

Diesel Powered Generating Sets C180-D5

Standard Genset Features	Generator Set Performance	Generator Set Options
<p>Cummins water cooled Diesel engine, Oil and fuel filter fitted, water separator,, Lube-oil drain valve fitted</p> <p>Electric starter & Charge alternator 12 v D.C.</p> <p>Electronic governor</p> <p>Normal duty air filter</p> <p>Single bearing alternator, class H/H</p> <p>Standard voltage 400/230 volts 50 Hz</p> <p>Exciter/Voltage reg - Torque Match as std</p> <p>PCC2100 without Bargraph as standard</p> <p>3 pole C/B</p> <p>Bolted steel base frame with A/V mounting, Fork lift pockets in baseframe</p> <p>Single skin plastic fuel tank</p> <p>Tank capacity of min 8 hours operation at 70% standby load</p> <p>Loose 9 dB(A) silencer</p> <p>Set mounted starting batteries</p> <p>Engine & Alternator Munsell Jade Green</p> <p>Chassis, Controller box and radiator black</p> <p>Packing under shrunk plastic film</p> <p>Operation & Maintenance manual</p> <p>Standard set of labels</p>	<p>Voltage Regulation</p> <p>Maintains voltage output to within $\pm 1.0\%$. At any power factor between 0.8 and 1.0</p> <p>At any variations from No load to Full load. At any variations from Cold to Hot.</p> <p>At speed droop variations up to 4.5%.</p> <p>Frequency Regulation</p> <p>Isochronous under varying loads from no load to 100% full load when electronic governor is fitted.</p> <p>Random Frequency Variation</p> <p>Will not exceed $\pm 0.25\%$ of its mean value for constant loads – no load to full load.</p> <p>Waveform</p> <p>Total harmonic distortion open circuit voltage waveform in the order of 1.8%. Three-phase balanced load in the order of 5.0%.</p> <p>Telephone Influence Factor (TIF)</p> <p>TIF better than 50.</p> <p>THF to BS 4999 Part 40 better than 2%.</p> <p>Alternator Temperature Rise</p> <p>Class H insulation.</p> <p>Radio Interference</p> <p>In compliance with BS 800 and VDE levels G and N.</p>	<p>Mechanical Options</p> <p>Compliance - CE Certification (Guarding)</p> <p>Fuel options</p> <p>Fuel Tank deletion</p> <p>Steel Fuel Tank replacing Plastic Fuel Tank</p> <p>Exhaust Options</p> <p>Exhaust Silencer - Industrial (9 dB), In-Line Exhaust Bellows</p> <p>Exhaust Silencer - Residential (35 dB), In-Line Installation Kit - Industrial Silencer</p> <p>Installation Kit - Residential Silencer</p> <p>Warranty</p> <p>Warranty - 5 Year Extended Standby Appln</p> <p>Warranty - 2 Year Extended Prime Appln</p> <p>Voltage Connections</p> <p>254/440V</p> <p>240/416V</p> <p>230/400V</p> <p>220/380V</p> <p>127/220V</p> <p>115/200V</p> <p>110/190V</p>

Engine Specification	Alternator Specification	Miscellaneous Options
<p>6ISBeG1</p> <p>In-line direct injection</p> <p>6-cylinder diesel engine.</p> <p>Type</p> <p>Water cooled, four cycle, turbocharged and after cooled.</p> <p>Construction</p> <p>Four valves per cylinder, forged steel crankshaft and connecting rods, cast iron block.</p> <p>Starting</p> <p>12 volt negative earth. Battery charging alternator 37 amp on engine. Cranking current 625 amps at 0°C.</p> <p>Fuel System</p> <p>12 volt fail safe actuator. Spin-on paper element fuel filters with Stanadyne fuel pump injection system with integral mechanical governor. Dual flexible fuel lines and connectors. Standard fuel water separator.</p> <p>Filters</p> <p>Air cleaner with dry element and restriction indicator. Spin-on full flow lube oil filter.</p> <p>Cooling</p> <p>50°C radiator as std</p> <p>Stone guard. Oil cooler. Drain Tap</p>	<p>Type</p> <p>Brushless single bearing, revolving field, pole, drip proof, screen protected.</p> <p>Class H Insulation.</p> <p>IC 01 cooling system.</p> <p>Fully interconnected damper winding.</p> <p>AC exciter and rotating rectifier unit.</p> <p>Epoxy coated stator winding.</p> <p>Rotor and exciter impregnated with tropical grade insulating oil and acid resisting polyester resin. Dynamically balanced rotor BS 5625 grade 2.5.</p> <p>Sealed for life bearings.</p> <p>Layer wound mechanically wedged rotor.</p> <p>Exciter</p> <p>Triple dipped in moisture, oil and acid resisting polyester varnish and coated with anti-tracking varnish.</p> <p>Output windings with 2/3 pitch for improved harmonics and paralleling ability.</p> <p>Close coupled engine/alternator for perfect alignment.</p>	<p>Coolant heater -240V</p> <p>Battery Charger 240V,5A</p> <p>AUTO START - AMF Module (Loose)</p> <p>Packing - Export Box</p> <p>4 POLE MCCB</p>
		Compliance Standards
		<p>To BS4999/5000 pt 99,</p> <p>VDE 0530, UTE5100,</p> <p>NEMA MG1-22, CEMA,</p> <p>IEC 34, CSA A22.2,</p> <p>AS1359, BSS 5514,</p> <p>ISO 3046 and ISO 8528</p>

Model name	kVA		kWe	
	ESP	PRP	ESP	PRP
C180 D5	180	164	144	131

Technical Data

Model	C180-D5	Speed	1500 rpm
Set output	380-440 V 50 Hz	Alternator voltage regulation	±1.0%
Prime Rating	131 kW 164 kVA	Alternator insulation class	H
Standby Rating	144 kW 180 kVA	Fuel consumption (Prime)	37 l/hr
Engine Make	Cummins	Fuel consumption (Standby)	42 l/hr
Engine Model	6ISBeG1	Lubrication system oil capacity	19.5 Litres
Cylinders	Six	Base fuel tank capacity – open set	340 Litres
Engine build	In-line	Coolant capacity	22 Litres
Standard Governor/Class	Electronic	Exhaust temp – prime	540°C
Aspiration and cooling	Turbocharged And Charged Air cooled	Exhaust gas flow – prime	433.3 l/s
Bore and stroke	102 mm x 120 mm	Exhaust gas back pressure max	75 mm Hg
Compression Ratio	17.3:1	Air flow – radiator*	5.29 m ³ /s
Cubic capacity	5.9 Litres	Air intake – engine (Prime)	137.8 Litre/s
Starting/Min °C	Unaided/–12°C	Minimum air opening to room	0.7 sq m
Battery capacity	100 A/hr	Minimum discharge opening	0.5 sq m
Gross Engine output – Prime	149.9kWm	Pusher fan head (duct allowance)*	10 mm Wg*
Gross Engine output – Standby	164.3kWm	Heat radiated by eng (Prime)	N/A

PRIME POWER (PRP)

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 a 12-hour period of operation, in accordance with ISO 3046-1.

STANDBY POWER RATING (ESP)

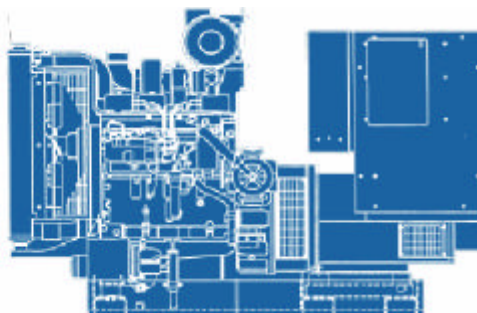
The Standby Power Rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

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 rating should be applied.

The Standby Power rating is only applicable for emergency and standby applications where the generator set serves as the back up to the normal utility source.

All ratings are based on the following reference conditions:

- Ambient temperature – 27°C - Altitude above sea level – 150 metres - Relative humidity – 60%



Dimensions and Weights

Model	Engine	Length (mm)	Width (mm)	Height (mm)	Set weight wet (Kg)	Set weight dry (Kg)	Enclosed Set (Kg)
C180-D5	6ISBeG1	2404	1100	1463	1800	1500	

Specifications may change without notice

Cummins Power Generation Limited

Manston Park, Columbus Avenue
 Manston, Ramsgate
 Kent CT12 5BF, UK
 Telephone: +44 (0)1843 255000
 Fax: +44 (0)1843 255902
 Email: cpg.uk@cummins.com
www.cumminspower.com
www.cummins.com

See your distributor for more information.

