

Developing energy efficient technology,
Providing the best solution for wellbeing system

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AR creates a clean world



Greetings from CEO



CEO Han Seung-il, PE

Hello?

Since founded in 1981, AR has been focusing on the air-conditioners and freezers to design, manufacture and install clean room equipment, air-conditioners, freezers, humidifiers, as well as thermo-hygrostats. Including me, all employees are certified technical masters, engineers, and technicians and working hard with pride to produce the world-best product. The R&D center spares no effort for R&D, the plant produces the best quality products, and offices around Korea including Seoul office provide perfect sales plans and A/S to give customers the top satisfaction.

Customers!

Try our products. Contact AR anytime. You will see diligent, qualified and modest staff. With business expansion through technology development, AR has ISO 9001 quality management system, ISO 14001 environment management system, SQ certificate, quality competitive company (seven years in a row since 2002), bronze medal from 2004 quality management grand prix, CE certificate, quality product selected by Public Procurement Service, and quality certificate from Small and Medium Business Administration; and will continue to expedite operation efficiency. I promise you that AR will work hard to be a good company loved by customers.

Thank you.

History

1981~2001

- 1981. 09 Established Hanil Engineering, Inc.
- 1982. 02 Acquired Engineering Facility Cons. License
- 1984. 06 Acquired Refrigerator Manufacture License
- 1987. 07 Changed corp. into Hanil Plant Eng. Co., Ltd.
- 1995. 04 Established the Research Institute attached to the company
- 1996. 12 QS Certification (ISO9001 Certification)
- 2000. 06 Company name changed into AR Co., Ltd.
- 2000. 11 Acquired A/S Quality Company License

2002~2007

- 2003. 11 Trading business registration
- 2004. 11 Awarded the medal of industrial bronze for good quality management from the Korean Government
- 2005. 01 Concluded exclusive sales contract with NORDMANN ENG.
- 2005. 03 Concluded an OEM supply of Scroll Compressor for Emerson/Copeland
- 2005. 04 Acquired Safety Certification (S mark) (Korea Occupational Safety & Health Agency)
- 2006. 04 Environmental management systems certification (ISO 14001:2004 Certification)

2008~2012

- 2007. 03 Acquired CE certification
- 2009. 01 Certified for energy saving precision air conditioner(GSMBA)
- 2010. 08 Acquired Certificate of INNO-BIZ (Technical innovation business)
- 2010. 11 Awarded service quality prize in the 2010 National Quality management Competition
- 2010. 12 Supply and install Precision Air Conditioner at BRAKA NEWCLEAL POWER PLANT in U.A.E.
- 2011. 11 Selected as Excellent Quality-Competitive firms (10 consecutive years)
- 2012. 04 Acquired Certificate of Excellent Quality Product from Public Procurement Service
- 2012. 10 Inducted into the Hall of Fame of the Certificate of Excellent Service Quality (Eleven consecutive years)



General Type

Precision air conditioner Chiller

Precision Air Conditioner

Precision Air Conditioner

Up Flow Type



Down Flow Type



Name and Structure



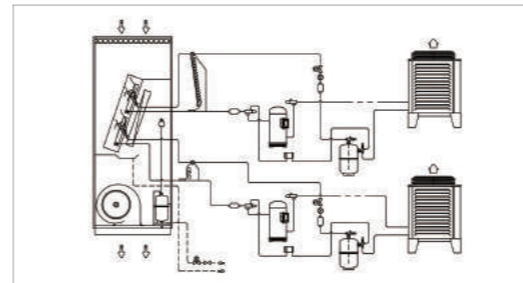
NO	Name and Parts
1	Micom-Controller
2	Control Panel
3	Evaporator (DX-Coil)
4	Pressure Gauge & Switch (High, Low, Diff)
5	Reheating Heater (Electric)
6	Compressor
7	Humidifier
8	Shell & Tube Condenser
9	Freezing-Prevention System
10	Expansion Valve
11	Solenoid Valve
12	Filter Dryer
13	Blower (Sirocco Fan & Motor)

Special Feature

- Acquired CE certification from TUV
- Applying remote centralized management system (Monitoring through internet)
- Flexibility to maintain the condensing unit at operating condition (patent no. 0628849, 0756018)
- Applying digital pressure gauge to monitor remote centralized management system
- Micom touch pad control type
- Frost – prevention device for evaporator (patent no. 0653235)
- Applying scattering prevention device (patent no. 0788739)
- Corrosion-resistant condensate water drain plate (STS304)
- Freezing-prevention system
- Low-noise scroll compressor
- Electronic-electrode type humidifier (Swiss Walter Meier)

Precision Air Conditioner

Air Cooled Type



Energy Saving Product

Option 1. Waste Heat Recovery System

- Reduce 30% of operation cost compare with standard precision air conditioner
- Compensate automatic temperature utilizing waste heat when dehumidifying, striking effect of Energy Efficient

380V-400V / 50Hz

Section	Model	Single Type						Dual Type					
		PA003-A1ES		PA005-A1ES		PA008-A1ES		PA010-A2ES		PA015-A2ES		PA030-A2ES	
		CE	CE	CE	CE	CE	CE	CE	CE	CE	CE	CE	
Cooling Capacity 23°C 50%	R-22 50Hz	BTU/h	31,500	51,000	79,500	106,000	155,000	63,000	102,000	159,000	212,000	260,000	310,000
		kcal/h	7,900	12,900	20,000	26,700	39,100	15,800	25,800	40,000	53,400	65,600	78,200
	R-407C 50Hz	BTU/h	30,200	50,600	75,500	99,500	15,000	60,400	101,200	151,000	199,000	256,000	300,000
		kcal/h	7,600	12,800	19,000	25,100	37,800	15,200	25,600	38,000	50,200	64,600	75,600
Ventilator	Type	Sirocco Fan Type											
	CMM	27	46	66	91	133	55	92	132	182	274	274	
Condenser	Model	ARCD-A030	ARCD-A050	ARCD-A075	ARCD-A100	ARCD-A150	ARCD-A030	ARCD-A050	ARCD-A075	ARCD-A100	ARCD-A150	ARCD-A150	
	CMM	55	95	160	170	240	110	190	320	340	480	480	
Power Consumption	kW	9.03(7.03)	12.10(8.10)	19.42(13.52)	24.53(15.63)	36.45(26.45)	18.06(14.16)	25.20(16.30)	34.84(24.84)	44.06(29.06)	65.90(41.90)	68.90(44.90)	

380V-400V / 60Hz

Section	Model	Single Type						Dual Type					
		PA003-A1ES		PA005-A1ES		PA008-A1ES		PA010-A2ES		PA015-A2ES		PA030-A2ES	
		CE	CE	CE	CE	CE	CE	CE	CE	CE	CE	CE	
Cooling Capacity 23°C 50%	R-22 60Hz	BTU/h	37,800	62,000	96,500	128,000	190,000	75,600	124,000	193,000	256,000	320,000	380,000
		kcal/h	9,500	15,600	24,300	32,300	47,900	19,000	31,200	48,600	64,600	80,600	95,800
	R-407C 60Hz	BTU/h	36,200	62,000	91,000	120,000	181,000	72,400	124,000	182,000	240,000	308,000	362,000
		kcal/h	9,100	15,600	22,900	30,200	46	18,200	31,200	45,800	60,400	77,600	91,200
Ventilator	Type	Sirocco Fan Type											
	CMM	33	55	80	110	160	66	110	160	220	330	330	
Condenser	Model	ARCD-A030	ARCD-A050	ARCD-A075	ARCD-A100	ARCD-A150	ARCD-A030	ARCD-A050	ARCD-A075	ARCD-A100	ARCD-A150	ARCD-A150	
	CMM	68	120	200	220	300	136	240	400	440	600	600	
Power Consumption	kW	9.19(7.19)	12.37(8.37)	19.72(13.82)	24.95(16.05)	37.38(27.28)	18.36(14.46)	25.74(16.84)	35.44(25.44)	44.90(29.90)	67.76(43.76)	70.76(46.76)	

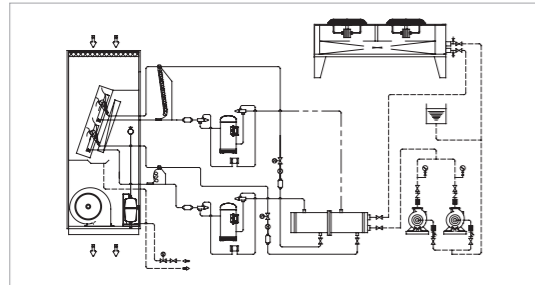
Common Application

Reheater	kcal/h	4,300	6,020	10,320	12,900	17,200	8,600	12,900	17,200	21,500	25,800	30,960
	Type	STS-Aero Finned Tube Type										
Humidifier	kg/h	5(3)	7(3)	12(6)	15(6)	20(10)	10(6)	15(6)	20(10)	25(10)	36(12)	36(12)
	Type	Electrode Type										
Compressor	kW	3.00	3.00	6.10	6.10	9.90	6.10	6.10	9.90	9.90	11.40	11.40
	Type	Hermetic(Scroll) Type										
Evaporator	Face Area(m²)	0.268	0.462	0.572	0.730	1.116	0.533	0.894	1.335	1.831	1.831	2.238
	Type	Multi-Pass Cross Finned Tube Type										
Pipe Diameter (mm)	Suction	15.875	19,050	25,400	25,400	28,575	15,875	19,050	25,400	25,400	28,575	28,575
	Discharge	12,700	15,875	19,050	19,050	25,400	12,700	15,875	19,050	19,050	25,400	25,400
	Liquid Pipe	9.525	12,700	12,700	15,875	22,225	9.525	12,700	12,700	15,875	22,225	22,225
	Water Supply	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
Electric Wire	Wire Thickness(mm)	6(6)	10(6)	16(10)	16(10)	25(16)	16(10)	16(10)	25(16)	35(25)	50(35)	50(35)

- Reheater capacity can be fluctuated according to indoor loads
- Usage of electric power can be changed in the equipment.
- Design standard is ET 7.2°C CT 54.4°C.
- Power consumption is based on design standard of nominal condition
- () means the places such as IDC, data processing center and the place needless of heating load.

Precision Air Conditioner

Water Cooled Type(Ethylene Glycol Type)



Energy Saving Product

Option 1. Waste Heat Recovery System

- Reduce 30% of operation cost compare with standard precision air conditioner
- Compensate automatic temperature utilizing waste heat when dehumidifying, striking effect of Energy Efficient

Option 2. Economizer Coil System

- Utilize low temperature outdoor air in winter season, Reduce 17% annual energy consumption compare with standard precision air conditioner
- Applying cooling water & cold water switching system utilizing ethylene glycol tower

380V-400V / 50Hz

Section	Model	Single Type					Dual Type						
		PA003-W1ES	PA005-W1ES	PA008-W1ES	PA010-W1ES	PA015-W1ES	PA006-W2ES	PA010-W2ES	PA015-W2ES	PA020-W2ES	PA025-W2ES	PA030-W2ES	
Cooling Capacity	R-22 50Hz	BTU/h	31,500	51,000	79,500	106,000	155,000	63,000	102,000	159,000	212,000	260,000	310,000
		kcal/h	7,900	12,900	20,000	26,700	39,100	15,800	25,800	40,000	53,400	65,600	78,200
	kW	9.23	14.90	23.30	31.10	45.40	18.46	29.80	46.60	62.20	76.20	90.80	
	R-407C 50Hz	BTU/h	30,200	50,600	75,500	99,500	15,000	60,400	101,200	151,000	199,000	256,000	300,000
Ventilator	Type	Sirocco Fan Type											
		CMM	27	46	66	91	133	55	92	132	182	274	274
Power Consumption	kW	0.66	0.98	0.86	1.37	3.57	1.32	0.98 x 2	0.86 x 2	1.37 x 2	3.57 x 2	3.57 x 2	

380V-400V / 60Hz

Section	Model	Single Type					Dual Type						
		PA003-W1ES	PA005-W1ES	PA008-W1ES	PA010-W1ES	PA015-W1ES	PA006-W2ES	PA010-W2ES	PA015-W2ES	PA020-W2ES	PA025-W2ES	PA030-W2ES	
Cooling Capacity	R-22 60Hz	BTU/h	37,800	62,000	96,500	128,000	190,000	75,600	124,000	193,000	256,000	320,000	380,000
		kcal/h	9,500	15,600	24,300	32,300	47,900	19,000	31,200	48,600	64,600	80,600	95,800
	kW	11.07	18.20	28.30	37.50	55.70	22.15	36.40	56.60	75.00	93.80	111.40	
	R-407C 60Hz	BTU/h	36,200	62,000	91,000	120,000	181,000	72,400	124,000	182,000	240,000	308,000	362,000
Ventilator	Type	Sirocco Fan Type											
		CMM	33	55	80	110	160	66	110	160	220	330	330
Power Consumption	kW	0.79	1.18	1.04	1.65	4.30	1.56	1.18 x 2	1.04 x 2	1.65 x 2	4.30 x 2	4.30 x 2	

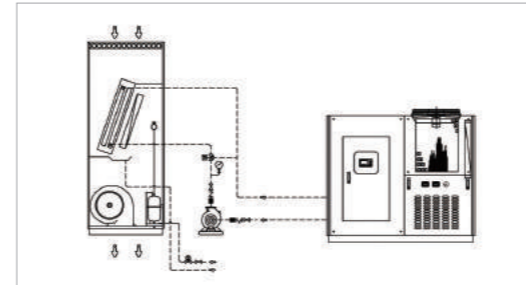
Common Application

Reheater	kcal/h	4,300	6,020	10,320	12,900	17,200	8,600	12,900	17,200	21,500	25,800	30,900
	Type	STS-Aero Finned Tube Type										
Humidifier	kg/h	4	4	8	8	13	8	8	13	13	15	15
	Type	Electrode Type										
Compressor	kW	3.00	3.00	6.10	6.10	9.90	6.10	6.10	9.90	9.90	11.40	11.40
	Type	Hermetic(Scroll) Type										
Evaporator	kW	3.25	3.79	6.00	7.50	11.94	3.25 x 2	3.79 x 2	6.00 x 2	7.50 x 2	10.44 x 2	11.94 x 2
	Type	Multi-Pass Cross Finned Tube Type										
Pipe Diameter (mm)	Face Area(m²)	0.268	0.462	0.533	0.572	0.730	0.894	1.116	1.335	1.831	1.831	2.238
	Suction	15.875	19.050	25.400	25.400	28.575	15.875	19.050	25.400	25.400	28.575	28.575
	Discharge	12.700	15.875	19.050	19.050	25.400	12.700	15.875	19.050	19.050	25.400	25.400
	Liquid Pipe	9.525	12.700	12.700	15.875	22.225	9.525	12.700	12.700	15.875	22.225	22.225
	Water Supply	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
Refrigerant	Drain	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40
	Plumbing	25A	32A	40A	50A	50A	40A	50A	50A	65A	80A	80A
E/Glycol Tower	Model	R-22 / R-407C										
		EG-D0030	EG-D0050	EG-D0075	EG-D0100	EG-D0150	EG-D0060	EG-D0100	EG-D0150	EG-D0200	EG-D0250	EG-D0300
		78	130	195	260	390	156	260	390	520	780	780
		0.40	0.75	0.40 x 2	0.75 x 2	0.75 x 2	0.40 x 2	0.75 x 2	0.75 x 2	0.75 x 4	0.75 x 4	0.75 x 4
Circulation Pump	Flow(LPM)	45	75	113	150	225	90	150	225	300	450	450
		0.56	0.75	0.75	1.50	2.20	0.75	1.50	2.20	2.20	3.70	3.70
Free Cooling Valve (Option)	Type	3 Way Control Valve										
		OCT Water	25A	25A	32A	40A	40A	32A	40A	40A	50A	65A
Electric Wire	Wire Thickness(mm)	6(6)	10(6)	16(10)	16(10)	25(16)	16(10)	16(10)	25(16)	35(25)	50(35)	50(35)

- Reheater capacity can be fluctuated according to indoor loads.
- Usage of electric power can be changed in the equipment.
- Design standard is ET 7.2°C CT 54.4°C.
- Power consumption is based on design standard of nominal condition
- () means the places such as IDC, data processing center and the place needless of heating load.

Precision Air Conditioner

Chilled Water Type



Energy Saving Product

Option 3. Energy Saving Chiller System

- Utilize low temperature outdoor air in winter season, Reduce 25% annual energy consumption compare with standard precision air conditioner
- Reduce operational costs in winter season utilizing Energy Efficient Chiller

380V-400V / 50Hz

Section	Model	PA003-C1ES	PA005-C1ES	PA006-C1ES	PA008-C1ES	PA010-C1ES	PA015-C1ES	PA020-C1ES	PA030-C1ES
		Cooling Capacity	BTU/h	36,000	60,000	72,000	90,000	120,000	180,000
kcal/h	9,072		15,120	18,144	22,680	30,240	45,360	60,480	90,720
kW	10.55		17.58	20.10	26.37	35.16	52.74	70.33	105.49
Ventilator	Type	Sirocco Fan Type							
	CMM	27	46	55	66	91	133	182	274
	kW	0.66	0.98	1.29	0.86	1.37	0.86 x 2	1.37 x 2	3.57 x 2
Power Consumption	kW	5.66(3.66)	7.98(3.98)	11.29(7.39)	12.86(6.96)	16.37(7.47)	21.72(11.72)	27.74(12.74)	43.14(19.14)
Electric Wire	Wire Thickness(mm)	4(2.5)	6(2.5)	10(6)	10(6)	10(6)	16(10)	25(10)	35(16)

380V-400V / 60Hz

Section	Model	PA003-C1ES	PA005-C1ES	PA006-C1ES	PA008-C1ES	PA010-C1ES	PA015-C1ES	PA020-C1ES	PA030-C1ES
		Cooling Capacity	BTU/h	36,000	60,000	72,000	90,000	120,000	180,000
kcal/h	9,072		15,120	18,144	22,680	30,240	45,360	60,480	90,720
kW	10.55		17.58	20.10	26.37	35.16	52.74	70.33	105.49
Ventilator	Type	Sirocco Fan Type							
	CMM	33	55	66	80	110	160	220	330
	kW	0.79	1.18	1.56	1.04	1.65	1.04 x 2	1.65 x 2	4.3 x 2
Power Consumption	kW	5.79(3.79)	8.18(4.18)	11.56(7.66)	13.04(7.14)	16.65(7.75)	22.08(12.08)	28.30(13.30)	44.60(20.60)
Electric Wire	Wire Thickness(mm)	6(2.5)	6(4)	10(6)	10(6)	16(6)	16(10)	25(16)	35(16)

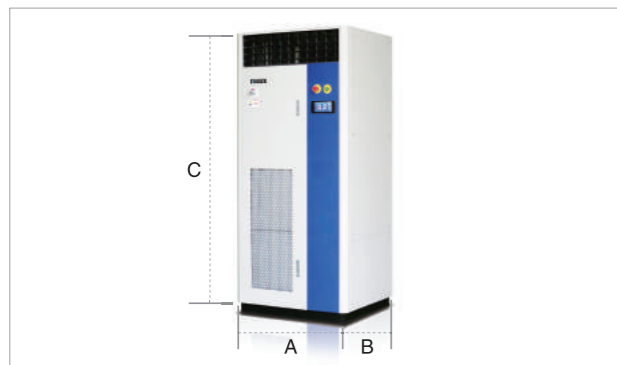
Common Application

Reheater	kcal/h	4,300	6,020	8,600	10,320	12,900	17,200	21,500	30,900
	Type	STS-Aero Finned Tube Type							
Humidifier	kg/h	4	4	8	8	13	13	13	15
	Type	Electrode Type							
Cooling Coil	kW	3.00	3.00	6.10	6.10	9.90	9.90	11.40	11.40
	Type	Multi-Pass Cross Finned Tube Type							
Pipe Diameter (mm)	Face Area(m²)	0.254	0.420	0.496	0.537	0.730	1.247	1.619	2.188
	Row	5	5	5	5	5	5	5	5
Circulation Volume	Water Supply	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35
	Drain	25.40	25.40	25.40	25.40	25.40	25.40	25.40	25.40
Electric Wire	Plumbing	31.75	31.75	44.45	44.45	50.80	50.80	63.50	63.50
	Flow(LPM)	30	50	60	75	100	150	200	300

- In case of supplying cold water(5~7°C) from Chilling Unit or existing refrigerator.
- Reheater capacity can be fluctuated according to indoor loads.
- Usage of electric power can be changed in the equipment.
- Power consumption is based on design standard of nominal condition
- () means the places such as IDC, data processing center and the place needless of heating load.

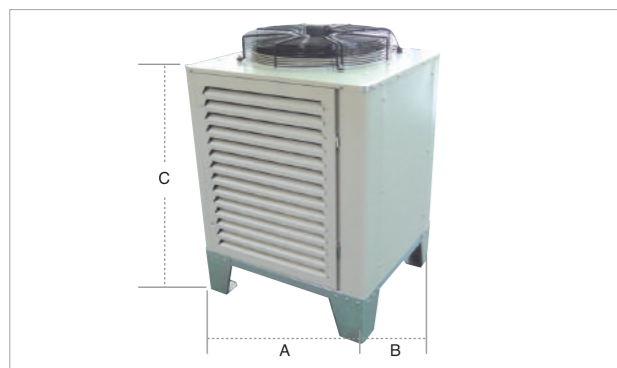
Precision Air Conditioner

Dimension



Up Flow Type

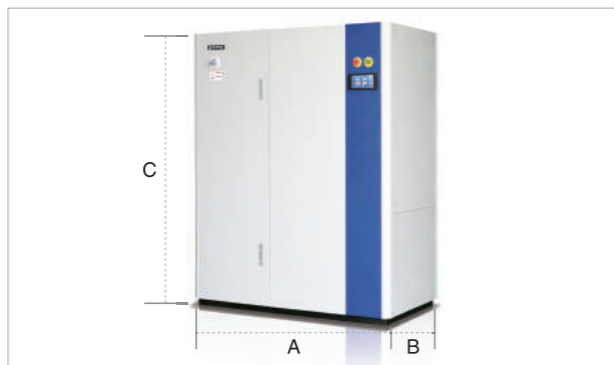
Model		A(mm)	B(mm)	C(mm)	Weight(kg)	
Air Cooled Type	Single Type	PA003-A1ES	765	650	2,050	260
		PA005-A1ES	900	800	2,050	310
		PA008-A1ES	1,000	870	2,050	330
	Dual Type	PA010-A1ES	1,200	900	2,200	400
		PA015-A1ES	1,500	970	2,200	660
		PA006-A2ES	1,000	750	2,050	480
Water Cooled Type (Ethylene Glycol Type)	Single Type	PA010-A2ES	1,500	830	2,150	670
		PA015-A2ES	1,800	870	2,150	730
		PA020-A2ES	2,100	970	2,205	925
	Dual Type	PA025-A2ES	2,100	1,000	2,205	1,105
		PA030-A2ES	2,600	1,000	2,205	1,130
		PA003-W1ES	765	650	2,050	300
Water Cooled Type (Ethylene Glycol Type)	Single Type	PA005-W1ES	900	800	2,050	380
		PA008-W1ES	1,000	870	2,050	400
		PA010-W1ES	1,200	900	2,200	500
	Dual Type	PA015-W1ES	1,500	970	2,200	810
		PA006-W2ES	1,000	750	2,050	545
		PA010-W2ES	1,500	830	2,150	780
Dual Type	PA015-W2ES	1,800	870	2,150	25	
	PA020-W2ES	2,100	970	2,205	1,030	
	PA025-W2ES	2,100	1,000	2,205	1,175	
	PA030-W2ES	2,600	1,000	2,205	1,250	



Air Cooled Condenser

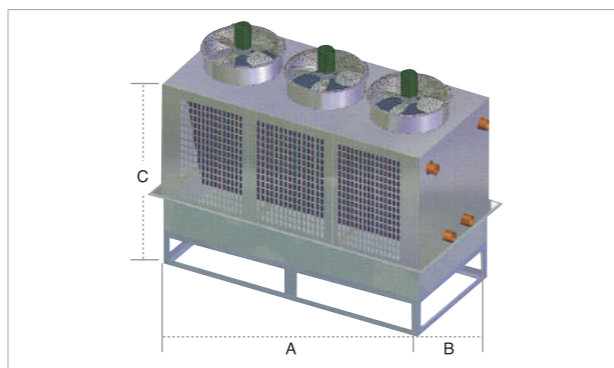
Model	A(mm)	B(mm)	C(mm)	Weight(kg)
CD-003-A	675	682	995	86
CD-005-A	835	782	1,085	120
CD-008-A	1,300	732	1,135	145
CD-010-A	1,415	822	1,195	185
CD-015-A	1,650	880	1,300	300

* Its size can be changed as the circumstance of the country



Down Flow Type

Model		A(mm)	B(mm)	C(mm)	Weight(kg)	
Air Cooled Type	Single Type	PA003-A1ES	765	670	1,850	260
		PA005-A1ES	900	750	1,850	310
		PA008-A1ES	1,000	870	1,915	330
	Dual Type	PA010-A1ES	1,200	970	2,095	400
		PA015-A1ES	1,500	970	2,095	680
		PA006-A2ES	1,000	750	1,850	475
Water Cooled Type (Ethylene Glycol Type)	Single Type	PA010-A2ES	1,500	830	1,915	660
		PA015-A2ES	1,800	900	1,915	715
		PA020-A2ES	2,100	970	2,095	905
	Dual Type	PA025-A2ES	2,100	1,000	2,095	1,075
		PA030-A2ES	2,600	1,000	2,095	1,100
		PA003-W1ES	765	670	1,850	300
Water Cooled Type (Ethylene Glycol Type)	Single Type	PA005-W1ES	900	750	1,850	380
		PA008-W1ES	1,000	870	1,915	400
		PA010-W1ES	1,200	970	2,095	500
	Dual Type	PA015-W1ES	1,500	970	2,095	790
		PA006-W2ES	1,000	800	1,850	540
		PA010-W2ES	1,500	830	1,915	770
Dual Type	PA015-W2ES	1,800	900	1,915	810	
	PA020-W2ES	2,100	970	2,095	1,010	
	PA025-W2ES	2,100	1,000	2,095	1,145	
	PA030-W2ES	2,600	1,000	2,095	1,200	



Ethylene Glycol Tower

Model		A(mm)	B(mm)	C(mm)	Weight(kg)
Dry Type	EG008-D	1,600	985	970	270
	EG010-D	1,750	1,140	970	340
	EG020-D	3,300	1,100	970	700
	EG030-D	4,800	1,100	970	850
Spray Type	EG050-S	2,410	1,330	1,745	2,000
	EG070-S	3,230	1,330	1,745	2,500
	EG100-S	4,450	1,350	1,760	3,500
	EG120-S	4,450	1,350	2,170	4,000
	EG150-S	7,320	1,500	1,930	5,500

Precision Air Conditioner

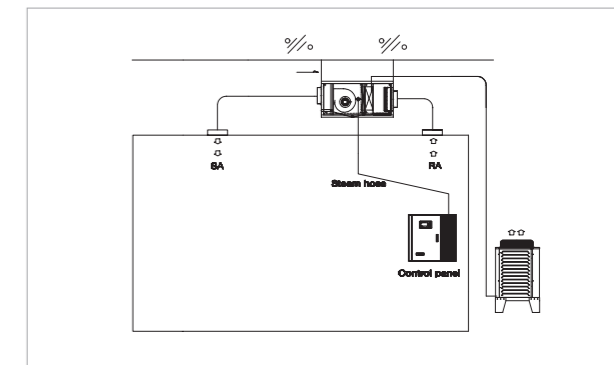
Ceiling Concealed Type



380V-400V / 50Hz

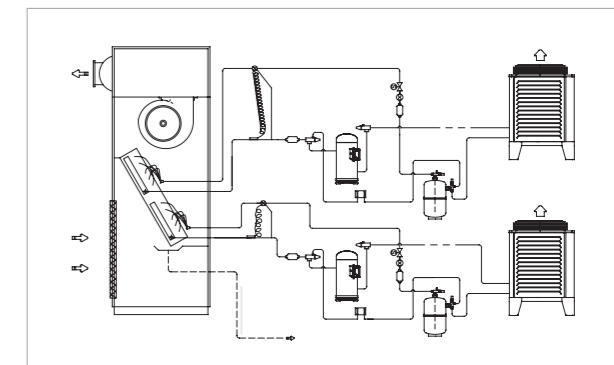
Section		Model	PA003-A1STC	PA005-A1STC
Cooling Capacity	R-22 50Hz	BTU/h	31,500	51,000
		kcal/h	7,900	12,900
		kW	9.23	14.90
	R-407C 50Hz	BTU/h	30,200	50,600
		kcal/h	7,600	12,800
		kW	8.84	14.80
Reheater	kcal/h	4,300	6,020	
	Type	STS-Aero Finned Tube Type		
Humidifier	Type	Electrode Type		
	kW	3.00	3.00	
Ventilator	Type	Sirocco Fan Type		
	Air Volume(CMM)	27	46	
Compressor	Motor(kW)	0.33	0.66	
	Type	Hermetic(Scroll) Type		
Condenser	kW	3.25	3.79	
	Model	ARCD-A030	ARCD-A050	
	Air Volume(CMM)	55	95	
Control	Motor(kW)	0.12	0.33	
	Electricity Refrigerant	Micom Control Type Thermostatic Type		
Evaporator	Type	Multi-Pass Cross Finned Tube Type		
	Front Size(m ²)	0.327	0.545	
Power Consumption	kW	8.70	11.78	
Electric Wire	Wire Thickness(mm)	6(6)	10(6)	
	External Size	Indoor Unit(WxLxH)	1100 x 1100 x 550	1300 x 1350 x 570
Weight(kg)	Outdoor Unit(WxLxH)	675 x 682 x 995	835 x 782 x 1085	
	Indoor Unit	220	300	
	Outdoor Unit	86	120	

Special Air Conditioner



380V-400V / 60Hz

Section		Model	PA003-A1STC	PA005-A1STC
Cooling Capacity	R-22 60Hz	BTU/h	37,800	62,000
		kcal/h	9,500	15,600
		kW	11.07	18.20
	R-407C 60Hz	BTU/h	36,200	62,000
		kcal/h	9,100	15,600
		kW	10.61	18.20
Reheater	kcal/h	4,300	6,020	
	Type	STS-Aero Finned Tube Type		
Humidifier	Type	Electrode Type		
	kW	3.00	3.00	
Ventilator	Type	Sirocco Fan Type		
	Air Volume(CMM)	33	55	
Compressor	Motor(kW)	0.2 x 2	0.4 x 2	
	Type	Hermetic(Scroll) Type		
Condenser	kW	3.25	3.79	
	Model	ARCD-A030	ARCD-A050	
	Air Volume(CMM)	68	120	
Control	Motor(kW)	0.15	0.40	
	Electricity Refrigerant	Micom Control Type Thermostatic Type		
Evaporator	Type	Multi-Pass Cross Finned Tube Type		
	Front Size(m ²)	0.327	0.545	
Power Consumption	kW	8.80	11.99	
Electric Wire	Wire Thickness(mm)	6(6)	10(6)	
	External Size	Indoor Unit(WxLxH)	1100 x 1100 x 550	1300 x 1350 x 570
Weight(kg)	Outdoor Unit(WxLxH)	675 x 682 x 995	835 x 782 x 1085	
	Indoor Unit	220	300	
	Outdoor Unit	86	120	



Chiller



- ① Control Panel
- ② Compressor
- ③ Circulation Pump
- ④ Tank (SUS)
- ⑤ Fan & Motor
- ⑥ Condenser Coil
- ⑦ Evaporator
- ⑧ Digipressure & Gauge
- ⑨ Accumulator

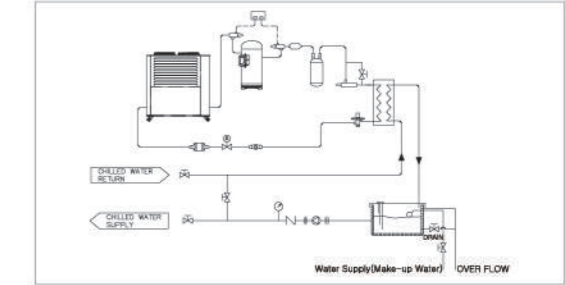
Application

- Medical Treatment Equipment Cooling System : MRI Cooling System, CT Cooling System
- Food, Pharmacy, Chemical Factory production process Cooling System
- Semiconductor equipment & Industry Lazer Cooling System
- RC type Cooling System for high density server room

Features

- Applying remote centralized management system (Monitoring through internet)
- Applying digital pressure gauge to monitor remote centralized management system
- Micom touch pad control type
- Freezing-prevention system
- Low-noise scroll compressor
- Can be manufactured Temperature of cold water or BRINE by - 40°C~20°C
- Easy to adjust capacity by temperature selecting
- Applied automatic water supply conversion device when equipment breakdown(option)
- Installed Scale prevention filter(option)

Chiller



380V-400V / 50Hz

Section	Model	Single Type						Dual Type						
		CH005-A1	CH008-A1	CH010-A1	CH015-A1	CH020-A1	CH030-A1	CH010-A2	CH015-A2	CH020-A2	CH030-A2	CH040-A2	CH060-A2	
Cooling Capacity	R-22 50Hz	BTU/h	39,300	62,500	85,000	121,000	162,000	252,000	78,600	125,000	170,000	242,000	324,000	504,000
		kcal/h	9,900	15,800	21,400	30,500	40,800	63,500	19,800	31,600	42,800	61,000	81,600	127,000
	kW	11.52	18.31	24.91	35.46	47.47	73.84	23.04	36.62	49.82	70.92	94.94	147.68	
	R-407C 50Hz	BTU/h	36,800	60,700	80,100	116,000	156,000	240,000	73,600	121,400	160,200	232,000	312,000	480,000
kcal/h		9,300	15,300	20,200	29,200	39,300	60,500	18,600	30,600	40,400	58,400	78,600	121,000	
		kW	10.78	17.79	23.47	33.99	45.71	70.33	21.56	35.58	46.94	67.98	91.42	140.66
Condenser	Type	Air Cooled Condenser Coil						Air Cooled Condenser Coil						
	AirVolume(CMM)	100	170	180	250	330	500	200	340	360	500	660	1,000	
	Motor(kW)	0.12 x 2	0.29 x 2	0.33 x 2	0.47 x 2	0.56 x 2	0.56 x 3	0.24 x 2	0.58 x 2	0.66 x 2	0.47 x 4	0.56 x 4	0.56 x 6	
Power Consumption	kW	6.59	10.23	12.96	15.08	24.72	37.98	12.48	19.66	25.12	29.76	49.04	73.46	
Electric Wire	Wire Thickness(mm)	4	10	10	10	16	25	10	16	16	25	35	50	

380V-400V / 60Hz

Section	Model	Single Type						Dual Type						
		CH005-A1	CH008-A1	CH010-A1	CH015-A1	CH020-A1	CH030-A1	CH010-A2	CH015-A2	CH020-A2	CH030-A2	CH040-A2	CH060-A2	
Cooling Capacity	R-22 60Hz	BTU/h	49,000	76,500	104,000	151,000	199,000	303,000	98,000	153,000	208,000	302,000	398,000	606,000
		kcal/h	12,400	19,300	26,200	38,100	50,200	76,400	24,800	38,600	52,400	76,200	100,400	152,800
	kW	14.36	22.42	30.47	44.25	58.31	88.79	28.72	44.84	60.94	88.50	116.62	177.58	
	R-407C 60Hz	BTU/h	44,600	72,600	97,900	140,500	188,000	293,000	89,200	145,200	195,800	281,000	376,000	586,000
kcal/h		11,200	18,300	24,700	35,400	47,400	73,800	22,400	36,600	49,400	70,800	94,800	147,600	
		kW	13.07	21.27	28.69	41.17	55.09	85.86	26.14	42.54	57.38	82.34	110.18	171.72
Condenser	Type	Air Cooled Condenser Coil						Air Cooled Condenser Coil						
	AirVolume(CMM)	120	200	220	300	400	600	240	400	440	600	800	1,200	
	Motor(kW)	0.15 x 2	0.35 x 2	0.4 x 2	0.57 x 2	0.67 x 2	0.67 x 3	0.30 x 2	0.70 x 2	0.80 x 2	0.57 x 4	0.67 x 4	0.67 x 6	
Power Consumption	kW	6.65	10.35	13.10	15.28	24.94	38.31	12.60	19.90	25.40	30.16	49.48	74.12	
Electric Wire	Wire Thickness(mm)	6	10	10	10	16	25	10	16	16	25	35	50	

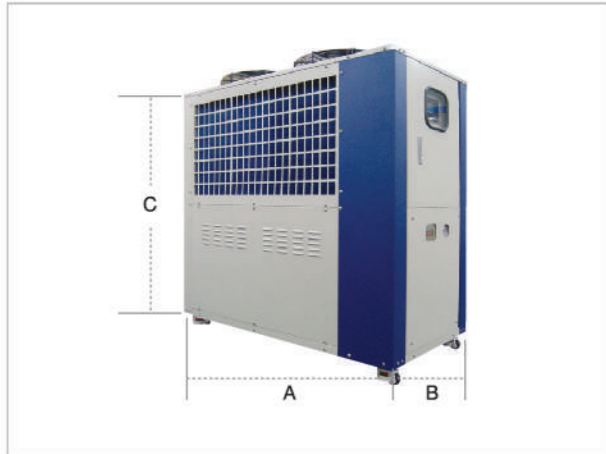
Common Application

Section	Model	Single Type						Dual Type					
		CH005-A1	CH008-A1	CH010-A1	CH015-A1	CH020-A1	CH030-A1	CH010-A2	CH015-A2	CH020-A2	CH030-A2	CH040-A2	CH060-A2
Compressor	Type	Hermetic Scroll Type						Hermetic Scroll Type					
	kW	5.25	8.15	10.80	11.94	21.40	32.30	5.25 x 2	8.15 x 2	10.80 x 2	11.94 x 2	21.40 x 2	32.30 x 2
Control	Electricity	Micom Control						Micom Control					
	Refrigerant	Expansion Valve Type						Expansion Valve Type					
Cooler		Braze Plate Heat Exchanger Type or Tank & Coil Type						Braze Plate Heat Exchanger Type or Tank & Coil Type					
Circulation Pump	Type	Horizontal, Multi Stage Pump						Horizontal, Multi Stage Pump					
	Flow Rate(LPM)	47	70	93	140	187	280	93	140	187	280	375	560
	Motor(kW)	1.10	1.50	1.50	2.20	2.20	4.00	1.50	2.20	2.20	4.00	4.00	5.50
Pipe Diameter(mm)	Chilled Water In/Out	32A	40A	50A	50A	65A	65A	50A	50A	65A	65A	80A	80A
	Water Supply	15A	15A	15A	15A	15A	15A	15A	15A	15A	15A	15A	15A
	Drain	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A

- Design standard is ET 0°C, CT 54/4°C, Ethylene Glycol 30%

Chiller

Dimension

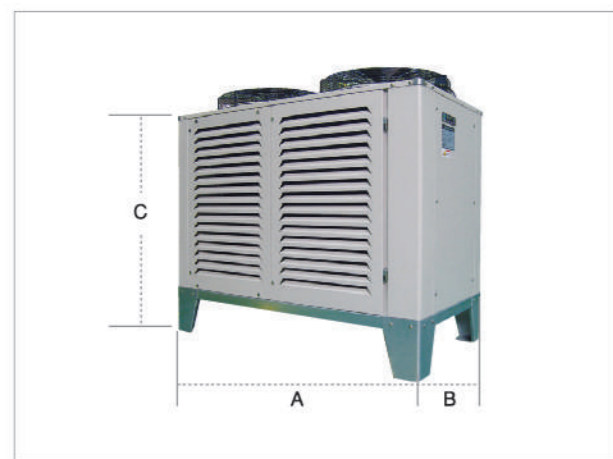


Integrated Type

Model		A(mm)	B(mm)	C(mm)	Weight(kg)	
Integrated Type	Single Type	CH005-A1	1,435	732	1,280	468
		CH008-A1	1,535	732	1,480	589
		CH010-A1	1,635	782	1,578	698
		CH015-A1	1,735	880	1,690	819
		CH020-A1	1,935	990	1,890	1,160
		CH030-A1	2,755	990	1,920	1,660
Dual Type	Dual Type	CH010-A2	2,150	830	1,280	468
		CH015-A2	2,300	910	1,480	589
		CH020-A2	2,530	1,060	1,578	698
		CH030-A2	3,600	1,060	1,690	819
		CH040-A2	4,100	1,060	1,890	1,160
		CH060-A2	5,900	1,060	1,920	1,660

Separated Type

Model		A(mm)	B(mm)	C(mm)	Weight(kg)	
Separated Type	Single Type	CH005-A1	880	670	1,600	260
		CH008-A1	1,000	670	1,600	374
		CH010-A1	1,000	800	1,635	443
		CH015-A1	1,200	800	1,690	520
		CH020-A1	1,250	1,000	1,690	755
		CH030-A1	1,700	1,200	1,720	975



Air Cooled Condenser

Model	A(mm)	B(mm)	C(mm)	Weight(kg)
CD003-A	675	682	995	86
CD005-A	835	782	1,085	120
CD008-A	1,300	732	1,135	145
CD010-A	1,415	822	1,195	185
CD015-A	1,650	880	1,300	300

* Its size can be changed as the circumstance of the country

Energy Saving Type

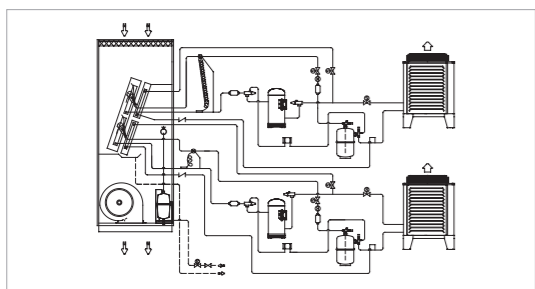
Precision Air Conditioner

Option 1
Waste Heat Recovery System

Option 2
Economizer Coil System

Chiller
Option 3
Energy Saving Chiller System

Precision Air Conditioner



Option 1. Waste Heat Recovery System

Comparison of energy conservation effect for Energy Saving precision air conditioner (Basis on 7.5R/T, Korea)

Power calculation data of standard precision air conditioner

Operating Condition	Power Equipment	Power Consumption(kW)	Number of Operating Month	Number of Operating Days	Operating Time	Operating Rate(%)	Power Consumption(kW)	Hourly Power Cost	Annual Operating Cost(US\$)
Basic operation	Blower	0.75	12	30	24	100	6,480	80	472.00
Cooling operation	Compressor	5.64	12	30	24	70	34,111	80	2,481.00
Dehumidifying Operation	Heater	12.00	5	30	24	70	30,240	80	2,200.00
Humidifying Operation	Humidifier	6.10	7	30	24	50	15,372	80	1,118.00
Heating operation	Heater	12.00	3	30	24	50	12,960	80	943.00
Total							99,163	(A)	7,214.00

Power calculation data of Energy Saving precision air conditioner

Operating Condition	Power Equipment	Power Consumption(kW)	Number of Operating Month	Number of Operating Days	Operating Time	Operating Rate(%)	Power Consumption(kW)	Hourly Power Cost	Annual Operating Cost(US\$)
Basic operation	Blower	0.75	12	30	24	100	6,480	80	472.00
Cooling operation	Compressor	5.64	12	30	24	70	34,111	80	2,481.00
Dehumidifying Operation	Hot Gas	0	5	30	24	70	0	80	0.00
Humidifying Operation	Humidifier	6.10	7	30	24	50	15,372	80	1,118.00
Heating operation	Heater	12.00	3	30	24	50	12,960	80	943.00
Total							68,923	(B)	5,014.00

(A)-(B) = US\$2,200.00 (30% reduction)

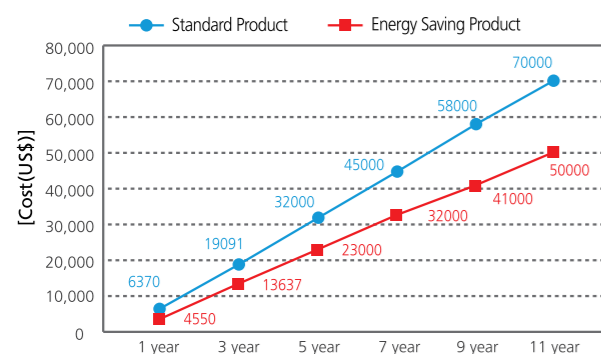
Summary table for reduction of annual operation cost by precision air conditioner capacity

Precision Air Conditioner Dimensions	Annual Power Consumption(kW)			Annual Operation Cost Reduction (US\$)
	Standards Products	Energy Efficient Products	Reduction Rate (%)	
3RT	42,745	30,145	29	917.00
5RT	64,581	46,941	27	1,283.00
6RT	85,310	60,110	30	1,833.00
7.5RT	99,163	68,923	30	2,200.00
10RT	133,014	95,214	28	2,750.00
15RT	178,129	127,729	28	3,666.00
20RT	234,698	171,698	27	4,582.00
30RT	352,901	262,181	26	6,598.00

* Expected results: Ex. Installed 20RT X 100units of Energy Saving precision air conditioner at OO Data Center

1. Saved operation cost for 1 year : 100units X 4,582.00 years = US\$458,200.00
2. Saved usage cost for 5 year : US\$458,200.00 X 5 years = US\$2,291,000.00
3. Saved usage cost for 10 year : US\$4,582.00 X 10 years = US\$4,582,000.00

Annual energy use rate (Basis on 7.5R/T, Korea)



Certificate of Patent



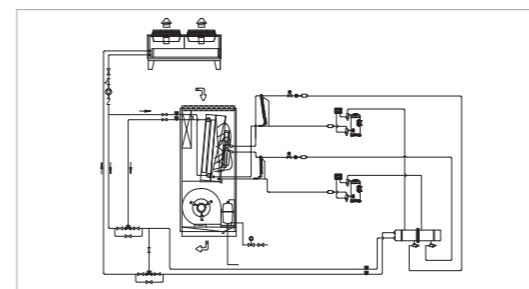
Test Reports



Performance Certificate

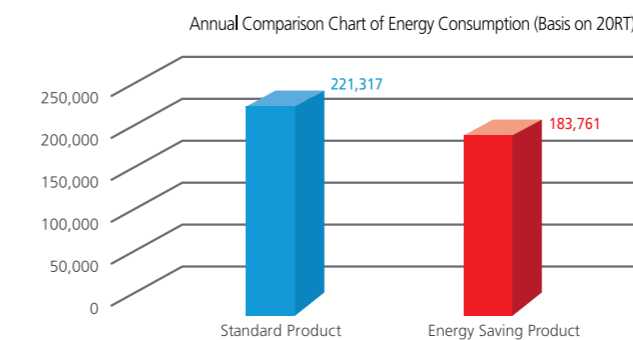
Dimension The same as general type

Precision Air Conditioner



Option 2. Economizer Coil System

Annual energy use rate (Basis on 20R/T, Korea)



Certificate of Patent



Test Report

Main component of Outdoor Air Switching System



Applied 3 Way-Valve. According to cooling Load fluctuation, this system control the flow of cold water & cooling water by electronic signal (modulating control), and possible to set up the maximum & minimum point with program logic.



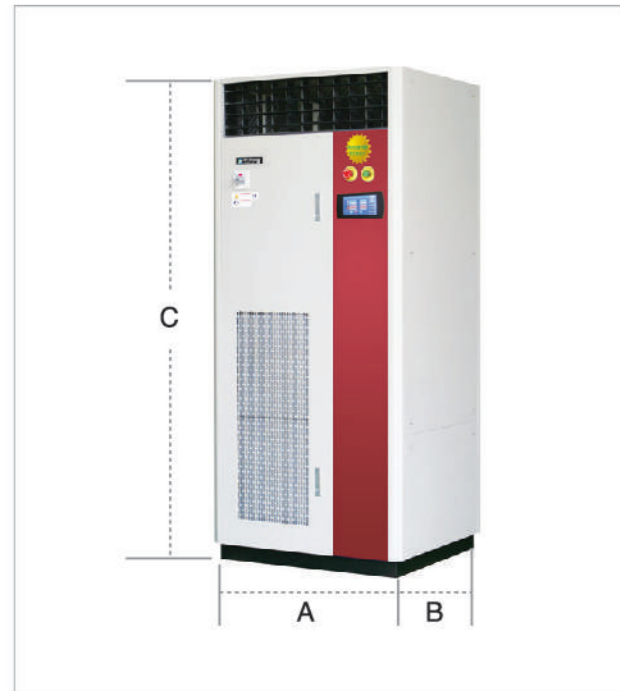
Applied Multipass Cross Finned Tube Type to Refrigerant Direct Expansion Coil and Cold Water Coil. Using Hydrophilic Coating Fin in order to minimize the reduction of thermal efficiency caused by Condensation water, and stainless steel plate, excellent corrosion resistance is used to the frame.



Precision Air Conditioner

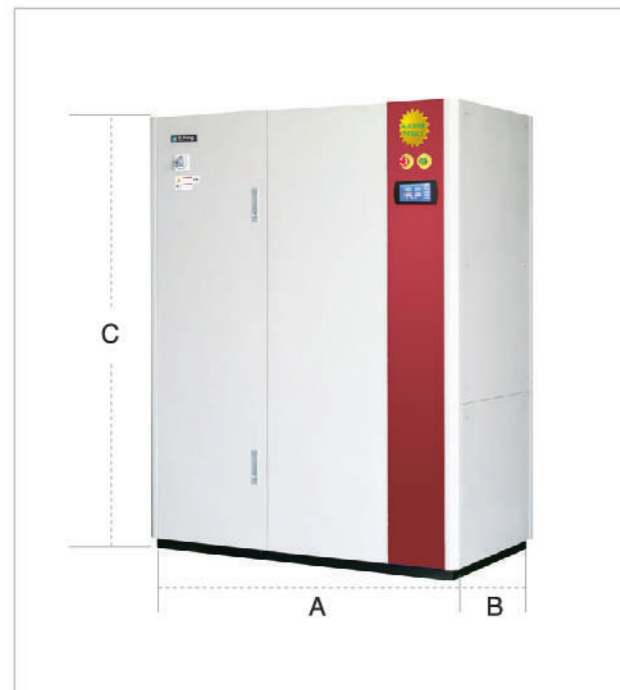
Option 2. Economizer Coil System

Dimension



Up Flow Type

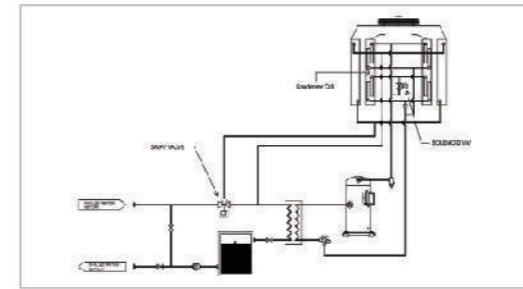
Model		A(mm)	B(mm)	C(mm)	Weight(kg)	
Air Cooled Type	Single Type	PA003-A1EO	1,065	750	2,050	350
		PA005-A1EO	1,200	900	2,050	430
		PA008-A1EO	1,300	970	2,050	450
		PA010-A1EO	1,500	1,000	2,200	550
		PA015-A1EO	1,900	1,070	2,200	860
	Dual Type	PA006-A2EO	1,300	850	2,050	595
		PA010-A2EO	1,800	930	2,150	830
		PA015-A2EO	2,200	970	2,150	855
		PA020-A2EO	2,500	1,070	2,205	1,080
		PA025-A2EO	2,500	1,100	2,205	1,250
PA030-A2EO	3,000	1,100	2,205	1,300		



Down Flow Type

Model		A(mm)	B(mm)	C(mm)	Weight(kg)	
Water Cooled Type (Ethylene Glycol Type)	Single Type	PA003-W1EO	1,065	770	1,850	350
		PA005-W1EO	1,200	850	1,850	430
		PA008-W1EO	1,300	970	1,915	450
		PA010-W1EO	1,500	1,070	2,095	550
		PA015-W1EO	1,900	1,070	2,095	860
	Dual Type	PA006-W2EO	1,300	900	1,850	595
		PA010-W2EO	1,800	930	1,915	830
		PA015-W2EO	2,200	1,000	1,915	855
		PA020-W2EO	2,500	1,070	2,095	1,080
		PA025-W2EO	2,500	1,100	2,095	1,250
PA030-W2EO	3,000	1,100	2,095	1,300		

Chiller



Option 3. Energy Saving Chiller System

380V-400V / 50Hz

Section	Model	Single Type						Single Type						
		CH005-A1EO	CH008-A1EO	CH010-A1EO	CH015-A1EO	CH020-A1EO	CH030-A1EO	CH010-A2EO	CH015-A2EO	CH020-A2EO	CH030-A2EO	CH040-A2EO	CH060-A2EO	
Cooling Capacity	R-22 50Hz	BTU/h	39,300	62,500	85,000	121,000	162,000	252,000	78,600	125,000	170,000	242,000	324,000	504,000
		kcal/h	9,900	15,800	21,400	30,500	40,800	63,500	19,800	31,600	42,800	61,000	81,600	127,000
	R-407C 50Hz	kW	11.52	18.31	24.91	35.46	47.47	73.84	23.04	36.62	49.82	70.92	94.94	147.68
		BTU/h	36,800	60,700	80,100	116,000	156,000	240,000	73,600	121,400	160,200	232,000	312,000	480,000
Free Cooling Capacity	R-407C 50Hz	kcal/h	9,300	15,300	20,200	29,200	39,300	60,500	18,600	30,600	40,400	58,400	78,600	121,000
		kW	10.78	17.79	23.47	33.99	45.71	70.33	21.56	35.58	46.94	67.98	91.42	140.66
		BTU/h	25,000	39,300	57,900	76,600	100,400	155,200	56,300	76,600	100,400	155,600	210,700	319,000
Condenser	Type	kcal/h	6,300	9,900	14,600	19,300	25,300	39,100	14,190	19,300	25,300	39,200	53,100	80,400
		kW	7.30	11.50	17.00	22.40	29.40	45.50	16.50	22.40	29.40	45.60	61.70	93.50
		Type	Air Cooled Condenser Coil						Air Cooled Condenser Coil					
Condenser	Type	Air Volume(CMM)	100	170	180	250	330	500	180	250	330	500	660	1,000
		Motor(kW)	0.29 x 2	0.33 x 2	0.47 x 2	0.50 x 2	0.62 x 2	0.62 x 3	0.47 x 2	0.50 x 2	0.62 x 2	0.50 x 4	0.62 x 4	0.62 x 6
Free Cooling	Type	Air cooled Coil						Air cooled Coil						
Power Consumption	kW	6.93	10.31	13.25	15.13	24.84	38.17	12.95	19.49	25.04	29.87	49.29	72.59	
Electric Wire	Wire Thickness(mm)	4	10	10	10	16	25	10	16	16	25	35	50	

380V-400V / 60Hz

Section	Model	Single Type						Single Type						
		CH005-A1EO	CH008-A1EO	CH010-A1EO	CH015-A1EO	CH020-A1EO	CH030-A1EO	CH010-A2EO	CH015-A2EO	CH020-A2EO	CH030-A2EO	CH040-A2EO	CH060-A2EO	
Cooling Capacity	R-22 60Hz	BTU/h	49,000	76,500	104,000	151,000	199,000	303,000	98,000	153,000	208,000	302,000	398,000	606,000
		kcal/h	12,400	19,300	26,200	38,100	50,200	76,400	24,800	38,600	52,400	76,200	100,400	152,800
	R-407C 60Hz	kW	14.36	22.42	30.47	44.25	58.31	88.79	28.72	44.84	60.94	88.50	116.62	177.58
		BTU/h	44,600	72,600	97,900	140,500	188,000	293,000	89,200	145,200	195,800	281,000	376,000	586,000
Free Cooling Capacity	R-407C 60Hz	kcal/h	11,200	18,300	24,700	35,400	47,400	73,800	22,400	36,600	49,400	70,800	94,800	147,600
		kW	13.07	21.27	28.69	41.17	55.09	85.86	26.14	42.54	57.38	82.34	110.18	171.72
		BTU/h	25,000	39,300	57,900	76,600	100,400	155,200	56,300	76,600	100,400	155,600	210,700	319,000
Condenser	Type	kcal/h	6,300	9,900	14,600	19,300	25,300	39,100	14,190	19,300	25,300	39,200	53,100	80,400
		kW	7.30	11.50	17.00	22.40	29.40	45.50	16.50	22.40	29.40	45.60	61.70	93.50
		Type	Air Cooled Condenser Coil						Air Cooled Condenser Coil					
Condenser	Type	Air Volume(CMM)	120	200	220	300	400	600	220	300	400	600	800	1,200
		Motor(kW)	0.35 x 2	0.40 x 2	0.57 x 2	0.60 x 2	0.75 x 2	0.75 x 3	0.57 x 2	0.60 x 2	0.75 x 2	0.60 x 4	0.75 x 4	0.75 x 6
Free Cooling	Type	Air cooled Coil						Air cooled Coil						
Power Consumption	kW	7.05	10.45	13.44	15.34	25.10	38.55	13.14	19.70	25.30	30.28	49.80	74.60	
Electric Wire	Wire Thickness(mm)	6	10	10	10	16	25	10	16	16	25	35	50	

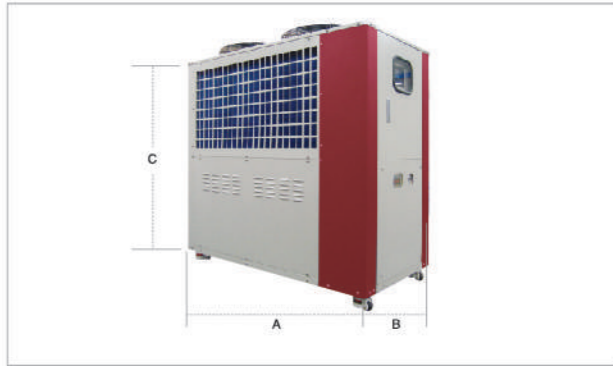
Common Application

Section	Model	Single Type						Single Type						
		CH005-A1EO	CH008-A1EO	CH010-A1EO	CH015-A1EO	CH020-A1EO	CH030-A1EO	CH010-A2EO	CH015-A2EO	CH020-A2EO	CH030-A2EO	CH040-A2EO	CH060-A2EO	
Compressor	Type	Hermetic Scroll Type						Hermetic Scroll Type						
	kW	5.25	8.15	10.80	11.94	21.40	32.30	5.25 x 2	8.15 x 2	10.80 x 2	11.94 x 2	21.40 x 2	32.30 x 2	
Control	Electricity	Microm Control						Microm Control						
	Refrigerant	Expansion Valve Type						Expansion Valve Type						
Cooler	Type	Braze Plate Heat Exchanger Type or Tank & Coil Type						Braze Plate Heat Exchanger Type or Tank & Coil Type						
	Type	Horizontal, Multi Stage Pump						Horizontal, Multi Stage Pump						
Circulation Pump	Flow Rate(LPM)	47	70	93	140	187	280	93	140	187	280	375	560	
	Motor(kW)	1.10	1.50	1.50	2.20	2.20	4.00	1.50	2.20	2.20	4.00	4.00	5.50	
Pipe Diameter (mm)	Chilled Water In/Out	Water Supply	32A	40A	50A	50A	65A	65A	50A	50A	65A	65A	80A	80A
		Water Supply	15A	15A	15A	15A	15A	15A	15A	15A	15A	15A	15A	15A
		Drain	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A	25A

- Design standard is ET 0°C, CT 54/4°C, Ethylene Glycol 30%
 - Free Cooling: Based on the outdoor temperature(5°C), and Ethylene Glycol(30%)

Chiller

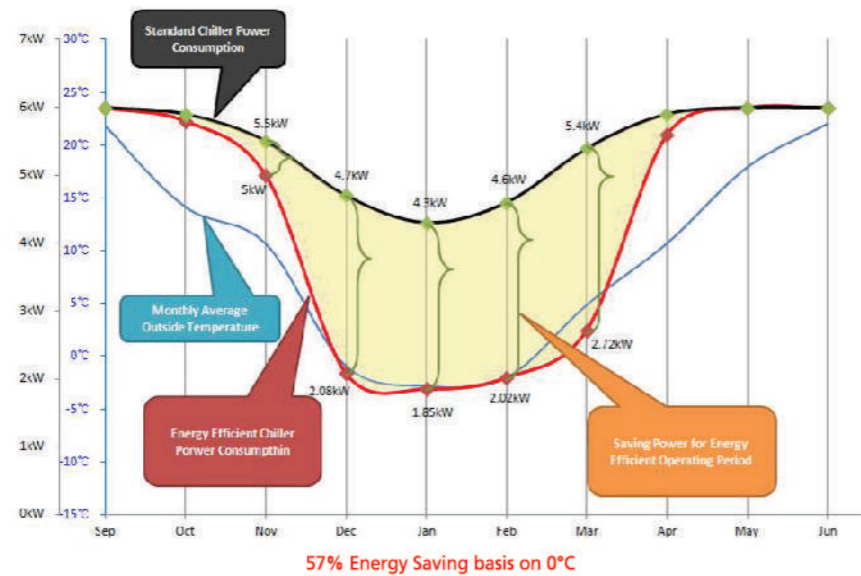
Option 3. Energy Saving Chiller System



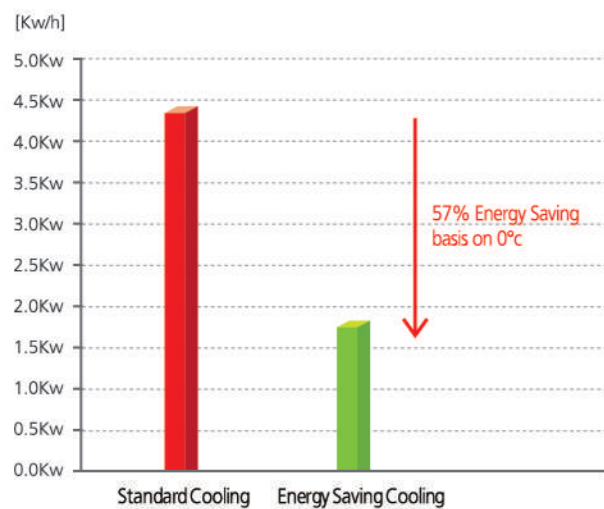
Dimension

Model		A(mm)	B(mm)	C(mm)	Weight(kg)	
Energy Efficient Type	Single Type	CH005-A1EO	1,850	950	1,320	650
		CH008-A1EO	1,950	950	1,525	809
		CH010-A1EO	2,150	1,070	1,580	979
		CH015-A1EO	2,300	1,150	1,725	1,157
		CH020-A1EO	2,530	1,300	1,930	1,582
		CH030-A1EO	3,250	1,300	2,070	1,729
Dual Type	CH010-A2EO	2,150	1,070	1,580	1,002	
	CH015-A2EO	2,300	1,150	1,725	1,232	
	CH020-A2EO	2,530	1,300	1,930	1,565	
	CH030-A2EO	3,600	1,300	2,070	2,123	
	CH040-A2EO	4,100	1,300	2,120	2,991	
	CH060-A1EO	5,900	1,300	2,250	4,794	

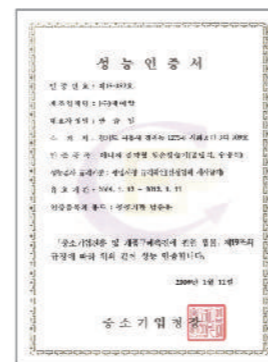
Using Period of Energy Efficient Chiller for the year



Comparison Graph of Standard & Energy Saving Cooling



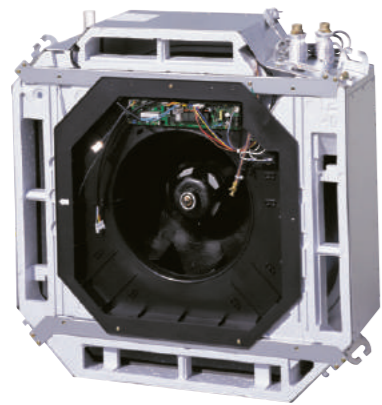
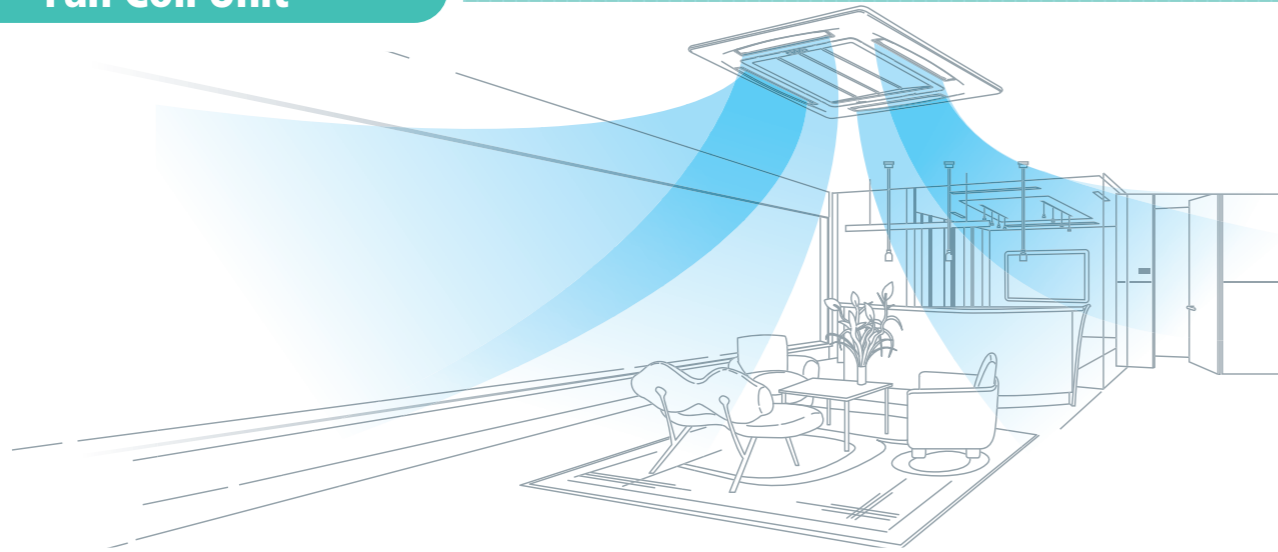
Certificate of Patent



Test Report

- Fan Coil Unit
- Air Handling Unit
- Clean Room System
- Freezer System
- Humidifier
- Blazed Plate Heat Exchanger
- Electric Boiler
- Air Cleaning & Humidifying System
- Leakage Detection System
- Digipressure

Fan Coil Unit



1, 2, 4-WAY CEILING CASSETTE TYPE

Casing

The cases are made so that their colors and outfits are well harmonized with the surrounding, and also their heat insulating materials and sound absorbs materials use hard-to-be flame resistance in order to minimize noise and condensation.

Automatic Drain Pump

Drain Pump is operated by time control, and it is designed to have its maximum head of 600mm.

Interior Grille Panel

Interior Grille Panel is beautifully equipped, and it swings 4way Air Guide Vane with angle of 30°~70° for ideal air distribution. In addition, it is designed to be completely closed in order to prevent influx of foreign substance when it is stopped.

Coil

Single-body-typed circular heat exchanger uses water-friendly slit fin whose heat efficiency is maximized, and the connection areas for copper pipes and fins used high-pressured hydraulic extended pipe method in order to improve heat transferring efficiency.

Control Switches

It uses wireless remote controller to reduce construction cost and improve convenience for consumers, and automatic compensation function for power failure and automatic function are added so that wind flow rate can be automatically converted by difference between indoor and desired temperature. (Wired remote controller can be also used with wireless one simultaneously)

Fan & Motor Ass'y

It uses condenser driving single phase inducing motor that has strong durability. In addition, it is running very calmly by introducing high-quality turbo fan made of ABS, and it is designed to select wind flow rates suitable for indoor air-conditioning by adjusting RPMs by 4-steps in turbo, high, medium and low.

Fan Coil Unit

Low noised design using turbo fan

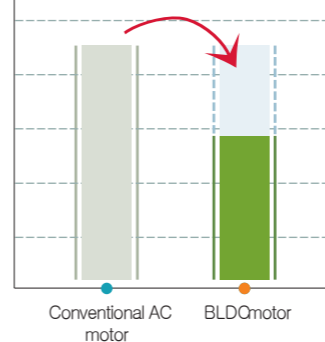
It strengthen wind flow and reduces noise by adopting 3-dimensional aerodynamic typed-turbo fan, and it is also designed to be very slim-type making it easier to be installed even at the low ceiling height.



Low noise and extremely light weight BLDC motor is used

It saves energy cost with its high efficiency and low noise BLDC fan motor and provides comfortable environment.

10~30% of energy cost saving.

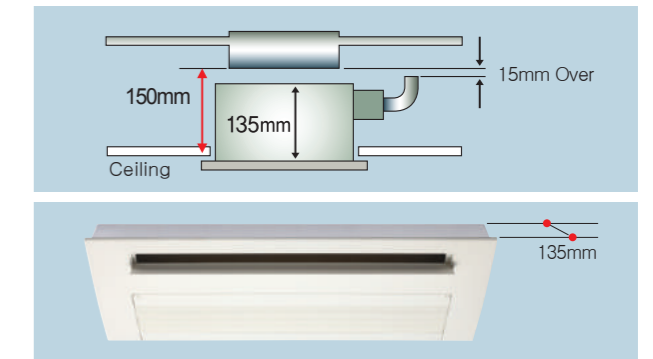


Strong structural design with base pan (cassette type)

Its whole indoor equipment is strengthened with strong structural design, and it is designed to be low noise by completely removing resonance noise from vibration of body

Slim, Compact & Clean Design

Compact design for installation in low ceiling is not an issue. In various places can be installed without the constraints of space. Slim, stylish design, grille panel created by the curve consistent with the ceiling, matching Indoor decoration well.



Comfortable and Convenient

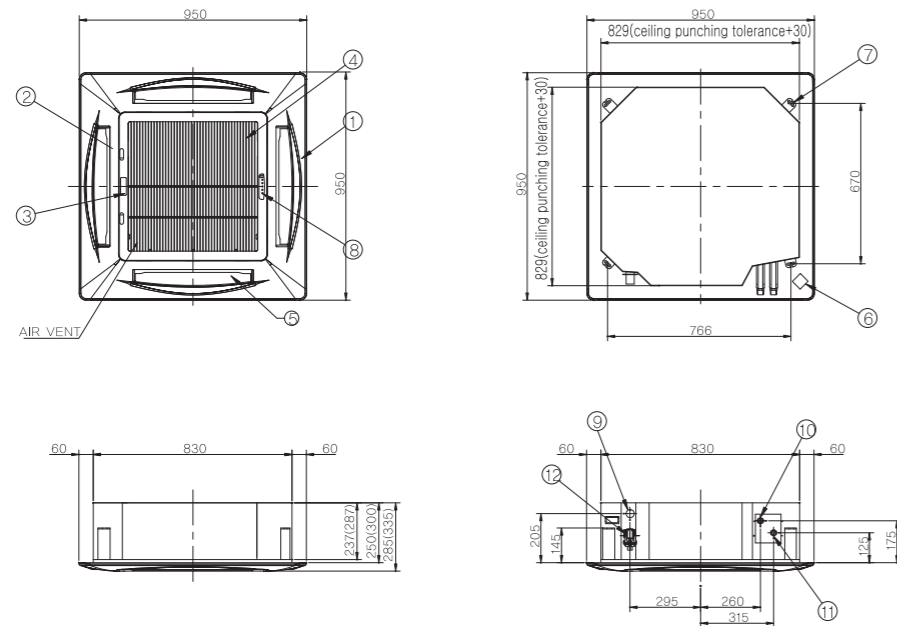
It is clean with its high-capacity and bacteria-proof filter. It is easy to be cleaned with removable front grill structure. It provides very comfortable cooling and heating system in a way that produces optimized air flow as its smooth swing blades on the ceiling generate winds uniformly wireless and wired remote control functions for making the product look more deluxe

Standard specification for fan coil unit BLDC motor

Model	Division	Model No.	Rating Cooling Capacity		Rating Heating Capacity		Air flow rate	Flow rate	Power consumption	Motor
			kw	kcal/hr	kw	kcal/hr	m ³ /hr	lpm	w	
CASSETTE TYPE	4-WAY Cassette	SFC - 3K	3.7	3,150	5.8	5,050	780	11.0	25	B L D C
		SFC - 4K	5.0	4,300	7.9	6,850	960	14.0	35	
		SFC - 5K	6.1	5,250	9.7	8,400	1,140	18.0	40	
		SFC - 6K	7.2	6,250	11.6	10,000	1,320	21.0	56	
		SFC - 8K	9.4	8,150	15.1	13,000	1,560	27.0	96	
		SFC - 10K	11.6	10,000	18.0	15,500	1,980	33.3	130	
	2-WAY Cassette	SFC2 - 3K	3.6	3,150	5.8	5,050	660	11.0	36	
		SFC2 - 4K	5.0	4,300	7.9	6,850	780	14.0	48	
		SFC2 - 5K	6.1	5,250	9.7	8,400	960	18.0	92	
		1-WAY Cassette	SFC1 - 1.5K	1.9	1,600	3.0	2,560	420	5.3	
	SFC1 - 2K		2.5	2,100	3.6	3,090	480	7.0	33	
	SFC1 - 2.5K		2.9	2,500	4.3	3,700	540	9.3	38	
	SFC1 - 3K		3.6	3,100	5.1	4,400	540	10.3	38	
	1-WAY Ceiling Cassette Slim Type	SFC1 - 3.5K	4.1	3,500	6.2	5,150	660	11.7	48	
SFC1 - S3K		3.4	3,000	5.2	4,500	660	10.0	45		
SFC1 - S4K	4.6	4,000	6.9	6,000	780	13.3	65			

Fan Coil Unit

4-WAY CEILING CASSETTE TYPE



DESCRIPTION	DIMENSION	MAT'L QTY	REMARK
1 INTERIOR GRILLE ASS'Y		HIPS	1 COLOR : WHITE BEIGE
2 GRILLE BUTTON ATTACHMENT SNAPS		HIPS	2 SLIDING TYPE
3 NAME PLATE			1
4 RETURN GRILLE		HIPS	1 COLOR : WHITE BEIGE
5 AIR GUIDE VANE		ASS'Y	4
6 SWING MOTOR		ASS'Y	1 STEPPING MOTOR:DC12V 150Q

DESCRIPTION	DIMENSION	MAT'L QTY	REMARK
7 HANGING BRACKET	t1.6	GI	4
8 RECEIVER REMOTE CONTROL		Acrylic	1 Wireless remote controller
9 DRAIN JOINT PORT	φ16(External diameter)		1
10 COLD / HOT WATER OUTLET		BS	1
11 COLD/HOT WATER INLET	PF 3/4" (20A)	BS	1
12 DRAIN PUMP	PF 3/4" (20A)		1 1φ, 220V, 60Hz

※ Dimension in () is for SFC-10K

Section	Unit	SFC-3K		SFC-4K		SFC-5K		SFC-6K		SFC-8K		SFC-10K			
Capacity	Capacity condition	A	B	A	B	A	B	A	B	A	B	A	B		
	Cooling capacity	Kcal/h	4,350	3,150	5,950	4,300	7,250	5,250	8,650	6,250	11,300	8,150	13,500	10,000	
	Heating capacity	Kcal/h	8,080	5,050	10,900	6,850	13,400	8,400	16,000	10,000	21,000	13,000	25,000	15,500	
	Volume flow	ℓ / min	15	11	20	14	24	18	29	21	38	27	45	33.3	
	Head loss	mAq	2.9	2.6	3.1	2.8	3.7	2.9	5.1	3.5	5.8	4.9	8.1	7.2	
Fan	Type	Single suction turbo type													
	Size	mm φ480													
	Air flow rate	13		16		19		22		26		33			
	Driving	Motor connected driving													
Motor	Number	EA 1													
	Type	Semi-hermetic (six pole, b type insulation)													
	Power consumption	W	110 (40)		110 (40)		110 (40)		140 (56)		140 (96)		200 (130)		
Heat exchanger	Number	EA 1													
	Type	Unite type Multi-Pass Cross Finned Tube (Slit Fin)													
	Fin Pitch	mm 2.1													
	1.8														
Piping	Inlet	A PF 3/4" (20A)													
	Outlet	A PF 3/4" (20A)													
	Drain	mm φ16 (external diameter) / Drain Pump embedded (10W) / Head 600mm													
Exterior	Body : Galvanized steel (0.8t, 1.0t), grille panel : plastic (HIPS, ABS material)														
Lagging sound-absorbing materials	P.U Foam, Styrofoam, P.E Foam / Flame resistance														
Air flow rate control	Turbo and high, medium, weak, operated by wireless remote control (Wire remote control option)														
Electricity	Single phase 220V, 60Hz														
Air Filter	Vinyl chloride (Flush)														
Discharge grille swing motor	DC 12V, Stepping Motor														
Weight	Kg	34.0				34.5				35.5				39.0	

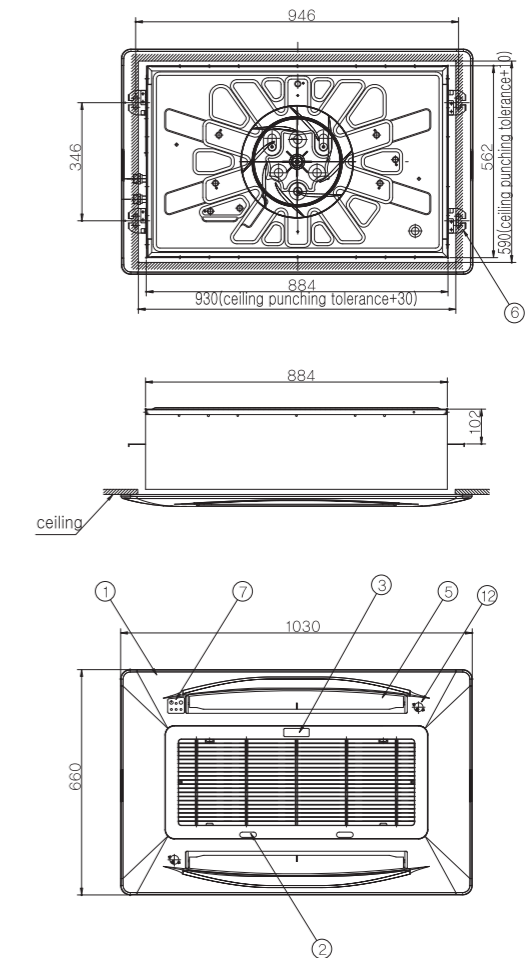
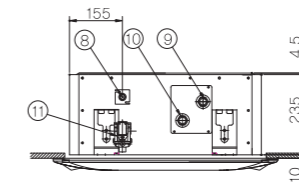
(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ () adopting BLDC motor

Fan Coil Unit

2-WAY CEILING CASSETTE TYPE

DESCRIPTION	DIMENSION	MAT'L QTY	REMARK
1 INTERIOR GRILLE ASS'Y		HIPS	1 COLOR : WHITE BEIGE
2 GRILLE BUTTON ATTACHMENT SNAPS		HIPS	2 SLIDING TYPE
3 NAME PLATE			1
4 RETURN GRILLE		HIPS	1 COLOR : WHITE BEIGE
5 AIR GUIDE VANE		ASS'Y	4
6 HANGING BRACKET	t1.6	GI	4



DESCRIPTION	DIMENSION	MAT'L QTY	REMARK
7 RECEIVER REMOTE CONTROL		ACRYLIC	4 BLACK (WIRELESS REMOTE CONTROLLER)
8 DRAIN JOINT PORT	φ16(External diameter)		1
9 COLD / HOT WATER OUTLET	PF 3/4" (20A)		1
10 COLD/HOT WATER INLET	PF 3/4" (20A)		1
11 DRAIN PUMP			1 1φ, 220V, 60HZ
12 SWING MOTOR	DC12V 150Q		2 STEPPING MOTOR

Section	Unit	SFC2-3K		SFC2-4K		SFC2-5K		
Capacity	Capacity condition	A	B	A	B	A	B	
	Cooling capacity	Kcal/h	4,850	3,150	5,700	4,200	6,435	5,000
	Heating capacity	Kcal/h	8,900	5,050	10,400	6,335	11,900	7,300
	Volume flow	ℓ / min	15	11	20	14	24	18
	Head loss	mAq	0.7	0.6	2.0	1.0	2.9	1.6
Fan	Type	Single suction turbo type						
	Size	mm φ325						
	Air flow rate	11		13		16		
	Driving	Motor connected driving						
Motor	Number	EA 1						
	Type	Semi-hermetic (six pole, b type insulation)						
	Power consumption	W	80 (36)		95 (48)		110 (92)	
Heat exchanger	Number	EA 1						
	Type	Unite type Multi-Pass Cross Finned Tube (Slit Fin)						
	Fin Pitch	mm 2.1						
	1.8							
Piping	Inlet	A PF 3/4" (20A)						
	Outlet	A PF 3/4" (20A)						
	Drain	mm φ16 (external diameter) / Drain Pump embedded (10W) / head 600mm						
Exterior	Body : Galvanized steel (0.8t, 1.0t), grille panel: plastic (HIPS, ABS material)							
Lagging sound-absorbing materials	P.U Foam, Styrofoam, P.E Foam / flame resistant							
Air flow rate control	Turbo and high, medium, weak, operated by wireless remote control (wire remote control option)							
Electricity	Single phase 220V, 60Hz							
Air Filter	Vinyl chloride(wash)							
Discharge grille swing motor	DC 12V, Stepping Motor							
Weight	Kg	31		31		33		

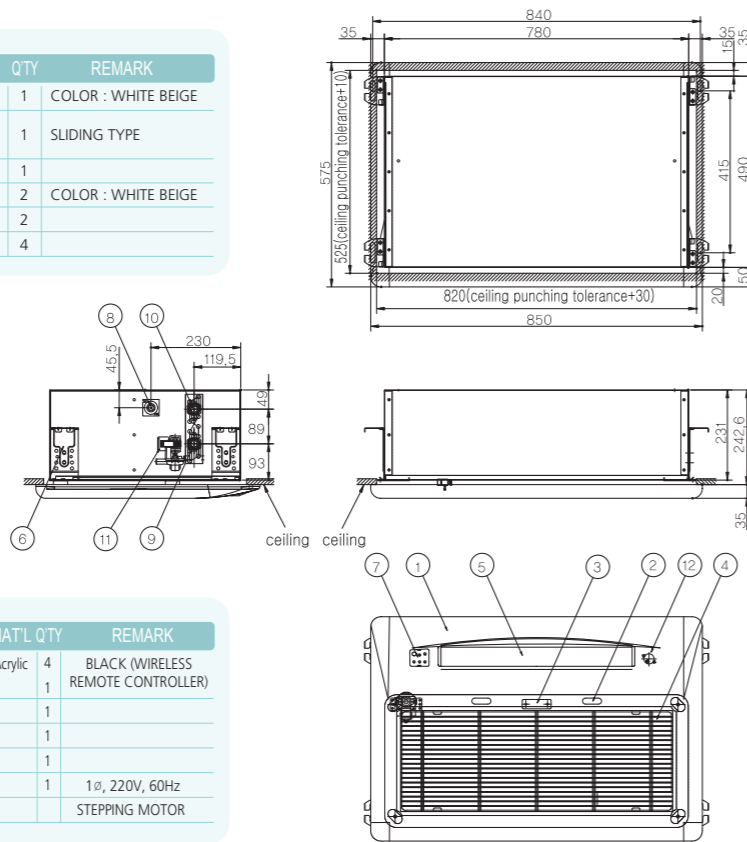
(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

※ () adopting BLDC motor

Fan Coil Unit

1-WAY CEILING CASSETTE TYPE

DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 INTERIOR GRILLE ASS'Y		HIPS	1	COLOR : WHITE BEIGE
2 GRILLE BUTTON ATTACHMENT SNAPS		HIPS	1	SLIDING TYPE
3 NAME PLATE			1	
4 RETURN GRILLE		HIPS	2	COLOR : WHITE BEIGE
5 AIR GUIDE VANE		ASS'Y	2	
6 HANGING BRACKET		GI	4	



DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
7 RECEIVER REMOTE CONTROL		Acrylic	4	BLACK (WIRELESS REMOTE CONTROLLER)
8 DRAIN JOINT PORT	ø16(External diameter)		1	
9 COLD/HOT WATER OUTLET	PF 3/4" (20A)		1	
10 COLD/HOT WATER INLET	PF 3/4" (20A)		1	
11 DRAIN PUMP			1	1ø, 220V, 60Hz
12 SWING MOTOR	DC12V 15ø			STEPPING MOTOR

Section	Unit	SFC1-1.5K		SFC1-2K		SFC1-2.5K		SFC1-3K		SFC1-3.5K		
Capacity	Capacity condition	A	B	A	B	A	B	A	B	A	B	
	Cooling capacity	Kcal/h	2,240	1,600	2,700	2,100	3,020	2,500	4,000	3,100	4,550	3,500
	Heating capacity	Kcal/h	4,400	2,560	5,000	3,200	5,780	3,700	7,300	4,500	8,450	5,300
	Volume flow	l / min	7.5	5.3	9.0	7.0	10.1	8.3	13.3	10.3	15.2	11.7
Head loss	mAq	0.43	0.22	0.62	0.38	0.78	0.53	2.05	1.24	2.64	1.56	
Fan	Type	Double suction turbo type										
	Size	mm	ø140 x 165 x 1		ø140 x 200 x 1		ø140 x 200 x 2		ø140 x 200 x 2		ø140 x 200 x 2	
	Air flow rate	m³/min	5.6		7		9		9		11	
	Driving Number	EA	Motor connected driving 1 set									
Motor	Type	Semi-hermetic (six pole, b type insulation)										
	Power consumption	W	50 (27)		50 (33)		65 (38)		65 (38)		65 (48)	
	Number	EA	1									
Heat exchanger	Type	Unite type Multi-Pass Cross Finned Tube (Slit Fin)										
	Fin Pitch	mm	2.1									
Piping	Inlet	A	PF 3/4" (20A)									
	Outlet	A	PF 3/4" (20A)									
	Drain	mm	ø16 (external diameter) / Drain Pump embedded (10W) / head 600mm									
Exterior		Body : galvanized steel (0.8t, 1.0t), grille panel : plastic (HIPS, ABS material)										
Lagging sound-absorbing		P.U Foam, Styrofoam, P.E Foam / Flame resistant										
Materials		Turbo and high, medium, weak, operated by wireless remote control (Wire remote control option)										
Air flow rate control		Single phase 220V, 60Hz										
Electricity		DC 12V, Stepping Motor										
Air Filter		Vinyl chloride (Flush)										
Motor	mm	850 x 576 x 280										
Weight	Kg	28		28		28		30		30		

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

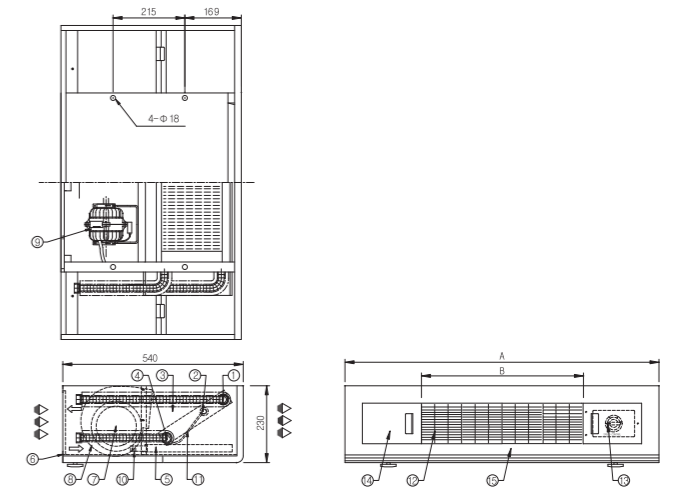
※ () adopting BLDC motor

Fan Coil Unit

CEILING EXPOSED TYPE

MODEL	A	B	G	M	F
SFC-20C	940	120 x 4=480	4	1	1
SFC-30C	1060	120 x 5=600	5	1	1
SFC-40C	1180	120 x 6=720	6	1	2
SFC-60C	1420	120 x 8=960	8	1	2
SFC-80C	1660	120 x 10=1200	10	2	3
SFC-120C	1900	120 x 12=1440	12	2	4

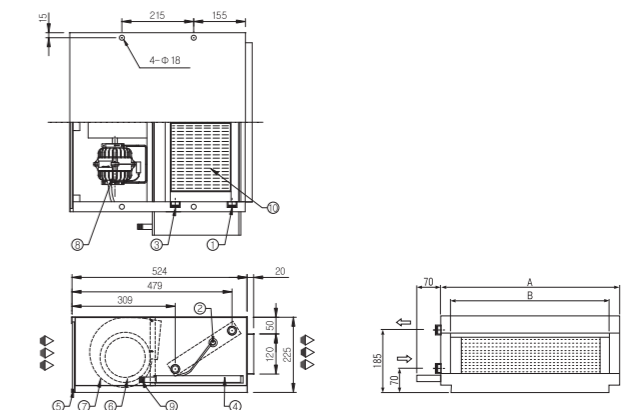
DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	Manual
5 DRAIN PAN		GI	1	
6 AIR FILTER		vinyl chloride	1	vinyl chloride
7 FAN IMPELLER	ø145	ABS	F	
8 FAN HOUSING		ABS	F	
9 MOTOR	1ø 220V 60Hz	ASS'Y	M	
10 DRAIN CONNECTION	NIPPLE 1/2" (15A)		1	
11 HEAT & COOLING COIL	OD3/8" x t0.35	CU-AL	1	SUT FINE adopt
12 GRILLE	120 x 120	내열ABS	G	
13 CONTROL SW	High, Medium, Low 3-stepped		1	Rotary Type
14 ACCESS DOOR	120 x 200	ABS	2	
15 OUTER AIR PANEL	t1.0	CR	1	



CEILING CONCEALED TYPE

MODEL	A	B	M	F
SFC-20CM	540	480	1	1
SFC-30CM	660	600	1	1
SFC-40CM	780	720	1	2
SFC-60CM	1020	960	1	2
SFC-80CM	1260	1200	2	3
SFC-120CM	1500	1440	2	4

DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 WATER INLET	PF 3/4" (20A)	BS	1	
4 DRAIN PAN		GI	1	
5 AIR FILTER		VINYL CHLORIDE	1	FLUSH
6 FAN IMPELLER	ø145	ABS	F	SIROCCO
7 FAN HOUSING		ABS	F	
8 MOTOR	1ø 220V 60Hz	ASS'Y	M	
9 DRAIN CONNECTION	NIPPLE 1/2" (15A)		1	
10 HEAT & COOLING COIL	OD3/8" x t0.35	CU-AL	1	SILT FIN T



Section	Unit	SFC-20C, CM		SFC-30C, CM		SFC-40C, CM		SFC-60C, CM		SFC-80C, CM		SFC-120C, CM		
Capacity	Capacity condition	A	B	A	B	A	B	A	B	A	B	A	B	
	Cooling capacity	Kcal/h	2,670	1,820	3,500	2,420	4,730	3,480	6,370	4,720	9,320	6,770	12,020	8,820
	Heating capacity	Kcal/h	4,630	2,980	6,790	4,100	9,250	5,770	12,500	7,530	18,310	11,140	20,530	12,330
	Volume flow	l / min	10	6	12	8	15	11.5	20	15.7	30	22.4	40	29.3
Head loss	mAq	1.5	0.72	2.4	1.5	4.1	2.9	1.9	1.3	4.1	2.7	4.1	2.3	
Fan	Type	Double suction turbo type												
	Size	mm	ø145 x L165		ø145 x L200		ø145 x L165		ø145 x L200		ø145 x L200		ø145 x L200	
	Air flow rate	m³/min	5.7		8.5		11.3		17		22.6		34	
	Driving Number	EA	1		1		2		2		3		4	
Motor	Type	Semi-hermetic (six pole, b type insulation)												
	Power consumption	W	40		50		65		80		40 + 50		80 x 2	
	Number	EA	1		1		1		1		2		2	
Heat exchanger	Type	Unite type Multi-Pass Cross Finned Tube (Slit Fin)												
	Fin Pitch	mm	2.1											
Piping	Inlet	A	PF 3/4" (20A)											
	Outlet	A	PF 3/4" (20A)											
	Drain	mm	NIPPLE 3/4" (20A)											
Exterior		Exposed Type : cold rolling steel(t1.0)+powder,heat and dry coating(white beige), Concealed Type : galvanized steel(t0.8)												
Lagging sound-absorbing materials		P.U Foam, Styrofoam, P.E Foam / Flame resistance												
Air flow rate control		High, Medium, Low 3 Steps Rotary Switch												
Electricity		Single phase 220V, 60Hz												
Air Filter		Vinyl chloride (Flush)												
Weight	Kg	23(15)		26(17)		29(20)		34(24)		41(32)		49(40)		

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C

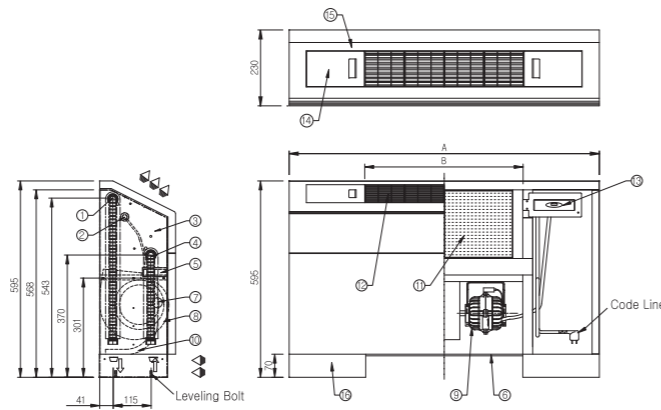
※ Dimension in () is for concealed type

Fan Coil Unit

FLOOR EXPOSED - SLANT DISCHARGE TYPE

MODEL	A	B	G	M	F
SFC-20FT	940	120×4=480	4	1	1
SFC-30FT	1060	120×5=600	5	1	1
SFC-40FT	1180	120×6=720	6	1	2
SFC-60FT	1420	120×8=960	8	1	2
SFC-80FT	1660	120×10=1200	10	2	3
SFC-120FT	1900	120×12=1440	12	2	4

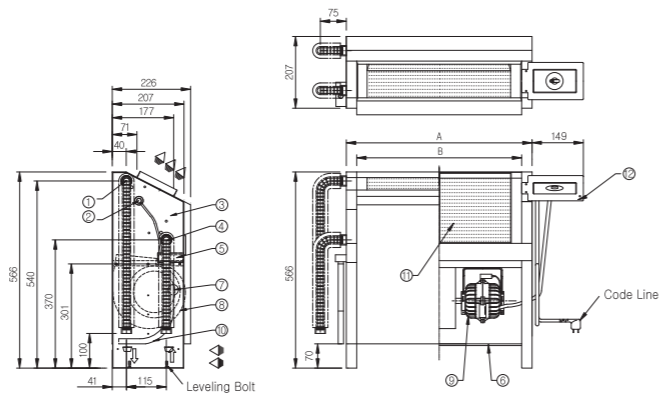
DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 DRAIN PAN		ABS	1	PLASTIC
6 AIR FILTER		VINYL CHLORIDE	1	FLUSH
7 FAN IMPELLER	φ145	ABS	F	SIROCCO
8 FAN HOUSING		ABS	F	
9 MOTOR	1φ 220V 60Hz	ASS' Y	M	
10 DRAIN HOSE	IDφ14, ODφ18	SOFT VINYL	1	
11 HEAT & COOLING COIL	3/8" × t0.35	CU-AL	1	SLIT FIN
12 GRILL	120 × 120	HEAT-RESISTING ABS	G	
13 CONTROL SW	High, Medium, Low 3-steps		1	ROTARY
14 ACCESS DOOR	120 × 200	ABS	2	COATING
15 EXTERIOR PANEL	t1.0	CR	1	TK 30%
16 BASE	t3.0	COMPLEX PP	2	



FLOOR CONCEALED - SLANT DISCHARGE TYPE

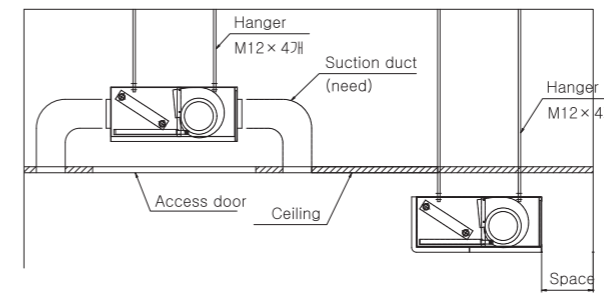
MODEL	A	B	M	F
SFC-20FTM	540	480	1	1
SFC-30FTM	660	600	1	1
SFC-40FTM	780	720	1	2
SFC-60FTM	1020	960	1	2
SFC-80FTM	1260	1200	2	3
SFC-120FTM	1500	1440	2	4

DESCRIPTION	DIMENSION	MAT'L	QTY	REMARK
1 WATER OUTLET	PF 3/4" (20A)	BS	1	
2 AIR VENT	PT 1/8"	BS	1	MANUAL
3 INNER SIDE CASING	t1.2	GI	2	
4 WATER INLET	PF 3/4" (20A)	BS	1	
5 DRAIN PAN		ABS	1	PLASTIC
6 AIR FILTER		VINYL CHLORIDE	1	FLUSH
7 FAN IMPELLER	φ145	ABS	F	SIROCCO
8 FAN HOUSING		ABS	F	
9 MOTOR	1φ 220V 60Hz	ABS	M	
10 DRAIN HOSE	IDφ14, ODφ18	ASS' Y	1	
11 HEAT & COOLING COIL	3/8" × t0.35	SOFT VINYL	1	SILT FIN
12 CONTROL SW	High, Medium, Low 3-steps	CU-AL	1	ROTARY



Fan Coil Unit

Product installation diagram



- Secure the area for air suction and discharge up to the area for filter.
- Make sure to keep the unit horizontal.
- Install a discharging duct for built-into the ceiling type.
- Make sure to secure hole and space (600mm× 600mm) for maintenance in filter side.
- Secure a space for unplugging the filter.



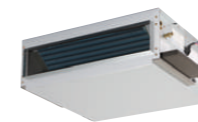
4-WAY CEILING CASSETTE TYPE



2-WAY CEILING CASSETTE TYPE



1-WAY CEILING CASSETTE TYPE



CEILING CONCEALED TYPE



CEILING EXPOSED TYPE



FLOOR EXPOSEDSLANT DISCHARGE TYPE



FLOOR CONCEALEDSLANT DISCHARGE TYPE

Conversion table for cooling and heating area per 1 set.

Section	Unit	SFC-20FT, FTM	SFC-30FT, FTM	SFC-40FT, FTM	SFC-60FT, FTM	SFC-80FT, FTM	SFC-120FT, FTM	
Capacity	Capacity condition	A	B	A	B	A	B	
	Cooling capacity	Kcal/h	2,670	1,820	3,500	2,420	4,730	3,480
	Heating capacity	Kcal/h	4,630	2,980	6,790	4,100	9,250	5,770
	Volume flow	ℓ / min	10	6	12	8	15	11.5
Head loss	mAq	1.5	0.72	2.4	1.5	4.1	2.9	
Fan	Type	Double suction turbo type						
	Size	mm	φ145 × L165	φ145 × L200	φ145 × L165	φ145 × L200	φ145 × L200	φ145 × L200
	Air flow rate	m³/min	5.7	8.5	11.3	17	22.6	34
	Driving	Motor connected driving						
Motor	Number	EA	1	1	2	2	3	4
	Type	Semi-hermetic (six pole, b type insulation)						
	Power consumption	W	25	35	45	65	40 + 50	65 × 2
Heat exchanger	NUMBER	EA	1	1	1	1	2	2
	Type	Unite type Multi-Pass Cross Finned Tube (Slit Fin)						
Piping	Fin Pitch	mm	2.1			1.8		
	Inlet	A	PF 3/4" (20A)					
Piping	Outlet	A	PF 3/4" (20A)					
	Drain	mm	Soft vinyl hose (IDφ14 ODφ18)					
Exterior		Exposed type : cold rolling steel(t1.0)+powder,heat and dry coating(white beige), Concealed type : galvanized steel(t0.8)						
Lagging sound-absorbing materials		P.U Foam, Styrofoam, P.E Foam / Flame resistance						
Air flow rate control		High, Medium, Low 3 Steps Rotary Switch						
Electricity		Single phase 220V, 60Hz						
Air Filter		Vinyl chloride (Flush)						
Weight	Kg	23 (14)	26 (16)	29 (20)	34 (25)	39 (32)	47 (40)	

(Note) 1. capacity condition A : cooling capacity : indoor air DB 27°C WB 21°C entrance water temperature 5°C heating capacity : indoor air 18°C entrance water temperature 80°C
 2. capacity condition B : cooling capacity : indoor air DB 27°C WB 19.5°C entrance water temperature 7°C heating capacity : indoor air 21°C entrance water temperature 60°C
 ※ Dimension in () is for concealed type

Air Handling Unit



Advantages of AHU

- Module type for easy moving and quick install
- Aluminum profile frame for simple assemble and disassemble
- Air-tight access door
- Stably fixed blower for low-noise and long bearing life-time
- Upgraded heat exchanger(coil for hot and cold water) for better performance



Freezer System



Advantages of System

- Strong and high efficiency
- Various defrosting methods (electric heating, water spraying, hot gas)
- Highly heat-conductive, short defrosting time, easy repair and maintenance
- Improve corrosion resistance with zinc plating and twotime baking
- Small defrosting heater with smaller drain plates (Power cost saving)
- Automatic control monitoring system



Clean Room System



Clean Room Equipment

- Air Shower
- Clean Booth
- Clean Locker
- Clean Unit
- Pass Box
- Relief Damper
- Hepa Filter Box
- Blower Filter Unit
- Hume Hood



Humidifier

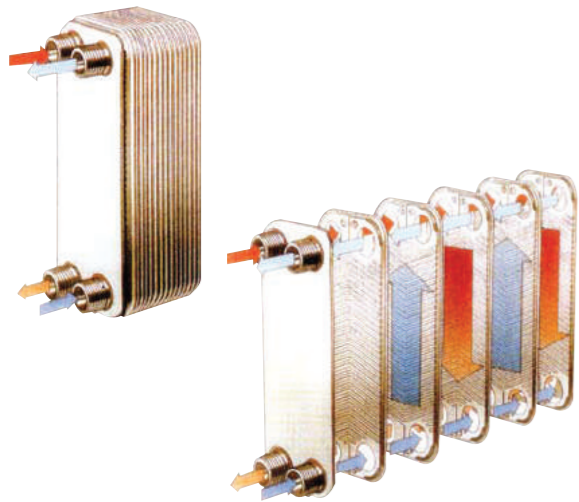


Advantages of Humidifier

- Sterilization
- Prevent infection by odorless and colorless germs
- Fast expansion-Small humid particles, fast absorption in the air
- World-proven humidifier with reliability and stability
- Constant humidification satisfying site requirements
- No need to feed water frequently
- Customized design
- Simple installation
- Humidifier and fan in one body
- LED display-simple setup and operation
- Real-time display of relative humidity

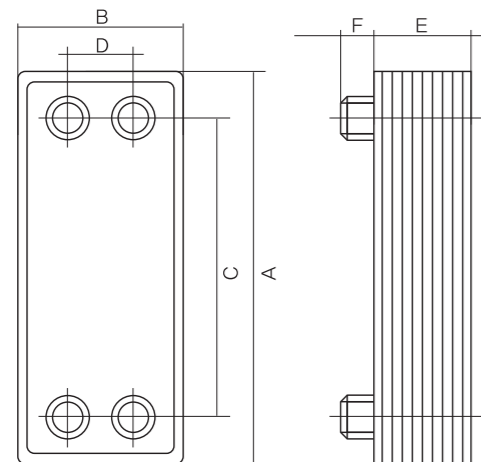


Brazed Plate Heat Exchanger



Feature

- Purification system for Evaporative Humidifying System (Invention Patent No. 140406)
- New humidifying pad to maximize humidifying effect
- Air Cleaning System
- Alpha-System (Scale Elimination device) (Utility registration No.0310376, design registration No. 186905)



Dimension

Size	DIC(N) 193	DIC(N) 285	DIC(N) 503	DIC(N) 750	DIC(N) 800
A	193	285	503	480	570
B	83	105	123	230	280
C	154	230	450	396	475
D	42	50	70	146	185
E	5.8+nx2.2	8+nx2.3	8+nx2.7	8+nx2.8	8+nx2.8
F	13	25	25	25	25
G	0.19+nx0.055	0.4+nx0.126	10.4+nx0.252	2.08+nx0.504	12.94+nx0.67

- BPHE : Brazed Plate Heat Exchanger
- Max. allowed pressure : 30/cm²
- Any other models could be manufactured on your demand.
- Above specification could be changed without any previous notice.

DMAX Electric Boiler



Economical Boiler

Stable and economical Boiler in the long term without any price advance effect of fossil fuel

Safety Device

No toxic gas poisoning, explosion, fire
Realize safe operating with safety device

Convenience

Solution of anxiety for the price advance of heating cost, leakage, etc.
Electricity is a always reserved energy.

Automatic operation type

No noise on electrical contacts, no affect to other equipment, easy to control of all function such as room temperature controller and automatic operation indoors by electronic control and contactless SSR (solid state relay) type

Pleasant life

Eco boiler with no smog, ash, noise and etc

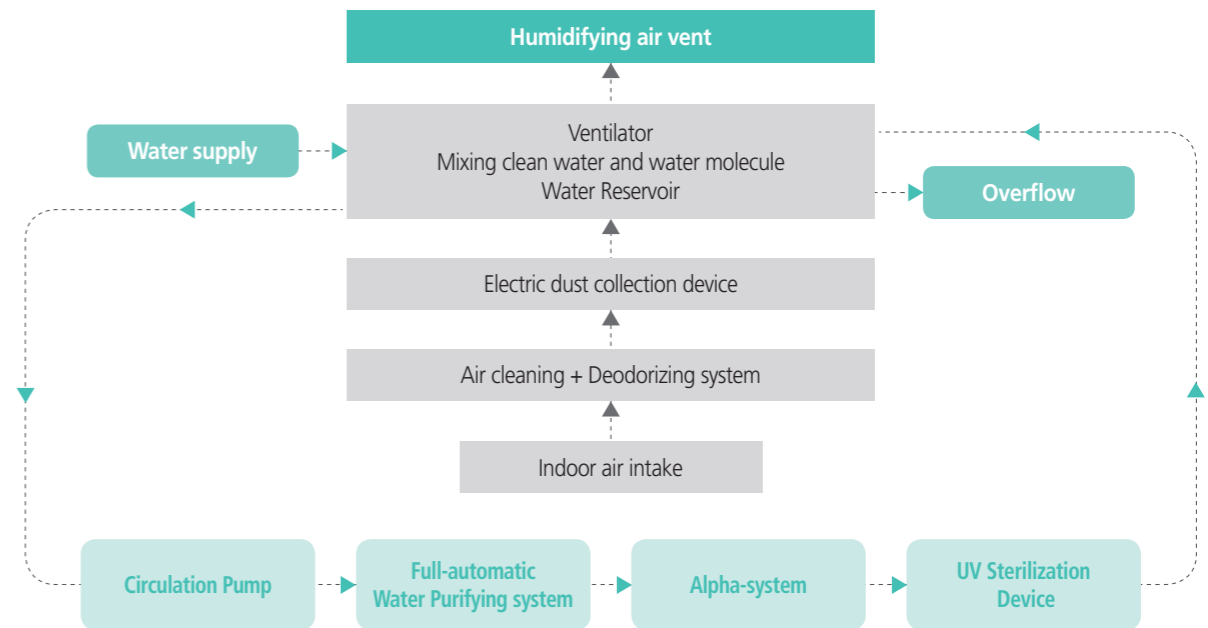
Air Cleaning & Humidifying System

Advantages

- Purification system for Evaporative Humidifying System (Invention Patent No. 140406)
- New humidifying pad to maximize humidifying effect
- Air Cleaning System
- Alpha-System (Scale Elimination device) (Utility registration No.0310376, design registration No. 186905)
- UV Sterilization Device
- Leak proof system
- Non-photo catalyst
- Incorporation of Air cleaning system and Humidification system in a single-body (Design registration No. 2023211)



System Flow



System Flow

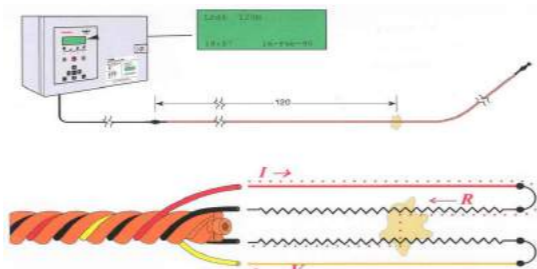
Model No.	Unit	DYHAC-500	DYHAC-800	DYHAC-1000	DYHAC-1500	DYHAC-2000	DYHAC-2500
Humidifying Capacity	kg/h	5	8	10	15	20	25
Dimension (W x L x H)	mm	600 X 500 X 1730	600 X 500 X 1820	700 X 500 X 2000	800 X 500 X 2000	900 X 500 X 2000	1000 X 500 X 2000
Air flow rate	CMH	1200	1500	1800	2400	2700	3000
Power Supply	V	AC200V, 60Hz	AC200V, 60Hz	AC200V, 60Hz	AC200V, 60Hz	AC200V, 60Hz	AC200V, 60Hz
Operation Power	A	1.9	2.2	2.4	3	3.3	4.5
Power Consumption	W	410	490	500	630	700	900

Leakage Detection System

Trace Tek Leak Detection System technology let you know the location of Various type of liquid (water, oil etc) from mechanical equipments pipeline early and correctly. The sensing cable has two insulated wires and two conductive polymer coated electrodes. The digital readout of the location is generated by measuring the voltage drop along the sensing cable between the leak and the module. The voltage drop is linear and proportional to the leak location.

Advantages

- Using an electro-chemical principles leak can be detected accurately and reliably.
- Using various types of sensing Cable any kind of liquid leaks can be detected.
- Flexible polymer sensing cable can be installed easily and detect dangerous leak area.
- Easy installation, expansion and maintenance.
- User can be satisfied by variable monitoring system.
- TT1000 and TT3000 sensing cable can be used sempermanently as they can use through cleaning up after leak detection.
- All leak detection system is modularized and easy to install and maintain.



Digipressure

Trace Tek Leak Detection System technology let you know the location of Various type of liquid (water, oil etc) from mechanical equipments pipeline early and correctly.

The sensing cable has two insulated wires and two conductive polymer coated electrodes. The digital readout of the location is generated by measuring the voltage drop along the sensing cable between the leak and the module. The voltage drop is linear and proportional to the leak location.

Specific Features

All pressure switches and gauges can be replaced by One Digipressure. And you can also use any kinds of compressors.

Model No.	DYHAC-500
DPC-HL	Dual + Single Pressure Controller Semi-Hermetic Reciprocating Compressors
MPC-HL-L	4-step control of multi Pressure Controller Semi-Hermetic Screw Compressors
DPC-DIF	Differential pressure systems Controller
MPC Series	Roltec, Bitzer, Whsen, Hitachi, and Kobe copeland compressor Semi-Hermetic Reciprocating Compressors, Screw Compressors, scroll compressors
MPC-H2L2 (Dual Type)	2step Compressors systems controller, AHU, HEAT PUMP, CHILLER
NEW MPC-H4&L4	Multi-rack system, high/low four control only

Pressure Range

- Low -1-50Kgf/cm2g, High-1-50Kgf/cm2g.
- Production orders can be 0 - 200BAR (CO₂ system)
- High Differential 3 Fixed kgf/cm2g, Low Differential 0.1kgf/cm2g,
- Reset Low Auto, Reset High Auto/Manual,
- Pressure Connection 7/16-20 UNF(1/4 In Flare), Mounting Any Position,
- Voltage DC24V, 80 - 265V~,
- R-12, R-22, R-134A and R-404.410A.407.CO₂ Commercial Refrigeration and Air Conditioning



DPC-SERIES



DPC-SERIES

Exhibition



- HARFKO (Heating, Air-Conditioning, Refrigeration and Fluid Exhibition)
- The Exhibition of Government Procurement Excellent Products.
- Acrex India
- CHINA Refrigeration
- Hi-Tech Defense Industry Fair

Reference

Reference

