

# DIESEL GENERATOR SET

## MTU 4R0080 DS55

400 – 230 V/50 kVA/50 Hz/Prime Power  
400 – 230 V/55 kVA/50 Hz/Standby Power  
IVECO – F32 TM 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 electrical options

#### // Warranty

- Standard 36 months warranty after shipment

## APPLICATION DATA

### // Engine

Manufacturer	IVECO
Model	F32 TM 1A
Type	4-cycle
Arrangement	4-L
Displacement: L	3.2
Bore: mm	99
Stroke: mm	104
Compression ratio	17.1
Rated rpm	1500
Engine governor	mechanical
Gross power: kWm (prime/standby)	47.3/52
Air cleaner	Dry

### // Fuel System

Fuel tank capacity: OPU (EPU) in L	145 (130)
Autonomy: h	14

### // Fuel Consumption

	L/h
At standby power rating:	13.7
At 100% of power rating:	12.6
At 50% of power rating:	6.5

### // Liquid Capacity

Total oil system: L	10.5
Total coolant capacity: L	19.27

### // Generator

Generator brand	Mecc-Alte
Generator type	HM200B1N
Insulation class	H-class
Bearing	single bearing
Enclosure	IP23 M
Voltage regulation	A.V.R. (electronic)
Exciting system	self-excited, brushless

### // Electrical

Electric system volts DC	12
Battery capacity: Ah	100

### // Air Requirements<sup>①</sup>

Aspirating: m <sup>3</sup> /h	183
Cooling air flow: m <sup>3</sup> /s	1.6

### // Exhaust System

Gas temp. (stack) <sup>②</sup> : °C	548
Gas volume at stack temp. <sup>③</sup> : kg/h	248
Maximum allowable back pressure: kPa	5

### // Cooling/Radiator System

Ambient capacity of radiator: OPU (EPU) in °C	50 (40)
Fan power consumption: kWm	0.5

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

### // System Ratings (kW/kVA)

	MTU 4R0080 DS55	MTU 4R0080 DS55
	Prime operation	Standby operation
Voltage	400 V	400 V
Phase	Three phase	Three phase
Hz	50	50
kWel*	40.0	44.0
kVA**	50	55
Rated AMPS	72.2	79.4

\* cos phi = 1,0

\*\* cos phi = 0,8

Also available for following voltages 380V & 415V - for details please contact your local MTU Onsite Energy Dealer.

### // 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, synchronos, 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

## STANDARD AND OPTIONAL FEATURES, CONTINUATION

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### // 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 disconnecter
- 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

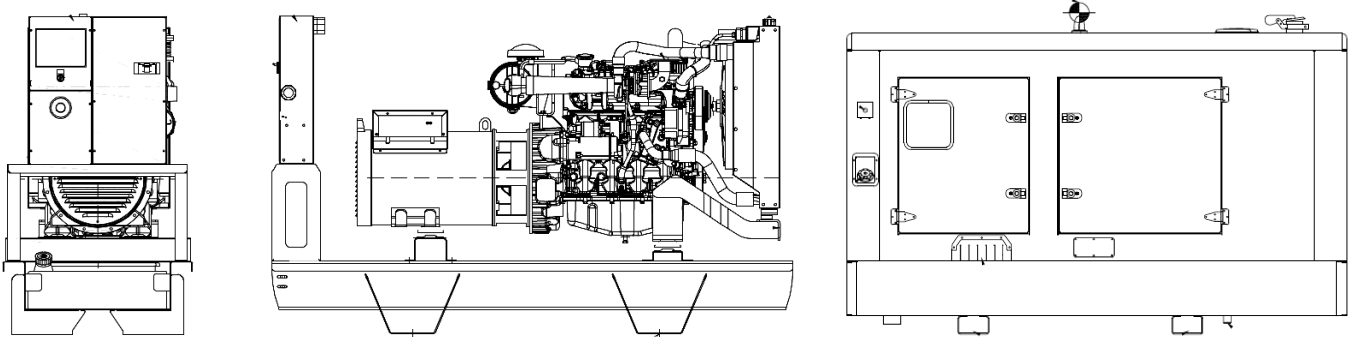
### // Enclosures

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

### // Documentation & Certifications

- Genset & component manuals
- Maintenance schedule
- CE-certification for EU
- Fluids and lubricants specification

## WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard open and enclosed 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.

System	Dimensions (LxWxH)	Weight (wet/with standard accessories)
Open Power Unit (OPU)	2.150 x 780 x 1.500 mm	868 kg
Enclosed Power Unit	2.300 x 1.050 x 1.458 mm	1.296 kg

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

Unit Type	
Open Power Unit: dB(A)	on request
Enclosed Power Unit: dB(A)	62

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.
- // Derating factor:
  - Altitude: Consult your local MTU Onsite Energy Power Generation distributor for altitude derating.
  - Temperature: Consult your local MTU Onsite Energy Power Generation distributor for temperature derating.

Rated power for reference conditions at 25°C and 100m above sea level.

Materials and specifications subject to change without notice.