

Model: C1825E5

Powered by CUMMINS



Generator Specification

Service	PRP ⁽¹⁾	ESP ⁽²⁾
Power (kVA)	1650	1825
Power (kW)	1320	1460
Rated speed (r.p.m)	1500	
Standard voltage (V)	400/230V	
Rated at power factor(cos phi)	0.8	



AGG Power gensets are compliant with ISO 9001 and CE standard, which include the following directives:

- 2006/42/EC Machinery safety.
- 2006/95/EC Low voltage
- EN 60204-1: 2006+A1: 2009, EN ISO 12100: 2010, EN ISO 13849-1: 2008, EN 12601 : 2010

(1) PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

(2) ESP (Standby Power):

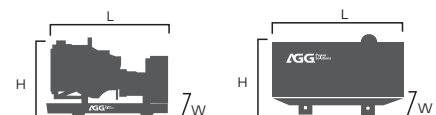
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Powers Voltage (V)	ESP KVA	ESP KW	PRP KVA	PRP KW	Standby Amps
415/240	1825	1460	1650	1320	2539.0
400/230	1825	1460	1650	1320	2634.2
380/220	1825	1460	1650	1320	2772.9

Performance Data		
Model	C1825E5	
Engine brand	Cummins	
Engine model	QSK50G7	
Speed control type	ECM	
Phase	3	
Control system	Digital	
Starter motor voltage	24V	
Frequency	50HZ	
Engine speed (RPM)	1500	
Fuel Consumption (L/H)	100% standby power	394
	100% prime power	349
	75% prime power	265
	50% prime power	189

Standard reference Conditions

Note: Standard reference condition 25°C (77°F) air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998 , Class A2



Dimension and Weight		
Dimension	Open	Silent
Length (L)	REQ	12192mm
Width (W)	REQ	2438mm
Height (H)	REQ	2896mm
Net Weight	REQ	/
Fuel Tank (L)	REQ	/

■ Engine Specification: QSK50G7

Basic technical data	
No. of cylinders	12
Cylinder arrangement	60° Vee
Cycle	4 stroke
Induction system	Turbocharged&After-cooled
Compression ratio	15.0:1
Bore	159mm
Stroke	159mm
Displacement	50.3L
Engine idle speed	/

Cooling system	
Coolant capacity-engine	/
Maximum coolant friction head external to engine:	
-1800 rpm	/
-1500 rpm	/
Maximum static head of coolant above engine crank centerline	/
Standard Thermostat (Modulating) Range	/
Minimum Pressure Cap	/
Maximum Top Tank Temperature for Standby / Prime Power	/

Fuel system	
Injection system	Cummins MCRS
Governor type	ECM
Maximum restriction at lift pump	/
Maximum fuel inlet temperature	/
Total drain flow (constant for all loads)	/

Air intake system	
Maximum intake air restriction with heavy duty air cleaner:	
-Dirty element	/
-Clean element	/

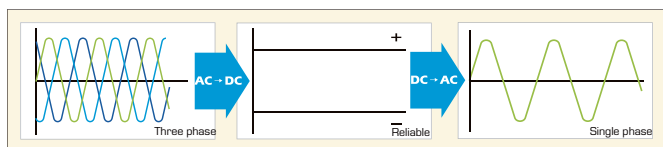
Lubrication system	
Engine oil pressure for engine protection devices:	
— Idle speed(Minimum)	138kPa
— Governed speed(Maximum)	350-485kPa
Maximum oil temperature	121 °C
Minimum required lube system capacity-sump plus filters	TBD

Electrical system	
Cranking motor (Heavy duty, positive engagement	/
Battery charging system, negative ground	/
Maximum allowable resistance of cranking circuit	/
Minimum recommended battery capacity- cold soak	/

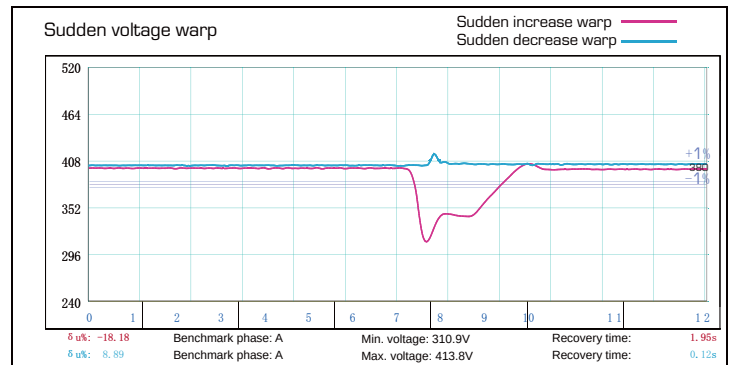
General installation	Prime power
Gross engine power output	/
Piston speed	/
Friction horsepower	/
Engine water flow to engine	/
Intake air flow	/
Exhaust gas flow	/
Exhaust gas temperature	/
Radiated heat to ambient	/
Heat rejection to coolant	/
Heat rejection to fuel	/

■ Alternator Specification

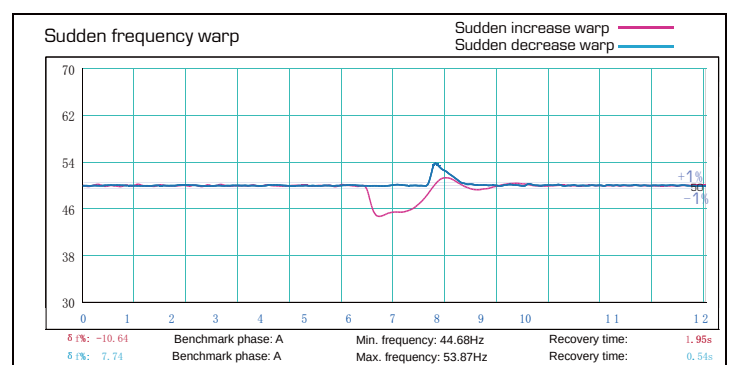
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self-excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Couping	Flexible disc



Emergency voltage curve



Emergency frequency curve



■ Options

Engine	Alternator	Generator Sets	Fuel System
- Water Jacket Pre-heater - Fuel heater	- Winding Temp measuring Instrument - Alternator Pre-heater - PMG - Anti-damp and anti-corrosion treatment - Anti-condensation heater - Winding and bearing RTD	- Tools with the machine - Extended range fuel tank - Bunded fuel tank	- Low fuel level alarm - Automatic fuel feeding system - Fuel T-valves
Canopy	Lub oil system	Cooling System	Control Panel
- Rental type Canopy - Trailer	- Oil Pre-heater - Oil temp sensor	Front heat protection	- Remote control panel - ATS - Synchronizing controller - Adjustable earth leakage relay

■ Control Panel

Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit
- Comprehensive diagnostic message
- Automatic or manual start/stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements (50HZ/60HZ)
- Generator measurements (50HZ/60HZ)
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Over current/overload
- 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set-up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

Operation conditions

- Operation temp: -20 °C to + 70 °C
- Storage temp: -30 °C to + 80 °C
- Operating humidity: 95% w/o condensation
- Vibration : 5-25Hz, ± 1.6 mm
5-100Hz, $a=4g$
- Shocks: $a= 500m/s^2$

Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs