Diesel Generator Set

**mtu 4R0113 DS63**

400 – 230 V/60 kVA/50 Hz/prime power
400 – 230 V/63 kVA/50 Hz/standby power
IVECO – NEF45 SM 1A

Optional equipment and finishing shown. Standard may vary.

**Product highlights**

**Benefits**
- Low fuel consumption
- Emissions optimizations available
- High availability and reliability
- Outstanding load acceptance
- Long maintenance intervals

**Support**
- Global product support offered

**Standards**
- Engine-generator set is designed and manufactured in facilities certified to standards ISO 2008:9001
- Generator set complies to ISO 8528 and fulfills performance level G2
- Generator meets BS5000; NEMA MG 1; ISO; DIN EN and IEC standards
- NFPA 110

**Available emissions optimizations**
- Exhaust emission EU 97/68 EC Stage II
- Fuel optimized

**Wide standard scope of supply**
- 4P circuit breaker
- Island operation control panel
- Integrated fuel tank
- Industrial silencer (15 dB(A))
- Batteries & battery charger

**Complete range of accessories available**
- Sound attenuated enclosure
- Fuel system accessories
- Control panel & ATS
- Range of additional electronical options

**Warranty**
- Standard 36 months warranty after shipment
Application data

Engine
Manufacturer IVECO
Model NEF45 SM 1A
Type 4-cycle
Arrangement 4-L
Bore: mm 104
Stroke: mm 132
Compression ratio 17.5
Rated rpm 1500
Engine governor mechanical
Gross power: kWm (prime/standby) 54.5/60 dry

Fuel system
Fuel tank capacity: OPU (EPU) in l 145 (288)
Autonomy: hr 14
Fuel consumption
At standby power rating: l/hr 15
At 100% of power rating: 13.7
At 50% of power rating: 7

Liquid capacity
Total oil system: l 12.8
Total coolant capacity: l 18.5

Generator
Generator brand Mecc-Alte
Generator type HM200BIN
Insulation class H-class
Bearing single bearing
Voltage regulation A.V.R. (electronic)
Exciting system self-excited, brushless

Electrical
Electric system volts DC 12
Battery capacity: Ah 100

Air requirements
Aspirating: m³/hr 377
Cooling air flow: m³/s 1.86

Exhaust system
Gas temp. (stack): °C 548
Gas volume at stack temp.: kg/h 325
Maximum allowable back pressure: kPa 5

Cooling/radiator system
Ambient capacity of radiator: OPU (EPU) in °C 50 (40)
Fan power consumption: kWm 1.3

Standard and optional features

System ratings (kW/kVA)

<table>
<thead>
<tr>
<th></th>
<th>mtu 4R0113 DS63</th>
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<tbody>
<tr>
<td></td>
<td>Prime operation</td>
<td>Standby operation</td>
</tr>
<tr>
<td>Voltage</td>
<td>400 V</td>
<td>400 V</td>
</tr>
<tr>
<td>Phase</td>
<td>Three phase</td>
<td>Three phase</td>
</tr>
<tr>
<td>Hz</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>kWel*</td>
<td>48.0</td>
<td>50.4</td>
</tr>
<tr>
<td>kVA**</td>
<td>60</td>
<td>63</td>
</tr>
<tr>
<td>Rated AMPS</td>
<td>86.6</td>
<td>90.9</td>
</tr>
</tbody>
</table>

* cos phi = 1.0
** cos phi = 0.8 Also available for following voltages 380V & 415V - for details please contact your local mtu dealer.

1 Technical data is for 100% power.
2 Technical data is for prime power.
3 Technical data is for standby power.
## Standard and optional features

### Engine
- 4- strokes diesel engine
- Flywheel housing SAE 3
- Flywheel 11 1/2”
- Oil pan
- Lube oil circulation pump
- Lube oil filter
- Dry exhaust manifolds
- Hot components and radiator guards
- Mobile components guards
- Electronic engine regulat

### Fuel system
- Fuel filter with water-separator
- Direct fuel injection system
- Automatic fuel transfer pump
- Heavy-duty fuel pre-filter with water separator
- 3-way valve for fuel filling
- Integrated fuel tank (level sensor and drain cap incl.)

### Generator
- 3-Phase, synconos, brushless, self exciting, self regulating, self ventilating alternator
- IP23 M protection degree
- IP23 protection cover
- Winding temperature sensors
- Insulation class H
- Anti condensation

### Control panel & electric options
- Control and power electric panel, with measurements devices and controller
- ATS (Automatic Transfer Switch)
- Control version for parallel operation
- Control version for synchronizing a single genset with mains
- Programmable timer for MM7 and MC7
- Remote display
- Expansion module for CAN communication
- Change over power supply for MC7
- Input Output/LED expansion modules for DeepSea controllers
- ModBus connection to customer systems TCP/IP
- Control version for synchronizing with mains without blackout
- Converter kits CAN to RS485/USB/LAN

### Circuit breaker/power distribution
- 4 poles manual circuit breaker (motorized with DeepSea controllers)

### Starting/charging system
- 12V electric system
- Starting batteries installed
- Pre-heating resistance/jacket water heater
- Battery charging alternator
- Battery disconnector
- Battery charger

### Air intake system
- Dry-type air filter
- Heavy duty air filter with automatic dust evacuation

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- Represents standard features
- Represents optional features
Standard and optional features

Exhaust system
- Industrial silencer 15 dB(A)
- Residential silencer 35 dB(A)

Cooling system
- Coolant circulation pump
- Front type radiator for jacket water
- Engine mounted fan drive

Mounting system
- Mounted on steel base frame
- Resilient mounting of engine and generator

Enclosures
- Sound proof enclosure
- Socket box
- Increased fuel tank capacity

Documentation & certifications
- Genset & component manuals
- CE-certification for EU
- Fluids and lubricants specification
- Maintenance schedule
- Fluids and lubricants specification
Weights and dimensions

Drawing above for illustration purposes only, based on a standard open power 400 Volt engine-generator set. Lengths may vary with other voltages. Do not use for installation design. See website for unit specific template drawings.

<table>
<thead>
<tr>
<th>System</th>
<th>Dimensions (LxWxH)</th>
<th>Weight (wet/with standard accessories)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open power unit (OPU)</td>
<td>2150 x 780 x 1500 mm</td>
<td>948 kg</td>
</tr>
<tr>
<td>Enclosed power unit</td>
<td>2750 x 1100 x 1760 mm</td>
<td>1538 kg</td>
</tr>
</tbody>
</table>

Consult the factory for accurate weights and dimensions for your specific engine-generator set. Lengths may vary with other voltages. Do not use for installation design.

Sound data

<table>
<thead>
<tr>
<th>Unit type</th>
<th>dB(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open power unit: dB(A)</td>
<td>on request</td>
</tr>
<tr>
<td>Enclosed power unit: dB(A)</td>
<td>69</td>
</tr>
</tbody>
</table>

According to 2000/14/CE.
Sound data is provided at 7m for 75% prime power.

Rating definitions and conditions

Prime power ratings apply to installations where utility power is unavailable or unreliable. At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO 8528-1, ISO 3046-1, BS 5514, AS 2789 and DIN 6271. Average load factor: < 75%.

Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. No overload capability for this rating. Ratings are in accordance with ISO 8528-1, ISO 3046-1, BS 5514, AS 2789 and DIN 6271. Average load factor: < 85%, max. 500h/year.

Consult your local mtu distributor for derating information.
Rated power for reference conditions at 25°C and 100m above sea level.

Rolls-Royce Group
www.mtu-solutions.com/powergen