

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	44.9
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	2485mm*950mm*1535mm	1726 Kg
Silent Type	3456mm*1126mm*1900mm	2848 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	36.6L/min
Exhaust temperature	580°C
Max back pressure	10.0kPa

Fuel System

Fuel consumption100% (of the Prime Power)	44.9L / h
Fuel consumption75% (of the Prime Power)	
Fuel consumption50% (of the Prime Power)	
Fuel consumption25% (of the Prime Power)	

Oil system

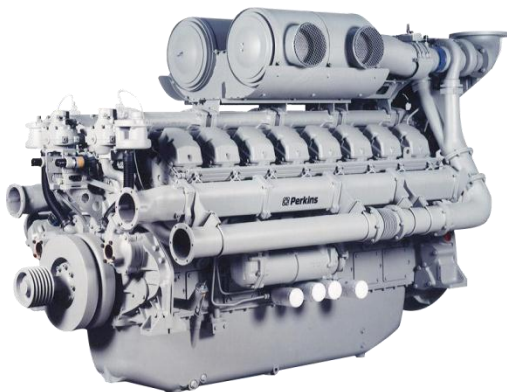
Total oil capacity w/filters	16.5L
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Air intake

Engine air flow	14.5L/min
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Coolant System

Radiator & engine capacity	21.0 L
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

AUTOMATIC MAINS FAILURE CONTROLLER

InteliLite® controllers are equipped with a powerful graphic display. Icons, symbols and bar graphs for intuitive operation together with high functionality set new standards in gen-set control.

Special low temperature (IL-AMF 20-LT or IL-AMF 25-LT) version is also available, allowing the display to work up to -30°C.



KEY FEATURES

- Support of engines equipped with Electronic Control Unit (J1939 interface)
- Comprehensive diagnostic messages; SPN/FMI codes; KWP2000 support
- Automatic or manual start/stop of the gen-set
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display 128x64 pixels
- 6 LED indicators
- Parameters adjustable via keyboard or PC
- Mains measurements (50/60 Hz): U1-U3, Hz
- Generator measurements (50/60 Hz): U1-U3, I1-I3, Hz, kW, kVAr, kWh
- Selectable protections alarm/shutdown
- 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Overcurrent/overload
- 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface (AT-LINK CONV cable is necessary for IL-AMF 20)
- Modem communication support (IL-AMF 25 only)
- Dimensions 180x120 mm (front panel)
- Sealed to IP65

KEY BENEFITS

- Less wiring and components
- Integrated solution
- Less engineering and programming
- Perfect price/performance ratio