

We bring Power to your Life

UP1000

U Power Generation System



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INTRODUCTION

U Power Generation system, providing optimum performance, and reliability, for stationary standby, prime power, and continuous duty applications. All generator sets are factory build, and production tested.

Power (kVA)

3 Phase, 50 Hz, PF 0.8

VOLTAGE	STANDBY RATING		PRIME RATING (PRP)		STANDBY AMPER
	kW	kVA	kW	kVA	
400/231	800,00	1000	728	910	1443.42

STANDBY RATING (ESP) Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. ESP is in accordance with ISO 8528. Overload is not allowed

PRIME RATING (PRP) Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528. 10 % overload capability is available for a period of 1 hour within 12-hour period of operation, in accordance with ISO 3046

General Characteristics

Model Name	UP 1000
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	Perkins 4008-23TAG 1A
Alternator Made and Model	ECO 43-2S/4 A
Control Panel Model	7320
Canopy	UP 96

Engine Specifications

Engine	Perkins
Engine Model	4008-23TAG 1A
Number of Cylinder (L)	8 cylinders - in line
Bore (mm.)	160
Stroke (mm.)	190
Displacement (lt.)	30.561
Aspiration	Turbo Charged
Compression Ratio	13.6:1
RPM (d/dk)	1500

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Oil Capacity (Total With Filter) (lt)	153
Standby Power	882/1182,30
Prime Power	805/1079,08
Block Heater QTY	1
Block Heater Power (Watt)	3000
Fuel Type	Diesel
Injection Type and System	Direct
Type of Fuel Pump	MEUI
Governor System	Electronic
Operating Voltage (Vdc)	24 Vdc
Battery and Capacity (Qty/Ah)	2x143
Charge Alternator (A)	55
Cooling Method	Water Cooled
Cooling Fan Air Flow (m ³ /min)	1248
Coolant Capacity (engine only / with radiator) (lt)	149
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	195
Fuel Cons. Prime With %75 Load (lt/hr)	143
Fuel Cons. Prime With %50 Load (lt/hr)	98

Alternator Characteristics

Manufacturer	Mecc Alte
Alternator Brand and Model	ECO 43-2S/4 A
Frequency (Hz)	50
Power (kVA)	930
Voltage (V)	400
Phase	3
A.V.R.	DSR
Voltage Regulation	(+/-)1%
Insulation System	H
Protection	IP21
Rated Power Factor	0.8
Weight Wound Rotor (Kg)	551
Cooling Air (m ³ /min)	90

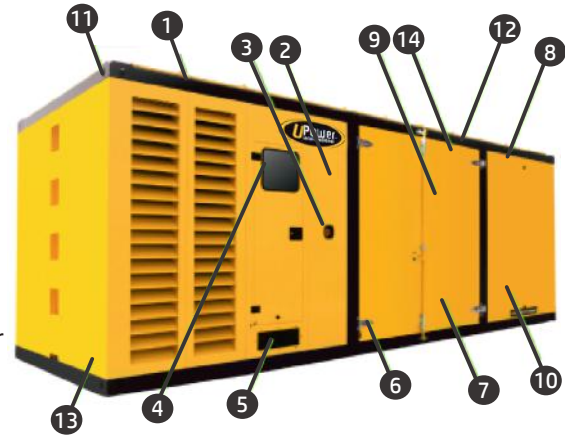
Open Gen.Set Dimensions (mm)

Length	4786
Width	1973
Height	2205
Dry Weight (kg)	-
Tank Capacity (lt)	1500

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Lenght (mm) 7500 | Width (mm) 2300 | Height (mm) 2500 | DRY Weight (kg) - | Tank Capacity (lt) 1500

1. Steel structure made from steel sheet and steel profiles
2. Canopy and panels made from powder coated sheet steel
3. Emergency stop push button
4. Control panel is mounted on the baseframe. Located at the right side of the generator set
5. Cables out locations are under or back of the canopy
6. Corrosion resistant locks and hinges
7. Oil could be drained via valve and a hose
8. Exhaust system in the canopy
9. Special large access doors (marine type) for easy maintenance
10. Fuel tank is at front of the canopy ,easy access to the fuel tank via lockable door
11. Lifting points similar to ISO container, located on each top corner of the canopy
12. The cap on the canopy provides easy access to radiator cap
13. Sound proofing materials
14. Integrated ladder built in to side of the canopy allows access to the top of the canopy

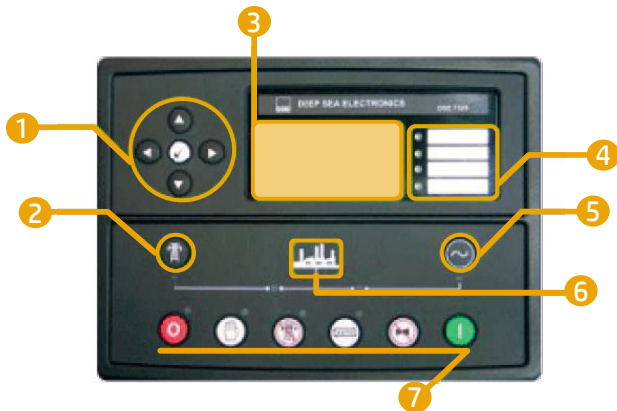


INTRODUCTION

Sound-attenuated and Weather-protective Enclosures Sound-attenuated and weather protective enclosures for generating sets from U Power, meet event the sound requirements and provide optimum protection from inclement weather and development by our specialist acoustic engineers. Our modular designed sound insulated canopies provide ease of access for servicing and general maintenance and interchangeable components permitting on-site repair. Enclosures are designed to optimize genset cooling performance, providing you with confidence that genset ratings and ambient capability.

Control Panel

Control Module DSE | Control Module Model 7320 | Communication Ports Modbus



1. Menu navigation buttons
2. Close mains button
3. Main Status and instrumentation display
4. Alarm LED's
5. Close generator button
6. Status LED's
7. Operation selecting buttons

Devices

DSE, model 7320 Auto Mains Failure control module Static battery charger
Emergency stop push button and fuses for control circuits

Construction and Finish

Components installed in sheet steel enclosure
Phosphate chemical, pre-coating of steel provides corrosion resistant surface
Polyester composite powder topcoat forms high gloss and extremely durable finish
Lockable and hinged panel door provides easy access to components

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Installation

Control panel is mounted on baseframe with steel stand. Located at the right side of the generator set (When you look at the Gen. Set. from Alternator)

Generating Set Control Unit

- » The DSE 7320 is a standard control module for our generator sets up to 200kVA and it has been designed to start and stop diesel and gas generator sets.
- » The DSE 7320 module has been designed to monitor generator frequency, volt, current, engine oil pressure, coolant temperature running hours and battery volts.
- » Module monitors the mains supply and switch over to the generator when the mains power fails.
- » The DSE 7320 also indicates operational status and fault conditions, Automatically shutting down the Gen.
- » Set and giving true first up fault condition of Gen. Set failure. The LCD display indicates the fault.

Standard Specifications

Microprocessor controlled

- 132 x 64 pixel LCD display makes information easy to read
- Front panel programming and also via PC software
- Soft touch membrane keypad and five key menu navigation
- Remote communications via RS232, RS485 and ethernet and SMS messaging
- Event logging (50) showing date and time
- Multiple date and time engine exercise mode and maintenance scheduler
- Engine block heater control
- Controls; stop, manuel, auto, test, start, mute lamb test/transfer to generator, transfer to mains, menu navigation

ENGINE

Engine speed
Oil pressure
Coolant temperature
Run time Battery volts
Battery volts
Engine maintenance due

GENERATOR

Voltage (L-L, L-N)
Current (L1-L2-L3)
Frequency
Earth current
kW
Pf
kVA
kWh, kVAh, kVAh
Phase sequence

ELECTRICAL TRIP

Earth fault
kW over load
Generator over current
Negative phase sequence

PRE-ALARMS

Low oil pressure
High engine temperature
Low engine temperature
Over /Under speed
Under/over generator frequency
Under/over generator voltage
ECU warning

WARNING

Charge failure
Battery under voltage
Fail to stop
Low fuel level (opt.)
kW over load
Negative phase sequence
Loss of speed signal

MAINS

Voltage (L-L, L-N)
Frequency

Instruments

SHUT DOWNS

Fail to start
Emergency stop
Low oil pressure
High engine temperature
Low coolant level
Over /Under speed
Under/over generator frequency
Under/over generator voltage
Oil pressure sensor open
Phase rotation

Options

High oil temperature shut down
Low fuel level shut down
Low fuel level alarm
High fuel level alarm

Expansion Modules

Editional LED module (2548)
Expansion relay module (2157)
Expansion input module (2130)

Standarts

Electrical Safety / EMC compatibility
-BS EN 60950 Electrical business equipment.
-BS EN 61000-6-2 EMC immunity standard.
-BS EN 61000-6-4 EMC emission standard

Static Battery Charger

Battery charger is manufactured with switching-mode and SMD technology and it has high efficiency

Battery charger models' output V-I characteristic is very close to square

2405 has fully output short circuit protection and it can be used as a current source

2405 charger has high efficiency, long life, low failure rate, light weight and low heat radiated in accordance with linear alternatives

The charger is fitted with a protection diode across the output

Charge fail output is available

Connect charge fail relay coil between positive output and CF output

Input: 196-264V

Output: 27,6V 5A or 13,8V 5A

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Standard Specifications

- Water cooled diesel engine
- Radiator with mechanical fan
- Protective grille for rotating and hot parts
- Electric starter and charge alternator
- Starting battery (with lead acid) including rack and cables
- Engine coolant heater
- Steel base frame and anti-vibration isolators
- Spare external fuel tank (open set)
- Flexible fuel connection hoses
- Single bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately
- Static battery charger
- Manual for application and installation

Optional Equipments

ENGINE

- Fuel-Water Separator Filter
- Oil heater

ALTERNATOR

- Anti-Condensation Heater
- Over sized alternator
- Main line circuit breaker

CONTROL SYSTEM

- Automatic synchronising and power control system (multi gen-set Parallel)
- Transition synchronization with mains
- Remote annunciator panel
- Remote relay output
- Alarm output relays
- Remote communication with modem
- Earth fault, single set
- Charge Ammeter

OTHER ACCESSORIES

- Main Fuel Tank
- Automatic or manual fuel filling system
- Manual oil drain pump
- Electrical oil drain pump
- Low and high fuel level alarm
- Residential silencer
- Enclosure: weater protective or sound attenuated
- Duct adapter (on radiator)
- Inlet and outlet motorised louvers
- Inlet and outlet acoustic baffles
- Tool kit for maintenance
- 1500/3000 hours maintenance kit
- Supplied with oil and coolant - 30 °C

TRANSFER SWITCH

- Three Pole Contactor
- Three or four pole motor operated circuit breaker

CERTIFICATES



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