


# CUMMINS ENGINE DATASHEET



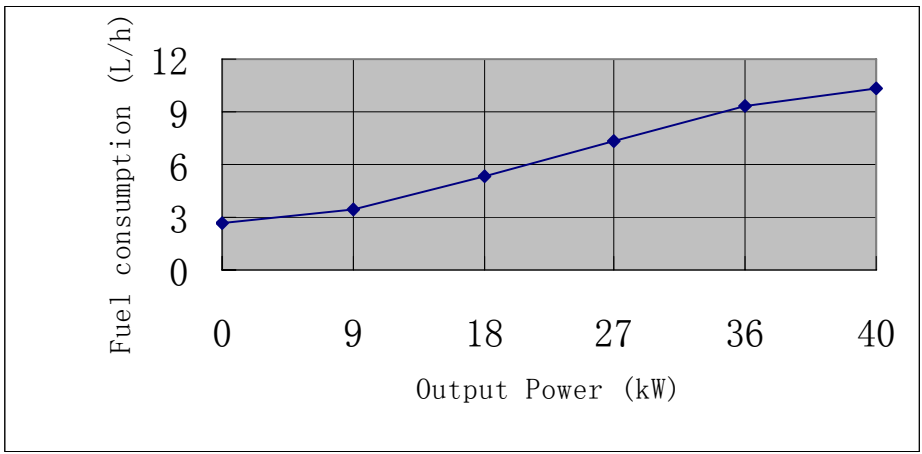
**ENGINE MODEL: 4BT3.9-G2**


**PERFORMANCE CURVE: FR L003**

	<b>DONGFENG CUMMINS ENGINE Co., Ltd.</b> <b>XiangFan HuBei P.R.CHINA</b> <b>ENGINE DATASHEET—for G-drive</b>		<b>ENGINE MODEL</b> <b>4BT3.9-G2</b>		<b>PERFORMANCE CURVE</b> <b>FR L003</b>
			<b>ENGINE FAMILY</b> <b>D38</b>	<b>CPL</b> <b>PP L005</b>	<b>2006/04</b>
Displacement	3.9 L	Air intake way	turbo-charged		
Cylinder bore	102 mm	Cylinder quantity	4	<b>kW(BHP)</b>	<b>@RPM</b>
Stroke	120 mm			36(48)	1500
Fuel system	A 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	40	54	36	48	N/A	N/A

Output Power			Fuel consumption	
%	kW	HP	g/kW.h	L/h
<b>Standby Power</b>				
100	40	54	212	10.3
<b>Base Output Power</b>				
100	36	48	214	9.3
75	27	36	223	7.3
50	18	24	244	5.3
25	9	12	312	3.4
<b>Continuous Power</b>				
N/A	N/A	N/A	N/A	N/A



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### Typical engine data

Net weight	kg	321
Rotate part instantaneous inertia _ without flywheel	kg.m <sup>2</sup>	0.143
Distance between gravity center and rear surface of cylinder block	mm	373
Distance between gravity center and center line above of crankshaft	mm	163

### Engine installation

Static bent torque permitted—rear surface of cylinder block	N.m	1356
Static bent torque permitted—front surface of cylinder block	N.m	435
Static bent torque permitted—flank surface of cylinder block	N.m	365

### Exhaust system

Max. back pressure	mmHg	76
Diameter of exhaust pipe recommended	mm	75

### 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	75

### Lubrication system

Normal oil pressure range

Low idle	kPa	207
Rated speed	kPa	345
Max. oil temperature permitted in oil pan	°C	121
Oil pan capacity (Max _ Min)	L	9.5_8.5
Lubrication system Min. capacity (oil pan + oil filter)	L	10.9
Usage inclining degree permitted (any direction)	°	40

### Fuel system

Fuel injection pump model	BYC	A 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	30

### Cooling system

Coolant capacity-engine only	L	7.2
Max. coolant cycling resistance exterior engine	kPa	28
Thermostat adjusting temperature (range)	°C	82_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)	625CCA	312CCA

### Technical data \_ under standard fuel delivery rate FR L003

	Base output Power	Standby Power
Engine speed _ RPM	1500	1500
Output Power _ kW	36	40

Torque _ Nm	229	255
Low idle _ RPM	950-1050	950-1050
Friction energy output _ kW	8.2	8.2
Piston speed _ m/s	6.0	6.0
Engine coolant flow _ L/sec	2.2	2.2
Air intake flow _ L/sec	43.6	44.9
Exhaust flow _ L/sec	101	108
Exhaust temperature _ °C	463	487
Environment energy output _ kW	N/A	N/A
Coolant energy output _ kW	25.9	29
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.**