

1. Models Line Up

Category	Picture	Chassis	Model Name	
			Water Tank Volume[L]	
			200	270
Heat Pump Water Heater		RF	WH20S.F5 (R5TT20F-SA1) WH20STR2.FA (R5TT20F-SA2)	WH27S.F5 (R5TT27F-SA2) WH27STR2.FA (R5TT27F-SA2)

3. Specifications

Buyer Model			Unit	WH20STR2.FA	WH27STR2.FA
Factory Model	Set (Indoor / Outdoor)			(R5TT20F-SA2)	(R5TT27F-SA2)
Capacity	Volume		L	200	270
	COP (7°C)*		-	3.30 (A+)	3.45 (A+)
	COP (15°C)**	COP	-	3.50 (A+)	3.85 (A+)
		Daily electrical energy consumption	kWh	3.33	3.10
		V40	L	260	360
Load Profile		-	Large	Large	
Power Input	Upper Element		W	2050	2050
	Lower Element		W	2050	2050
	Heat Pump		W	550	550
Max Power Input		W	2600	2600	
Annual Energy Consumption(AEC) (15°C / 7°C)		kWh	709 / 756	646 / 712	
Power Supply		Ø, V, Hz	1Φ,230,50Hz	1Φ,230,50Hz	
Available Voltage Range		V	195 ~ 265	195 ~ 265	
Indoor	Air Flow Rate	High / Low	m³/min	6.7 / 4.4	6.7 / 4.4
	Fan Speed	High / Low	rpm	1000 / 700	1000 / 700
	Sound Pressure Level		dB(A)	38 (Auto) 41 (Turbo)	38 (Auto) 41 (Turbo)
	Sound Power Level	IDU	dB(A)	55	55
		ODU	dB(A)	-	-
	Dimensions	Net (W x H x D)	mm	580 x 1625 x 582	580 x 2008 x 582
			in.	22 53/64 x 63 31/32 x 22 29/32	22 53/64 x 79 1/16 x 22 29/32
		Shipping (W x H x D)	mm	738 x 1775 x 690	738 x 2158 x 690
			in.	29 1/16 x 69 7/8 x 27 11/64	29 1/16 x 84 61/64 x 27 11/64
	Weight	Net	kg	102	119
			lb.	220	262
		Shipping	kg	120	138
			lb.	260	302
	Heat Pump Operation Range		°C DB	-5 ~ 48	-5 ~ 48
			°F DB	23 ~ 120	23 ~ 120
Max. Fuse Size		A	13.5	13.5	
Exterior Color Code		-	RAL 9006	RAL 9006	
Compressor	Type	-	Twin Rotary	Twin Rotary	
	Model	-	EST092MBA	EST092MBA	
	Motor Type	-	BLDC	BLDC	
	Oil Type / Maker	-	POE (RB68A) / Sun Oil or Jx Nippon	POE (RB68A) / Sun Oil or Jx Nippon	
	Oil Charge	cc	220	220	
	O.L.P. Name	-	-	-	
	Manufacturer / Country of Origin	-	LG Electronics / China	LG Electronics / China	
Max Working Pressure (Water Tank)		kPa	1034	1034	
Fan	Type	-	Propeller Fan	Propeller Fan	
	Motor Type	-	BLDC	BLDC	
	Motor Output	W	43	43	
Heat Exchanger	Evaporator	Material, Tube / Fin	-	Cu / Al	Cu / Al
		FPI	-	21 (Φ 7)	21 (Φ 7)
		(Φ x Row x Column x FPI/FPDM x L) x No.	-	(Φ 7 x 3 x 15 x 21 x 390) x 1	(Φ 7 x 3 x 15 x 21 x 390) x 1
	Condenser	Corrosion Protection	-	PCM	PCM
		Material, Tube	-	Al	Al
(Φ x Row x L) x No.		-	(Φ 8.0 x 1 x 62800) x 1	(Φ 8.0 x 1 x 62800) x 1	
Circuit Breaker		A	15	15	
Power Supply Cable		No.	3	3	
		AWG	14	14	
Drain Hose Size		mm	19, 12.7	19, 12.7	
		in.	3/4, 1/2	3/4, 1/2	
Refrigerant	Type	-	R134a	R134a	
		g	650	750	
	Pre Charge	oz.	23	26	
		t-CO ₂ eq	0.930	1.072	
	GWP		1430	1430	
	Additional Charge	g/m	-	-	
	oz./ft.	-	-		
Control		-	Electronic Expansion Valve	Electronic Expansion Valve	
Defrost Method		-	Reverse Cycle	Reverse Cycle	
Anode			ICCP (Impressed Current Cathodic Protection)	ICCP (Impressed Current Cathodic Protection)	
Foam Insulation		mm	40 ~ 80	40 ~ 80	
Water Connection Size		inch	3/4	3/4	

Note

- - : No Relation
- For Circuit Breaker Rating, please conform to local standards whenever necessary.
- Exterior color code is approximate value.
It is difficult to measure air flow rate of sleep because of small values.
- Maximum heating capacity is for heating operation without any frost.
- Some specifications may be changed without notifications due to our policy of innovation.
- Test conditions are based on EN16147 and EN12202.
- * COP at Air 7°C water 10°C-54°C with duct
- **COP at Air 15°C water 10°C-54°C without duct

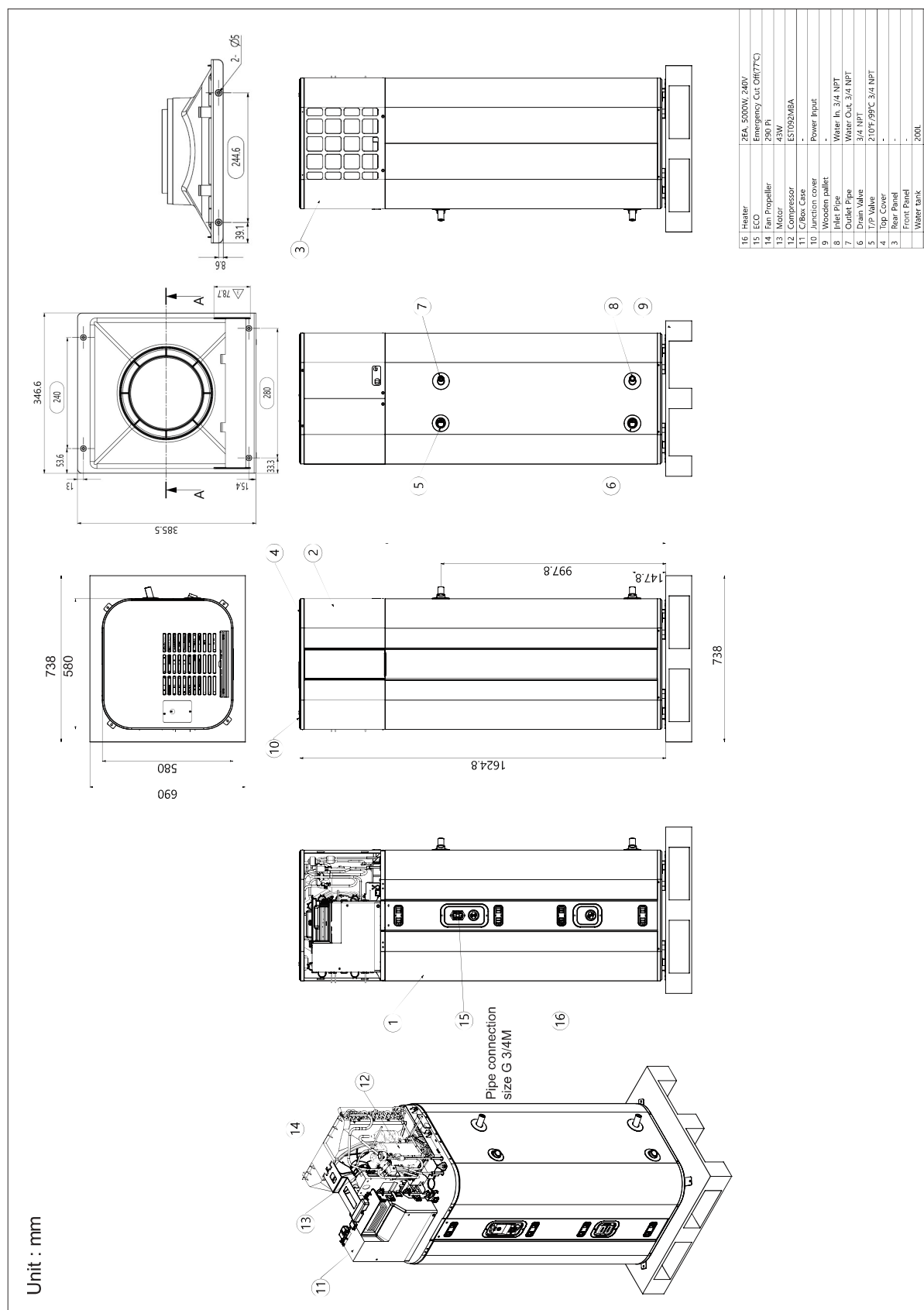
4. Function List

Category	Function	WH20STR2.FA	WH27STR2.FA	WH20S.F5	WH27S.F5
		(R5TT20F-SA2)	(R5TT27F-SA2)	(R5TT20F-SA1)	(R5TT27F-SA0)
Air Purifying	Prefilter(Washable)	○	○	○	○
Reliability	Self Diagnosis	○	○	○	○
	De-ice Control (Defrost)	○	○	○	○
Convenience	Heat Pump Mode	○	○	○	○
	Auto Mode	○	○	○	○
	Turbo Mode	○	○	○	○
	Vacation Mode	○	○	○	○
	Schedule	○	○	○	○
	Auto Restart Operation	○	○	○	○
	Two Thermistor Control ¹	○	○	○	○
	Overheating Protection	○	○	○	○
	Indoor Unit Display Type	Number Display	Number Display	Number Display	Number Display
	Anti-Legionella	○	○	○	○
	Duct Mode	○	○	○	○
Individual Control	Wired Remote Controller ²	X	X	X	X
	Handheld Wireless Controller	X	X	X	X
CAC Network Function	General Central Controller (Non LGAP)	X	X	X	X
	Network Solution (LGAP)	X	X	X	X
	Dry Contact ²	X	X	X	X
	PDI (Power Distribution Indicator) ²	X	X	X	X
	PI 485 ²	X	X	X	X
Special Function Kit	Wi-Fi ²	Embedded	Embedded	Embedded	Embedded
	Water Level Sensor Connection ²	Embedded	Embedded	Embedded	Embedded
	Smart Inverter Monitoring System(SIMs) ²	PSWMOZ3	PSWMOZ3	PSWMOZ3	PSWMOZ3
Others	Temperature Control	Thermistor	Thermistor	Thermistor	Thermistor
	Digital inputs for energy saving (Ready for Smart Grid)	○	○	X	X

Note

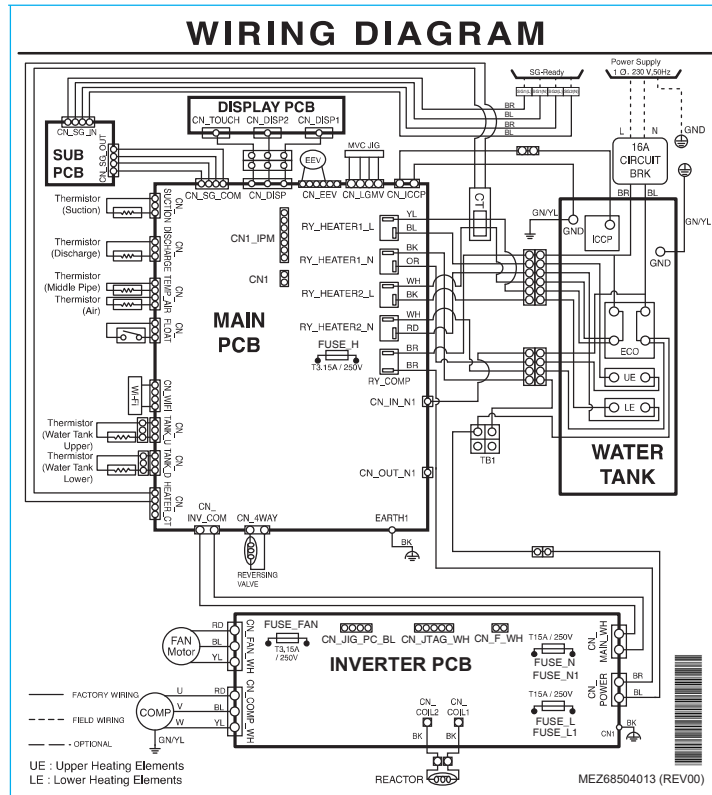
- ○ : Applied, X : Not applied
- Filters are optional in some specific areas.
- ¹ : This function can be operated only when the wired remote controller is connected. The applicability of each function depends on the above table.
- ² : Optional accessories must be purchased separately. If shown as "Embedded", this function is included in product.
- The function Wi-Fi is only compatible with 2.4 GHz band. (802.11 b/g/n)
- Some specifications may be changed without notifications due to our policy of innovation.

WH20S.F5(R5TT20F-SA1),WH20STR2.FA(R5TT20F-SA2)

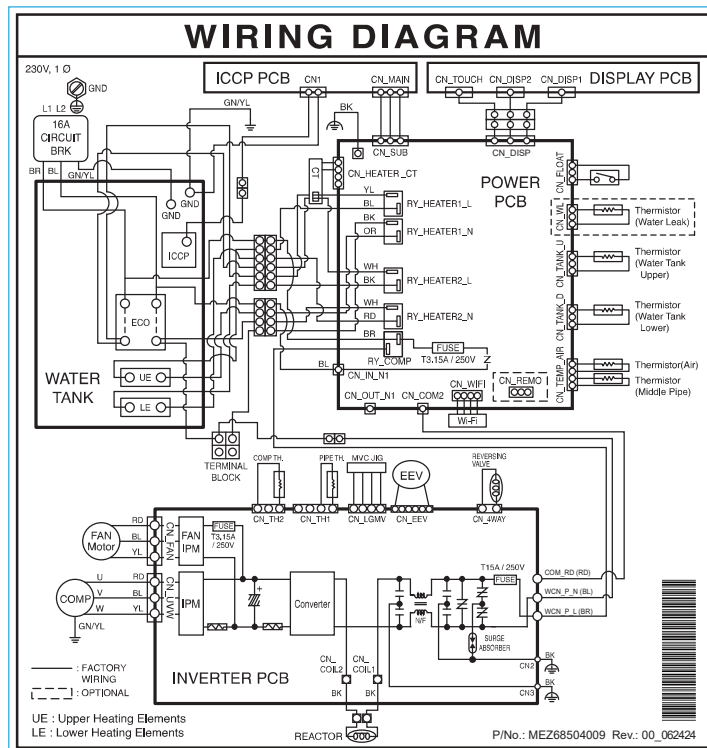


6. Wiring Diagrams

WH20STR2.FA(R5TT20F-SA2),WH27STR2.FA(R5TT27F-SA2)



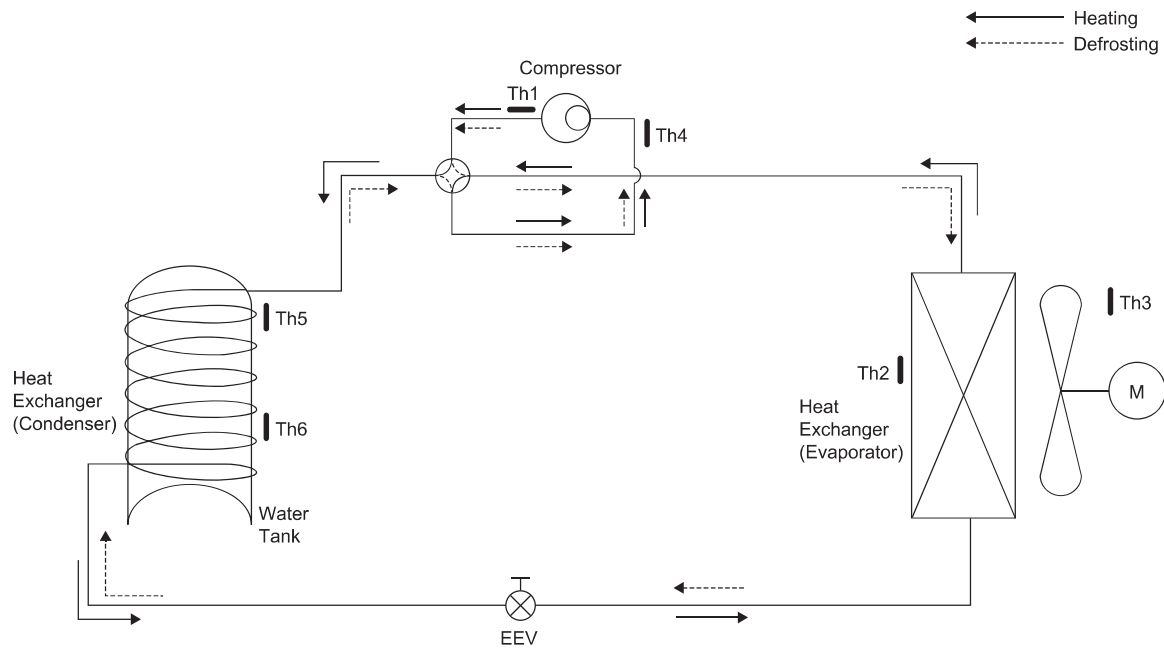
WH20S.F5(R5TT20F-SA1) ,WH27S.F5(R5TT27F-SA0)



7. Refrigerant Cycle Diagrams

WH20STR2.FA(R5TT20F-SA2), WH27STR2.FA(R5TT27F-SA2)

WH20S.F5(R5TT20F-SA1), WH27S.F5(R5TT27F-SA0)



LOC	Description	PCB Connector
Th1	Thermistor for discharge pipe temperature	CN_DISCHARGE
Th2	Thermistor for evaporating temperature	CN_TEMP_AIR
Th3	Thermistor for indoor air temperature	CN_TEMP_AIR
Th4	Thermistor for suction pipe temperature	CN_TH1
Th5	Thermistor for upper water tank temperature	CN_TANK_U
Th6	Thermistor for lower water tank temperature	CN_TANK_D

*EEV : Electronic Expansion Valve.

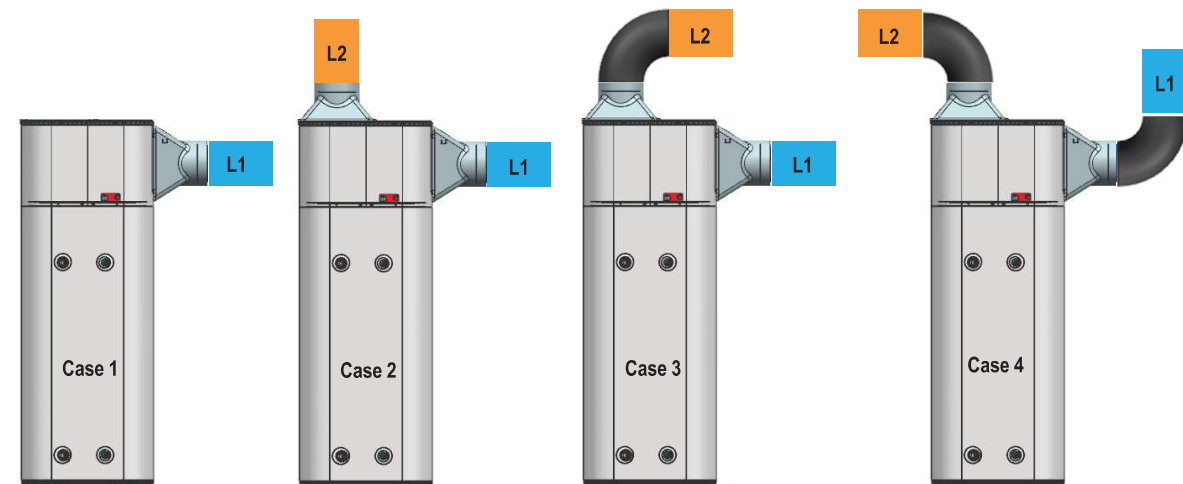
9. Capacity Coefficient Factor

9.1 Recovery Time Change Rate (%)

Model	CASE	Mode	Duct Length										
			No Duct	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
WH20S.F5(R5TT20F-SA1) WH27S.F5(R5TT27F-SA0) WH20STR2.FA(R5TT20F-SA2) WH27STR2.FA(R5TT27F-SA2)	1	Heat Pump	100	118	125	128	129	131	133	136	136	137	139
WH20S.F5(R5TT20F-SA1) WH27S.F5(R5TT27F-SA0) WH20STR2.FA(R5TT20F-SA2) WH27STR2.FA(R5TT27F-SA2)	3	Auto	100	101	103	104	105	106	108	109	110	112	113

9.2 Maximum Duct Length

Model	Case	1		2		3		4	
	Duct Diameter	Φ200	Φ160	Φ200	Φ160	Φ200	Φ160	Φ200	Φ160
WH20S.F5(R5TT20F-SA1) WH27S.F5(R5TT27F-SA0) WH20STR2.FA(R5TT20F-SA2) WH27STR2.FA(R5TT27F-SA2)	Max length(m)	62	25	55	22	52	19	49	16

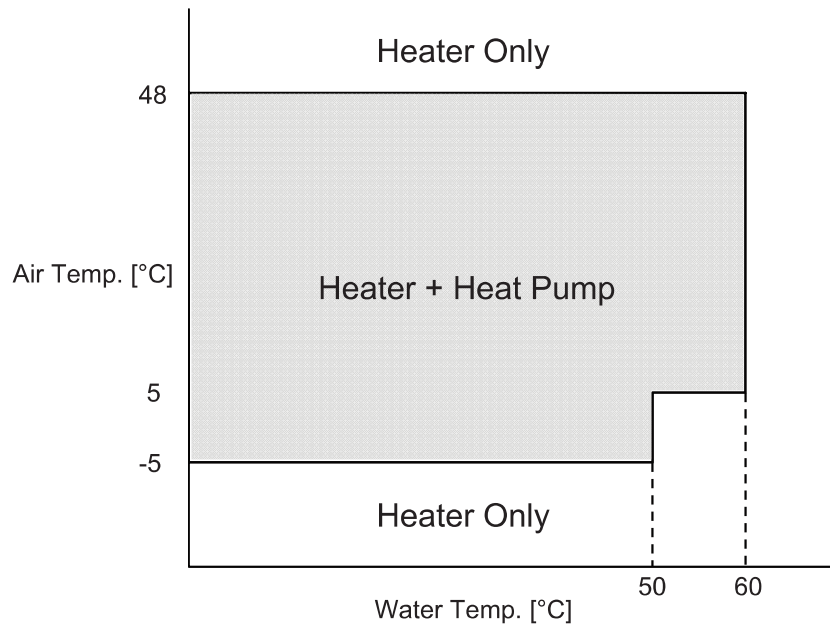


Note

- Recovery Time is 45°C → 50°C heating time at 20°C ambient Temp., Φ200
- Duct Length = Inlet duct length (L1) + Outlet duct length(L2)
- Max Length = Inlet duct length (L1) + Outlet duct length(L2)

10. Operation Range

WH20STR2.FA(R5TT20F-SA2), WH27STR2.FA(R5TT27F-SA2)
WH20S.F5(R5TT20F-SA1), WH27S.F5(R5TT27F-SA0)



Note

The figures is baseed on the following condititions : No ducted