

HITACHI

Primairy

INVERTER A++ HEAT PUMP

Cooling & Heating





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Maximum comfort with the minimum consumption



04 Cassette Type

06 Ducted Type

08 Floor Ceiling Type

INDOOR UNITS - FEATURES CASSETTE TYPE



HCRA31NEWH
Standard control



HCWA21NEWH
Optional control



General features



Wide Ambient Temperature Range

High cooling and heating performance at wide ambient temperature range.

Cooling mode:



-15°C ~ 48°C
stable running

Heating mode:



-15°C ~ 24°C
stable running



Refrigerant Leakage Detection

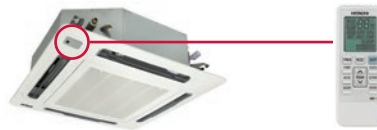
Indoor unit will stop operation automatically and show error code when the refrigerant charging amount is lower than 30%, which can avoid the compressor being damaged by high temperature due to refrigerant leakage. When the refrigerant charging amount is between 30%~80%, the unit will judge itself if error code is necessary. This feature can also better ensure the heat transfer efficiency and the safety of the unit.

Indoor unit features



IR receiver for Remote Controller

Reserved port for Remote sensing which makes control more convenient.



Washable Filter

Washable filter allows for convenience service and maintenance.

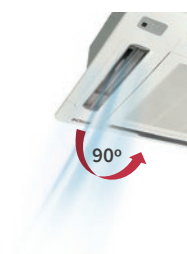


4-Way Airflow

Front air deflectors are adjustable for horizontal or vertical airflow. Smooth airflow can be directed to air condition the whole room or even a particular point for better comfort.



4-Way



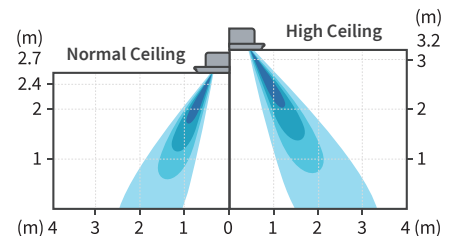
Fresh Air Inlet

Fresh air outside can be led into the room, which keeps room air fresh and ventilated. It's about 15m³/h.



Temperature compensation

Cassette bring temperature compensation setting by wired controller. This function can revise this temperature difference to make a more accurate temperature control.



Indoor Unit

		RCI-3.0UNE1NH	RCI-4.0UNE1NH	RCI-5.0UNE1NH	RCI-6.0UNE1NH	RCI-6.5UNE1NH	
Power supply	V/Ph/Hz	220~240/1/50	220~240/1/50	380~415/3/50	380~415/3/50	380~415/3/50	
Max. input consumption	W	4,100	5,150	6,400	6,300	7,800	
Max. input current	A	18.1	22.5	11.6	11.0	13.1	
Average	Pdesignc	kW	7.070	10.300	12.068	13.400	14.500
	SEER	W/W	6.46	6.13	5.72	6.01	5.87
	Energy Efficiency Class		A++	A++	A+	A+	A+
	Pdesignh	kW	5.680	9.600	10.000	13.500	11.000
	SCOP	W/W	4.08	3.90	3.80	3.87	3.80
Cooling	Capacity	Btu/h	24,123	35,144	41,176	54,721	49,474
	Capacity	kW	7.1	10.3	12.1	13.4	14.5
	Input	W	2,209	3,433	4,190	4,621	5,492
	Current	A	9.7	16.5	7.2	7.4	9.7
	EER	W/W	3.20	3.00	2.88	2.90	2.64
Heating	Capacity	Btu/h	28,000	39,238	47,768	56,100	60,000
	Capacity	kW	8.2	11.5	14.0	16.4	17.6
	Input	W	2,372	3,605	3,900	4,850	5,709
	Current	A	10.5	16.0	7.3	7.4	9.1
	COP	W/W	3.46	3.19	3.59	3.39	3.08
Indoor fan motor	Qty		1	1	1	1	
	Input	W	35	80	124	124	124
	Speed (Hi/Med/Lo)	r/min	450/390/270	600/480/390	630/600/570	700/540/460	700/540/460
Indoor air flow Rated (Hi/Med/Lo)	m ³ /h	1100/976/852	1600/1300/1000	1850/1700/1550	2000/1900/1700	2000/1900/1700	
Indoor air flow Rated (Hi/Med/Lo)	CFM	647/574/501	941/765/588	1088/1000/912	1180/1120/1000	1180/1120/1000	
Indoor noise level (Hi/Med/Lo)	dB(A)	43/40/36	49/45/42	50/46/45	52/45/41	52/46/44	
Indoor noise level (Sound Power)	dB(A)	57	61	62	64	62	
Indoor unit	Dimension (WxHxD)	mm	840×248×840	840×248×840	840×298×840	840×298×840	840×298×840
	Packing (WxHxD)	mm	996×370×956	996×370×956	996×420×956	996×420×956	996×420×956
	Net/Gross weight	kg	25/34	27/36	32/41	32/41	32/41
Drainage water pipe diameter (ID)	mm	IDØ32	IDØ32	IDØ32	IDØ32	IDØ32	
Controller		Remote controller					
Operation temperature	°C	16 - 30					
Qty' per 20' /40' /40'HQ (Indoor unit)	Set	72/144/168	60/120/144	60/120/144	60/120/144	60/120/144	

Outdoor Unit

		RAS-3.0UNESNH1	RAS-4.0UNESNH1	RAS-5.0UNESMH1	RAS-6.0UNESMH1	RAS-6.5UNESMH1	
Power supply	V/Ph/Hz	220~240/1/50	220~240/1/50	380~415/3/50	380~415/3/50	380~415/3/50	
Compressor	Type	ROTARY	ROTARY	ROTARY	ROTARY	ROTARY	
	Rated current (RLA)	A	8.9	5.1	5.1	13.2	
	Refrigerant oil	ml	POE VG74/670	PQE VG74/1000	PQE VG74/1000	68HES-H or equivalent /1650	FV50S or PVE/1400
Outdoor fan motor	Qty		1	1	2	2	
	Input	W	61	121	138	121	121
	Speed	r/min	880	830	850	810	810
Outdoor noise level (Sound Pressure)	dB(A)	53	56	58	56	57	
Outdoor noise level (Sound Power)	dB(A)	68	70	74	69	73	
Throttle type		EEV	EEV	EEV	EEV	EEV	
Outdoor unit	Dimension (WxHxD)	mm	860×670×310	950×840×340	950×1050×340	950×1386×340	950×1386×340
	Packing (WxHxD)	mm	990×730×450	1110×910×460	1110×1200×460	1110×1530×460	1110×1530×460
	Net/Gross weight	kg	51/57	70/80	85/95	113/125	117/129
Refrigerant	Type		R410A	R410A	R410A	R410A	
	Charged volume	kg (GWP eq Ton)	1.70 (3.55)	2.80 (5.85)	3.20 (6.68)	3.78 (7.89)	3.95 (8.25)
Refrigerant piping	Liquid side/ Gas side	mm (inch)	Ø9.52/Ø15.88(3/8"/5/8")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")
	Max. pipe length	m	50	50	50	50	50
	Max. difference in level	m	30	30	30	30	30
Annual energy consumption (cooling)	kWh/a	383	588	757	806	883	
Annual energy consumption (heating)	kWh/a	1,927	3,450	3,675	4,877	4,037	
Ambient temperature	Cooling	°C	-15~48	-15~48	-15~48	-15~48	-15~48
	Heating	°C	-15~24	-15~24	-15~24	-15~24	-15~24
Qty' per 20' /40' /40'HQ (Outdoor unit)	Set	90/186/186	52/106/106	26/53/106	26/53/53	26/53/53	

Nominal testing conditions:

Cooling - Indoor 80.6°F DB / 66.2°F WB (27°C DB / 19°C WB) & Outdoor 95°F DB / 75.2°F WB (35°C DB / 24°C WB)

Heating - Indoor 68°F DB / 59°F WB (20°C DB / 15°C WB) & Outdoor 44.6°F DB / 42.8°F WB (7°C DB / 6°C WB)

INDOOR UNITS FEATURES

DUCTED TYPE



HCRA31NEWH
Standard control



HCWA21NEWH
Optional control

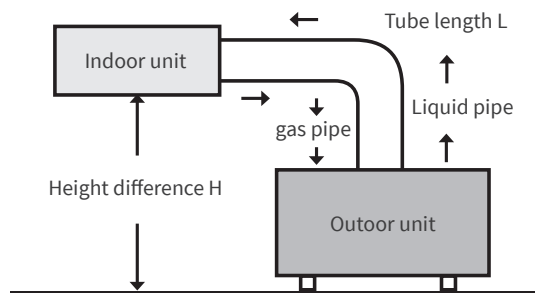


Indoor unit features



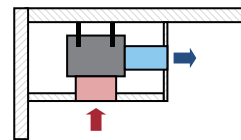
Long piping and Large Height Difference

Up to 50m piping run and 30m height applications can be covered, high flexibility in installation configuration.

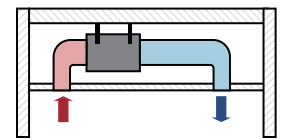


Flexible air return from bottom or rear

Depending on different installation circumstances, the installation will be highly flexible.



Bottom air intake



Rear air intake

These two kinds of design (straight blow & external ducted), without changing equipment, just adjust the ESP setting.



Built-in drain pan

Compared with outside drain pan design, the new built-in drain pan can reduce the dust adhesion, and avoid water leakage.



Built-in drain pan

VS



Outside drain pan



Wide ESP range

Optional wide static pressure range for long ducting and multi-zone applications, more flexible and convenient in installation.

Indoor Unit

		RPIM-3.0UNE1NH	RPIH-4.0UNE1NH	RPIH-5.0UNE1NH	RPIH-6.0UNE1NH	RPIH-6.5UNE1NH	
Power supply	V/Ph/Hz	220~240/1/50	220~240/1/50	380~415/3/50	380~415/3/50	380~415/3/50	
Max. input consumption	W	4,100	5,100	6,400	7,000	7,800	
Max. input current	A	18.1	22.5	11.6	12.0	13.1	
Average	Pdesignc	kW	6.800	10.100	12.026	13.480	15.760
	SEER	W/W	6.17	6.23	5.71	6.08	5.99
	Energy Efficiency Class		A++	A++	A+	A+	A+
	Pdesignh	kW	5.680	8.650	9.930	12.400	11.120
	SCOP	W/W	3.85	3.80	3.77	3.78	3.68
	Energy Efficiency Class		A	A	A	A	A
Cooling	Capacity	Btu/h	23,202	34,461	41,033	45,994	53,773
	Capacity	kW	6.8	10.1	12.0	13.5	15.8
	Input	W	2,230	3,311	4,295	4,464	6,062
	Current	A	9.7	16.5	7.4	7.5	10.0
	EER	W/W	3.05	3.05	2.80	3.02	2.60
	Heating	Capacity	Btu/h	27,100	39,067	47,768	58,000
Capacity		kW	7.9	11.5	14.0	17.0	18.5
Input		W	2,296	3,400	4,100	4,970	5,716
Current		A	10.5	15.2	7.5	7.7	9.0
COP		W/W	3.46	3.38	3.41	3.42	3.23
Indoor fan motor		Qty		1	1	1	1
	Input	W	95	250	250	250	250
	Speed (Hi/Med/Lo)	r/min	890/790/690	800/700/600	910/810/710	1100/1000/900	1100/1000/900
Indoor air flow Rated (Hi/Med/Lo)	m ³ /h	1100/976/852	1450/1250/1050	1750/1500/1300	2400/2200/1900	2400/2200/1900	
Indoor noise level (Hi/Med/Lo)	dB(A)	38/36/34	39/36/35	41/39/35	46/43/40	46/43/40	
Indoor noise level (Sound Power)	dB(A)	58	62	67	70	72	
ESP	Rated	Pa	25	37	50	50	
	Range	Pa	0~80	0~120	0~120	0~120	0~120
Indoor unit	Dimension (WxHxD)	mm	900×270×720	1300×350×800	1300×350×800	1300×350×800	1300×350×800
	Packing (WxHxD)	mm	1170×340×870	1550×410×940	1550×410×940	1550×410×940	1550×410×940
	Net/Gross weight	kg	32/37	51/60	51/60	51/60	51/60
Drainage water pipe diameter (ID)	mm	IDØ32	IDØ32	IDØ32	IDØ32	IDØ32	
Controller		Wired controller					
Operation temperature	°C	16 - 30					
Qty' per 20' /40' /40'HQ (Indoor unit)	Set	84/182/182	35/75/90	35/75/90	35/75/90	35/75/90	

Outdoor Unit

		RAS-3.0UNESNH1	RAS-4.0UNESNH1	RAS-5.0UNESMH1	RAS-6.0UNESMH1	RAS-6.5UNESMH1	
Power supply	V/Ph/Hz	220~240/1/50	220~240/1/50	380~415/3/50	380~415/3/50	380~415/3/50	
Compressor	Type	ROTARY					
	Rated current (RLA)	A	8.9	5.1	5.1	13.2	12.0
	Refrigerant oil	ml	POE VG74/670	PQE VG74/1000	PQE VG74/1000	68HES-H or equivalent /1650	FV50S or PVE/1400
Outdoor fan motor	Qty		1	1	2	2	
	Input	W	61	121	138	121	121
	Speed	r/min	880	830	850	810	810
Outdoor noise level (Sound Pressure)	dB(A)	53	56	58	56	57	
Outdoor noise level (Sound Power)	dB(A)	68	70	74	69	73	
Throttle type		EEV					
Outdoor unit	Dimension (WxHxD)	mm	860×670×310	950×840×340	950×1050×340	950×1386×340	950×1386×340
	Packing (WxHxD)	mm	990×730×450	1110×910×460	1110×1200×460	1110×1530×460	1110×1530×460
	Net/Gross weight	kg	51/57	70/80	85/95	113/125	117/129
Refrigerant	Type	R410A					
	Charged volume	kg (GWP eq Ton)	1.70 (3.55)	2.80 (5.85)	3.20 (6.68)	3.78 (7.89)	3.95 (8.25)
Refrigerant piping	Liquid side/ Gas side	mm (inch)	Ø9.52/Ø15.88(3/8"/5/8")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")
	Max. pipe length	m	50	50	50	50	50
	Max. difference in level	m	30	30	30	30	30
Annual energy consumption (cooling)	kWh/a	386	567	761	800	943	
Annual energy consumption (heating)	kWh/a	2,065	3,174	3,674	4,586	4,205	
Ambient temperature	Cooling	°C	-15~48	-15~48	-15~48	-15~48	-15~48
	Heating	°C	-15~24	-15~24	-15~24	-15~24	-15~24
Qty' per 20' /40' /40'HQ (Outdoor unit)	Set	90/186/186	52/106/106	26/53/106	26/53/53	26/53/53	

Nominal testing conditions:
 Cooling - Indoor 80.6°F DB / 66.2°F WB (27°C DB / 19°C WB) & Outdoor 95°F DB / 75.2°F WB (35°C DB / 24°C WB)
 Heating - Indoor 68°F DB / 59°F WB (20°C DB / 15°C WB) & Outdoor 44.6°F DB / 42.8°F WB (7°C DB / 6°C WB)

INDOOR UNITS FEATURES

FLOOR CEILING TYPE



HCRA31NEWH
Standard control



HCWA21NEWH
Optional control

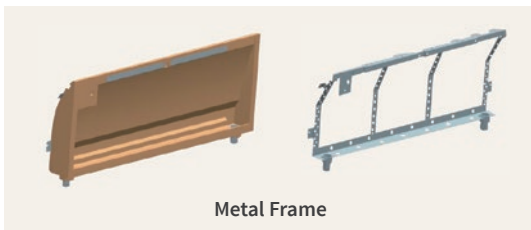


Indoor unit features



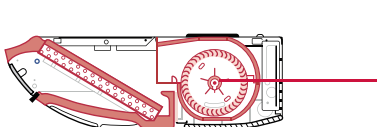
Metal frame of drain pan

The drain pan adopts integrated design with high strength of steel and foaming PS, which can effectively enhance the durability of drain pan and improve the thermal insulation and anti-condensation function of the unit.



Plastic Fan housing

Plastic fan housing can reduce the noise level effectively.



Plastic Fan housing



Installation Flexibility

Fresh air inlet

Allow fresh air intake to improve indoor ventilation and air quality.



● Fresh air inlet

Installation on Floor or Ceiling

Floor installation and ceiling suspended installation allows users great flexibility to choose most optimized configuration for air conditioning needs.



Installation on Floor



Installation on Ceiling

Indoor Unit

		RPFC-3.0UNE1NH	RPFC-4.0UNE1NH	RPFC-5.0UNE1NH	RPFC-6.0UNE1NH	RPFC-6.5UNE1NH	
Power supply	V/Ph/Hz	220~240/1/50	220~240/1/50	380~415/3/50	380~415/3/50	380~415/3/50	
Max. input consumption	W	4,100	5,100	6,400	6,300	8,200	
Max. input current	A	18.1	22.5	11.6	11.0	13.5	
Average	Pdesignc	kW	6.750	10.230	12.050	12.868	14.420
	SEER	W/W	5.79	6.07	5.41	5.99	5.90
	Energy Efficiency Class		A+	A+	A	A+	A+
	Pdesignh	kW	5.630	8.465	10.500	12.000	12.300
	SCOP	W/W	3.92	3.97	3.79	3.80	3.80
	Energy Efficiency Class		A	A	A	A	A
Cooling	Capacity	Btu/h	23,031	34,905	41,115	43,906	49,201
	Capacity	kW	6.8	10.2	12.1	12.9	14.4
	Input	W	2,163	3,680	4,866	4,247	5,381
	Current	A	9.7	17.6	8.3	8.2	10.1
	EER	W/W	3.12	2.78	2.48	3.03	2.68
	Heating	Capacity	Btu/h	28,000	38,385	47,768	55,000
Capacity		kW	8.2	11.3	14.0	16.1	17.6
Input		W	2,393	3,750	4,502	5,150	6,395
Current		A	10.5	16.3	8.2	8.2	9.3
COP		W/W	3.43	3.00	3.11	3.13	2.75
Indoor fan motor		Qty		1	1	1	1
	Input	W	100	140	181	181	181
	Speed (Hi/Med/Lo)	r/min	1280/1100/920	1220/1160/1080	1200/1100/1000	1250/1000/800	1250/1100/950
Indoor air flow Rated (Hi/Med/Lo)	m ³ /h	1100/950/800	1700/1500/1300	2000/1800/1600	2000/1600/1200	2000/1700/1500	
Indoor air flow Rated (Hi/Med/Lo)	CFM	650/570/500	1000/882/765	1176/1059/941	1180/940/710	1180/1000/880	
Indoor noise level (Hi/Med/Lo)	dB(A)	51/48/45	52/51/49	52/50/47	53/48/42	53/50/47	
Indoor noise level (Sound Power)	dB(A)	63	64	66	67	66	
Indoor unit	Dimension (WxHxD)	mm	990×230×680	1285×230×680	1580×230×680	1580×230×680	1580×230×680
	Packing (WxHxD)	mm	1100×350×820	1400×350×820	1690×350×820	1690×350×820	1690×350×820
	Net/Gross weight	kg	30/35	37/44	48/56	48/56	50/58
Drainage water pipe diameter (ID)	mm	IDØ25	IDØ25	IDØ25	IDØ25	IDØ25	
Controller		Remote controller					
Operation temperature	°C	16 - 30					
Qty' per 20' /40' /40'HQ (Indoor unit)	Set	84/168/196	42/84/98	42/84/98	42/84/98	42/84/98	

Outdoor Unit

		RAS-3.0UNESNH1	RAS-4.0UNESNH1	RAS-5.0UNESMH1	RAS-6.0UNESMH1	RAS-6.5UNESMH1	
Power supply	V/Ph/Hz	220~240/1/50	220~240/1/50	380~415/3/50	380~415/3/50	380~415/3/50	
Compressor	Type		ROTARY	ROTARY	ROTARY	ROTARY	
	Rated current (RLA)	A	8.9	5.1	5.1	13.2	12.0
	Refrigerant oil	ml	POE VG74/670	PQE VG74/1000	PQE VG74/1000	68HES-H or equivalent /1650	FV50S or PVE/1400
Outdoor fan motor	Qty		1	1	2	2	
	Input	W	61	121	138	121	121
	Speed	r/min	880	830	850	810	810
Outdoor noise level (Sound Pressure)	dB(A)	53	56	58	56	57	
Outdoor noise level (Sound Power)	dB(A)	68	70	74	69	73	
Throttle type		EEV	EEV	EEV	EEV	EEV	
Outdoor unit	Dimension (WxHxD)	mm	860×670×310	950×840×340	950×1050×340	950×1386×340	950×1386×340
	Packing (WxHxD)	mm	990×730×450	1110×910×460	1110×1200×460	1110×1530×460	1110×1530×460
	Net/Gross weight	kg	51/57	70/80	85/95	113/125	117/129
Refrigerant	Type		R410A	R410A	R410A	R410A	
	Charged volume	kg (GWP eq Ton)	1.70 (3.55)	2.80 (5.85)	3.20 (6.68)	3.78 (7.89)	3.95 (8.25)
Refrigerant piping	Liquid side/ Gas side	mm (inch)	Ø9.52/Ø15.88(3/8"/5/8")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")	Ø9.52/Ø19.05(3/8"/3/4")
	Max. pipe length	m	50	50	50	50	50
	Max. difference in level	m	30	30	30	30	30
Annual energy consumption (cooling)	kWh/a	426	589	803	772	876	
Annual energy consumption (heating)	kWh/a	2,001	2,984	3,868	4,399	4,509	
Ambient temperature	Cooling	°C	-15~48	-15~48	-15~48	-15~48	-15~48
	Heating	°C	-15~24	-15~24	-15~24	-15~24	-15~24
Qty' per 20' /40' /40'HQ (Outdoor unit)	Set	90/186/186	52/106/106	26/53/106	26/53/53	26/53/53	

Nominal testing conditions:
 Cooling - Indoor 80.6°F DB / 66.2°F WB (27°C DB / 19°C WB) & Outdoor 95°F DB / 75.2°F WB (35°C DB / 24°C WB)
 Heating - Indoor 68°F DB / 59°F WB (20°C DB / 15°C WB) & Outdoor 44.6°F DB / 42.8°F WB (7°C DB / 6°C WB)



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