



# TP220T

50Hz POWERED BY PERKINS SERIES



## TECHNICAL SPECIFICATIONS

### DIESEL GENERATING SET 400/230V-50Hz-3Phase

Model	TP220T	
Power(ESP)	kVA/kw	220/176
Power(PRP)	kVA/kw	200/160
Rated Voltage	V	400
Rated Current	A	318
Rated rotation speed	r/min	1500
Power Factor		0.8
Fuel Consumption	Litre/hour	45.8
Fuel Tank Capacity	Litre	Open Type :277 / Silent Type:370:
Noise level	dB(A)@7m	Silent Type: 76±2

## WEIGHT AND DIMENSIONS

GEN-Set	Dimension ( L*W*H )	Weight
Open Type	2481mm*1004mm*1534mm	1726 Kg
Silent Type	3436mm*1106mm*1968mm	2305 Kg

## STANDARDS:

**Genset:** GB/T2820—2009,ISO8528

**Alternator:** STAMFORD, UCI274H

**Diesel Engine:** PERKINS , 1106A—70TAG4

**Standby Power:** Continues running at variable load for duration of an emergency. No overload is permitted on these ratings.

**Prime Power:** Continues running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period.

## CONFIGURATION:

**Standard:** Engine, alternator, cooling system, Base frame (excluding fuel tank), shock absorber, air inlet system, control box (including mains floating charge), plastic fan blades (when the engine and water tank do not bring).

**Optional:** Base frame (including fuel tank), water jacket heater, fuel water separator, fuel heater, fuel level sensor (only supporting underframe tank), switch box (with switch), power switch, the water level sensor, motor anti condensation heater, automatic fueling system (only supporting base frame including fuel tank), battery frame.

**Accessories:** Silencer, bellow, exhaust silencing system accessories (with the matching engine), regular battery, starting cord assembly, data of gen-set, random tool (with the matching engine).





# ENGINE Specification

**Manufacturer: PERKINS**

Model	1106A - 70TAG4
Engine speed Rated	1500 RPM
Cylinder /Arrangement	6/ L
Displacement	7.01L
Bore and Stroke	105 mm × 135 mm
Compression ratio	16.0 : 1
Max. stand by power at rated RPM	196.3KW
Frequency regulation , steady state	≤5%
Governor : type	Electrical

### Exhaust System

Exhaust gas flow	36.8L/min
Exhaust temperature	550 °C
Max back pressure	6kPa

### Fuel System

Fuel consumption100% (of the Prime Power)	45.8L / h
Fuel consumption75% (of the Prime Power)	34.7L / h
Fuel consumption50% (of the Prime Power)	23.1L / h
Fuel consumption110% (of the Prime Power)	49.4L / h

### Oil system

Total oil capacity w/filters	18L
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### Air intake

Engine air flow	13.2L/min
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### Coolant System

Radiator & engine capacity	20.5L
Max water temperature	110 °C
Thermostat	85-95 °C



- Perkins engines with fast and reliable cold boost.
- Advanced technology on burning Combustion optimization, low fuel consumption and low noise, emission meets German TALuft standard.
- Reasonable coupling creates best compounding function, provides reliable and high-performance power products.
- Integrated structure of generator with fuel tank and base frame and internal high-efficiency anti-vibration.

Note: All data sheets are for reference only and subject to change without prior notice.





# ALTERNATOR Specification

## Manufacturer: STAMFORD

Type	UCI 274H
Number of phase power	3
Factor (Cos Phi)	0.8
Pole	4
Bearing	1
Coupling	Direct
Exciter type	Brushless SHUNT
Insulation : class , temperature rise	H / H
Degree of protection	IP23
AVR model	AS440
Altitude	≤1000m
Winding Pitch	2/3
Winding Leads	6/12

### FEATURES

- Utilising wire-wound\* (random-wound) technology
- Environment alternators are the industry benchmark for all generator set configurations.
- Brushless excitation with AVR
- IP21, IP22, IP23, IP44 enclosure protection.
- The ideal solution for marine/offshore, UPS, telecoms, basic and advanced protection, construction and other continuous or standby power applications.

### STANDARDS

- GB755, BS5000 part three, VDE0530, NEMA MG1-22, IEC-34, CSA C22-100 and AS1359
- All alternators are manufactured in ISO 9001 and ISO 14001 environments.

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# STAMFORD





# Control Panel

**Model:** SGC 420

**SINGLE GENSET CONTROLLERS.**

## DIMENSIONS

### OVERALL

233mm x 173mm x 38.5mm

### PANEL CUTOUT

219mm x 158mm



### KEY FEATURES

- Auto, manual and remote start/stop modes with night restriction option
- 17 inputs, configurable
- 5 resistive
- 2 analogue I/V
- 1 differential
- 9 digital
- 7 digital outputs, configurable
- Modbus over RS-485
- Manually configurable from the controller front buttons or from a PC using DEIF Smart Connect utility software
- Backlit full graphics LCD with power saving feature for extended battery lifetime
- Supports the battery charging alternator I/O interface
- Supports Auto mode (site battery monitoring, AMF, remote start/stop, auto exercise and cyclic) and manual running modes
- Magnetic Pickup Unit (MPU) interface for engine speed measurement
- Auto exercise mode (2 events) to start and stop the genset for a preconfigured time
- Monitors 1-phase/3-phase voltage, frequency, load current and power factor for generator
- Monitors engine safety parameters like lube oil pressure, engine temperature, fuel level and more
- Monitors telecom site battery backup level and shelter temperature to reduce engine running and fuel consumption at telecom tower sites
- Controls start relay, fuel relay, alarm horn and more as digital outputs
- Event log for 100 events with real time clock (RTC) stamps and engine running hours information
- Counters for engine starts, engine trips, engine running hours, genset and Mains kWh, kVAh, kvarh
- Measures mains kW, kVA
- CANbus for engine communication with support for Stage 5/ Tier 4 Final

### KEY FUNCTIONS

- LCD display
- True RMS voltage and current monitoring
- RS-485 base communication
- Monitoring of engine and alternator parameters
- Fully configurable inputs and outputs for a wide range of functions