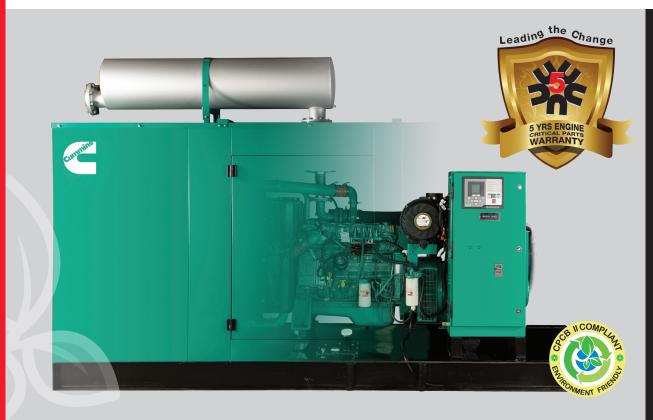


Diesel Generator Set QSB6.7 Series

180-225 kVA. 144-180 kWe Prime



Latest Technology Product with Global Cummins® Platform

- (The Cummins® QSB6.7 series heavy-duty engine and world class Stamford alternator powered diesel generator set
- Calcillate defining Quantum engine technology with fully integrated subsystems
- **((**Full Authority Electronic Engine
- ««Advanced in-cylinder technology to meet latest emission norms without any after-treatment device
- CSmart aesthetic and superior finish
- **((Compact in size with optimum power to weight ratio**

Environment Friendly Power

- Class defining technology engine is designed to meet stringent exhaust emission tests as per revised MoEF norms, thus offering environment friendly power
- ((Cummins® diesel generator sets are available with the lowest noise levels in its range

Lowest Operating Cost and Comprehensive Warranty

- ((Highly reliable and durable product
- ((All elements are designed to work together to maximize efficiency even at part loads, offering the advantage of lowest operating costs.
- (500 Hours/ 1 year service interval
- Cloudstry acknowledged best-in-class comprehensive warranty on the entire package including rubber components

Single Source Power Assurance

- ((All the major components the engine, alternator, control system and canopy are designed, manufactured and tested by Cummins India.
- CBest and largest customer support network in India, capable of providing round-the-clock service and spares support
- ((All these things put together, Cummins) offers you SINGLE SOURCE POWER ASSURANCE

Engine

- (Cummins® QSB6.7 series, 6 cylinder, in-line 4 stroke, radiator cooled engine
- CFull Authority Electronic Engine
- Well designed air handling system with
 - Dry type, Replaceable paper element air cleaner with restriction indicator
 - Air to air aftercooler
 - Optimised turbocharger for increased altitude capabilities
- (Best in class fuel economy with
 - Bosch HPCR fuel system with A1 class electronic governing
 - Dual fuel filter system: Pre filter including water separator and Water In Fuel (WIF) sensor and main filter
- CStandard integral set-mounted radiator system, designed and tested for 50°C ambient temperature
- CFull flow spin on lube oil filter
- CPlate type lube oil cooler
- (First fill of lube oil and coolant
- **((Electrical starter motor with soft start engagement feature**
- **((Battery charging alternator**
- C2 x 12 V DC batteries



Alternator

- CStamford UC27 alternator frames from Cummins Generator Technologies
- CBrushless type, Screen protected, Revolving field, Self excited alternator conforming to IS/IEC 60034-1
- C3 Phase reconnectable winding with 12 terminals brought out for connection
- **((Better motor starting capability**
- **C**Best in class efficiency
- Compact design with sealed bearings for longer life and lesser maintenance
- mpregnation on all wound components for better mechanical strength

Control Panel

Control panel is manufactured with 14/16 gauge CRCA sheet and is powder coated for weather-proof and long lasting finish. The control panel consists of the following parts:

- **((PowerCommand® 1.1 Controller**
- («Aluminum bus bars with suitable capacity with incoming/ outgoing terminals
- Condicating lamps for 'Load ON' and 'Set Running'
- Construment fuses duly wired and ferruled
- CCMCCB of suitable rating with overload and short circuit protections

PowerCommand® 1.1 features

The PowerCommand® control system is a microprocessor-based generator set monitoring, metering and control system with LCD display designed to meet the demands of today's engine driven generator sets



- (Intuitive operator interface which includes LED backlit LCD display with tactile feel soft-switches & generator set status LED lamps
- CDigital AVR for shunt or PMG excitation with torque matching.
- CDigital electronic governing with temperature compensation and smart starting.
- CSAE J1939 interface to Full Authority Electronic (FAE) engines.
- **((**Remote start-stop
- CEngine metering: Oil pressure, Coolant temperature, Battery voltage, Engine speed
- (CAC Alternator metering: L-L Voltage and L-N Voltage, Current (1 and 3 phase), Volt-Amperes (phase and total) and Frequency.
- (CEngine protection: Low lube oil pressure, High/Low coolant temperature, Over speed, Battery Over/Under/Weak Volts, Fail to crank/start, Sensor failure.
- (CAC Alternator protection: Over/Under voltage, Over/Under frequency, Over current, Short circuit and Loss of AC sensing.
- CData logging: Engine hours, Control hours, Engine starts and upto 10 recent fault codes
- **C**Configurable glow plug control
- **((Configurable cycle cranking**
- 12 and 24 Volt DC operation
- **((Sleep mode**
- CProgrammable I/Os (4 inputs and 2 outputs), expandable with AUX101/102 modules
- (Modbus interface (RS485 RTU)
- ConPower compatible (PC based service tool)
- **((**Certifications meets the requirement of relevant UL, NFPA, ISO, IEC, Mil Std., CE and CSA standards

Silencer

((Hospital grade silencer suitably optimized to meet stringent noise emission standards laid down by MoEF / CPCB

Mounting Arrangement

- CEngine and alternator are mounted on a common MS fabricated base frame with AVM pads.
- CBase frame with integral fuel tank is provided with drain plug, air vent, inlet and outlet connection, level indicator and provision for cleaning

Optional

- ((Engine: Coolant heater
- **((Control Panel:**
 - PC3.3
 - Air to air aftercooler
 - Bar-graph For PC3.3 Panel with kW, Power factor, Frequency, Current, Voltage
 - Remote HMI.

((Alternator: PMG

Acoustic Enclosure

- (CSpecially designed to meet stringent MoEF/ CPCB norms of 75 dBA @ 1mtr at 75% load under free field conditions
- ((The acoustic enclosure is made of CRCA sheets in munsel green shade and a structural/ sheet metal base frame painted in black
- ((High quality noise absorbant and fire-retardant grade acoustic insulation material (PU Foam) complying to IS 8183
- CTwo point lifting for easy handling at customer site

- CDesigned to have optimum serviceability
- CAir inlet louvers specially designed to operate at rated load
- (Made on special purpose CNC machines for consistency in quality and workmanship
- (1) tank pretreatment process and UV resistant powder coating of all parts to withstand extreme environment
- **CO**Use of special hardware for longer life
- (Flush styling no projections
- (Fluid drains for lube oil and fuel
- CFuel filling arrangement inside the enclosure

Technical Data

Generator Set Specification
Model

Model	C180D5P	C200D5P	C225D5P						
Duty	Prime	Prime	Prime						
Power Rating kVA / kWe	180/144	200/160	225/180						
No. of Phases	3	3	3						
Output Voltage and Frequency (V and Hz)	415 V, 50 Hz	415 V, 50 Hz	415 V, 50 Hz						
Power Factor	0.8 (lagging)	0.8 (lagging)	0.8 (lagging)						
Current (A)	250	278	313						
RPM	1500	1500	1500						
Engine specification									
Make	Cummins®	Cummins®	Cummins®						
Model	QSB6.7-G14	QSB6.7-G15	QSB6.7-G16						
MoEF Certified Power (bhp)	234 256		280						
Required Power for Rated kVA (bhp)	227 248		277						
Cooling	Liquid cooled (EG Compleat 50:50)	Liquid cooled (EG Compleat 50:50)	Liquid cooled (EG Compleat 50:50)						
Aspiration	Turbocharged, Charge air cooled	Turbocharged, Charge air cooled	Turbocharged, Charge air cooled						
No. of cylinders	6, In-line	6, In-line	6, In-line						
Bore (mm) x Stroke (mm)	107 x 124 107 x 124		107 x 124						
Compression ratio	17.2:1		17.2:1						
Displacement (litre)	6.7		6.7						
Fuel	High Speed Diesel	High Speed Diesel	High Speed Diesel						
Fuel consumption @75% load with radiator and fan* (litre/hr)	31.78	34.66	38.22						
Fuel consumption @100% load with radiator and fan* (litre/hr)	41.69	44.55	50.15						
Performance class of generator set	ISO 8528-5 G2	ISO 8528-5 G2	ISO 8528-5 G2						
Starting system	24 V DC Electrical	24 V DC Electrical	24 V DC Electrical						
Lube oil specification	CI4+ 15W40	CI4+ 15W40	Cl4+ 15W40						
Lube oil sump capacity, High-Low level (litre)	17.5-15	17.5-15	17.5-15						
Total lubrication system capacity (litre)	19.5	19.5	19.5						
Lube oil consumption @ full load** (litre/hr)	0.09	0.09	0.09						
Total coolant capacity (litre)	32.4	32.4	32.4						
Exhaust pipe size (inch)	5	5	6						
Total wet weight (Engine+Radiator)## (kg)	639	639	639						
Length x Width x Height (Engine) (mm)	1057 x 733 x 1139	1057 x 733 x 1139	1057 x 733 x 1139						
Mean piston speed (m/s)	6.2	6.2	6.2						
Combustion air intake @100% load (±5%) (cfm)	446	455	455						
Exhaust Temperature (°C)	538	543	543						
Alternator specification									
Make	Stamford (CGT)	Stamford (CGT)	Stamford (CGT)						
Alternator Frame	UCI274G	UCI274H	UCI274K						
Enclosure	IP23	IP23	IP 23						
Voltage regulation (Max.)	±1%	±1%	±1%						
Class of Insulation	H Class	H Class	H Class						
Winding Pitch	2/3	2/3	2/3						
Stator Winding	Double layer lap	Double layer lap	Double layer lap						
Rotor	Dynamically Balanced	Dynamically Balanced	Dynamically Balanced						
Waveform distortion/ Total Harmonic Distortion	No load < 1.5 %, Non distorting balanced	No load < 1.5 %, Non distorting balanced linear	No load < 1.5 %, Non distorting balanced linear						

^{*} Fuel consumption data is based on diesel having specific gravity of 0.85 and conforming to IS:1460. Fuel consumption tolerance is +5%

less than or equal to 25%

load < 5 %

less than or equal to 25%

load < 5 %

less than or equal to 25%

linear load < 5 %

Maximum Unbalanced Load across phases#

Telephonic Harmonic factor

[#] With the condition that none of the phases exceeds its rated current

Rating Definitions

Prime Power (PRP):

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO

Conformance Standards

(IS/IEC 60034-1 **♥**ISO 3046

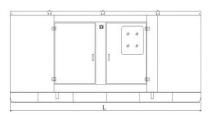
(IS 1460 **(**ISO 9001 **(ISO 8528 (**IS 13018

Typical Enclosed Genset Dimensions

Genset Model	Rating (kVA)	Length (mm)	Width (mm)	Height (mm)	Wet Weight## (kg)	Standard Fuel tank Capacity (litre)
C180D5P	180	4200	1350	1850	2704	350
C200D5P	200	4200	1350	1850	2704	350
C225D5P	225	4200	1350	1850	2704	350

^{##}Approximate weight





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