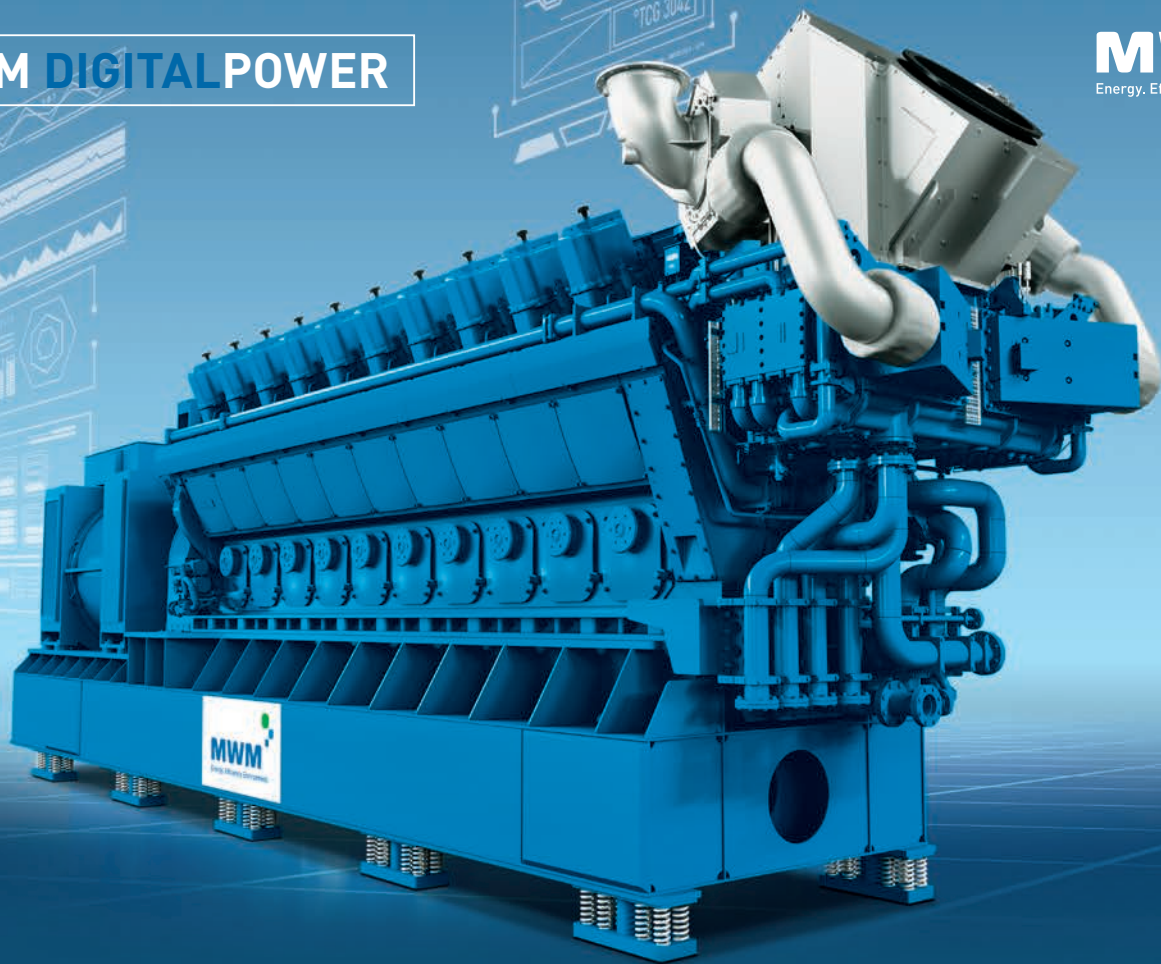
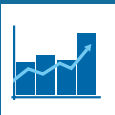




TCG 3042

V20

**Big on performance,
small on space.**



Maximum efficiency

The new TCG 3042 boasts the highest output in the MWM product range with maximum electrical efficiency.



Greatly reduced operating costs
through easy maintenance and long maintenance intervals.



Optimum space utilization

Fewer components through modular design and integral structure ensure fast setup and minimal footprint.



High flexibility

Switchable between summer and winter mode for cogeneration power plant applications.

TCG 3042. Strong & efficient.

■ Maximum efficiency

- ✓ Output range from 9,830 kW_{el} to 10,300 kW_{el}
- ✓ Best total efficiency of 93 percent
- ✓ Best electrical efficiency of 48 percent

■ Future-proof through high flexibility

- ✓ Suitable for all natural gas applications in 50 Hz and 60 Hz networks
- ✓ Available for high altitude installations, high intake air temperatures, and various fuel gas types with different methane numbers
- ✓ Can be optimized for combined heat and power (CHP) generation or for power generation only (depending on the application scenario)
- ✓ Switchable between summer and winter mode for cogeneration power plant applications
- ✓ Two differently designed coolant circuits can be combined with three different thermodynamic engine layouts

■ Easy installation in small spaces

- ✓ Reduced complexity of standard modular design allows an easy and quick installation
- ✓ Modest need for space between multiple engine installations

■ Easy maintenance, low operating costs

- ✓ High reliability, modular design, and integral structure reduce the number of components and facilitate the maintenance
- ✓ Long maintenance intervals
- ✓ One-piece, dry cylinder crankcase with integrated charge air duct and oil line

■ Reliability and availability

- ✓ Reliable, proven, highly efficient single-stage turbocharging system
- ✓ Smart simplicity ensures a robust engine platform
- ✓ Optimized maintenance plans ensure high availability and durability

■ Optimized for isolated operation and non-ISO conditions

- ✓ Excellent transient response, six load steps up to full rated power
- ✓ Fast and reliable supply in the event of grid failures or in island mode
- ✓ The modular structure optimizes the engine for operation with low methane number, setup at high altitudes, or high outside temperatures

Performance data

Natural gas applications, NO_x ≤ 500 mg/Nm³¹⁾

Engine type	TCG 3042 V20	50 Hz	60 Hz
Electrical output	kW	10,300	9,830
Mean effective pressure	bar	22.0	21.9
Thermal output ±8 %	kW	9,711	9,255
Electrical efficiency ²⁾	%	48.0	48.0
Thermal efficiency	%	45.0	45.0
Total efficiency	%	93.0	93.0
CHP coefficient ³⁾		1.06	1.06

Specifications

Dimensions and weights

Engine type	TCG 3042 V20	50 Hz	60 Hz
Length	mm	14,280	14,280
Width	mm	3,910	3,910
Height	mm	5,101	5,101
Dry weight genset	kg	164,000	164,000
Bore/stroke	mm	340/420	340/420

1) With 5% O₂ and dry exhaust gas
2) El. efficiency according to ISO 3046/1 incl. 5% O₂

3) The CHP coefficient is calculated by dividing the electrical efficiency by the thermal efficiency. Please remember that

this is a theoretical value that may diverge from actually measures values.