

# **TY1100Z**

### 50Hz POWERED BY PERKINS SERIES





### TECHNICAL SPECIFICATIONS

### DIESEL GENERATING SET 400/230V-50Hz-3Phase

Model	TY1100Z		
Power(ESP)	kVA/kw	1125/900	
Power(PRP)	kVA/kw	1000/800	
Starter Voltage	v	24	
Rated Current	A	1624	
Rated rotation speed	r/min	1500	
Power Factor		0.8	
<b>Fuel Consumption</b>	L/h	225.3	
Fuel Tank Capacity	L	Open Type :NA/ Silent Type: NA	
Noise level	dB(A)@7m		

### WEIGHT AND DIMENSIONS

GEN-Set	Dimension ( L*W*H )	Weight
Open Type		
Silent Type		

### **STANDARDS:**

Genset: GB/T2820—2009,ISO8528 Alternator: SINOCOX, SMF400F

Diesel Engine: YUCHAI, YC12VTD1350-D30

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: YUCHAI		
Model	YC12VTD1350-D30	
Engine speed Rated	1500 RPM	
Cylinder /Arrangement	12/V	
Displacement	39.2 L	
Bore and Stroke	152mm×180 mm	
Compression ratio	14:1	
Max. stand by power at rated RPM	990KW	
Frequency regulation , steady state	≤0.5%	
Governor: type	Electronically-control high pressure common rail	
Aspiration and Cooling	Turbocharged & Intercooled	
Exhaust System		
Exhaust gas flow	205m3/min	
Exhaust temperature	550 ℃	
Max back pressure	10kPa	
Fuel System		
Fuel consumption 100% (of the Prime Power)	225.3 L/h	
Fuel consumption 75% (of the Prime Power)	168.3 L/h	
Fuel consumption 50% (of the Prime Power)	116.9 L/h	
Fuel consumption 110% (of the Prime Power)	250.8 L/h	
Oil system		
Total oil capacity w/filters	210L	
Air intake		
Engine air flow	118m ³min	
Coolant System		
Radiator & engine capacity	740 L	
Max water temperature	97 ℃	



Thermostat

Four-valve design with sufficient air intake, intermediate injector with full fuel-air mixing and sufficient combustion.

75-85 ℃

High injection pressure, good atomization, sufficient combustion, high power density and light weight.

The parts with good versatility, high degree of serialization, one-cylinder and one-cover structure, and low comprehensive maintenance costs.

Note: All data sheets are for reference only and subject to change without prior notice.



# **ALTERNATOR Specification**

## Manufacturer: SINOCOX

Туре	SMF400F	
Number of phase power	3	
Factor (Cos Phi)	0.8	
Pole	4	
Bearing	1	
Coupling	Direct	
Exciter type	PMG	
Insulation : class , temperature rise	$\mathrm{H}/\mathrm{H}$	
Degree of protection	IP23	
Altitude	≤1000m	
Winding Pitch	2/3	
Winding Leads	6	

### **FEATURES**

- Class H insulation system
- selectable winding,To meet the demand of the bad
- 12 Lead Reconnect, able for different voltage, meet the demand of different countries and regions
- 2/3 pitch windings restrain the content of harmonious
- Different Excitation Systems for different load demand
- Ip23 standard protection,IP44 for option
- Provide single bearing or double bearing

### **STANDARDS**

-IEC60034,NEMA MG1-32,ISO8528,CSA C22.2-100,VDE 0530,GB755

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## **Control Panel**

Model: SGC 420

SINGLE GENSET CONTROLLERS.

### DIMENSIONS

**OVERALL** 

233mm x 173mm x 38.5mm

PANEL CUTOUT

219mm x 158mm



### **KEY FEATURES**

- Auto, manual and remote start/stop modes with night restriction option
- ➤ 17 inputs, configurable
- > 5 resistive
- ➤ 2 analogue I/V
- ➤ 1 differential
- 9 digital
- > 7 digital outputs, configurable
- ➤ Modbus over RS-485
- Manually configurable from the controller front buttons or from a PC using DEIF Smart Connect utility software
- Backlit full graphics LCD with power saving feature for extended battery lifetime
- > Supports the battery charging alternator I/O interface
- Supports Auto mode (site battery monitoring, AMF, remote start/stop, auto exercise and cyclic) and manual running modes
- Magnetic Pickup Unit (MPU) interface for engine speed measurement
- Auto exercise mode (2 events) to start and stop the genset for a preconfigured time
- ➤ Monitors 1-phase/3-phase voltage, frequency, load current and power factor for generator

- Monitors engine safety parameters like lube oil pressure, engine temperature, fuel level and more
- Monitors telecom site battery backup level and shelter temperature to reduce engine running and fuel consumption at telecom tower sites
- Controls start relay, fuel relay, alarm horn and more as digital outputs
- Event log for 100 events with real time clock (RTC) stamps and engine running hours information
- Counters for engine starts, engine trips, engine running hours, genset and Mains kWh, kVAh, kvarh
- Measures mains kW, kVA
- CANbus for engine communication with support for Stage
  5/ Tier 4 Final

### **KEY FUNCTIONS**

- LCD display
- > True RMS voltage and current monitoring
- ➤ RS-485 base communication
- Monitoring of engine and alternator parameters
- Fully configurable inputs and outputs for a wide range of functions