

TECHNICAL DATA SHEET



ALTERNATOR PRO18M D/4 - 1PH

Dedicated Single-Phase brushless synchronous alternator with AVR - 4 poles

PRO18M D/4 - 1PH

COMMON DATA

Rated Power at 60Hz	kVA	30,5
Rated Power Factor		0,8
Nominal Temperature	°C	40
Control System		self-excited
Execution		brushless
Regulation Type		AVR
Insulation Class		H
Protection		IP23
Maximum Over speed	rpm	2250
Overload		110% of rated power for one hour in a cycle of 6 hours
Air Flow Requirement	m ³ /min	8,3 at 60Hz
R.F.I. Suppression		Standard EN55011

REGULATION DATA

AVR	HVR11
Sensing	single-phase
Voltage Regulation	±1%
Sustained Short Circuit	> 300% of rated current

WINDING DATA

Stator Winding		Double layer with auxiliary winding
Rotor Winding		with damping cage
Number of Leads of Stator		4
Stator Winding Resistance	Ω	0,038 at 20°C
Rotor Winding Resistance	Ω	3,24 at 20°C
Exciter Stator Resistance	Ω	15 at 20°C
Exciter Rotor Resistance	Ω	0,72 at 20°C
THD at full load		<5%
THD at no load		<3%
Excitation at no load	Adc	0,91
Excitation at full load	Adc	2,28

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

PRO18M D/4 - 1PH

ELECTRICAL DATA

Frequency		60Hz - 1800rpm		
Voltage Series Star	V		120/240	
Rated Power in Class H (125°C/40°C)	kVA		30,5	
	kW		24,4	
Rated Power in Class F (105°C/40°C)	kVA		28	
	kW		22,4	
Rated Power Standby (150°C/40°C)	kVA		33	
	kW		26,4	
Rated Power (80°C/40°C)	kVA		24,5	
	kW		19,6	

EFFICIENCY IN CL. H @PF1

4/4		90,0%	
3/4		90,5%	
2/4		86,7%	
1/4		81,8%	

MECHANICAL DATA

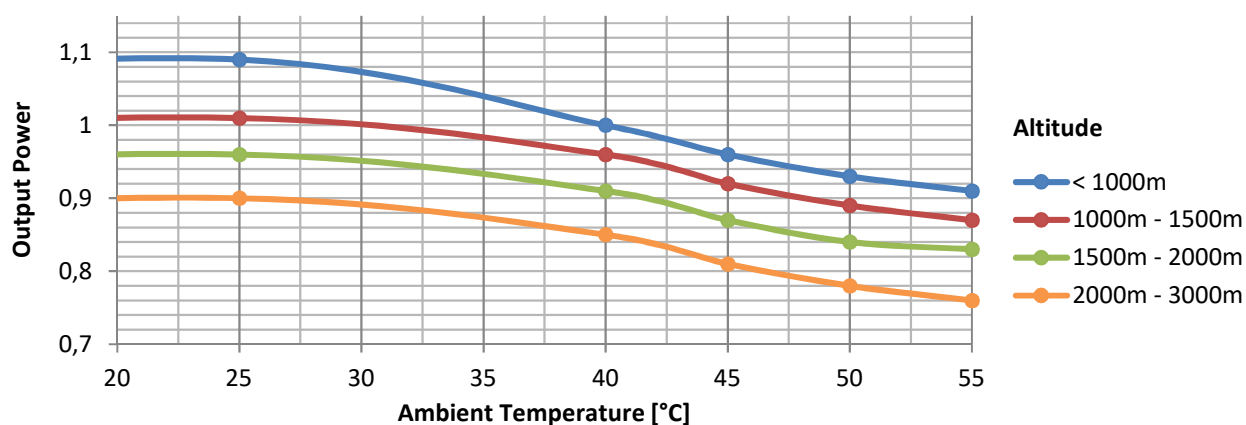
Bearing non drive end			6307-2RS-C3
Bearing drive end (B3/B14 form)			6309-2RS-C3
Weight of generator	in B2	kg	170
	in B3/B14	kg	172
	in B3/B9	kg	\

PRO18M D/4 - 1PH

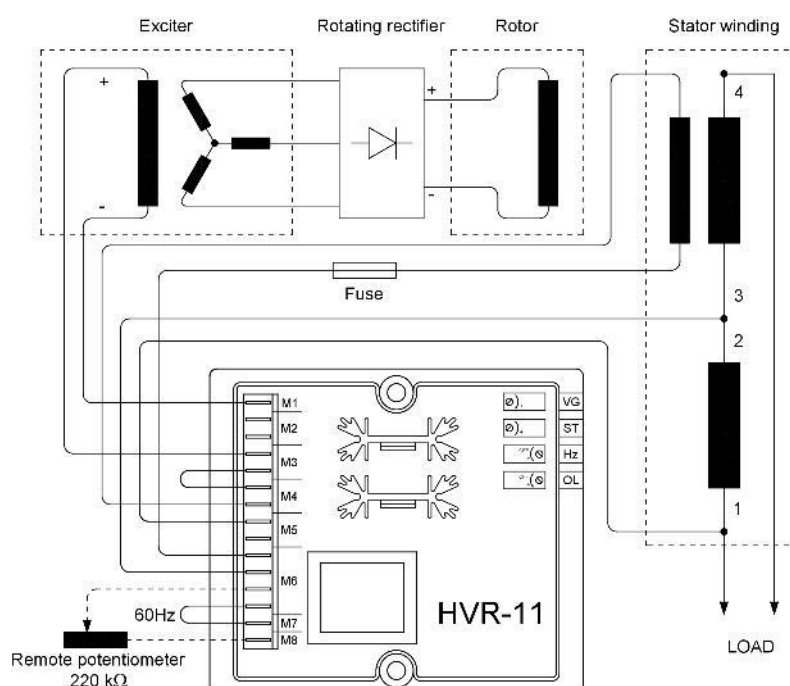
MOMENT OF INERZIA

SAE 7½	kg·m ²	0,316
SAE 8	kg·m ²	0,325
SAE 10	kg·m ²	0,342
SAE 11½	kg·m ²	0,362
SAE 14	kg·m ²	\
SAE 18	kg·m ²	\
B3/B14	kg·m ²	0,313

DERATING CURVES



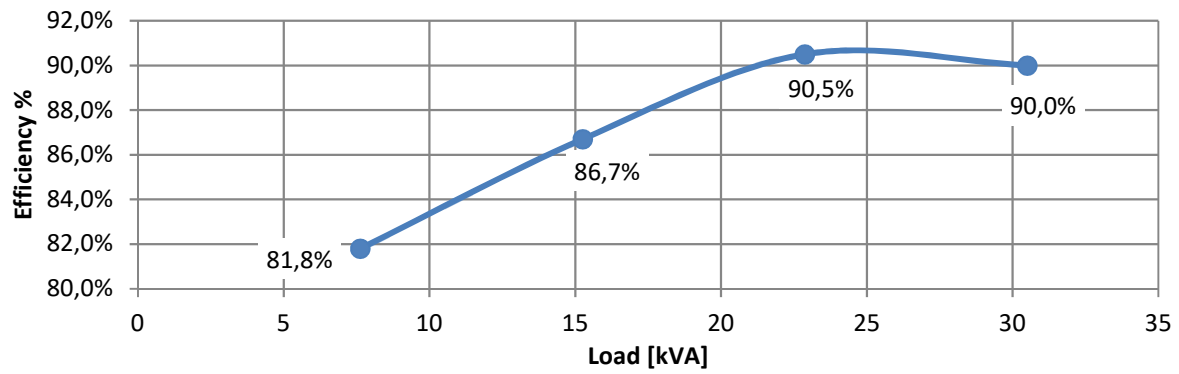
WIRING DIAGRAM



PRO18M D/4 - 1PH

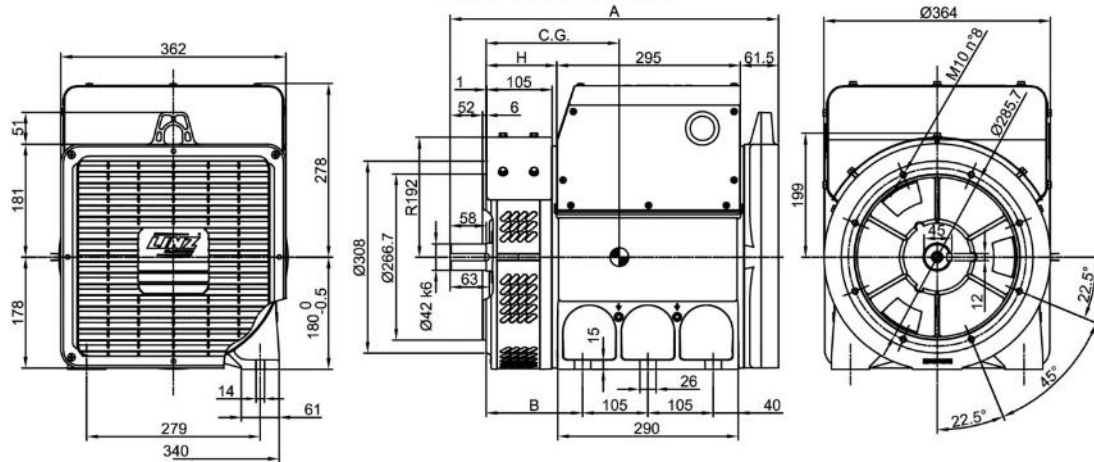
EFFICIENCY 60Hz @PF1

Efficiency Curves @ 60Hz



PRO18M D/4 - 1PH

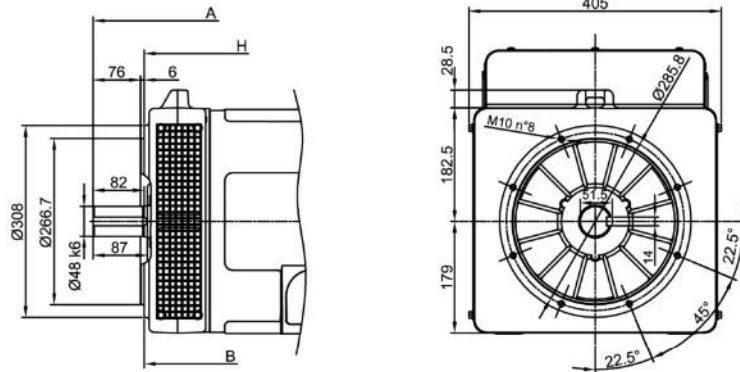
FORMA - FORM B3/B14 'S-M'



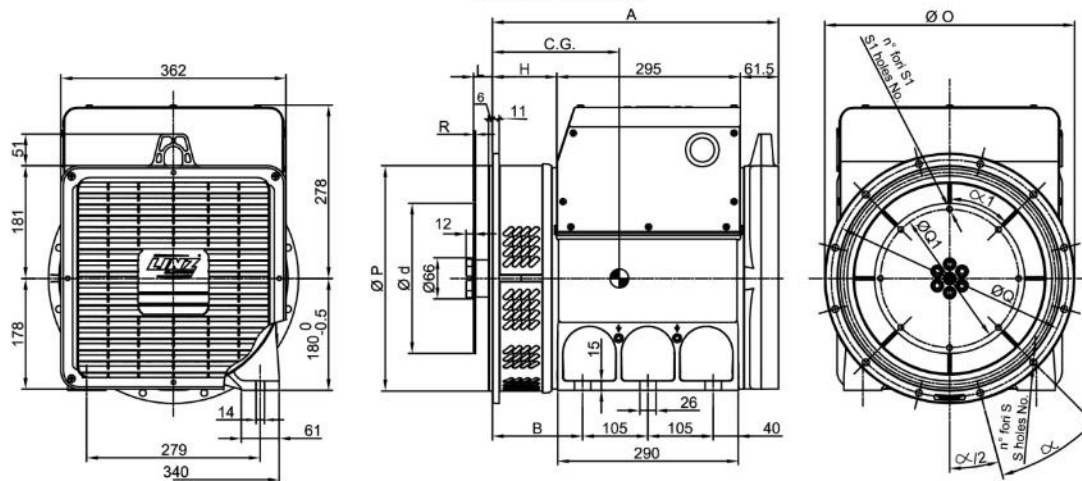
FORMA - FORM B3/B14 'L'

TIPO - TYPE	C.G.
PRO18S A/4 B3/B14	217
PRO18S B/4 B3/B14	221
PRO18S C/4 B3/B14	228
PRO18M D/4 B3/B14	251
PRO18M E/4 B3/B14	262
PRO18L F/4 B3/B14	301
PRO18L G/4 B3/B14	318

TIPO - TYPE	C.G.
PRO18S A/4 SAE	213
PRO18S B/4 SAE	217
PRO18S C/4 SAE	223
PRO18M D/4 SAE	246
PRO18M E/4 SAE	257
PRO18L F/4 SAE	296
PRO18L G/4 SAE	313



FORMA - FORM SAE



FORMA - FORM	A	B	H
B3/B14	PRO 18S	528	113,5
	PRO 18M	598	183,5
	PRO 18L	734	295,5
SAE	PRO 18S	460	103,5
	PRO 18M	530	173,5
	PRO 18L	642	285,5

SAE	FLANGIE - FLANGES - BRIDAS					
N.	Ø O	Ø P	Ø Q	n. fori holes No.	S	α
5	356	314,3	333,4	8	11	45°
4	402	362	381	12		
3	451	409,6	428,6			
2	490	447,7	466,7			

SAE N.	GIUNTI A DISCO - COUPLING DISCS - JUNTAS A DISCOS						
	L	Ø d	Ø Q1	n. fori holes No.	S1	α 1	R
6 1/2	30,2	215,9	200	6	9	60°	3
7 1/2		241,3	222,25	8		45°	
8	62	263,52	244,47	6		60°	
10	53,8	314,32	295,27	8	10,5	45°	4,5
11 1/2	39,6	352,42	333,37				