

# FUJIAN EPOS ELECTRIC MACHINERY CO., LTD

**EMEAN**  
POWER



**FAWDE**

ENGINE MODEL: 4DW91-38D

EMEAN POWER

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Basic technical data		
Engine Model		4DW91-38D
No. of cylinders		4
Cylinder arrangement		In-line
Cycle		4 stroke
Aspiration		Natural
Cooling system		Water-cooled
Bore	mm	90 mm
Stroke	mm	100 mm
Compression ratio		17:1
Displacement	L	2.54 L
Dry engine weight	kg	220 kg
Dimension (L*W*H)	mm	700*555*680
The Flywheel shell interface		SAE4-7.5"

Performance Data		
Governed Engine Speed	r/min	1800
Continuous Power without Fans	kW	28
Standby Power	kW	31
Adaptive power station (kw)	kW	22
Steady state speed regulation rate	%	5 / Mechanical
		0-3 / Electronical
Emission Standards		CN Stage II
Noise Level	dB	≤108
Average effective pressure	mPa	0.73

Lubrication system		
Lubricating oil capacity	L	8
Lubricating oil consumption	L/h	≤0.03

Fuel system		
Fuel consumption PRP	kg/h	6.5
Fuel consumption Rate	g/kW·h	
25% prime power	g/kW·h	280
50% prime power	g/kW·h	255
75% prime power	g/kW·h	234
100% prime power	g/kW·h	232

100% standby power	g/kW·h	235
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### Air intake system

Air consumption	m <sup>3</sup> /min	2
Maximum allowed intake pressure	kPa	6.3
Exhaust gas discharge	m <sup>3</sup> /min	5.2
Exhaust temperature (exhaust gas after turbine)	°C	500
Exhaust heat	kw	25.4
Maximum allowed back pressure	kPa	6.7

### Heat balance

Engine heat output	kw	4.6
Heat removal of coolant	kw	19
Heat dissipation of intercooler	kw	0

### Cooling system

Fan Speed Ratio		1.77
Pump Flow head	L/s	1.4
Coolant capacity-engine	L	6
Fan diameter	mm	400
Fan speed	R/min	3186
Fan flow	m <sup>3</sup> /s/Pa)	1.22/570
Fan power consumption	kW	2.1
Coolant capacity-Radiator	L	8
Thermostat on / off temperature	°C	
Noted:Pump Flow / Speed head		70/2600-6.2

### Electrical system

Auxiliary voltage (V)		12 V
Alternator (A)		50
Starter Motor (kw)		3.5
Start preheater (kw)		0.8
Number of teeth of flywheel ring gear		109

### Power Calibration Regulations

1.The diesel engine performance data specified above are based on the atmospheric environment specified in the GB/T6072.1/ISO3046-1 standard.  
The atmospheric pressure is 100kPa, the ambient temperature is 25°C, and the air humidity is 30%. Fuel calorific value 42.7mJ/kg

2.Prime power refers to the output power that the diesel engine can run for a long time without time limit

under this working condition

3. Standby power refers to that the diesel engine is allowed to work continuously for 1 hour under the limited power of fuel volume every 6 hours

### Power correction

1. The diesel engine can be used without reducing the power when the altitude is 400m and the ambient temperature is less than 40°C.

2. When the environment deviates from the standard, the operating power of the diesel engine shall be corrected according to the following table

Altitude < 3000m	%/m	4/500
Altitude > 3000m	%/m	6/500
Ambient Temperature	%/°C	2/5
Humidity	%	No correction

### Fuel consumption rate

Unless otherwise specified, the allowable deviation of calibrated fuel consumption rate at rated power is + 5%

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