


# CUMMINS ENGINE DATASHEET



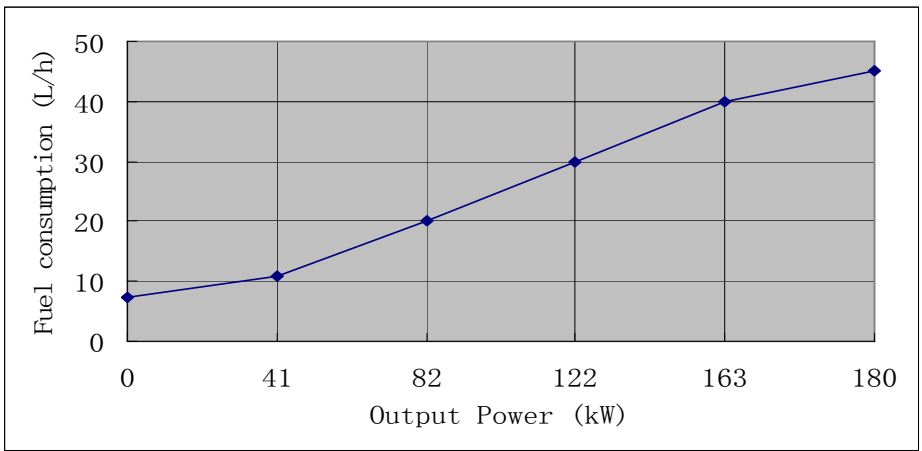
**ENGINE MODEL: 6CTA8.3-G2**


**PERFORMANCE CURVE: FR91407**

	<b>DONGFENG CUMMINS ENGINE Co., Ltd.</b> XiangFan HuBei P.R.CHINA <b>ENGINE DATASHEET—for G-drive</b>		<b>ENGINE MODEL</b> 6CTA8.3-G2		<b>FREFORMANCE CURVE</b> FR91407
			<b>ENGINE FAMILY</b> D41	<b>CPL</b> 8414	<b>2005/12</b>
Displacement	8.3 L	Air intake way	After-cooled, turbo-charged		
Cylinder bore	114 mm	Cylinder quantity	6	<b>kW(BHP)</b>	<b>@RPM</b>
Stroke	135 mm			163(219)	1500
Fuel system	PB pump _ GAC governor / BYC ASIMCO			Speed-droop	5%
Engine testing with fuel system, water pump and oil pump, without air compressor, alternator, fan, other options and driving accessory. Testing condition: air intake resistance 250 mmHg, exhaust back pressure 50 mmHg.					

Engine Speed-RPM	Standby Power		Base Output Power		Continuous Power	
	kW	HP	kW	HP	kW	HP
1500	180	241	163	219	133	178

%	Output Power		Fuel consumption	
	kW	HP	g/kW.h	L/h
<b>Standby Power</b>				
100	180	241	212	45
<b>Base Output Power</b>				
100	163	219	210	40
75	122	164	207	30
50	82	110	210	20
25	41	55	229	11
<b>Continuous Power</b>				
100	133	178	206	32



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### Typical engine data

Net weight	kg	702
Rotate part instantaneous inertia _ without flywheel	kg.m <sup>2</sup>	0.37
Distance between gravity center and rear surface of cylinder block	mm	541
Distance between gravity center and center line above of crankshaft	mm	163

### Engine installation

Static bent torque permitted—rear surface of cylinder block	Nm	1356
Static bent torque permitted—front surface of cylinder block	Nm	495
Static bent torque permitted—flank surface of flywheel-house	Nm	250

### Exhaust system

Max. back pressure	mmHg	76
Diameter of exhaust pipe recommended	mm	100

### Air intake system

Max. air intake resistance		
Dirty filter	mmH <sub>2</sub> O	635
Normal air cleaner and clean filter	mmH <sub>2</sub> O	254
Heavy duty cleaner and clean filter	mmH <sub>2</sub> O	381
Diameter of intake pipe recommended	mm	125

### Lubrication system

Normal oil pressure range

Low idle	kPa	207
Rated speed	kPa	276_414
Max. oil temperature permitted in oil pan	°C	121
Oil pan capacity (Max _ Min)	L	18.9_15.1
Lubrication system Min. capacity (oil pan + oil filter)	L	23.8
Usage inclining degree permitted (any direction)	°	45

### Fuel system

Fuel injection pump model	BYC PB pump with GAC governor	
Max. fuel input resistance of transfer pump	mmHg	102
Max. overflow fuel resistance at overflow pipe of injector	mmHg	254
Total fuel overflow amount	L/h	208

### Cooling system

Coolant capacity-engine only	L	12.3
Max. coolant cycling resistance exterior engine	kPa	28
Thermostat adjusting temperature (range)	°C	83_95
Min. opening pressure of radiator cap	kPa	69
Max. coolant temperature permitted _ Standby Power/Base output Power	°C	104/100

### Electric system

Starter	12V	24V
Battery charging system	63A	40A
Max. starting circuit resistance	0.00075Ω	0.002Ω
Min. battery capacity_ -12°C (CCA: Cold Cranking Ampere)	950CCA	475CCA

### Technical data \_ under standard fuel delivery rate FR91407

Engine speed _ RPM	<b>Base output Power</b>	<b>Standby Power</b>
	1500	1500

Output Power _ kW	163	180
Torque _ Nm	1040	1145
Low idle _ RPM	750-950	750-950
Friction energy output _ kW	17	17
Piston speed _ m/s	6.8	6.8
Engine coolant flow _ L/sec	3.3	3.3
Air intake flow _ L/sec	192	206
Exhaust flow _ L/sec	519	578
Exhaust temperature _ °C	536	563
Environment energy output _ kW	N/A	N/A
Coolant energy output _ kW	83	95
Fuel energy output _ kW	N/A	N/A

All data's error within  $\pm 5\%$ .

**Excuse for none notice anymore in case of data changed**

**DONGFENG CUMMINS ENGINE Co., Ltd.**