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Version 01-12/EN



TCG 2020 V12 K1

Highly flexible, efficient and profitable

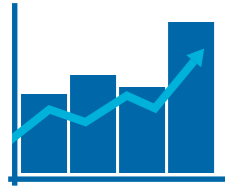
- PROFIT
- SERVICE
- RELIABILITY
- PERFORMANCE

We assume responsibility:
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High efficiency at low investment costs

More Profit



The TCG 2020 V12 K1 is optimized for natural gas applications with a methane number down to 70. With its adapted alternator, j-gap spark plugs and crankcase breathing the generator set provides high efficiency on low operational costs.

Flexible usage



Fast start up and shut down of the power plant is possible due to only 7 loadsteps. Reliable power supply wether in island mode, parallel to the grid or for blackstart properties is ensured.

Wide range of applications



Due to the advanced turbocharger technology the TCG 2020 V12 K1 can provide full output between 25°C and 40°C ambient air temperature and also on altitudes from 0m to 1500m.

Optimum control concept

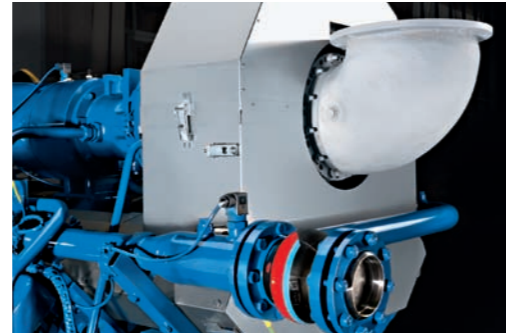


TEM (Total Electronic Management) controls not just the engine but the intire system including the heat supply from cogeneration. Temperature monitoring for each cylinder and anti-knock control ensure the best possible utilization of fuel and maximum power output.

Customer oriented maintenance



Project specific on-demand maintenance ensures low operational costs and high availability of the generator sets. The power plant only has to be shut down twice a year (4000h) for scheduled maintenance.



Technical data 50 Hz

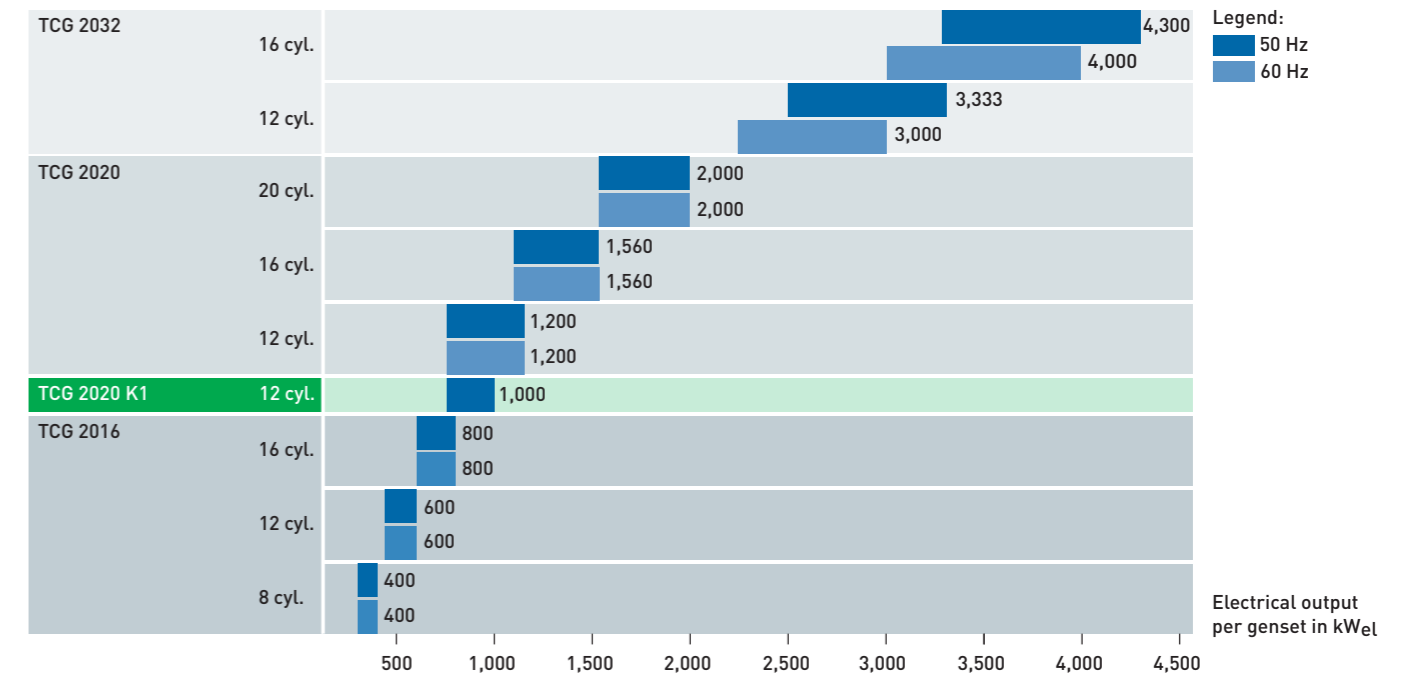
Natural gas applications

$NO_x \leq 500 \text{ mg/m}_n^3$ dry exhaust manifolds

Engine Type	TCG 2020 V12 K1	
Bore/stroke	mm	170/195
Displacement	dm ³	53,1
Speed	min ⁻¹	1500
Mean piston speed	m/s	9,8
Length	mm	4636
Width	mm	1802
Height	mm	2210
Dry weight genset	kg	10200

Engine Type	TCG 2020 V12 K1	
Electrical power ¹⁾	kW	1000
Mean effective pressure	bar	15,5
Thermal output ²⁾	±8% kW	1191
Electrical efficiency	%	40,0
Thermal efficiency	%	47,6
Total efficiency	%	87,6

Product Range: Gas



With our gensets we can cover a power range from 300 kW_{el} to more than 100 MW_{el} for decentralized power production.

The improved new generator set K1 for the 1 MW class has an electrical output of 1.000 kW_{el} and an electrical efficiency of 40,0%.

1) Electrical Output as define DIN ISO 3046; cosphi = 1.0, generator voltage of U = 0,4 kV at 50 Hz and a minimum methane number of MN70 for natural gas.

2) Exhaust gas cooled to 120°C with natural gas. Data for special gas and dual gas operation on request.

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