## MPMC BEY#ND ENERGY

## MODEL: MDS160(S)-2

Powered by Doosan





### **Applicable Standards**

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

| General Information               |           | Prime power                                     | Standby power |  |
|-----------------------------------|-----------|---|---------------|--|
| Rated Power (kVA)                 |           | 180   | 200           |  |
| Power Rating (kW)                 |           | 144   | 160           |  |
| Frequency (Hz)                    |           | 60  |               |  |
| Engine Model                      |           | DP086TA   |               |  |
| Engine Speed (RPM)                |           | 1800  |               |  |
| Phase                             |           | 3   |               |  |
| PF                                |           | 0.8   |               |  |
| Control System                    |           | Digital   |               |  |
| Rated voltage (V)                 |           | 440/254<br>(According to customer requirements) |               |  |
| Fuel tank capacity operating time |           | ≥ 8h @ 75% load                                 |               |  |
| Fuel Consumption<br>(L/h)         | 110% load | 37.07   |               |  |
|                                   | 100% load | 33.7  |               |  |
|                                   | 75% load  | 25.28   |               |  |
|                                   | 50% load  | 16.85   |               |  |
| н                                 |           | Н   | L             |  |

| Dimension and Weight         |                       |                          |  |  |  |
|------------------------------|-----------------------|--------------------------|--|--|--|
| Model                        | MDS160-2<br>Open type | MDS160S-2<br>Silent type |  |  |  |
| Length (L) mm                | 2938                  | 3600                     |  |  |  |
| Width (W) mm                 | 998                   | 1330                     |  |  |  |
| Height (H) mm                | 1888                  | 2080                     |  |  |  |
| Dry weight (kg)              | 1780                  | 2800                     |  |  |  |
| Tank capacity (L)            | 470                   | 620                      |  |  |  |
| The loading capacity (40'HC) | 8 units               | 3 units                  |  |  |  |

7<mark>w</mark>

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

7**w** 

## **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).





## **Engine Specifications**

| Engine model & manufacturer  |           | DP086TA(Doosan)  |
|--|-----------|--|
| Emission Certification   |           |  |
| Number of cylinders  |           | 6  |
| Cylinder arrangement   |           | In-line  |
| Cycle  |           | Four stroke  |
| Aspiration   |           | Turbocharger   |
| Bore x Stroke  |           | 111 x 139mm  |
| Displacement   |           | 8.071 L  |
| Compression ration   |           | 16.7:1   |
| Prime power /speed   |           | 168 kW/1800 rpm  |
| Standby power /speed   |           | 187 kW/1800 rpm  |
| Speed governor   |           | Electric   |
| Cooling system   |           | Forced Water Cooling Cycle   |
| Frequency droop  |           | ≤ 5%   |
| Total lubrication system capacity  |           | 15.5 L   |
| Coolant capacity (engine only)   |           | 14 L   |
| Fuel consumption   | 100% load | 209 g/kWh @1800 rpm  |
| Starter motor  |           | DC 24V   |
| Charge alternator  |           | DC 24V   |
| <ul> <li>Heavy duty diesel engine</li> </ul>                             |           | <ul> <li>Starter battery (with lead acid) including rack and cables</li> </ul> |
| <ul> <li>Anti-vibration mount</li> </ul>                                 |           | <ul> <li>Flexible fuel connection hoses</li> </ul>                             |
| <ul> <li>Replaceable fuel filter, oil filter &amp; air filter</li> </ul> |           | <ul> <li>Exhaust silencer and bellows</li> </ul>                               |
| Cooling radiator and fan   |           | Operation manuals and circuit diagram documents                                |

• Cooling radiator and fan

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  |

# MPMC BEY#ND ENERGY

## **Control Panel**

## DSE 4520 MKII

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



## **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

### 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.
- 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  |
|--|---|--|---|
| <ul> <li>Water Jacket Preheater</li> <li>Oil Preheater</li> <li>Oil manual pump</li> </ul> | <ul> <li>PMG excitation</li> <li>Space heater</li> <li>Winding temperature measuring</li> </ul> | <ul> <li>12 / 24 hour base tank</li> <li>Bunded fuel tank</li> <li>External fuel tank</li> <li>Automatic fuel feeding</li> <li>Switch between external tank<br/>and base tank (three-way valve)</li> </ul> | <ul> <li>Deepsea, ComAp, Smartgen<br/>etc. controller</li> <li>Trailer</li> <li>Tools with the machine</li> </ul> |





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