DIESEL GENERATOR SET
MTU 4R0080 DS45

400 – 230 V/41 kVA/50 Hz/Prime Power
400 – 230 V/45 kVA/50 Hz/Standby Power
IVECO – F32 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 fullfills 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	F32 SM 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)	38.2/42
Air cleaner	Dry

// Fuel System

Fuel tank capacity: OPU (EPU) in L	120 (100)
Autonomy: h	14

// Fuel Consumption

	L/h
At standby power rating:	11.7
At 100% of power rating:	10.6
At 50% of power rating:	5.6

// Liquid Capacity

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

// Generator

Generator brand	Mecc-Alte
Generator type	HM200A3N
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 Requirements①

Aspirating: m^3/h	163.5
Cooling air flow: m^3/s	1.6

// Exhaust System

Gas temp. (stack)②: °C	523
Gas volume at stack temp.③: kg/h	221
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 DS45	MTU 4R0080 DS45
	Prime operation	Standby operation
Voltage	400 V	400 V
Phase	Three phase	Three phase
Hz	50	50
kWel*	32.8	36.0
kVA**	41	45
Rated AMPS	59.2	65.0

* 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 seperator
- ☐ 3-way valve for fuel filling
- ■ Integrated fuel tank (level sensor and drain cap incl.)

// Generator

- ■ 3-Phase, syncronos, 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 contoller
- ☐ 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, CONTINUATION

// 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
■ Resilent mounting of engine and generator

// Enclosures

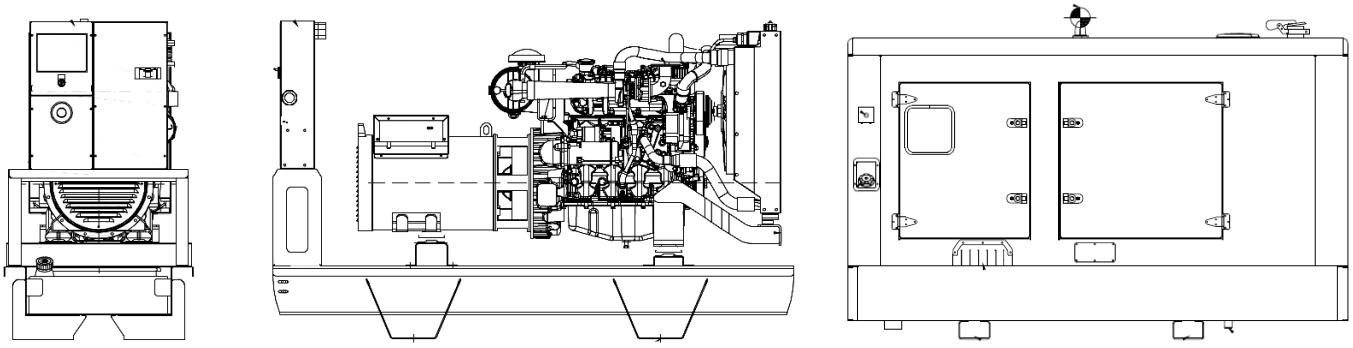
☐ Sound proof enclosure
☐ Socket box
☐ Increased fuel tank capacity

// Documentation & Certifications

■ Genset & component manuals
■ Maintaince schedule
☐ CE-certification for EU
■ Fluids and lubricants specification

■ Represents standard features
☐ Represents optional features

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 (L x W x H)	Weight (wet/with standard accessories)
Open Power Unit (OPU)	1.850 x 780 x 1.500 mm	714 kg
Enclosed Power Unit	2.100 x 975 x 1.349 mm	1.044 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)	60

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 deratings.
Temperature: Consult your local MTU Onsite Energy Power Generation distributor for temperature deratings.

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

Materials and specifications subject to change without notice.

Subject to change. | 3238061 | Edition 02/14 | ENC 2014-08.