

Two-Stage Turbocharged

# KG-18-T

## GREEN Gas Engine



### Get Reliable Eco-friendly Energy Now

Kawasaki is introducing a two-stage turbocharged gas engine on its gas engine line up, named KG-18-T. Based on Kawasaki's well proven design technology, this engine is said to be the most efficient 7 to 8 MW class gas engine with high reliability and availability. The KG-18-T is sure to provide with good solution upon requirement for power/energy supply.



### Specification of "KG-18-T"

- Based on the well-proven engine KG-18 with its accumulated quality & reliability.
- The world's highest level of electrical efficiency : 51%
- Kawasaki free-governor mode for quick response to grid fluctuation.

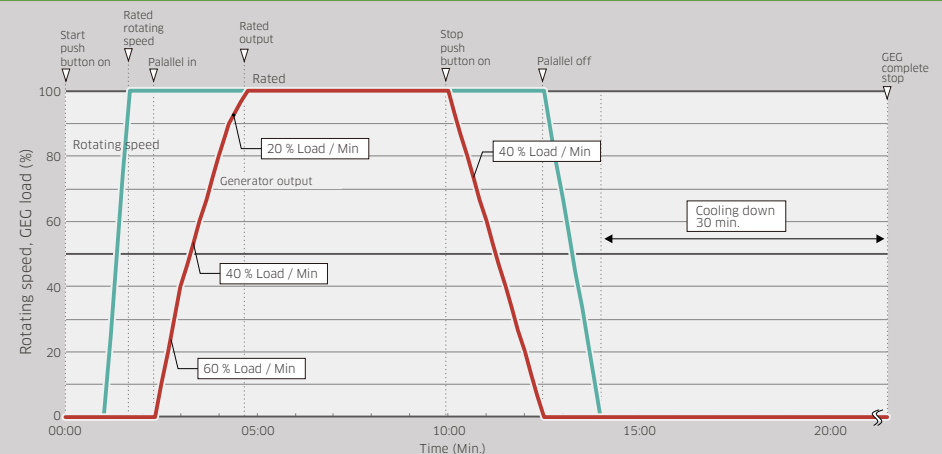
Model	KG-18-T		
Cylinder bore × stroke (mm)	300 × 480	Electrical efficiency (%)	51
Output (kW)	50 Hz / 750 rpm	7,800	NO <sub>x</sub> (ppm) [O <sub>2</sub> = 0 %]
	60 Hz / 720 rpm	7,500	250 or less (at O <sub>2</sub> = 0 %)
LHV gross heat rate (kJ//kWh)	7,129	Operating range	30~100 % load
LHV gross heat rate (Btu//kWh)	6,757	Turbocharger type	Two-stage
		Turbocharger control system	By-pass valve type
Remarks	<ol style="list-style-type: none"> <li>1. Standard gas in Japan (40.6 MJ / Nm<sup>3</sup>, Methane Number = 69) basis data.</li> <li>2. ISO condition, PF=1.0 and lube oil is SHC pegasus SAE 30.</li> <li>3. 5% tolerance for heat rate.</li> <li>4. Site performance and emission data for each project shall be calculated based on the project specification. Please contact to the nearest Kawasaki.</li> </ol>		

### Fast start up mode

### Fast start-up

- In 5 minutes to 100% full load from start command.
- In 4 minutes to engine stop from engine stop command.

### KG-18-T start and stop curves (Same as hot, warm and cold start)



## GREEN Gas Engine series

Model		KG-12	KG-18	KG-18-V	KG-18-T
Cylinder bore × stroke (mm)		300 × 480			
Output (kW)	50 Hz / 750 rpm	5,200	7,800	7,800	7,800
	60 Hz / 720 rpm	5,000	7,500	7,500	7,500
LHV gross heat rate (kJ//kWh)		7,347		7,273	7,129
LHV gross heat rate (Btu//kWh)		6,965		6,893	6,757
Electrical efficiency (%)		49		49.5	51
NO <sub>x</sub> (ppm) [O <sub>2</sub> = 0 %]		200 or less (at O <sub>2</sub> = 0 %) 【 57 or less (at O <sub>2</sub> = 15 %) equivalent 】			250 or less (at O <sub>2</sub> = 0 %)
Operating range		30~100 % load			
Turbocharger type		Single stage			Two stage
Turbocharger control system		By-pass valve type		Variable nozzle type	By-pass valve type
Remarks	1. Standard gas in Japan (40.6 MJ / Nm <sup>3</sup> , Methane Number = 69) basis data. 2. ISO condition, PF=1.0 and lube oil is SHC pegasus SAE 30. 3. 5% tolerance for heat rate. 4. Site performance and emission data for each project shall be calculated based on the project specification. Please contact to the nearest Kawasaki.				

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