

Model: C713D5

Powered by CUMMINS CCEC

Output Rating

MODEL		Power rating		Voltage available
		PRIME(1)	STANDBY(2)	
C688D5	400V/50HZ	520KW	570 KW	380/220V400/230V415/240V
	PF:0.8	650KVA	713KVA	

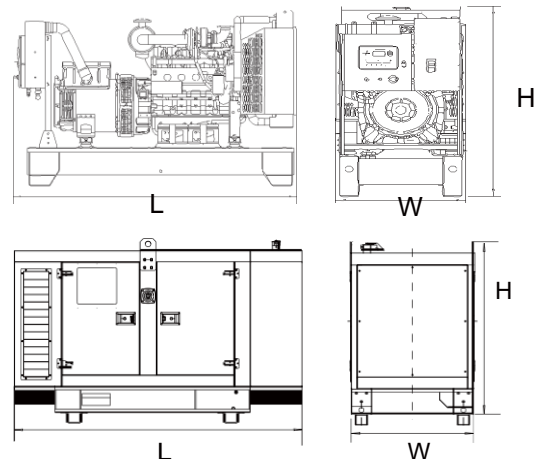
General Information

Model	C713D5	
Engine	QSKTAA19-G4	
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)	161
	Prime Power(1)	145
	75% prime power	111
	50% prime power	79



Dimension and Weight

Dimension	Open	Silent
Length(L)	3900mm	5230mm
Width (W)	1680mm	1980mm
Height (H)	2180mm	2550mm
Net Weight	5020KG	6640KG



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	Four Cycle; Inline; 6 Cylinder
Aspiration	Turbocharged and Charge Air Cooled
Bore x Stroke	6.25 x 6.25 159 x 159
Displacement	1150 18.9
Compression Ratio	15.0 : 1
Dry Weight (Approximate), Fan to Flywheel Engine	4190 1901
Wet Weight (Approximate), Fan to Flywheel Engine	4350 1973
Moment of Inertia of Rotating Components	
• with FW 4023 Flywheel	195 8.2
Center of Gravity from Rear Face of Block	23.55 598
Center of Gravity Above Crankshaft Centerline	11.1 282
Maximum Static Loading at Rear Main Bearing	2000 907

EXHAUST SYSTEM

Maximum Back Pressure @ 1500 / 1800 RPM	1.5 / 2 5.1 / 6.8
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COOLING SYSTEM

Coolant Capacity — Engine Only	11 41.6
Minimum Pressure Cap	15 103
Maximum Static Head of Coolant Above Engine Crank Centerline	60 18.3
Maximum Coolant Temperature (Max Top Tank Temp) for Standby / Prime Power	220 / 212 104 / 100
Thermostat (Modulating) Range	181 - 203 83 - 95

Jacket Water Circuit Requirements

Maximum Coolant Friction Head External to Engine @ 1500 / 1800 RPM	5 / 5 34.5 / 34.5
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Charge Air Cooler Requirements

Maximum Temp. Rise Between Engine Air Intake and Intake Manifold - 1500/1800 rpm	38 / 53 21 / 29
Maximum Air Pressure Drop from Turbo Air Outlet to Intake Manifold - 1500/1800 rpm	3 / 4 10.2 / 13.5
Maximum Intake Manifold Temperature @ 77 °F (25 °C) Ambient - 1500/1800 rpm	115 / 130 46 / 54
Maximum Intake Manifold Temperature for Engine Protection (Shut Down Threshold)	180 82

LUBRICATION SYSTEM

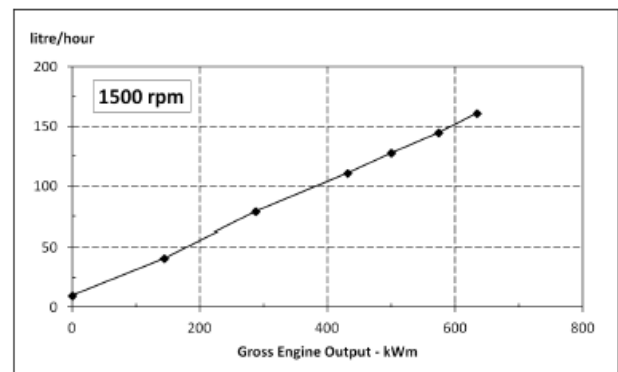
Oil Pressure @ Idle Speed	20 138
@ Governed Speed	40 - 60 275.8 - 413.7
Maximum Oil Temperature	250 121
Oil Capacity with OP 4084 Oil Pan : High - Low	19 - 17 71.9 - 64.4
Total System Capacity (Including Filter)	22.3 84.4

FUEL SYSTEM

Type Injection System	Cummins MCRS
Maximum Restriction at Lift Pump(clean/dirty filter)	5 / 9 16.9 / 30
Maximum Allowable Head on Injector Return Line (Consisting of Friction Head and Static Head)	10 34
Maximum Fuel Inlet Temperature	160 71
Maximum Supply Fuel Flow @ 1500 / 1800 RPM	120 / 124 454 / 469
Maximum Return Fuel Flow @ 1500 / 1800 RPM	75 / 78 284 / 295

Engine Performance Data @ 1500 rpm

OUTPUT POWER			FUEL CONSUMPTION			
%	bhp	kWm	lb/ hp-h	kg/ kWm-h	US gal/ hour	litre/ hour
STANDBY POWER						
100	850	634	0.355	0.216	42.5	161
PRIME POWER						
100	770	574	0.354	0.215	38.4	145
75	578	431	0.360	0.219	29.2	111
50	385	287	0.384	0.234	20.8	79
25	193	144	0.400	0.243	10.8	41
CONTINUOUS POWER						
100	670	500	0.357	0.217	33.7	128



▪ 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

