

## Line up

# MULTI V™ 5

Appearance	8 - 12	14 - 20	22 - 26	28 - 48	50 - 72	74 - 96
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## Features

- Dual Sensing Control
- Large capacity ODU (Up to 26HP)
- Continuous Heating
- Black Fin heat exchanger
- Heat pump / heat recovery
- Flexible installation (Heat recovery unit & large capacity)
- Large space, Individual control building



## Heat Recovery Unit



Model	PRHR023	PRHR033	PRHR043	PRHR063	PRHR083	
Max. Connectable No. of Indoor Units	16	24	32	48	64	
Max. Connectable No. of Indoor Units of a branch	8	8	8	8	8	
Net. Weight	kg	14.9	16.7	18.2	27.2	
	lbs	32.8	36.8	40.1	60	
Dimensions (WxHxD)	mm	786 X 218 X 657	786 X 218 X 657	786 X 218 X 657	1113 X 218 X 657	
	Inch	30.9 X 8.6 X 25.9	30.9 X 8.6 X 25.9	30.9 X 8.6 X 25.9	43.8 X 8.6 X 25.9	
Casing	Galvanized steel plate					
Connecting Pipes	Indoor	Liquid Pipe [mm/inch]	Ø9.52[3/8] - Ø6.35[1/4]			
		Gas Pipe [mm/inch]	Ø15.88[5/8] - Ø12.7[1/2]		Ø15.88[5/8] - Ø12.7[1/2]	
	Outdoor	Liquid [mm/inch]	Ø9.52[3/8]	Ø12.7[1/2]	Ø15.88[5/8]	Ø15.88[5/8]
		Low Pressure [mm/inch]	Ø22.2[7/8]	Ø28.58[1 1/8]	Ø28.58[1 1/8]	Ø28.58[1 1/8]
High Pressure [mm/inch]	Ø19.05[3/4]	Ø22.2[7/8]	Ø22.2[7/8]	Ø22.2[7/8]		
Sound Absorbing Insulation Material	Polyethylene Foam			Polyethylene Foam		
Power Supply	1Ø, 220-240 V, 50 Hz / 1Ø, 220 V, 60 Hz					

## Line up

# Hydro Kit

Model	Unit	MEDIUM TEMPERATURE HYDROKIT		HIGH TEMPERATURE HYDROKIT			
		ARNH04GK2A4	ARNH10GK2A4	ARNH04GK3A4	ARNH08GK3A4		
Capacity (Rated)	Cooling	kW	12.3	28	-	-	
		kcal/h	10,580	24,100	-	-	
	Heating	kW	13.8	31.5	13.8	25.2	
		kcal/h	11,870	27,100	11,870	21,700	
Casing	Material	Painted Steel Plate	Painted Steel Plate	Painted Steel Plate	Painted Steel Plate		
	Color (RAL code)	RAL 7030					
Dimensions	Net	Body (W x H x D)	mm	520 x 631 x 330	520 x 631 x 330	520 x 1,074 x 330	520 x 1,074 x 330
		Weight	kg (lbs)	29.2 (64.4)	33.7 (74.3)	86.0 (189.6)	90.0 (198.4)
Heat Exchanger	Refrigerant to Refrigerant	Type	-	-	Brazed Plate HEX	Brazed Plate HEX	
		Quantity	EA	-	-	1	1
		Number of Plate	EA	-	-	50	60
	Refrigerant to Water	Type	-	Brazed Plate HEX	Brazed Plate HEX	Brazed Plate HEX	Brazed Plate HEX
		Quantity	EA	1	1	1	1
		Number of Plate	EA	26	48	76	48
Compressor	Type	Rated Water Flow	l / min	39.6	92	19.8	36
		Head Loss	kPa	41	69	5	20
Piping Connections	Water Side	Inlet	A (inch)	25A (Male PT1)	25A (Male PT1)	25A (Male PT1)	25A (Male PT1)
		Outlet	A (inch)	25A (Male PT1)	25A (Male PT1)	25A (Male PT1)	25A (Male PT1)
Refrigerant Side	Liquid	mm (inch)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	9.52 (3/8)	
	Gas	mm (inch)	15.88 (5/8)	22.2 (7/8)	15.88 (5/8)	19.05 (3/4)	
Drain Piping Connection	A (inch)	25A (Male PT1)	25A (Male PT1)	25A (Male PT1)	25A (Male PT1)		
Sound Pressure Level	Cooling	dB(A)	26	26	-	-	
		Heating	dB(A)	26	26	44	46
Refrigerant	Refrigerant to Water	Refrigerant Name	-	-	R134a	R134a	
Power Supply	ØV/Hz	1,220-240,50/60	1,220-240,50/60	1,220-240,50/60	1,220-240,50/60		

### \*Notes

Capacities are based on the following conditions:

**Cooling Temperature :** Indoor 27°C(80.6°F) DB / 19°C(66.2°F) WB, Outdoor 35°C(95°F) DB / 24°C(75.2°F) WB, Water Inlet 23°C(73.4°F) / Outlet 18°C(64.4°F)

**Heating Temperature :** Indoor 20°C(68°F) DB / 15°C(59°F) WB, Outdoor 7°C(44.6°F) DB / 6°C(42.8°F) WB, \* Water Inlet 30°C(86°F) / Outlet 35°C(95°F), \*\* Water Inlet 55°C(131°F) / Outlet 65°C(149°F)

**Piping Length :** Interconnected Pipe Length = 7.5m

Difference Limit of Elevation (Outdoor - Indoor Unit) is Zero.

\* Medium Temp. \*\* High Temp.

## Reference

<p><b>Outdoor Unit :</b> Multi V 2804 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 48 HP</li> <li>• AHU's</li> <li>• High Static Duct</li> <li>• Low Static Duct</li> <li>• Cassettes</li> </ul>	<p><b>Outdoor Unit :</b> Multi V 890 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 32 HP</li> <li>• AHU's</li> <li>• High Static Duct</li> <li>• Low Static Duct</li> </ul>	<p><b>Outdoor Unit :</b> Multi V 524 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 32 HP</li> <li>• AHU's</li> <li>• High Static Duct</li> <li>• Low Static Duct</li> </ul>
<p><b>Outdoor Unit :</b> Multi V 374 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 42 HP</li> <li>• Low Static Duct</li> </ul>	<p><b>Outdoor Unit :</b> Multi V 368 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 16 HP</li> <li>• AHU's</li> <li>• High Static Duct</li> <li>• Low Static Duct</li> </ul>	<p><b>Outdoor Unit :</b> Multi V 170 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 8 HP</li> <li>• AHU's</li> <li>• Low Static Duct</li> </ul>
<p><b>Outdoor Unit :</b> Multi V 136 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 16 HP</li> <li>• AHU's</li> <li>• High Static Duct</li> <li>• Low Static Duct</li> </ul>	<p><b>Outdoor Unit :</b> Multi V 138 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 4 HP</li> <li>• Cassettes</li> <li>• High Static Duct</li> <li>• Low Static Duct</li> </ul>	<p><b>Outdoor Unit :</b> Multi V 100 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 8 HP</li> <li>• Low Static Duct</li> </ul>
<p><b>Outdoor Unit :</b> Multi V 100 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 16 HP</li> <li>• Wall mount</li> <li>• Cassette</li> <li>• Low Static Duct</li> </ul>	<p><b>Outdoor Unit :</b> Multi V 110 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 12 HP</li> <li>• Mid Static Duct</li> </ul>	<p><b>Outdoor Unit :</b> Multi V 62 HP</p> <p><b>INDOOR UNIT</b></p> <ul style="list-style-type: none"> <li>• Hydro Kit 20 HP</li> <li>• Low Static Duct</li> </ul>

### LG SAC CUSTOMER CARE

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SYSTEM  
AIR CONDITIONING

NEXT GEN  
**AIR**  
CONDITIONING  
WITH HOT WATER SOLUTIONS.

ONE PRODUCT THAT GIVES YOU BOTH.



**Hydro Kit**



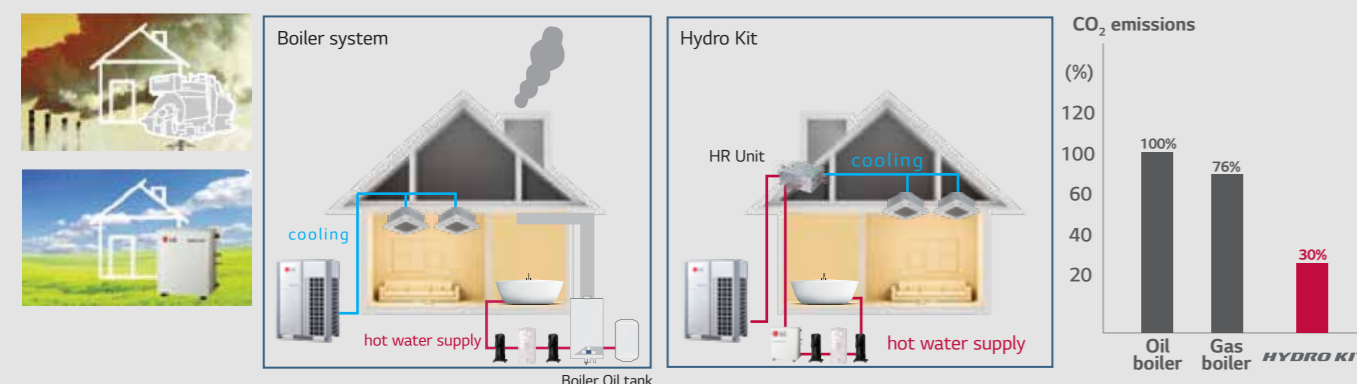
## What is Hydro Kit?

Hydro Kit is Eco-friendly and highly efficient. This total HVAC solution is available for air-conditioning, floor heating, radiators and sanitary hot water supply. All these functions utilize a variety of MULTI V outdoor units. Thereby, minimizing energy costs and CO2 emissions compared to boiler system.



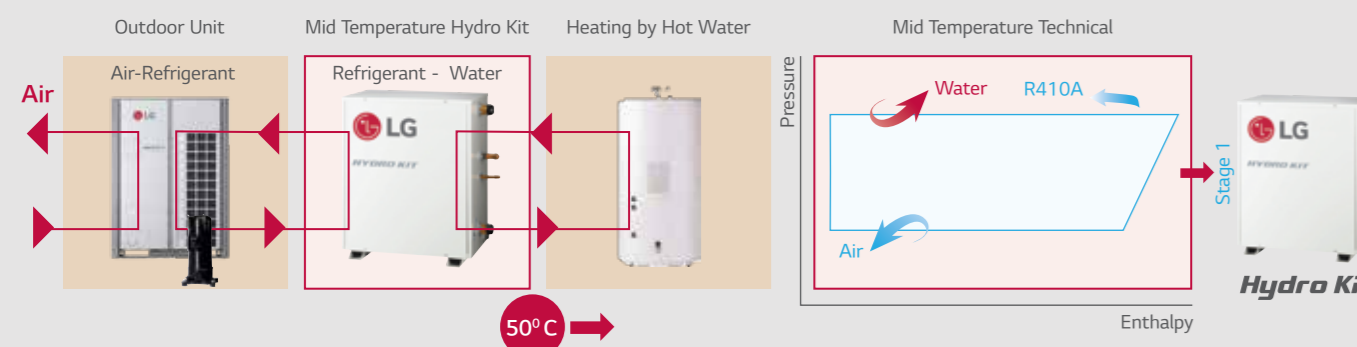
## Eco-friendly green Energy solution

Green energy solution through reduction of CO2 emissions.

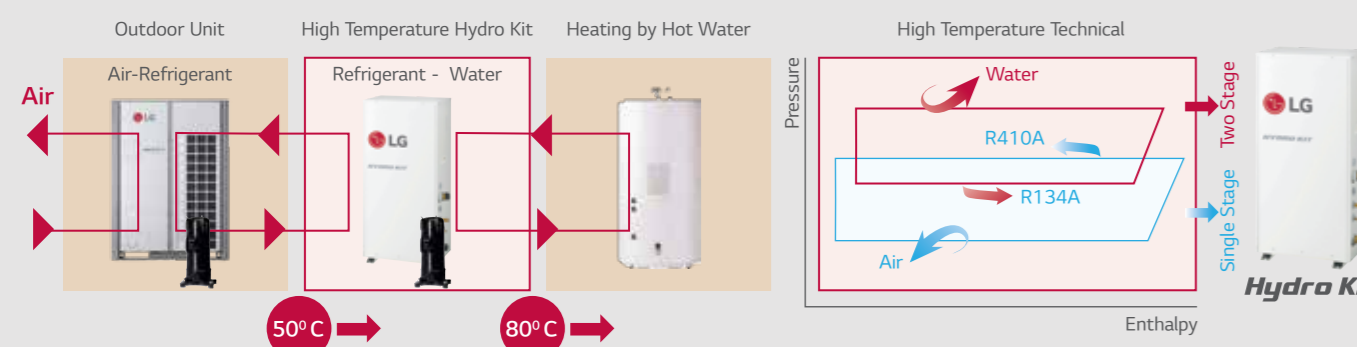


## Hydro Kit cycle diagram

### Medium Temperature Hydro Kit cycle diagram

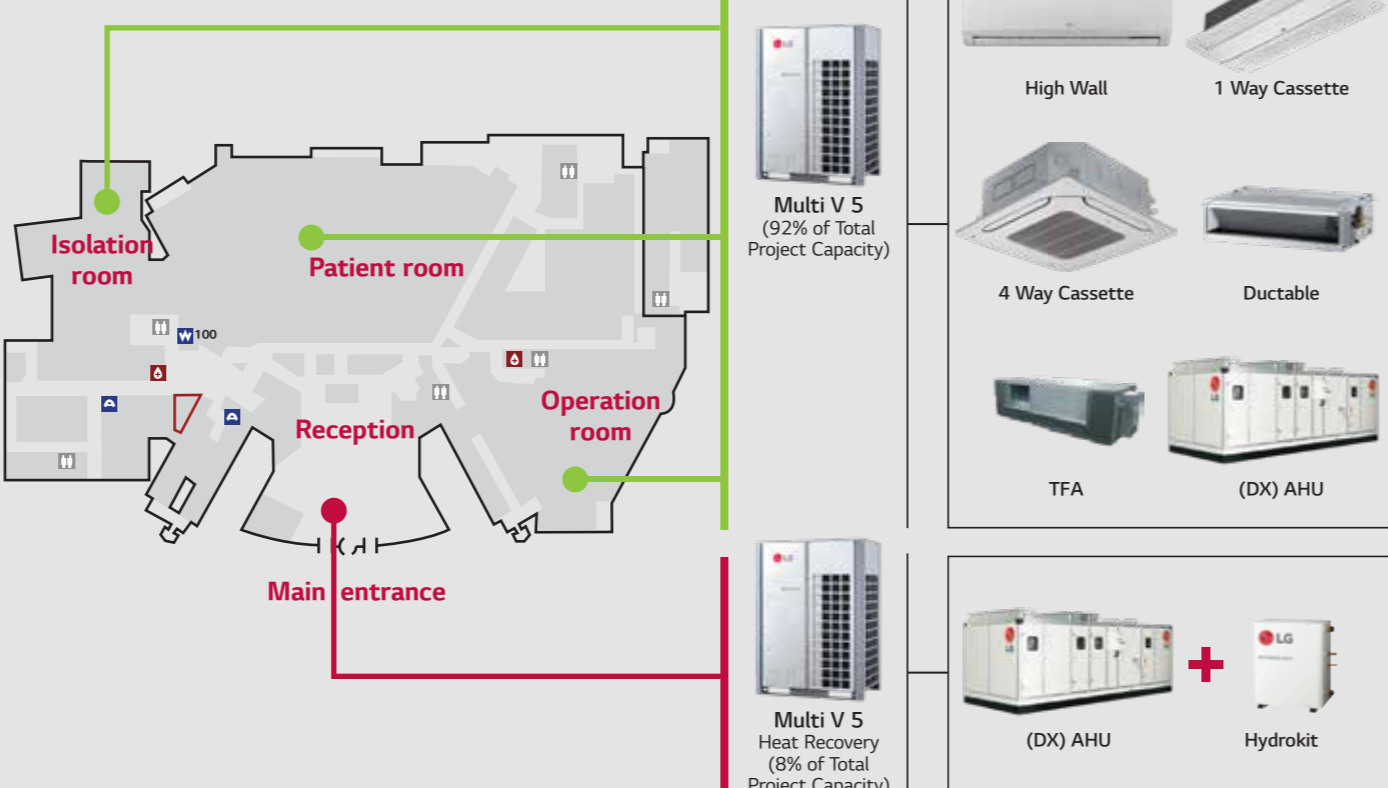


### High Temperature Hydro Kit cycle diagram



## Vertical of Hydro Kit

### Hospital Vertical

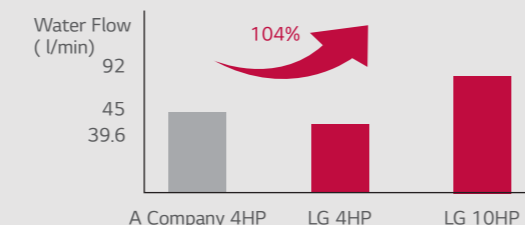


### Hotel Vertical

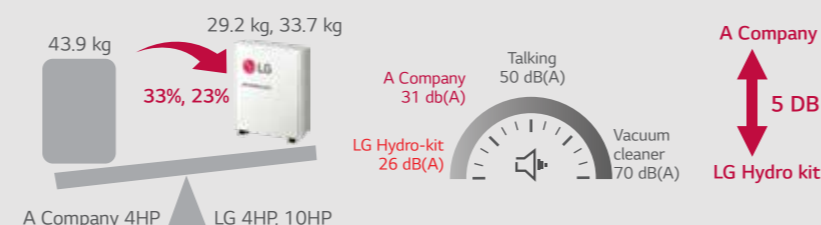


## Comparison (Mid Temp. Hydro kit)

### Water Flow Comparison

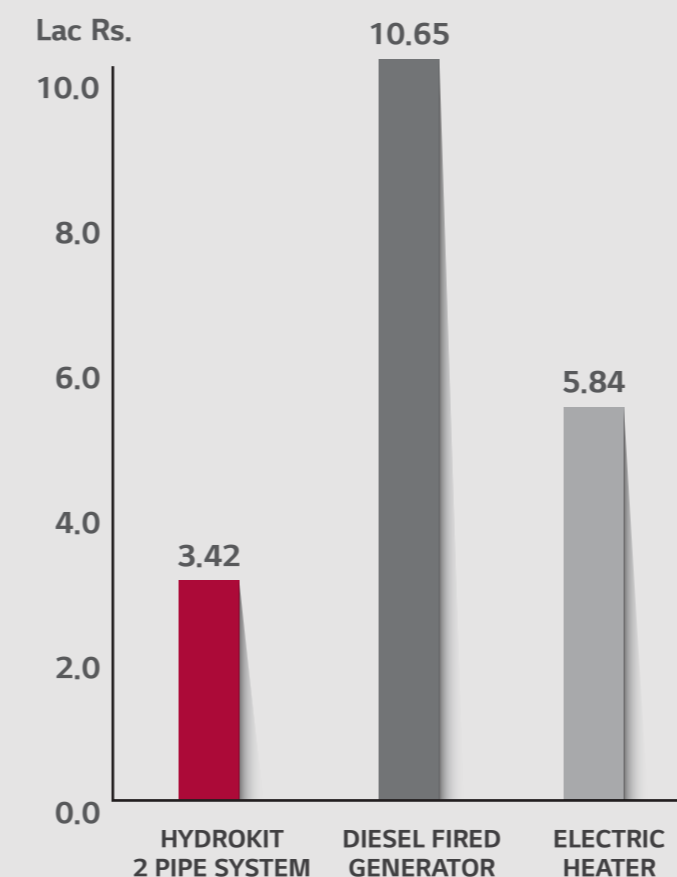


### Net Weight / Sound Pressure



## Cost comparison & pay back period vs Diesel Generator/ Electric Heater (Only Hot Water Solution)

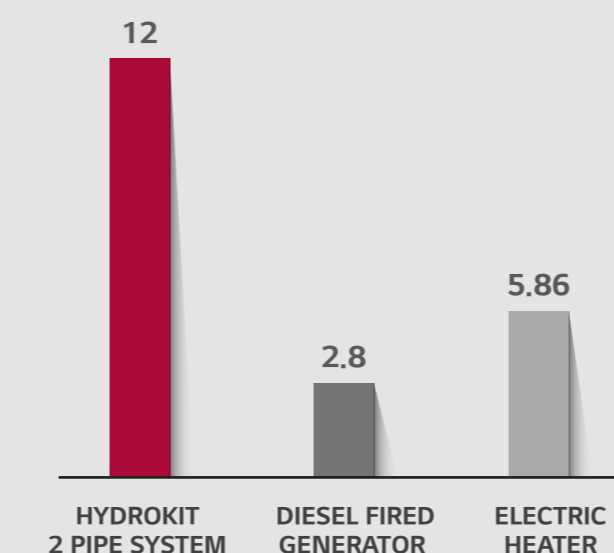
### COMPARISON OF YEARLY OPERATING COST



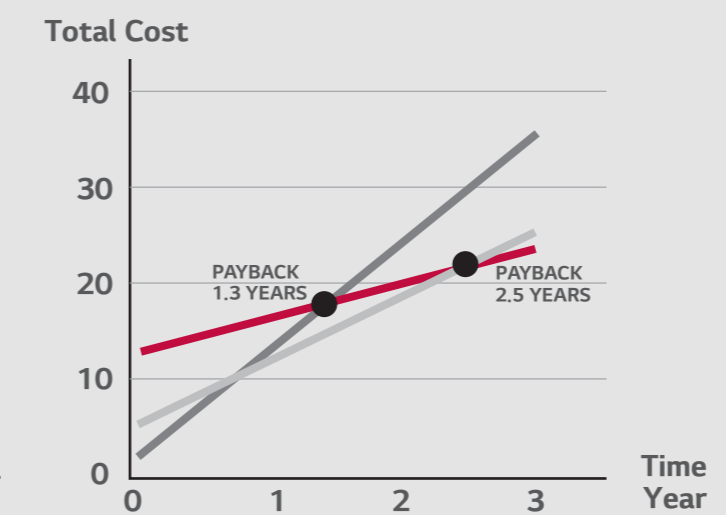
### ANALYSIS CONDITION

Hotel rooms : 68 Nos.  
 Hot Water requirement : 5000 Liters per hour  
 Water-in Temp. (15 deg. C) & water-out Temp. (50 deg. C)  
 Electricity unit cost : 10 INR  
 Diesel price @ 86 INR per litre converted in kg/hr = 105 INR  
 Running Time : 5 hours per day for Hydrokit and diesel generator and 1 hour for electric heater (Annual Operation : 365 Days)

### INVESTMENT COST [UNIT : LAC RS]



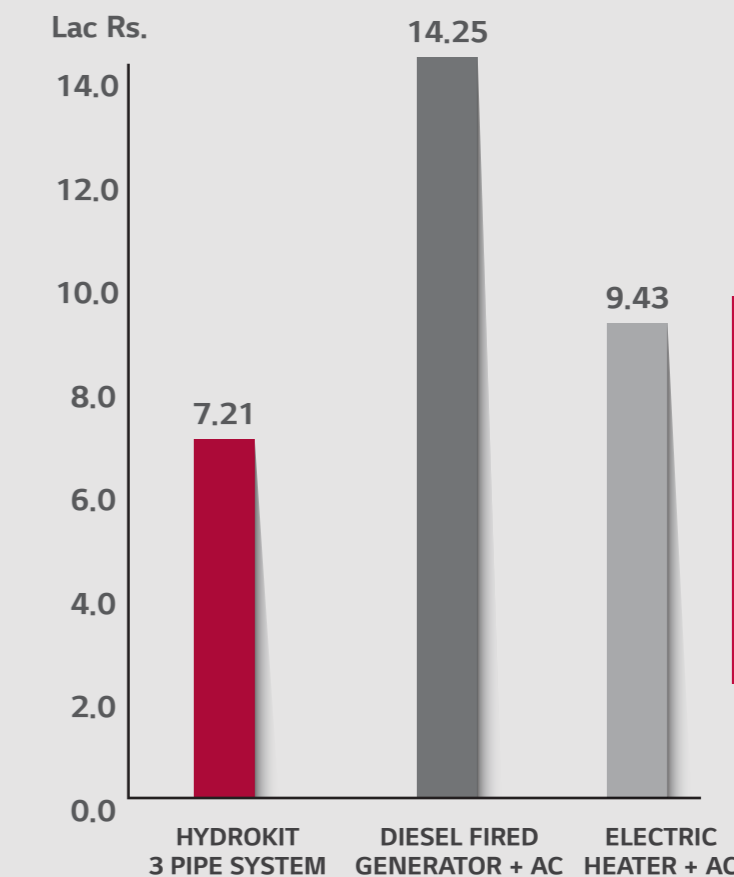
### PAY BACK TERM [UNIT : LAC RS]



Equipment Detail :  
 ■ 20 HP Heat Pump VRF system with 10 HP x 2 Nos. of Hydro Kit (Mid Temp.)  
 ■ Diesel Fired Generator : 500000 Kcal. (AMW005)  
 ■ Electric Heater : 2kw x 68 Nos.

## Cost comparison & pay back period vs Diesel Generator/ Electric Heater (Simultaneous Hot Water & Air-Conditioning)

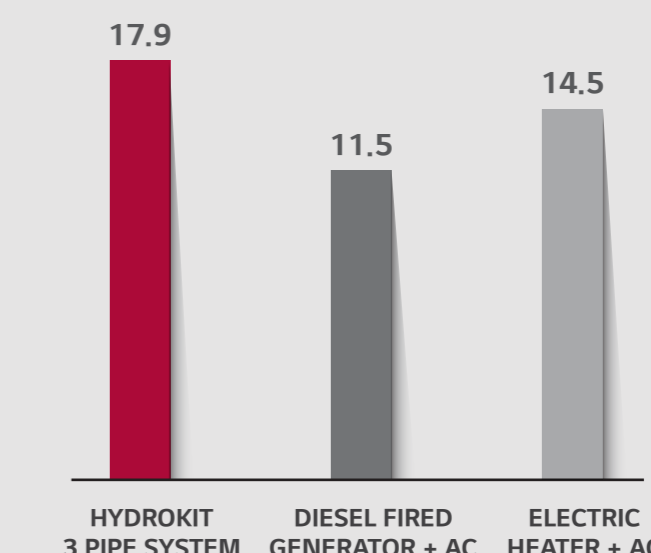
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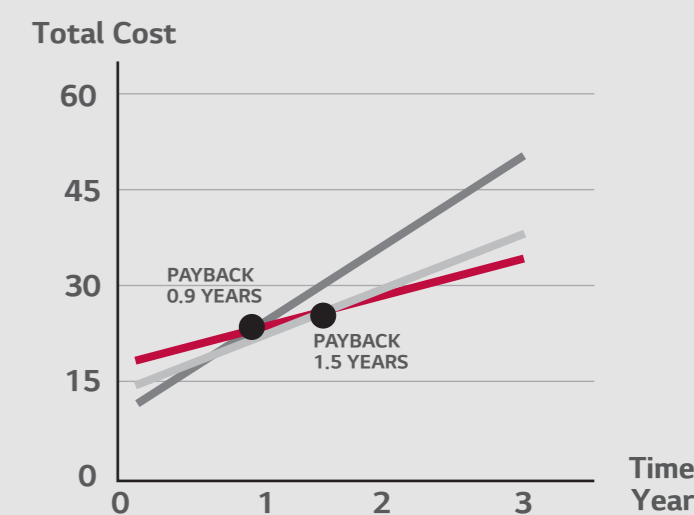
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### INVESTMENT COST [UNIT : LAC RS]



### PAY BACK TERM [UNIT : LAC RS]



Equipment Detail :  
 ■ 32 HP Heat Recovery VRF system with 10 HP x 2 Nos. of Hydro Kit (Mid Temp.) + Indoors : 6.3 TR x 3 Nos.  
 ■ AC only - 24 HP outdoor with 6.3 TR x 3 Nos. Indoor + Diesel Fired Generator : 500000 Kcal. (AMW005)  
 ■ AC only - 24 HP outdoor with 6.3 TR x 3 Nos. Indoor + Electric Heater : 2 KW x 68 Nos.