

MODEL: SYC825 INDUSTRIAL RANGE Powered by YUCHAI

YUCHAI



DIESEL GENERATING SET 400/230 V - 50 Hz - 3PHASE

POWER RATING		PRIME	STANDBY	
POWER	kVA	750	825	
FOWER	kW	600	660	
Rated Speed	r.p.m	1500		
Available Voltages	V	400/230 - 380/220-415/240V-440/254 etc		
Rated at power factor	Cos Phi	0.8		

Standard Reference Conditions: 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

Prime Power (PRP):

According to ISO 8528-1:2018, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output over 24 hours of operation shall not exceed 70 % of the PRP.

Emergency Standby Power (ESP):

According to ISO 8528-1:2018, Emergency standby power is the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hours of operation per year with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24 hours of operation shall not exceed 70 % of the ESP

ENGINE		PRIME	STANDBY
Rated Output	kW	680	748
Manufacturer		YUCHAI	
Model		YC6C10	20L-D20
Number of Cylindirs and arrangement		4 Cycle; In-line; 6 Cylinder Diesel	
Aspiration Type		Turbocharged,after cooled	
Bore and Stroke	mm	200X210	
Compresion Ratio		15.0:1	
Cooling System		Water-cooled	
Engine Speed/Frequency	rpm/Hz	1500/50HZ	
Coolant Capacity	L	150	
Starting System		Electric 24 volt DC	
Displacement	L	39.584	
Lubricant system Capacity	L	180	



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Battery Volatge / Capacity			24\	/DC	
Governor	Туре		Elect	tronic	
Air Filter	Туре	Dry			
Fuel Consumption	Load	100%	75%	50%	25%
	L/h	156.0	117.0	78.0	39.0

ENGINE: Industrial 4 stroke cooled diesel engine complete with air, fuel and oil filters, electric starting and charging equipment, engine protection against low water level.

COOLING:Radiator and colling fan complete with protection guards, designed to cool engine at specified output in air temperatures upto 50 °C, radiators suitable for higher temperatures are available.Low water level protection fitted as standard.

ELECTRICAL SYSTEM:12/24V upto.Axial type starter motor,battery charging alternator,high capacity lead acid battery,and battery tray mounted on the generator base frame,and heavy duty interconnecting cable with terminations.

EXHAUST SYSTEM: Heavy duty industrial exhauset silencer with flexible piping.

ALTERNATOR MANUFACTURER	PRIME POWER	
Model	SMG-600KW	
Excitation System	Self-excited, brushless	
Number of Poles	4	
Connection Type	Star-Series	
Insulation Class	Class H	
Voltage Regulator	A.V.R. (Electronic)	
Bracker Type	Single bearing	
Steady Voltage Precision	± 1%	
Couping System	Flexible disc	
Coating Type	Standard (Vacuum impregnation)	
Underspeed Protection	Standard	
Ingress Protection Rating	IP23	
Wave Form NEMA=TIF	<50	

CONTROL PANEL: COMAP AMF9

Auto Mains Failure Control Panel

- Panel equipments:
- Δ Control with AMF module
- Δ Static battery charger
- Δ Emergency stop push button



a) Generating set control module features:

 Δ The module is used to monitor main supply and starts and stops of a standby generating set

 Δ Micro-processor based design

- Δ Automatic control of main and generator contactors
- Δ Monitors engine performance and AC power output LED alarm indication

c) Alarms:

- Δ Over and Under Speed
- Δ Low and High Battery Volt.
- Δ Start and Stop Failure
- ∆ Charge fail



Δ Front panel configuration of timers and alarm trip points
Δ CAN and magnetic pick-up versions(specify on ordering)
Δ Easy push button control
Δ STOP/RESET - MANUAL - AUTO - TEST – START

b) Metering via LED display:

Δ Generator Volts (L-L / L-N)	Generator kVA
Δ Engine oil pressure (PSI-Bar)	Generator kW

Δ Generator Ampere (L1,L2,L3) G

 Δ Engine temperature (°C&°F)

Δ Generator Frequency (Hz)

 Δ Engine run hours

∆ Mains Volts (Ph-Ph/Ph-N)

Voltage Regulation

Δ Voltage regulation maintanined within

Δ Between 0.8 and 1.0 lagging and uni Frequency Adjustable Ratio

Change load from 0-100%, within 1.0%

Frequency Undulation	
Δ Load from 0-100%, frequency undulation within 0.25%	Δ Effect factor of Telecom
Δ No load wire volts max undulation ration\ within 1.8%	Δ TIF better than 50
Δ Three Phrase balanced load in the order of 5%	Δ THF to IEC60034 Part 40 better than 2%
Robust Corrosion Resustant Construction	
Δ Black finish stainless stell lock and hinges	Δ Two large doors on each side

 Δ Body made from steelcomponents treated with polyester powder coating

 Δ Lube oil and cooling water drains pipes to exterior of the enclosure

Security and Safety

- Δ Control panel viewing window in a lockable access door
- Δ Emergency stop buttom mounted on enclosure interior
- Δ Cooling fan and battery charging alternator fully guarded

 Δ Exhaust silencing system totally enclosed for operator safely

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Δ Over Current

Δ Low Oil Pressure Δ Emergency stop

Δ Under / Over Generator Voltage

	Δ High engine temperature
Generator kVA	d) LED indications
Generator kW	Δ Mains available
Generator Cos (σ)	Δ Generator available
	Δ Mains on load
	Δ Generator on load
nin ±0.5%	Δ From no load to full load
nity	Δ At speed droop variation upto 4.5%
%(electric speed regulator),within 4.5	5%(mechanical speed regulator)



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Generating Sets Optional Features				
Engine	Alternator	Generator Sets	Fuel System	Canopy
Δ Water Jacket Preheater	∆ Winding Temperatrue Measuring Instrumeent	Δ Auto Transfter Switch	∆ Low fuel level alarm shutdown	Δ Super silent type
Δ Oil Preheater	∆ Alternator Preheater	Δ Parallel control panels	Δ Automatic Fuel Filling System	
ΔEngine oil feeding and drain pump	ΔPMG	Δ Trailer type Gensets		
	Δ Anti-damp and anti- corrosion treatment	Δ Residential Silencer		
	Δ Anti-condensation heater	Δ Bulk fuel tank		

Quality Standards	
ISO9001:2000,ISO14000,ISO3046	BS5514,AS1359,ICE34
ISO8528 BS4999	CE Compliance
Gensets Dimensions & Weight & Fuel Tank Capacity	
Open type:LxWxH (mm),Dry Weight / Kgs, Fuel tank (L)	Silent type:LxWxH (mm), Dry Weight / Kgs,Fuel tank(L)

4400*1500*2150, 5050Kgs

Silent type:LxWxH (mm), Dry Weight / Kgs,Fuel tank (L 5850*2320*2350, 10000Kgs

Local Distributor:





FUZHOU SUNSHINE MACHINERY CO., LIMITED Fuzhou, Fujian, China.



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