

Model: C650D5

Powered by CUMMINS

Output Rating

MODEL		Power rating		Voltage available
		PRIME(1)	STANDBY(2)	
C650D5	400V/50HZ	500KW	520KW	380/220V400/230V415/240V
	PF:0.8	625KVA	650KVA	

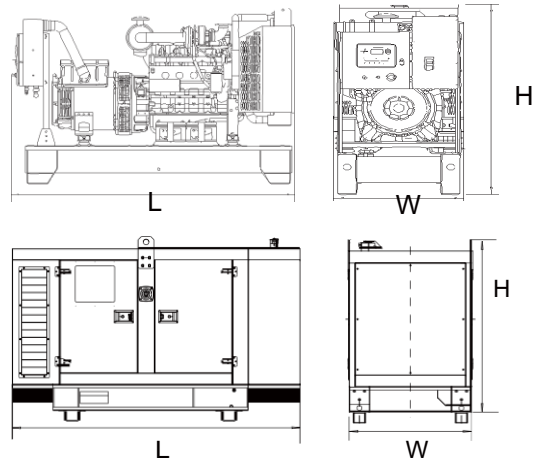
General Information

Model	C650D5	
Engine	KTA19G8	
Speed control type	Electronic	
Phase	3	
Control System	Digital	
System voltage	24V	
Frequency	50HZ	
Engine Speed(RPM)	1500	
Fuel Consumption L/hr	Standby power(2)	137
	Prime Power(1)	123
	75% prime power	92
	50% prime power	62



Dimension and Weight

Dimension	Open	Silent
Length(L)	3500mm	4630mm
Width (W)	1570mm	1660mm
Height (H)	2050mm	2250mm
Net Weight	4600KG	5945KG



AGG POWER gensets are compliant with EC mark 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) Prime Power (PRP):

According to ISO 8528-1:2005, Prime power is the maximum power which a generating set is capable of delivering continuously whilst supplying a variable electrical load when operated for an unlimited number of hours per year under the agreed operation conditions with the maintenance intervals and procedures being carried out as prescribed by the manufacturer. The permissible average power output (Ppp) over 24h of operations shall not exceed 70% of the PRP.

(2) Standby Power (ESP):

According to ISO 8528-1:2005, standby power is the maximum power available during available electrical power sequence, under the stated operation conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200h of operation per year with the maintenance intervals procedures being carried out as prescribed by the manufacturers. The permissible average power output over 24h of operation shall not exceed 70% of the ESP.



Engine Specification

GENERAL ENGINE DATA

Type	4-Cycle; In-line; 6-Cylinder Diesel
Aspiration.....	Turbocharged and Aftercooled
Bore x Stroke.....	in x in (mm x mm) 6.25 x 6.25 (159 x 159)
Displacement.....	in ³ (liter)1150(19)
Compression Ratio.....	13.9 : 1

Dry Weight

Fan to Flywheel Engine.....	lb (kg) 3725(1690)
Heat Exchanger Cooled Engine.....	lb (kg) 5900(2676)

Wet Weight

Fan to Flywheel Engine.....	lb (kg) 3880 (1760)
Heat Exchanger Cooled Engine.....	lb (kg) 6300 (2858)

ENGINE MOUNTING

Maximum Bending Moment at Rear Face of Block	lb *ft ² (kg*m ²) 1876 (79)
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EXHAUST SYSTEM

Maximum Allowable Back Pressure —in.Hg(kPa).....	3(10)
Exhaust Pipe Size Normally Acceptable —in(mm).....	5(127)

AIR INDUCTION SYSTEM

Maximum Intake Air Restriction	
-with Dirty Filter Element.....	in H ₂ O (kPa) 25 (6.23)
-with Normal Duty Air Cleaner and Clean Filter Element.....	in H ₂ O (kPa) 10 (2.49)
-with Heavy Duty Air Cleaner and Clean Filter Element.....	in H ₂ O (kPa) 15 (3.73)

COOLING SYSTEM

Coolant Capacity — Engine Only.....	— US gal (liter) 8.0 (30)
— with HX 4073 Heat Exchanger.....	— US gal (liter) 53(199)

LUBRICATION SYSTEM

Oil Pressure @ Idle Speed.....	— psi (kPa) 20 (138)
@ Governed Speed	— psi (kPa) 50 - 70 (345 - 483)
Maximum Oil Temperature.....	— °F (°C) 250 (121)
Oil Capacity with OP 6023 Oil Pan : High - Low	— US gal (liter) 30.0 - 23.0 (87.1-50.0)
Total System Capacity (Including Bypass Filter).....	— US gal (liter) 13.2 (50)
Angularity of OP 6023 Oil Pan — Front Down	30°
— Front Up	30°

FUEL SYSTEM

Type Injection System.....	Cummins PT
Maximum Restriction at PT Fuel Injection Pump-with Clean Fuel Filter.....	in Hg (kPa) 4.0 (13.5)
-with Dirty Fuel Filter	in Hg (kPa) 8.0 (27.09)

ELECTRICAL SYSTEM

Cranking Motor (Heavy Duty, Positive Engagement).....	volt 24
Battery Charging System, Negative Ground.....	ampere 35
Maximum Allowable Resistance of Cranking Circuit.....	ohm 0.002
Minimum Recommended Battery Capacity	
-Cold Soak @ 50 °F(10°C) and Above.....	0 °F CCA 600
Cold Soak @ 32°Fto 50 °C (0 °C to 10°C).....	0 °F CCA 640..
-Cold Soak @ 0 °F to 32 °C (-18 °C to 0 °C).....	0 °F CCA 900



▪ Alternator

Alternator		
Poles	Num	4
Winding Connections (standard)		Star-serie
Insulation	Class	H class
Enclosure (according IEC-34-5)		IP23
Exciter System		Brushless
Voltage Regulator		A.V.R. (Electronic)
Bearing		Single bearing
Coupling		Flexible disc
Coating type		Standard (Vacuum impregnation)

▪ Options

Engine	Alternator	Generator Sets	Fuel System	Canopy
<ul style="list-style-type: none"> •Water Jacket Preheater •Oil Preheater 	<ul style="list-style-type: none"> •Winding Temperature measuring Instrument •Alternator Preheater •PMG •Anti-damp and anti-corrosion treatment •Anti-condensation heater 	<ul style="list-style-type: none"> •Tools with the machine 	<ul style="list-style-type: none"> • Low fuel level alarm •Automatic fuel feeding system •Fuel T-valves 	<ul style="list-style-type: none"> •Rental Type Canopy •Trailer
Lubricating System	Exhaust System	Cooling System	Control Panel	Voltages
<ul style="list-style-type: none"> •Oil with the machine 	<ul style="list-style-type: none"> •Protection board from hotness 	<ul style="list-style-type: none"> • Front heat protection • Coolant (-30°C) 	<ul style="list-style-type: none"> •Remote control panel • ATS • Remote controller • Synchronizing controller 	<ul style="list-style-type: none"> • 415/240V • 380/220V • 220/127V • 220/127V • 200-115V



Control Panel



Product description

- Single gen-set controller for Stand-by and Prime-power applications
- Direct communication with EFI engines
- Total remote monitoring and control

Key features

- Easy to install, configure and use
- Wide range of communication capabilities including:
 - connection via RS232, RS485, CAN and on board USB
 - internet access using Ethernet or GPRS
 - support for Modbus and SNMP protocols
- Cloud-based monitoring and control
- Active SMS and emails in different languages
- 2x 5 A binary outputs for cranking and fuel solenoid
- Option for up to 16 additional binary inputs/outputs
- Flexible event based history with up to 350 events
- Load shedding, dummy load capability
- Automatic temperature based cooling/heating
- Comprehensive gen-set protections
- Multipurpose flexible timers
- True RMS measurement

Available extension modules

Product	Description	Order code
CM-Ethernet	Ethernet interface	CM2ETHERXBX
CM-GPRS	GSM modem / wireless internet	CM2GPRSXXBX
CM-RS232-485	Dual port interface	CM223248XBX
EM-BIO8-EFCP	8 additional binary inputs/outputs	EM2BIO8EXBX

Functions and protections

Description	ANSI code	Description	ANSI code
Over voltage	59	Load shedding	32P
Under voltage	27	Overload	32
Voltage asymmetry and Phase rotation**	47	Power factor	55
Over frequency	81H	Temperature	49T
Under frequency	81L	Gas (fuel) level	71
Over current*	50 + 51	Earth fault current	50N + 64
Current unbalance	46		

* Short current only

** Fixed setting

