



## PCC825B

Prime Power: 600KW/750KVA Standby Power: 660KW/825KVA Voltage: 400V

Powered by Cummins KTA38-G2 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</p>

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

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

## **Standard Configuration**

- Cummins 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
- Manual book and files

## **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
- Trailer
- 20GP or 40HQ container type canopy
- Design and construction of environmental protection engineering for the Genset room



1 / 5 PGS: PCC825B 12/2023

# **Equipment Instruction**



## **Diesel Engine**

- Model: KTA38-G2
- Construction: replaceable wet type cylinder block has excellent radiation. Mature standard spare parts commonly apply to other engine in this series. Cylinder block and head will have no fault with the designment of internal oil passage and compact structure
- Cooling system: Adopt gear centrifugal water pump to cool down water temperature. With large flow channel designmeng, it has good cooling performance;
- Fuel system: Cummins patented technology (PT) fuel system optimizes combustion and reduces emission;
  - The engine may be operated at : 1800 RPM up to 5000 ft. (1525 m) and 104° F (40  $^{\circ}$ C) without power deration. 1500 RPM up to 5000 ft. (1525 m) and 104  $^{\circ}$  F (40  $^{\circ}$ C) without power deration. For sustained operation above these conditions, derate by 4% per 1,000 ft.(300 m), and 1% per 10  $^{\circ}$  F (2% per 11  $^{\circ}$ C).

### **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
- Rotor and exciter made with high temperature insulating resin, to satify tough environment.
- Rotor dynamic balancing complys for BS5625, class 2.
- Sealed with advanced lubricating grease to prolong life of bearing.



2 / 5 PGS: PCC825B 12/2023

# **Intelligent Control System**



# Standard

- 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**

#### **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;

3 / 5 PGS: PCC825B 12/2023

# **Data sheet of Genset**

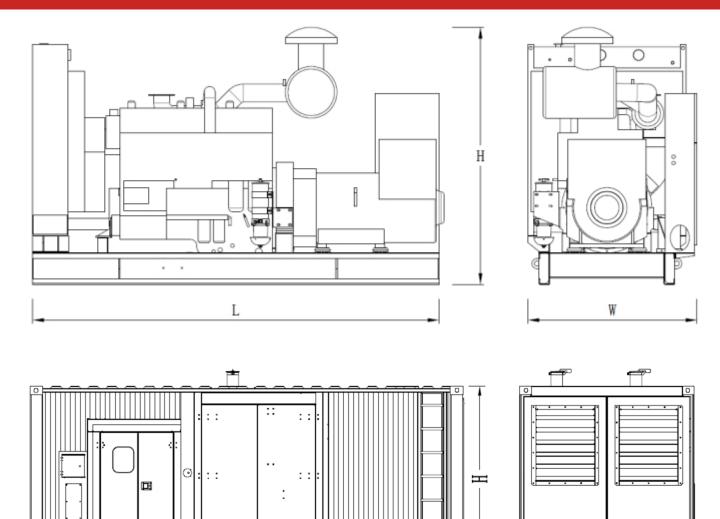


 Genset						
Model PCC825B						
Prime Rating (kw)	600					
Standby Rating (kw)	660					
Rate voltage(V)	400					
Rate current(A)	1083					
Power factor	0.8					
Frequency(Hz)	50					
Eng	ine					
Engine Model	KTA38-G2					
Gross Engine output-Prime (kw)	664					
Gross Engine output-Standby (kw)	731					
Bore * stroke (mm)	159*159					
Cylinders and structure	12 Cylind,60°Vee					
Displacement(Liter)	38					
Compression Ratio	14.5:1					
Intake way	Turbocharged/Water-Air intercooler					
Max intake resistance (KPa)	6.23					
Air intake (m3/h)	3060					
Max exhaust back pressure (KPa)	10					
Exhaust gas flow (m3/h)	8633					
Exhaust temp (°C)	541					
Cooling way	Water Radiator & Fan					
Fan exhaust flow (m3/min)	1140					
Coolant capacity (L)	303					
Highest water temperature(°C)	96					
Minimum air opening to room (m2)	4.8/4.0					
Thermostat range (°C)	82-93					
Max oil temperature (°C)	121					
Lubrication system oil capacity (L)	135					
Rate load fuel consumption(L/H)	170					
Standard Governor/Class	Electronic					
Altern	nator					
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	Н					
Controller						
Brand	POWERTEC					

4 / 5 PGS: PCC825B\_12/2023

# **Dimension and Weight**





Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	4225*1805*2467	6799	-
Silent Type	6058*2438*2591	10559	1500

## Contact Us

## **Powertec Generator System Inc.**

Add: Danshui Yanna Industry Zone, Huiyang, Huizhou, Guangdong, China

**Tel:** +86 752-3911119 / 3911118

Fax: +86 752-3911110Web: www.powertec.com.cnEmail: powertec@powertec.com.cn

**5** / **5** PGS: PCC825B\_12/2023