

6DWD-200

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DWD Series for Diesel Generator application

POWER RATING

Engine Speed	Type of Operation	Engine Gross Power		
Engine Speed	Type of Operation	kW	PS	
4500	Prime Power	160	218	
1500 rpm	Standby Power	180	245	
1800 rpm	Prime Power	172	234	
	Standby Power	190	258	

- The engine performance is as per ISO 3046. Type of operation is based on ISO 8528.
- Prime power is available for an unlimited number of hours per year in a variable load application.
- The permissible average power output over 24 hours of operation shall not exceed 80% of the prime power rating.

Engine Specifications		Fuel Consumption Data				
			•			(Liter/ Hour)
 Engine Type 	In-Line type, 4 strokes,	Speed	150	0 rpm	18	00 rpm
	water-cooled Turbocharged	Rating	Prime	Standby	Prime	Standby
	air-to-air intercooled		160 kW	180 kW	172 kW	190 kW
 Combustion type 	Direct injection	100% Load	40.6	45.9	43.3	48.2
 Cylinder Type 	Wet liner	75% Load	30.9	34.9	32.8	36.5
 No. of Cylinders 	6	50% Load	21.5	24.3	23.1	25.7
○ Bore x stroke	114 ×135 mm	25% Load	11.8	13.5	12.9	14.3
 Displacement 	8.27 liter					
 Compression ratio 	18 : 1					
 Firing order 	1 - 5 - 3 - 6 - 2 - 4	Fuel System	m			
 Injection timing 	6 °BTDC	 Injection pur 	mp	Dire	ct Injection ty	/ре
 Dry weight 	Approx. 740 kg	 Governor 		Elec	tronic type	
Dimension(LxWxH)	1455 × 762 × 1273 mm	 Feed pump 		Mec	hanical type	
 Rotation 	Anti-clockwise	 Injection not 	zzle	Mult	i-hole type	
	(Face to the flywheel)	 Opening pre 	essure	24.5	kg/cm2 (245	50 psi)
 Fly wheel housing 	SAE NO. 2	 Fuel filter 		Full	Flow, Cartrid	lge type
Fly wheel	SAE NO.11.5	 Used fuel 		Dies	el fuel oil	
Mechanism		Lubrication	System			
Type	Overhead valve	 Lub. Oil Gra 		CF-4	1 oil	
Number of valve	Intake 1, exhaust 1 per	Lub. Oil GraLub. Oil Par		-	.19 / Min. 15	liter
- Italiboi di vaivo	Cylinder	Max. allowa	-	115		
 Valve lashes at cold 	Intake. 0.30 mm	Low pressure	•	200		
. 2.70 1401100 41 0014	Exhaust 0.50 mm	Low pressure	•	160		
		Oil Consum			2 g/kWh	

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Cooling System		Engineering Da
 Cooling method 	Fresh water forced type	
 Water Pump 	Centrifugal, Belt driven	 Media Flow
 Water capacity 	12 liter (engine only)	Combustion Air
 Max. Water Temp 	90 ℃	Exhaust Gas
 Water Temp. Waring 	95 ℃	Cooling Fan
 Thermostat 	Open 80°C / Full 93°C	
 Cooling Fan 	Ø762mm, steel 10 blades	 Heat Rejection
		to Exhaust
		to Coolont

Engineering	Data				
		1500 rpm		1800 rpi	m
Media Flow		Prime	S/B	Prime	S/B
Combustion Air	m3/min	33.75	37.13	42.92	47.12
Exhaust Gas	m3/min	41.25	45.30	55.79	61.29
Cooling Fan	m3/min				
 Heat Rejectio 	n				
to Exhaust	kW				
to Coolant	kW				
to Intercooler	kW				
to radiation	kW				

Intake & Exhaust System

Max air restriction
 Clean 2 kPa / Dirty 5 kPa

○ Exhaust back pressure Max 6 kPa

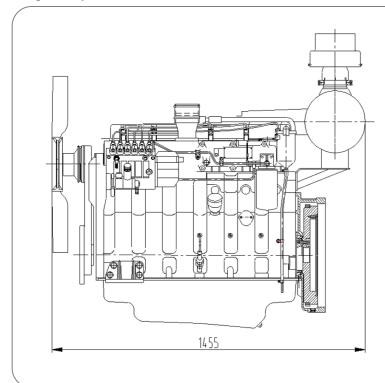
Electric System	
 Charging generator 	28 V × 55 A (1540 W)
 Voltage regulator 	Build-in type IC regulator
 Starting motor 	24 V ×.7.5 kW

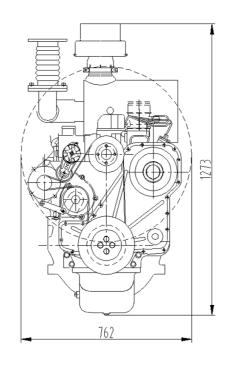
Battery VoltageBattery Capacity180 AH

Conversion Table

in. = mm \times 0.0394	$lb/ft = N.m \times 0.737$
$PS = kW \times 1.3596$	U.S. gal = lit. × 0.264
$psi = kg/cm2 \times 14.2233$	kW = 0.2388 kcal/sec
$in^3 = lit. \times 61.02$	$lb/PS.h = g/kW.h \times 0.00162$
HP= PS x 0.98635	$Cfm = m3/min \times 35.336$
$lb = kg \times 2.20462$	

Engine Layout & Dimension





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