

DATA SHEET

DIESEL GENERATOR 280KW

MODEL#FDK-CD350/H1

50HZ/1500RPM

CUMMINS MODEL: 6LTAA9.5-G1



General Features:

- ♦ All qualified generator sets are subjected to a comprehensive performance test which includes 50% load, 70% load, 100% load, 110% load and to check, verify that all control systems, alarm and shut-down protection.
- ♦ Equipped with battery charger and 24V high performance maintenance-free lead-acid starting batteries and connecting cables.
- ♦ Stainless galvanized zinc plates with strong corrosion-proof.
- ♦ Vibration isolators between the engine/alternator and base frame.
- ♦ Equipped with industrial silencer and flexible exhaust hose.
- ♦ Designed to comply with ISO8528/GB2820.
- ♦ Powered by Cummins engine and coupled with Stamford alternator.
- ♦ Water jacket preheater, oil heater and double air cleaner, etc. are available.

FDK Diesel Generator Set Data

Genset Model	FDK-CD350/H1	Engine Make	Cummins
Prime Power	255KW/318KVA	Engine Model	6LTAA9.5-G1
Standby Power	280KW/350KVA	Alternator model	Stamford HCI444ES
Output Frequency / Rated speed	50Hz/1500rpm	Control System	DSE6020
Rated Voltage	230V/400V	Phase	Three

(1) **Prime power:** The rating is available for an unlimited of annual operating hours in variable load applications, in accordance with ISO8528-1.A 10% overload is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO 3046-1.

(2) **Standby power:** The rating is applicable for supplying emergency power in variable load applications for up to 200 hours per year in accordance with ISO8528-1. Overload is not allowed.

(3) **Rated voltage:** available with customer requirement.

Engine Specifications (DETAILED in APPENDIX)

Engine Model	6LTAA9.5-G1	Aspiration	Turbo-charged
Engine Manufacturer	Cummins (China Dongfeng)	Bore x Stroke (mm x mm)	114×135
Cylinder quantity	6	Displacement	9.5L
Cylinder Arrangement	Not available	Compression Ratio	16.5:1
Cycle	Not available	Prime power / Speed (KW/RPM)	290/1500
		Standby power/ Speed (KW/RPM)	320/1500



Speed governor	Electronic	Fuel Consumption at 100% load (g/KWh)	199 at 1500rpm
Piston Speed	7.25m/s	Starter motor	DC24V
Friction Energy Output	26kw	Alternator	DC24V
Total Lubrication System Capacity (L)	27.6	Low idle	850-950rpm
Coolant Capacity (L)	11.1		

Alternator Specifications

Alternator model	HCI444ES	Number of phase	3
Alternator manufacturer	STAMFORD	Rated voltage	400V (Available with custom requirements)
Exciter type	Single bearing, Brushless, Self-excited	Power factor	0.8
Rated output prime power	325KVA	Voltage regulation NL-FL	≤±1%
Rated speed	1500 rpm	Insulation grade	H
Rated frequency	50Hz	Protection grade	IP23

Alternator option: Leroy Somer, MECC, Marathon, Engga, Faraday

Control System DSE6020 (DETAILED in INSTRUCTION)

DSE6020 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, breaker control and automatically start the engine when the mains are abnormal. Accurately measure various operational parameters and display all values and alarms information on the LCD. In addition, the control module can automatically shut down the engine and indicate the engine failure.

FEATURES

- Microprocessor control, with high stability and credibility.
- Monitoring and measuring operational parameters of the mains supply and genset.
- Indicating operation status, fault conditions, all parameters and alarms.
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, automatic and remote work mode selectable.
- Real time clock for time and date display, overall runtime display, 250 log entries.
- Overall power output display.
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed etc.
- Communication with PC via RS485 OR RS232 interface, using MODBUS protocol.

Soundproof Enclosure Specification

FDK silent generator is designed by professional acoustic engineers based on years of experience. Now we can make the noise of the generator less than 80-85dB(A) at 1m, or 70-75dB(A) at 7m, 60-65dB(A) at 15m.

FEATURES

- Multi-way air intake and exhaust guarantee the power performance of the generator.
- Large-scale impedance combined type silencer effectively reduce noise of the generator.
- Internal high performance rubber damper and flexible materials reduce vibration.
- Base mounted fuel tank supports the generator running for 8 hours.



Optional

Generator set	Alternator	Low environment Temp	ATS
<input type="checkbox"/> Open generator set <input type="checkbox"/> Silent generator set <input type="checkbox"/> Trailer generator set <input type="checkbox"/> ABB MCCB circuit breaker	<input type="checkbox"/> Stamford <input type="checkbox"/> Marathon <input type="checkbox"/> Mecc Alte <input type="checkbox"/> Leroy Somer <input type="checkbox"/> Farady <input type="checkbox"/> Engga	<input type="checkbox"/> Water heater <input type="checkbox"/> Oil heater <input type="checkbox"/> Battery heater	<input type="checkbox"/> CHINT <input type="checkbox"/> SCHNEIDER <input type="checkbox"/> ABB
Fuel system	Control system	Voltage	Synchronized system
<input type="checkbox"/> 12hrs base tank <input type="checkbox"/> 24hrs base tank <input type="checkbox"/> Dual wall base fuel tank <input type="checkbox"/> Outside fuel tank	<input type="checkbox"/> AMF function <input type="checkbox"/> ATS control cabinet <input type="checkbox"/> DSE7320 <input type="checkbox"/> DSE7510 <input type="checkbox"/> GU620A	<input type="checkbox"/> 415/240V <input type="checkbox"/> 400/230V <input type="checkbox"/> 380/220V <input type="checkbox"/> 220/127V <input type="checkbox"/> 200/115V	<input type="checkbox"/> CHINT Cabinet <input type="checkbox"/> SCHNEIDER Cabinet <input type="checkbox"/> DSE8610 Module <input type="checkbox"/> COMAQ Module <input type="checkbox"/> DEIF Module

Dimension & Weight

Open

Overall Size: L×W×H (mm)	2650×960×1630
Weight (kg)	2000

Soundproof Version

Overall Size: L×W×H (mm)	3600×1330×1065
Weight (kg)	2500

Sales Promises

- ◆ FDK provides a full line of brand new and high quality products. Each and every unit is strictly factory tested before shipment.
- ◆ Quality warranty is according to our standard conditions: 12 months from BL date or 1000 running hours, whichever comes first.
- ◆ Service and parts are available from FDK or distributors in your location.
- ◆ FDK guarantee use **BRAND NEW & GENUINE MACHINE.**





Stationary Pump Engine Performance Data
DONGFENG CUMMINS ENGINE Co.,LTD
 XiangYang, Hubei Province, China
<http://www.dcec.com.cn>

6LTAA9.5-G1

290 kW @ 1500 r/min
280 kW @ 1800 r/min

FR95002

CPL Code
CPL4603

Revision
2017/5/11

Version
02

Displacement: 9.5L

Aspiration: Turbocharged & Charge Air Cooled

Application: Genset

Fuel System: Mechanical fuel pump and Electronic Governor

All data is based on the engine operating without air compressor, fan, generator, fan, optional equipment and driven components .

All data is based on the engine operating with 3.7 kPa inlet air restriction , 10 kPa exhaust restriction and with 10 kPa Inter-cooled implement differential pressure

Curves shown above represent gross engine performance capabilities obtained and corrected in accordance with GB/T18297 of 99kPa baiometric press. 298K inlet air temperature, and 1kPa water vapor pressure .

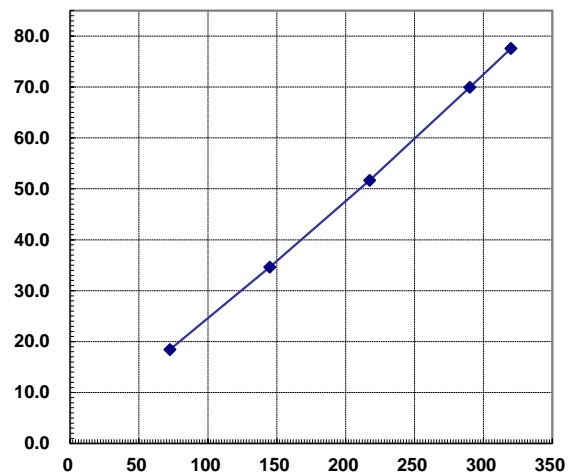
Performance curve

Engine Speed RPM	Standby Power		Prime Power		Continuous Power	
	kW	HP	kW	HP	kW	HP
1500	320	429	290	389	254	340
1800	310	416	280	375	244	327

Engine Performance Data @ 1500 RPM

OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
STANDBY POWER				
100	320	429	200	78
PRIME POWER				
100	290	389	199	70
75	218	291	196	52
50	145	194	197	35
25	73	97	210	18
CONTINUOUS POWER				
100	254	340	198	61

Litre/hour

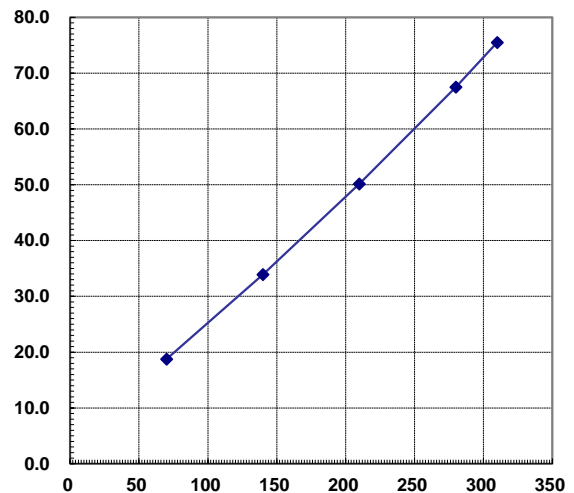


Engine Power Output - kW

Engine Performance Data @ 1800 RPM

OUTPUT POWER			FUEL CONSUMPTION	
%	kW	HP	g/kW.h	L/h
STANDBY POWER				
100	310	415	201	76
PRIME POWER				
100	280	375	199	68
75	210	281	197	50
50	140	188	200	34
25	70	94	221	19
CONTINUOUS POWER				
100	244	327	198	59

Litre/hour



Engine Power Output - kW



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General Performance Data

Low idle speed:	800±50	rpm
Maximum no load speed:	1575/1890±20	rpm
Maximum overspeed capability(15sec max):	2900	rpm
Cold start capability(Sea Level without Load)		
Without start add device:	-12	°C
With air intake preheating:	NA	°C
Cold start capability(Sea Level with Load)*		
Max parasitic load at 0°C @ 500r/min without Aid:	NA	N.m
Max parasitic load at -15°C @ 500r/min without Aid:	NA	N.m

* The data measured at 101kPa atmospheric pressure, crank speed 120r/min, Engine use 5W40 lube oil and diesel refer to GB19147

Performance data

Parameter	STADNBY POWER		PRIME POWER	
	1800	1500	1800	1500
Engine Speed(rpm)	1800	1500	1800	1500
Output Power(kW)	310	320	280	290
Torque(N.m)	1645	2037	1486	1846
Inlet air flow(L/s)	345	310	326	281
Charge air flow(kg/min)	27	24	25	22
Exhaust gas flow(kg/min)	28	25	26	23
Exhaust gas temperature(deg C)	495	600	475	580
Heat rejection to coolant(kW)	95	107	87	97
Radiator coolant flow(L/min)	5	3	5	3
Heat rejection to CAC(kW)	73	66	60	53
Turbo Comp.Outlet Pressure(kPa)	235	241	211	210
Temperature(deg C)	199	208	183	190
Fuel Consumption(kg/hr)	62	64	56	58



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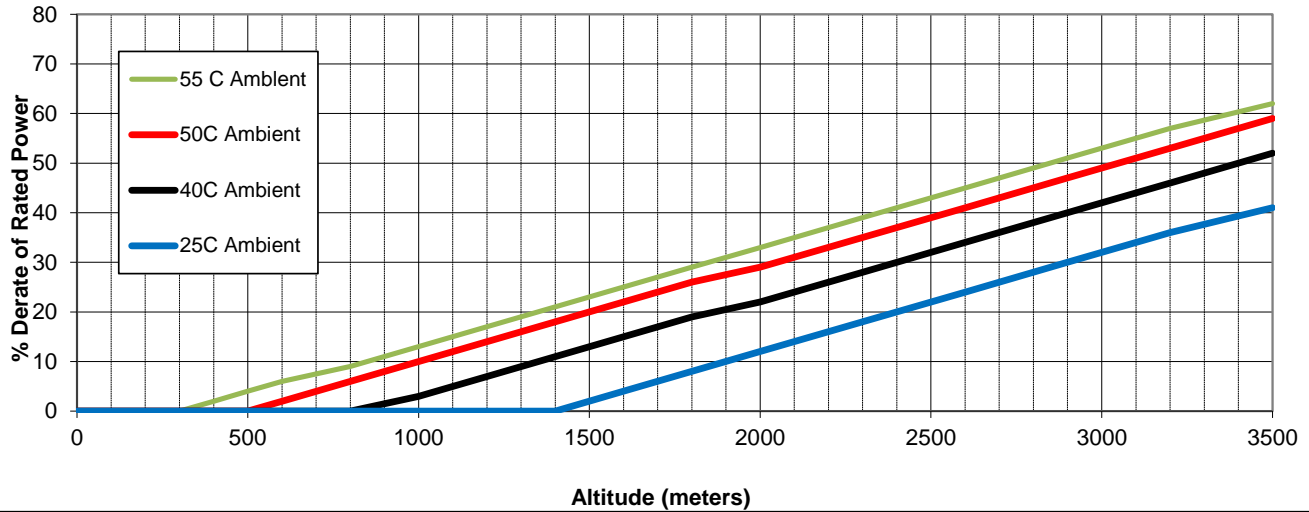
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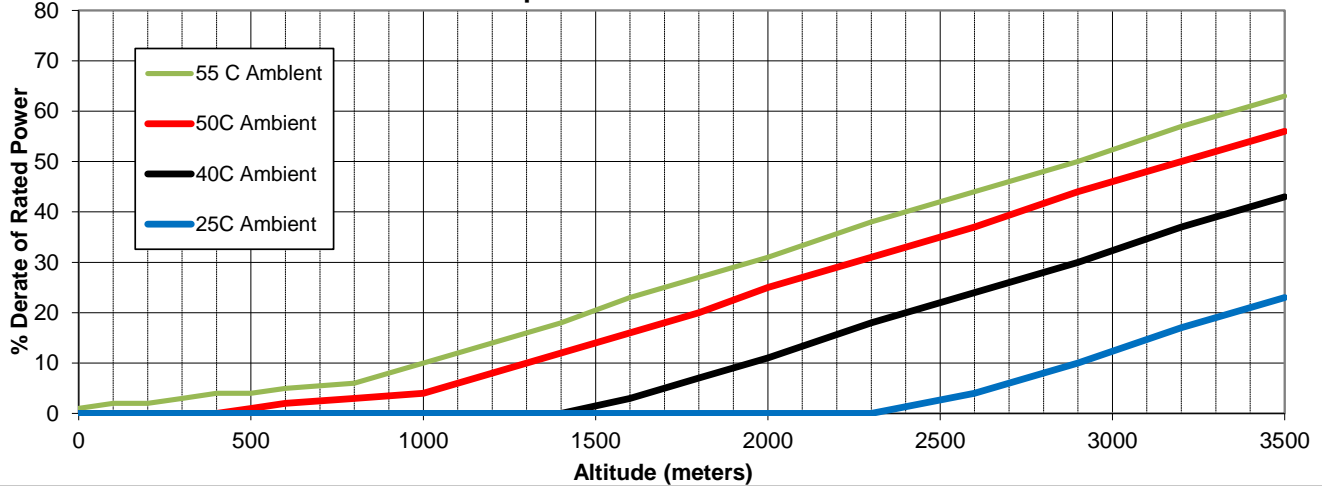
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1500rpm Altitude Derate Standby Power



1500rpm Altitude Derate Prime Power





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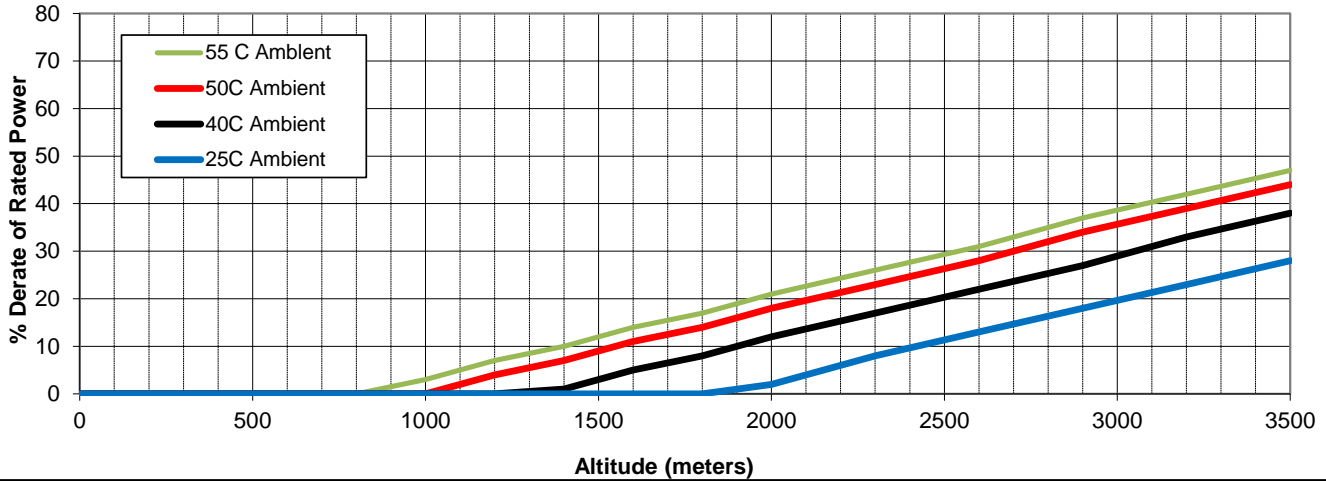
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1800rpm Altitude Derate Standby Rating



1800rpm Altitude Derate Prime Rating

