



● **Model: MPE-450C**

Powered by CUMMINS



● **Generator Specification**

Service	PRP(1)	ESP(2)
Power (kVA)	400	450
Power (kW)	320	360
Rated speed (r.p.m)	1500	
Standard voltage (V)	400/230V	
Rated at power factor (cos phi)	0.8	

(1) PRP (Prime Power):

According to ISO8528-1, prime power is available continuously during the period of power outage in a variable load application. Variable load should not exceed a 70% average of the prime power rating during any 24 hour period. A 10% overload capability is available for a period of 1 hour within a 12 hour period of operation.

(2) ESP (Standby Power):

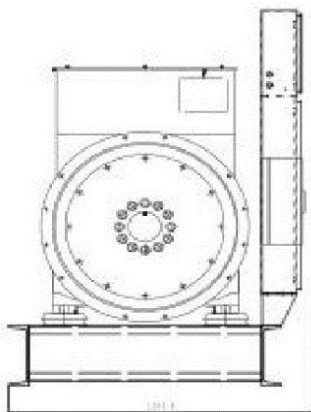
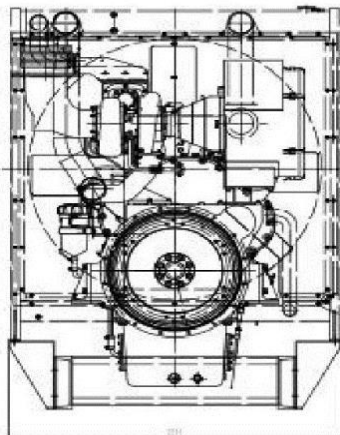
According to ISO 8528-1, standby power is applicable for supplying emergency power for the duration of a utility power interruption. No overload, utility parallel or negotiated outage operation capability is available at this rating.

Standard reference Conditions

Note: Standard reference condition 25°C (77°F) air inlet temp, 100m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998. Class A2

Quality Standards

To BS4999/5000 pt 99, VDE 0530, UTE5100, NEMA MG1-22, CEMA, IEC 34, CSA A22.2, AS1359, BS5514, ISO 3046, ISO 8528, ISO9001, ISO14001, CE Compliance

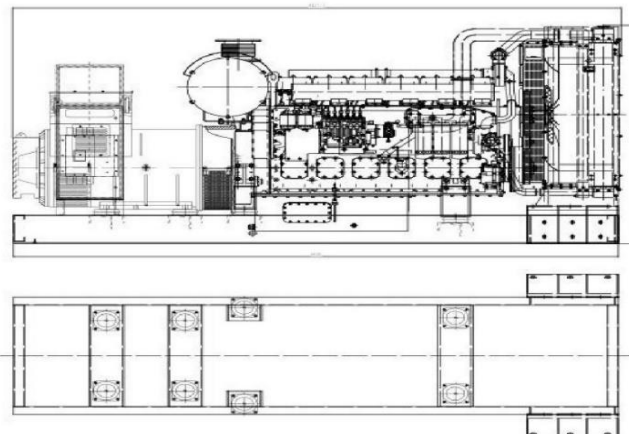


Performance Data

Model	MPE-450C	
Speed control type	Electronic	
Phase	3	
Control system	Digital	
Starter motor voltage	12/24V	
Frequency	50HZ	
Engine speed	1500	
Fuel Consumption (L/H)	100% standby power	98.0
	100% prime power	89.2
	75% prime power	67.8
	50% prime power	47.5

Dimension and Weight

Dimension	Open	Silent
Length (L) mm	3200	4350
Width (W) mm	1150	1400
Height (H) mm	1850	2260
Net Weight (Kg)	4050	4650
Gross Weight (Kg)	4050	4650



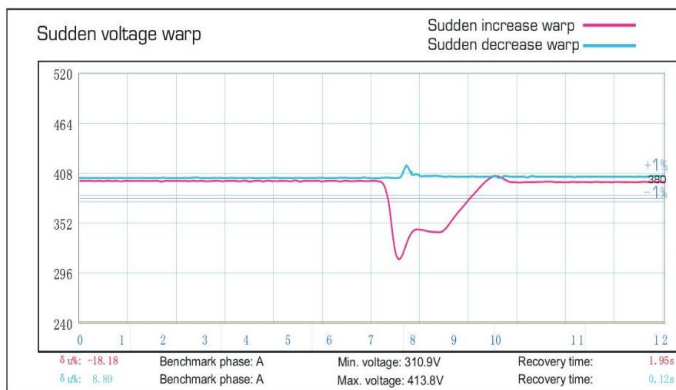


• **Specification:**

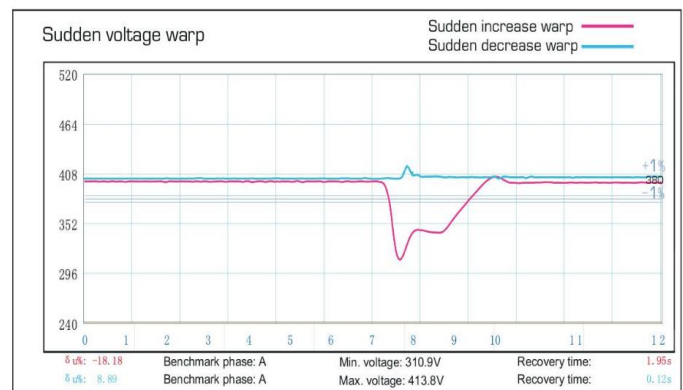
Engine	
Engine manufacturer	CUMMINS
Engine model	NTAA855G7A
No. of cylinders	6
Cylinder arrangement	L
Cycle	4 stroke
Air intake way	Turbocharged and Air- Air Cooled
Compression ratio	14.0:1
Bore	140 mm
Stroke	152 mm
Displacement	14 L
Governor Type	Electronic
Starting system	Electric starting with cell starter

Alternator	
Alternator manufacturer	STAMFORD
Alternator model	HCI444F
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP Rating	IP23
Excitation system	Brushless self-excitation
Bearing	Single bearing
Voltage regulator	A.V.R
Couping	Flexible disc

Emergency voltage curve



Emergency frequency curve



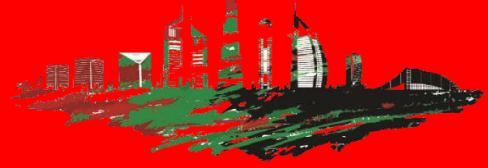
• **Options**

Engine	Alternator	Generator Sets	Fuel System
<ul style="list-style-type: none"> Water Jacket Pre-heater Fuel heater 	<ul style="list-style-type: none"> Winding Temp measuring Instrument Alternator Pre-heater PMG Anti-damp and anti-corrosion treatment Anti-condensation heater Winding and bearing RTD 	<ul style="list-style-type: none"> Tools with the machine Extended range fuel tank Bunded fuel tank 	<ul style="list-style-type: none"> Low fuel level alarm Automatic fuel feeding system Fuel T-valves
Canopy	Lub oil system	Cooling System	Control Panel
<ul style="list-style-type: none"> Rental type Canopy Trailer 	<ul style="list-style-type: none"> Oil Pre-heater Oil temp sensor 	<ul style="list-style-type: none"> Front heat protection 	<ul style="list-style-type: none"> Remote control panel ATS Synchronizing controller Adjustable earth leakage relay



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• Control Panel

Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit
- Comprehensive diagnostic message
- Automatic or manual start/stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements (50HZ/60HZ)
- Generator measurements (50HZ/60HZ)
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Over current/overload
- 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and return timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set-up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

Operation conditions

- Operation temp: -20 °C to + 70 °C
- Storage temp: -30 °C to + 80 °C
- Operating humidity: 95% w/o condensation
- Vibration: 5-25Hz, ±1.6 mm
5-100Hz, a= 4g
- Shocks: a= 500m/s²

Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs



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