



# TC880Z-1

### 50Hz POWERED BY CUMMINS SERIES





### TECHNICAL SPECIFICATIONS

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

Model	TC880Z-1		
Power(ESP)	kVA/kw	888/710	
Power(PRP)	kVA/kw	813/650	
Rated Voltage	V	400	
Rated Current	A	1282	
Rated rotation speed	r/min	1500	
Power Factor		0.8	
<b>Fuel Consumption</b>	Litre/hour	180	
Fuel Tank Capacity	Litre	Open Type: / Silent Type:	
Noise level	dB(A)@1m	Silent Type: ≤88	

### WEIGHT AND DIMENSIONS

GEN-Set	Dimension ( L*W*H )	Weight
Open Type	4557mm*2060mm*2200mm	
Silent Type	6058mm*2438mm*2591mm	

### **STANDARDS:**

Genset: GB/T2820-2009,ISO8528 Alternator: SINOCOX , SMF400D Diesel Engine: CUMMINS, QSK38-G7

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: CUMMINS	
Model	QSK38-G7
Engine speed Rated	1500 RPM
Cylinder /Arrangement	12 / V
Displacement	37.7L
Bore and Stroke	159 mm×159 mm
Compression ratio	15:1
Max. stand by power at rated RPM	783KW
Frequency regulation , steady state	±0.25%
Governor : type	Electrical
Aspiration and Cooling	Turbocharged and Low Temperature After-cooled
Exhaust System	
Exhaust gas flow	2903 L/s
Exhaust temperature	450 ℃
Max back pressure	NA
Fuel System	
Fuel consumption 100% (of the Prime Power)	180L/h
Fuel consumption75% (of the Prime Power)	137 L/h
Fuel consumption 50% (of the Prime Power)	96 L / h
Fuel consumption 110% (of the Prime Power)	196 L/h
Oil system	
Total oil capacity w/filters	170.3 L
Air intake	
Engine air flow	1239L/s
Coolant System	
Engine capacity	128.7 L
Max water temperature	104 ℃



Thermostat

• Cummins engines with advanced design, reliable performance, durable operation.

82-94 ℃

- Alloy-steel and connecting steel-lever, high durability
- High combustion efficiency and low fuel consumption, work continuously
- P/T pump injection technology, low cost, completely combustion

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





# **ALTERNATOR Specification**

## Manufacturer: SINOCOX

Туре	SMF400D	
Number of phase power	3	
Factor (Cos Phi)	0.8	
Pole	4	
Bearing	1	
Coupling	Direct	
Exciter type	PMG	
Insulation : class , temperature rise	H/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 environment
- 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