

■ Model: C413D5

Powered by CUMMINS

Output Rating

MODEL		Power rating		Voltage available
		PRIME(1)	STANDBY(2)	
C413D5	400V/50HZ	300KW	330KW	380/220V400/230V415/240V
	PF:0.8	375KVA	413KVA	

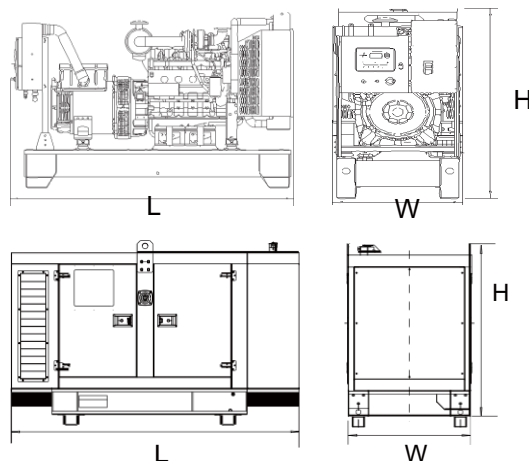
General Information

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Model		C413D5
Engine		NTA855G7
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)	94
	Prime Power(1)	85.4
	75% prime power	64.7
	50% prime power	44.6



Dimension and Weight

Dimension	Open	Silent
Length(L)	3300mm	3980mm
Width (W)	1200mm	1420mm
Height (H)	1950mm	2050mm
Net Weight	3280KG	4380KG



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 and 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
Aspiration	Turbocharged,Aftercooled
Bore x Stroke - in...in. (mm..mm).....	5.5×6 (140 × 152)
Displacement - in.3(L).....	855 (14)
Compression Ratio	14.0:1
Firing Order	1-5-3-6-2-4

Dry Weight

Engine Only - lb. (kg).....	2800(1270)
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Wet Weight

Engine Only- lb. (kg).....	2910(1320)
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ENGINE MOUNTING

Maximum Allowable Bending Moment at Rear Face of Block - lb.-ft. (N-m).....	1000(1356)
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EXHAUST SYSTEM

Maximum Allowable Back Pressure - in.Hg (kPa).....	3.0 (10)
Standard Exhaust Pipe Diameter - in. (mm).....	5.0 (127)

AIR INDUCTION SYSTEM

Maximum Allowable Intake Air Restriction	
--With Clean Filter Element - in. H2O (kPa).....	15 (3.74)
--With Dirty Filter Element - in. H2O (kPa)	25 (6.22)
Maximum Intake Pressure Fall from Turbo to Intake Manifold - PSI (kPa).....	5.0 (17)
Maximum Intake Manifold Temperature Rise - °F (°C).....	43 (24)
Minimum Dirt Holding Capacity - g/CFM (g/L/s).....	25 (53)
Maximum Allowable Intake Air Temperature $\dot{Y}T$ - °F (°C).....	30(17)

COOLING SYSTEM

Coolant Capacity - Engine Only - U.S. gal (L).....	5.5 (20.8)
- With Radiator - U.S. gal (L).....	16.0 (60.6)

LUBRICATION SYSTEM

Oil Pressure @ Idle Speed - PSI (kPa).....	15Min (103) Min
@ Governed Speed - PSI (kPa).....	35-50 (241 - 345)
Maximum Allowable Oil Temperature - °F (°C).....	250 (121)
Maximum Oil Consumption - U.S.qt./h (L/h).....	0.25 (0.24)
Oil Pan Capacity - Low / High - U.S. gal. (L).....	7.5 / 9.5 (28.4 / 36.0)
Total System Capacity - U.S. gal. (L).....	10.2 (38.6)
Angularity of Oil Pan - Front Down/Front Up/Side to Side.....	38°/38°/38°

FUEL SYSTEM

Type Injection System.....	Direct Injection Cummins PT
Fuel Rail Pressure - PSI (kPa).....	149(1028)
Maximum Fuel Temperature °F (°C).....	160 (71)

ELECTRICAL SYSTEM

Minimum Recommended Battery Capacity (24V)	
Maximum Allowable Resistance of Cranking Circuit - ohm.....	0.002
Standard Cranking Motor (Heavy Duty , Positive Engagement.. - volt.....	24
Standard Battery Charging System , Negative Ground - ampere.....	35



■ 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
•Water Jacket Preheater •Oil Preheater	•Winding Temperature measuring Instrument •Alternator Preheater •PMG •Anti-damp and anti-corrosion treatment •Anti-condensation heater	•Tools with the machine	• Low fuel level alarm •Automatic fuel feeding system •Fuel T-valves	•Rental Type Canopy •Trailer
Lubricating System	Exhaust System	Cooling System	Control Panel	Voltages
•Oil with the machine	•Protection board from hotness	• Front heat protection • Coolant (-30°C)	•Remote control panel • ATS • Remote controller • Synchronizing controller	• 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

