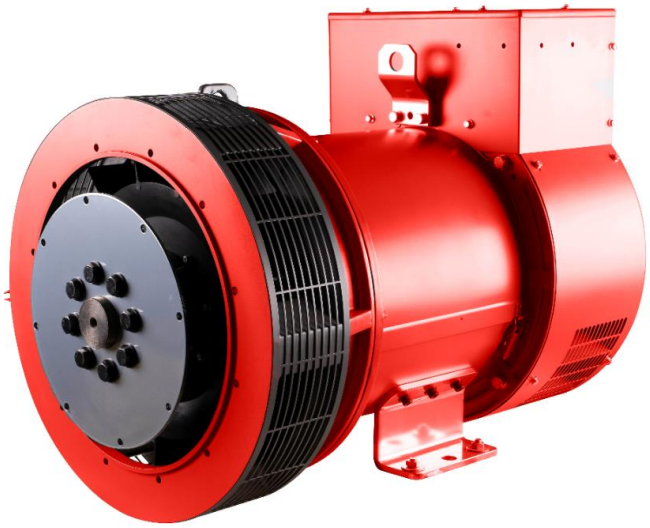
STAMFORD®

N180G4 Wdg. 312/311

N180G4 - Technical Data Sheet



STAMFORD® N range is the three-phase, four-pole synchronous AC generators of brushless design, providing optimized and reliable power for standby and other applications.

Standards

STAMFORD® N range industrial alternators meet the requirements of IEC 60034-1 and ISO 8528-3.

Quality Assurance

STAMFORD® N range alternators are designed, built, and tested to the quality assurance level of ISO9001.

Excitation System

The excitation system is self-excited as standard with power being provided by the main stator via the digital Automatic Voltage Regulator (AVR) to the exciter stator.
The exciter rotor output is fed to the main rotor through a three-phase full wave bridge rectifier.
The digital Automatic Voltage Regulator is two-phase voltage sensed and will control the alternator output voltage to within ± 1%.

Terminal Box

STAMFORD® N range alternators feature a main stator with six/twelve ends brought out to the terminal box, which is located at the non-drive end of the alternator. The terminal box contains the AVR and provides easily accessible wiring connection points.

Shaft and Rotor

STAMFORD® N range alternators are single bearing with applicable SAE engine interface housing and drive disc. The rotor poles are provided with damper cage as standard.

Insulation/ Impregnation

All STAMFORD® N range generators utilize a Class H insulation system.

Every wound component is impregnated with materials and processes designed specifically to provide protection against the challenging environments often encountered in generator operation.

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N180G4 Wdg. 312/311

N180G4 - Technical Data Sheet

Technical Specifications	
Number of Phases	3
Number of Poles	4
Insulation System	Class H
Stator Winding	2/3rd Pitch
Number of Leads	6/12
Winding Number	312/311
Nominal Ambient Temperature	-15 to 40 °C
IP Rating	IP23
Voltage Regulation	± 1%
Total Harmonic Distortion (THD)	No Load < 2.5%; Non-Distorting Balanced Linear Load < 5%
Excitation System	Brushless, Self-Excited
Regulator Type	DM730
Nominal Speed	1500RPM at 50Hz, 1800RPM at 60Hz
Overspeed	2250RPM
Bearing	Single Bearing
Weight	504 kg
Overload	110% of rated power for 1 hour in a 6-hour cycle
Electromagnetic Compatibility	EN61000-6-2, EN61000-6-4

Electrical Ratings (0.8 – 1.0 PF)

Class – Temp Rise		Cont. H - 125/40°C			Standby - 150/40°C			Standby - 163/27°C		
50 Hz	Voltage	380	400	415	380	400	415	380	400	415
	Voltage P -star*	190	200	208	190	200	208	190	200	208
	kVA	175	181	181	185	191	191	192	200	200
	kW	140	145	145	148	153	153	154	160	160

Class – Temp Rise		Cont. H - 125/40°C				Standby - 150/40°C				Standby - 163/27°C			
60 Hz	Voltage	380	416	440	480	380	416	440	480	380	416	440	480
	Voltage P -star*	190	208	220	240	190	208	220	240	190	208	220	240
	kVA	180	195	210	225	190	207	223	239	200	215	231	250
	kW	144	156	168	180	152	166	178	191	160	172	185	200

*P -star connection only available with 12 leads winding option

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N180G4 Wdg. 312/311

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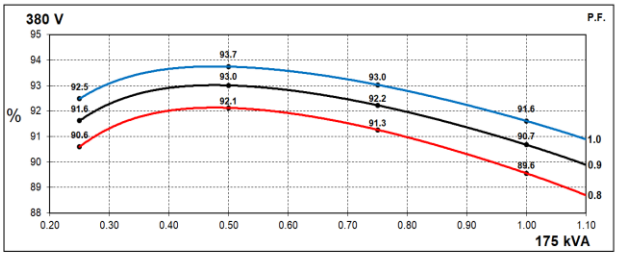
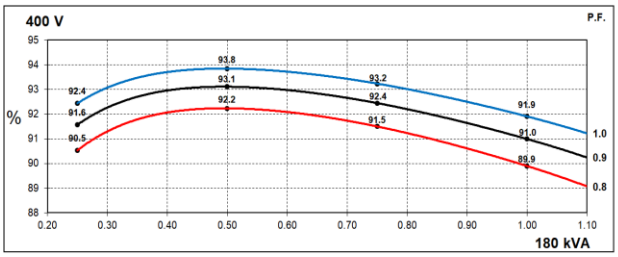
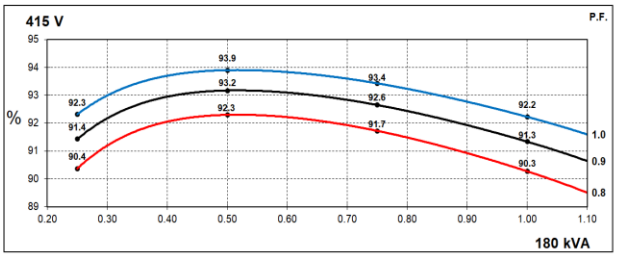
Three Phase Efficiency Curves

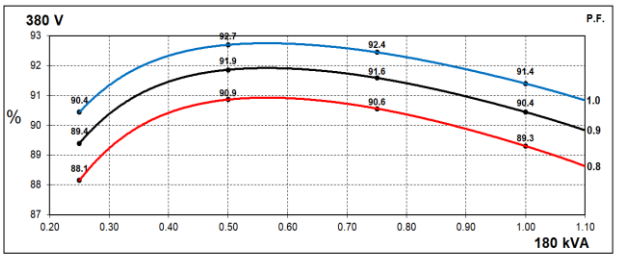
50Hz

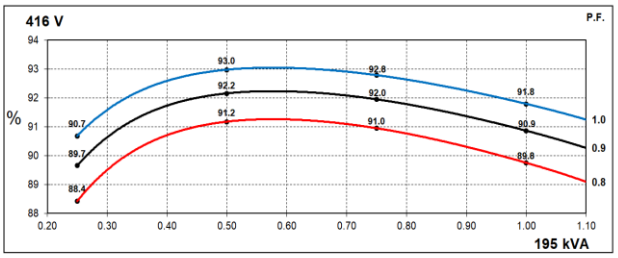


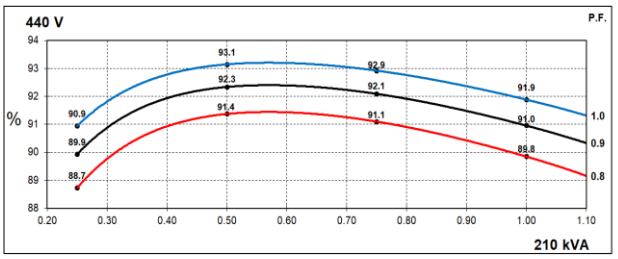


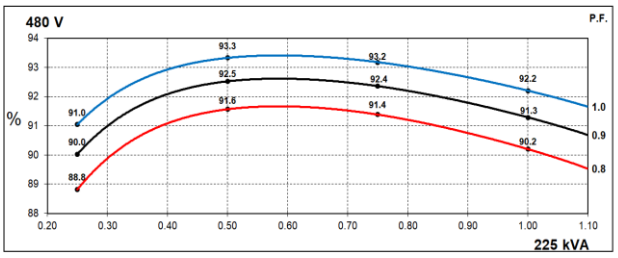


60Hz









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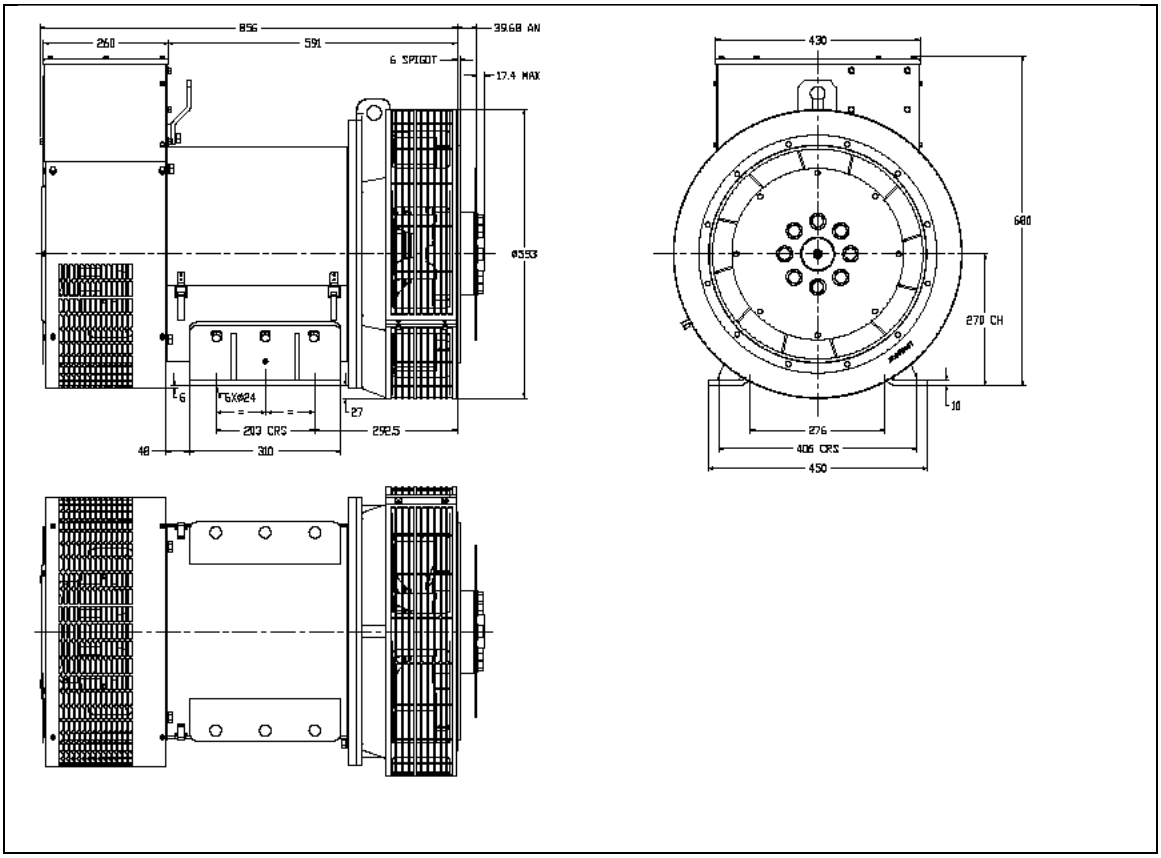
N180G4 Wdg. 312/311

N180G4 - Technical Data Sheet

Overall Dimensions



Output Power De-rates

The output power ratings are subjected to the following ambient temperature de-rates:

- 3% for every 5°C by which the operational ambient temperature exceeds 40°C, up to max. 60°C

The output power ratings are subjected to the following altitude de-rates:

- 3% for every 500 meters by which the altitude exceeds 1000 meters above mean sea level.