

# We bring Power to your Life

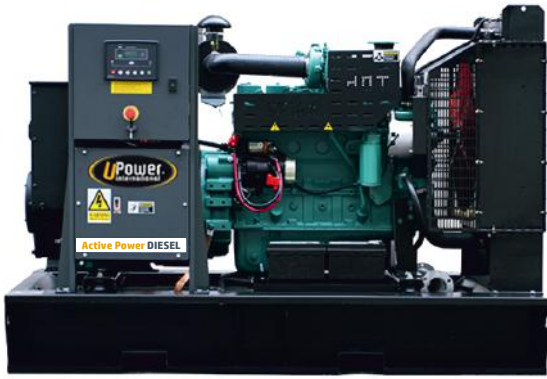


## UC170

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	136,00	170	124.0	155	245.38

**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	UC 170
Frequency (Hz)	50
Fuel Type	Diesel
Engine Made and Model	Cummins 6BTAA 5.9-G7
Alternator Made and Model	ECP 34-3L/4 A
Control Panel Model	7320
Canopy	MS 60

### Engine Specifications

Engine	Cummins
Engine Model	6BTAA 5.9-G7
Number of Cylinder (L)	6 cylinders - in line
Bore (mm.)	102
Stroke (mm.)	120
Displacement (lt.)	5.9
Aspiration	Turbo Charged and After Cooled
Compression Ratio	16.5:1
RPM (d/dk)	1500

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Oil Capacity (Total With Filter) (lt)	16.4
Standby Power	160/125
Prime Power	145/195
Block Heater QTY	1
Block Heater Power (Watt)	1000
Fuel Type	Diesel
Injection Type and System	Direct
Type of Fuel Pump	Bosh In-Line
Governor System	Electronic
Operating Voltage (Vdc)	12 Vdc
Battery and Capacity (Qty/Ah)	1x85
Charge Alternator (A)	55
Cooling Method	Water Cooled
Cooling Fan Air Flow (m <sup>3</sup> /min)	162
Coolant Capacity (engine only / with radiator) (lt)	9.1/21.4
Air Filter	Dry Type
Fuel Cons. Prime With %100 Load (lt/hr)	37
Fuel Cons. Prime With %75 Load (lt/hr)	29
Fuel Cons. Prime With %50 Load (lt/hr)	19

### Alternator Characteristics

Manufacturer	Mecc Alte
Alternator Brand and Model	ECP 34-3L / 4A
Frequency (Hz)	50
Power (kVA)	160
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)	111
Cooling Air (m <sup>3</sup> /min)	19.3

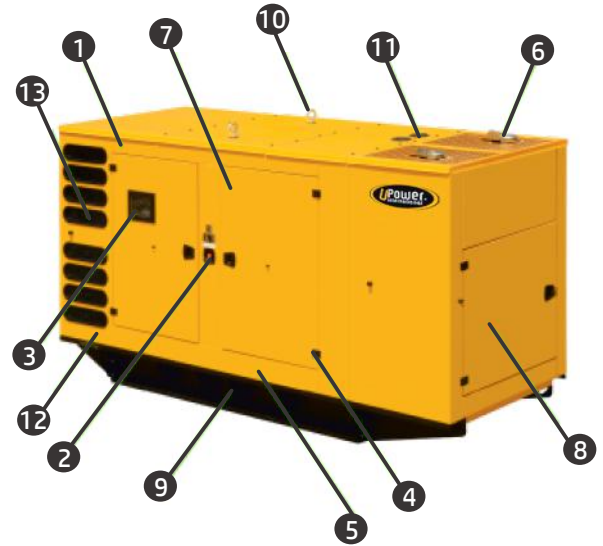
### Open Gen.Set Dimensions (mm)

Length	2750
Width	1300
Height	1750
DRY Weight (kg)	1535
Tank Capacity (lt)	470

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Lenght (mm) 3960 | Width (mm) 1360 | Height (mm) 2100 | DRY Weight (kg) 2270 | Tank Capacity (lt) 470

1. Steel structures
2. Emergency stop push button
3. Control panel is mounted on the baseframe. Located at the right side of the generator set
4. Corrosion-resistant locks and hinges
5. Oil could be drained via valve and a hose
6. Exhaust system in the canopy
7. Special large access doors for easy maintenance
8. In front and back side special large access doors for easy maintenance
9. Base frame fuel tank
10. Lifting points similar to ISO container, located on each top corner of the canopy
11. The cap on the canopy provides easy access to radiator cap
12. Sound proofing materials
13. Plastic air intake pockets

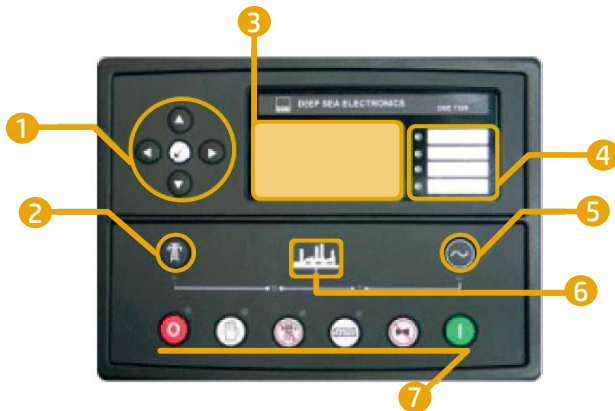


## INTRODUCTION

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  
Engine maintenance due

### 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

### GENERATOR

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

## 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 shot 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
- 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
- Generators Sets' voltage and frequency regulation comply with ISO 8528-5
- Generators Sets' can take 100% load at one step according to NFPA110

## Optional Equipments

### ENGINE

- Fuel-Water Separator Filter
- Low water level alarm
- Oil heater

### ALTERNATOR

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

### CONTROL SYSTEM

- 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
- Residential silencer
- Enclosure: weater protective or sound attenuated
- Duct adapter ( on radiator)
- Inlet and outlet motorised louvers
- Inlet and outlet acoustic baffles
- Trailer
- Tool kit for maintenance
- 1500/3000 hours maintenance kit
- Supplied with oil and coolant - 30 °C
- Battery isolating switch
- Automatic transfer switch

### TRANSFER SWITCH

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

## CERTIFICATES



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