

# FUJIAN EPOS ELECTRIC MACHINERY CO., LTD

**EMEAN**  
POWER



ENGINE MODEL: 6CTAA8.3-G2  
CURVE & DATASHEET: FR93271

EMEAN POWER

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WHATSAPP



WECHAT





**Generator Engine Performance Data**

DONGFENG CUMMINS ENGINE Co.,LTD

Xiangfan, Hubei Province, China  
<http://www.dcec.com.cn>

Basic Engine Model:

**6CTAA8.3-G2**

**FR93271**

**FR93271 @ 1500 RPM &1800RPM**

**Configuration**  
**D413058GX03**

**CPL Code**  
**CPL: 1783**

**Revision**  
**2020/5/15**

Compression Ratio:	<b>17.3:1</b>	Aspiration:	<b>Charge Air Cooled</b>
Bore:	<b>114 mm</b>	Displacement:	<b>8.3 L</b>
Stroke:	<b>135 mm</b>	No. of Cylinders:	<b>6</b>
Emission Certification:		Fuel System:	<b>BYC P7100 ELECTRONIC GOVERNOR</b>
Governor Regulation:	<b>≤3%</b>		

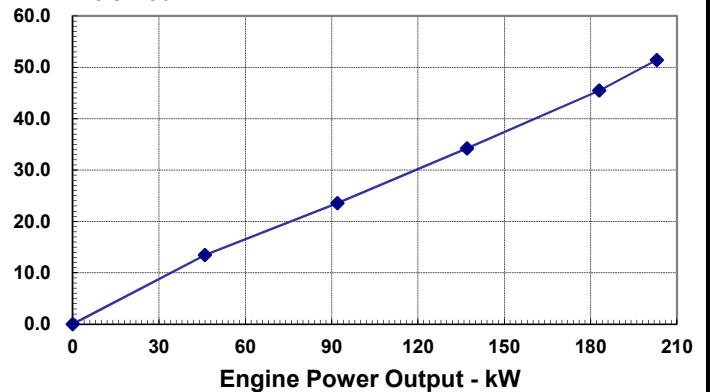
All data is based on the engine operating with fuel system, water pump, and 14.8 in H<sub>2</sub>O (3.7 kPa) inlet air restriction with 5.98 in (152mm) inner diameter, and with 2.95 in Hg (10 kPa) exhaust restriction with 4.02 in (102 mm) inner diameter; not included are alternator, fan, optional equipment and driven components. Coolant flows and heat rejection data based on coolants as 50% ethylene glycol/50% water. All data is subject to change without notice.

Engine Speed RPM	Standby Power		Prime Power		Continuous Power	
	kW	HP	kW	HP	kW	HP
1500	203	272	183	245	149	200
1800	210	281	190	255	TBD	TBD

**Engine Performance Data @ 1500 RPM**

OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
<b>STANDBY POWER</b>				
100	203	272	209	51.0
<b>PRIME POWER</b>				
100	183	245	205	45.0
75	137	184	206	34.0
50	92	123	211	23.0
25	46	61	241	13.0
<b>CONTINUOUS POWER</b>				
100	149	241	205	37

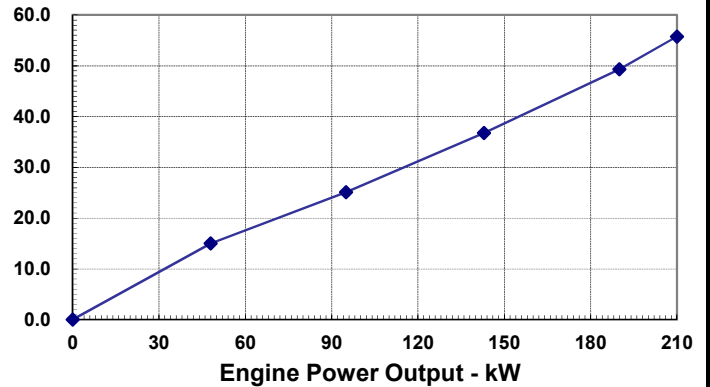
Litre/hour



**Engine Performance Data @ 1800 RPM**

OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
<b>STANDBY POWER</b>				
100	210	281	219	56.0
<b>PRIME POWER</b>				
100	190	255	214	49.0
75	143	191	212	37.0
50	95	127	218	25.0
25	48	64	258	15.0
<b>CONTINUOUS POWER</b>				
TBD	TBD	TBD	TBD	TBD

Litre/hour



Curves shown above represent gross engine performance capabilities obtained and corrected in accordance with GB/T18297 conditions of 100kPa (29.61 in. Hg) barometric pressure [80 m (263 ft.) altitude], 25°C (77°F) inlet air temperature, and 1 kPa (0.30 in. Hg) water vapor pressure with No.0 diesel fuel.

## POWER RATING APPLICATION GUIDELINES FOR GENERATOR DRIVE ENGINES

These guidelines have been formulated to ensure proper application of generator drive engines in A.C. generator set installations. Generator drive engines are not designed for and shall not be used in variable speed D.C. generator set applications.

**STANDBY POWER RATING** is applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. Under no condition is an engine allowed to operate in parallel with the public utility at the Standby Power rating.

This rating should be applied where reliable utility power is available. A standby rated engine should be sized for a maximum of an 80% average load factor and 200 hours of operation per year. This includes less than 25 hours per year at the Standby Power rating. Standby ratings should never be applied except in true emergency power outages. Negotiated power outages contracted with a utility company are not considered an emergency.

**CONTINUOUS POWER RATING** is applicable for supplying utility power at a constant 100% load for an unlimited number of hours per year. No overload capability is available for this rating.

**PRIME POWER RATING** is applicable for supplying electric power in lieu of commercially purchased power. Prime Power applications must be in the form of one of the following two categories:

### **UNLIMITED TIME RUNNING PRIME POWER**

Prime Power is available for an unlimited number of hours per year in a variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 250 hours.

The total operating time at 100% Prime Power shall not exceed 500 hours per year.

A 10% overload capability is available for a period of 1 hour within a 12 hour period of operation. Total operating time at the 10% overload power shall not exceed 25 hours per year.

### **LIMITED TIME RUNNING PRIME POWER**

Prime Power is available for a limited number of hours in a non-variable load application. It is intended for use in situations where power outages are contracted, such as in utility power curtailment. Engines may be operated in parallel to the public utility up to 750 hours per year at power levels never to exceed the Prime Power rating. The customer should be aware, however, that the life of any engine will be reduced by this constant high load operation. Any operation exceeding 750 hours per year at the Prime Power rating should use the Continuous Power rating.

Above Source From CUMMINS AEB 26.02



**ELECTRICAL SYSTEM**

Cranking Motor (Heavy Duty, Positive Engagement).....	-volt	24V	12V
Battery Charging System, Negative Ground.....	-ampere	40	63
Maximum Allowable Resistance of Cranking Circuit.....	-ohm	0.002	0.00075
Minimum Recommended Battery Capacity			
—Cold Soak @ 0 to 32-F (-18 to 0-C).....	-0°F CCA	TBD	TBD

**EMISSIONS**

Gaseous Emissions per GB 20891-2007, at 1500rpm:

—Weight-Specific NOx.....	g/kW.h
—Weight-Specific HC.....	g/kW.h
—Weight-Specific CO.....	g/kW.h
—Weight-Specific Particulates.....	g/kW.h

Gaseous Emissions per GB 20891-2007, at 1800rpm:

—Weight-Specific NOx.....	g/kW.h
—Weight-Specific HC.....	g/kW.h
—Weight-Specific CO.....	g/kW.h
—Weight-Specific Particulates.....	g/kW.h

Fuel Rating Option used for these Data: FR93271

Governed Engine Speed.....	-rpm
Engine Idle Speed.....	-rpm
Gross Engine Power Output.....	-kW
Piston Speed.....	-m/s
Friction Horsepower.....	-kW
Engine Water Flow to Engine:.....	-litre/sec.
Intake Air Flow.....	-litre/sec.
Exhaust Gas Flow.....	-litre/sec.
Exhaust Gas Temperature.....	-°C
Radiated Heat to Ambient.....	-kW
Heat Rejection to Coolant.....	-kW
Heat Rejection to Fuel.....	-kW

STANDBY POWER		PRIME POWER	
1800	1500	1800	1500
700-900	700-900	700-900	700-900
210	203	190	183
8.1	6.8	8.1	6.8
22	17	22	17
4	3.3	4	3.3
262	191	254	183.0
755	547	675	480
585	580	520	510
33	26	29	24
117	95	107	83
180	139	157	123

ALL DATA CERTIFIED WITHIN 5%

TBD = To Be Decided                      N/A = Not Applicable  
 All data is subject to change without notice, sorry for inform.  
 Dongfeng Cummins Engine Co., Ltd.

N.A. = Not Available