DCEC CUMMINS ENGINE Co.,LTD

Generator Engine Performance Data

Basic Engine Model:

6LTAA8.9-G2

FR92516
FR92996

FR92516 @ 1500 RPM &1800RPM
FR92996 @ 1500 RPM &1800RPM

Configuration	CPL Code	Revision
D563015GX03	CPL: 3079	2009-4-15

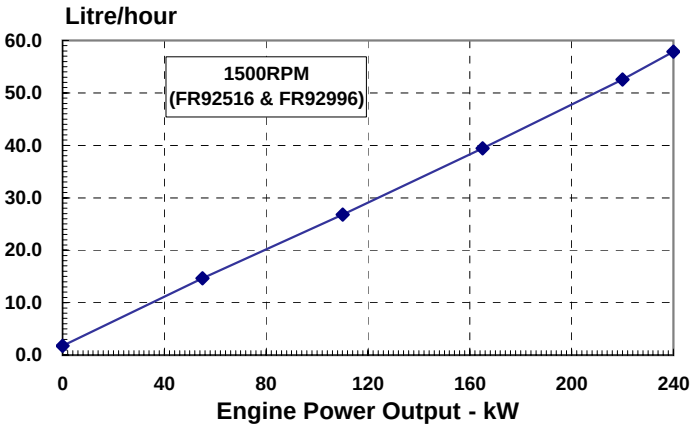
Compression Ratio:	**16.6:1**	Aspiration:	**Turbocharged and Charge Air Cooled**
Bore:	**114 mm**	Displacement:	**8.9 L**
Storke:	**145 mm**	No. of Cylinders:	**6**
Emission Certification:	**MEP STAGE II**	Fuel System:	**FR92516: BYC P7100/GAC**
Governor Regulation:	**⩽3%**		**FR92996: BYC P7100/SEGMA**

All data is based on the engine operating with fuel system, water pump, and 10 in H_2O (2.488 kPa) inlet air restriction with 5.98 in (152mm) inner diameter, and with 2.01 in Hg (7 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	Standby Power		Prime Power		Continuous Power	
RPM	kW	HP	kW	HP	kW	HP
1500	240	322	220	295	180	241
1800	258	346	235	315	190	255

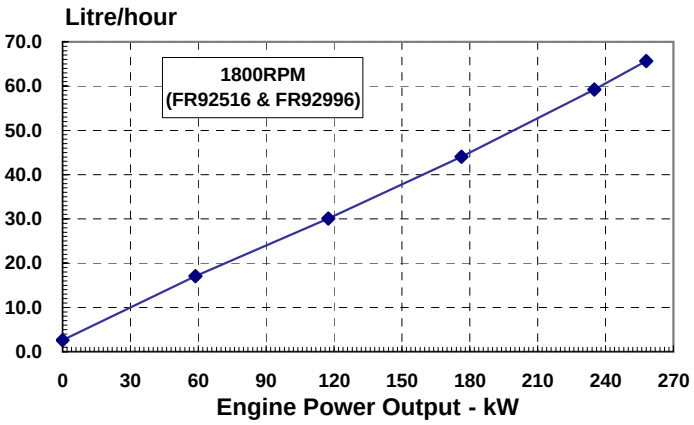
Engine Performance Data @ 1500 RPM

OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
STANDBY POWER				
100	240	322	199	58
PRIME POWER				
100	220	295	197	53
75	165	221	197	39
50	110	147	201	27
25	55	74	220	15
CONTINUOUS POWER				
100	180	241	196	43



Engine Performance Data @ 1800 RPM

OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
STANDBY POWER				
100	258	346	210	66
PRIME POWER				
100	235	315	208	59
75	176	236	206	44
50	118	157	211	30
25	59	79	240	17
CONTINUOUS POWER				
100	190	255	206	47



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. The engine may be operated without changing the fuel setting up to 2200 m (7218ft.) altitude.

GENERAL ENGINE DATA

Approximate Engine Weight (wet)	-kg	650
Mass Moment of Inertia of Rotating Components (No Flywheel)	-kg·m^2	0.72
Center of Gravity from Front Face of Block	-mm	427
Center of Gravity above Crankshaft Centerline	-mm	163
Engine Idle Speed	-RPM	800-1000
Fire Order		1-5-3-6-2-4

ENGINE MOUNTING

Maximum (Static) Bending Moment at Rear Face of Block	-N.m	1356

EXHAUST SYSTEM

Maximum Back Pressure	-kPa	10

AIR INTAKE SYSTEM

Maximum Intake Air Restriction with Heavy Duty Air Cleaner		
— Dirty Element	-kPa	6
— Clean Element	-kPa	4

CHARGE AIR COOLING SYSTEM

Maximum Temp. Rise Between Engine Air Intake and Intake Manifold	-℃	25
Maximum Air Pressure Drop from Turbo Air outlet to Intake Manifold		
— 1500RPM	-kPa	8.5
— 1800RPM	-kPa	13.5
Maximum Intake Manifold Temperature Differential (Ambient to IMT) (IMTD)	-℃	50
Maximum Intake Manifold Temperature for engine protection (Warning Threshold)	-℃	93

LUBRICATION SYSTEM

Minimum Engine Oil Pressure for Engine Protection Devices:		
— Idle Speed	-kPa	103
— Governed Speed	-kPa	276-414
Maximum Oil Temperature	-℃	121
Minimum Required Lube System Capacity - Sump plus Filters	-litre	27.6

FUEL SYSTEM

Type Injection System		BYC P7100 Direct Injection
Maximum Restriction at Lift Pump	-kPa	20.3
Maximum Fuel Flow on the Supply Side of the Fuel Pump	-litre/hr	83
Maximum Fuel Inlet Temperature	-℃	70
Total Drain Flow (constant for all loads)	-litre/hr	30

COOLING SYSTEM

Coolant Capacity - Engine Only	-litre	11.1
Maximum Coolant Friction Head External to Engine -1800 rpm	-kPa	35
-1500 rpm	-kPa	28
Maximum Static Head of Coolant Above Engine Crank Centerline	-m	18.3
Standard Thermostat (Modulating) Range	-℃	82 - 93
Minimum Pressure Cap	-kPa	103
Maximum Top Tank Temperature for Standby / Prime Power	-℃	110 / 104

ELECTRICAL SYSTEM

Cranking Motor (Heavy Duty, Positive Engagement)……	-volt	12V	24V
Battery Charging System, Negative Ground……	-ampere	100	70
Maximum Allowable Resistance of Cranking Circuit……	-ohm	0.001	0.002
Minimum Recommended Battery Capacity			
—Cold Soak @ 0 to 32-F (-18 to 0-C)……	-0°F CCA	1500	（750）

EMISSIONS

Gaseous Emissions per GB 20891-2007, at 1500rpm：		
—Weight-Specific NOx……	g/kW.h	6.0
—Weight-Specific HC……	g/kW.h	1.0
—Weight-Specific CO……	g/kW.h	3.5
—Weight-Specific Particulates……	g/kW.h	0.2
Gaseous Emissions per GB 20891-2007, at 1800rpm：		
—Weight-Specific NOx……	g/kW.h	6.0
—Weight-Specific HC……	g/kW.h	1.0
—Weight-Specific CO……	g/kW.h	3.5
—Weight-Specific Particulates……	g/kW.h	0.2

Fuel Rating Option used for these Data: **FR92516** and **FR92996**

		STANDBY POWER		**PRIME POWER**	
Governed Engine Speed……	-rpm	1800	1500	1800	1500
Engine Idle Speed……	-rpm	800 - 1000	800 - 1000	800 - 1000	800 - 1000
Gross Engine Power Output……	-kW	258	240	235	220
Piston Speed……	-m/s	8.7	7.3	8.7	7.3
Friction Horsepower……	-kW	35	26	35	26
Engine Water Flow to Engine:……	-litre/sec.	4.0	3.3	4.0	3.3
Intake Air Flow……	-litre/sec.	286	254	280	248
Exhaust Gas Temperature……	-℃	520	470	500	430
Exhaust Gas Flow……	-litre/sec.	762	634	726	584
Radiated Heat to Ambient……	-kW	30	23	26	22
Heat Rejection to Coolant……	-kW	110	105	102	95
Heat Rejection to Fuel……	-kW	1.1	1.1	1.1	1.1
Turbocharger Compressor Outlet Pressure……	-kPa	185	170	183	165
Turbocharger Compressor Outlet Temperature……	-℃	174	165	165	155

ALL DATA CERTIFIED WITHIN 5%

TBD = To Be Decided N/A = Not Applicable N.A. = Not Available

All data is subject to change without notice, sorry for inform.