



# **PYC415B**

Prime Power: 300KW/375KVA Standby Power: 330KW/413KVA Voltage: 400VAC

Powered by Yuchai YC6MJ500-D30 Engine

### **Genset Performance**

230/40	OVAC, 5	50Hz,	0.8PF,	3 I	Phases	4	wires
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■ 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</li>
 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.

### **Standard Configuration**

- Guangxi Yuchai Engine
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40°C standard ambient temperature (50°C Optional)
- Molded case 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
- Silent type/Trailer
- Standardized container
- Design and construction of environmental protection; engineering for the Genset room.



## **Equipment Instruction**



## **Diesel Engine**

- Model: PYC415B-YC6MJ500-D30
- Construction: High strength cylinder block, alloy forged steel crankshaft, alloy steel connecting rod and inner cooling oil channel piston make the engine more durable, lighter and more compact in similar products.
- Intake: Charge inter-cooling
- Advanced and mature electronic common rail + high efficiency booster technology is adopted to accurately control the fuel injection volume. Adequate intake to ensure that the diesel engine under different loads, full combustion, less emissions.



- Using full-flow oil cooler and heat dissipation efficiency is increased by 30%. Oil temperature is effectively reduced.
   Lubricating oil at a reasonable temperature is to reduce friction loss.
- The piston adopts internal cooling channel to cool oil, effectively reducing the piston temperature so as to have a long service life.
- Adopt German FEV technology platform; Reliability, fuel consumption and other main performance indicators reach the advanced level in China; Meet the requirement of G3 grade of genset performance.
- Conform to non-road country T3 and European S3A standards.

#### Engine Operating Environment Description:

1800r/min engine--altitude less than 1000 m, ambient temperature less than 40  $\,^{\circ}$ C 1500r/min engine--altitude less than 1000 m, ambient temperature less than 40  $\,^{\circ}$ 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
- 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 with BS5625, class 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.



Notes: Above data of alternator comes from Stamford. Specification may alternated without advance notice.

# **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;.

Notes: Above data of controller comes from POWERTEC GC6110. Customized solutions is available as required

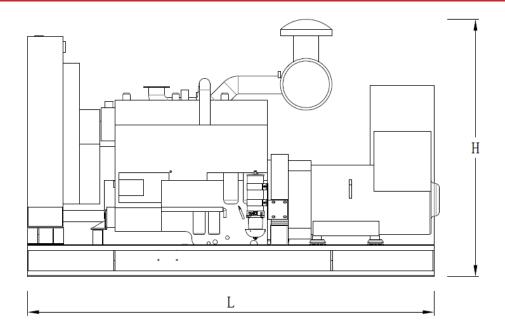
# **Data sheet of Genset**

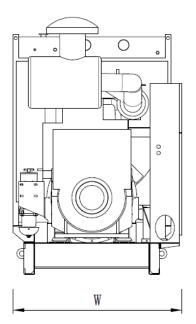


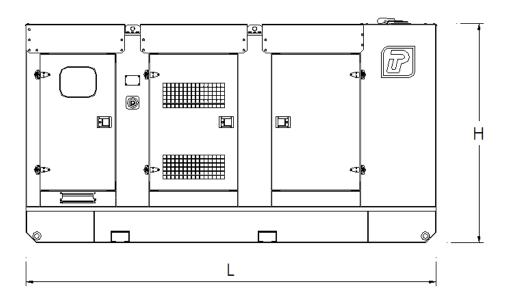
Genset							
Model	PYC415B						
Prime Rating (kw)	300						
Standby Rating (kw)	330						
Rate voltage(V)	400						
Rate current(A)	541						
Power factor	0.8						
Frequency(Hz)	50						
Engine							
Engine Model	YC6MJ500-D30						
Gross Engine output-Prime (kw)	334						
Gross Engine output-Standby (kw)	367						
Bore * stroke (mm)	131*145						
Cylinders and structure	6 In line						
Displacement(Liter)	11.726						
Compression Ratio	16.8:1						
Intake way	Charge inter-cooling						
Max intake resistance (KPa)	5						
Air intake (m3/h)	1374						
Max exhaust back pressure (KPa)	10						
Exhaust gas flow (m3/h)	3546						
	550						
Exhaust temp (°C) Cooling way	Water Radiator & Fan						
Fan exhaust flow (m3/min)	650						
Coolant capacity (L)	62						
	99						
Minimum air opening to room (m2)	2.5/2.2						
	80-90						
Thormostat range (°C)	120						
Lubrication system oil capacity (L)	30						
Rate load fuel consumption(L/H)	82						
Standard Governor/Class	Electronic						
Alteri	nator						
Rated Voltage(V)	400/230						
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 GC7110.2						
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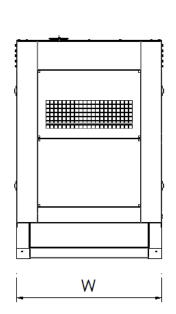
# **Dimension and Weight**











Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3037*1306*1689	3000	-
Silent Type	3950*1400*2115	4400	600

### **Contact Us**

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