

# ALUMEN-X SB

## FORMA FORM SAE



## FORMA FORM SAE - OPTIONAL



TIPO - TYPE	A	B	C	C.G.
ALUMEN 'S'	248	222	113,5	126
ALUMEN 'M'	283	257	148,5	145
ALUMEN 'L'	334	308	199,5	171,5

SAE N.	GIUNTI A DISCO - COUPLING DISCS JUNTAS A DISCOS			
	d	Q1	n. fori holes No.	α1
6 1/2	215.9	200	6	60°
7 1/2	241.3	222.25	8	45°