



Diesel Generator Set

K38 Series

910 kVA, 728 kWe Prime



Specification Sheet

Latest Technology Product with Global Cummins® Platform

- The Cummins® K38 series heavy-duty engine and world class Stamford alternator powered diesel generator set
- Proven technology with mechanical simplicity of Cummins® PT fuel system.
- Advanced in-cylinder technology and 2P2L Cooling system to meet latest emission norms
- Smart 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.
- The Cummins® diesel generator sets are available with the lowest noise levels in its range

Lowest Operating Cost and Comprehensive Warranty

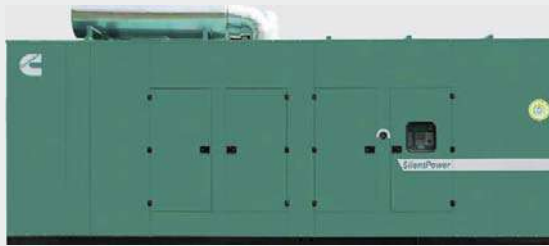
- Highly reliable and durable product
- All elements are designed to work together to maximize efficiency even at part loads, offering the advantage of lowest operating costs
- 300 Hours / 1 year service interval
- Industry acknowledged best-in-class comprehensive warranty on the entire package including 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.
- Best 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® K38 series, 12 cylinder, Vee, 4 stroke, radiator cooled engine
- Highly stable and reliable design with square engine
- Well designed air handling system with
 - Dry type, Replaceable paper element air cleaner with restriction indicator
 - Outboard aftercooling with 2 pump 2 loop system
 - Optimised turbocharger for increased altitude capabilities
- Best in class fuel economy with
 - PT fuel system with Electronic Step Timing Control (ESTC) injectors which smoothly stabilize engine speed under load with A1 class electronic governing
 - Spin on fuel filters
- Standard integral set-mounted radiator system, designed and tested for 50°C ambient temperature
- Full flow spin on lube oil filter
- Plate type lube oil cooler
- First fill of lube oil and coolant
- Electrical starter motor with soft start engagement feature
- Battery charging alternator
- 2x12 V DC batteries



Alternator

- Stamford HC6 alternator frames from Cummins Generator Technologies
- Brushless type, Screen protected, Revolving field, Self excited alternator conforming to IS/IEC 60034-1
- PMG standard
- Better motor starting capability
- Best in class efficiency
- Automatic Voltage Regulator MX321 /322/341
- Compact design with sealed bearings for longer life and lesser maintenance
- Impregnation on all wound components for better mechanical strength

PS0601 Features

Cummins® PowerStart™ PS0601 control 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



- AMF Functionality
- Electronic Governing
- Sync Compatible (Capable to accept external speed and Voltage bias signal from 3rd party sync controller)
- Intuitive operator interface which includes LED backlit 128X64 pixel graphic display with tactile feel soft- switches & generator set status LED lamps.
- Remote start-stop
- **Engine Metering:** Oil pressure, Engine temperature, battery voltage, Engine running hours
- **AC Alternator Metering:** L-L Voltage and L-N Voltage, Current (phase and total), kVA (phase and total), Frequency, kWh, kW and kVA (phase and total), PF, Utility Voltage and Freq.
- **Engine Protection:** Low lube oil pressure, High / Low coolant temperature, Battery Over/Under/Weak Volts, Fail to Crank / Start, Sensor failure, Cranking lockout, Low fuel level.
- **AC Alternator Protection:** Over / Under Voltage, Over / Under Frequency, Loss of AC Sensing, Over speed, Over Current.
- **Data Logging:** Engine Hours, Control Hours and upto 5 recent fault codes
- Configurable glow plug control
- 12/24 Volt DC operation
- Sleep mode
- Modbus interface (RS485 RTU)
- InPower compatible (PC based service tool)
- Certifications - meets the requirement of relevant ISO, EN, Mil Std. and CE standards Maintenance due alarm based on Engine Run Time and due date
- Exerciser scheduler

Silencer

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

Mounting Arrangement

- Engine and alternator are mounted on a common MS fabricated base frame with AVM pads.

Optional

- **Controller:** PC3.3

Acoustic Enclosure

- Specially designed to meet stringent MoEF/ CPCB norms of 75 dBA@ 1 mtr 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 (Rockwool) complying to IS 8183
- Base lifting for easy handling at customer site
- Designed to have optimum serviceability
- Air inlet louvers specially designed to operate at rated load
- Made on special purpose CNC machines for consistency in quality and workmanship
- 11 tank pretreatment process and UV resistant powder coating of all parts to withstand extreme environment
- Use of special hardware for longer life
- Flush styling - no projections
- Fluid drains for lube oil and fuel
- Fuel filling arrangement inside the enclosure

Technical Data

Generator Set Specification:

Model	C910D5P
Duty	Prime
Power Rating kVA / kW	910/728
No. of Phases	3
Output Voltage and Frequency 01 and Hz)	415 V, 50 Hz
Power Factor	0.8 (lagging)
Current (A)	1266
RPM	1500

Engine Specification:

Make	Cummins®
Model	KTA38-G17
MoEF Certified Power (bhp)	1069
Required Power for Rated kVA (bhp)	1069
Cooling	Liquid cooled (EG compleat 50:50)
Aspiration	T urbocharged Aftercooled
No. of cylinders	12, Vee
Bore (mm) x Stroke (mm)	159 X 159
Compression ratio	16.7:1
Displacement (litre)	38
Fuel	High Speed Diesel
Fuel consumption @75% load with radiator and fan* (litre/hr)	151
Fuel consumption @100% load with radiator and fan* (litre/hr)	191
Performance class of generator set	ISO 8528-5 G2
Starting system	24 V DC Electrical
Lube oil specification	CH4 15W40
Lube oil sump capacity, High-Low level (litre)	140- 114
Total lubrication system capacity (litre)	155
Total coolant capacity (litre)	332
No. of banks x Exhaust pipe size (inch)	2 x 8
T otal wet weight (Engine+Radiator)" (kg)	5400
Length x Width x Height (Engine) (mm)	2269 X 1436 X 1764
Mean piston speed (m/s)	7.95
Combustion air intake @100% load (±5%) (cfm)	2334
Exhaust Temperature (0C)	449

Alternator Specification:

Make	Stamford (CGT)
Alternator frame	HCI634V
Enclosure	IP 23
Voltage regulation (Max.)	±1%
Class of Insulation	H Class
Winding Pitch	2/3
Stator Winding	Double layer lap
Rotor	Dynamically Balanced
Waveform distortion/ Total Harmonic Distortion	No load < 1.5 %, Non distorting balanced linear load < 5 %
Maximum Unbalanced Load across phases'	less than or equal to 25%
Telephonic Harmonic factor	<2%

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

*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 8528.

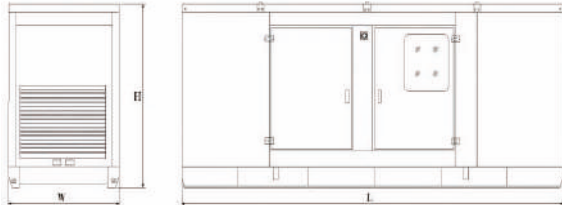
Conformance Standards

- IS/IEC 60034-1 ■ ISO 8528 ■ ISO 9001
- ISO 1460 ■ ISO 3046 ■ IS 13018

Typical Enclosed Genset Dimensions

Genset Model	Rating (kVA)	Length (mm)	Width (mm)	Height (mm)	Wet Weight## (kg)	Standard Fuel tank Capacity (litre)
C910D5P	910	8000	2600	3000	11500	990



Approximate Weight





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