

PACKAGED POWER STATION



HYUNDAI
HEAVY INDUSTRIES CO., LTD.

ENGINE & MACHINERY

PACKAGED POWER STATION



REGLA 47.6MW
Packaged Power Station in Cuba
(HYUNDAI-HIMSEN 9H21/32 x 28 Sets)



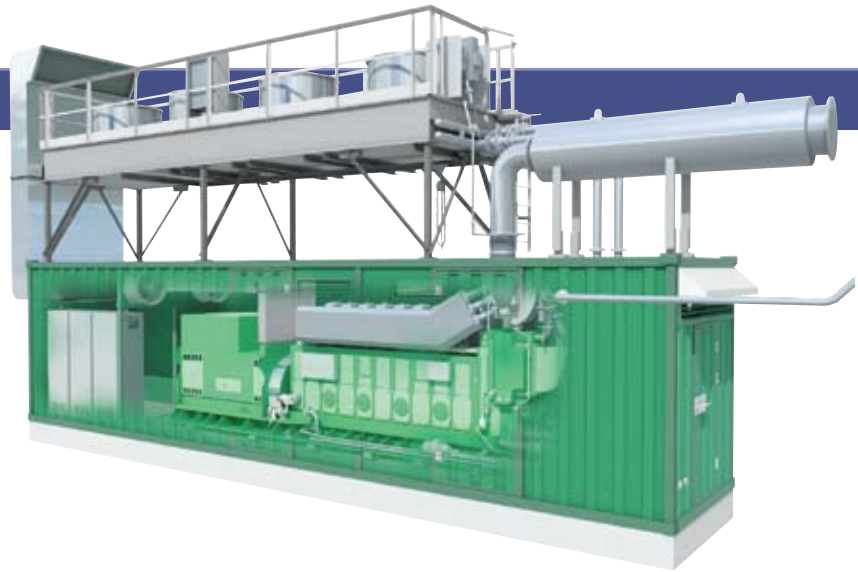
The Engine & Machinery Division of Hyundai Heavy Industries Co., Ltd. is one of the leading diesel engine manufacturers in the world. Hyundai takes great pride in being rated annually as the world's top diesel engine manufacturer since 1978.

Since it first successfully completed a 20 MW class diesel power plant in Jeju island, Korea, Hyundai has expanded its activities and filled a key role in the global power market through completing diesel power plants of high quality around the world as an EPC contractor.

Utilizing its vast experience acquired in constructing stationary power plants, Hyundai has developed a new generation of power system, there being high demand for newer technology with the conventional power system technology insufficient to meet current power clients' needs.

Hyundai has developed a new engine and an efficiently packaged power generating system using it of high functionality. Innovation is a hallmark of the world's top engine manufacturer, an expert in the design and construction of power plants.

The Packaged Power Station, a result of Hyundai's creative and technological progress, will bring contentment to previously unsatisfied power customers.



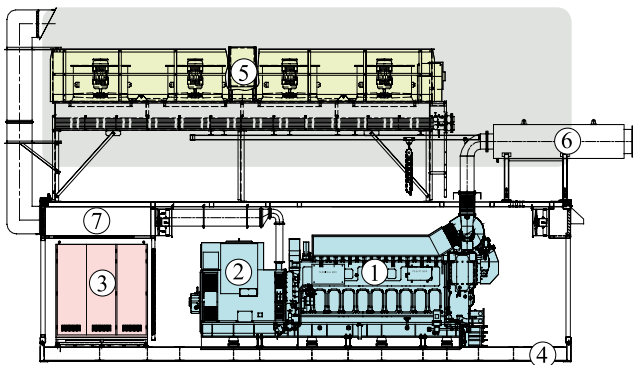
Features

- Base load operation
- Diesel oil / Heavy fuel oil / Natural gas use
- Compact 40 ft container size
- Easy transportation
- Earth-friendly
- Low cost of operating and maintenance

Application

- Captive power
- Construction site
- Isolated area
- Rental business
- Pumping station
- Independent power produce

STRUCTURE



- | | |
|-----------------|-------------------------------|
| ① Engine | ⑤ Radiator |
| ② Generator | ⑥ Exhaust gas silencer |
| ③ Control panel | ⑦ Ventilation air exhaust fan |
| ④ Enclosure | |

GENERAL SPECIFICATION

Engine Model	6H17/28	8H17/28	6H21/32	8H21/32	9H21/32
Engine (kW)	690 / 720	920 / 960	1,200	1,600	1,800
Generator (kW)	645 / 673	865 / 902	1,140	1,520	1,710
Total Weight (ton)	24	30	42	48	50
Dimension (WxHxL)	2.4m×3.4m×12m (Container Size)				
Cooling Method	Radiator / Cooling Tower				
Speed (rpm)	900 / 1,000				
Fuel	Diesel Oil / Heavy Fuel Oil				

Engine Model	5H17/24G	6H17/24G	7H17/24G	8H17/24G	9H17/24G
Engine (kW)	455 / 550	546 / 660	637 / 770	728 / 880	819 / 990
Generator (kW)	428 / 817	513 / 620	599 / 723	684 / 827	770 / 930
Total Weight (ton)	22	24	25	26	28
Dimension (WxHxL)	2.4m×2.9m×12m (Container Size)				
Cooling Method	Radiator / Cooling Tower				
Speed (rpm)	1,000 / 1,200				
Fuel	Natural Gas				

※ The MCR will be based on ISO condition.

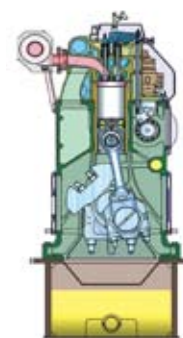


ENGINE LAYOUT

Engine Particulars

Spec.	Unit	H17/24G		H17/28		H21/32	
Bore	mm	170		170		210	
Stroke	mm	240		280		320	
Engine Speed	rpm	1,000	1,200	900	1,000	900	1,000
Output / Cyl.	kW	91	110	115	120	200	200
Piston Speed	m/s	8	9.6	8.4	9.3	9.6	10.7
BMEP	bar	20.2		24.1	22.7	24.1	21.7
SFC*	g/kWh	178		189		183	185
L.C.V	kJ/kg	49,138		42,700			

- * 1) L.C.V : Lower calorific value of fuel
 2) Without engine driven pumps
 3) Tolerance + 5%
 4) At 100% load



H21/32



SYSTEM COMPARISON

Description	Hyundai System	Conventional
Engine Speed	900~1,000rpm	1,500~1,800rpm
Major Usage	Base Load Continuous Operation	Emergency Operation Peak-Cut
Fuel Use	Heavy Fuel Oil #6, Diesel Oil #2	Diesel Oil #2
Availability	More than 88%	Less than 50%
Maintenance	Simple & Easy Done at Site	Complicated Need to be move to shop
Fuel Consumption (SFOC*)	185~189 g / kWh	About 215 g / kWh
Life Time	More than 20 Years	Less than 10 Years
Maintenance Hour [Cyl. Head]	12,000 hr. Operation	7,500 hr. Operation
Electricity Characteristic	Stable	Unstable

* SFOC : Without engine driven pumps

TECHNICAL SPECIFICATION

Item	Standard	Option
Fuel	Diesel Oil, Heavy Fuel Oil up to ISO 8217 RMH55	
Daily Tank	Diesel Oil 4 hours	
Lube Oil	SAE 40	
Starting Method	Air Starting	Electric Starting (H17/28)
Generator Voltage	Up to 6.6kV	
Parallel Operation		Option
Load Shifting	Manual	Auto
Circuit Breaker	ACB	VCB
Fire Fighting	Detection & Alarm	Auto CO ₂ Distinguisher
Enclosure - Type - Sound Attenuation	Weather Proof Normal 85 dB(A) of 1 meter	Skid Mounted 80 dB(A) of 1 meter
Trailer for Mobility		Trailer



CEPM 6.8MW PPS in Dominican Rep.
(HYUNDAI - HiMSEN 9H21/32 x 4 Sets)



Compact PPS(Output: 530~900kW)
(HYUNDAI - HiMSEN H17/28)



Interoil 4.5MW PPS in Papua New Guinea
(HYUNDAI - HiMSEN 9H21/32 x 3 Sets)



61.2MW PPS in Haiti
(HYUNDAI - HiMSEN 9H21/32 x 36 Sets)



BioBio 13.6MW PPS in Chile
(HYUNDAI - HiMSEN 9H21/32 x 8 Sets)



10MW PPS in Namibia
(HYUNDAI - HiMSEN 9H21/32 x 6 Sets)



www.hhi.co.kr
www.hyundai-engine.com



Advantages of Packaged Power Station

- Best Performance and On Time Delivery
- Economical Satisfaction
- High Quality and Reliability
- Easy, Cost Effective Operation & Maintenance

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 **HYUNDAI** | **ENGINE & MACHINERY**
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Contents subject to change without prior notice.