We bring Power to your Life

UP900

U Power Generation System

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UP900

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	720,00	900	644.0	805	1299.08

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 perod of operation,in accordance with ISO 3046

General Characteristics

Model Name	UP 900
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	Perkins 4006-23TAG 3A
Alternator Made and Model	ECO 43-2S/4 A
Control Panel Model	7320
Canopy	UP 91

Engine Specifications

Engine	Perkins
Engine Model	4006-23TAG 3A
Number of Cylinder (L)	6 cylinders - in line
Bore (mm.)	160
Stroke (mm.)	190
Displacement (lt.)	22.921
Aspiration	Turbo Charged
Compression Ratio	13.6:1
RPM (d/dk)	1500

Oil Capacity (Total With Filter) (lt)	113.4
Standby Power	721/966,48
Prime Power	658/882,03
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 (m³/min)	870
Coolant Capacity (engine only / with radiator) (lt)	120
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	139
Fuel Cons. Prime With %75 Load (lt/hr)	132
Fuel Cons. Prime With %50 Load (lt/hr)	88

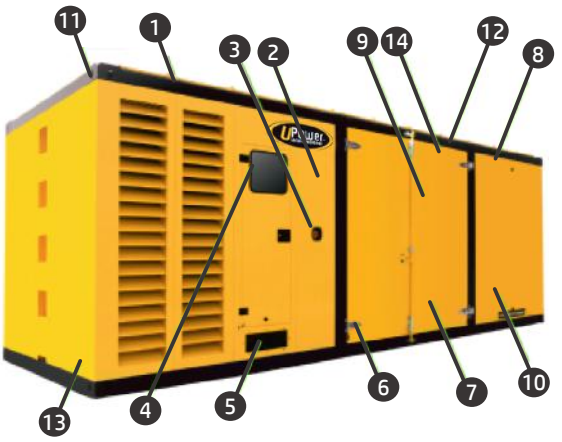
Alternator Characteristics	
Manufacturer	Mecc Alte
Alternator Brand and Model	ECO 43-2S/4 A
Frequency (Hz)	50
Power (kVA)	930
Voltage (V)	400
Phase	3
A.V.R.	DSR
Voltage Regulation	(+/-)1%
Insulation System	H
Protection	IP21
Rated Power Factor	0.8
Weight Wound Rotor (Kg)	551
Cooling Air (m³/min)	90

Open Gen.Set Dimensions (mm)	
Lenght	3900
Width	1690
Height	2270
Dry Weight (kg)	6250
Tank Capacity (lt)	-

UP900

Lenght (mm)	Width (mm)	Height (mm)	DRY Weight (kg)	Tank Capacity (lt)
5920	2200	2353	7650	-

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 maintanance
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 accsess 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

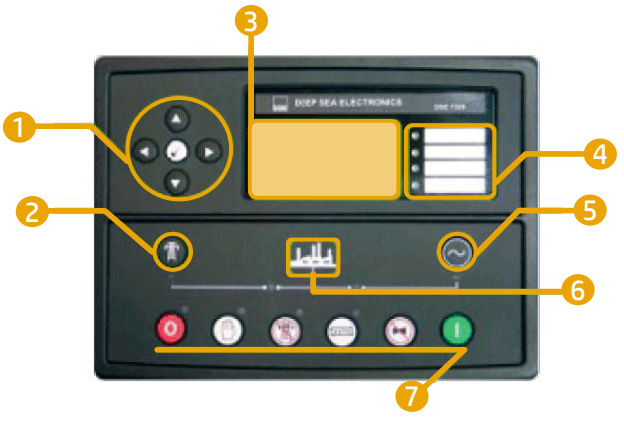


INTRODUCTION

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	Control Module Model	Communication Ports
DSE	7320	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

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 ıt 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

Instruments

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
kVAr
kWh, kVAh, kVArh
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

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)
Expension relay module (2157)
Expansion input module (2130)

Standarts

Elecrical 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 efficincy
Battery charger models' output V-I characteristic is very close to square
2405 has fully output shot circuit protection and ıt 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

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
- Base frame design incorporates an integral fuel tank and anti-vibration isolators
- Flexible fuel connection hoses
- Single bearing, class H alternator
- Industrial exhaust silencer and steel bellows supplied separately(for open sets)
- Static battery charger
- Manual for application and installation

Optional Equipments

ENGINE

Fuel-Water Seperator 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

CE TSE SZUTEST NOTIFIED BODY 2195