



**DONGFENG CUMMINS ENGINE
PERFORMANCE CURVE**

Engine Model 6CTA8.3-G2	Curve No. FR91961	
Engine Family D41	CPL Code 1786	Date 08-2006

Displacement: 8.3L	Advertised Power: 163kW@1500 rpm
Bore: 114mm	219HP@1500 rpm
Stroke: 135mm	
Fuel System: Beiyou PB Pump, GAC Electrical Governor	Aspiration: Turbocharged & Inter-cooled
Cylinders: 6 Cylinders, in Line	Rating Type: Continuous

Engine Speed	Standby Power		Rated Power		Continuous Power	
	RPM	KW	HP	KW	HP	HP
1500	180	241	163	219	133	178

Output Power			Fuel Consumption	
%	KW	HP	g/kw.h	L/h
Standby Power				
100	180	241	212	45
Rated Power				
100	163	219	210	40
75	122	164	207	30
50	82	110	210	20
25	41	55	229	11
Continuous Power				
100	149	200	205	37.0



Performance data obtain under normal conditions, according to GB/T18297 test conditions

Cummins Engine Co. Ltd

Diesel Engine for Generator Set Performance Data

Technical Request

Aspiration.....	Turbocharged & Inter-cooled
Net Weight(Dry)-Engine Only.....	702kg
Instantaneous inertia at Rotating: (without Flywheel).....	0.37kg.m ²
Distance from Center of Gravity to the Front Engine Block.....	541mm
Distance from Center of Gravity to the Crankshaft Centerline.....	163mm

Engine Mounting

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

Maximum Back Pressure.....	76 mmHg
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Air Intake System

Maximum Intake Air Restriction:

— with Dirty Filter Element.....	635 mmH ₂ O
— with Normal Clean Air Filter and Clean Filter Element.....	254 mmH ₂ O
—with Heavy-duty Clean Air Filter and Clean Filter Element.....	381 mmH ₂ O

Lubrication System

Normal Operating Oil Pressure Range:

— at Idle Speed.....	207 kPa
— at Rated Speed	276 – 414 kPa

Maximum Sump Oil Temperature.....	121 °C
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Angularity of Standard Oil Pan: Oil Capacity(Max.-Min.).....	18.9-15.1 litre
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Minimum Required Lube System Capacity - Sump plus Filters.....	23.8 litre
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Angularity of Standard Oil Pan:

— Front Down.....	45 °
— Front Up.....	45°
— Side to Side.....	45°

Fuel System

Type of Fuel System.....	Beiyou PB Direct Fuel Injection Pump
The Maximum Resistance of Fuel Pump When Use Clean Filter.....	102mmHg
Maximum Fuel Return Oil Resistance.....	254mmHg
Return Fuel in Total(Constant Load).....	208mmHg

Cooling System

Coolant Capacity - Engine Only.....	12.3 L
Maximum Engine Cooling Circuit External Resistance.....	28kPa
Minimum Pump Inlet Pressure with Open Thermostat and no Pressure Cap.....	18.3m
Standard (modulating) Thermostat Range.....	83-95 °C
Minimum Pressure Cap.....	69 kPa
The Highest Coolant Temperature(Standby/Rated Power).....	104/100 °C

Electrical System

Starter Motor.....	12V	24V
Battery Charging System(Polarity Negative Ground).....	63amp	40amp
Maximum Resistance of Starting Circuit.....	0.00075Ω	0.002Ω

Specification Data:

	Rated Power	Standby Power
Engine Speed.....rpm	1500	1500rpm
Output Power.....kw	163	180
Torque.....N.m	1040	1145
Idle Speed.....rpm	750-950	750-950
Frictional Loss Power.....kw	17	17
Piston Speed.....m/s	6.8	6.8
Coolant Flow.....l/s	3.3	3.3
Air Intake Flow..... l/s	192	206
Air Exhaust Flow..... l/s	519	578
Exhaust Temperature..... °C	536	563
Heat Loss in The Environment.....kw	N/A	N/A
Coolant Heat Loss.....kw	83	95
Fuel Heat Loss.....kw	N/A	N/A

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.