

Model: C700E5

Powered by CUMMINS



Generator Specification

Power (kVA)	636	700
Power(kW)	509	560
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):

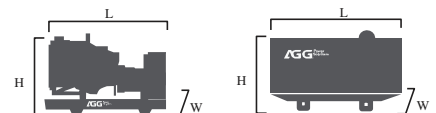
According to ISO 8528-1, it is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuous use) with the maintenance intervals and procedures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

Powers Voltage (V)	ESP		PRP		Standby Amps
	KVA	KW	KVA	KW	
415/240	700	560	636	509	973.9
400/230	700	560	636	509	1010.4
380/220	700	560	636	509	1063.6

Model	C700E5	
Engine brand	Cummins	
Engine model	QSK19G4	
Speed control type	ECM	
Phase	3	
Control system	Digital	
Starter motor voltage	24V	
Frequency	50 HZ	
Engine speed (RPM)	1500	
Fuel Consumption (L/H)	100% standby power	161
	100% prime power	145
	75% prime power	111
	50% prime power	79

Standard reference Conditions

Note: Standard reference condition 25°C (77°F) air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption data 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)	3535 mm	5112 mm
Width (W)	1560 mm	1800 mm
Height (H)	2480 mm	2535 mm
Net Weight	4152 KG	4744 KG
Fuel Tank (L)	960L	900L

■ Engine Specification: QSK19 G4

Basic technical data

No. of cylinders	6
Cylinder arrangement	Inline
Cycle	4 stroke
Induction system	Turbocharged and Charge Air Cooled
Compression ratio	15:1
Bore	159 mm
Stroke	159 mm
Displacement	18.9L
Engine idlespeed	700 - 900 RPM
Approximate engine weight	1901kg

Cooling system

Coolant Capacity — Engine Only	41.6L
Maximum coolant friction head external to engine:	
- 1500 rpm	34.5 kPa
Maximum static head of coolant above engine crank centerline	18.3m
Thermostat (Modulating) Range	82 - 93 °C
Minimum Pressure Cap	103 kPa
Maximum Top Tank Temperature for Standby / Prime Power	104 / 100 °C

Fuel system

Type Injection System	Cummins MCRS
Maximum Restriction at Lift Pump (clean/dirty filter)	16.9 / 30 kPa
Maximum Fuel Inlet Temperature	71 °C
Maximum Supply Fuel Flow @ 1500 RPM	545 l/h
Maximum Return Fuel Flow @ 1500 RPM	284 l/h

Air intake system

Maximum intake air restriction with heavy duty air cleaner:

- Dirty element	25 in H ₂ O
- Clean element	10 in H ₂ O

Lubrication system

Engine oil pressure for engine protection devices:

— Idle speed (Minimum)	138 kPa
— Governed speed (Maximum)	275.8 - 413.7 kPa

Maximum oil temperature 121 °C

Oil Capacity with OP 4084 Oil Pan :

High - Low 71.9 - 64.4 L

Electrical system

Cranking motor (Heavy duty, positive engagement 24V

Minimum Recommended Battery Capacity

Cold Soak @ 50°F (10 °C) and above	600 CCA
Cold Soak @ 32°F to 50°F (0°C to 10°C)	650 CCA
Cold Soak @ 0°F to 32°F (-18°C to 0°C)	900 CCA

Maximum Starting Circuit Resistance 0.002 Ohm

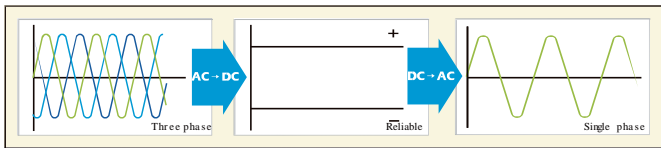
General installation

Standby power

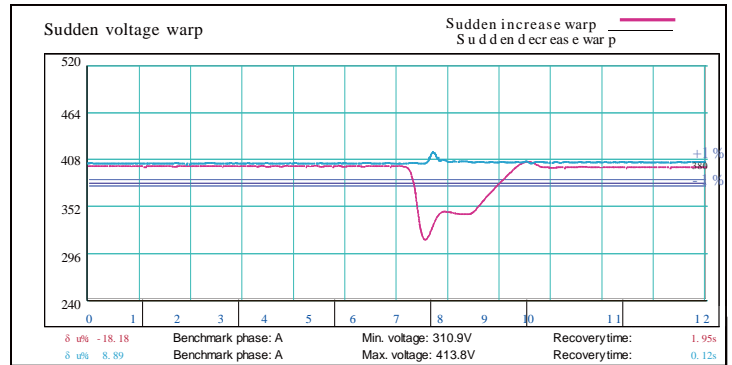
Gross engine power output	574kw
Piston speed	7.9 m/s
Friction horsepower	43 KW
Brake Mean Effective Pressure	2,441 kPa
Intake air flow	806 L/S
Exhaust gas flow	2023 L/S
Exhaust gas temperature	512 °C
Radiated heat to ambient	59 KW
Heat rejection to coolant	222 KW
Heat Rejection to Exhaust	434 KW
Heat rejection to fuel	4.1

■ Alternator Specification

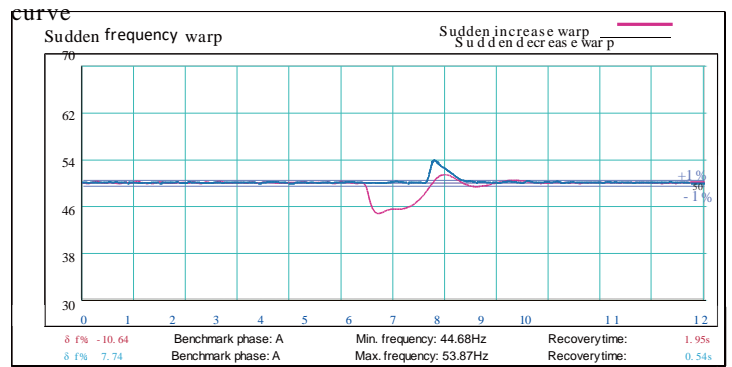
Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2 / 3
IP rating	IP23
Excitation system	Sel f-exci ted
Bearing	Single bearing
Coating	Vacuim impregnation
Voltage regulator	A.V.R
Couping	Flexible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



Emergency volta ge cu rve



Emergency frequency curve



■ Options

Engine	Alternator	Generator Sets	Fuel System
<ul style="list-style-type: none"> · Water Jacket Pre-heater · Fuel heater 	<ul style="list-style-type: none"> · Winding Temp measuring Instrument · Alternator Pre-heater · PMG · Anti-damp and anti-corrosion treatment · Anti-condensation heater · Winding and bearing RTD 	<ul style="list-style-type: none"> · Tools with the machine · Extended range fuel tank · Bunded fuel tank 	<ul style="list-style-type: none"> · Low fuel level alarm · Automatic fuel feeding system · Fuel T-valves
Canopy	Lub oil system	Cooling System	Control Panel
<ul style="list-style-type: none"> · Rental type Canopy · Trailer 	<ul style="list-style-type: none"> · Oil Pre-heater · Oil temp sensor 	<ul style="list-style-type: none"> · Front heat protection 	<ul style="list-style-type: none"> · 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 backlit 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 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= 500 m/s²

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