TECHNICAL DATA SHEET

ALTERNATOR CPS18 SB - 60Hz

Single-Phase brushless synchronous alternator with AVR - 4 poles

CPS18 SB - 60Hz

COMMON DATA

Rated Power at 60Hz	kVA	9
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	4,5 at 60Hz
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	0,26 at 20°C
Rotor Winding Resistance	Ω	2,00 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	0,87
Excitation at full load	Adc	2,00

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 SB - 60Hz

ELECTRICAL DATA

Frequency		60Hz- 1800rpm		
Voltage	V	**110/220**	**115/230**	**120/240**
Rated Power in Class H (125°C/40°C)	kW	8,3	9,0	9,0
Rated Power in Class F (105°C/40°C)	kW	7,7	8,3	8,3
Rated Power Standby (150°C/40°C)	kW	8,8	9,6	9,6
Rated Power Standby (163°C/27°C)	kW	9,2	10,0	10,0

EFFICIENCY IN CL. H @ 1P.F

4/4			80,0%
3/4			83,8%
2/4			75,0%
1/4			65,5%

REACTANCES AND TIME CONSTANTS

ρcc				0,45
Xd	- dir. axis synchronous	269%	267%	245%
X'd	- dir. axis transient	29,7%	29,5%	27,1%
X''d	- dir. axis subtransient	17,6%	17,4%	16,0%
X_q	- quad. axis reactance	153%	152%	139%
T'_{do}	- O.C. field time constant	274ms		
T'_d	- Transient time constant	30ms		
T''_d	- Sub-transient time constant	7ms		

MECHANICAL DATA

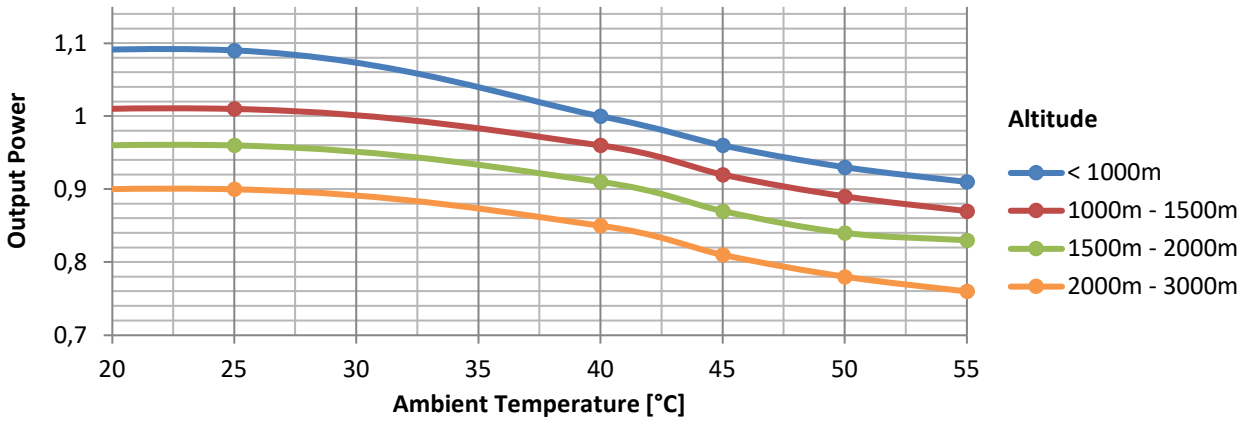
Bearing non drive end			6306-2RS-C3
Bearing drive end (B3/B14 form)			\
Weight of generator	in B2	kg	***
	in B3/B14	kg	\
	in B3/B9	kg	\

CPS18 SB - 60Hz

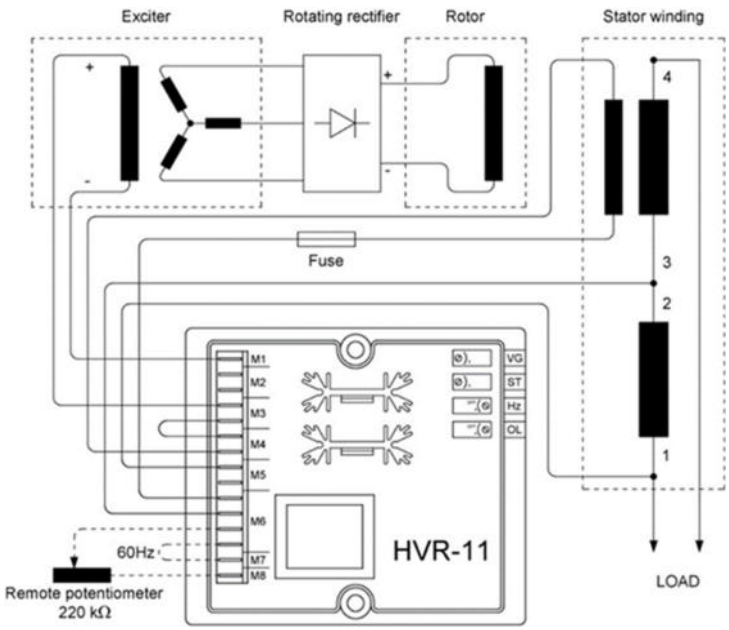
MOMENT OF INERZIA

SAE 6½	kg·m^2	0,112
SAE 7½	kg·m^2	0,115

DERATING CURVES

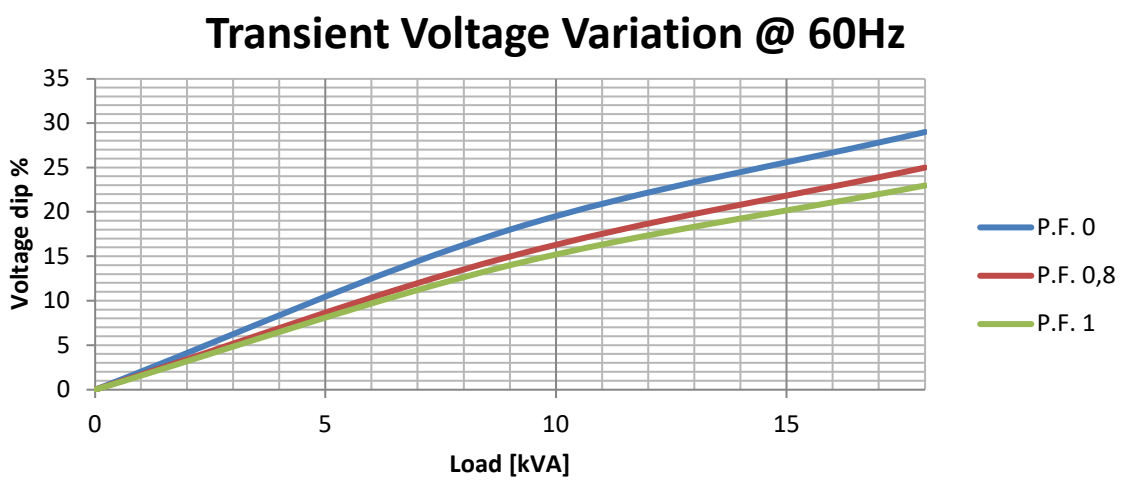


WIRING DIAGRAM

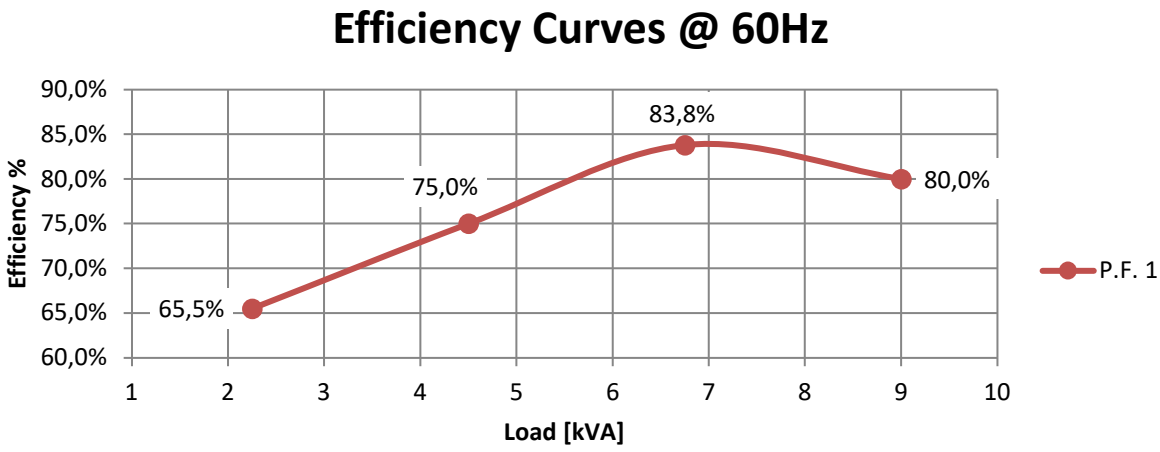


CPS18 SB - 60Hz

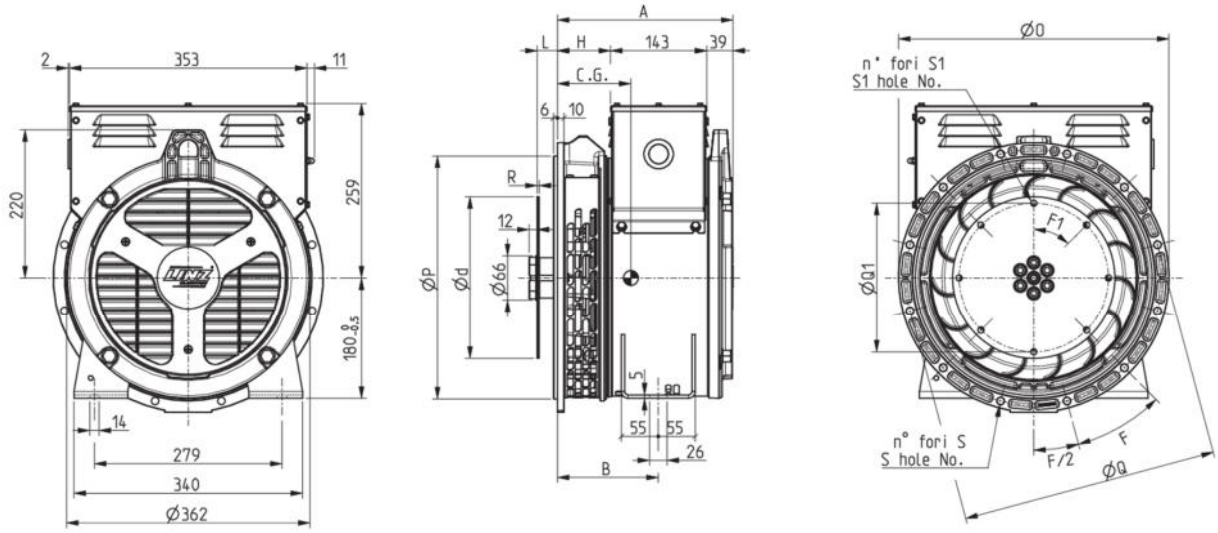
TRANSIENT VOLTAGE VARIATION 60Hz



EFFICIENCY 60Hz



CPS18 SB - 60Hz



FORMA - FORM		A	B	H
SAE	CP 18XS	261	150	79
	CP 18S	276	165	94
	CP 18M	316	205	134

SAE N.	FLANGIE - FLANGES - BRIDAS					
	ØO	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°	

TYPE	C.G.
CP 18XSA	125
CP 18SB	131
CP 18SC	132
CP 18MD	146
CP 18ME	147
CP 18MF	150