TECHNICAL DATA SHEET

ALTERNATOR CPT18 MD

Three-Phase brushless synchronous alternator with AVR - 4 poles

CPT18 MD

COMMON DATA

Rated Power at 50Hz	kVA	15	
Rated Power at 60Hz	kVA	18	
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	5,1 at 50Hz	5,5 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		Double layer with auxiliary winding
Rotor Winding		with damping cage
Winding Pitch		2/3
Number of Leads of Stator		12
Stator Winding Resistance	Ω	0,85 at 20°C
Rotor Winding Resistance	Ω	2,30 at 20°C
Exciter Stator Resistance	Ω	12 at 20°C
Exciter Rotor Resistance	Ω	0,82 at 20°C
THD at full load		<3%
THD at no load		<3,5%
Excitation at no load	Adc	0,82
Excitation at full load	Adc	2,7

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

CPT18 MD

ELECTRICAL DATA

Frequency		50Hz - 1500rpm					60Hz - 1800rpm				
Voltage		Double Delta	Series Star				Double Delta	Series Star			
	V	115/230	380/220	400/230	415/240	440/254	138/277	415/240	440/254	460/266	480/277
Rated Power in Class H (125°C/40°C)	kVA	9,5	14,5	15	15	14	11,5	15,5	16,5	17	18
	kW	7,6	11,6	12	12	11,2	9,2	12,4	13,2	13,6	14,4
Rated Power in Class F (105°C/40°C)	kVA	9	13,5	14	14	13	10,5	14	15	15,5	16,5
	kW	7,2	10,8	11,2	11,2	10,4	8,4	11,2	12	12,4	13,2
Rated Power Standby (150°C/40°C)	kVA	10,5	15,5	16	16	15	12,5	17	18	18,5	19,5
	kW	8,4	12,4	12,8	12,8	12	10	13,6	14,4	14,8	15,6
Rated Power Standby (163°C/27°C)	kVA	11	16	16,5	16,5	15,5	13	17,5	18,5	19	20
	kW	8,8	12,8	13,2	13,2	12,4	10,4	14	14,8	15,2	16

EFFICIENCY IN CL. H @ 0.8PF

4/4			81,5%							83,8%
3/4			82,8%							84,9%
2/4			79,7%							82,5%
1/4			72,6%							76,1%

REACTANCES AND TIME CONSTANTS

ρcc			0,48							
Xd	- dir. axis synchronous	246%	230%	214%	177%		265%	251%	236%	230%
X'd	- dir. axis transient	23,4%	21,8%	20,3%	16,8%		25,1%	23,8%	22,4%	21,8%
X''d	- dir. axis subtransient	12,0%	11,2%	10,4%	8,6%		12,9%	12,2%	11,5%	11,2%
X_q	- quad. axis reactance	138%	129%	120%	100%		149%	141%	133%	129%
T'_{do}	- O.C. field time constant	356ms								
T'_d	- Transient time constant	34ms								
T''_d	- Sub-transient time constant	7ms								

MECHANICAL DATA

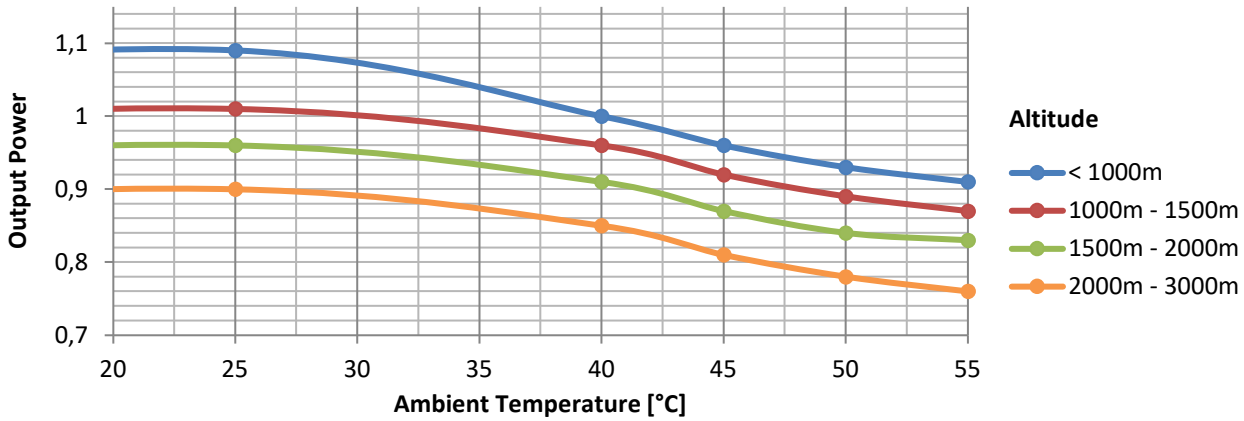
Bearing non drive end			6306-2RS-C3
Bearing drive end (B3/B14 form)			\
Weight of generator	in B2	kg	80,9
	in B3/B14	kg	\
	in B3/B9	kg	\

CPT18 MD

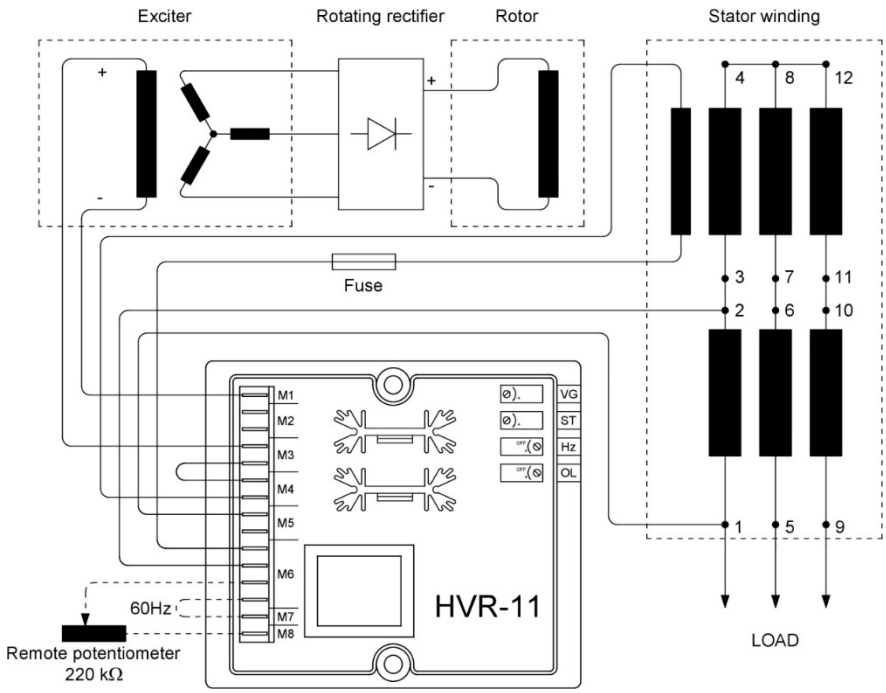
MOMENT OF INERZIA

SAE 6½	kg·m²	0,139
SAE 7½	kg·m²	0,142

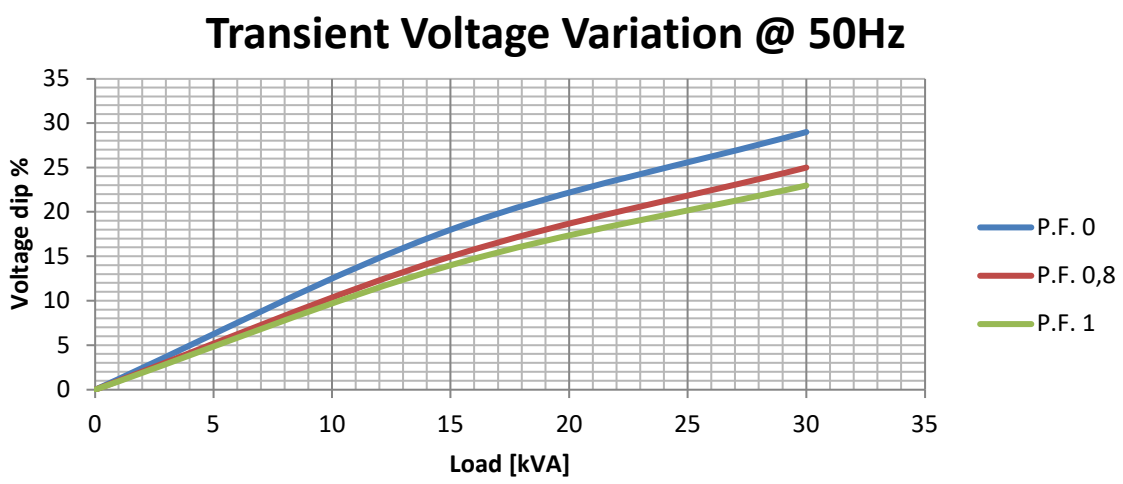
DERATING CURVES



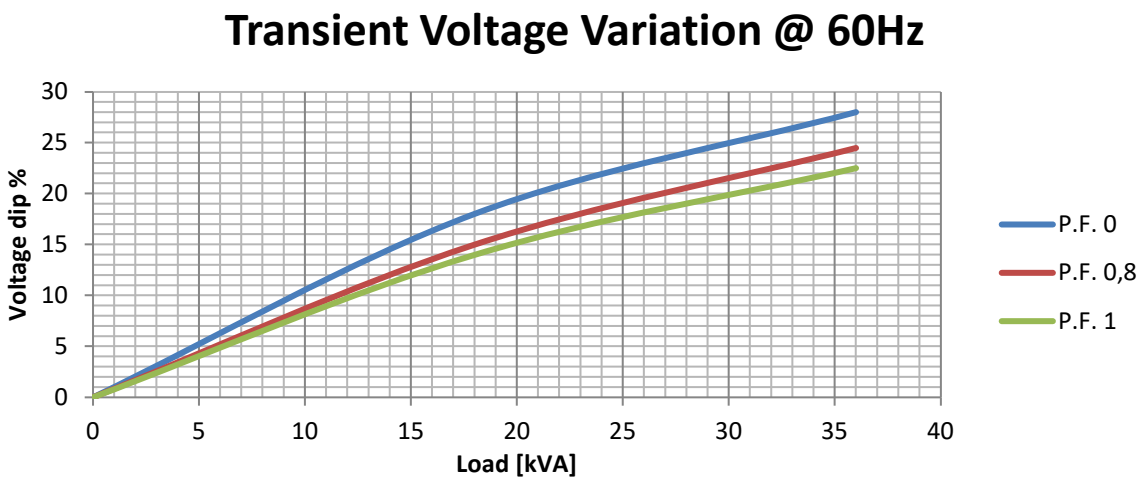
WIRING DIAGRAM



TRANSIENT VOLTAGE VARIATION 50Hz

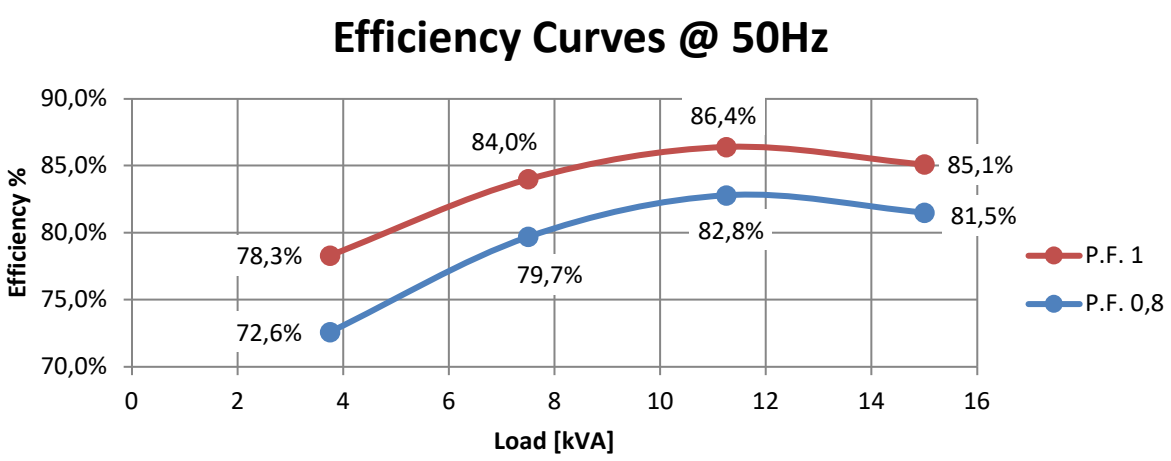


TRANSIENT VOLTAGE VARIATION 60Hz

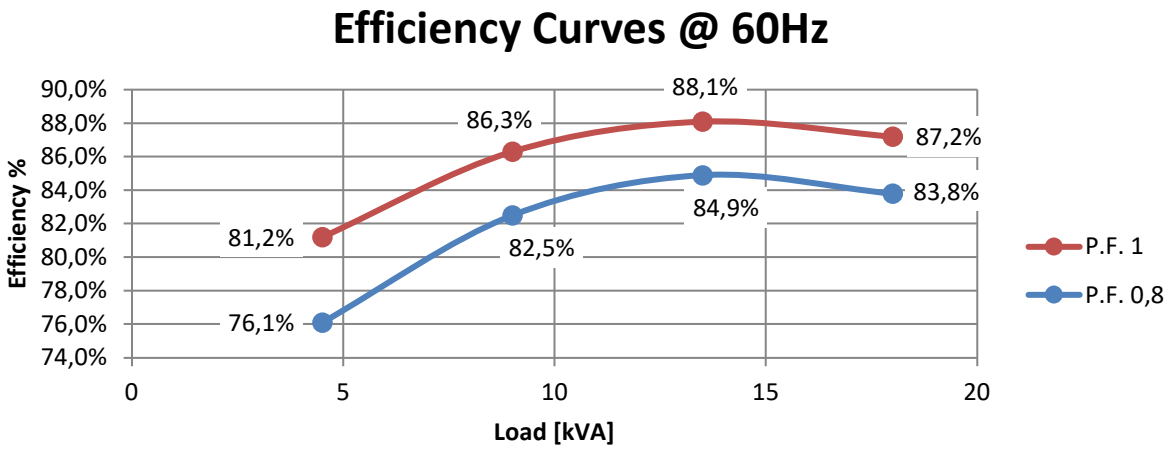


CPT18 MD

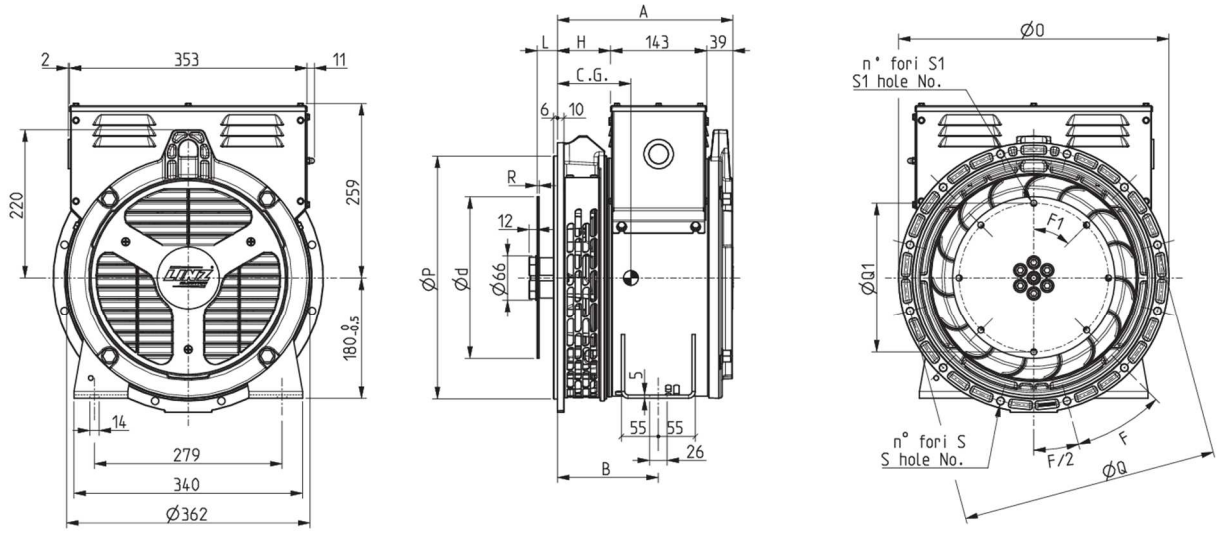
EFFICIENCY 50Hz



EFFICIENCY 60Hz



CPT18 MD



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