



ALTERNATOR PRO35L H/4

three-phase brushless synchronous alternator with AVR - 4 poles

Technical Data Sheet

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COMMON DATA

Rated Power at 50Hz	kVA	800	
Rated Power at 60Hz	kVA	960	
Rated Power Factor		0.8	
Nominal Temperature	°C	40	
Control System		self excited	
Execution		brushless	
Regulation Type		AVR	
Insulation Class		H	
Protection		IP23	
Maximum Overspeed	rpm	2250	
Overload		110% of rated power for one hour in a cycle of 6 hours	
Air Flow Requirement	m ³ /min	54.5 at 50Hz	64 at 60Hz
R.F.I. Suppression		Standard EN55011	

REGULATION DATA

AVR		HVR30	\
Sensing		three-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	
Winding Pitch		2/3	
Number of Leads of Stator		6	
Stator Winding Resistance		0.0026 at 20°C	
Rotor Winding Resistance		2.1 at 20°C	
Exciter Stator Resistance		12.5 at 20°C	
Exciter Rotor Resistance		0.095 at 20°C	
THD at full load		<3%	
THD at no load		<2,5%	
Excitation at no load	A _{dc}	0.52	
Excitation at full load	A _{dc}	2.3	

STANDARD

References		EN60034-1 ISO8528-3 EN55011
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ELECTRICAL DATA

Frequency		50Hz - 1500rpm				60Hz - 1800rpm			
Voltage Series Star	V	380/220	400/230	415/240	440/254	415/240	440/254	460/266	480/277
Rated Power in Class H (125°C/40°C)	kVA	800	800	790	730	840	900	960	960
	kW	640	640	632	584	672	720	768	768
Rated Power in Class F (105°C/40°C)	kVA	780	780	760	700	870	875	935	935
	kW	624	624	608	560	696	700	748	748
Rated Power Standby (150°C/40°C)	kVA	870	870	860	780	915	975	1040	1040
	kW	696	696	688	624	732	780	832	832
Rated Power Standby (163°C/27°C)	kVA	900	900	880	810	950	1010	1080	1080
	kW	720	720	704	648	760	808	864	864

EFFICIENCY IN CL. H

4/4		95.4%						96.5%
3/4		96.0%						97.0%
2/4		95.0%						95.5%
1/4		93.4%						94.0%

REACTANCES AND TIME CONSTANTS

pcc		0.37							
X _d - dir. axis synchronous		372%	336%	308%	253%	393%	375%	366%	336%
X' _d - dir. axis transient		19.4%	17.5%	16.1%	13.2%	20.5%	19.5%	19.1%	17.5%
X'' _d - dir. axis subtransient		13.3%	12.0%	11.0%	9.0%	14.0%	13.4%	13.1%	12.0%
X _q - quad. axis reactance		235%	212%	194%	160%	248%	237%	231%	212%
T' _{do} - O.C. field time constant		2650ms							
T' _d - Transient time constant		150ms							
T'' _d - Sub-transient time constant		10ms							

MECHANICAL DATA

Bearing non drive end				6316-2RS-C3
Bearing drive end (B3/B14 form)				6319-2RS1-C3
Weight of generator	in B2	kg		1867
	in B3/B14	kg		1891
	in B3/B9	kg		\

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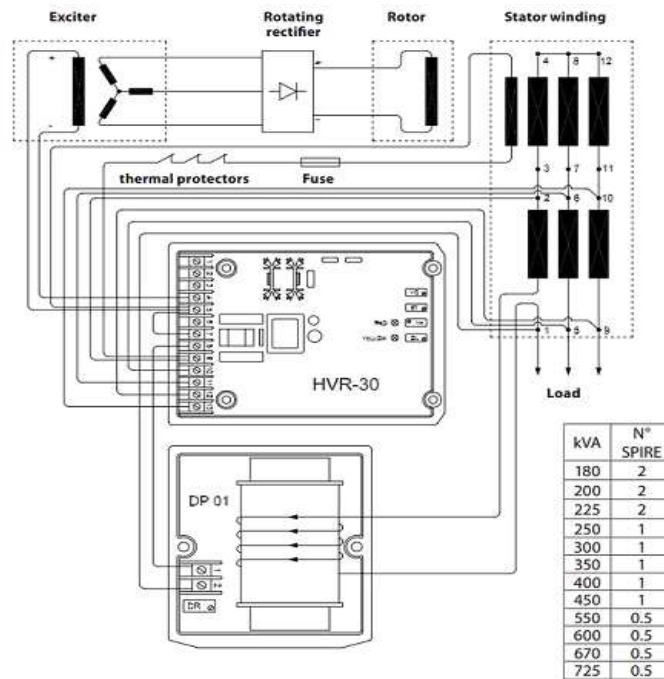
MOMENT OF INERZIA

B3/B9	kg·m ²	\
SAE 7½	kg·m ²	\
SAE 8	kg·m ²	\
SAE 10	kg·m ²	\
SAE 11½	kg·m ²	\
SAE 14	kg·m ²	14.854
SAE 18	kg·m ²	15.194
B3/B14	kg·m ²	14.352

POWER VARIATION ACCORDING TO TEMPERATURE AND ALTITUDE

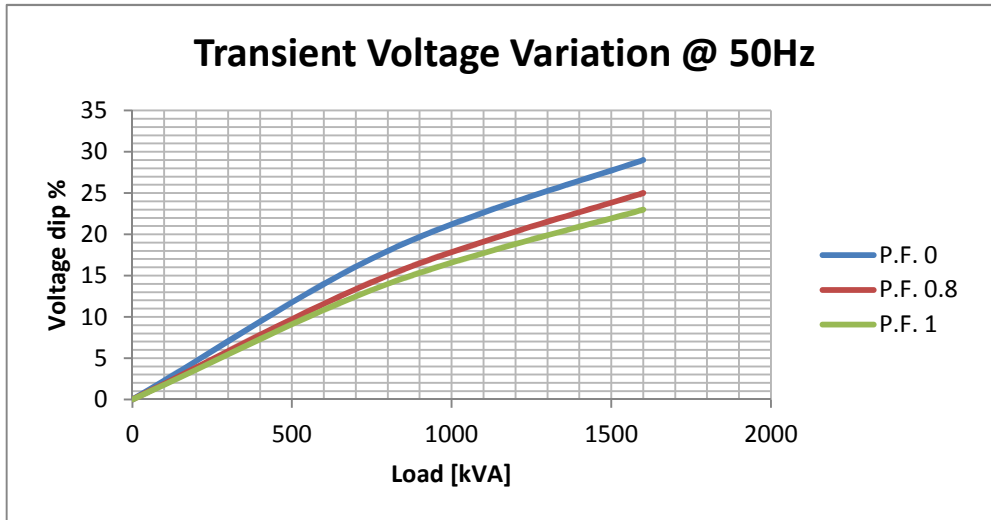
Altitude	Ambient temperature				
	25°C	40°C	45°C	50°C	55°C
< 1000m	1.09	1	0.96	0.93	0.91
1000m - 1500m	1.01	0.96	0.92	0.89	0.87
1500m - 2000m	0.96	0.91	0.87	0.84	0.83
2000m - 3000m	0.9	0.85	0.81	0.78	0.76

WIRING DIAGRAM

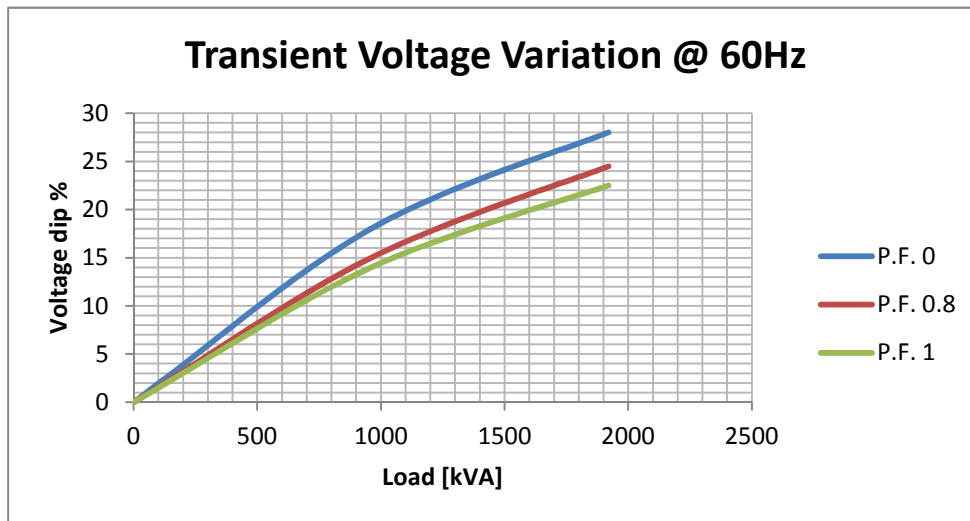


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TRANSIENT VOLTAGE VARIATION 50Hz

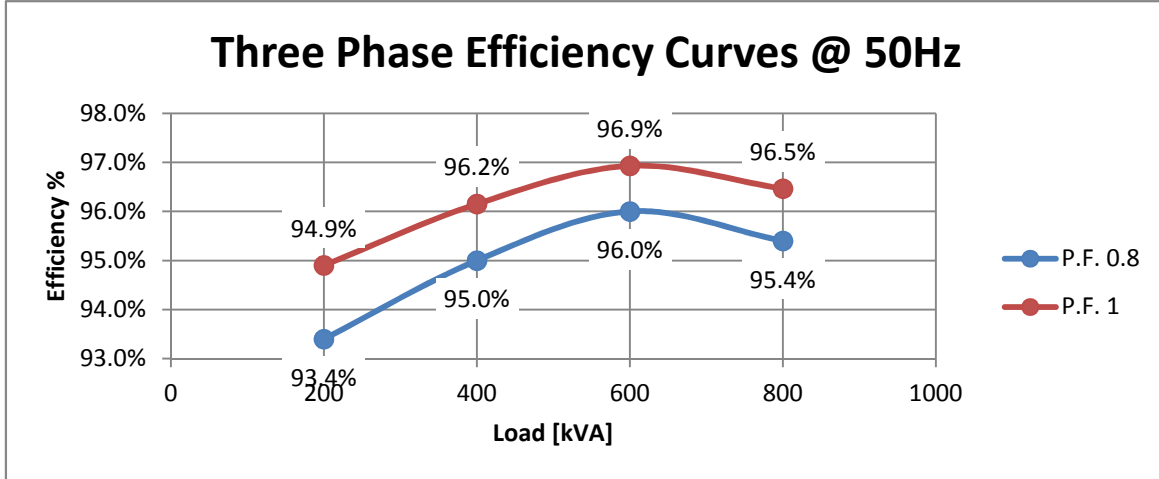


TRANSIENT VOLTAGE VARIATION 60Hz



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EFFICIENCY 50Hz



EFFICIENCY 60Hz

