

Model: MC450 (S)-1

Powered by Cummins



Applicable Standards

- ISO 8528-5:2018
- GB/T2820.5-2009
- CE

Environmental Conditions

- Ambient temperature: +5°C~+40°C
 - Altitude: ≤1000m
- Remark: If your conditions are different from the above, please contact our sales.

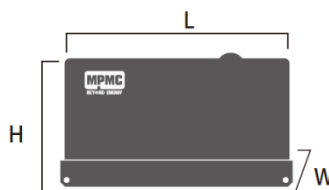
Factory Inspection

- Complete design and quality inspection
- 0%, 25%, 50%, 75%, 100%, 110% load test.
- Function test.
- Protection test

Painting Process

- MPMC has the most advanced automatic spraying / powder coating production line, and is equipped with various sandblasting equipment to ensure higher quality.
- Canopy painting: Henkel pretreatment process and world famous brand AkzoNobel powder.
- Base Frame painting: Sandblasting process and AkzoNobel powder (Hempel paint is optional).

| General Information | | Prime power | Standby power |
|-----------------------------------|-----------|---|---------------|
| Rated Power (kVA) | | 450 | 495 |
| Power Rating (kW) | | 360 | 396 |
| Frequency (Hz) | | 50 | |
| Engine Model | | QSZ13-G5 | |
| Engine Speed (RPM) | | 1500 | |
| Phase | | 3 | |
| PF | | 0.8 | |
| Control System | | Digital | |
| Rated voltage (V) | | 400/230 (According to customer requirements) | |
| Fuel tank capacity operating time | | ≥ 8h @ 75% load | |
| Fuel Consumption (L/h) | 110% load | 107.1 | |
| | 100% load | 93.2 | |
| | 75% load | 70 | |
| | 50% load | 49 | |



Dimension and Weight

| Model | MC450-1 Open type | MC450S-1 Silent type |
|------------------------------|----------------------|-------------------------|
| Length (L) mm | 3560 | 4600 |
| Width (W) mm | 1380 | 1622 |
| Height (H) mm | 2080 | 2530 |
| Dry weight (kg) | 3350 | 5100 |
| Tank capacity (L) | 990 | 900 |
| The loading capacity (40'HC) | 3 units | 2 units |

Note: Specifications and illustrations are subject to revision without notice.



Engine Specifications

| Engine model & manufacturer | | QSZ13-G5 (Cummins) |
|-----------------------------------|-----------|-----------------------------|
| Emission Certification | | Euro Stage II / EPA Tier II |
| Number of cylinders | | 6 |
| Cylinder arrangement | | In-line |
| Cycle | | Four stroke |
| Aspiration | | Turbocharged |
| Bore x Stroke | | 130 x 163 mm |
| Displacement | | 13 L |
| Compression ratio | | 17:1 |
| Prime power /speed | | 411 kW/1500 rpm |
| Standby power /speed | | 470 kW/1500 rpm |
| Speed governor | | Electronic |
| Cooling system | | Forced Water Cooling Cycle |
| Frequency droop | | ≤ 3% |
| Total lubrication system capacity | | 75.33 L |
| Coolant capacity (engine only) | | 23.1 L |
| Fuel consumption | 100% load | 195 g/kWh @1500 rpm |
| Starter motor | | DC 24V |
| Charge alternator | | DC 24V |

- Heavy duty diesel engine
- Anti-vibration mount
- Replaceable fuel filter, oil filter & air filter
- Cooling radiator and fan

- Starter battery (with lead acid) including rack and cables
- Flexible fuel connection hoses
- Exhaust silencer and bellows
- Operation manuals and circuit diagram documents

Alternator Specifications

| Alternator | |
|------------------------|----------------|
| Number of phase | 3 |
| Power factor (Cos Phi) | 0.8 |
| Poles | 4 |
| Insulation type | H class |
| Winding Pitch | 2/3 |
| IP rating | IP23 |
| Bearing | Single bearing |
| Voltage regulator | A.V.R |
| Coupling | Flexible disc |

Control Panel

DSE 4520 MKII

Auto start and auto mains failure control module
(Alternator frequency & can speed sensing)



Key benefits

- Ultimate size to feature ratio.
- Automatically transfers between mains (utility) and generator.
- Hours counter provides accurate information for monitoring and maintenance periods.
- User-friendly set-up and button layout for ease of use.
- Multiple parameters are monitored simultaneously which are clearly displayed on the largest back-lit icon display in its class.
- The module can be configured to suit a wide range of applications.
- Compatible with a wide range of CAN engines including Tier 4.
- IP65 rating (with optional gasket) offers increased resistance to water ingress.

Key features

- Auto Start and AMF mode in one module.
- J1939-75 support and CAN alarm ignore function.
- Alternator frequency & CAN speed sensing in one variant.
- Largest back-lit icon display in its class.
- Heated display option.
- Real time clock provides accurate event logging.
- Fully configurable via the fascia or PC using USB communication.
- Extremely efficient power save mode.
- 3 phase generator sensing.
- 3 phase mains (utility) sensing
- Compatible with 600 V ph to ph nominal systems.
- Generator/load power monitoring (kW, kVA, kVar, PF).
- Accumulated power monitoring (kWh, kVAh, kVarh).
- Generator overload protection.
- Generator/load current monitoring and protection.
- Fuel and start outputs (configurable when using CAN).
- 4 configurable DC outputs.
- 3 configurable analogue/digital inputs
- 4 configurable digital inputs.
- Configurable staged loading outputs.
- 3 engine maintenance alarms.
- Engine speed protection.
- Engine hours counter.
- Engine pre-heat.
- Engine run-time scheduler.
- Engine idle control for starting & stopping.
- Tier 4 engine instrumentation screens.
- Battery voltage monitoring.
- Start on low battery voltage.
- Configurable remote start input.
- 1 alternative configuration.
- Comprehensive warning, electrical trip or shutdown protection upon fault condition.
- LCD alarm indication.
- Event log (50)

Options

| Engine | Alternator | Fuel System | Generating Set |
|---|--|---|--|
| <input type="checkbox"/> Water Jacket Preheater <input type="checkbox"/> Oil Preheater <input type="checkbox"/> Oil manual pump | <input type="checkbox"/> PMG excitation <input type="checkbox"/> Space heater <input type="checkbox"/> Winding temperature measuring | <input type="checkbox"/> 12 / 24 hour base tank <input type="checkbox"/> Bunded fuel tank <input type="checkbox"/> External fuel tank <input type="checkbox"/> Automatic fuel feeding <input type="checkbox"/> Switch between external tank and base tank (three-way valve) | <input type="checkbox"/> Deepsea, ComAp, Smartgen etc. controller <input type="checkbox"/> Trailer <input type="checkbox"/> Tools with the machine |



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