

# Cummins 6BTAA5.9-G2

## Diesel Generator Set

### PRIME POWER

140 kVA / 112 kW

### STANDBY POWER

155 kVA / 132 kW



## Specifications

|                      |                       |
|----------------------|-----------------------|
| Voltage / frequency  | 400/230 V, 50 Hz      |
| Power factor         | 0,8                   |
| Rated current        | 224 A                 |
| Model name           | C155                  |
| Engine               | Cummins 6BTAA5.9-G2   |
| Alternator           | Leroy Somer TAL-A44-H |
| Control panel        | DSE 6120              |
| Fuel type            | Diesel                |
| Autonomy at 75% load | 8,0 h                 |
| Dimensions           | 310 x 113 x 135 cm    |
| Weight               | 1.650 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-G2                                                        |
| Brand               | Cummins                                                            |
| Number of cylinders | 6                                                                  |
| Aspiration          | Four-stroke, water-cooled, in-line, direct injection, turbocharged |
| Displacement        | 5,9 L                                                              |
| Bore x stroke       | 102 x 120 mm                                                       |
| Compression ratio   | 17.3:1                                                             |
| Rated speed         | 1500 r/min                                                         |
| Engine power        | 118 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-H                  |
| Alternator brand   | Leroy Somer                |
| Phase              | 3                          |
| Voltage            | 230/400 V                  |
| Wiring type        | 12 wires                   |
| Bearing            | 1                          |
| Power factor       | 0,8                        |
| Frequency          | 50 Hz                      |
| Prime power        | 140 kVA                    |
| Excitation type    | Brushless, self-excitation |
| Voltage regulation | ±0,5 %                     |
| Protection grade   | IP 23                      |
| Insulation class   | H                          |

| Fuel consumption          |        |
|---------------------------|--------|
| 110% load (Standby power) | 34 L/h |
| 100% load (Prime power)   | 30 L/h |
| 75% load (Prime power)    | 23 L/h |
| 50% load (Prime power)    | 16 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                                                                        |
|  |