FUJIAN EPOS ELECTRIC MACHINERY CO., LTD





ENGINE MODEL: 4DX21-45D

EMEAN POWER

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WECHAT





■ Model: 4DX21-45D

Engine Model	Basic technical data		
Cycle 4 stroke Aspiration Natural Cooling system Water-cooled Bore mm 102 mm Stroke mm 118 mm Compression ratio 17:1 1 Displacement L 3.86 L Dry engine weight kg 320 kg Dimension (L*W*H) mm 820*740*780 The Flywheel shell interface SAE3-11.5" Performance Data Governed Engine Speed r/min 1500 Continuous Power without Fans kW 33 Standby Power kW 36 Adaptive power station (kw) kW 26 Steady state speed regulation rate % 5 / Mechanical O-3 / Electronical Emission Standards CN Stage II Noise Level dB ≤108 Average effective pressure mPa 0.68 Lubrication system L 13 Lubricating oil capacity L 13 Lubricating oil consumption L/h	Engine Model		4DX21-45D
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Aspiration Natural	Cylinder arrangement		In-line
Stroke	Cycle		4 stroke
Bore	Aspiration		Natural
Stroke mm 118 mm Compression ratio 17:1 Displacement L 3.86 L Dry engine weight kg 320 kg Dimension (L*W*H) mm 820*740*780 The Flywheel shell interface SAE3-11.5" Performance Data Governed Engine Speed r/min 1500 Continuous Power without Fans kW 33 Standby Power kW 36 Adaptive power station (kw) kW 26 Steady state speed regulation rate % 5 / Mechanical O-3 / Electronical Emission Standards CN Stage II Noise Level dB ≤108 Average effective pressure mPa 0.68 Lubrication system Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 258 50% prime power g/kW·h 230	Cooling system		Water-cooled
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Governed Engine Speed r/min 1500 Continuous Power without Fans kW 33 Standby Power kW 36 Adaptive power station (kw) kW 26 Steady state speed regulation rate % 5 / Mechanical Businsion Standards CN Stage II Noise Level Average effective pressure dB ≤108 Average effective pressure mPa 0.68 Lubrication system L 13 Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system sq/kW·h 7.26 Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	The Flywheel shell interface		SAE3-11.5"
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Adaptive power station (kw)kW26Steady state speed regulation rate% $5 / \text{Mechanical}$ Emission StandardsCN Stage IINoise LeveldB ≤ 108 Average effective pressuremPa 0.68 Lubrication systemL 13 Lubricating oil capacityL 13 Lubricating oil consumptionL/h ≤ 0.03 Fuel systemFuel consumption PRPkg/h 7.26 Fuel consumption Rate $g/kW \cdot h$ 25% prime power 25% prime power $g/kW \cdot h$ 25% 50% prime power $g/kW \cdot h$ 230 75% prime power $g/kW \cdot h$ 220	Continuous Power without Fans	kW	33
5 / Mechanical 0-3 / Electronical Emission Standards CN Stage II Noise Level dB ≤108 Average effective pressure mPa 0.68 Lubrication system L 13 Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Standby Power	kW	36
Steady state speed regulation rate % 0-3 / Electronical Emission Standards CN Stage II Noise Level dB ≤108 Average effective pressure mPa 0.68 Lubrication system L 13 Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Adaptive power station (kw)	kW	26
Emission Standards CN Stage II Noise Level dB ≤108 Average effective pressure mPa 0.68 Lubrication system Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Steady state speed regulation rate	0/_	5 / Mechanical
Noise Level dB ≤108 Average effective pressure mPa 0.68 Lubrication system L 13 Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220		70	0-3 / Electronical
Average effective pressure mPa 0.68 Lubrication system L 13 Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 25% prime power g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Emission Standards		CN Stage II
Lubrication system Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system System Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 25% prime power g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Noise Level	dB	≤108
Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 25% prime power g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Average effective pressure	mPa	0.68
Lubricating oil capacity L 13 Lubricating oil consumption L/h ≤0.03 Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 25% prime power g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220			
Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW⋅h 25% prime power g/kW⋅h 258 50% prime power g/kW⋅h 230 75% prime power g/kW⋅h 220	Lubrication system		
Fuel system Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 25% prime power g/kW·h 258 50% prime power g/kW·h 230 230 25% prime power g/kW·h 220	Lubricating oil capacity	L	13
Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 25% prime power g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Lubricating oil consumption	L/h	≤0.03
Fuel consumption PRP kg/h 7.26 Fuel consumption Rate g/kW·h 25% prime power g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220			
Fuel consumption Rate g/kW·h 25% prime power g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Fuel system		
25% prime power g/kW·h 258 50% prime power g/kW·h 230 75% prime power g/kW·h 220	Fuel consumption PRP	kg/h	7.26
50% prime power g/kW·h 230 75% prime power g/kW·h 220	Fuel consumption Rate	g/kW·h	
75% prime power g/kW·h 220	25% prime power	g/kW·h	258
<u> </u>	50% prime power	g/kW·h	230
100% prime power g/kW·h 220	75% prime power	g/kW·h	220
	100% prime power	g/kW·h	220

Air intake system			
Air consumption	m³/min	2.5	
Maximum allowed intake pressure	kPa	6.3	
Exhaust gas discharge	m³/min	6.2	
Exhaust temperature	$^{\circ}\mathrm{C}$	480	
(exhaust gas after turbine)	C	400	
Exhaust heat	kw	26.2	
Maximum allowed back pressure	kPa	6.7	
Maximum allowed back pressure	кРа	6.7	

Heat balance			
Engine heat output	kw	2.6	
Heat removal of coolant	kw	21.8	
Heat dissipation of intercooler	kw	0	

Cooling system		
Fan Speed Ratio		1.68
Pump Flow head	L/s	2.3
Coolant capacity-engine	L	8
Fan diameter	mm	420
Fan speed	R/min	2523
Fan flow	m³/s/Pa)	1.1/400
Fan power consumption	kW	1.3
Coolant capacity-Radiator	L	12
Thermostat on / off temperature	$^{\circ}\mathbb{C}$	
Noted:Pump Flow / Speed head		174/3200-10

Electrical system	
Auxiliary voltage (V)	24 V
Alternaotr (A)	35
Starter Motor (kw)	4.5
Start preheater (kw)	1.0
Number of teeth of flywheel ring gear	128

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	%/℃	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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