

1. Product Specifications

1-1. Specifications

When using brine as heat source fluid (factory setting)

Model			CRHV-P600YA-HPB
Power Source			3-phase 4-wire 380-400-415V 50Hz
SCOP (TDesign60kW): EN14825	Heat source temp 0/-3, Hot water temp 30/35		4.33
Average climate conditions	Heat source temp 0/-3, Hot water temp 47/55		2.86
Capacity1 *1		kW	60.0
		kcal/h	51,600
		BTU/h	204,720
	Power input *2	kW	14.2
	Current input 380-400-415V	A	24.0 - 22.8 - 22.0
	COP (kW/kW)		4.23
	Hot water flow rate	m³/h	10.3
		Heat source flow rate	m³/h
Capacity2 *1		kW	45.0
		kcal/h	38,700
		BTU/h	153,540
	Power input *2	kW	10.2
	Current input 380-400-415V	A	17.2 - 16.4 - 15.8
	COP (kW/kW)		4.41
	Hot water flow rate	m³/h	7.7
		Heat source flow rate	m³/h
Maximum current input		A	44
Heat source fluid type			ethylene glycol 35WT% (freezing point -18°C (-0.4°F))
Water pressure drop	Hot water side *3	kPa	14
	Heat source side *3	kPa	38
Temp range	Hot water side	°C	(inlet) less than 55, (outlet) 30~65 *5
		°F	(inlet) less than 131, (outlet) 86~149 *5
	Heat source side *4	°C	(inlet) less than 45, (outlet) -8~27
		°F	(inlet) less than 113, (outlet) 17.6~80.6
Circulating water volume range	Hot water side	m³/h	3.2 - 15.0
	Heat source side *6	m³/h	2.0 - 16.0
Sound pressure level (measured in anechoic room) at 1m *3		dB (A)	50
Sound power level (measured in anechoic room) *3		dB (A)	66
Diameter of water pipe (hot water side)	Inlet	mm (in.)	50.8 (R2") screw
	Outlet	mm (in.)	50.8 (R2") screw
Diameter of water pipe (heat source side)	Inlet	mm (in.)	50.8 (R2") screw
	Outlet	mm (in.)	50.8 (R2") screw
External finish			Unpainted steel plate
External dimension H × W × D		mm	1,561 × 934 × 780
Net weight		kg (lbs)	413 (910)
Design pressure	R410A	MPa	4.15
	Water	MPa	1.0
Drawing	Wiring		WKC94L652
	External		WKC94L810
Heat exchanger	Hot water side		stainless steel plate and copper brazing
	Heat source side		stainless steel plate and copper brazing
Compressor	Type		Inverter scroll hermetic compressor
	Maker		MITSUBISHI ELECTRIC CORPORATION
	Starting method		Inverter
	Case heater	kW	0.035 × 2
	Lubricant		MEL32
Protection	High pressure protection		High pres.Sensor & High pres.Switch at 4.15MPa (601psi)
	Inverter circuit		Over-heat protection, Over current protection
	Compressor		Over-heat protection
Refrigerant	Type × original charge		R410A × 4.5(kg) × 2
	Control		LEV and HIC circuit

*1 Under Normal heating conditions at outlet hot water temp 35°C (95°F) outlet heat source temp -3°C (26.6°F) inlet hot water temp 30°C (86°F) inlet heat source temp 0°C (32°F).

Heating performance indicates the performance with counter flow of brine and refrigerant at the heat source HEX. (Standard pipe connection)

*2 Includes pump input based on EN14511.

*3 Under Normal heating conditions at outlet hot water temp 35°C (95°F) outlet heat source temp -3°C (26.6°F) inlet hot water temp 30°C (86°F) inlet heat source temp 0°C (32°F) capacity 60kW hot water flow rate 10.3m³/h heat source flow rate 14.7m³/h

Heating performance indicates the performance with counter flow of brine and refrigerant at the heat source HEX. (Standard pipe connection)

*4 When using in inlet heat source temp is more than 27°C, please change to parallel piping at the heat source side.

If the heat source inlet temperature exceeds 45 °C, the compressor may not function due to over current.

* Please don't use the steel material for the water piping material.

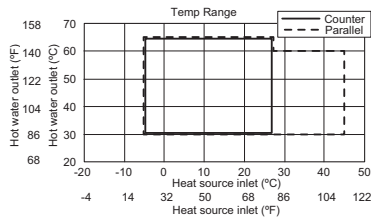
* Please always make water circulate or pull out the circulation water completely when not using it.

* Please do not use groundwater and well water in direct.

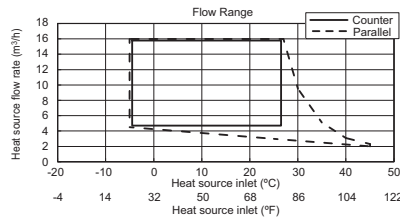
* The water circuit must use the closed circuit.

* Due to continuing improvement, the above specifications may be subject to change without notice.

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Unit converter	
kcal/h =kW × 860	
BTU/h =kW × 3,412	
lbs =kg/0.4536	

1. Product Specifications

When using water as heat source fluid

Model			CRHV-P600YA-HPB	
Power Source			3-phase 4-wire 380-400-415V 50Hz	
SCOP (TDesign60kW): EN14825		Heat source temp 10/7, Hot water temp 30/35	4.77	
Average climate conditions		Heat source temp 10/7, Hot water temp 47/55	3.11	
Capacity1 *1			kW	60.0
			kcal/h	51,600
			BTU/h	204,720
		Power input *2	kW	11.8
		Current input 380-400-415V	A	19.9 - 18.9 - 18.2
		COP (kW/kW)		5.08
		Hot water flow rate	m³/h	10.3
		Heat source flow rate	m³/h	13.8
Capacity2 *1			kW	45.0
			kcal/h	38,700
			BTU/h	153,540
		Power input *2	kW	8.8
		Current input 380-400-415V	A	14.9 - 14.1 - 13.6
		COP (kW/kW)		5.11
		Hot water flow rate	m³/h	7.7
		Heat source flow rate	m³/h	10.4
Maximum current input		A	44	
Heat source fluid type			water (freezing point 0°C (32°F))	
Water pressure drop	Hot water side *3	kPa	14	
	Heat source side *3	kPa	24	
Temp range	Hot water side	°C	(inlet) less than 55, (outlet) 30~65 *5	
		°F	(inlet) less than 131, (outlet) 86~149 *5	
	Heat source side *4	°C	(inlet) less than 45, (outlet) 7~27	
		°F	(inlet) less than 113, (outlet) 44.6~80.6	
Circulating water volume range	Hot water side	m³/h	3.2 - 15.0	
	Heat source side *6	m³/h	2.0 - 16.0	
Sound pressure level (measured in anechoic room) at 1m *3		dB (A)	50	
Sound power level (measured in anechoic room) *3		dB (A)	66	
Diameter of water pipe (hot water side)	Inlet	mm (in.)	50.8 (R2") screw	
	Outlet	mm (in.)	50.8 (R2") screw	
Diameter of water pipe (heat source side)	Inlet	mm (in.)	50.8 (R2") screw	
	Outlet	mm (in.)	50.8 (R2") screw	
External finish			Unpainted steel plate	
External dimension H × W × D		mm	1,561 × 934 × 780	
Net weight		kg (lbs)	413 (910)	
Design pressure	R410A	MPa	4.15	
	Water	MPa	1.0	
Drawing	Wiring		WKC94L652	
	External		WKC94L810	
Heat exchanger	Hot water side		stainless steel plate and copper brazing	
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Compressor	Type		Inverter scroll hermetic compressor	
	Maker		MITSUBISHI ELECTRIC CORPORATION	
	Starting method		Inverter	
	Case heater	kW	0.035 × 2	
	Lubricant		MEL32	
Protection	High pressure protection		High pres.Sensor & High pres.Switch at 4.15MPa (601psi)	
	Inverter circuit		Over-heat protection, Over current protection	
	Compressor		Over-heat protection	
Refrigerant	Type × original charge		R410A × 4.5(kg) × 2	
	Control		LEV and HIC circuit	

*1 Under Normal heating conditions at outlet hot water temp 35°C (95°F) outlet heat source temp 7°C (44.6°F) inlet hot water temp 30°C (86°F) inlet heat source temp 10°C (50°F). Heating performance indicates the performance with counter flow of brine and refrigerant at the heat source HEX. (Standard pipe connection)

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*3 Under Normal heating conditions at outlet hot water temp 35°C (95°F) outlet heat source temp 7°C (44.6°F) inlet hot water temp 30°C (86°F) inlet heat source temp 10°C (50°F) capacity 60kW hot water flow rate 10.3m³/h heat source flow rate 13.8m³/h Heating performance indicates the performance with counter flow of brine and refrigerant at the heat source HEX. (Standard pipe connection)

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If the heat source inlet temperature exceeds 45°C, the compressor may not function due to over current.
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Unit converter

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BTU/h =kW × 3,412

lbs =kg/0.4536