

GENERATOR SET TECHNICAL SHEET

Model: PWM1800

400V | 50Hz | 1500RPM



ENGINE	MTU 12V4000G23F	ALTERNATOR	Leroy-somer LSA 50.2 VL10
PRP PRIME POWER	1250kW 1563kVA	ESP STANDBY POWER	1430kW 1788kVA

Specifications are subject to change without notice.

GENERAL FEATURES

GB/T 2820 (ISO 8528)

- I 40°C radiator, fans are driven by belt, with safety guard
- I Alternator: single bearing, IP23, insulation class H
- I Standard control panel
- I Lead-acid batteries, rack and cables
- I Vibration damper
- I Dry type air filter, fuel filter & oil filter
- I 24V charging alternator
- I Exhaust bellows, elbows, flange & muffler
- I User manual

Standard Configuration (open type)

Overall Dimensions: 4200×1850×2260mm

Weight: 13000kg

Soundproof Type

Overall Dimensions: N/A

Weight: N/A

Standard 20'ft GP container

Overall Dimensions: 6058×2438×2896mm

Weight: 19000kg

OPTIONS

- ◇ Different Voltage
- ◇ Charging
- ◇ Cylinder Liner Water Heater
- ◇ Condensate drain heater
- ◇ Soundproof type
- ◇ Rainproof type
- ◇ Trailer type
- ◇ Automatic transfer switch
- ◇ Paralleling system
- ◇ Switchgear
- ◇ Spare parts
- ◇ Auto oil replenishment system
- ◇ Daily fuel tank
- ◇ Base fuel tank

WAY TO

P - Pioneering Power Solutions

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SALES PROMISES

- All products are brand-new, with each unit subject to strict factory inspection.
- Warranty: 1 year from commissioning completion, 1,000 cumulative operating hours, or 15 months from shipment to Pauway Tianjin Manufacturing Base (for unused units) — whichever occurs first.
- Extended warranty: Available upon inquiry; provided by Bowei or its authorized agents.

GENERATOR RATINGS

Voltage V	Hz	Phase	PF ($\cos\phi$)	Standby Amps	Prime Ratings	Standby Ratings
440/254	50	3	0.8	2346	1250kW	1430kW
415/240	50	3	0.8	2487	1250kW	1430kW
400/230	50	3	0.8	2580	1250kW	1430kW
380/220	50	3	0.8	2716	1250kW	1430kW

I High voltage (optional): 6.3kV / 10.5kV (Special voltages customizable)

GENERATING SET DATA

Voltage setting range	$\geq \pm 5\%$
Steady-state voltage deviation	$\leq \pm 1\%$
Transient voltage deviation / 100% sudden reduction	$\leq 25\%$
Transient voltage deviation / sudden increase	$\leq -20\%$
Voltage stabilization time / 100% sudden reduction (s)	≤ 6
Voltage stabilization time / sudden increase (s)	≤ 6
Frequency drop	$\leq 5\%$
Steady-state frequency drop	$\leq 1.5\%$
Transient frequency deviation / 100% sudden reduction	$\leq 12\%$
Transient frequency deviation / sudden increase	$\leq -10\%$
Frequency recovery time / 100% sudden reduction (s)	≤ 5
Frequency stabilization time / sudden increase (s)	≤ 5

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ENGINE SPECIFICATION

12V4000G23F

Manufacturer / Model	MTU 12V4000G23F
Prime Power	1420kW
Standby Power	1562kW
Rated speed (r/min)	1500
No.Cylinder	12
Cylinder arrangement	V
Stroke	4
Air intake system	Turbo
Governor type	Electronic
Bore and stroke	170x210mm
Displacement	57.2L
Compression ratio	16.4: 1

Fuel System

Fuel consumption @ 100% (Prime Power) Load	189g/kWh	323L/h
Fuel consumption @ 75% (Prime Power) Load	195g/kWh	250L/h
Fuel consumption @ 50% (Prime Power) Load	203g/kWh	191L/h

Exhaust System

Exhaust gas flow (L/S)	4000
Exhaust temperature (°C)	655
Max back pressure (kPa)	

Air Intake System

Combustion air flow (L/S)	1600
Air flow required for radiator	
Air Intake System	Air filter & exhaust turbocharging

Oil System

Oil System	Oil filter、Oil pump、Oil dipstick
Total oil capacity (L)	222
Oil consumption (g/kWh)	

Cooling System

Cooling Type	Water-cooled
Intercooling method	Water-to-Air
Cooling System	Thermostat、Water pump、Radiator、Intercooler
Coolant capacity(L)	160L(Only inside the engine)
Max water temperature (°C)	

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ALTERNATOR SPECIFICATION

Power (kVA)	1640
Power (kW)	1312
Alternator Efficiency(%)	96
Number of Bearing	1
Power Factor	0.8
Protection Class	IP23
Altitude	≤1000m
Exciter Type	Brushless exciting
Insulation Class/Temperature Rise	H/H
THF	<2%

Industrial alternators meet the requirements of the relevant parts of the BS5000, VDE 0530, NEMA MG1-22, IEC34, CSA 22.2-100 and AS1359.

-Note: Generator parameters may vary depending on brand, voltage level and other factors

Control Functions

Main functions

4-line text display	6 customizable output channels
Multi-language display	4 customizable analog/digital input channels
5 menu navigation keys	Supports 0-10V or 4-20mA sensors
LCD alarm indication	Speed detection via CAN, MPU and generator frequency
Customizable startup screen, text and screen saver	Built-in real-time clock (RTC)
Compatible with all expansion modules	Manual/automatic fuel pump control
Data logging	Engine pre-heating and post-heating
Built-in powerful PLC function	Built-in powerful PLC function
Emergency mode (all protections disabled)	Preset multiple start-stop cycles
Front panel editable parameters (with password protection)	Engine start/stop idle speed
Power-saving mode	Fuel level alarm
3-phase generator detection and protection	3 customizable maintenance reminders
3-phase mains detection and protection (PEC6.12 only)	Supports EFI engines, including Tier 4 engines
ATS switch control (PEC6.12 only)	Parameter setting via free DSE software
Unit current and power monitoring (kW, kvar, kVA, pf)	IP65 protection rating for better water resistance
Mains current and power monitoring (kW, kvar, kVA, pf)	Can read parameters of other devices via CAN communication
Overload protection	Supports J1939-75 CAN communication
Overcurrent protection	Shield EFI engine CAN alarms
Front panel manual control of circuit breaker closing/opening	1 set of backup protection parameters
Customizable fuel and start output ports for EFI engines	

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PAUWAY HIGHLIGHT

/// Efficiency

- Low consumption
- High reliability
- High quality power supply
- Long maintenance cycle

/// Support

- Provide global product warranty and technical

/// Standard

- The generator set is designed and manufactured in
- The engine used conforms to ISO 2008:9001 and
- The generator used conforms to NEMA MG1, EN and IEC standards

/// Rated power

- System Rating: power will vary with the change of alternator
- According to ISO 8528-5, the generator set conforms to G3
- According to ISO 8528-5, the generator set is allowed to use standby power

/// Performance assurance certification (PAC)

- Meeting ISO 8528-5 test transient response of genset
- Strong load carrying capacity at one time
- Product design, quality and performance
- All systems have been factory tested.

/// Provide full set of spare parts

- Control panel
- Circuit breaker/Power distribution
- Fuel system
- Exhausting system
- Fuel connection with shut-off valve mounted on base
- Starting / charging system
- Mechanical / electrical driven radiator system
- Suitable model of AC alternator

/// Certification

- CE certificate

NAMING PRINCIPLE

