

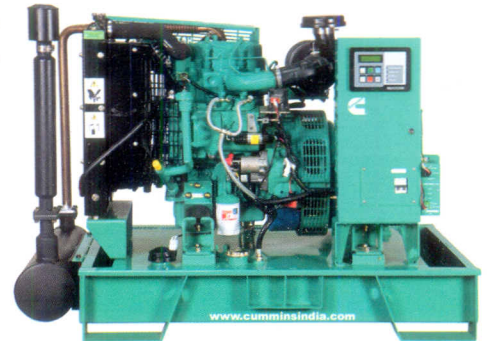
## Specification sheet



# Power Generation

# Diesel Generator Set X 1.3 Series

6-8 kWe, 7.5-10 kVA Prime



### Ready to use, silent, compact and light weight

The ready to use **Cummins® 'DXP series'** DG sets are smaller and lighter than any other DG set in its class, thus giving you the advantage of optimising your valuable space.

### Environment friendly power

The **Cummins® 'DXP series'** base DG sets are available with the lowest noise levels in its range and are **CPCB** certified for emissions compliance, thus offering you environment friendly power.



The genset powered by the reliable **Cummins® 'X series'** diesel engine meets stringent exhaust emission tests as per MOEF norms without sacrificing fuel efficiency at normal operating loads.

### Unmatched warranty

The **Cummins® 'DXP series'** DG sets are backed by the industry acknowledged best-in-class comprehensive warranty on the entire package including rubber components

### Lowest operating costs

All elements of the **Cummins® 'DXP series'** DG sets are designed from the start to work together to maximize efficiency, even at part loads, thus offering you the advantage of lowest operating costs.

### Single source power assurance

The rugged and reliable **Cummins® 'DXP series'** DG sets are unique, because all the major components – the engine, alternator, control system and canopy are designed, manufactured and tested by Cummins India. This, complemented by the largest customer support network in India, capable of providing round-the-clock service and spares support, offers you **SINGLE SOURCE POWER ASSURANCE** from the world leaders in power generation.

### Standard scope

**Engine:** BIS certified **Cummins® 'DXP series'** diesel generating sets, powered by **Cummins® 'X series'** engines, are rated at 1500 RPM and conform to ISO 8528 specifications. The engines are radiator cooled, four stroke and multi-cylinder, conforming to BS 5514 / ISO 3046.

- The scope of supply includes:
- Electrical starter motor 12V DC
  - Electronic governor
  - Spin-on fuel filter
  - Spin-on full flow lube oil filter
  - Silencer
  - Dry type air cleaner
  - Recovery bottle
  - Safety for Low lube oil pressure
  - Safety for Overspeed
  - Safety for High water temperature
  - First fill of lube oil and coolant

**Alternator:** Stamford alternator from Cummins Generator Technologies, suitable for operation at 1500 RPM, 415 Volts, 0.8 pf (lag) suitable for 50 Hz, 3 phase or 1 phase, 4 wire system conforming to BS 5000 / IS 4722. The Alternator is brushless type, screen protected, revolving field, self excited, self regulated through an AVR.

The alternator has the following features:

- $\pm 1.0$  % Voltage regulation (max.) in static conditions
- IP: 23 Enclosure
- Permissible overload of 10% for one hour in 12 hours of operation

**Our energy working for you.™**

PGBU/CIL/008/X 7.5-10 kVA/CPG/90deg./Apr. 2013/1000

[www.cumminspower.com](http://www.cumminspower.com)

**Mounting arrangement:** Engine and alternator are mounted on a common MS fabricated base frame with AVM pads.

**Control panel:** The control panel is manufactured with 16 gauge CRCA sheet and is powder coated for a weather-proof, long lasting finish.



The control panel consists of following parts:

- Standard engine instrumentation
- PSO 500 control panel that measures:
  - 1) Individual phase current (Amps)
  - 2) Phase voltages (V)
  - 3) Generator output frequency (Hz)
  - 4) Engine water temperature (Deg.C)
  - 5) Lube oil pressure (kpa)
  - 6) Working hours
- MCB of suitable rating
- Push button (Starter)
- LED indications for main functions
- Current transformers
- Instrument fuses duly wired and ferruled

#### Others:

- Fuel tank suitable upto 24 hours at 75% of load
- One charged Cummins Pulselite battery with battery leads

#### Acoustic enclosure:



The acoustic enclosure is made of 2 mm thick CRCA sheets and structural/ sheet metal base frame powder coated in Munsel green shade. The walls of the enclosure are insulated with fire retardant foam.

The enclosure has the following features:

- Specially designed to meet stringent MOEF / CPCB norms 70 dBA @ 1mtr at 75% load under free field conditions
- 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
- Powder coated for long lasting service life and superior finish
- With UV resistant powder coating, can withstand extreme environments
- Use of special hardware for longer life
- Insulation material meets exacting IS 8183 specifications for better sound attenuation
- Flush styling - no projections
- Lube oil and fuel on engine drain arrangement
- Fuel filling point inside canopy

#### Optionals

- Coolant heater
- Alternator space heater
- Excitation Boost System (EBS)

## Technical data

### Generator set specifications

Model	C 7.5 D5 (3 phase)	C 10 D5 (3 phase)
Prime Power Rating kVA / kW	7.5/6	10/8
Current (Amps)	10	14
Power Factor	0.8 (lag)	0.8 (lag)
No. of Phases	3 Phase / 1 Phase	3 Phase / 1 Phase

### Engine specifications

Make	Cummins	Cummins
Model	X 1.3 G1	X 1.3 G1
BHP (Prime Power)	14.2	14.2
Cooling	Water Cooled	Water Cooled
Aspiration	Natural	Natural
No. of Cylinders	2	2
RPM	1500	1500
Bore (mm) x Stroke (mm)	95 x 91	95 x 91
Compression Ratio	18.1 (± 0.3):1	18.1 (± 0.3):1
Displacement (Ltrs.)	1.29	1.29
Fuel	HSD	HSD
Fuel Consumption (Ltr/hr) @ 75% Load with Radiator & Fan	2.1	2.6
Governor	Electronic	Electronic
Starting System	12 V Electrical	12 V Electrical
Lube oil Specification	CH4 15W40	CH4 15W40
Lube oil Sump Capacity (Ltrs.)	4	4
Lube oil consumption (LPH)	0.3% of fuel consumption	0.3% of fuel consumption
Total Coolant Capacity (Ltrs.)	4.65	4.65
Exhaust Pipe Size (mm)	34.1	34.1
Battery Capacity / Rating	12 V 32 Ah	12 V 32 Ah

### Alternator specifications

Make (Brand)	CGT (Stamford)		CGT (Stamford)	
Enclosure	IP 23		IP 23	
Voltage Regulation (Max.)	+/- 1%		+/- 1%	
Class of Insulation	H Class		H Class	
RPM / Frequency	1500 / 50 Hz		1500 / 50 Hz	
Power Factor	0.8 (lag)		0.8 (lag)	
No. of Phases	3 Phase	1 Phase	3 Phase	1 Phase
Frame Size	PI 044 E	PI 044 S	PI 044 G	PI 044 G
Voltage	415 V	230 V	415 V	230 V

## Conformance standards

IS 4722, BS 5000, IS 1460, ISO 8528, BS 5514, IS 10,000. Meets BIS specifications.

## Rating definitions

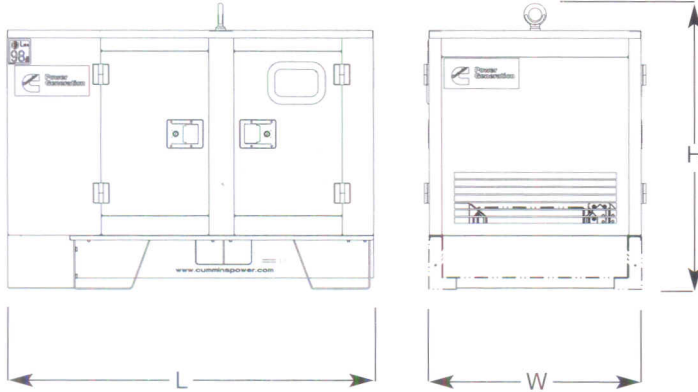
Prime Power (PRP):

Applicable for supplying power to varying electrical load for unlimited hours. Prime Power (PRP) is in accordance with ISO 8528. Ten percent overload capability is available in accordance with ISO 3046, AS 2789, DIN 6271 and BS 5514.

- Fuel consumption data is based on diesel having specific gravity of 0.85 and conforming to IS:1460
- Oil consumption data is based on oil having specific gravity of 0.89 and meeting CH4 API categories
- Fuel consumption tolerance is +5%

## Typical enclosed genset dimensions\*

Genset Model	Rating (kVA)	Length (mm)	Width (mm)	Height (mm)	Weight (kgs.) (Dry)
C 7.5 D5 (3 phase)	7.5	1456	847	1032	546
C 10 D5 (3 phase)	10	1456	847	1032	556



### Cummins Distribution Offices

#### Karnataka: Bangalore

Survey no. 118, Gayatri Lake Front, B wing, 3rd floor, Ring road Hebbal, Bangalore 560024  
 Tel.: (080) 23638231, 23631958  
 Fax: (080) 23634552  
 Amit G. Habbu - 94484 96778

#### Tamilnadu: Coimbatore

No. 22, Sriram Layout, Saibaba Colony, Coimbatore 641 011  
 Tel.: (0422) 2430197  
 Fax: (0422) 2445904  
 Mahesh MB - 9443161735

#### Andhra Pradesh: Hyderabad

404/1 & 404/2, 4th floor, block I, White House, 6-3-1192/1/1, Kundan Bagh, Begumpet, Hyderabad 500016  
 Tel.: (040) 23409970, 23409980, 66612932  
 Fax: (040) 23409990  
 Vijay Kumar MS - 9440808464

### SOUTH ZONE- ZONAL OFFICE

Survey no. 118, Gayatri Lake Front, B wing, 3rd floor, Ring road Hebbal, Bangalore - 560024  
 Tel.: +91 80 23638231, 23631958  
 Fax: +91 80 23634552  
 Lakshmi Pacha: +91 9448396745

**Cummins India Limited**  
**35A/1/2, Erandawana,**  
**Pune 411 038. India**

Tel.: (91) 020-3027 8000 / 25431234  
 Fax: (91) 020-25439490

### Our energy working for you.™

©2011 Cummins Power Generation Inc. All rights reserved.  
 Cummins Power Generation and Cummins are registered trademarks of Cummins Inc.  
 PowerCommand, AmpSentry, InPower and "Our energy working for you." are trademarks of Cummins Power Generation.  
 Other company product or service names may be trademarks or service marks of others.  
 Specifications are subject to change without notice.  
 PGBU/CIL/008/X 7.5-10 kVA/CPG/90deg./Apr. 2013/1000

### Cummins Dealer Offices

#### M/s. Yellow Stone Engineers India Pvt. Ltd.- Bangalore

No.144, 6th Main, Industrial Suburb 2nd Stage, Peenya Bangalore 560 058  
 Fax: (080) 28598325  
 Mobile - Gururaj : +91 9008200116  
 Email: gururaj@yellowstoneengineers.com

#### Lotus Agency - Erode

37 Sathy Road, Erode - 638 003  
 Tel.: (0424) 2223330  
 Fax : (0424) 2217733  
 Email: cummins@lotus1.co.in

#### Kaiser India (Branch office - Hyderabad)

D.no. 33-21-33, Eluru road, Seetharampuram, Vijayawada -520 002  
 Tel.: +91 866 2431333, 2431334  
 Fax: +91 866 6660242  
 Email: cumminssales@ramcorgroup.in

#### ADITYA POWER: Kerela

Door No. Tr-702722, Opp. Desabhimani Press, Vallaparambil. Desabhimani Road, Kaloor - Kochin 682017  
 Tel.: +91 484 4010033, 4066566.

Authorised  
 Representative

