

# Cummins 4BTA3.9-G2

## Diesel Generator Set



PRIME POWER

**50 kVA / 40 kW**

STANDBY POWER

**55 kVA / 44 kW**

### Specifications

<b>Voltage / frequency</b>	400/230 V, 50 Hz
<b>Power factor</b>	0,8
<b>Rated current</b>	72 A
<b>Model name</b>	C55
<b>Engine</b>	Cummins 4BTA3.9-G2
<b>Alternator</b>	Leroy Somer TAL-A42-G
<b>Control panel</b>	DSE 6120
<b>Fuel type</b>	Diesel
<b>Autonomy at 75% load</b>	8,7 h
<b>Dimensions</b>	251 x 100 x 125 cm
<b>Weight</b>	1.176 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
<b>EU Directives</b>	2006/42/EC, 2014/30/EU
<b>Product standards</b>	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
<b>Manufacturer certifications</b>	ISO 9001:2015 / GB/T 19001-2016, ISO 14001:2015 / GB/T 24001-2016, ISO 45001:2018 / GB/T 45001-2020



# Technical Data

## Engine

<b>Model</b>	4BTA3.9-G2
<b>Brand</b>	Cummins
<b>Number of cylinders</b>	4
<b>Aspiration</b>	Four-stroke, water-cooled, in-line, direct injection, turbocharged
<b>Displacement</b>	3,9 L
<b>Bore x stroke</b>	102 x 120 mm
<b>Compression ratio</b>	17.3:1
<b>Rated speed</b>	1500 r/min
<b>Engine power</b>	50 kWm
<b>Emission standard</b>	Fuel Optimised (non-Stage V)
<b>Coolant capacity</b>	8,3 L
<b>Oil capacity</b>	10,9 L
<b>Recommended oil</b>	15W-40 API CI-4

## Alternator

<b>Model</b>	TAL-A42-G
<b>Alternator brand</b>	Leroy Somer
<b>Phase</b>	3
<b>Voltage</b>	230/400 V
<b>Wiring type</b>	12 wires
<b>Bearing</b>	1
<b>Power factor</b>	0,8
<b>Frequency</b>	50 Hz
<b>Prime power</b>	50 kVA
<b>Excitation type</b>	Brushless, self-excitation
<b>Voltage regulation</b>	±0,5 %
<b>Protection grade</b>	IP 23
<b>Insulation class</b>	H

## Fuel consumption

<b>110% load (Standby power)</b>	14,1 L/h
<b>100% load (Prime power)</b>	12,9 L/h
<b>75% load (Prime power)</b>	10 L/h
<b>50% load (Prime power)</b>	7 L/h
<b>Fuel capacity</b>	87 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

