



PPE30A

Prime Power: 22KW/28KVA Standby Power: 24KW/30KVA Voltage: 400V

Powered by Perkins 404D-22T Engine

Genset Performance

230/400V, 50Hz, 0.8PF, 3 Phases 4 wires

■ Frequency drop ≤3%

■ Voltage regulation ≤0.3%

■ The steady state frequency ≤0.5%

■ The steady state voltage deviation $\leq \pm 1\%$

■ The transient frequency deviation ≤+10% ≤-15%

■ The transient voltage deviation ≤+20% ≤-15%

■ Frequency recovery time ≤3S

■ Voltage recovery time ≤1S(Voltage±3%)

■ THF (Telephone Harmonic Factor) <3

TIF (Telephone Influence Factor) <50
 Comply to Standard NEMA MG1-22.43

Standard equipped with ambient temperature 40 °C

Connecting radiator

Built-in vibration isolator with high performance on shock absorption.

Product standards: (1) GB/T 2820-2022 / IS08528:2018

(2) GB/T 4712-2008 (3) YD/T 502-2020 (4) YD/T 1051-2018

Optional Items

- Starting batteries
- Fuel tank
- Oil-water separator
- Sensor for low coolant level, low fuel/oil level
- Automatically monitoring & controlling system of city power
- Coolant heater
- Oil heater
- Heat exchanger--Water cooled tower system
- Silent type/Trailer
- Standardized container
- Design and construction of environmental protection; engineering for the Genset room.

Standard Configuration

- Perkins Engine
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40°C standard ambient temperature (50°C Optional)
- Circuit breaker (3P)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Bottom fuel tank
- Manual book and files



Equipment Instruction



Diesel Engine

■ Model: 404D-22T

- The Perkins® 400 Series engine family continues to set new standards in the compact engine market. Developed alongside customers to fulfill their needs in the generator set, compressor, agricultural and general industrial markets;
- These ElectropaKs provide compact power, from a robust family of 3 and 4 cylinder diesel engines designed to provide economic and durable operation at prime and standby duties, hitting the key power nodes required by the power generation industry;
- The 404D-22T ElectropaK is a powerful but quiet 2.2 litre turbocharged aftercooled 4-cylinder compact package;
- Design features on the 400D range of ElectropaKs ensures clean rapid starting in all conditions whilst delivering impressive performance with low operating costs in a small, efficient package size;
- Approved for operation on biodiesel* concentrations of up to 20%;
- Oil and filter changes are 500 hours, dependent on load factor;
- Engine durability and reliability, the warranty offering and ease of installation combine to drive down the cost of ownership;



Alternator

- Optional brands: Stamford / Marathon / Faraday / Engga / Mecc Alt
- Brushless, 4 pole rotating magnetic field, single bearing with protective cover.
- Insulation: H Class.
- IP Class: IP23
- Cooling system
- AC exciter, rotate rectifying
- The stator winding is impregnated and the surface is covered with moisture-proof epoxy insulating paint.
- Rotor and exciter made with high temperature insulating resin, to satify tough environment.
- Rotor dynamic balancing complys for BS5625, class 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.



Intelligent Control System



Standard Meters

- 3 phases voltage: Ua, Ub, Uc
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed

- 3 phases current: La, Lb, Lc
- Active power PA
- Power factor PF
- Temperature °C display
- KPa/Psi/Bar display
- Battery voltage V
- Running Hour
- Starting timer: (999999)



Standard Protection Function

Genset Protection

Programmable I/O signal

Engine Protection

- Stop for over speed
- Low oil pressure
- High Coolant temperature
- Sensor fail

Alternator Protection

- Over Voltage
- Over current
- Voltage signal lost

Control System Components

- Manual/auto/stop/start
- Setting button
- Fault status indicators

- Emergency stop
- Alarm for low/high battery voltage
- Low battery voltage
- Fail to start/Cranking fail
- Over Voltage
- Over frequency
- Under frequency
- Screen menu selection button
- Emergency stop button
- Digital displayer



Communication Interface

(Option)

International standard MODBUS communication protocol RS232/ RS485 is suitable for remote control and monitor; It is easy integrated with SCADA;.

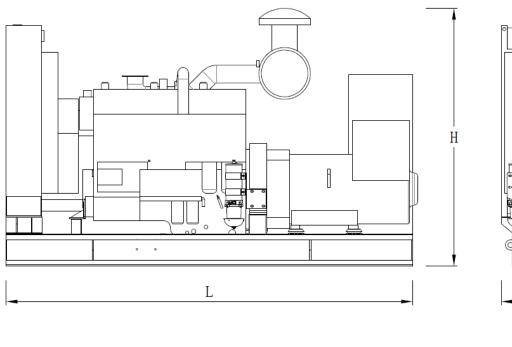
Data sheet of Genset

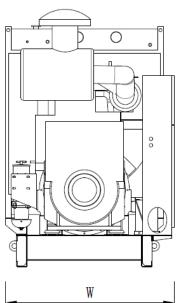


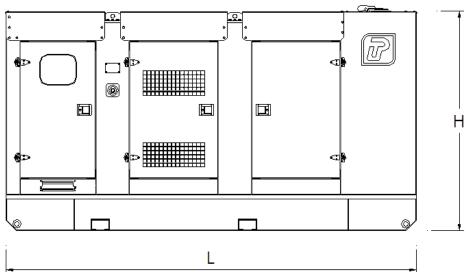
Model	Genset				
Standby Rating (kw)	Model	PPE30A			
Rate current(A) 39.7 Power factor 0.8 Frequency(Hz) 50 Engine Engine 404D-22T Gross Engine output-Prime (kw) 24.9 Gross Engine output-Prime (kw) 27.4 Bore * stroke (mm) 84*100 Cylinders and structure 4 In line Displacement(Liter) 2.216 Compression Ratio 23.3:1 Intake way Turbocharged Max intake resistance (KPa) 6.4 Air intake (m3/h) 124.8 Max exhaust back pressure (KPa) 10.2 Exhaust gas flow (m3/h) 220 Exhaust temp (♥) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature(♥) 112 Minimum air opening to room (m2) 1.0/0.75 Thermostat range (♥) 82-95 Max oil temperature (♥♥) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption(L/H) 7.1 Standard Govemor/Class Electronic Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class IP21-24 Insulation class IP21-24 Insulation class IP21-24	Prime Rating (kw)	22			
Power factor 0.8 Frequency(Hz) 50	Standby Rating (kw)	24			
Engine Engine Engine	Rate current(A)	39.7			
Engine Engine Engine Engine Engine Engine Engine Model Engine A04D-22T	Power factor	0.8			
Engine Model 404D-22T Gross Engine output-Prime (kw) 24.9 Gross Engine output-Prime (kw) 27.4 Bore * stroke (mm) 84*100 Cylinders and structure 4. In line Displacement(Liter) 2.216 Compression Ratio 23.3:1 Intake way Turbocharged Max intake resistance (KPa) 6.4 Air intake (m3/h) 124.8 Max exhaust back pressure (KPa) 10.2 Exhaust gas flow (m3/h) 220 Exhaust temp (℃) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature(℃) 112 Minimum air opening to room (m2) 1.0/0.75 Thermostat range (℃) 82-95 Max oil temperature (℃) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption(L/H) 7.1 Standard Governor/Class Electronic Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class Insulation class Insulation class Insulation class Insulation class	Frequency(Hz)	50			
Gross Engine output-Prime (kw) Gross Engine output-Standby (kw) Bore * stroke (mm) Cylinders and structure A In line Displacement(Liter) Compression Ratio Compression Ratio Intake way Max intake resistance (KPa) Air intake (m3/h) Max exhaust back pressure (KPa) Exhaust gas flow (m3/h) Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) Coolant capacity (L) Highest water temperature (℃) Max oil temperature (ℂ) Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Rated Voltage(V) Cuth Cools Rated Phase Rated Phase Phase Protection class Insulation class Insulation class Insulation class Insulation class Insulation class Controller	Eng	ine			
Gross Engine output-Standby (kw) 27.4 Bore * stroke (mm) 84*100 Cylinders and structure 4 In line Displacement(Liter) 2.216 Compression Ratio 23.3:1 Intake way Turbocharged Max intake way 6.4 Air intake (m3/h) 124.8 Max exhaust back pressure (KPa) 10.2 Exhaust gas flow (m3/h) 220 Exhaust temp (*C) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature(**C) 112 Minimum air opening to room (m2) 1.0/0.75 Themostat range (*C) 82-95 Max oil temperature (*C) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption(L/H) 7.1 Standard Governor/Class Electronic Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter	Engine Model	404D-22T			
Bore * stroke (mm)	Gross Engine output-Prime (kw)	24.9			
Cylinders and structure 4 In line Displacement(Liter) 2.216 Compression Ratio 23.3:1 Intake way Turbocharged Max intake resistance (KPa) 6.4 Air intake (m3/h) 124.8 Max exhaust back pressure (KPa) 10.2 Exhaust gas flow (m3/h) 220 Exhaust temp (°C) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature(°C) 112 Minimum air opening to room (m2) 1.0/0.75 Thermostat range (°C) 82-95 Max oil temperature (°C) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption(L/H) 7.1 Standard Governor/Class Electronic Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1%	Gross Engine output-Standby (kw)	27.4			
Displacement(Liter) 2.216 Compression Ratio 23.3:1 Intake way Turbocharged Max intake resistance (KPa) 6.4 Air intake (m3/h) 124.8 Max exhaust back pressure (KPa) 10.2 Exhaust gas flow (m3/h) 220 Exhaust temp (**C) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature(**C) 112 Minimum air opening to room (m2) 1.0/0.75 Thermostat range (**C) 82-95 Max oil temperature (**C) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption(L/H) 7.1 Standard Governor/Class Electronic Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class IP21-24 Insulation class IP21-24 Insulation class IP21-24 Insulation class IP21-24 Insula	Bore * stroke (mm)	84*100			
Compression Ratio 23.3:1 Intake way	Cylinders and structure	4 In line			
Intake way	Displacement(Liter)	2.216			
Max intake resistance (KPa) 6.4 Air intake (m3/h) 124.8 Max exhaust back pressure (KPa) 10.2 Exhaust gas flow (m3/h) 220 Exhaust temp (**C) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature(**C) 112 Minimum air opening to room (m2) 1.0/0.75 Thermostat range (**C) 82-95 Max oil temperature (**C) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption(L/H) 7.1 Standard Governor/Class Electronic Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H	Compression Ratio	23.3:1			
Air intake (m3/h) 124.8 Max exhaust back pressure (KPa) 10.2 Exhaust gas flow (m3/h) 220 Exhaust temp (°C) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature (°C) 112 Minimum air opening to room (m2) 1.0/0.75 Thermostat range (°C) 82-95 Max oil temperature (°C) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption (L/H) 7.1 Standard Governor/Class Electronic Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H	Intake way	Turbocharged			
Max exhaust back pressure (KPa) 10.2 Exhaust gas flow (m3/h) 220 Exhaust temp (℃) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature(℃) 112 Minimum air opening to room (m2) 1.0/0.75 Thermostat range (℃) 82-95 Max oil temperature (℃) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption(L/H) 7.1 Standard Governor/Class Electronic Alternator Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H	Max intake resistance (KPa)	6.4			
Exhaust gas flow (m3/h) Exhaust temp (℃) Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) Coolant capacity (L) Highest water temperature(℃) Minimum air opening to room (m2) Thermostat range (℃) As-95 Max oil temperature (℃) Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way Alternator Rated power factor Exciter Max voltage regulation Phase 3 Protection class H Controller	Air intake (m3/h)	124.8			
Exhaust temp (°C) 490 Cooling way Water Radiator & Fan Fan exhaust flow (m3/min) 40.2 Coolant capacity (L) 9.3 Highest water temperature(°C) 112 Minimum air opening to room (m2) 1.0/0.75 Thermostat range (°C) 82-95 Max oil temperature (°C) 125 Lubrication system oil capacity (L) 10.6 Rate load fuel consumption(L/H) 7.1 Standard Governor/Class Electronic Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H Controller	Max exhaust back pressure (KPa)	10.2			
Cooling way Fan exhaust flow (m3/min) Coolant capacity (L) Highest water temperature(°C) Minimum air opening to room (m2) Thermostat range (°C) Max oil temperature (°C) Lubrication system oil capacity (L) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way Rated power factor Max voltage regulation Phase Phase Insulation class Insulation class H Controller	Exhaust gas flow (m3/h)	220			
Fan exhaust flow (m3/min) Coolant capacity (L) Highest water temperature(°C) Minimum air opening to room (m2) Thermostat range (°C) Max oil temperature (°C) Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way 3 Phases, 4 wires Rated power factor Max voltage regulation Phase Protection class IP21-23 Insulation class H Controller	Exhaust temp (°C)	490			
Coolant capacity (L) Highest water temperature(°C) Minimum air opening to room (m2) Thermostat range (°C) Max oil temperature (°C) Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way 3 Phases, 4 wires Rated power factor Max voltage regulation Phase 3 Protection class Insulation class L12 10.6 82-95 10.6 10.6 10.6 10.6 10.6 10.8 Electronic Alternator Rated Flectronic Alternator 8 Phase 3 Protection class H Controller	Cooling way	Water Radiator & Fan			
Highest water temperature(°C) Minimum air opening to room (m2) Thermostat range (°C) B2-95 Max oil temperature (°C) Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way Rated power factor Exciter Max voltage regulation Phase Protection class IP21-23 Insulation class 1.0/0.75 1.0/0.75 82-95 82-95 1.0/0.75 1.0/0.	Fan exhaust flow (m3/min)	40.2			
Minimum air opening to room (m2) Thermostat range (°C) B2-95 Max oil temperature (°C) Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way 3 Phases, 4 wires Rated power factor Exciter Max voltage regulation Phase 3 Protection class Insulation class Insulation class Controller	Coolant capacity (L)	9.3			
Thermostat range (°C) Max oil temperature (°C) Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way 3 Phases, 4 wires Rated power factor Exciter Max voltage regulation Phase Protection class Insulation class H Controller	Highest water temperature(℃)	112			
Max oil temperature (°C) Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way 3 Phases, 4 wires Rated power factor Exciter Max voltage regulation Phase Protection class Insulation class Insulation class Lubrication 10.6 10.8 10.8 10.9 10.	Minimum air opening to room (m2)	1.0/0.75			
Lubrication system oil capacity (L) Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way 3 Phases, 4 wires Rated power factor Exciter Max voltage regulation Phase 3 Protection class Insulation class H Controller	Thermostat range (℃)	82-95			
Rate load fuel consumption(L/H) Standard Governor/Class Electronic Alternator Rated Voltage(V) Output Way Standard Governor/Class Rated Power factor Exciter Max voltage regulation Phase Protection class Insulation class H Controller	Max oil temperature (℃)	125			
Standard Governor/Class Alternator Rated Voltage(V) Output Way Standard Factor Rated power factor Exciter Max voltage regulation Phase Protection class Insulation class Electronic 230/400 230/400 3 Phases, 4 wires 0.8 Brushless, Self-exciter ±1% Phase 3 Protection class H Controller	Lubrication system oil capacity (L)	10.6			
Alternator Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H Controller	Rate load fuel consumption(L/H)	7.1			
Rated Voltage(V) 230/400 Output Way 3 Phases, 4 wires Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H Controller	Standard Governor/Class	Electronic			
Output Way Rated power factor Exciter Brushless, Self-exciter Max voltage regulation Phase 3 Protection class Insulation class H Controller	Alternator				
Rated power factor 0.8 Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H Controller	Rated Voltage(V)	230/400			
Exciter Brushless, Self-exciter Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H Controller	Output Way	3 Phases, 4 wires			
Max voltage regulation ±1% Phase 3 Protection class IP21-23 Insulation class H Controller	Rated power factor	0.8			
Phase 3 Protection class IP21-23 Insulation class H Controller	Exciter	Brushless, Self-exciter			
Protection class IP21-23 Insulation class H Controller	Max voltage regulation	±1%			
Insulation class H Controller	Phase	3			
Controller	Protection class	IP21-23			
	Insulation class	Н			
Brand POWERTEC	Controller				
	Brand	POWERTEC			

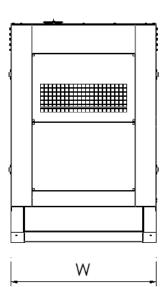
Dimension and Weight











Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	1750*823*1229	578	110
Silent Type	2300*900*1550	1128	160

Contact Us

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