



JADE Power Trading
Quality Energy Equipment

PRODUCT
BROCHURE
REF.
9872024

CHP POWER PLANT - 800 kWe MWM 2 × TCG 2016 V08 C

2 × 400 kWe | 400 V | 50 Hz | Commissioned 2011



800 kWe
ELECTRICAL CAPACITY

2 × 395 kWth
THERMAL OUTPUT

90°C
HOT WATER
TEMPERATURE

19,442 / 11,638
h
OPERATING HOURS

NATURAL GAS / BIOGAS • HOT WATER CHP • LOW OPERATING HOURS

EQUIPMENT OVERVIEW

Low-hour CHP plant for natural gas or biogas with hot-water recovery and landfill-gas treatment.

CONTAINERIZED MWM BIOGAS CHP PLANT

This combined heat and power plant was originally delivered by MWM in 2011 and provides 800 kWe at 400 V / 50 Hz using two MWM TCG 2016 V08 C gas-engine generating sets. The plant is designed to run on natural gas or biogas and remained in operation until 2021.

Thermal energy is recovered as hot water at 90°C for district-heating service. The facility includes a complete gas treatment and mixing system for landfill gas with approximately 40–55% methane content. Because of limited biogas availability, the plant typically operated at only 30–40% load rather than in continuous 24/7 duty.

The two generating sets are installed in separate soundproof containers. The TEAM Evo MWM power plant control system, electrical switchgear and control cabinets are located in a separate control room, while the heat recovery system is installed adjacent to the genset containers. Each unit also has its own radiator cooling system for engine cooling in periods with no heat demand.

Picture 2



Picture 3



TECHNICAL SPECIFICATIONS

Technical data provided for preliminary sales and project evaluation.

PARAMETER	SPECIFICATION
Manufacturer	MWM GmbH, Germany
Plant configuration	2 × MWM TCG 2016 V08 C gas gensets
Commissioned	2011
Electrical output	2 × 400 kWe / 400 V / 50 Hz
Thermal output	2 × 395 kWth at 90°C
Fuel	Natural gas or biogas
Fuel-gas quality	Landfill gas treatment for approx. 40–55% CH ₄
Calorific value of fuel gas	16.5 MJ/Nm ³
Electrical efficiency	42.8% at generator poles
Thermal efficiency	Noted as part of CHP hot-water recovery
NOx emission rating	Max 500 mg/Nm ³
Noise level	65 dB(A) at 10 metres
GEN-1 operating hours / service	19,442 h; E50 service in 2015
GEN-2 operating hours / service	11,638 h; E50 service in 2016
Alternators	2 × Marelli MJB 355 MB4, cos φ 1.0
Control system	TEAM Evo MWM
Control PLC	MWM DSL
Plant arrangement	Two soundproof genset containers + separate control room
Operational status	Installed, stopped in 2021; reported in good condition

Performance note: Final electrical and thermal performance depends on gas quality, heat-demand profile, water-side integration, emissions requirements, destination-site design and agreed commissioning procedures.

SCOPE OF SUPPLY & CONTACT

The following scope is based on the currently available sales information and remains subject to final confirmation.

INCLUDED EQUIPMENT

- ✓ 2 × MWM TCG 2016 V08 C gas engines, V8, 1,500 rpm
- ✓ 2 × Marelli MJB 355 MB4 generators, 400 V / 50 Hz, 400 kWe each
- ✓ Gas train, gas mixer and landfill-gas treatment / mixing system
- ✓ Voltage stabiliser, power factor controller, control unit and switchboard
- ✓ Exhaust silencers and exhaust-gas heat exchangers
- ✓ Engine cooling systems with plate heat exchangers, pumps and radiator air-water coolers
- ✓ Control cabinets, MMC cabinets and power switches
- ✓ Separate control room and adjacent heat-recovery equipment within the offered plant scope

DELIVERY & INSPECTION

- Plant remained in operation until 2021 and is reported in good condition
- Detailed inspection and technical review available by arrangement
- Gas quality, exact battery limits and final auxiliary list subject to verification
- Dismantling, transport, reinstallation and recommissioning may be arranged separately
- Existing video material available for preliminary review
- Final commercial and delivery terms subject to contract

SITE INTEGRATION & CHP USE

The receiving site must verify gas quality and treatment requirements, biogas availability, exhaust routing, cooling and hot-water integration, emissions compliance, electrical interconnection, noise requirements, and the operating strategy for fluctuating heat demand. Final installation, controls integration and commissioning philosophy should be engineered for the destination site prior to delivery.

REQUEST FURTHER INFORMATION

Commercial quotation, additional photographs, detailed scope clarification, technical documentation, inspection arrangements and the listed video link are available on request.

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SCAN FOR ONLINE LISTING

All information is provided in good faith for preliminary evaluation and is subject to verification, final scope confirmation and contract.