

MWM DIGITAL POWER

TCG 3020

The all-round talent.



Reduced operating costs
Due to high efficiency, low oil consumption and low service costs



Increased performance
More power with higher efficiency



High Reliability
Providing up to 80,000 oh until major overhaul due to improved reliability



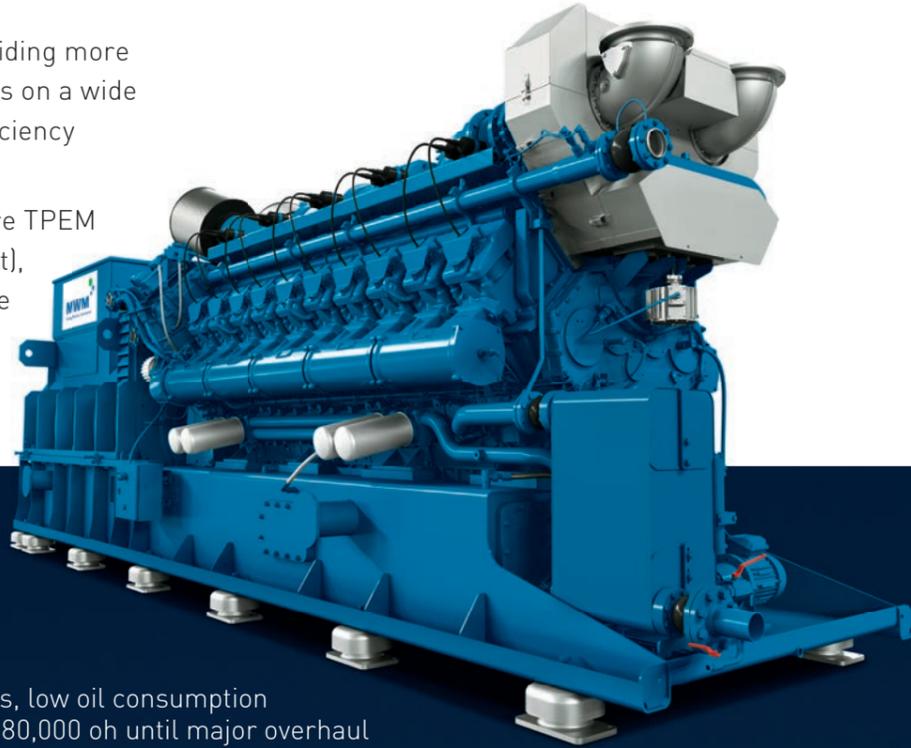
Tailor-made for your application
Optimized variants for all kind of gases and boundary conditions

Flexible in application. Consistent in efficiency.

The all-round talent.

State-of-the-art components providing more power: the compact design, a focus on a wide range of applications and high efficiency values make sure of that.

Controlled by the smart and secure TPEM (Total Plant & Energy Management), the new TCG 3020 series offers the optimal balance between profitability and reliability.



High Profitability

- High efficiency values, low oil consumption 0.15g/kWh and up to 80,000 oh until major overhaul providing results in high profitability for the customer



High Reliability

- Reliable and proven core engine upgraded with state of the art technologies
- Extended maintenance intervals



High Efficiency

- Increased electrical efficiency – up to 45% (NG) and up to 43.6% (BG)
- Increased electrical output up to 2,300 kW_{et}
- Optimal balance between efficiency and reliability



Varieties of Gases and Applications

- Available for different applications like natural gas, biogas, landfill and propane gas operation
- Optimized variants for high efficiency, flexibility and biogas



New Engine and Plant Control System TPEM

- Hardware and Software for the engine and a holistic plant control
- Enables full power capability of the genset with maximum reliability, availability, performance and usability



High Power Density

- Compact design: The TCG 3020 Series delivers up to 15% more power output at the same size as its predecessor

Technical data

Natural gas applications (NO _x <= 500mg/Nm ³) – Power Data 50 Hz		
Engine Type	TCG 3020 V20 ¹	TCG 3020 V20 ²
Configuration	P = High Efficiency	R = High Response
Electrical Power	2,300 kW _{et}	2,300 kW _{et}
Electrical Efficiency**	45.0%	44.0%
Thermal Efficiency***	42.3%	43.6%
Major Overhaul	Up to 80,000 oh	Up to 80,000 oh
Lube Oil Consumption	0.15 g/kWh	0.15 g/kWh
Overall efficiency	87.3%	87.6%

Bio-, landfill- and sewage gas applications (NO _x <= 500mg/Nm ³) – Power Data 50 Hz	
Engine Type	TCG 3020 V20 ³
Configuration	X = Biogas
Electrical Power	2,300 kW _{et}
Electrical Efficiency**	43.6%
Thermal Efficiency***	42.9%
Major Overhaul	Up to 64,000 oh
Lube Oil Consumption	0.15 g/kWh
Overall efficiency	86.5%

¹5% O₂ and dry exhaust gases ^{**}According to ISO 8528 ^{***}Thermal output ±8%

¹Optimized for high electrical efficiency ²Optimized for high total efficiency ³Optimized for operation with all biogases

The values given in this data sheet are for information only and are not binding. The information given in the offer is authoritative.

One genset, various applications

Combined Heat and Power (CHP)



Utilities
District heating
Industrial
Hospitals
Airports
Greenhouses

Electrical Power



Energy services
Independent power producers
Utilities
Industrial

Biogas



Agriculture
Food industry
Sewage
Landfill

TPEM. The door to the digital age.

With its comprehensive digital power plant control TPEM (Total Plant & Energy Management), MWM redefines the control standard for energy solutions.

TPEM eliminates the need for additional control systems, as all power plant data for the genset and plant control are combined in one system. The optimum power plant control enables high economic efficiency, provided from a single source.

Set up

- ✓ Custom-tailored technical solutions
- ✓ One integrated, flexible control system for all electric power applications
- ✓ Multiple functionalities for individual solutions

Optimize

- ✓ Data management and analysis delivers information for optimizing the system
- ✓ Life cycle history enables the logging of and access to data throughout the life cycle of the genset and the peripherals

Operate

- ✓ High efficiency through optimal control
- ✓ Enables remote management and monitoring
- ✓ Use the full genset potential with maximum reliability



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