Power solutions

> X & S series product range

Fully integrated, reliable and efficient
Dependable service, engineering expertise and parts support

Our energy working for you.™

Cummins Power Generation

Cummins engine powered generating sets are available at competitive prices and offer the best fuel economy, best warranty terms and lowest cost of maintenance, replacement and overhaul parts, thereby proving to be the most economical power solution.

Diesel generator sets - 15 to 70 kVA

Cummins powered X and S series diesel generator sets are available in size ranging from 15 to 70 kVA. A high quality product, manufactured in accordance with the international standards, coupled with unrivalled reliability gives industry leading power solutions.

X series

X series Ready-to-Use generator sets with 2 and 3 cylinder inline configuration diesel engines are the most compact, light weight and easy to service products. Built-in vibration mounts, a completely wired control system including engine protection, instrumentation, industrial silencer and integral fuel tank are part of its special features. Engines in this series are naturally aspirated, fuel efficient, with low lube oil consumption.

50 Hz rating

Genset model	Engine model	Prime kVA / kW	Standby kVA / kW
ES 17 D5	X 1.7 G1	15 / 12	16.5 / 13
ES 22 D5	X 2.5 G1	20 / 16	22 / 18
ES 28 D5	X 2.5 G2	25 / 20	27.5 / 22

60 Hz rating

Genset model	Engine model	Prime kVA / kW	Standby kVA / kW
ES 12 D6	X 1.7 G2	13.5 / 11	15 / 12
ES 16 D6	X 2.5 G4	18 / 14.5	20 / 16
ES 20 D6	X 2.5 G4	22.5 / 18	25 / 20

* Alternator Model/Frame size are subject to change without notification.
Please verify this at the time of order.
60 Hz models are Tier 2 certifiable.

Rating Definition:

Prime Power
Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO8528-1.
A 10% overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO3046-1.
Standby Power Rating
Standby Power Rating is applicable for supplying emergency power for the duration of a utility power interruption.No overload,utility parallel or negotiated outage operation capability is available at this rating. In installations served by unreliable utility sources (where outages last longer or occur more frequently),where operation is likely to exceed 200 hours per year, the prime power should be applied.All ratings are based on the following reference conditions:Ambient temperature - 27°C (Altitude above sea level - 150 metres) Relative humidity - 60%

S series

The S series generator sets with 4 cylinder inline configuration diesel engines are naturally aspirated, turbocharged and aftercooled. Engines in this series are simple, compact, reliable, fuel efficient and have minimal noise and vibration levels.

50 Hz rating

Genset model	Engine model	Prime kVA / kW	Standby kVA / kW
ES 33 D5	S 3.8 G2	30 / 24	33 / 26
ES 38 D5	S 3.8 G3	35 / 28	38 / 30
ES 43 D5	S 3.8 G4	40 / 32	43 / 35
ES 55 D5	S 3.8 G6	50 / 40	55 / 44
ES 68 D5	S 3.8 G7	62 / 50	68 / 55

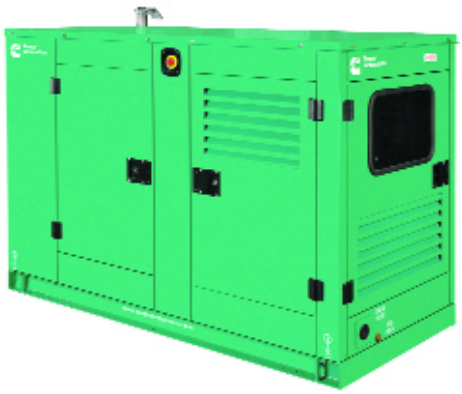
60 Hz rating

Genset model	Engine model	Prime kVA / kW	Standby kVA / kW
ES 30 D6	S 3.8 G2	35 / 28	38 / 30
ES 35 D6	S 3.8 G3	40 / 32	43 / 35
ES 38 D6	S 3.8 G4	43 / 35	47 / 38
ES 48 D6	S 3.8 G6	55 / 44	60 / 48
ES 61 D6	S 3.8 G7	70 / 56	76 / 61

Enclosures

All Cummins Power Generation diesel generator sets up to 70 kVA are available with weather protective and sound attenuated enclosures.

All enclosures cover and protect the generator set. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability have not been compromised. All enclosures provide easy access to service points and provide operators with plenty of room for maintenance.



All sound attenuated enclosures are made of 1.6/2 mm thick CRCA sheets and structural sheet metal base frame painted in Munsel green shade. The walls of the enclosure are insulated with fire retardant foam so as to comply with the 80 dBA at 1 mtr sound levels. All enclosures are designed to provide optimal genset performance and sound-treatment. This results in achieving the lowest noise level possible without compromising performance.

X series - 50 & 60 Hz ratings

Genset model	Length (mm)	Width (mm)	Height (mm)	Weight (kgs) dry	Sound level @ 100% load		
					dBA @ 1 mtr	dBA @ 7 mtr	LWA
ES 17 D5	1850	900	1375	810	80	63	96
ES 22 D5	1850	900	1375	860	80	63	96
ES 28 D5	1850	900	1375	885	80	63	96
ES 12 D6	1850	900	1375	810	80	63	-
ES 16 D6	1850	900	1375	840	80	63	-
ES 20 D6	1850	900	1375	860	80	63	-

Major features include:

- 80 dBA at 1 mtr
- Compact footprint, low profile design
- Easy access to all major generator, engine control components for servicing
- Enclosed, protective exhaust systems
- CE compliant

S series - 50 & 60 Hz ratings

Genset model	Length (mm)	Width (mm)	Height (mm)	Weight (kgs) dry	Sound level @ 100% load		
					dBA @ 1 mtr	dBA @ 7 mtr	LWA
ES 33 D5	2300	1100	1650	1200	80	63	97
ES 38 D5	2300	1100	1650	1200	80	63	97
ES 43 D5	2300	1100	1650	1250	80	63	97
ES 55 D5	2300	1100	1650	1300	80	63	97
ES 68 D5	2300	1100	1650	1350	80	63	97
ES 33 D6	2300	1100	1650	1200	80	63	-
ES 38 D6	2300	1100	1650	1200	80	63	-
ES 43 D6	2300	1100	1650	1250	80	63	-
ES 55 D6	2300	1100	1650	1300	80	63	-
ES 68 D6	2300	1100	1650	1350	80	63	

PowerCommand® and Power electronics

PCC 0300

PCC 1301

Main features	Model	
	PCC 0300	PCC 1301
General		
Integrated electronic governing	×	○
Human machine interface		
Integrated AVR	×	●
Manual start / stop	●	●
Auto / remote start	●	●
Test run - manual	×	●
Test run - auto	×	×
Emergency stop	●	●
Alpha / numeric Screen	●	●
Discrete status indicators	●	●
Fault reset	●	●
Engine measurements/ instrumentation		
Oil pressure	×	●
Oil temperature	×	×
Water temperature	×	●
Engine speed	×	●
Hours run	●	●
Number of starts	×	●
Battery voltage	×	●
Exhaust temperature	×	×
Alternator measurements/ instrumentation		
3 phase voltage & frequency	×	●
3 phase current	×	●
kWh	×	×
Total kVA	×	●
Total kW & kVAr	×	×
PF	×	×
Per phase kVAr, kW	×	×
Per phase kVA	×	×

Main features	Model	
	PCC 0300	PCC 1301
Engine protection		
Low fuel level	×	○
High fuel level	×	×
High oil temperature	×	×
Low engine coolant temp.	×	●
Failure to crank shutdown	×	●
Over crank (failure to start)	×	●
Over speed	●	●
Low battery voltage alarm	×	●
High battery voltage alarm	×	●
Battery alternator charge fault	●	●
Alternator protection		
Under over frequency	●*	●
Reverse power	×	×
Reverse VAr	×	×
Overcurrent	×	●
Short circuit	×	●
Earth leakage	×	×
Phase sequence	×	×
Paralleling capacity		
Auto synchronising (isolated bus)	×	×
Isochronous kW & VAr load sharing control	×	×
Auto synchronising (utility bus)	×	×
Based load (utility bus)	×	×
Synchroscope	×	×
Peak lopping	×	×

Main features	Model	
	PCC 0300	PCC 1301
Power transfer function		
Open transition transfer	×	×
Hard closed transition	×	×
Soft closed transition (ramping)	×	×
Transfer & base load (utility)	×	×
Gen / mains breaker control	×	×
Gen / mains breaker status	×	×
Miscellaneous		
Operating temperature range -40°C to +70° C	●	●
CE marked	●	●
Common fault alarm	×	●
CAN bus	×	×
RS232	×	×
Date and time stamp for alarm	×	●
LonWorks	×	×

● Standard
× Not available
○ Option
* Under frequency only

GTEC

GTEC series transfer switches covering the range 40 to 1250 amps - provide normal and generator set source monitoring, generator set starting, and load transfer functions for emergency, standby, and optional standby applications. GTEC transfer switches are continuously rated, so they can be applied in applications up to their nameplate rating.

The transfer switch power contacts are silver alloy composition with high pressure design that can withstand thousands of switching cycles without burning, pitting or welding. They require no routine contact maintenance and provide 100% continuous current ratings.

The transfer switch control is reliable and easy to understand, utilizing LED lamps for status indications, and push-button controls for operator functions. The control is field-programmable without the use of service tools.