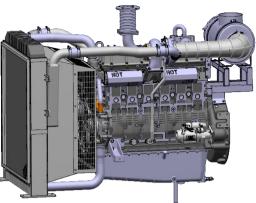
DOOSAN INFRACORE GENERATOR ENGINE

DP126LB

Ratings	Gross Engir	ne Output	Net Engine Output		
(kWm/PS)	Standby	Prime	Standby	Prime	
1500rpm(50Hz)	362/492	327/445	346/470	311/423	
1800rpm(60Hz)	402/547	366/498	378/514	342/465	



Ratings Definitions

The power ratings of Emergency Standby and Prime are in accordance with ISO 8528. Fuel Stop power in accordance with ISO 3046.

Electric power (kWe) must be considered cooling fan loss, alternator efficiency, altitude derating and ambient temperature.

STANDBY POWER RATING is applicable for supplying emergency power for the duration of the utility power outage. No overload capability is available for this rating. A standby rated engine should be sized for a maximum of an 80% average load factor and 200 hours of operation per year. This includes less than 25 hours per year at the Standby Power rating.

<u>PRIME POWER RATING</u> is available for an unlimited number of hours per year in variable load application. Variable load should not exceed a 70% average of the Prime Power rating during any operating period of 24 hours. The Total operating time at 100% Prime Power shall not exceed 500 hours per year. A 10% overload capability is available for a period of 1 hour withing a 12 hour period of operation. Total operating time at the 10% overload power shall not exceed 25 hours per year.

© GENERAL ENGINE DATA

o Engine Model	DP126LB
○ Engine Type	4-Cycle, In-line, 6-Cylinder Diesel, water cooled, Turbo charged & intercooled
○Bore x stroke	123 x 155 mm
o Displacement	11.051 liters
• Compression ratio	17 0 . 1
o Rotation	Counter clockwise viewed from Elvwheel
○ Firing order	1-5-3-6-2-4
○ Injection timing	17+1
◦ Dry weight	1008 Ka
○ Dimension (LxWxH)	1 426 x 1 096 x 1 295 mm
○ Fly wheel housing	SAE NO.1M
◦ Fly wheel	Clutch NO 14M
 Number of teeth on flywheel 	106
Maximum Bending Moment at Rear Face to Block	1325 N • M
© EXHAUST SYSTEM	
Maximum Back Pressure	5.9 kPa
◎ AIR INDUCTION SYSTEM	
Maximum Intake Air Restriction	
. With Clean Filter Element	2.16 kPa
. With Dirty Filter Element	6.23 kPa
 Max. static pressure after Radiator 	0.125 kPa

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○ COOLING SYSTEM

Water circulation by centrifugal pump on engine.			
o Cooling method	Fresh water forced circulation		
 Coolant capacity 	Engine Only: Approx. 23 lit., With Radiator : Approx.51 lit.(standard)		
o Coorant flow	540 liters / min		
o Pressure Cap	90 kPa		
○ Water Temperature			
- Maximum for standby and Prime	110℃		
- Before start of full load	40.0 ℃		
o Water pump	Centrifugal type driven by Pulley		
o Thermostat Type and Range	Wax – pellet type, Opening temp. 82°C , Full open temp. 95°C		
◦ Cooling fan	Blower type, Plastic , 810 mm diameter, 7 blade		
 Max. external coolant system restriction 	Not Available		
	il cooling in cooling water circuit of engine		
Force-feed lubrication by gear pump, lubricating of o Lub. Method	Fully forced pressure feed type		
○ Oil pump ○ Oil filter	Gear type driven by crank-shaft gear		
	Full flow, cartridge type		
	Max. 44 liters , Min. 20 liters		
o Lub oil pressure	Idle Speed : Min 100 kPa		
	Governed Speed : Min 300 kPa		
 Maximum oil temperature 	120°C		
o Angularity limit	Front down 10 deg , Front up 10 deg , Side to side 22.5 deg		
 Lubrication oil 	Refer to Operation Manual		
Bosch type in-line pump with integrated, electroma	ignetic actuator.		
 Injection pump 	WEIFU In-line "P" type		
○ Governor	Electric type (all speed control)		
○ Speed drop	G2 Class(ISO 8528)		
o Feed pump	Double action plunger type pump on injection pump		
o Injection nozzle	Multi hole type		
o Opening pressure	30 MPa		
o Fuel filter	Main(On Engine) : Full flow, High efficiency dust in fuel filter, cartrudg		
	Pre(Loosed Part) : Full flow, cartridge type with water drain valve		
 Maximum fuel inlet restriction 	10 kPa		
 Maximum fuel return restriction 	60 kPa		
○ Fuel feed pump Capacity	315 liters / hr		
o Used fuel	Diesel fuel oil		
© ELECTRICAL SYSTEM			
• Battery Charging Alternator	24V x 80A alternator		
o Voltage regulator	Built-in type IC regulator		
	24V x 6.0 kW		
 Voltage regulator Starting motor Battery Voltage 	24V x 6.0 kW 24V		
Voltage regulatorStarting motor	24V x 6.0 kW		



◎ VALVE SYSTEM

-					
о Туре	,	Overhead valve type			
 Number of valve 	Intake 2, exhaust 2	Intake 2, exhaust 2 per cylinder			
 Valve lashes at cold 	Intake 0.4mm, E	Intake 0.4mm, Exhaust 0.5mm			
 Valve timing 					
	Opening	Close			
Intake valve	24 deg. BTDC	38 deg. ABDC			
Exhaust valve	62 deg. BBDC	25 deg. ATDC			

O PERFORMANCE DATA	Prime Power		Standby Power		
 Governed Engine speed 	rpm	1500	1800	1500	1800
○ Engine Idle Speed	rpm	800	800	800	800
 Over speed limit 	rpm	1650	1980	1650	1980
 Gross Engine Power Output 	kW	327	366	362	402
	ps	445	498	492	547
o Break Mean effective pressure	Мра	2.37	2.21	2.62	2.43
o Mean Piston Speed	m/s	7.75	9.3	7.75	9.3
 Friction Power 	kW	26.3	38.4	26.3	38.4
	ps	35.7	52.2	35.7	52.2
 Specific fuel consumption 					
25% load	liters/hr	20.2	24.0	22.1	26.1
50% load	liters/hr	38.4	43.4	42.5	47.3
75% load	liters/hr	57.1	64.0	63.1	70.1
100% load	liters/hr	76.0	85.8	84.5	96.4
○ Fan Power	kW	16	24	16	24
o Sound Pressure at 1m from the	each side of	Cylinder Block			
(without Fan)	dB(A)	99.5	100.4	99.5	100.5

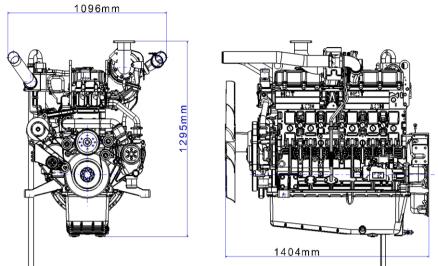
The all data and the specific fuel consumption are based on ISO 3046/1, Standard reference conditions are in accordance with 298 K(25° Celsius) air temperature, 100kPa(1000mbar) air pressure, 60% relative humidity, 110m(361ft) altitude.

Engine Data with Dry Type Exhaust Manifold					
 Intake Air Flow 	m3/min	19.0	25.4	20.9	27.0
○ Exhaust gas temp. after turbo.	°C	575.0	505.0	590.0	535.0
○ Exhaust Gas Flow	m3/min	52.9	62.1	58.3	67.6
 Heat Rejection to Exhaust 	kW	253.3	290.8	279.3	324.6
 Heat Rejection to Coolant 	kW	92.4	102.7	114.0	125.4
○ Heat Rejetion to Intercooler	kW	46.7	57.6	73.4	87.1
 Radiated Heat to Ambient 	kW	43.0	43.0	32.0	33.0
 Cooling water circulation 	liters/min	435	525	435	525
○ Cooling fan air flow	m3/min	312	528	312	528

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ENGINE DIMENSION



CONVERSION TABLE

in. = mm x 0.0394 PS = kW x 1.3596 psi = kg/cm2 x 14.2233 in3 = lit. x 61.02 hp = PS x 0.98635 lb = kg x 2.20462 kW = Kcal/sec x 0.239 $\label{eq:lb/ft} \begin{array}{l} \text{lb/ft} = \text{N.m x } 0.737 \\ \text{U.S. gal} = \text{lit. x } 0.264 \\ \text{kW} = 0.2388 \ \text{kcal/s} \\ \text{lb/PS.h} = \text{g/kW.h x } 0.00162 \\ \text{cfm} = \text{m}^3/\text{min x } 35.336 \\ \text{Mpa} = \text{Pa x } 1000 = \text{bar x } 10 \end{array}$

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 $\ensuremath{\mathbbmm}$ Speccifications are subject to change without prior notice

