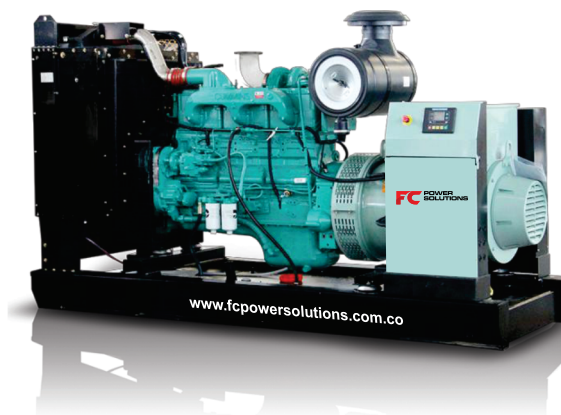


TC230LS

60Hz POWERED BY CUMMINS SERIES



TECHNICAL SPECIFICATIONS

DIESEL GENERATING SET 220/127V-60Hz-3Phase

Model	TC230LS	
Power(ESP)	kVA/kW	230/184
Power(PRP)	kVA/kW	210/168
Starter Voltage	V	24
Rated Current	A	604
Rated rotation speed	r/min	1800
Power Factor		0.8
Fuel Consumption	L/hour	49L / h
Fuel Tank Capacity	L	Open Type : 262 / Silent Type: 370
Noise level	dB(A)@7m	Silent Type: ≤78

WEIGHT AND DIMENSIONS

GEN-Set	Dimension (L*W*H)	Weight
Open Type	2488mm×983mm×1533mm	1785Kg
Silent Type	3436mm×1100mm×1968mm	2472 Kg

STANDARDS:

Genset: GB/T2820—2009,ISO8528

Alternator: LEROY SOMER, TAL-A44-L

Diesel Engine: CUMMINS , 6CTAA8.3-G2

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).



Una compañía de servicio a su servicio

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Bogotá-Colombia // www.fcpowersolutions.com.co

ENGINE Specification

Manufacturer: CUMMINS

Model	6CTAA8.3-G2
Engine speed Rated	1800 RPM
Cylinder /Arrangement	6 / L
Displacement	8.3 L
Bore and Stroke	114 mm×135 mm
Compression ratio	18 : 1
Max. stand by power at rated RPM	210KW
Frequency regulation , steady state	
Governor : type	Electrical
Aspiration and Cooling	Turbocharged and Charge Air Cooled

Exhaust System

Exhaust gas flow	755L/sec
Exhaust temperature	585°C
Max back pressure	10.1kpa

Fuel System

Fuel consumption100% (of the Prime Power)	49L / h
Fuel consumption75% (of the Prime Power)	37L / h
Fuel consumption50% (of the Prime Power)	25L / h
Fuel consumption110% (of the Prime Power)	56L / h

Oil system

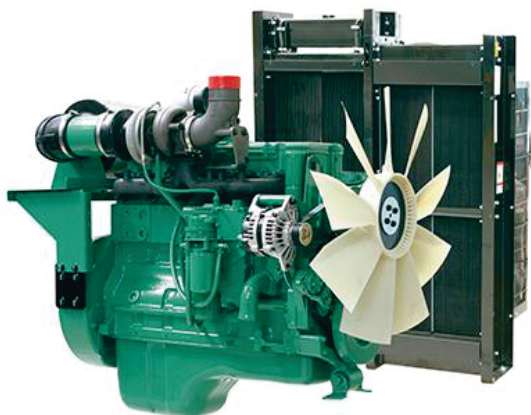
Total oil capacity w/filters	23.8L
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Air intake

Engine air flow	262L/sec
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Coolant System

Radiator & engine capacity	12.3L
Max water temperature	110°C
Thermostat	83-95°C



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

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: LEROY SOMER

Type	TAL-A44-L
Number of phase power	3
Factor (Cos Phi)	0.8
Pole	4
Bearing	1
Coupling	Direct
Exciter type	SHUNT
Insulation : class , temperature rise	H / H
Degree of protection	IP23
AVR model	R120
Altitude	≤1000m
Winding Pitch	2/3
Winding Leads	12

FEATURES

- Tight control of procedures right from the initial sales offering through to delivery to the customer, including the design process, manufacturing start-up and production.
- A total quality policy based on making continuous progress in improving operational procedures, involving all departments in the company in order to give customer satisfaction as regards delivery times, conformity and cost.
- Indicators used to monitor process performance.
- Corrective actions and advancements with tools such as FMECA, QFD, MAVP,
- MSP/MSQ and Hoshin type improvement workshops on flows, process re-engineering, plus Lean Manufacturing and Lean Office.
- Annual surveys, opinion polls and regular visits to customers in order to ascertain and detect their expectations.

STANDARDS

IEC 60034, NEMA MG 1.32 - 33, ISO 8528/3, CSA, UL 1446, UL 1004
on request and depending on voltages, marine.

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



Control Panel

Model: DSE 7320

AUTO START & AUTO MAINS FAILURE CONTROL MODULES

DIMENSIONS

OVERALL

240mm x 181mm x 42mm
(9.4" x 7.1" x 1.6")

PANEL CUTOUT

220mm x 160mm
(8.7" x 6.3")

WEIGHT

400g (0.4kg)



KEY FEATURES

4-Line back-lit LCD text display
Five key menu navigation
Front panel editing with PIN protection
Customisable status screens
Power save mode
Support for up to three remote display units
9 configurable inputs
8 configurable outputs
Flexible sender inputs
Configurable timers and alarms
3 configurable maintenance alarms
Multiple date and time scheduler
Configurable event log (250)
Tier 4 CAN engine support
Integral PLC editor
Easy access diagnostic page
CAN and Magnetic Pick-up/Alt. sensing
Fuel usage monitor and low fuel alarms
Charge alternator failure alarm
Manual speed control (on compatible CAN engines)
Manual fuel pump control
Engine exerciser
"Protections disabled" feature
kW & kV Ar protection

Reverse power (kW & kV Ar) protection
LED and LCD alarm indication
Power monitoring (kW h, kV Ar, kVA h, kV Ar h)
Load switching (load shedding and dummy load outputs)
Automatic load transfer (DSE7320)
Unbalanced load protection
Independent Earth Fault trip
True dual mutual standby with load balancing timer (DSE7310 only)
USB connectivity
Backed up real time clock
Fully configurable via DSE Configuration Suite PC software
Configurable display languages
Remote SCADA monitoring via DSE Configuration Suite PC software
User selectable RS232 and RS485 communications
Configurable Gencomm pages
Advanced SMS messaging (additional external modem required)
Start & stop capability via SMS messaging
Additional display screens to

help with modem diagnostics
Idle control for starting & stopping.

DSENet® expansion compatible

KEY BENEFITS

132 x 64 pixel ratio display for clarity
Real-time clock provides accurate event logging
Multiple date and time scheduler
Set maintenance periods can be configured to maintain optimum engine performance
Ethernet communications (via DSE860/865 modules), provides advanced remote monitoring at low cost
Modules can be integrated into building management systems(BMS)
Increased input and output expansion capability via DSENet®
Licence-free PC software
IP65 rating (with supplied gasket) offers increased resistance to water ingress
PLC editor allows user configurable functions to meet specific application requirements.