

HITACHI
Inspire the Next

**TWIN SCREW COMPRESSOR TYPE
HITACHI WATER-COOLED CHILLERS**

NEW

H Series



R407C

R22

R407C General Data

Model	Standard	RCUG40WHYZ	RCUG50WHYZ	RCUG60WHYZ	RCUG80WHYZ
	Liquid Crystal Display	RCUG40WHYZ-E	RCUG50WHYZ-E	RCUG60WHYZ-E	RCUG80WHYZ-E
Power Source		Main (AC 3 ϕ) 380, 415V / 50Hz, Control (AC 1 ϕ) 220, 240V / 50Hz			
Nominal Cooling Capacity	kW	130	162	197	260
	USRT	37.0	46.1	56.0	73.9
	kcal/h	111,800	139,320	169,420	223,600
Condenser Water Flow Rate (No.1/No.2/No.3)	m ³ /h	27.4	34.2	41.5	54.9
Chilled Water Flow Rate (No.1/No.2/No.3)	m ³ /h	22.4	27.9	33.9	44.7
Capacity Control		Continuous Capacity Control			
	%	100~15, 0			100~15, (7.5)*1, 0
Outer Dimensions	Height	1,506			1,495
	Width	1,764			2,759
	Depth	910			1,070
Net Weight	kg	1,072	1,142	1,212	1,800
Refrigerant	Type	R407C			
	Flow Control	Electronic Expansion Valve			
	Number of Circuits	1			2
Compressor	Type	Semi-Hermetic Screw Type			
	Model (No.1/No.2/No.3)	40ASCCW-Z	50ASCCW-Z	60ASCCW-Z	40ASCCW-Z
	Quantity	1			2
Condenser		Shell-and-Tube Type			
Water Cooler		Shell-and-Tube, Dry Expansion Valve			
Safety Devices		Three-Phase Overcurrent Relay, High-Pressure Switch, Low-Pressure Switch, Oil Heater, Internal Thermostat for Compressor Motor, Fusible Plug, Freeze Protection Thermostat, Reverse Phase Protection Relay, Discharge Gas Thermostat, Operation Hour-Meter and Pressure Relief Valve			
Shipping Dimensions	Height	1,747			1,765
	Width	1,898			2,960
	Depth	1,106			1,250
Shipping Weight *2	kg	1,170	1,240	1,310	1,960
Piping Connections for Condenser	Inlet	With ϕ 78 Inner Diameter Companion Flange			4
	Outlet				4
Piping Connections for Water Cooler	Inlet	3	3	3	With ϕ 142 Inner Diameter Companion Flange
	Outlet	3	3	3	

Model	Standard	RCUG300WHYZ	RCUG340WHYZ	RCUG380WHYZ	RCUG410WHYZ
	Liquid Crystal Display	RCUG300WHYZ-E	RCUG340WHYZ-E	RCUG380WHYZ-E	RCUG410WHYZ-E
Power Source		Main (AC 3 ϕ) 380, 415V / 50Hz, Control (AC 1 ϕ) 220, 240V / 50Hz			
Nominal Cooling Capacity	kW	952	1,061	1,170	1,296
	USRT	270.8	301.8	332.8	368.6
	kcal/h	818,720	912,460	1,006,200	1,114,560
Condenser Water Flow Rate (No.1/No.2/No.3)	m ³ /h	2 x 99.2	121.8/99.2	2 x 121.8	99.1/99.1/71.7
Chilled Water Flow Rate (No.1/No.2/No.3)	m ³ /h	2 x 81.9	100.6/81.9	2 x 100.6	81.8/81.8/59.2
Capacity Control		Continuous Capacity Control			
	%	100~15, (7.5)*1, 0			100~15, (5)*1, 0
Outer Dimensions	Height	1,879			1,879
	Width	2,622			3,983
	Depth	1,922			1,922
Net Weight	kg	5,716	5,846	5,976	8,442
Refrigerant	Type	R407C			
	Flow Control	Electronic Expansion Valve			
	Number of Circuits	2			3
Compressor	Type	Semi-Hermetic Screw Type			
	Model (No.1/No.2/No.3)	130/130ASCCW-Z	170/130ASCCW-Z	170/170ASCCW-Z	130/130/100ASCCW-Z
	Quantity	2			3
Condenser		Shell-and-Tube Type			
Water Cooler		Shell-and-Tube, Dry Expansion Valve			
Safety Devices		Three-Phase Overcurrent Relay, High-Pressure Switch, Low-Pressure Switch, Oil Heater, Internal Thermostat for Compressor Motor, Fusible Plug, Freeze Protection Thermostat, Reverse Phase Protection Relay, Discharge Gas Thermostat, Operation Hour-Meter and Pressure Relief Valve			
Shipping Dimensions	Height	2 x 2,150			3 x 2,150
	Width	2,247			2,247
	Depth	2 x 1,464			3 x 1,464
Shipping Weight *2	kg	6,040	6,170	6,300	8,928
Piping Connections for Condenser	Inlet	2 x With ϕ 116 Inner Diameter Companion Flange			3 x With ϕ 116 Inner Diameter Companion Flange
	Outlet				
Piping Connections for Water Cooler	Inlet	2 x With ϕ 142 Inner Diameter Companion Flange			3 x With ϕ 142 Inner Diameter Companion Flange
	Outlet				

RCUG100WHYZ RCUG100WHYZ-E	RCUG120WHYZ RCUG120WHYZ-E	RCUG150WHYZ RCUG150WHYZ-E	RCUG180WHYZ RCUG180WHYZ-E	RCUG220WHYZ RCUG220WHYZ-E	RCUG260WHYZ RCUG260WHYZ-E
Main (AC 3 ϕ) 380, 415V / 50Hz, Control (AC 1 ϕ) 220, 240V / 50Hz					
323	392	485	589	688	820
91.9	111.5	137.9	167.5	195.7	233.2
277,780	337,120	417,100	506,540	591,680	705,200
68.1	82.6	102.3	124.1	2 x 71.7	99.2/71.7
55.5	67.4	83.4	101.3	2 x 59.2	81.9/59.2
Continuous Capacity Control					
100—15, (7.5)*1, 0		100—15, (5)*1, 0		100—15, (7.5)*1, 0	
1,495		1,685		1,810	1,879
2,759		3,179		2,622	2,622
1,070		1,220		1,922	1,922
1,980	2,070	3,010	3,220	5,452	5,584
R407C					
Electronic Expansion Valve					
2		3		2	
Semi-Hermetic Screw Type					
50ASCCW-Z	60ASCCW-Z	50ASCCW-Z	60ASCCW-Z	100ASCCW-Z	130/100ASCCW-Z
2		3		2	
Shell-and-Tube Type					
Shell-and-Tube, Dry Expansion Valve					
Three-Phase Overcurrent Relay, High-Pressure Switch, Low-Pressure Switch, Oil Heater, Internal Thermostat for Compressor Motor, Fusible Plug, Freeze Protection Thermostat, Reverse Phase Protection Relay, Discharge Gas Thermostat, Operation Hour-Meter and Pressure Relief Valve					
1,765		1,998		2 x 2,150	
2,960		3,320		2,247	
1,250		1,358		2 x 1,464	
2,140	2,230	3,220	3,430	5,776	5,908
4	4	With ϕ 142 Inner Diameter Companion Flange		2 x With ϕ 116 Inner Diameter Companion Flange	
4	4				
With ϕ 142 Inner Diameter Companion Flange				2 x With ϕ 142 Inner Diameter Companion Flange	

RCUG450WHYZ RCUG450WHYZ-E	RCUG490WHYZ RCUG490WHYZ-E	RCUG530WHYZ RCUG530WHYZ-E	RCUG570WHYZ RCUG570WHYZ-E
Main (AC 3 ϕ) 380, 415V / 50Hz, Control (AC 1 ϕ) 220, 240V / 50Hz			
1,428	1,537	1,646	1,755
406.1	437.1	468.1	499.1
1,228,080	1,321,820	1,415,560	1,509,300
3 x 99.1	121.8/99.1/99.1	121.8/121.8/99.1	3 x 121.8
3 x 81.8	100.6/81.8/81.8	100.6/100.6/81.8	3 x 100.6
Continuous Capacity Control			
100~15, (5)*1, 0			
1,879			
3,983			
1,922			
8,574	8,704	8,834	8,964
R407C			
Electronic Expansion Valve			
3			
Semi-Hermetic Screw Type			
130/130/130 ASCCW-Z	170/130/130 ASCCW-Z	170/170/130 ASCCW-Z	170/170/170 ASCCW-Z
3			
Shell-and-Tube Type			
Shell-and-Tube, Dry Expansion Valve			
Three-Phase Overcurrent Relay, High-Pressure Switch, Low-Pressure Switch, Oil Heater, Internal Thermostat for Compressor Motor, Fusible Plug, Freeze Protection Thermostat, Reverse Phase Protection Relay, Discharge Gas Thermostat, Operation Hour-Meter and Pressure Relief Valve			
3 x 2,150			
2,247			
3 x 1,464			
9,060	9,190	9,320	9,450
3 x With ϕ 116 Inner Diameter Companion Flange			
3 x With ϕ 142 Inner Diameter Companion Flange			

NOTES:

- The nominal cooling capacities are based on the following conditions.
Chilled Water Inlet / Outlet Temperature: 12°C / 7°C
Condenser Water Inlet / Outlet Temperature: 30°C / 35°C
- Working Range
Condenser Water Outlet Temperature: 22°C to 37°C
Chilled Water Outlet Temperature: 5°C to 20°C
- () marked with *1 is available by selection switch.
- The units greater than 220WHYZ including 220WHYZ consist of two modules or more and are separately shipped(*2).
- Communication adapter connecting the unit to BMS (Building Management System) is an optional accessory, please contact with HITACHI or HITACHI distributor if required.
- The unit with liquid crystal display differs from the unit with segment code display in electric box, however, both have the same outer dimensions.

R22 General Data

Model	Standard	RCU40WHYZ	RCU50WHYZ	RCU60WHYZ	RCU80WHYZ
	Liquid Crystal Display	RCU40WHYZ-E	RCU50WHYZ-E	RCU60WHYZ-E	RCU80WHYZ-E
Power Source		Main (AC 3 ϕ) 380, 415V / 50Hz, Control (AC 1 ϕ) 220, 240V / 50Hz			
Nominal Cooling Capacity	kW	140	172	213	279
	USRT	39.7	48.9	60.4	79.4
	kcal/h	119,970	147,920	182,750	239,940
Condenser Water Flow Rate (No.1/No.2/No.3)	m ³ /h	28.6	48.9	43.6	57.3
Chilled Water Flow Rate (No.1/No.2/No.3)	m ³ /h	24.0	35.4	36.5	48.0
Capacity Control		Continuous Capacity Control			
Outer Dimensions	Height	100~15, 0			100~15, (7.5)*1, 0
	Width	1,506			1,495
	Depth	1,764			2,759
Net Weight		910			1,070
	kg	1,072	1,142	1,212	1,800
Refrigerant	Type	R22			
	Flow Control	Electronic Expansion Valve			
	Number of Circuits	1			2
Compressor	Type	Semi-Hermetic Screw Type			
	Model (No.1/No.2/No.3)	40ASCCW-Z	50ASCCW-Z	60ASCCW-Z	40ASCCW-Z
	Quantity	1			2
Condenser		Shell-and-Tube Type			
Water Cooler		Shell-and-Tube, Dry Expansion Valve			
Safety Devices		Three-Phase Overcurrent Relay, High-Pressure Switch, Low-Pressure Switch, Oil Heater, Internal Thermostat for Compressor Motor, Fusible Plug, Freeze Protection Thermostat, Reverse Phase Protection Relay, Discharge Gas Thermostat, Operation Hour-Meter and Pressure Relief Valve			
Shipping Dimensions	Height	1,747			1,765
	Width	1,898			2,960
	Depth	1,106			1,250
Shipping Weight *2	kg	1,170	1,240	1,310	1,960
Piping Connections for Condenser	Inlet	With ϕ 78 Inner Diameter Companion Flange			4
	Outlet				4
Piping Connections for Water Cooler	Inlet	3	3	3	With ϕ 142 Inner Diameter Companion Flange
	Outlet	3	3	3	

Model	Standard	RCU300WHYZ	RCU340WHYZ	RCU380WHYZ	RCU410WHYZ
	Liquid Crystal Display	RCU300WHYZ-E	RCU340WHYZ-E	RCU380WHYZ-E	RCU410WHYZ-E
Power Source		Main (AC 3 ϕ) 380, 415V / 50Hz, Control (AC 1 ϕ) 220, 240V / 50Hz			
Nominal Cooling Capacity	kW	971	1,094	1,217	1,328
	USRT	276.1	311.1	346.0	377.7
	kcal/h	835,060	940,840	1,046,620	1,142,080
Condenser Water Flow Rate (No.1/No.2/No.3)	m ³ /h	2 x 99.6	124.8/99.6	2 x 124.8	99.6/99.6/73.1
Chilled Water Flow Rate (No.1/No.2/No.3)	m ³ /h	2 x 83.5	104.6/83.5	2 x 104.6	83.5/83.5/61.3
Capacity Control		Continuous Capacity Control			
Outer Dimensions	Height	100~15, (7.5)*1, 0			100~15, (5)*1, 0
	Width	1,879			1,879
	Depth	2,622			3,983
Net Weight		1,922			1,922
	kg	5,716	5,846	5,976	8,442
Refrigerant	Type	R22			
	Flow Control	Electronic Expansion Valve			
	Number of Circuits	2			3
Compressor	Type	Semi-Hermetic Screw Type			
	Model (No.1/No.2/No.3)	130/130ASCCW-Z	170/130ASCCW-Z	170/170ASCCW-Z	130/130/100 ASCCW-Z
	Quantity	2			3
Condenser		Shell-and-Tube Type			
Water Cooler		Shell-and-Tube, Dry Expansion Valve			
Safety Devices		Three-Phase Overcurrent Relay, High-Pressure Switch, Low-Pressure Switch, Oil Heater, Internal Thermostat for Compressor Motor, Fusible Plug, Freeze Protection Thermostat, Reverse Phase Protection Relay, Discharge Gas Thermostat, Operation Hour-Meter and Pressure Relief Valve			
Shipping Dimensions	Height	2 x 2,150			3 x 2,150
	Width	2,247			2,247
	Depth	2 x 1,464			3 x 1,464
Shipping Weight *2	kg	6,040	6,170	6,300	8,928
Piping Connections for Condenser	Inlet	2 x With ϕ 116 Inner Diameter Companion Flange			3 x With ϕ 116 Inner Diameter Companion Flange
	Outlet				
Piping Connections for Water Cooler	Inlet	2 x With ϕ 142 Inner Diameter Companion Flange			3 x With ϕ 142 Inner Diameter Companion Flange
	Outlet				

RCU100WHYZ	RCU120WHYZ	RCU150WHYZ	RCU180WHYZ	RCU220WHYZ	RCU260WHYZ
RCU100WHYZ-E	RCU120WHYZ-E	RCU150WHYZ-E	RCU180WHYZ-E	RCU220WHYZ-E	RCU260WHYZ-E
Main (AC 3 ϕ) 380, 415V / 50Hz, Control (AC 1 ϕ) 220, 240V / 50Hz					
344	425	516	637	713	842
97.8	120.9	146.8	181.2	202.8	239.5
295,840	365,500	443,760	547,820	613,180	724,120
70.7	87.4	106.1	130.9	2 x 73.9	99.6/73.1
59.2	73.1	88.7	109.5	2 x 61.3	83.5/61.3
Continuous Capacity Control					
100~15, (7.5)*1, 0		100~15, (5)*1, 0		100~15, (7.5)*1, 0	
1,495		1,685		1,810	1,879
2,759		3,179		2,622	2,622
1,070		1,220		1,922	1,922
1,980	2,070	3,010	3,220	5,452	5,584
R22					
Electronic Expansion Valve					
2		3		2	
Semi-Hermetic Screw Type					
50ASCCW-Z	60ASCCW-Z	50ASCCW-Z	60ASCCW-Z	100ASCCW-Z	130/100ASCCW-Z
2		3		2	
Shell-and-Tube Type					
Shell-and-Tube, Dry Expansion Valve					
Three-Phase Overcurrent Relay, High-Pressure Switch, Low-Pressure Switch, Oil Heater, Internal Thermostat for Compressor Motor, Fusible Plug, Freeze Protection Thermostat, Reverse Phase Protection Relay, Discharge Gas Thermostat, Operation Hour-Meter and Pressure Relief Valve					
1,765		1,998		2 x 2,150	
2,960		3,320		2,247	
1,250		1,358		2 x 1,464	
2,140	2,230	3,220	3,430	5,776	5,908
4	4	With ϕ 142 Inner Diameter Companion Flange		2 x With ϕ 116 Inner Diameter Companion Flange	
4	4				
With ϕ 142 Inner Diameter Companion Flange				2 x With ϕ 142 Inner Diameter Companion Flange	

RCU450WHYZ	RCU490WHYZ	RCU530WHYZ	RCU570WHYZ
RCU450WHYZ-E	RCU490WHYZ-E	RCU530WHYZ-E	RCU570WHYZ-E
Main (AC 3 ϕ) 380, 415V / 50Hz, Control (AC 1 ϕ) 220, 240V / 50Hz			
1,457	1,579	1,703	1,825
414.2	449.0	484.0	519.1
1,253,020	1,357,940	1,464,580	1,569,500
3 x 99.6	124.8/99.6/99.6	124.8/124.8/99.6	3 x 124.8
3 x 83.5	104.6/83.5/83.5	104.6/104.6/83.5	3 x 104.6
Continuous Capacity Control			
100~15, (5)*1, 0			
1,879			
3,983			
1,922			
8,574	8,704	8,834	8,964
R22			
Electronic Expansion Valve			
3			
Semi-Hermetic Screw Type			
130/130/130	170/130/130	170/170/130	170/170/170
ASCCW-Z	ASCCW-Z	ASCCW-Z	ASCCW-Z
3			
Shell-and-Tube Type			
Shell-and-Tube, Dry Expansion Valve			
Three-Phase Overcurrent Relay, High-Pressure Switch, Low-Pressure Switch, Oil Heater, Internal Thermostat for Compressor Motor, Fusible Plug, Freeze Protection Thermostat, Reverse Phase Protection Relay, Discharge Gas Thermostat, Operation Hour-Meter and Pressure Relief Valve			
3 x 2,150			
2,247			
3 x 1,464			
9,060	9,190	9,320	9,450
3 x With ϕ 116 Inner Diameter Companion Flange			
3 x With ϕ 142 Inner Diameter Companion Flange			

NOTES:

- The nominal cooling capacities are based on the following conditions.
Chilled Water Inlet / Outlet Temperature: 12°C / 7°C
Condenser Water Inlet / Outlet Temperature: 30°C / 35°C
- Working Range
Condenser Water Outlet Temperature: 22°C to 40°C
Chilled Water Outlet Temperature: 5°C to 20°C
- () marked with *1 is available by selection switch.
- The units greater than 220WHYZ including 220WHYZ consist of two modules or more and are separately shipped(*2).
- Communication adapter connecting the unit to BMS (Building Management System) is an optional accessory, please contact with HITACHI or HITACHI distributor if required.
- The unit with liquid crystal display differs from the unit with segment code display in electric box, however, both have the same outer dimensions.