

DIESEL GENERATOR SET

TYPE ADG102D

99 kVA/Prime/50Hz
(109 kVA/LTP/50Hz)



Optional equipment shown. Standard equipment may vary.

BENEFITS

- // Most compact design
- // Air cooled engine – trouble-free cooling system
- // Lowest maintenance cost
- // High user-friendliness

SYSTEM RATINGS^①

Prime (LTP) ^②	ADG102D	ADG102D	ADG102D
Voltage (L-L)	380V	400V	415V
Phase	3	3	3
PF	0.8	0.8	0.8
Hz	50	50	50
kWe	79.2 (87.2)	79.2 (87.2)	79.2 (87.2)
kVA	99 (109)	99 (109)	99 (109)
AMPS	150	143	138
Generator model	ACG-0102-4-400	ACG-0102-4-400	ACG-0102-4-400
Temp rise	125°C (150°C)	125°C (150°C)	125°C (150°C)
Load acceptance	66%	66%	66%

① Power available up to 25°C/100 m

② Technical data for prime power

CERTIFICATIONS AND STANDARDS

// Engine-generator set is designed and manufactured in facilities certified to standards ISO 9001:2008

// Performance Assurance Certification (PAC)

- Engine-generator set tested to ISO 8528-5 for transient response
- Verified product design, quality and performance integrity
- All generator sets are type and factory tested

// Power rating

- Permissible average power output during 24 hours of operation is approved up to 75% for prime power rating
- Permissible average power output during 24 hours of operation is approved up to 100% for limited time power rating. Operating hours are limited to 500 hours per year.

STANDARD EQUIPMENT^①

// Engine

.....
Air cleaners

.....
Oil pump

.....
Oil drain extension & S/O valve

.....
Full pre-filter with water separator

.....
Full flow oil filters

.....
Exhaust manifold – dry

.....
Blower fan & fan drive

.....
Electric starting motor – 12V

.....
Governor – mechanical

.....
SAE flywheel

.....
Flexible fuel connectors

// Generator

.....
NEMA MG1, IEEE and ANSI standards compliance for temperature rise and motor starting

.....
VDE 0530, IEC 34.1, BS5000, CSA C22.2-100, AS1359

.....
Self-ventilated

.....
Superior voltage waveform

.....
No load to full load regulation

.....
125°C prime temperature rise (insulation class H)

.....
1 bearing, sealed

.....
Full amortisseur windings

.....
125% rotor balancing

.....
3-phase voltage sensing

.....
Automatic voltage regulator $\pm 0,5\%$

^① Represents standard product only. Consult Factory/MTU Onsite Energy distributor for additional configurations.

STANDARD FEATURES^①

- // The generator set complies to G2
- // Engine-generator set tested to ISO 8528-5 for transient response
- // MTU Onsite Energy is a single source supplier
- // Global product support
- // 2 year standard warranty
- // BF6L 914 diesel engine – 4-cycle
- // Engine-generator resilient mounted
- // Self-excited generator
 - Brushless, rotating field generator
 - 300% short circuit capability
 - 2/3 pitch windings
- // Cooling system 50°C
 - Integral set-mounted
 - Engine driven fan

APPLICATION DATA

// Engine

Manufacturer	Deutz
Model ^②	BF6L 914
Type	4-cycle
Arrangement	6/in-line
Displacement	6.47 l
Bore: cm	10.2
Stroke: cm	13.2
Compression ratio	18 : 1
Rated RPM (Speed)	1,500
Engine governor	Mechanical
Gross power: kWm ^②	93.1 kW
Aspiration	Turbo charged

// Lubrication System

Oil capacity (sump) min./max.	16 l
Lube oil consumption (in % of fuel cons.)	0.5
Oil pressure min. (warning): bar	1.5
Oil pressure min. (shut-down): bar	1.5
Max. oil temperature: °C	135

// Fuel System

Recommended fuel	see MTU fluids & lubrication spec.
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// Heat Rejection

	PRIME ^②
Engine radiation and convection: kW	approx. 81
Heat rejection of generator: kW	approx. 8.9

// Fuel Consumption and Fuel Tank Capacity

	PRIME ^②
At 100% load	22.1 l/h (208 g/kWh)
At 75% load	16.4 l/h (205 g/kWh)
At 50% load	11.4 l/h (213 g/kWh)
At 25% load	6.9 l/h (260 g/kWh)
Capacity of base frame fuel tank (open set)	240 l
Capacity of base frame fuel tank (sound proof)	240 l

// Cooling System

	PRIME ^②
Max. ambient temperature: °C	50
Fan power consumption: kW	1.1
Cooling air flow: m ³ /h	3655
Air pressure loss: mbar	10

// Combustion Air

	PRIME ^②
Combustion air volume: m ³ /h	374
Max. air intake restriction: mbar	20
Air cleaner type	Dry, replaceable element with safety cartridge

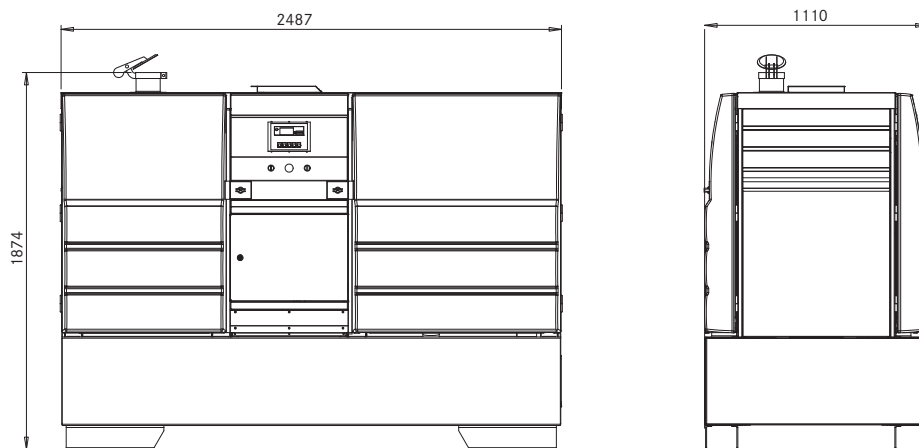
// Exhaust System

	PRIME ^②
Max. exhaust gas temperature: °C	610
Max. exhaust back pressure: mbar	30
Exhaust gas flow: m ³ /h	1058

① Represents standard product only. Consult Factory/MTU Onsite Energy distributor for additional configurations.

② Technical data for prime power

WEIGHTS AND DIMENSIONS



Drawing above for illustration purposes only, based on standard sound proof 400 volt engine-generator set. Do not use for installation design. See website for unit specific template drawings.

System

Sound Proof Unit (SPU)

Dimensions (L x W x H)

2487 x 1110 x 1874 mm

Weight (dry/less tank)

approx. 1662 kg

NOISE EMISSION (SOUND PROOF)

Sound power L_{WA} : dB(A)	95
Sound power $L_{PA@1m}$: dB(A)	77
Sound power $L_{PA@7m}$: dB(A)	66

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.
- // Limited time power ratings apply to installations served by a reliable utility source. The standby rating is applicable to constant or 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.
- // Deration factor:
 - Altitude: Consult your local MTU Onsite Energy distributor for altitude derations.
 - Temperature: Consult your local MTU Onsite Energy distributor for temperature derations.

Materials and specifications subject to change without notice.