

# GENERATOR SET TECHNICAL SHEET

# PAUWAY

Model: PWC688-60

440V | 60Hz | 1800RPM



| ENGINE             | CUMMINS<br>KTAA19-G5 | ALTERNATOR           | LEROY-SOMER<br>TAL A473 C |
|--------------------|----------------------|----------------------|---------------------------|
| PRP<br>PRIME POWER | 470kW<br>588kVA      | ESP<br>STANDBY POWER | 550kW<br>688kVA           |

Specifications are subject to change without notice.

## GENERAL FEATURES

GB/T 2820 (ISO 8528)

- I 40°C radiator, fans are driven by belt, with safety guard
- I Alternator: single bearing, IP23, insulation class H
- I Standard control panel
- I Lead-acid batteries, rack and cables
- I Vibration damper
- I Dry type air filter, fuel filter & oil filter
- I 24V charging alternator
- I Exhaust bellows, elbows, flange & muffler
- I User manual

### Standard Configuration (open type)

Overall Dimensions: 3400×1258×2050mm  
Weight: 4050kg

### Soundproof Type

Overall Dimensions: 4630×1660×2250mm  
Weight: 4900kg

### Container Type

Overall Dimensions: N/A  
Weight: N/A

## OPTIONS

- |                      |                  |                               |                                 |
|----------------------|------------------|-------------------------------|---------------------------------|
| ◇ Different Voltage  | ◇ Charging       | ◇ Cylinder Liner Water Heater | ◇ Condensate drain heater       |
| ◇ Soundproof type    | ◇ Rainproof type | ◇ Trailer type                | ◇ Automatic transfer switch     |
| ◇ Paralleling system | ◇ Switchgear     | ◇ Spare parts                 | ◇ Auto oil replenishment system |
| ◇ Daily fuel tank    | ◇ Base fuel tank |                               |                                 |

## WAY TO

P - Pioneering Power Solutions

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## SALES PROMISES

- All products are brand-new, with each unit subject to strict factory inspection.
- Warranty: 1 year from commissioning completion, 1,000 cumulative operating hours, or 15 months from shipment to Pauway Tianjin Manufacturing Base (for unused units) — whichever occurs first.
- Extended warranty: Available upon inquiry; provided by Bowei or its authorized agents.

## GENERATOR RATINGS

| Voltage V | Hz | Phase | PF<br>( $\cos\phi$ ) | Standby<br>Amps | Prime Ratings | Standby Ratings |
|-----------|----|-------|----------------------|-----------------|---------------|-----------------|
| 480/277   | 60 | 3     | 0.8                  | 827             | 470kW         | 550kW           |
| 440/254   | 60 | 3     | 0.8                  | 902             | 470kW         | 550kW           |
| 416/240   | 60 | 3     | 0.8                  | 954             | 470kW         | 550kW           |
| 380/220   | 60 | 3     | 0.8                  | 1045            | 470kW         | 550kW           |

I High voltage (optional): 6.6kV / 13.8kV (Special voltages customizable)

## GENERATING SET DATA

|                                                        |                |
|--------------------------------------------------------|----------------|
| Voltage setting range                                  | $\pm 5\%$      |
| Steady-state voltage deviation                         | $\leq \pm 1\%$ |
| Transient voltage deviation / 100% sudden reduction    | $\leq 25\%$    |
| Transient voltage deviation / sudden increase          | $\leq -20\%$   |
| Voltage stabilization time / 100% sudden reduction (s) | $\leq 6$       |
| Voltage stabilization time / sudden increase (s)       | $\leq 6$       |
| Frequency drop                                         | $\leq 5\%$     |
| Steady-state frequency drop                            | $\leq 1.5\%$   |
| Transient frequency deviation / 100% sudden reduction  | $\leq 12\%$    |
| Transient frequency deviation / sudden increase        | $\leq -10\%$   |
| Frequency recovery time / 100% sudden reduction (s)    | $\leq 5$       |
| Frequency stabilization time / sudden increase (s)     | $\leq 5$       |

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## ENGINE SPECIFICATION

KTAA19-G5

|                      |                  |
|----------------------|------------------|
| Manufacturer / Model | CUMMINSKTAA19-G5 |
| Prime Power          | 533kW            |
| Standby Power        | 605kW            |
| Rated speed (r/min)  | 1800             |
| No.Cylinder          | 6                |
| Cylinder arrangement | L                |
| Stroke               | 4                |
| Air intake system    | Turbo            |
| Governor type        | Electronic       |
| Bore and stroke      | 159×159mm        |
| Displacement         | 19L              |
| Compression ratio    | 13.9:1           |

## Fuel System

|                                            |          |        |
|--------------------------------------------|----------|--------|
| Fuel consumption @ 100% (Prime Power) Load | 208g/kWh | 134L/h |
| Fuel consumption @ 75% (Prime Power) Load  | 208g/kWh | 100L/h |
| Fuel consumption @ 50% (Prime Power) Load  | 197g/kWh | 71L/h  |

## Exhaust System

|                          |      |
|--------------------------|------|
| Exhaust gas flow (L/S)   | 1997 |
| Exhaust temperature (°C) | 429  |
| Max back pressure (kPa)  | 10   |

## Air Intake System

|                                |                                    |
|--------------------------------|------------------------------------|
| Combustion air flow (L/S)      | 722                                |
| Air flow required for radiator |                                    |
| Air Intake System              | Air filter & exhaust turbocharging |

## Oil System

|                         |                                  |
|-------------------------|----------------------------------|
| Oil System              | Oil filter、Oil pump、Oil dipstick |
| Total oil capacity (L)  | 50                               |
| Oil consumption (g/kWh) |                                  |

## Cooling System

|                            |                                            |
|----------------------------|--------------------------------------------|
| Cooling Type               | Water-cooled                               |
| Intercooling method        | Water-air intercooled                      |
| Cooling System             | Thermostat、Water pump、Radiator、Intercooler |
| Coolant capacity(L)        | 26.5(Engine Only)                          |
| Max water temperature (°C) | 98                                         |

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## ALTERNATOR SPECIFICATION

|                                   |                    |
|-----------------------------------|--------------------|
| Power (kVA)                       | 590                |
| Power (kW)                        | 472                |
| Alternator Efficiency(%)          | 96.1               |
| Number of Bearing                 | 1                  |
| Power Factor                      | 0.8                |
| Protection Class                  | IP23               |
| Altitude                          | ≤1000m             |
| Exciter Type                      | Brushless exciting |
| Insulation Class/Temperature Rise | H/H                |
| THF                               | <2%                |

Industrial alternators meet the requirements of the relevant parts of the BS5000, VDE 0530, NEMA MG1-22, IEC34, CSA 22.2-100 and AS1359.

·Note: Generator parameters may vary depending on brand, voltage level and other factors

## Control Functions

Main functions

|                                                               |                                                            |
|---------------------------------------------------------------|------------------------------------------------------------|
| 4-line text display                                           | 6 customizable output channels                             |
| Multi-language display                                        | 4 customizable analog/digital input channels               |
| 5 menu navigation keys                                        | Supports 0-10V or 4-20mA sensors                           |
| LCD alarm indication                                          | Speed detection via CAN, MPU and generator frequency       |
| Customizable startup screen, text and screen saver            | Built-in real-time clock (RTC)                             |
| Compatible with all expansion modules                         | Manual/automatic fuel pump control                         |
| Data logging                                                  | Engine pre-heating and post-heating                        |
| Built-in powerful PLC function                                | Built-in powerful PLC function                             |
| Emergency mode (all protections disabled)                     | Preset multiple start-stop cycles                          |
| Front panel editable parameters (with password protection)    | Engine start/stop idle speed                               |
| Power-saving mode                                             | Fuel level alarm                                           |
| 3-phase generator detection and protection                    | 3 customizable maintenance reminders                       |
| 3-phase mains detection and protection (PEC6.12 only)         | Supports EFI engines, including Tier 4 engines             |
| ATS switch control (PEC6.12 only)                             | Parameter setting via free DSE software                    |
| Unit current and power monitoring (kW, kvar, kVA, pf)         | IP65 protection rating for better water resistance         |
| Mains current and power monitoring (kW, kvar, kVA, pf)        | Can read parameters of other devices via CAN communication |
| Overload protection                                           | Supports J1939-75 CAN communication                        |
| Overcurrent protection                                        | Shield EFI engine CAN alarms                               |
| Front panel manual control of circuit breaker closing/opening | 1 set of backup protection parameters                      |
| Customizable fuel and start output ports for EFI engines      |                                                            |

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## PAUWAY HIGHLIGHT

### /// Efficiency

- Low consumption
- High reliability
- High quality power supply
- Long maintenance cycle

### /// Support

- Provide global product warranty and technical

### /// Standard

- The generator set is designed and manufactured in
- The engine used conforms to ISO 2008:9001 and
- The generator used conforms to NEMA MG1, EN and IEC standards

### /// Rated power

- System Rating: power will vary with the change of alternator
- According to ISO 8528-5, the generator set conforms to G3
- According to ISO 8528-5, the generator set is allowed to use standby power

### /// Performance assurance certification (PAC)

- Meeting ISO 8528-5 test transient response of genset
- Strong load carrying capacity at one time
- Product design, quality and performance
- All systems have been factory tested.

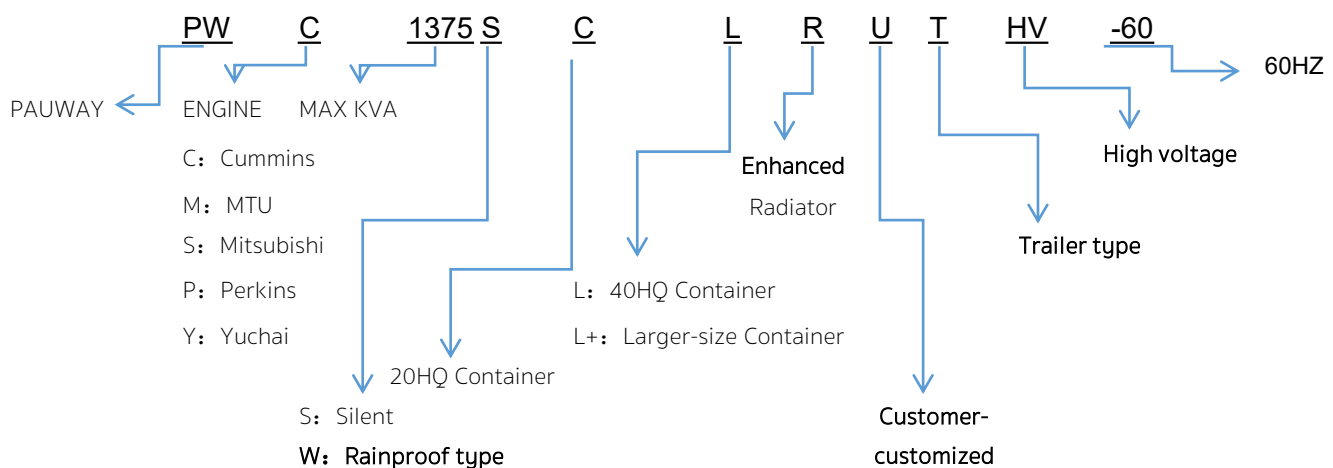
### /// Provide full set of spare parts

- Control panel
- Circuit breaker/Power distribution
- Fuel system
- Exhausting system
- Fuel connection with shut-off valve mounted on base
- Starting / charging system
- Mechanical / electrical driven radiator system
- Suitable model of AC alternator

### /// Certification

- CE certificate

## NAMING PRINCIPLE



# PAUWAY

TIANJIN PAUWAY POWER EQUIPMENT CO.,LTD  
WEBSITE: [WWW.PAUWAYPOWER.COM](http://WWW.PAUWAYPOWER.COM)  
EMAIL: [SALES@PAUWAY.CN](mailto:SALES@PAUWAY.CN)  
TEL: +86-22-86859198