

Cummins 6BTAA5.9-G12

Diesel Generator Set



PRIME POWER

150 kVA / 120 kW

STANDBY POWER

165 kVA / 132 kW

Specifications

Voltage / frequency	400/230 V, 50 Hz
Power factor	0,8
Rated current	216 A
Model name	C165
Engine	Cummins 6BTAA5.9-G12
Alternator	Leroy Somer TAL-A44-J
Control panel	DSE 6120
Fuel type	Diesel
Autonomy at 75% load	7,1 h
Dimensions	311 x 113 x 135 cm
Weight	1.658 kg

Ratings definitions

PRIME POWER PRP

Prime power available in variable load application in accordance with ISO 8528. A 10% overload capacity is available for a period of 1 hour within a 12-hour period of operation. Average power consumption should not exceed 80% PRP for each 24 h of work.

STANDBY POWER ESP

Emergency standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload allowed; limited to 500 operating hours per year and 300 operating hours of continuous duty.

STANDARD REFERENCE CONDITIONS

Output ratings are presented at 25 °C air inlet temperature, barometric pressure 100 kPa and relative humidity 30%. This generating set is designed to operate at high ambient temperatures (up to 50 °C), humidity (up to 70%) and higher altitudes. Under specific site conditions, genset output power may derate.

Directives, Standards & Certifications

Category	References
EU Directives	2006/42/EC, 2014/30/EU
Product standards	EN 60204-1:2018, EN ISO 12100:2010, EN 55012:2007+A1:2009, EN ISO 8528-13:2016, EN 61000-6-1:2019, EN IEC 61000-6-4:2019
Manufacturer certifications	ISO 9001:2015 / GB/T 19001-2016, ISO 14001:2015 / GB/T 24001-2016, ISO 45001:2018 / GB/T 45001-2020



Technical Data

Engine

Model	6BTAA5.9-G12
Brand	Cummins
Number of cylinders	BYC P7100 electric governor
Aspiration	Four-stroke, water-cooled, in-line, direct injection, turbocharged,
Displacement	6 L
Bore x stroke	5,9 mm
Compression ratio	102x120
Rated speed	17.3:1 r/min
Engine power	140 kWm
Emission standard	Fuel Optimised (non-Stage V)
Coolant capacity	10 L
Oil capacity	16,4 L
Recommended oil	15W-40 API CI-4

Alternator

Model	TAL-A44-J
Alternator brand	Leroy Somer
Phase	3
Voltage	400 V
Wiring type	6 wires
Bearing	1
Power factor	0,8
Frequency	50 Hz
Prime power	150 kVA
Excitation type	Brushless, self-excitation
Voltage regulation	±0,5 %
Protection grade	IP 23
Insulation class	H

Fuel consumption

110% load (Standby power)	38 L/h
100% load (Prime power)	34 L/h
75% load (Prime power)	26 L/h
50% load (Prime power)	17 L/h
Fuel capacity	185 L

Warranty

12 months from date of purchase or 1000 hours.

Features & Control

Standard features

Radiator (50 °C max.), belt-driven fan

24 V charging alternator

Single-bearing alternator, IP23

Insulation class H/H

Standard automatic control system

Main line circuit breaker / ACB

Base fuel tank

2 x 12 V batteries, rack and cables

Exhaust system

User manual

Battery charger

Jacket water heater

Controller

Model: DSE 6120

7 configurable digital inputs

Built-in governor and AVR control

Base load (kW export) functionality

Mains (utility) de-coupling protection

Generator power (kW, kVA) monitoring

Overload (kW & kV Ar) protection

Emergency stop

Start failure

