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

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

Optional equipment and finishing shown. Standard may vary.
Application data

Engine
Manufacturer  IVECO  
Model  NEF45 SM 1A  
Type  4-cycle  
Arrangement  4-L  
Displacement: L  4.5  
Bore: mm  104  
Stroke: mm  132  
Compression ratio  17.5  
Rated rpm  1500  
Engine governor  mechanical  
Gross power: kWm (prime/standby)  54.5/60  
Air cleaner  Dry  

Fuel system
Fuel tank capacity: OPU (EPU) in l  145 (288)  
Autonomy: hr  14  

Fuel consumption
At standby power rating:  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>
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<tr>
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<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.
### 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, synchrom, 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

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

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

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
- Maintenance schedule
- CE-certification for EU
- Fluids and lubricants specification

- Represents standard features
- Represents optional features
Weights and dimensions

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.

— Derating factor: Altitude: Consult your local MTU distributor for altitude derating.
Temperature: Consult your local MTU distributor for temperature derating.
Rated power for reference conditions at 25°C and 100m above sea level.

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.

System | Dimensions (L x W x H) | Weight (wet/with standard accessories)
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Open power unit (OPU) | 2150 x 780 x 1500 mm | 948 kg
Enclosed power unit | 2750 x 1100 x 1760 mm | 1538 kg

Sound data

<table>
<thead>
<tr>
<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.

Rolls-Royce Group

www.mtu-solutions.com/powergen