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 consumtion
- 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**: L
- **Displacement**: 4.5 L
- **Bore**: 104 mm
- **Stroke**: 132 mm
- **Compression ratio**: 17.5
- **Rated rpm**: 1500
- **Engine governor**: mechanical
- **Gross power**: 54.5/60 kWm

**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**: l/hr 13.7
- **At 50% of power rating**: l/hr 7

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

**System ratings (kW/kVA)**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Prime operation</strong></td>
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<td></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>
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1  Technical data is for 100% power.
2  Technical data is for prime power.
3  Technical data is for standby power.

**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

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

#### 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, synchronous, 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

- 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
- [ ] Resilent 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

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- ■ Represents standard features
- ◻ Represents optional features
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 (L x W x H)</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>
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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

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<th>Unit type</th>
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<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.