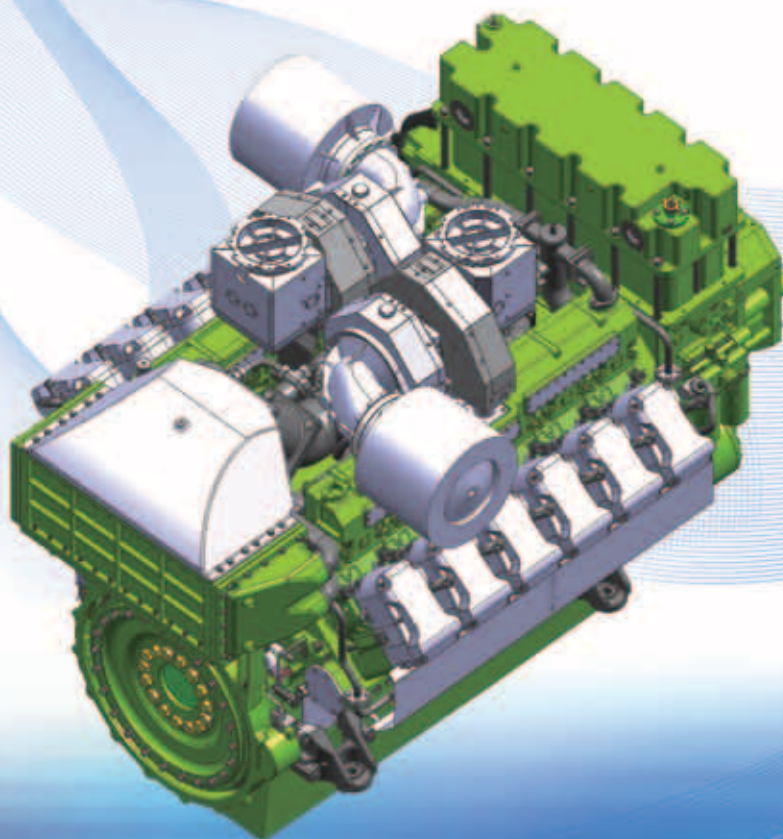




# HiMSEN Engine

Hi-touch Marine & Stationary ENgine

## H17/21V





# Earth Friendly Engine

## 17/21V HiMSEN Family.....

**Korea's first high speed engine, H17/21V** is a different design concept to the existing HiMSEN engine, with 1,800 rpm (1,500 rpm), a high output of 160 kW (140 kW) per cylinder, and a compact structure. The weight ratio per kilowatt of the **H17/21V** engine will average about one third less than the current 4-stroke diesel engine. It can be used for marine propulsion, high speed vessels, emergency generator sets and diesel power plants. It is a state-of-the-art diesel engine available up to a maximum output of 3,200 kW and also satisfies IMO Tier II regulations for emissions, and the lower SFOC. The new **H17/21V** was developed based on the advanced HiMSEN engine concept and Hi-Touch technology. It also features

- Structure strength minimizing heat load, noise and vibration
- Operating system based on dynamic analysis for high precision
- Highly efficient turbocharging for the best performance
- Advanced Miller timing
- Crown shape and selection of nozzle specification for excellent combustion performance
- Efficient lubrication and cooling system

HiMSEN **H17/21V** high speed engine marks the birth of a new era in earth-friendly engines, boasting a compact structure and simple exterior sure to influence the industry.

## Main Features

### Performance characteristics

- High Output in the similar range engines
- Low Fuel Oil Consumption
- Quick acceleration & load response

### Maintenance

- Easier maintenance by modularized design
- Minimal the number and kind of components

### Earth-friendly engine

- Low NOx emissions
- Complies with IMO Tier II
- Low Vibration & Noise

## Major Application

### Marine

- Propulsion System
- Generating Sets

### Stationary

- Power Plant
- Packaged Power Station
- Pre-fabricated Power Plant
- Emergency Generating Sets



### ■ Engine Output

Unit: kW

Engine Type	1,500 rpm/50 Hz		1,800 rpm/60 Hz	
	Engine	Generator	Engine	Generator
12H17/21V	1,680	1,613	1,920	1,843
16H17/21V	2,240	2,150	2,560	2,458
18H17/21V	2,520	2,419	2,880	2,765
20H17/21V	2,800	2,688	3,200	3,072

### Remark

The alternator outputs are calculated for an efficiency of 95.5% and a power factor of 0.8 lagging.

### ■ Specific Lubricating Oil Consumption: 0.7 g/kWh

(Tolerance: +25% depending on the operating conditions)

### ■ Dimensions & Weights

	Cyl.	Dimension (mm)				Dry Weight (ton) <sup>2)</sup>	
		A	B <sup>1)</sup>	C <sup>1)</sup>	H <sup>5)</sup>	Engine <sup>3)</sup>	Gen-Set <sup>1), 4)</sup>
1,500 rpm	12	2,200	2,050	4,250	2,100	6.7	13.2
	16	2,600	2,050	4,650	2,100	8.0	15.2
	18	2,800	2,680	5,480	2,100	8.9	16.8
	20	3,100	2,680	5,780	2,100	9.8	18.0
1,800 rpm	12	2,200	2,050	4,250	2,100	6.7	13.2
	16	2,600	2,050	4,650	2,100	8.0	15.2
	18	2,800	2,680	5,480	2,100	8.9	16.8
	20	3,100	2,680	5,780	2,100	9.8	18.0

### Remark

1) : Depending on alternator

2) : Weight included a standard alternator (Maker : HHI-EES)

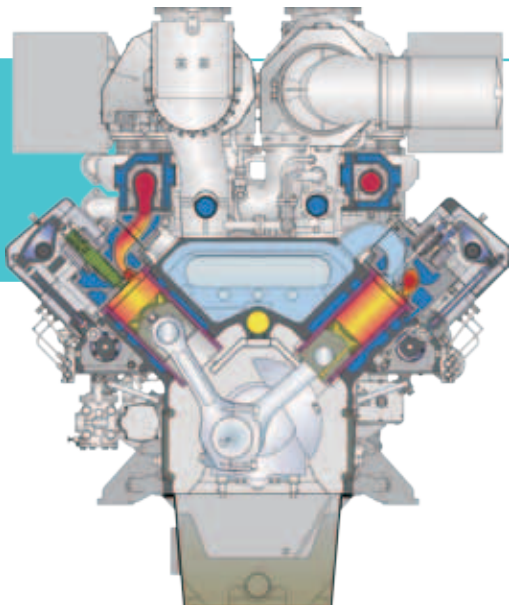
3) : Without common base frame

4) : With common bed & Generator

5) : Confirmation form HHI to be needed when applying

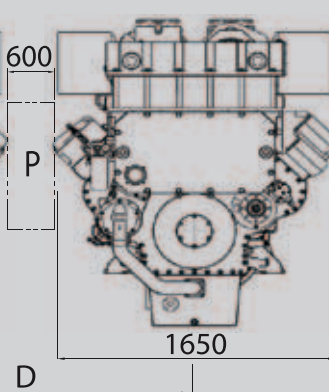
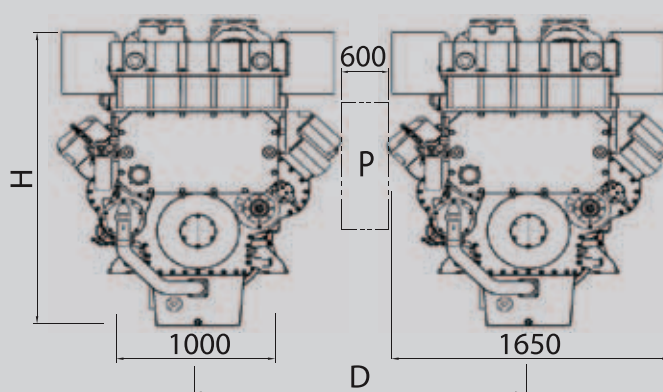
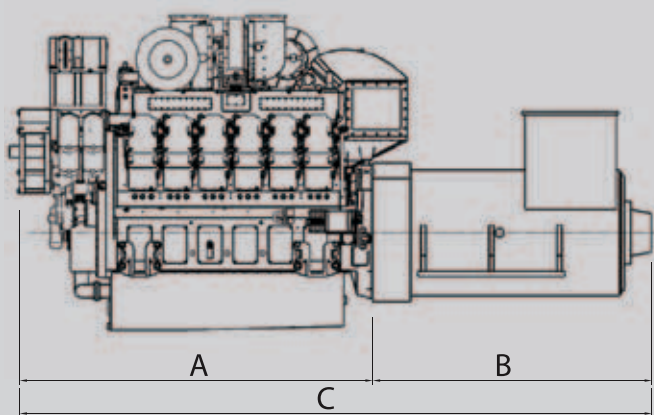
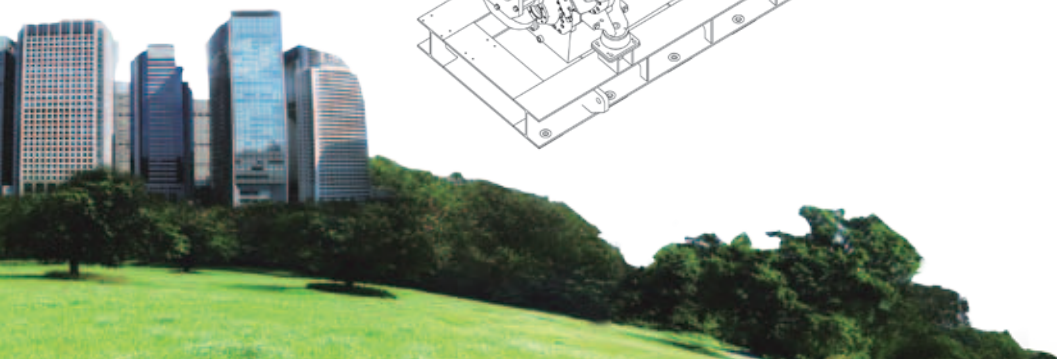
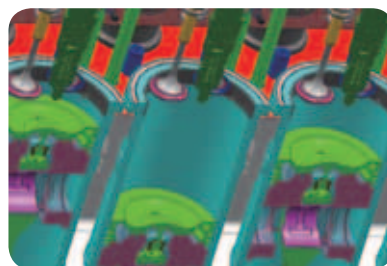
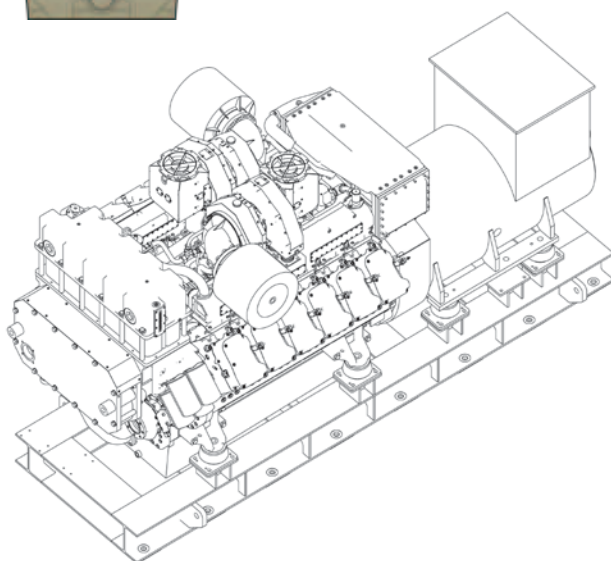
Note) All dimensions and weight are approximate value and subject to change without prior notice





## ■ Technical Data

Specification	Unit	H17/21V	
Bore / Stroke	mm	170 / 210	
Swept Volume	liter/cyl.	4.77	
Bank Angle	°	90	
Engine Speed	rpm	1,500	1,800
Frequency	Hz	50	60
Output	kW/cyl.	140	160
Piston Speed	m/s	10.5	12.6
Mean Effective Pressure (BMEP)	bar	23.5	22.4
Power density	b.m/s	247	282
Max. Firing Pressure (P. max)	bar	180	







[www.hhi.co.kr](http://www.hhi.co.kr)  
[www.hyundai-engine.com](http://www.hyundai-engine.com)



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