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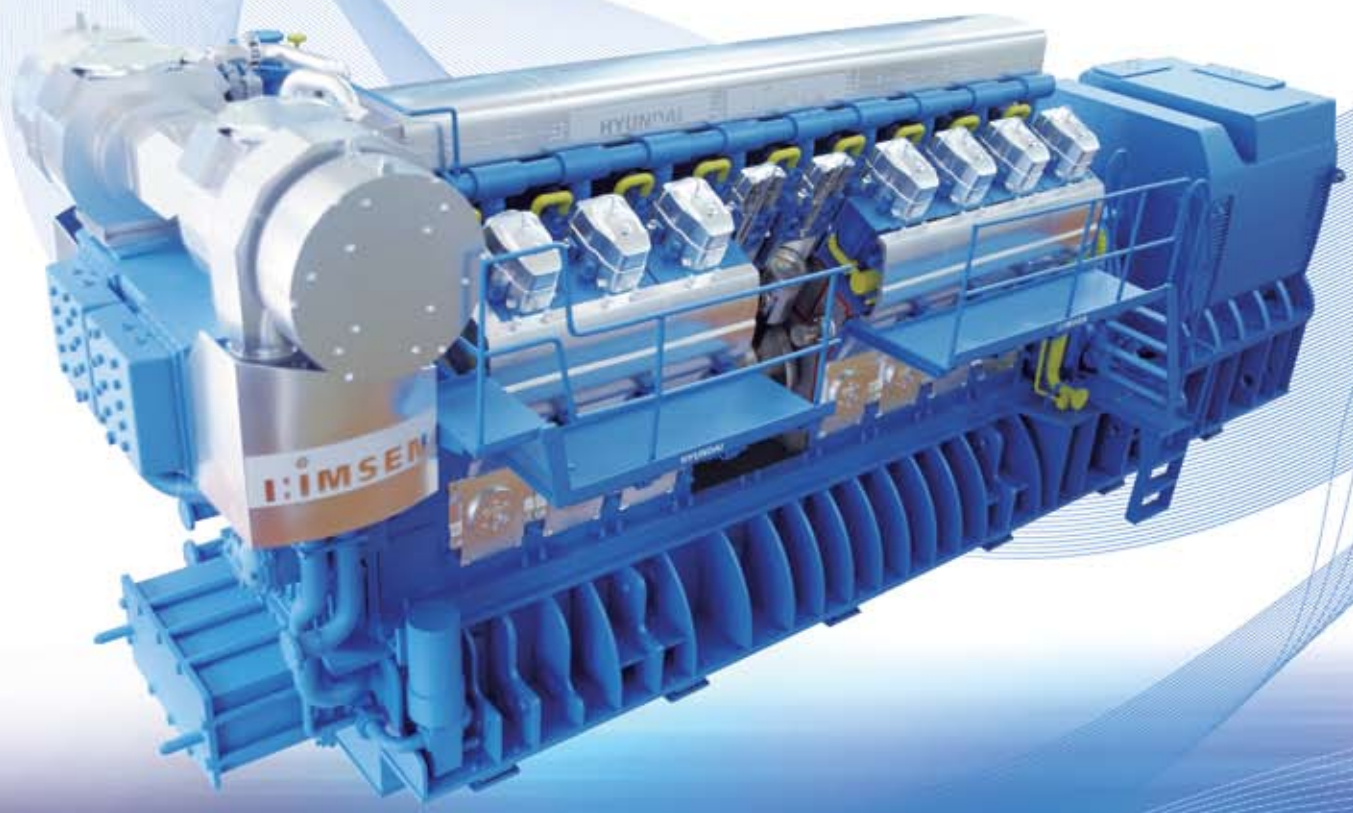
HiMSEN Gas Engine
H35/40G

For Stationary GenSets



HYUNDAI HEAVY INDUSTRIES CO.,LTD. | ENGINE & MACHINERY

Earth Friendly Engine

H35/40G HiMSEN Family...

Design Philosophy

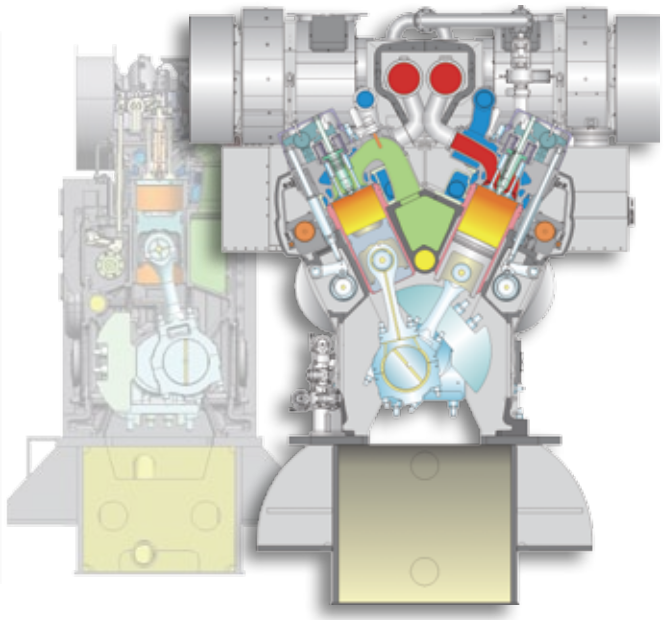
H35/40G of HiMSEN Family has simple and smart design which is suitable for power generation application with gas fuel with high reliability and performance. The key features are:

Economical and Ecological Engine with higher efficiency and lower emission, etc., which is based on the following specific designs;

- Optimized turbocharging with enhanced Miller Cycle.
- Lowest NOx emission with optimized combustion control.

Reliable and Practical Engine

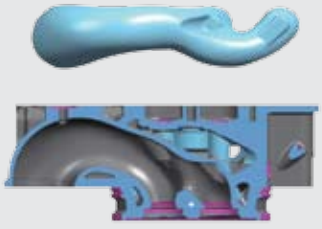
- Number of engine components are minimized for customer preference.
- Most of the components are directly accessible for easier maintenance.



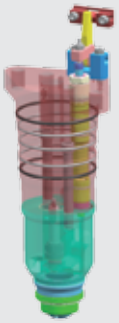
No. of Cylinder In-line type	**6, 7, 8, 9**
No. of Cylinder V-type	**12, 14, 16, 18, 20**
Rated Speed	**720 / 750 rpm**
Power per Cylinder	**480 kW**
Cylinder Bore	**350 mm**
Piston Stroke	**400 mm**
Mean Piston Speed	**9.6 / 10.0 m/s**
Mean Effective Pressure	**20.8 / 20.0 bar**
Compression Ratio	**12.5:1**

Major Advantages: Smart Electronic Engine Control System with Excellent Reliability

Cylinder Head
- Optimized port design
- High mixture flow



Prechamber



Lambda Control
- Quick response for operation
- Efficiency, NOx control

■ Rated Power of Gen-Set at 100% load

Engine Type	Rated Output (kW)			
	720 rpm / 60 Hz		750 rpm / 50 Hz	
	Engine	Generator	Engine	Generator
6H35/40G	2,880	2,779	2,880	2,779
7H35/40G	3,360	3,242	3,360	3,242
8H35/40G	3,840	3,706	3,840	3,706
9H35/40G	4,320	4,169	4,320	4,169
12H35/40GV	5,760	5,587	5,760	5,587
14H35/40GV	6,720	6,518	6,720	6,518
16H35/40GV	7,680	7,450	7,680	7,450
18H35/40GV	8,640	8,381	8,640	8,381
20H35/40GV	9,600	9,312	9,600	9,312

Remarks

- The alternator outputs are calculated for an efficiency of 96.5% ~ 97%.

■ Heat Rate & Electrical Efficiency

	720 rpm / 60 Hz	750 rpm / 50 Hz
Heat rate	7,574 kJ/kWhe	
Electrical Efficiency	47,5 %	

Remarks

1) ISO 3046/1 reference conditions & optimized to NOx 500 mg/Nm^3 @5% O_2 at the reference condition.
2) Heat rate & electrical efficiency at generator terminals, without engine driven pumps and with +5% tolerance.
3) Fuel gas L.H.V. ≧ 35 MJ/Nm^3 with M.N. ≧ 80.
4) Warranted at 100% load only.

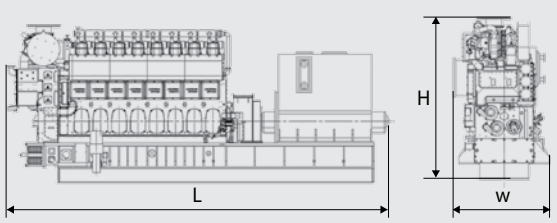
■ Specific Lubricating Oil Consumption: 0.4 g/kWh (Tolerance: +25% depending on the operating conditions and 100% load)

■ Dimensions & Weights

Engine Type	Dimension (mm)			Dry Weight (ton)	
	L	W	H	Engine	Gen-Set
6H35/40G	9,900	2,621	3,759	33.7	65.2
7H35/40G	10,390	2,621	3,882	38.6	72.6
8H35/40G	11,175	2,621	4,132	41.5	78.6
9H35/40G	11,765	2,621	4,132	44.6	82.7
12H35/40GV	10,925	2,650	4,725	56.0	108.8
14H35/40GV	11,695	2,650	4,725	63.3	121.3
16H35/40GV	11,935	2,650	4,725	69.1	130.9
18H35/40GV	13,225	2,650	4,725	76.3	141.2
20H35/40GV	13,785	2,650	4,995	84.0	153.9

Note) All dimensions and weight are approximate values and subject to change without prior notice.

■ L - Type



■ V - Type