PERKINS MARINE GENERATOR SET

Perkins Marine Genset 28kVA 50Hz 1500rpm 400Volts 3Phases

professional diesel generator set manufacturer with Power solutions to deliver flexibility, reliability and cost-effectiveness.



Marine Genset with Canopy For reference only. Image shown may not reflect actual package.

50Hz 1500 rpm 400 Volts 3 phases

General Features Standards & Conditions •Perkins Marine engine **Design Standards** Customized Marine Alternator The design and production of genset are in •LCD control panel conformity with: Speed governor: Electronic •ISO8528:2005 •Excitation: Self excited •GB/T13032-2010 •A.V.R. •GB/T2820-2009 Voltage adjust knob •CCS regulation of Steel vessel classification Vibration isolators assessment between base and engine-generator Dry air filter

Operation Manual & Instruments

•DC12V electric starter

- Marine Type engine & alternator
- Certificates

Shop test

- •Refer to CCS test program for shop test
- Starting ability test
- Warning & Shutdown protection test
- •Voltage deviation and speed variation at 0%, 25%, 50%, 100% and 110% load

Documents

•Supplier provides 1 set approval drawings (Chinese & English) within 10 working days after contract signature.

Each set consists of

- a. Genset outline drawing
- b. Electrical schematic diagram
- Packing list of Genset
- Operation manual of Genset
- •Maintenance & operation manual of engine
- •Instruction of the AC alternator

Environmental Operating Conditions

- •Installation place: inboard (well ventilated)
- Ambient temperature: 5℃ to 45℃
- Sea water temperature: -1°C to 32°C
- Relative humidity: ≤ 60%

•Altitude: ≤1000 m

≤ 15° List

Trim ≤ 5°

•Roll angle ≤ 22° 30′

•Pitch angle \leq 7° 30′

•Genset could start successfully and work continuously with slight salt mist, mycete, oil mist or curdle mist around.

Warranty

- •Engine and alternator apply for global warranty and post-sale service their own
- •Warranty of genset: 12 months or 1000 working hours (effecting which comes first) under normal
- •Genset should be operated & overhauled correctly according to manual & operation instructions.

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TECHNICAL DATA Open type Generator Set - -1500 rpm/50 Hz/ 400 Volts

Genset Model	SDMP28SE-3
Generator Set Performance	
Genset Power rating @ 1.0 pf (PRP)	22.4kW
	28kVA
Overload capability (ESP)	24.5kW
	30.8kVA
Starter	Electric motor

Voltage Regulation Performance

Voltage range adjustable at no load 90%-110% Un

Voltage regulation ≤ +/- 1% (steady state)

Transient Voltage Warp (100% load off) \leq + 20% Transient Voltage Warp (100% load on) \leq - 15% Recovery Time \leq 1.5s

Frequency Regulation Performance

Frequency Deviation ≤ +/- 0.5% (steady state)

Transient Frequency Warp (100% load off) \leq + 12% Transient Frequency Warp (100% load on) \leq - 10% Recovery Time \leq 5s

Emissions European standard

Society of Classification N/A

- Prime Power (PRP): Prime power is available for an unlimited number of annual hours in variable load application, in accordance with GB/T2820-2009 (equivalent to ISO8528); A 10% overload capability is available for a period of 1 hour within a 12-hour period of operation.
- Standby Power Rating (ESP): The standby power rating is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

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SPECIFICATION

Genset	SDMP28SE-3			
Perkins Marine Engine				
Model	422TGM			
Manufacturer	Perkins Engine Company Limited (Made in UK)			
Rated power	25.2kW			
Туре	Inline 4, 4 cycle, direct injection			
Bore*Stroke	84*100mm			
Compression Ratio	23.3:1			
Displacement	2.2L			
Aspiration	Turbocharged aspirated			
Cooling	Heat exchanger			
Governor	Electronic			
Starter	DC12V electric starter			
Total lubricating capacity	10.6 litres			
Total coolant capacity	10 litres			
Fuel specification	Light diesel			
Lubricating oil specification	CF40 or better			
Customized Marine Alternator				
Model	WHM-28-4			
Rated capacity	28kVA			
Туре	Brushless, AVR-excited, AVR, 2/3 pitch			
Construction	Single bearing, close coupled			
Connecting	3 Phase 12 Wires			
IP rating	IP23			
Insulation / Temp. Rise	Class H / H			
THD, TIF, THF	THD≤5%, TIF≤50, THF≤2%			
Voltage Regulation	Less than +/- 1% (steady state) Less than +/- 2.5% (no load to full load)			
LCD Control Panel (Marine type)				
Instruction	Start button, Stop button, Reset button, Test button, Emergency stop etc.			
Indication	Tachometer			
	Lube Oil pressure, Coolant temperature			
	Indication according to Engine Full electorinic control system			
Alarm & Shutdown	Overspeed, Low Lube oil pressure			
Protection	High Coolant temperature			

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Notice: Of optional, please indicate me before place PO. The cost will be on your charge.

FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
Air Inlet	Air cleaner Closed engine breather system Turbocharger	
Cooling	Heat exchanger Sea water pump Fresh water pump	
Exhaust	Exhaust manifold Water cooled exhaust outlet	
Fuel	Spin-on fuel oil filter and separator Rotary fuel injection pump Electronic governor	
Lube	Lubricating oil filter Oil dipstick Oil cooler Oil pump	
Governor	Electronic	
Generator	Self excited, Brushless Class H insulation Class H temperature rise Class IP23 protection Auto Voltage Regulator (AVR)	
Control Panels	LCD control panel Remote controller with 20m cables	
Mounting	Wide base Rubber vibration isolators	
Starting/Chargin g	Charging alternator 12 Volt starting motor	
General	Paint –blue in comply with engine Base in Black Siphon break kit	

Accessories: Siphon break kit, Seawater filter, Wet exhaust hose, Wet type muffler (Stainless), Soundproof canopy

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DIMENSIONS

Package dimension: Perkins & Customized alternator			
Package			
Model	SDMP28SE-3		
Length (mm)	1300		
Width (mm)	720		
Height (mm)	850		
Weight (kgs)	560		

Note: Do not use for installation design.

See general dimension drawings of approval for detail.