TECHNICAL DATA SHEET

ALTERNATOR CPS18 LG - 50Hz

Single-Phase brushless synchronous alternator with AVR - 4 poles

CPS18 LG - 50Hz

COMMON DATA		
Rated Power at 50Hz	kVA	18
Rated Power Factor		1
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	5,7 at 50Hz
R.F.I. Suppression		Standard EN55011

REGULATION DATA	
AVR	HVR11
Sensing	single-phase
Voltage Regulation	±1%
Sustained Short Circuit	> 250% of rated current

WINDING DATA		
Stator Winding		Single layer with auxiliary winding
Rotor Winding		with damping cage
Winding Pitch		2/3
Number of Leads of Stator		4
Stator Winding Resistance	(1-2) Ω	0,085 at 20°C
Rotor Winding Resistance	Ω	2,70 at 20°C
Exciter Stator Resistance	Ω	12 at 20°C
Exciter Rotor Resistance	Ω	0,82 at 20°C
THD at full load		< 5,5%
THD at no load		< 3,5%
Excitation at no load	Adc	0,90
Excitation at full load	Adc	2,10

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

CPS18 LG - 50Hz

ELECTRICAL DATA

Frequency		50Hz - 1500rpm		
Voltage	V	**110/220**	**115/230**	**120/240**
Rated Power in Class H (125°C/40°C)	kW	17,5	18,0	18,0
Rated Power in Class F (105°C/40°C)	kW	16,0	16,5	16,5
Rated Power Standby (150°C/40°C)	kW	18,5	19,5	19,5
Rated Power Standby (163°C/27°C)	kW	19,2	20,0	20,0

EFFICIENCY IN CL. H @ 1P.F

4/4		89,1%	
3/4		90,4%	
2/4		88,2%	
1/4		83,2%	

REACTANCES AND TIME CONSTANTS

ρcc			0,46	
Xd	- dir. axis synchronous	255%	240%	221%
X'd	- dir. axis transient	24,5%	23,0%	21,2%
X''d	- dir. axis subtransient	12,6%	11,8%	10,9%
X_q	- quad. axis reactance	144%	135%	124%
T'_{do}	- O.C. field time constant	496ms		
T'_d	- Transient time constant	47ms		
T''_d	- Sub-transient time constant	10ms		

MECHANICAL DATA

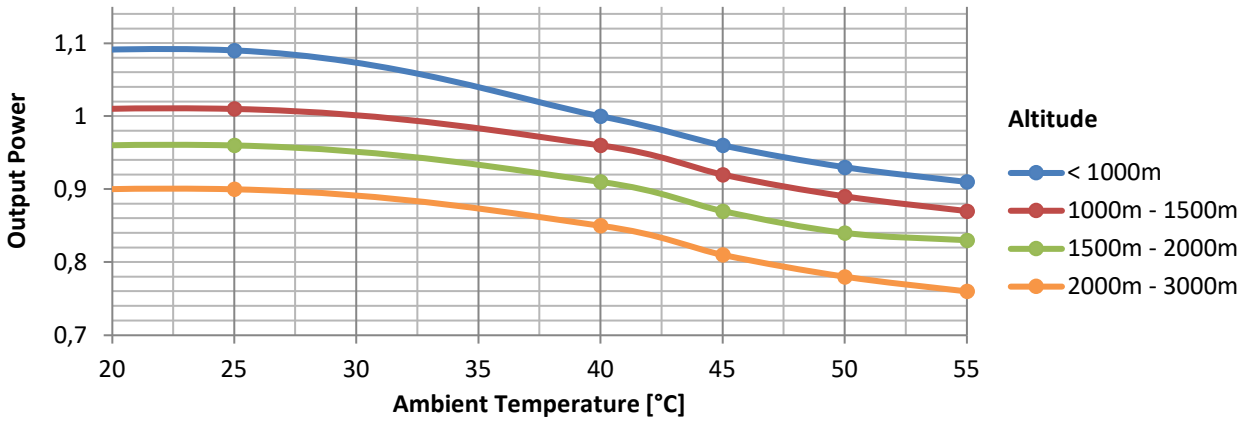
Bearing non drive end			6306-2RS-C3
Bearing drive end (B3/B14 form)			\
Weight of generator	in B2	kg	***
	in B3/B14	kg	\
	in B3/B9	kg	\

CPS18 LG - 50Hz

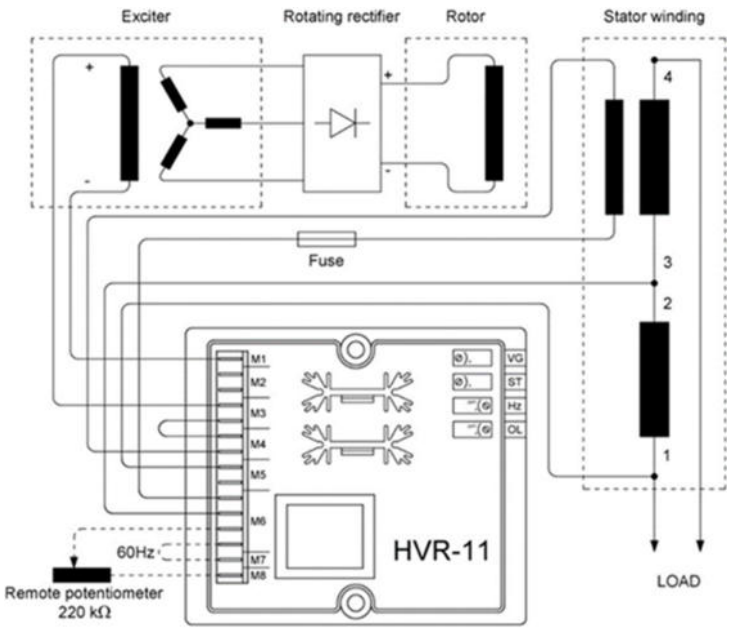
MOMENT OF INERZIA

SAE 6½	kg·m²	0,198
SAE 7½	kg·m²	0,201

DERATING CURVES

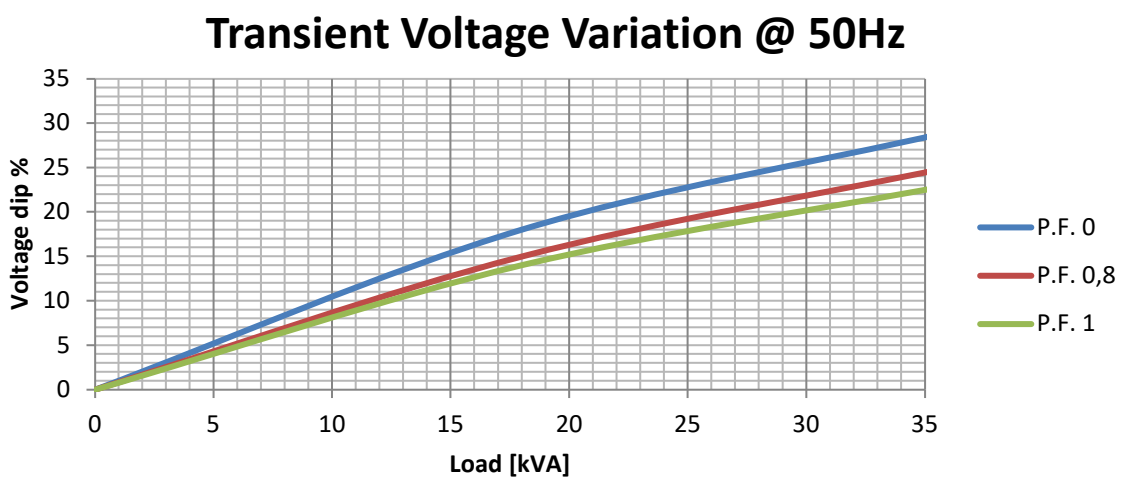


WIRING DIAGRAM

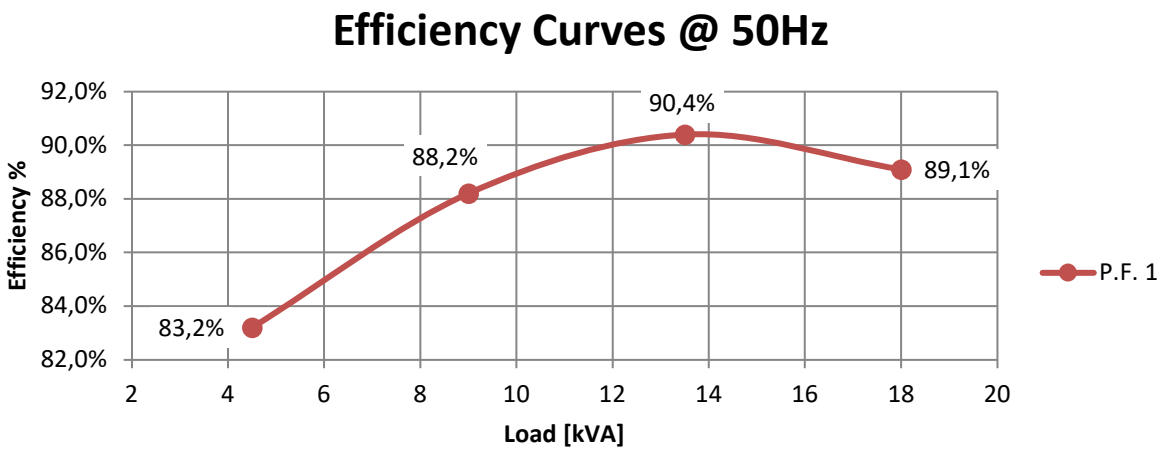


CPS18 LG - 50Hz

TRANSIENT VOLTAGE VARIATION 50Hz



EFFICIENCY 50Hz



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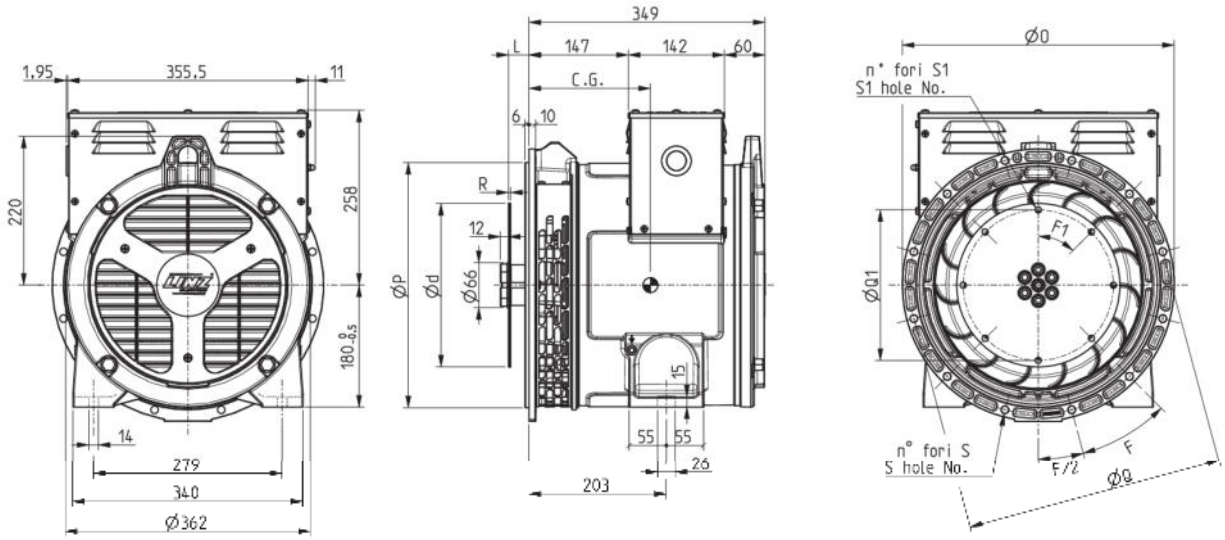

TYPE	C.G.
CP 18LG	162

SAE N.	FLANGIE - FLANGES - BRIDAS					
	ØD	ØP	ØQ	n. fori holes No.	S	F
5	356	314.3	333.4	8	11	45°
4	402	362	381	12		30°

SAE N.	GIUNTI A DISCO - COUPLING DISCS - JUNTAS A DISCOS						
	L	Ød	ØQ1	n. fori holes No.	S1	F1	R
6 1/2	30,2	215.9	200	6	9	60°	3
7 1/2		241.3	222,25	8		45°	