

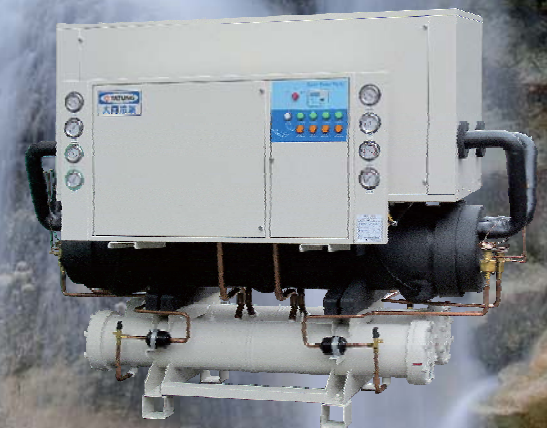
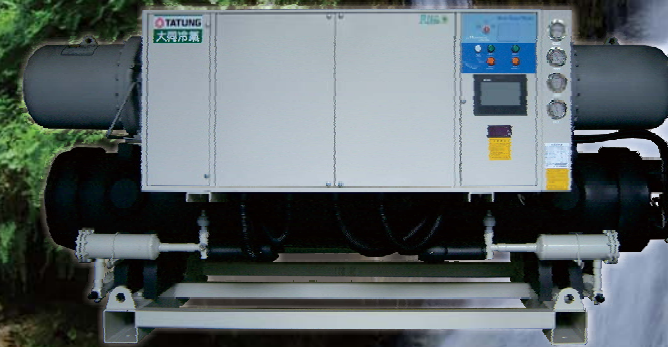
Water-Cooled Chillers

Air-Cooled Chillers

R-410A

R-134a

R-407C



TATUNG CO.

22 Chungshan North Road, 3rd Sec., Taipei 104, Taiwan, R.O.C
Tel : 886-2-25925252 Ext.2660
Fax : 886-2-25984436
E-mail:calvin.ho@tatung.com

AIR CONDITIONER TAO YUAN PLANT

38 Lane 1119 Daquan Road, Ta Yuan, Tao Yuan Country 337,
Taiwan, R.O.C.
Tel : 886-3-3861111 Fax : 886-3-3864901
http : //www.tatung.com

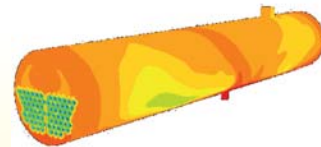
● Compressor

High efficiency semi-hermetic twin screw compressors. Compressor structure is simple, easy maintenance, energy saving and low noise operation, and has to follow the loading step or linear capacity control to achieve stable, comfortable, energy saving.



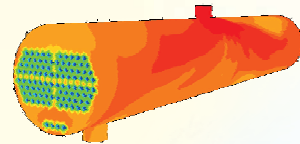
● Evaporator

Excellent performance by shell-and-tube flooded type evaporator design, and using high efficiency cooper tubes.



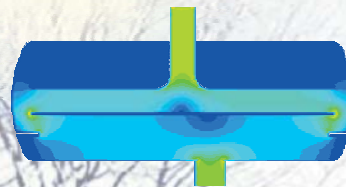
● Condenser

Excellent performance by shell-and-tube flooded type condenser design, and using high efficiency cooper tubes.



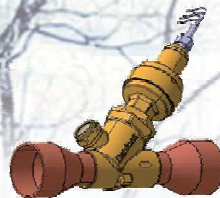
● Oil separator

Make use of the filter screen to separate the refrigeration oil that is drained by compressor, and have the oil flow back through the filter screen of compressor suction side into the oil tank from the circulation return pipe by means of pressure difference.



● Electrically operated expansion valve

ETS is a series of electrically operated expansion valves for precise liquid injection in evaporators for air conditioning and refrigeration applications.

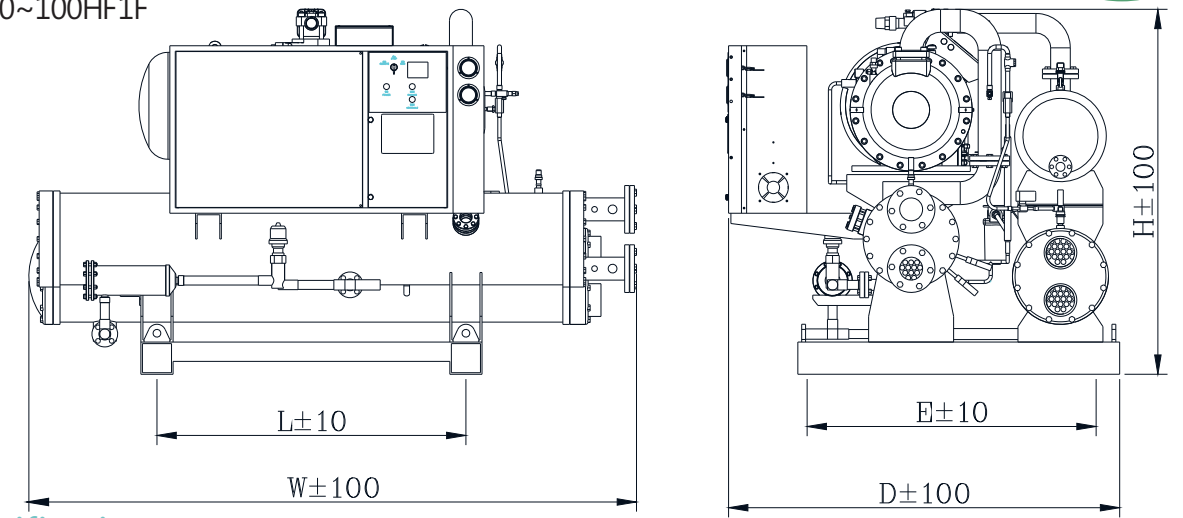


● Capacity test laboratory

The Taiwan Accreditation Foundation (TAF) is the only body in Taiwan recognised by Government for the accreditation of conformity assessment against international standards.



TCW-40~100HF1F

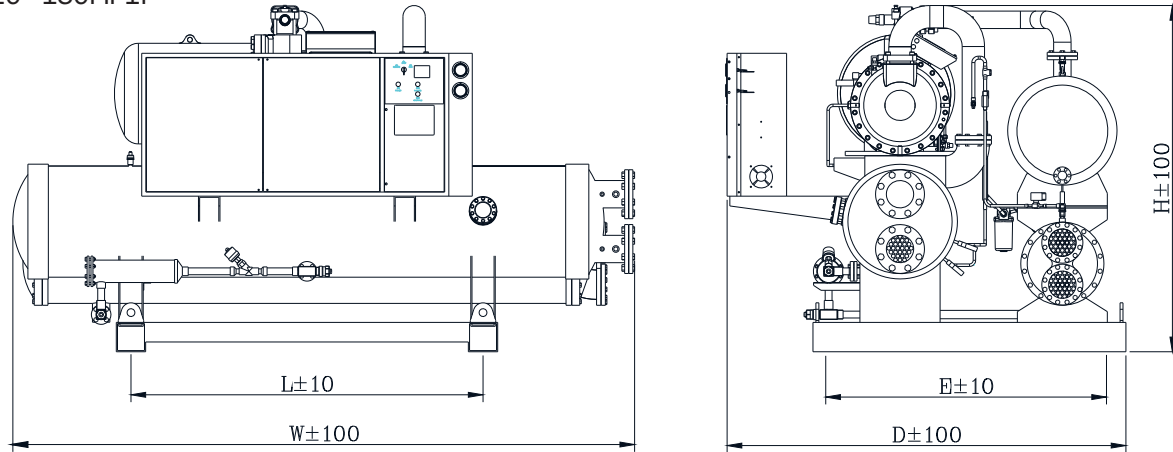


■ Specifications

Model		TCW-40HF1F	TCW-50HF1F	TCW-60HF1F	TCW-80HF1F	TCW-100HF1F
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	141	176	211	281	352
	Btu/hr	480,000	600,000	720,000	960,000	1,200,000
Power Consumption	kW	31	38	46	62	74
Running Current	A	54	66	80	108	129
COP	kW/kW	4.55	4.63	4.59	4.53	4.76
EER	Btu/h/W	15.48	15.79	15.65	15.48	16.22
Dimension	Height (H)	mm	1,500	1,600	1,600	1,700
	Width (W)	mm	2,100	2,300	2,500	2,800
	Depth (D)	mm	1,600	1,600	1,600	1,700
Foundation holes (L*E)	mm	1,100*1,100	1,100*1,100	1,200*1,100	1,500*1,250	1,500*1,250
Evaporator	Type	Flooded				
	Flow rate	400	500	600	800	1000
	Lost head	4.0	4.0	4.0	4.0	4.0
	Pipe connections	3B Flange	3B Flange	3B Flange	4B Flange	4B Flange
Condenser	Type	Shell and Tube				
	Flow rate	500	625	750	1000	1250
	Lost head	4.0	4.0	4.0	4.0	5.0
	Pipe connections	PT 3	PT 3	PT 4	PT 4	4B Flange
Refrigerant control	Electrically expansion valve					
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	150	150	150	300
Capacity step	%	0,50,75,100				
Starting method	Y-Δ					
Safety devices	High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Moter winding protector					
Refrigerant	R134a					
Refrigerant oil	POE					
Net weight	kg	1,500	1,550	1,750	1,900	2,300
Operation weight	kg	1,850	1,900	2,100	2,300	2,800

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.
2.Specifications are subject to change with out notice for further improvement.

TCW-120~180HF1F



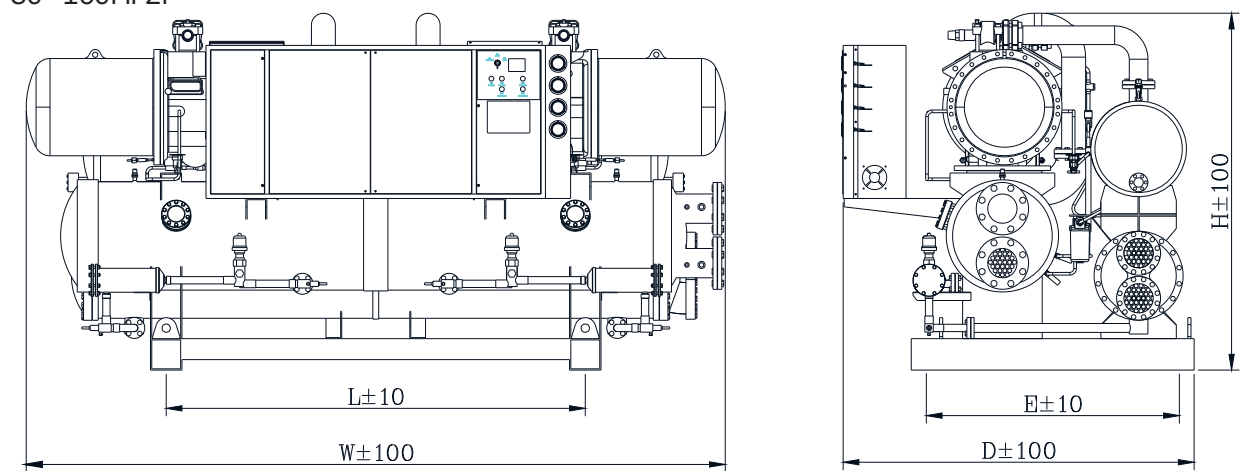
■ Specifications

Model		TCW-120HF1F	TCW-150HF1F	TCW-160HF1F	TCW-180HF1F	
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	422	527	563	633	
	Btu/hr	1,440,000	1,800,000	1,920,000	2,160,000	
Power Consumption	kW	89	107	114	128	
Running Current	A	155	182	199	224	
COP	kW/kW	4.74	4.93	4.94	4.95	
EER	Btu/h/W	16.18	16.82	16.84	16.88	
Dimension	Height (H)	mm	1,700	1,900	2,000	2,100
	Width (W)	mm	3,000	3,200	3,200	3,400
	Depth (D)	mm	1,700	2,100	2,100	2,200
Foundation holes (L*E)	mm	1,400*1,300	1,800*1,400	1,800*1,400	2,000*1,800	
Evaporator	Type	Flooded				
	Flow rate	1200	1500	1600	1800	
	Lost head	4.0	4.0	4.5	4.5	
	Pipe connections	4B Flange	5B Flange	5B Flange	5B Flange	
Condenser	Type	Shell and Tube				
	Flow rate	1500	1875	2000	2250	
	Lost head	5.0	6.0	6.0	6.0	
	Pipe connections	4B Flange	5B Flange	5B Flange	5B Flange	
Refrigerant control		Electrically expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	300	300	300	300
Capacity step	%	0,50,75,100				
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Moter winding protector				
Refrigerant		R134a				
Refrigerant oil		POE				
Net weight	kg	2,600	3,150	3,250	3,450	
Operatioon weight	kg	3,150	3,800	3,900	4,100	

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-80~160HF2F



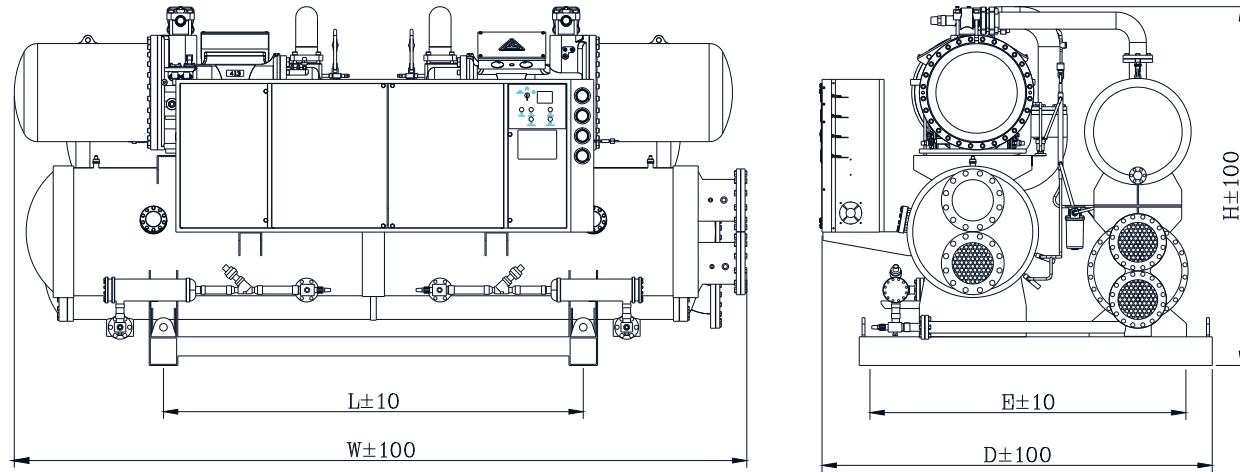
■ Specifications

Model		TCW-80HF2F	TCW-100HF2F	TCW-120HF2F	TCW-150HF2F	TCW-160HF2F	
Power Source		3Ø 380V 50Hz					
Cooling Capacity	kW	281	352	422	527	563	
	Btu/hr	960,000	1,200,000	1,440,000	1,800,000	1,920,000	
Power Consumption	kW	62	74	88	107	114	
Running Current	A	108	130	145	187	199	
COP	kW/kW	4.53	4.76	4.80	4.93	4.94	
EER	Btu/h/W	15.48	16.22	16.36	16.82	16.84	
Dimension	Height (H)	mm	1,500	1,600	1,600	1,800	1,800
	Width (W)	mm	3,100	3,300	3,400	3,600	3,600
	Depth (D)	mm	1,600	1,600	1,800	1,800	1,800
Foundation holes (L*E)	mm	1,800*1,100	2,000*1,100	1,800*1,200	2,000*1,400	2,000*1,400	
Evaporator	Type	Flooded					
	Flow rate	800	1000	1200	1500	1600	
	Lost head	4.0	4.0	4.0	4.0	4.5	
	Pipe connections	4B Flange	4B Flange	5B Flange	5B Flange	5B Flange	
Condenser	Type	Shell and Tube					
	Flow rate	1000	1250	1500	1875	2000	
	Lost head	5.0	5.0	5.0	6.0	6.0	
	Pipe connections	4B Flange	4B Flange	5B Flange	5B Flange	5B Flange	
Refrigerant control		Electrically expansion valve					
Compressor	Type	Semi - hermetic screw					
	Oil heater	W	150*2	150*2	300*2	300*2	300*2
Capacity step	%	0,25,50,75,100					
Starting method		Y-Δ					
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Moter winding protector					
Refrigerant		R134a					
Refrigerant oil		POE					
Net weight	kg	2,700	3,000	3,200	4,000	4,100	
Operatioon weight	kg	3,300	3,600	3,850	4,800	4,900	

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-180~300HF2F

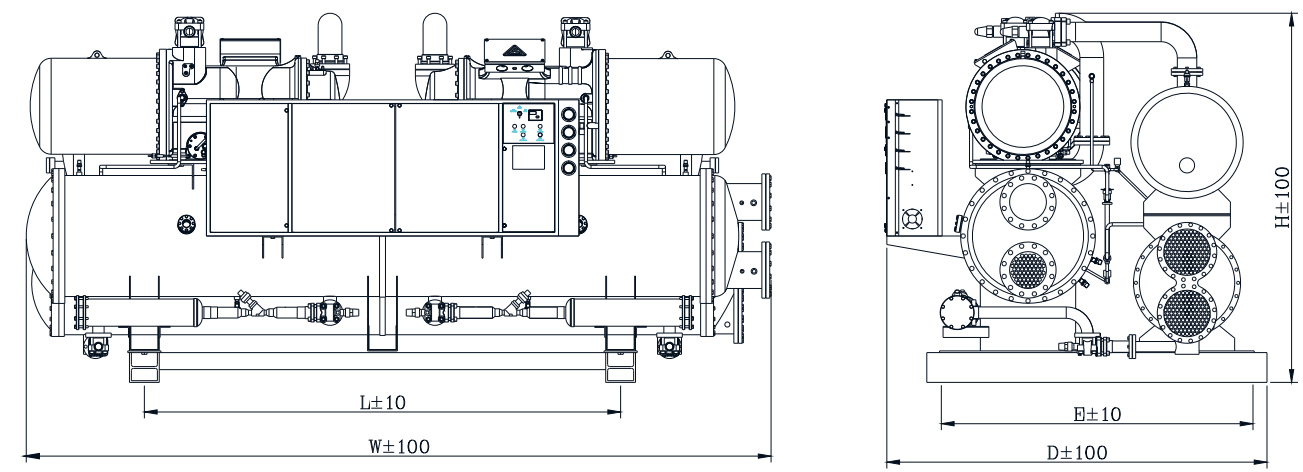


■ Specifications

Model		TCW-180HF2F	TCW-200HF2F	TCW-240HF2F	TCW-250HF2F	TCW-300HF2F
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	633	703	844	884	1,055
	Btu/hr	2,160,000	2,400,000	2,880,000	3,000,000	3,600,000
Power Consumption	kW	128	142	172	173	210
Running Current	A	224	248	300	307	367
COP	kW/kW	4.95	4.95	4.91	5.11	5.02
EER	Btu/h/W	16.88	16.90	16.74	17.34	17.14
Dimension	Height (H)	mm	1,800	1,800	1,900	1,900
	Width (W)	mm	3,600	3,600	3,600	3,900
	Depth (D)	mm	1,800	1,800	1,800	1,800
Foundation holes (L*E)	mm	2,200*1,500	2,200*1,500	2,200*1,500	2,200*1,650	2,200*1,650
Evaporator	Type	Flooded				
	Flow rate	1800	2000	2400	2500	3000
	Lost head	4.5	4.5	4.5	5.0	5.0
	Pipe connections	6B Flange	6B Flange	6B Flange	6B Flange	8B Flange
Condenser	Type	Shell and Tube				
	Flow rate	2250	2500	3000	3125	3750
	Lost head	6.0	6.0	6.0	6.5	6.5
	Pipe connections	6B Flange	6B Flange	6B Flange	6B Flange	8B Flange
Refrigerant control		Electrically expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	300*2	300*2	300*2	300*2
Capacity step	%	0,25,50,75,100				
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Moter winding protector				
Refrigerant		R134a				
Refrigerant oil		POE				
Net weight	kg	4,200	4,300	4,500	4,800	5,500
Operation weight	kg	5,100	5,200	5,400	5,750	6,600

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.
2.Specifications are subject to change with out notice for further improvement.

TCW-320~500HF2F

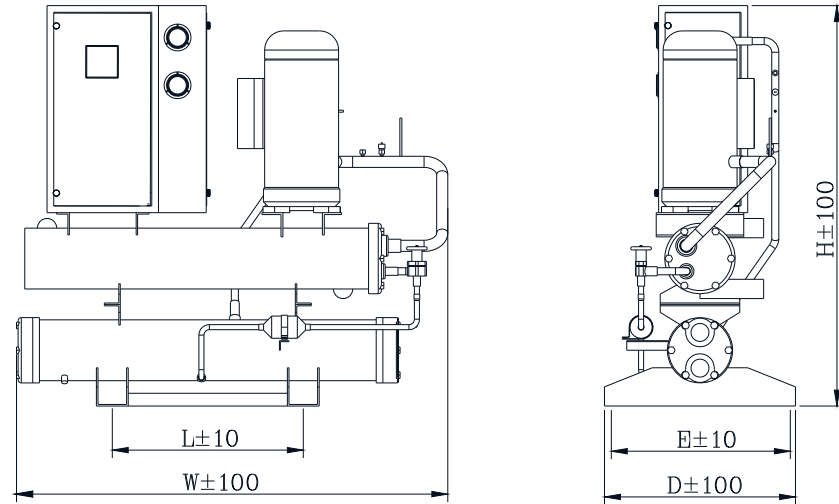


■ Specifications

Model		TCW-320HF2F	TCW-360HF2F	TCW-400HF2F	TCW-450HF2F	TCW-500HF2F
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	1,125	1,266	1,407	1,582	1,758
	Btu/hr	3,840,000	4,320,000	4,800,000	5,400,000	6,000,000
Power Consumption	kW	220	247	275	305	338
Running Current	A	380	435	480	532	590
COP	kW/kW	5.11	5.13	5.12	5.19	5.20
EER	Btu/h/W	17.45	17.49	17.45	17.70	17.75
Dimension	Height (H)	mm	2,100	2,100	2,300	2,400
	Width (W)	mm	4,100	4,100	4,500	4,500
	Depth (D)	mm	2,100	2,100	2,300	2,300
Foundation holes (L*E)	mm	2,400*1,700	2,400*1,700	2,800*1,800	2,800*1,800	2,800*1,800
Evaporator	Type	Flooded				
	Flow rate	3200	3600	4000	4500	5000
	Lost head	5.0	5.0	5.0	5.0	5.0
	Pipe connections	8B Flange	8B Flange	8B Flange	8B Flange	8B Flange
Condenser	Type	Shell and Tube				
	Flow rate	4000	4500	5000	5625	6250
	Lost head	6.5	6.5	6.6	6.6	6.6
	Pipe connections	8B Flange	8B Flange	10B Flange	10B Flange	10B Flange
Refrigerant control		Electrically expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	300*2	300*2	300*2	300*2
Capacity step	%	0,25,50,75,100				
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Moter winding protector				
Refrigerant		R134a				
Refrigerant oil		POE				
Net weight	kg	8,100	8,300	8,500	8,700	9,100
Operation weight	kg	9,750	9,950	10,200	10,450	10,950

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.
2.Specifications are subject to change with out notice for further improvement.

TCW-5NAK1D
TCW-8NAK1D
TCW-10NAK1D
TCW-15NAK1D



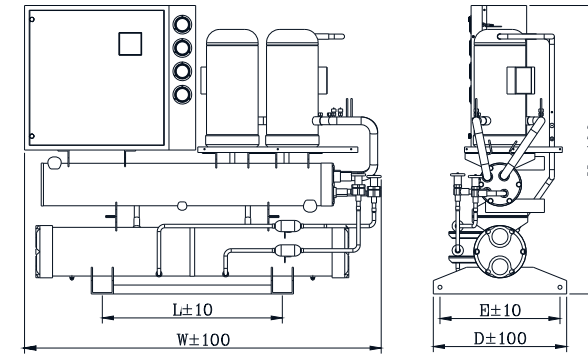
■ Specifications

Model		TCW-5NAK1D	TCW-8NAK1D	TCW-10NAK1D	TCW-15NAK1D
Power Source		3Ø 380V 50Hz			
Cooling Capacity	kW	18	26	35	52
	Btu/hr	60,000	90,000	120,000	180,000
Power Consumption	kW	4.1	6.0	8.0	12.0
Running Current	A	8.0	13.0	17.0	25.0
COP	kW/kW	4.29	4.33	4.38	4.33
EER	Btu/h/W	14.63	15.00	15.00	15.00
Dimension	Height (H)	mm	1,200	1,200	1,300
	Width (W)	mm	1,100	1,200	1,400
	Depth (D)	mm	600	600	600
Foundation holes (L*E)	mm	500*500	810*500	810*500	810*500
Evaporator	Type	Shell and Tube			
	Flow rate	50	80	100	150
	Lost head	4.0	4.0	4.0	4.5
	Pipe connections	PT 1-1/4	PT 1-1/2	PT 1-1/2	PT 2
Condenser	Type	Shell and Tube			
	Flow rate	65	100	125	190
	Lost head	4.0	4.0	4.0	4.5
	Pipe connections	PT 1-1/4	PT 1-1/2	PT 1-1/2	PT 2
Refrigerant control	Thermostatic expansion valve				
Compressor	Scroll				
Capacity step	%	0,100			
Starting method	Direct				
Safety devices	High/low pressure switch, Over current relay, Phase reversal protector, Fusible plug, Thermal interior protector, Antifreeze protector				
Refrigerant	R410A				
Refrigerant oil	POE				
Net weight	kg	180	200	250	300
Operation weight	kg	220	240	300	350

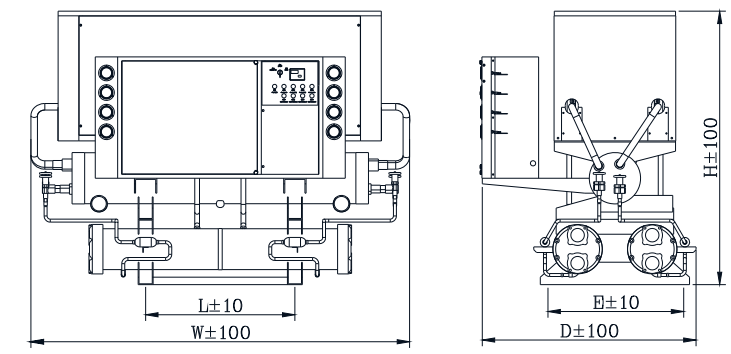
Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

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TCW-20NAK2D
TCW-30NAK2D



TCW-40NAK4D
TCW-50NAK4D
TCW-60NAK4D



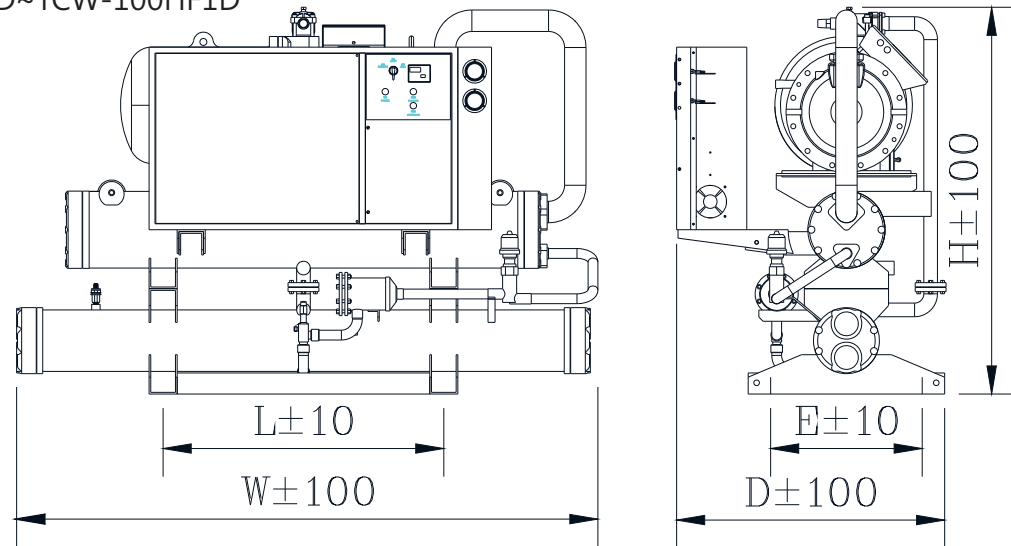
■ Specifications

Model		TCW-20NAK2D	TCW-30NAK2D	TCW-40NAK4D	TCW-50NAK4D	TCW-60NAK4D
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	70	105	141	176	211
	Btu/hr	240,000	360,000	480,000	600,000	720,000
Power Consumption	kW	16	24	33	41	49
Running Current	A	34	51	68	87	103
COP	kW/kW	4.38	4.38	4.27	4.29	4.31
EER	Btu/h/W	15.00	15.00	14.55	14.63	14.69
Dimension	Height (H)	mm	1,300	1,300	1,500	1,600
	Width (W)	mm	1,700	1,800	2,100	2,200
	Depth (D)	mm	600	750	1,200	1,200
Foundation holes (L*E)	mm	810*500	810*500	800*700	800*700	800*700
Evaporator	Type	Shell and Tube				
	Flow rate	200	300	400	500	600
	Lost head	4.5	4.5	5.0	5.0	5.5
	Pipe connections	PT 2	PT 2-1/2	PT 3	PT 3	4B Flange
Condenser	Type	Shell and Tube				
	Flow rate	250	375	500	625	750
	Lost head	4.5	4.5	5.0	5.0	5.5
	Pipe connections	PT 2	PT 2-1/2	PT 2*2	PT 2-1/2*2	PT 2-1/2*2
Refrigerant control	Thermostatic expansion valve					
Compressor	Scroll*2		Scroll*4			
Capacity step	%	100,50,0		100,75,50,25,0		
Starting method	Sequence Direct					
Safety devices	High/low pressure switch, Over current relay, Phase reversal protector, Fusible plug, Thermal interior protector, Antifreeze protector					
Refrigerant	R410A					
Refrigerant oil	POE					
Net weight	kg	450	480	850	900	1,000
Operation weight	kg	550	580	900	950	1,200

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-40HF1D~TCW-100HF1D



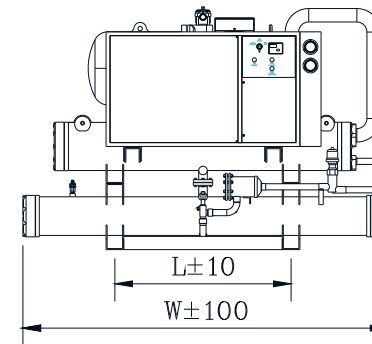
■ Specifications

Model		TCW-40HF1D	TCW-50HF1D	TCW-60HF1D	TCW-80HF1D	TCW-100HF1D
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	141	176	211	281	352
	Btu/hr	480,000	600,000	720,000	960,000	1,200,000
Power Consumption	kW	33	41	50	66	83
Running Current	A	60	74	90	119	150
COP	kW/kW	4.27	4.29	4.22	4.26	4.24
EER	Btu/h/W	14.55	14.63	14.40	14.55	14.46
Dimension	Height (H)	mm	1,600	1,700	1,900	1,900
	Width (W)	mm	2,400	2,600	2,600	2,800
	Depth (D)	mm	1,100	1,200	1,200	1,200
Foundation holes (L*E)	mm	1,000*540	1,200*540	1,200*540	1,400*540	1,400*740
Evaporator	Type	Shell and Tube				
	Flow rate	400	500	600	800	1000
	Lost head	4.0	5.0	5.0	5.0	5.0
	Pipe connections	PT 3	PT 3	4B Flange	4B Flange	4B Flange
Condenser	Type	Shell and Tube				
	Flow rate	500	625	750	1000	1250
	Lost head	4.0	4.0	4.0	4.0	5.0
	Pipe connections	PT 3	PT 3	PT 4	PT 4	4B Flange
Refrigerant control		Thermostatic expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	150	150	300	300
Capacity step	%	0,50,75,100				
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Motor winding protector				
Refrigerant		R134a				
Refrigerant oil		POE				
Net weight	kg	1,200	1,400	1,500	2,100	2,300
Operation weight	kg	1,450	1,650	1,800	2,550	2,750

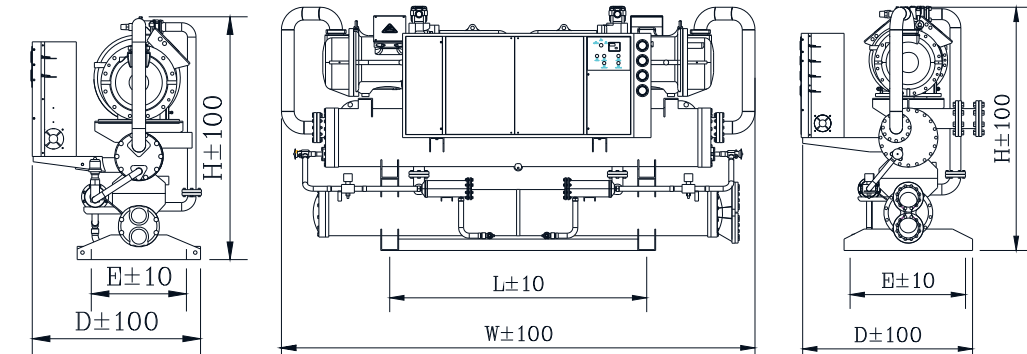
Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

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TCW-120HF1D
TCW-150HF1D



TCW-80HF2D
TCW-100HF2D
TCW-120HF2D



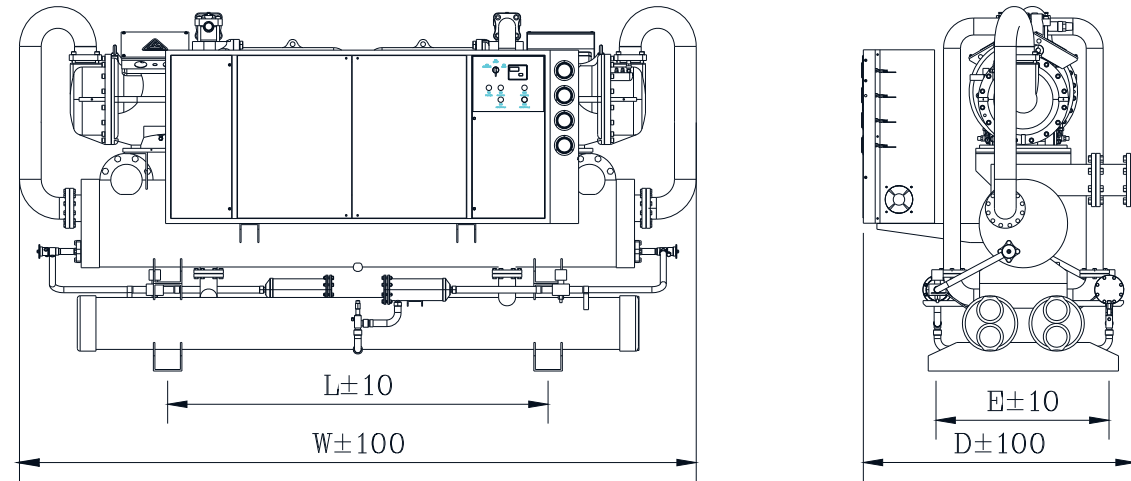
■ Specifications

Model		TCW-120HF1D	TCW-150HF1D	TCW-80HF2D	TCW-100HF2D	TCW-120HF2D
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	422	527	281	352	422
	Btu/hr	1,200,000	1,800,000	960,000	1,200,000	1,440,000
Power Consumption	kW	100	125	66	82	100
Running Current	A	180	225	120	148	180
COP	kW/kW	4.22	4.22	4.26	4.29	4.22
EER	Btu/h/W	12.00	14.40	14.55	14.63	14.40
Dimension	Height (H)	mm	2,100	2,100	1,700	1,800
	Width (W)	mm	3,300	3,300	3,300	3,300
	Depth (D)	mm	1,300	1,300	1,200	1,200
Foundation holes (L*E)	mm	1,500*740	1,500*740	1,800*740	1,800*740	1,800*740
Evaporator	Type	Shell and Tube				
	Flow rate	1200	1500	800	1000	1200
	Lost head	5.0	5.0	5.0	5.0	5.0
	Pipe connections	5B Flange	5B Flange	4B Flange	4B Flange	4B Flange
Condenser	Type	Shell and Tube				
	Flow rate	1500	1875	1000	1250	1500
	Lost head	5.0	6.0	4.0	5.0	5.0
	Pipe connections	5B Flange	5B Flange	PT 4	PT 4	PT 4
Refrigerant control		Thermostatic expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	300	300	150*2	150*2
Capacity step	%	0,50,75,100		0,25,50,75,100		
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Motor winding protector				
Refrigerant		R134a				
Refrigerant oil		POE				
Net weight	kg	2,500	2,700	2,300	2,600	2,800
Operation weight	kg	3,000	3,250	2,750	3,150	3,350

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-160HF2D~TCW-300HF2D



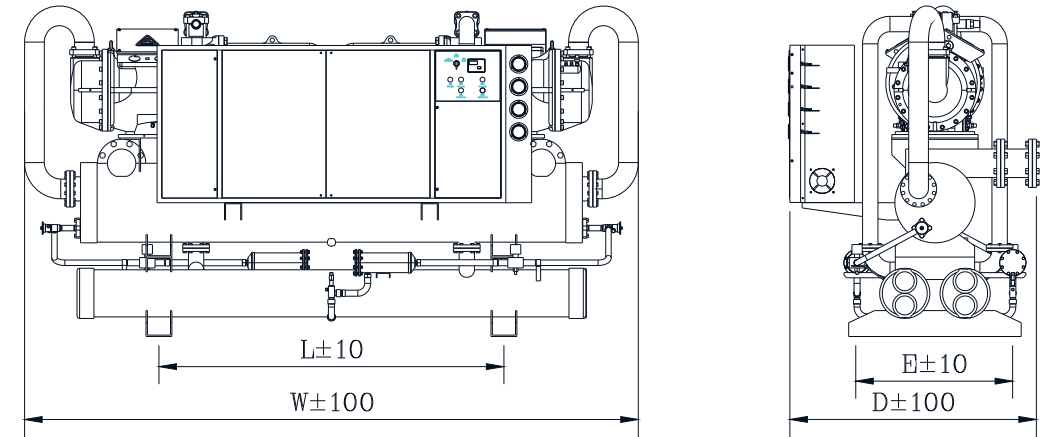
■ Specifications

Model		TCW-160HF2D	TCW-180HF2D	TCW-200HF2D	TCW-240HF2D	TCW-300HF2D
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	563	633	703	844	1,055
	Btu/hr	1,920,000	2,160,000	2,400,000	2,880,000	3,600,000
Power Consumption	kW	132	150	166	200	250
Running Current	A	237	270	300	360	450
COP	kW/kW	4.27	4.22	4.23	4.22	4.22
EER	Btu/h/W	14.55	14.00	14.46	14.40	14.40
Dimension	Height (H)	mm	2,000	2,000	2,000	2,300
	Width (W)	mm	3,700	3,800	3,800	4,100
	Depth (D)	mm	1,400	1,500	1,500	1,600
Foundation holes (L*E)	mm	2,000*840	2,000*840	2,000*840	2,000*840	2,000*1,200
Evaporator	Type	Shell and Tube				
	Flow rate	1600	1800	2000	2400	3000
	Lost head	5.0	5.0	5.0	6.0	6.5
	Pipe connections	5B Flange	5B Flange	6B Flange	6B Flange	8B Flange
Condenser	Type	Shell and Tube				
	Flow rate	2000	2250	2500	3000	3750
	Lost head	6.0	6.0	6.0	6.0	6.4
	Pipe connections	PT 4*2	PT 4*2	PT 4*2	5B Flange*2	6B Flange*2
Refrigerant control		Thermostatic expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	300*2	300*2	300*2	300*2
Capacity step	%	0,25,50,75,100				
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Motor winding protector				
Refrigerant		R134a				
Refrigerant oil		POE				
Net weight	kg	3,200	3,800	4,000	4,400	4,800
Operation weight	kg	3,850	4,550	4,800	5,300	5,800

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-360HF2D
TCW-400HF2D
TCW-500HF2D



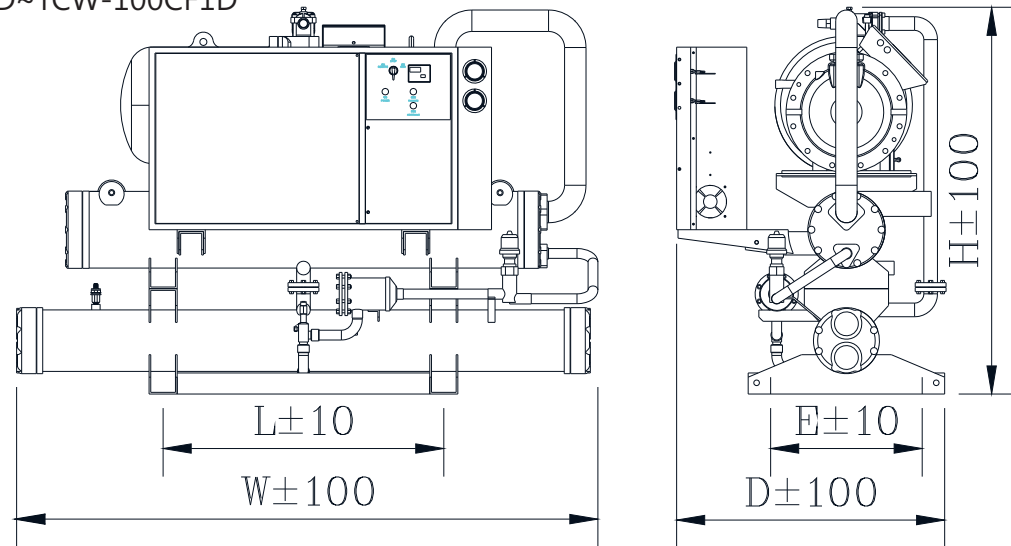
■ Specifications

Model		TCW-360HF2D	TCW-400HF2D	TCW-500HF2D
Power Source		3Ø 380V 50Hz		
Cooling Capacity	kW	1,266	1,406	1,758
	Btu/hr	4,320,000	4,800,000	6,000,000
Power Consumption	kW	298	330	413
Running Current	A	536	594	743
COP	kW/kW	4.25	4.26	4.26
EER	Btu/h/W	14.50	14.55	14.53
Dimension	Height (H)	mm	2,400	2,500
	Width (W)	mm	4,800	5,000
	Depth (D)	mm	1,900	2,000
Foundation holes (L*E)	mm	2,000*1,400	2,000*1,400	2,000*1,400
Evaporator	Type	Shell and Tube		
	Flow rate	3600	4000	5000
	Lost head	6.5	8.0	9.0
	Pipe connections	8B Flange	10B Flange	10B Flange
Condenser	Type	Shell and Tube		
	Flow rate	4500	5000	6250
	Lost head	6.5	8.0	8.0
	Pipe connections	6B Flange*2	6B Flange*2	6B Flange*2
Refrigerant control		Thermostatic expansion valve		
Compressor	Type	Semi - hermetic screw		
	Oil heater	W	300*2	300*2
Capacity step	%	0,25,50,75,100		
Starting method		Y-Δ		
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Motor winding protector		
Refrigerant		R134a		
Refrigerant oil		POE		
Net weight	kg	5,300	5,900	6,800
Operation weight	kg	6,350	7,100	8,500

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-40CF1D~TCW-100CF1D



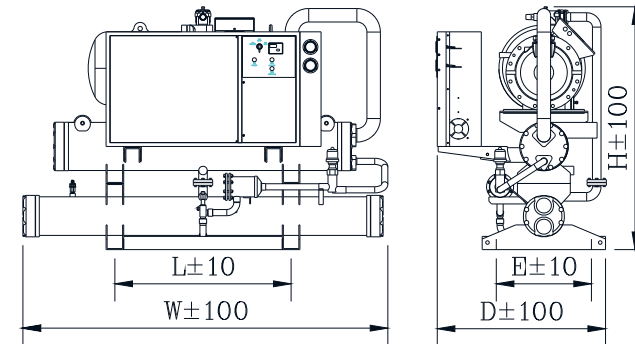
Specifications

Model		TCW-40CF1D	TCW-50CF1D	TCW-60CF1D	TCW-80CF1D	TCW-100CF1D
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	141	176	211	281	352
	Btu/hr	480,000	600,000	720,000	960,000	1,200,000
Power Consumption	kW	33	41	50	66	83
Running Current	A	60	74	90	119	150
COP	kW/kW	4.27	4.29	4.22	4.26	4.24
EER	Btu/h/W	14.55	14.63	14.40	14.55	14.46
Dimension	Height (H)	mm	1,600	1,700	1,900	1,900
	Width (W)	mm	2,400	2,600	2,600	2,800
	Depth (D)	mm	1,100	1,200	1,200	1,200
Foundation holes (L*E)	mm	1,000*540	1,200*540	1,200*540	1,400*540	1,400*740
Evaporator	Type	Shell and Tube				
	Flow rate	400	500	600	800	1000
	Lost head	4.0	5.0	5.0	5.0	5.0
	Pipe connections	PT 3	PT 3	4B Flange	4B Flange	4B Flange
Condenser	Type	Shell and Tube				
	Flow rate	500	625	750	1000	1250
	Lost head	4.0	4.0	4.0	4.0	5.0
	Pipe connections	PT 3	PT 3	PT 4	PT 4	4B Flange
Refrigerant control		Thermostatic expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	150	150	300	300
Capacity step	%	0,50,75,100				
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Moter winding protector				
Refrigerant		R407C				
Refrigerant oil		POE				
Net weight	kg	1,150	1,350	1,450	2,050	2,250
Operation weight	kg	1,400	1,600	1,750	2,450	2,700

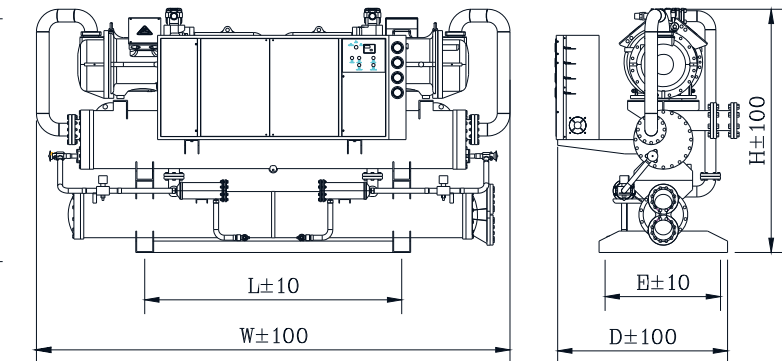
Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-120CF1D
TCW-150CF1D



TCW-80CF2D
TCW-100CF2D
TCW-120CF2D



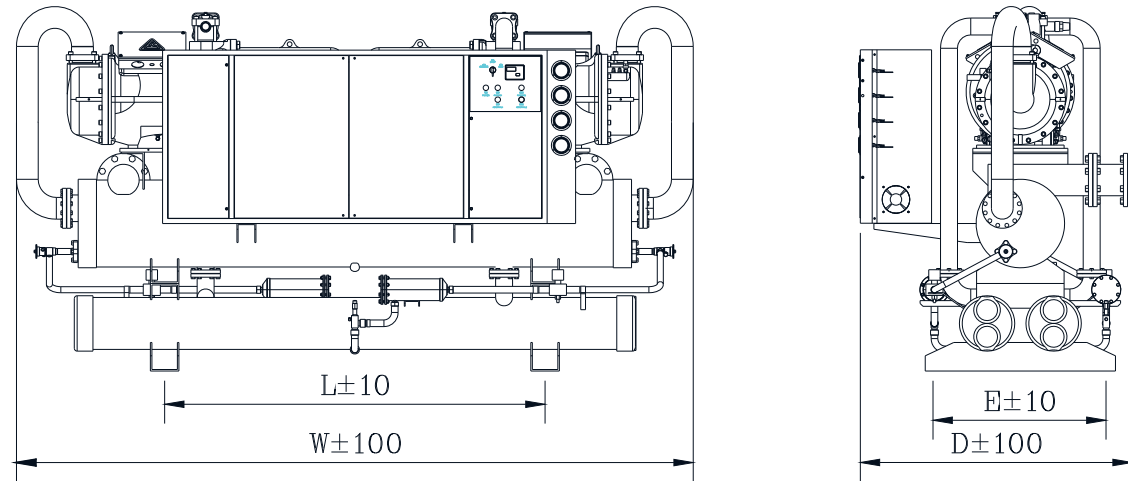
Specifications

Model		TCW-120CF1D	TCW-150CF1D	TCW-80CF2D	TCW-100CF2D	TCW-120CF2D
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	422	527	281	352	422
	Btu/hr	1,200,000	1,800,000	960,000	1,200,000	1,440,000
Power Consumption	kW	100	125	66	82	100
Running Current	A	180	225	120	148	180
COP	kW/kW	4.22	4.22	4.26	4.29	4.22
EER	Btu/h/W	12.00	14.40	14.55	14.63	14.40
Dimension	Height (H)	mm	2,100	2,100	1,700	1,800
	Width (W)	mm	3,300	3,300	3,300	3,300
	Depth (D)	mm	1,300	1,300	1,200	1,200
Foundation holes (L*E)	mm	1,500*740	1,500*740	1,800*740	1,800*740	1,800*740
Evaporator	Type	Shell and Tube				
	Flow rate	1200	1500	800	1000	1200
	Lost head	5.0	5.0	5.0	5.0	5.0
	Pipe connections	5B Flange	5B Flange	4B Flange	4B Flange	4B Flange
Condenser	Type	Shell and Tube				
	Flow rate	1500	1875	1000	1250	1500
	Lost head	5.0	6.0	4.0	5.0	5.0
	Pipe connections	5B Flange	5B Flange	PT 4	PT 4	PT 4
Refrigerant control		Thermostatic expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	300	300	150*2	150*2
Capacity step	%	0,50,75,100		0,25,50,75,100		
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Moter winding protector				
Refrigerant		R407C				
Refrigerant oil		POE				
Net weight	kg	2,450	2,650	2,250	2,550	2,750
Operation weight	kg	2,950	3,150	2,700	3,050	3,300

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-160CF2D~TCW-300CF2D



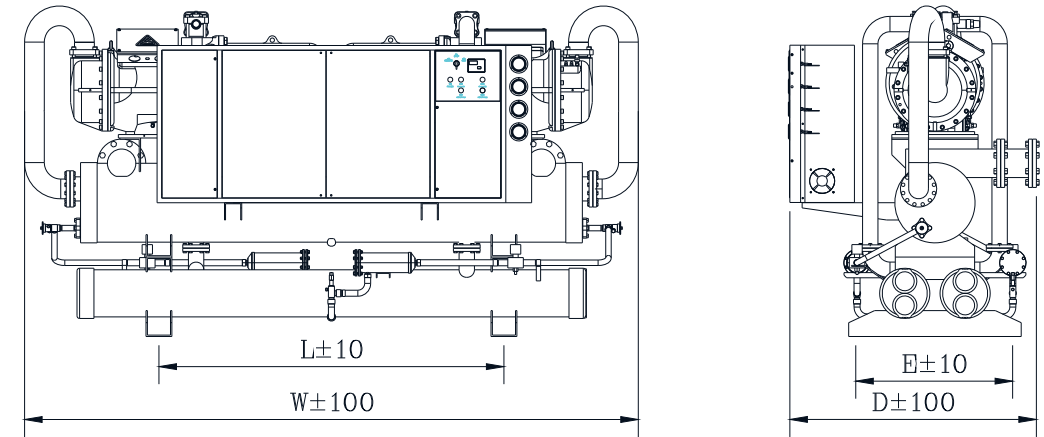
■ Specifications

Model		TCW-160CF2D	TCW-180CF2D	TCW-200CF2D	TCW-240CF2D	TCW-300CF2D
Power Source		3Ø 380V 50Hz				
Cooling Capacity	kW	563	633	703	844	1,055
	Btu/hr	1,920,000	2,160,000	2,400,000	2,880,000	3,600,000
Power Consumption	kW	132	150	166	200	250
Running Current	A	237	270	300	360	450
COP	kW/kW	4.27	4.22	4.23	4.22	4.22
EER	Btu/h/W	14.55	14.00	14.46	14.40	14.40
Dimension	Height (H)	mm	1,900	1,900	1,900	2,200
	Width (W)	mm	3,700	3,800	3,800	4,100
	Depth (D)	mm	1,400	1,500	1,500	1,600
Foundation holes (L*E)	mm	2,000*840	2,000*840	2,000*840	2,000*840	2,000*1,200
Evaporator	Type	Shell and Tube				
	Flow rate	1600	1800	2000	2400	3000
	Lost head	5.0	5.0	5.0	6.0	6.5
	Pipe connections	5B Flange	5B Flange	6B Flange	6B Flange	8B Flange
Condenser	Type	Shell and Tube				
	Flow rate	2000	2250	2500	3000	3750
	Lost head	6.0	6.0	6.0	6.0	6.4
	Pipe connections	PT 4*2	PT 4*2	PT 4*2	5B Flange*2	6B Flange*2
Refrigerant control		Thermostatic expansion valve				
Compressor	Type	Semi - hermetic screw				
	Oil heater	W	300*2	300*2	300*2	300*2
Capacity step	%	0,25,50,75,100				
Starting method		Y-Δ				
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Motor winding protector				
Refrigerant		R407C				
Refrigerant oil		POE				
Net weight	kg	3,150	3,750	3,950	4,350	4,750
Operation weight	kg	3,750	4,500	4,750	5,200	5,700

Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

TCW-360CF2D
TCW-400CF2D
TCW-500CF2D



■ Specifications

Model		TCW-360CF2D	TCW-400CF2D	TCW-500CF2D
Power Source		3Ø 380V 50Hz		
Cooling Capacity	kW	1,266	1,406	1,758
	Btu/hr	4,320,000	4,800,000	6,000,000
Power Consumption	kW	298	330	413
Running Current	A	536	594	743
COP	kW/kW	4.25	4.26	4.26
EER	Btu/h/W	14.50	14.55	14.53
Dimension	Height (H)	mm	2,400	2,500
	Width (W)	mm	4,800	5,000
	Depth (D)	mm	1,900	2,000
Foundation holes (L*E)	mm	2,000*1,400	2,000*1,400	2,000*1,400
Evaporator	Type	Shell and Tube		
	Flow rate	3600	4000	5000
	Lost head	6.5	8.0	9.0
	Pipe connections	8B Flange	10B Flange	10B Flange
Condenser	Type	Shell and Tube		
	Flow rate	4500	5000	6250
	Lost head	6.5	8.0	8.0
	Pipe connections	6B Flange*2	6B Flange*2	6B Flange*2
Refrigerant control		Thermostatic expansion valve		
Compressor	Type	Semi - hermetic screw		
	Oil heater	W	300*2	300*2
Capacity step	%	0,25,50,75,100		
Starting method		Y-Δ		
Safety devices		High/low pressure switch, Cooling different pressure switch, Discharge temp. protector, Over current relay, Relief valve Phase reversal protector, Thermal interior protector, Antifreeze protector, Oil level protector switch, Motor winding protector		
Refrigerant		R407C		
Refrigerant oil		POE		
Net weight	kg	5,250	5,850	6,750
Operation weight	kg	6,300	7,000	8,100

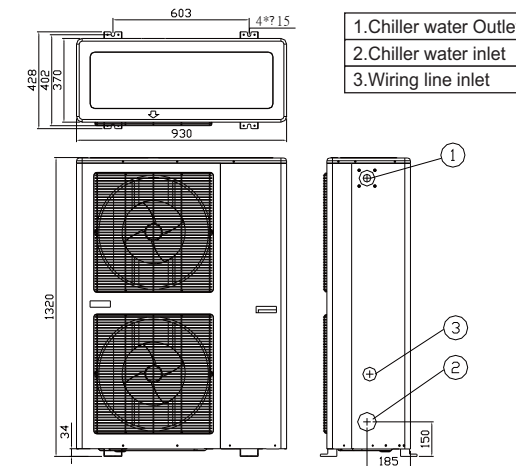
Note: 1.Cooling capacity is on:cooling water outlet 35°C, inlet 30 °C; Chilled water outlet 7°C, inlet 12 °C.

2.Specifications are subject to change with out notice for further improvement.

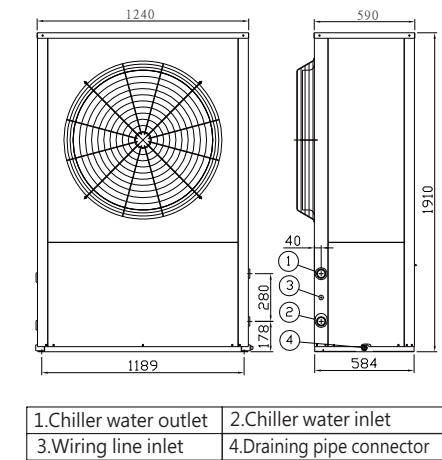
- Chiller pump is standard accessory for TCA-5~30NAK Series.
- Adopt stainless-made plate heat exchanger as evaporator (for TCA-5~30NAK Series) which make the units more compact and have higher efficiency.
- The condenser adopts corrosion-resisting fin to increase its life cycle and maintain easily.
- Adopt scroll compressor(for TCA-5~60NAK Series) of high efficiency, energy-saving.
- Automatic micro-controller let the temperature control more smoothly.
- Independent compressor protection mode can avoid all systems stopping if only one compressor is abnormal(for dual systems and above).



TCA-5NAK1A



TCA-8/10NAK1A



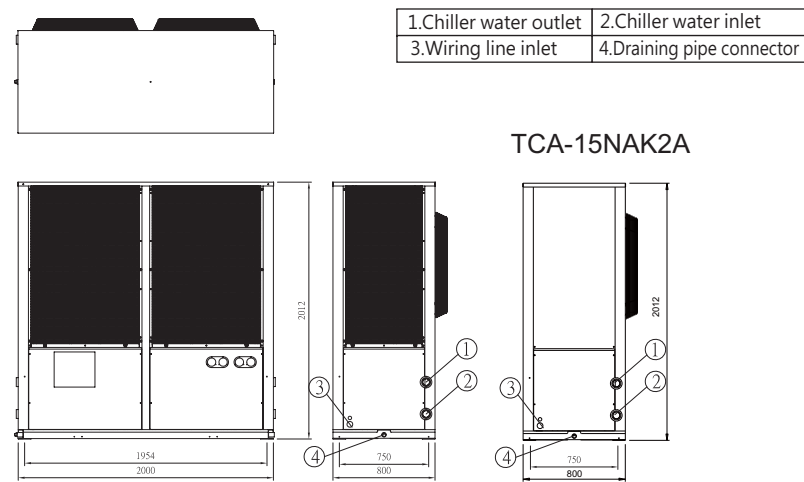
Specifications

Model	TCA-5NAK1A	TCA-8NAK1A	TCA-10NAK1A
Power source	3ø 380V 50Hz		
Cooling Capacity	kW	14.7	23.4
	Btu/hr	50,000	80,000
Water flow rate	L/min	42	67.0
			84
Running Current	A	9.5	15.3
Power Consumption	kW	4.9	7.8
COP	kW/kW	3.00	3.00
EER	Btu/hr.W	10.20	10.26
Compressor	Type	Hermetic Scroll	Hermetic Scroll
	Quantity	1	1
	Capacity Step	%	100,0
	Starting method	Direct	Direct
Fan	Type	Propeller	Propeller
	Quantity	2	1
	Output	W	84 × 2
Condenser	Cross Fin Coil	Cross Fin Coil	
Evaporator	Stainless Plate Heat Exchanger	Stainless Plate Heat Exchanger	
Refrigerant control	Capillary tube	Thermal Expansion Valve	
Refrigerant	R-410A	R-410A	
Refrigerant Oil	POE	POE	
Safety Devices	High pressure switch , Low pressure switch ,Chilled water low temp ,Reversal phase protector , Compressor overload switch, Fan motor internal thermal protector, Water pump overload switch, Compressor 3- minute restarting protector		
Water Pump	kw	0.55	1.1
Pipe	Chiller inlet/outlet	PT 1 1/4	PT 1 1/2
	Draining	--	PT 1
Dimensions	Height	mm	1,320
	Width	mm	930
	Depth	mm	370
Foundation-hole pitches	Width	mm	603
	Depth	mm	402
Weight	kg	135	300

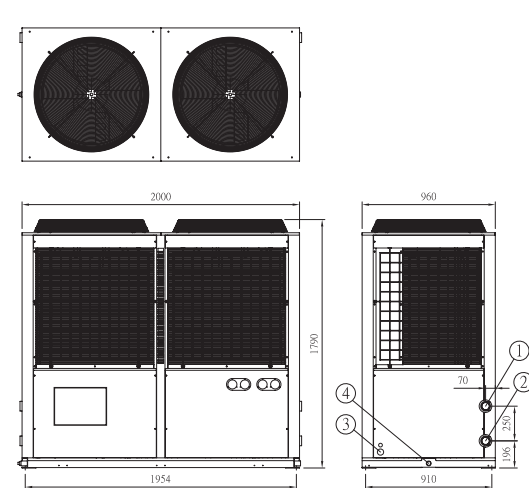
Notes:

- 1.Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
- 2.Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
- 3.Owing to technological advances, the above specifications might be updated without early notice.
- 4.If any other special specifications are needed, please notify our sales in advance.
- 5.1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

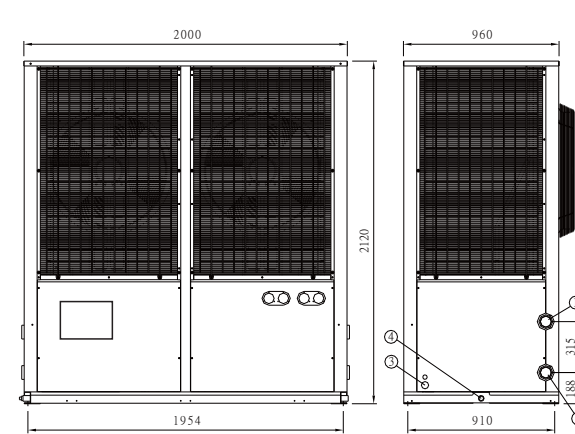
TCA-20NAK2A



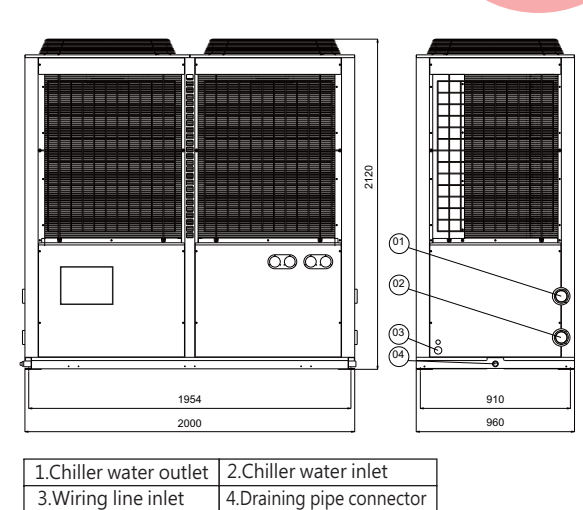
TCA-15/20NAK2B



TCA-25NAK2A



TCA-25NAK2B



Specifications

Model	TCA-15NAK2A	TCA-15NAK2B	TCA-20NAK2A	TCA-20NAK2B
Power source	3ø 380V 50Hz			
Cooling Capacity	44.0		58.6	
	150,000		200,000	
Water flow rate	126		168	
Running Current	27.3		37.3	
Power Consumption	14.0		19.2	
COP	3.14		3.05	
EER	10.71		10.41	
Compressor	Type	Hermetic Scroll		Hermetic Scroll
	Quantity	2		2
	Capacity Step	100,50,0		100,50,0
	Starting method	Sequence Direct		Sequence Direct
Fan	Type	Propeller		Propeller
	Quantity	2		2
	Output	460 × 2		460 × 2
Condenser	Cross Fin Coil			
Evaporator	Stainless Plate Heat Exchanger			
Refrigerant control	Thermal Expansion Valve			
Refrigerant	R-410A			
Refrigerant Oil	POE			
Safety Devices	High pressure switch , Low pressure switch ,Chilled water low temp ,Reversal phase protector , Compressor overload switch, Fan motor internal thermal protector, Water pump overload switch, Compressor 3- minute restarting protector			
Water Pump	2.0		2.0	
Pipe	Chiller inlet/outlet	PT 2		PT 2
	Draining	PT 1		PT 1
Dimensions	Height	2,012		1,790
	Width	2,000		2,000
	Depth	800		960
Foundation-hole pitches	Width	1,954		1,954
	Depth	750		910
Weight	500		580	

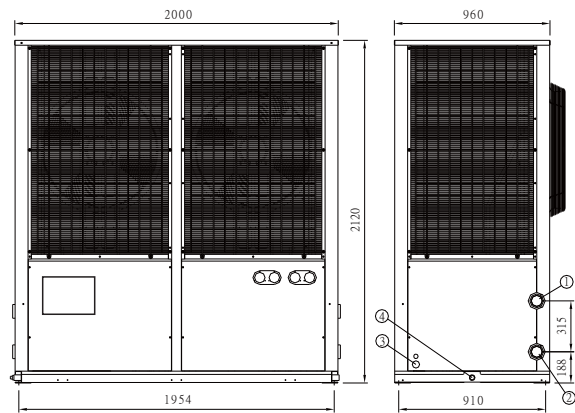
- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

Specifications

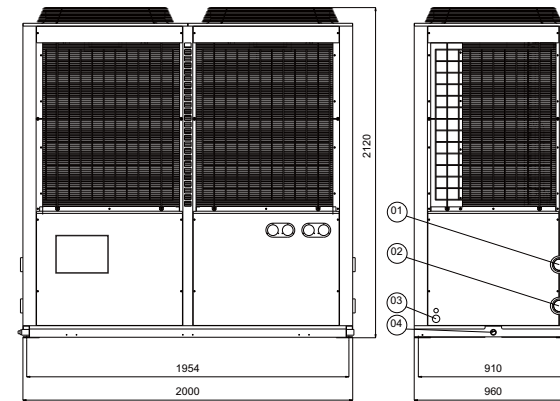
Model	TCA-25NAK2A	TCA-25NAK2B	
Power source	3ø 380V 50Hz		
Cooling Capacity	73.3		
	250,000		
Water flow rate	210		
Running Current	47.1		
Power Consumption	24.2		
COP	3.03		
EER	10.33		
Compressor	Type	Hermetic Scroll	
	Quantity	2	
	Capacity Step	100,50,0	
	Starting method	Sequence Direct	
Fan	Type	Propeller	
	Quantity	2	
	Output	790 × 2	
Condenser	Cross Fin Coil		
Evaporator	Stainless Plate Heat Exchanger		
Refrigerant control	Thermal Expansion Valve		
Refrigerant	R-410A		
Refrigerant Oil	POE		
Safety Devices	High pressure switch , Low pressure switch ,Chilled water low temp ,Reversal phase protector , Compressor overload switch, Fan motor internal thermal protector, Water pump overload switch, Compressor 3- minute restarting protector		
Water Pump	2.2		
Pipe	Chiller inlet/outlet	PT 2 1/2	
	Draining	PT 1	
Dimensions	Height	2,120	
	Width	2,000	
	Depth	960	
Foundation-hole pitches	Width	1,954	
	Depth	910	
Weight	710		

- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

TCA-30NAK2A

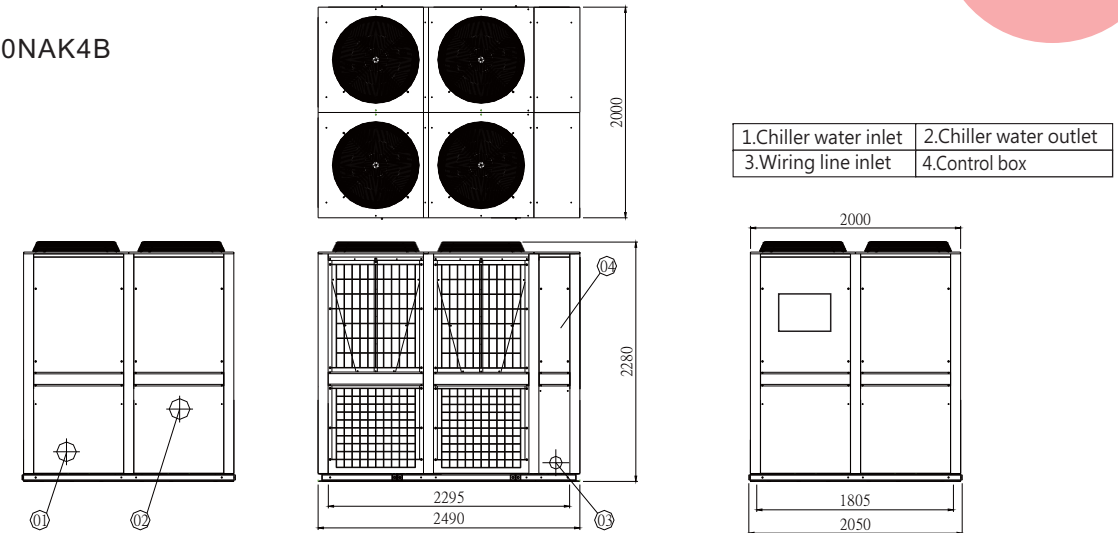


TCA-30NAK2B



- 1.Chiller water outlet
- 2.Chiller water inlet
- 3.Wiring line inlet
- 4.Draining pipe connector

TCA-40/50/60NAK4B



- 1.Chiller water inlet
- 2.Chiller water outlet
- 3.Wiring line inlet
- 4.Control box

Specifications

Model	TCA-30NAK2A	TCA-30NAK2B	
Power source	3ø 380V 50Hz		
Cooling Capacity	kW	87.9	
	Btu/hr	300,000	
Water flow rate	L/min	252	
Running Current	A	55.3	
Power Consumption	kW	28.4	
COP	kW/kW	3.10	
EER	Btu/hr.W	10.56	
Compressor	Type	Hermetic Scroll	
	Quantity	2	
	Capacity Step	%	100,50,0
	Starting method	Sequence Direct	
Fan	Type	Propeller	
	Quantity	2	
	Output	W	790 × 2
Condenser	Cross Fin Coil		
Evaporator	Stainless Plate Heat Exchanger		
Refrigerant control	Thermal Expansion Valve		
Refrigerant	R-410A		
Refrigerant Oil	POE		
Safety Devices	High pressure switch , Low pressure switch ,Chilled water low temp ,Reversal phase protector , Compressor overload switch, Fan motor internal thermal protector, Water pump overload switch, Compressor 3- minute restarting protector		
Water Pump	kw	2.2	
Pipe	Chiller inlet/outlet	PT 2 1/2	
	Draining	PT 1	
Dimensions	Height	mm	2,120
	Width	mm	2,000
	Depth	mm	960
Foundation-hole pitches	Width	mm	1,954
	Depth	mm	910
Weight	kg	855	

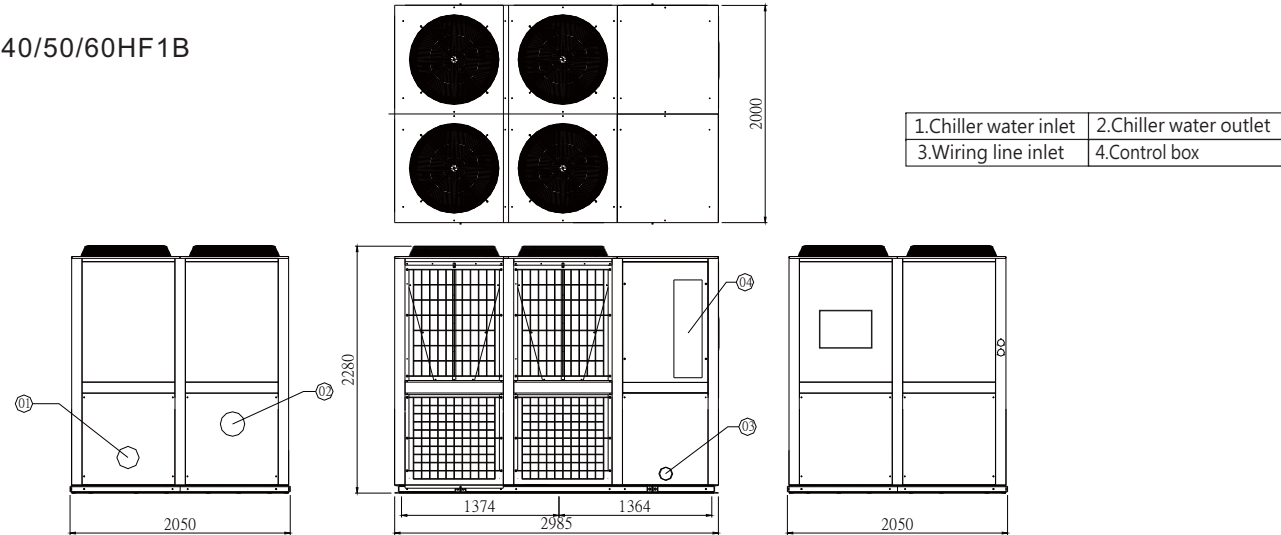
- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

Specifications

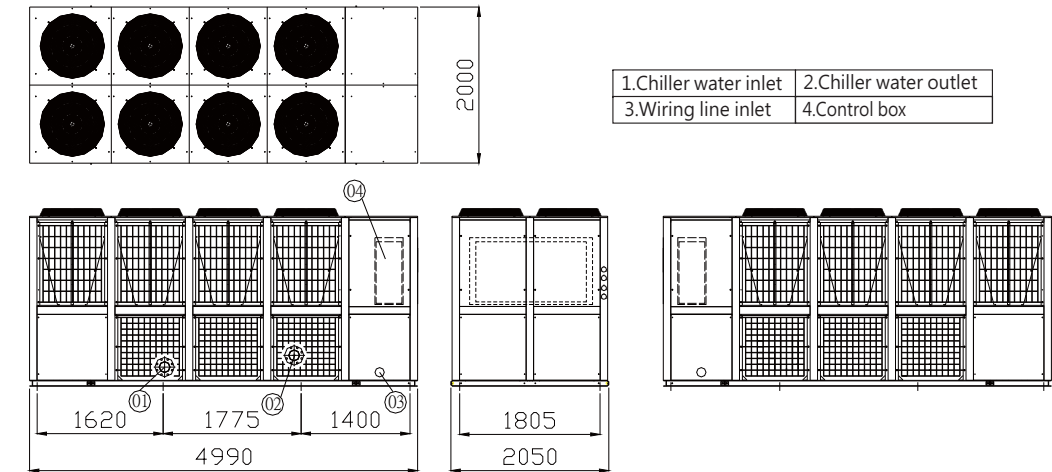
Model	TCA-40NAK4B	TCA-50NAK4B	TCA-60NAK4B
Power source	3ø 380V 50Hz		
Cooling Capacity	kW	117.2	146.5
	Btu/hr	400,000	500,000
Water flow rate	L/min	336	420
Running Current	A	76.1	97.1
Power Consumption	kW	39.1	49.8
COP	kW/kW	3.00	2.94
EER	Btu/hr.W	10.23	10.04
Compressor	Type	Hermetic Scroll	Hermetic Scroll
	Quantity	4	4
	Capacity Step	%	100,75,50,25,0
	Starting method	Sequence Direct	
Fan	Type	Propeller	Propeller
	Quantity	4	4
	Output	W	790 × 4
Condenser	Cross Fin Coil		
Evaporator	Shell & Tube		
Refrigerant control	Thermal Expansion Valve		
Refrigerant	R-410A		
Refrigerant Oil	POE		
Safety Devices	High pressure switch , Low pressure switch ,Chilled water low temp ,Reversal phase protector , Compressor overload switch, Fan motor internal thermal protector, Compressor restarting protector		
Water Pump	kw	-	-
Pipe	Chiller inlet/outlet	3B Flange	4B Flange
	Draining	--	--
Dimensions	Height	mm	2,280
	Width	mm	2,490
	Depth	mm	2,050
Foundation-hole pitches	Width	mm	2,295
	Depth	mm	1,805
Weight	kg	1,300	1,400

- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

TCA-40/50/60HF1B



TCA-80/100HF2B



Specifications

Model		TCA-40HF1B	TCA-50HF1B	TCA-60HF1B
Power source		3ø 380V 50Hz		
Cooling Capacity	kW	117.2	146.5	175.8
	Btu/hr	400,000	500,000	600,000
Water flow rate	L/min	336	420	504
Running Current	A	76.4	97.4	116.9
Power Consumption	kW	39.2	50.0	60.0
COP	kW/kW	2.99	2.93	2.93
EER	Btu/hr.W	10.2	10.00	10.00
Compressor	Type	Semi-Hermetic Screw		
	Quantity	1		
	Capacity Step	100,75,50,0		
	Starting method	Sequence Y-Deltat		
Fan	Type	Propeller		
	Quantity	4		
	Output	790 × 4		
Condenser		Cross Fin Coil		
Evaporator		Shell & Tube		
Refrigerant control		Thermal Expansion Valve		
Refrigerant		R-134a		
Refrigerant Oil		POE		
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector		
Water Pump	kw	—		
Pipe	Chiller inlet/outlet	3B Flange		4B Flange
	Draining	—		
Dimensions	Height	2,280		
	Width	2,985		
	Depth	2,050		
Foundation-hole pitches	Width	1,374 - 1,364		1,374 - 1,364
	Depth	1,805		
Weight	kg	1,950	2,150	2,250

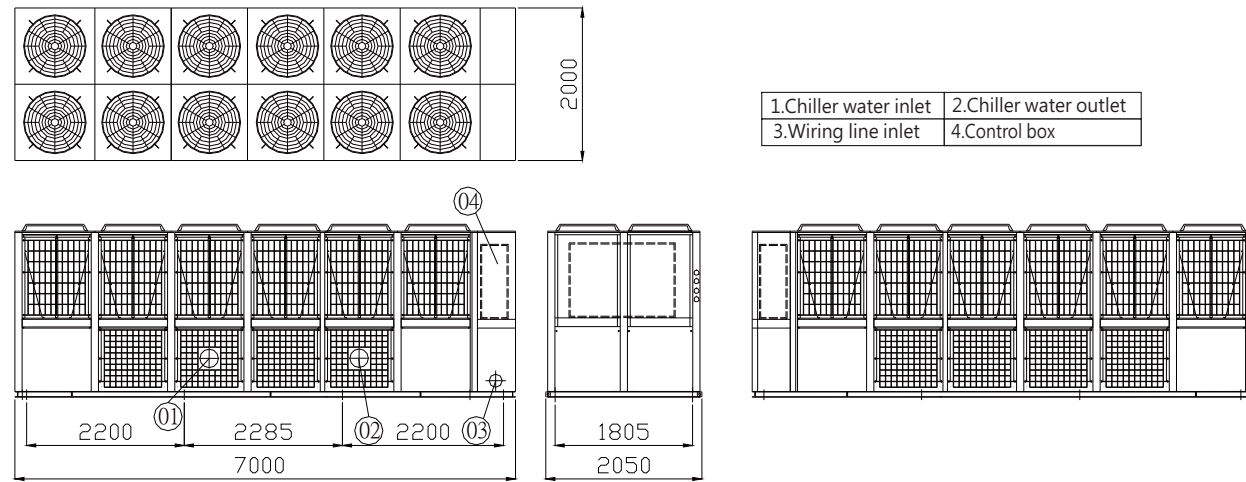
- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

Specifications

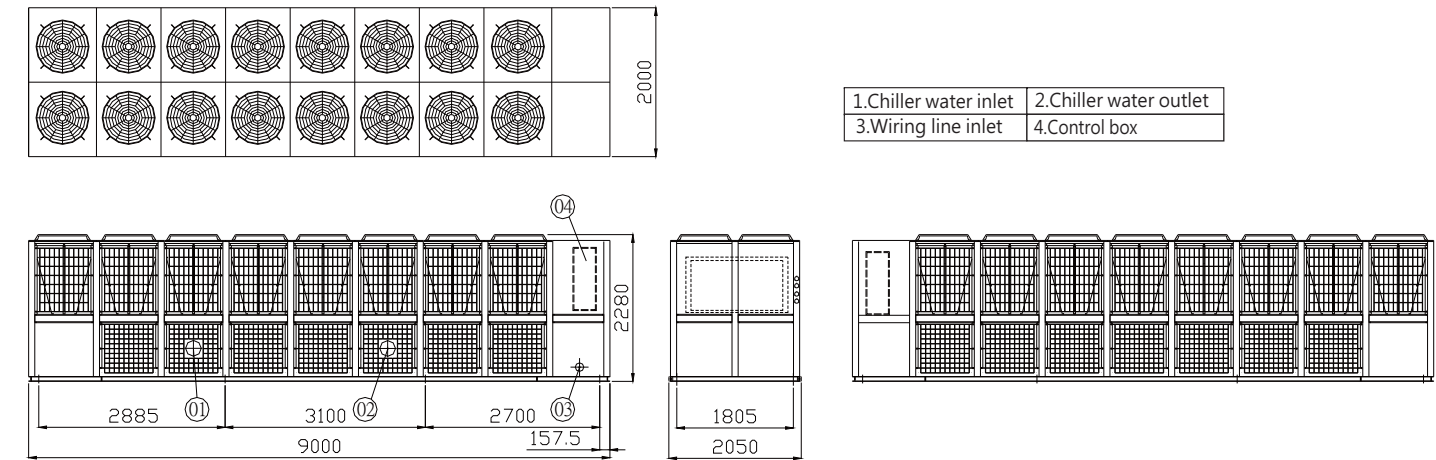
Model		TCA-80HF2B	TCA-100HF2B
Power source		3ø 380V 50Hz	
Cooling Capacity	kW	234.4	293.0
	Btu/hr	800,000	1,000,000
Water flow rate	L/min	672	840
Running Current	A	159.7	199.6
Power Consumption	kW	82.0	102.5
COP	kW/kW	2.86	2.86
EER	Btu/hr.W	9.76	9.76
Compressor	Type	Semi-Hermetic Screw	
	Quantity	2	
	Capacity Step	100,75,50,25,0	
	Starting method	Sequence Y-Deltat	
Fan	Type	Propeller	
	Quantity	8	
	Output	790 × 8	
Condenser		Cross Fin Coil	
Evaporator		Shell & Tube	
Refrigerant control		Thermal Expansion Valve	
Refrigerant		R-134a	
Refrigerant Oil		POE	
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector	
Water Pump	kw	—	
Pipe	Chiller inlet/outlet	4B Flange	
	Draining	---	
Dimensions	Height	2,280	
	Width	4,990	
	Depth	2,050	
Foundation-hole pitches	Width	1,400-1,775-1,620	
	Depth	1,805	
Weight	kg	3,800	3,950

- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

TCA-120HF2B



TCA-150/180HF2B



Specifications

Model		TCA-120HF2B	
Power source		3 ϕ 380V 50Hz	
Cooling Capacity	kW	351.7	
	Btu/hr	1,200,000	
Water flow rate	L/min	1,008	
Running Current	A	245.5	
Power Consumption	kW	126.0	
COP	kW/kW	2.79	
EER	Btu/hr.W	9.52	
Compressor	Type	Semi-Hermetic Screw	
	Quantity	2	
	Capacity Step	%	100,75,50,25,0
	Starting method	Sequence Y-Deltat	
Fan	Type	Propeller	
	Quantity	12	
	Output	W	790 \times 12
Condenser		Cross Fin Coil	
Evaporator		Shell & Tube	
Refrigerant control		Thermal Expansion Valve	
Refrigerant		R-134a	
Refrigerant Oil		POE	
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector, Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector	
Water Pump	kw	—	
Pipe	Chiller inlet/outlet	5B Flange	
	Draining	—	
Dimensions	Height	mm	2,280
	Width	mm	7,000
	Depth	mm	2,050
Foundation-hole pitches	Width	mm	2,200-2,285-2,200
	Depth	mm	1,805
Weight	kg	5,200	

- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

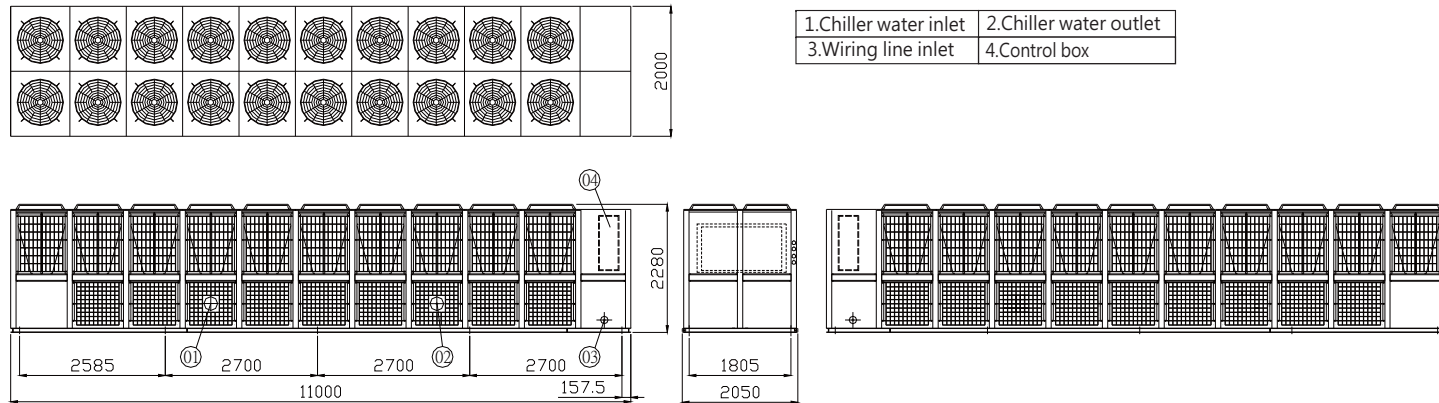
Specifications

Model		TCA-150HF2B	TCA-180HF2B	
Power source		3 ϕ 380V 50Hz		
Cooling Capacity	kW	439.6	527.5	
	Btu/hr	1,500,000	1,800,000	
Water flow rate	L/min	1,260	1,512	
Running Current	A	306.9	368.3	
Power Consumption	kW	157.5	189.1	
COP	kW/kW	2.79	2.79	
EER	Btu/hr.W	9.52	9.52	
Compressor	Type	Semi-Hermetic Screw	Semi-Hermetic Screw	
	Quantity	2	2	
	Capacity Step	%	100,75,50,25,0	100,75,50,25,0
	Starting method	Sequence Y-Deltat		
Fan	Type	Propeller	Propeller	
	Quantity	16	16	
	Output	W	790 \times 16	790 \times 16
Condenser		Cross Fin Coil		
Evaporator		Shell & Tube		
Refrigerant control		Thermal Expansion Valve		
Refrigerant		R-134a		
Refrigerant Oil		POE		
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector, Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector		
Water Pump	kw	—	—	
Pipe	Chiller inlet/outlet	5B Flange	5B Flange	
	Draining	—	—	
Dimensions	Height	mm	2,280	
	Width	mm	9,000	
	Depth	mm	2,050	
Foundation-hole pitches	Width	mm	2,700-3,100-2,885	
	Depth	mm	1,805	
Weight	kg	6,500	7,500	

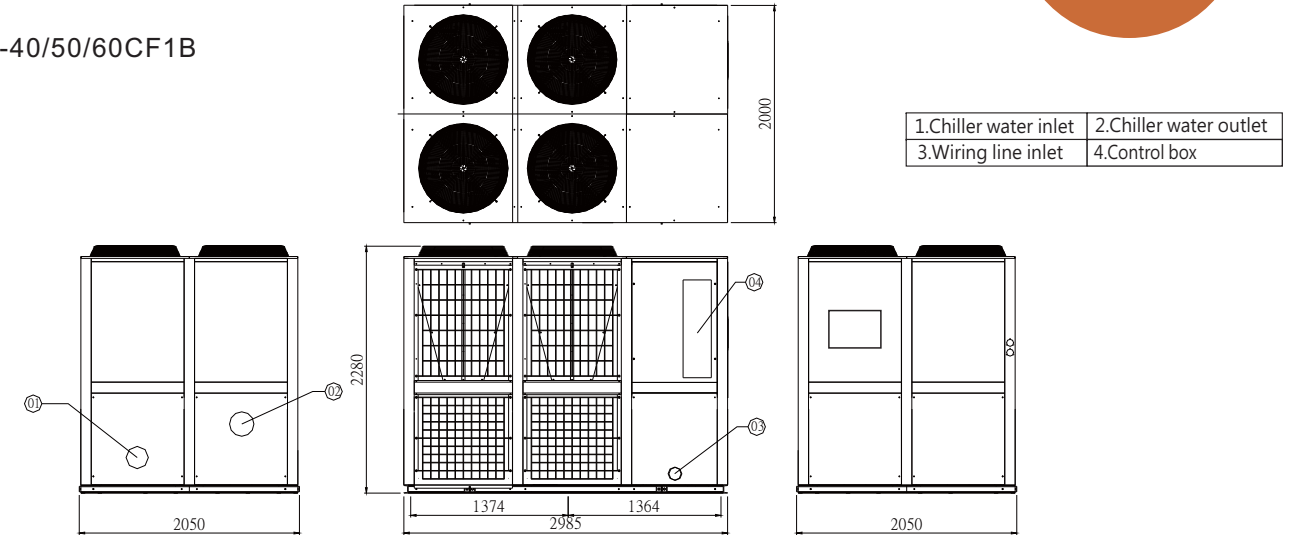
- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.



TCA-200HF2B



TCA-40/50/60CF1B



Specifications

Model		TCA-200HF2B	
Power source		3ø 380V 50Hz	
Cooling Capacity	kW	586.1	
	Btu/hr	2,000,000	
Water flow rate	L/min	1,680	
Running Current	A	413.6	
Power Consumption	kW	212.3	
COP	kW/kW	2.76	
EER	Btu/hr.W	9.42	
Compressor	Type	Semi-Hermetic Screw	
	Quantity	2	
	Capacity Step	%	100,75,50,25,0
	Starting method	Sequence Y-Deltat	
Fan	Type	Propeller	
	Quantity	20	
	Output	W	790 × 20
Condenser		Cross Fin Coil	
Evaporator		Shell & Tube	
Refrigerant control		Thermal Expansion Valve	
Refrigerant		R-134a	
Refrigerant Oil		POE	
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector	
Water Pump	kw	—	
Pipe	Chiller inlet/outlet	6B Flange	
	Draining	—	
Dimensions	Height	mm	2,280
	Width	mm	11,000
	Depth	mm	2,050
Foundation-hole pitches	Width	mm	2,700-2,700-2,700-2,585
	Depth	mm	1,805
Weight	kg	9,500	

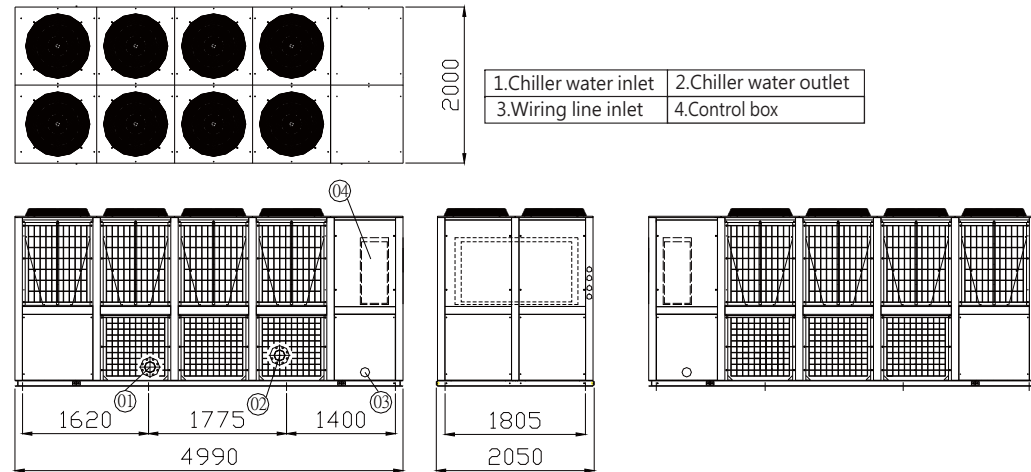
- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

Specifications

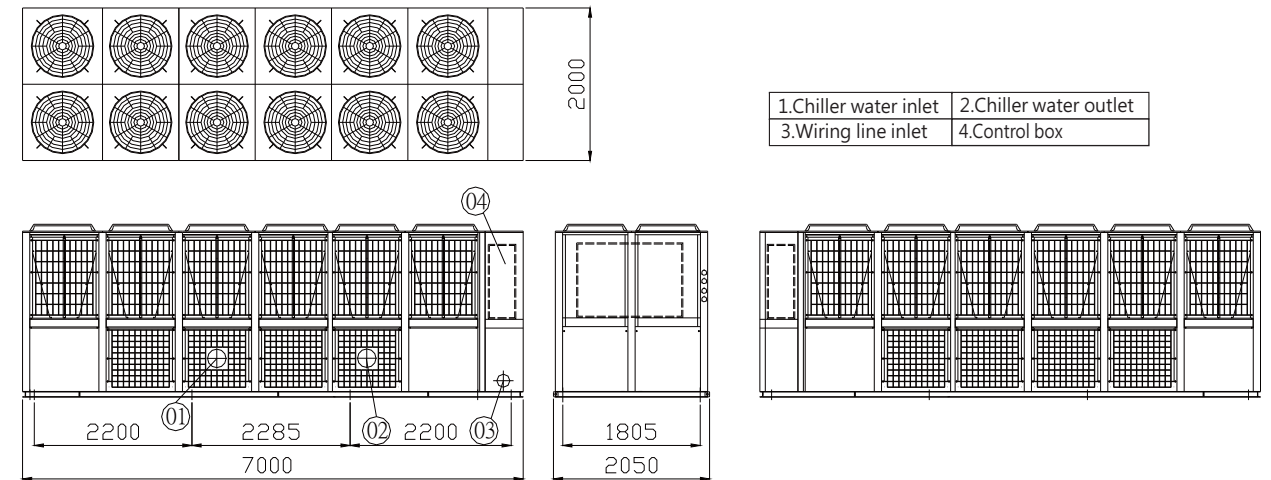
Model		TCA-40CF1B	TCA-50CF1B	TCA-60CF1B	
Power source		3ø 380V 50Hz			
Cooling Capacity	kW	117.2	146.5	175.8	
	Btu/hr	400,000	500,000	600,000	
Water flow rate	L/min	336	420	504	
Running Current	A	76.1	97.4	116.9	
Power Consumption	kW	39.2	50.0	60.0	
COP	kW/kW	2.99	2.93	2.93	
EER	Btu/hr.W	10.20	10.00	10.00	
Compressor	Type	Semi-Hermetic Screw	Semi-Hermetic Screw	Semi-Hermetic Screw	
	Quantity	1	1	1	
	Capacity Step	%	100,75,50,0	100,75,50,0	100,75,50,0
	Starting method	Sequence Y-Deltat	Sequence Y-Delta	Sequence Y-Deltat	
Fan	Type	Propeller	Propeller	Propeller	
	Quantity	4	4	4	
	Output	W	790 × 4	790 × 4	790 × 4
Condenser		Cross Fin Coil			
Evaporator		Shell & Tube			
Refrigerant control		Thermal Expansion Valve			
Refrigerant		R-407C			
Refrigerant Oil		POE			
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector			
Water Pump	kw	—	—	—	
Pipe	Chiller inlet/outlet	3B Flange	3B Flange	4B Flange	
	Draining	—	—	—	
Dimensions	Height	mm	2,280	2,280	
	Width	mm	2,985	2,985	
	Depth	mm	2,050	2,050	
Foundation-hole pitches	Width	mm	1,374 - 1,364	1,374 - 1,364	
	Depth	mm	1,805	1,805	
Weight	kg	1,950	2,150	2,250	

- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

TCA-80/100/120CF2B



TCA-150/160CF2B



Specifications

Model		TCA-80CF2B	TCA-100CF2B	TCA-120CF2B
Power source		3ø 380V 50Hz		
Cooling Capacity	kW	234.4	293.0	351.7
	Btu/hr	800,000	1,000,000	1,200,000
Water flow rate	L/min	672	840	1,008
Running Current	A	159.7	199.6	245.5
Power Consumption	kW	82.0	102.5	126.0
COP	kW/kW	2.86	2.86	2.79
EER	Btu/hr.W	9.76	9.76	9.52
Compressor	Type	Semi-Hermetic Screw		
	Quantity	2		
	Capacity Step	100,75,50,25,0		
	Starting method	Sequence Y-Deltat		
Fan	Type	Propeller		
	Quantity	8		
	Output	790 × 8		
Condenser		Cross Fin Coil		
Evaporator		Shell & Tube		
Refrigerant control		Thermal Expansion Valve		
Refrigerant		R-407C		
Refrigerant Oil		POE		
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector, Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector		
Water Pump	kw	—		
Pipe	Chiller inlet/outlet	4B Flange		5B Flange
	Draining	—		
Dimensions	Height	2,280		
	Width	4,990		
	Depth	2,050		
Foundation-hole pitches	Width	1,400-1,775-1,620		
	Depth	1,805		
Weight	kg	3,800	3,950	4,050

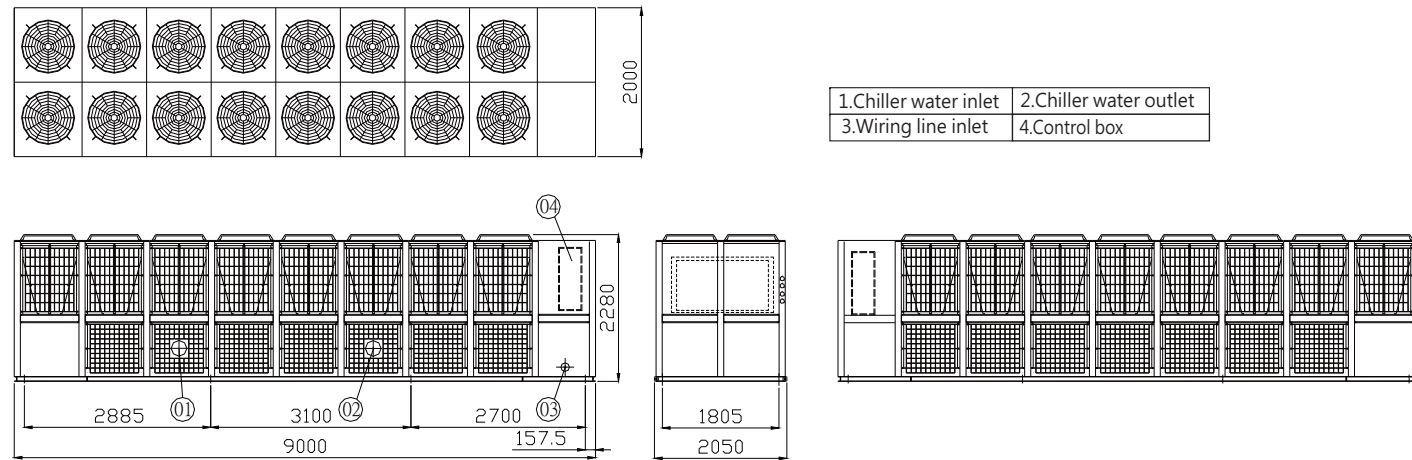
- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

Specifications

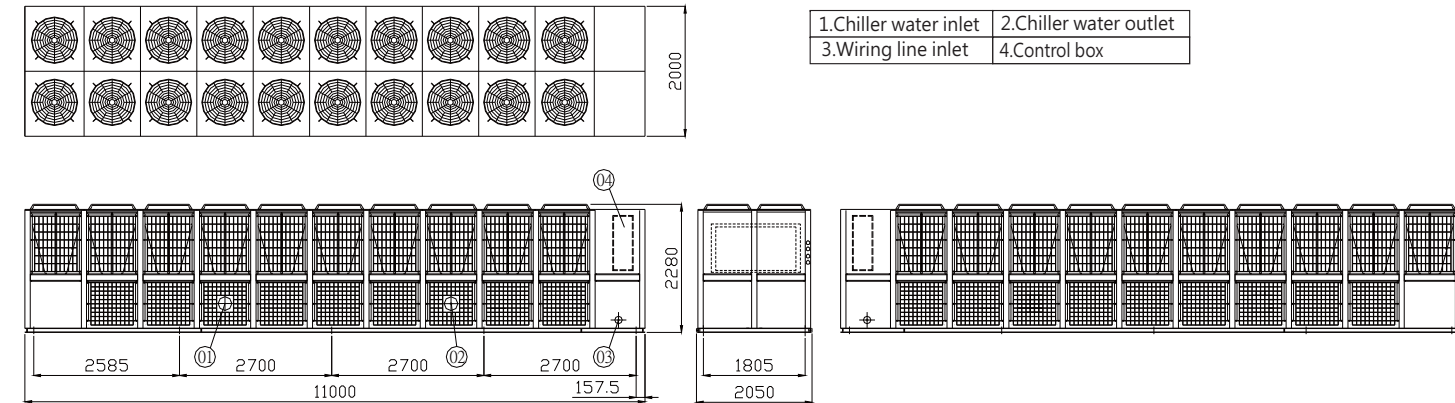
Model		TCA-150CF2B	TCA-160CF2B
Power source		3ø 380V 50Hz	
Cooling Capacity	kW	439.6	468.9
	Btu/hr	1,500,000	1,600,000
Water flow rate	L/min	1,260	1,344
Running Current	A	306.9	329.0
Power Consumption	kW	158.0	168.0
COP	kW/kW	2.79	2.79
EER	Btu/hr.W	9.52	9.52
Compressor	Type	Semi-Hermetic Screw	
	Quantity	2	
	Capacity Step	100,75,50,25,0	
	Starting method	Sequence Y-Deltat	
Fan	Type	Propeller	
	Quantity	12	
	Output	790 × 12	
Condenser		Cross Fin Coil	
Evaporator		Shell & Tube	
Refrigerant control		Thermal Expansion Valve	
Refrigerant		R-407C	
Refrigerant Oil		POE	
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector, Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector	
Water Pump	kw	—	
Pipe	Chiller inlet/outlet	5B Flange	
	Draining	---	
Dimensions	Height	2,280	
	Width	7,000	
	Depth	2,050	
Foundation-hole pitches	Width	2,200-2,285-2,000	
	Depth	1,805	
Weight	kg	5,400	5,500

- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

TCA-180/200CF2B



TCA-220CF2B



Specifications

Model	TCA-180CF2B	TCA-200CF2B
Power source	3ø 380V 50Hz	
Cooling Capacity	kW	527.5
	Btu/hr	1,800,000
Water flow rate	L/min	1,512
Running Current	A	368.3
Power Consumption	kW	189.0
COP	kW/kW	2.79
EER	Btu/hr.W	9.52
Compressor	Type	Semi-Hermetic Screw
	Quantity	2
	Capacity Step	%
	Starting method	Sequence Y-Deltat
Fan	Type	Propeller
	Quantity	16
	Output	W
Condenser	Cross Fin Coil	
Evaporator	Shell & Tube	
Refrigerant control	Thermal Expansion Valve	
Refrigerant	R-407C	
Refrigerant Oil	POE	
Safety Devices	High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector, Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector	
Water Pump	kw	—
Pipe	Chiller inlet/outlet	5B Flange
	Draining	—
Dimensions	Height	mm
	Width	mm
	Depth	mm
Foundation-hole pitches	Width	mm
	Depth	mm
Weight	kg	

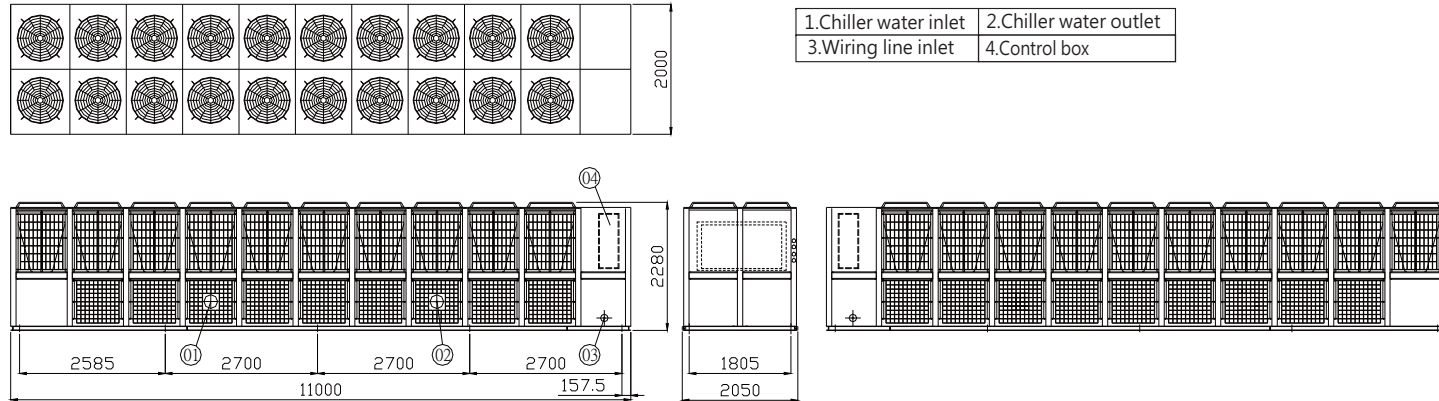
- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

Specifications

Model	TCA-220CF2B
Power source	3ø 380V 50Hz
Cooling Capacity	kW
	Btu/hr
Water flow rate	L/min
Running Current	A
Power Consumption	kW
COP	kW/kW
EER	Btu/hr.W
Compressor	Type
	Quantity
	Capacity Step
	Starting method
Fan	Type
	Quantity
	Output
Condenser	Cross Fin Coil
Evaporator	Shell & Tube
Refrigerant control	Thermal Expansion Valve
Refrigerant	R-407C
Refrigerant Oil	POE
Safety Devices	High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector, Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector
Water Pump	kw
Pipe	Chiller inlet/outlet
	Draining
Dimensions	Height
	Width
	Depth
Foundation-hole pitches	Width
	Depth
Weight	kg

- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

TCA-240CF2B



Specifications

Model		TCA-240CF2B
Power source		3ø 380V 50Hz
Cooling Capacity	kW	703.3
	Btu/hr	2,400,000
Water flow rate	L/min	2,016
Running Current	A	503.9
Power Consumption	kW	255.0
COP	kW/kW	2.76
EER	Btu/hr.W	9.42
Compressor	Type	Semi-Hermetic Screw
	Quantity	2
	Capacity Step	% 100,75,50,25,0
	Starting method	Sequence Y-Deltat
Fan	Type	Propeller
	Quantity	20
	Output	W 790 × 20
Condenser		Cross Fin Coil
Evaporator		Shell & Tube
Refrigerant control		Thermal Expansion Valve
Refrigerant		R-407C
Refrigerant Oil		POE
Safety Devices		High & Low pressure switch, Anti-frozen switch, Compressor off-cycle protector, Compressor overload switch, Compressor internal thermal protector, Reversal phase protector, Oil level switch, Fan motor internal thermal protector
Water Pump	kw	—
Pipe	Chiller inlet/outlet	6B Flange
	Draining	—
Dimensions	Height	mm 2,280
	Width	mm 11,000
	Depth	mm 2,050
Foundation-hole pitches	Width	mm 2,700-2,700-2,700-2,585
	Depth	mm 1,805
Weight	kg	9,700

- Notes:
- Cooling capacity is based on: chiller water inlet temperature 12°C, outlet temperature 7°C; ambient temperature. 35°CDB/ 24°CWB, Fouling factor :0.0001m²°C/W
 - Operating limitation: ambient temperature 10°C~43°C; Chiller water temperature 5°C~16°C
 - Owing to technological advances, the above specifications might be updated without early notice.
 - If any other special specifications are needed, please notify our sales in advance.
 - 1KW=860 kcal/hr;1kcal/hr=3.968 Btu/hr.

Air Handling Unit

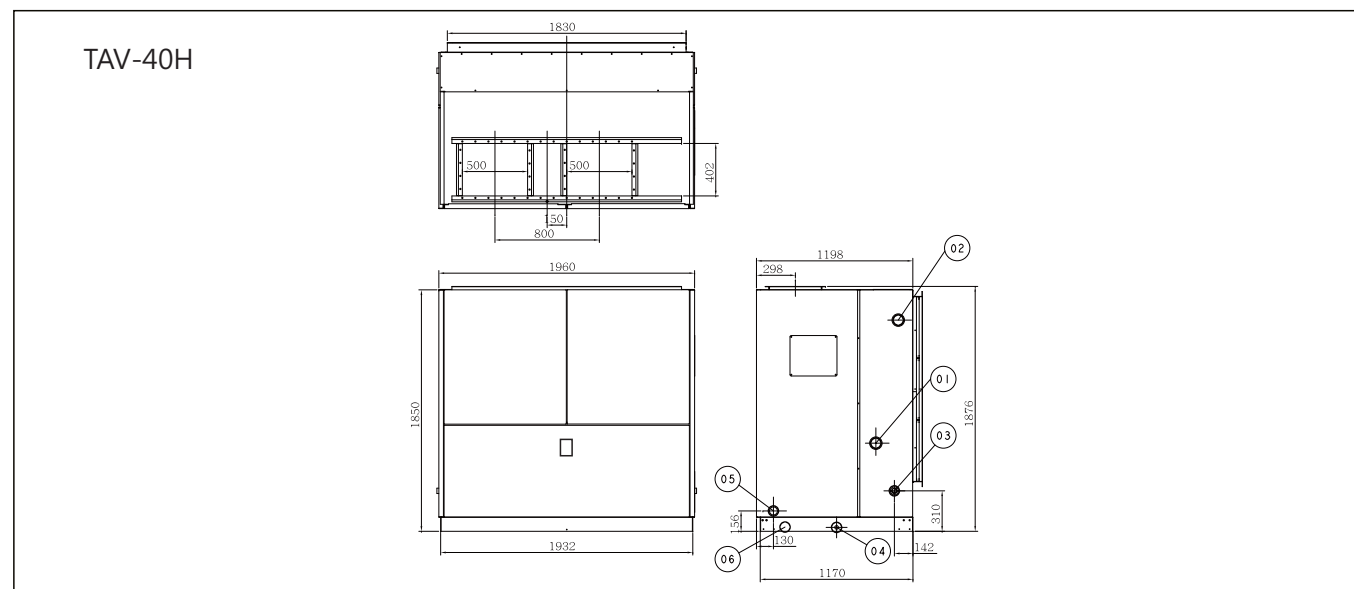
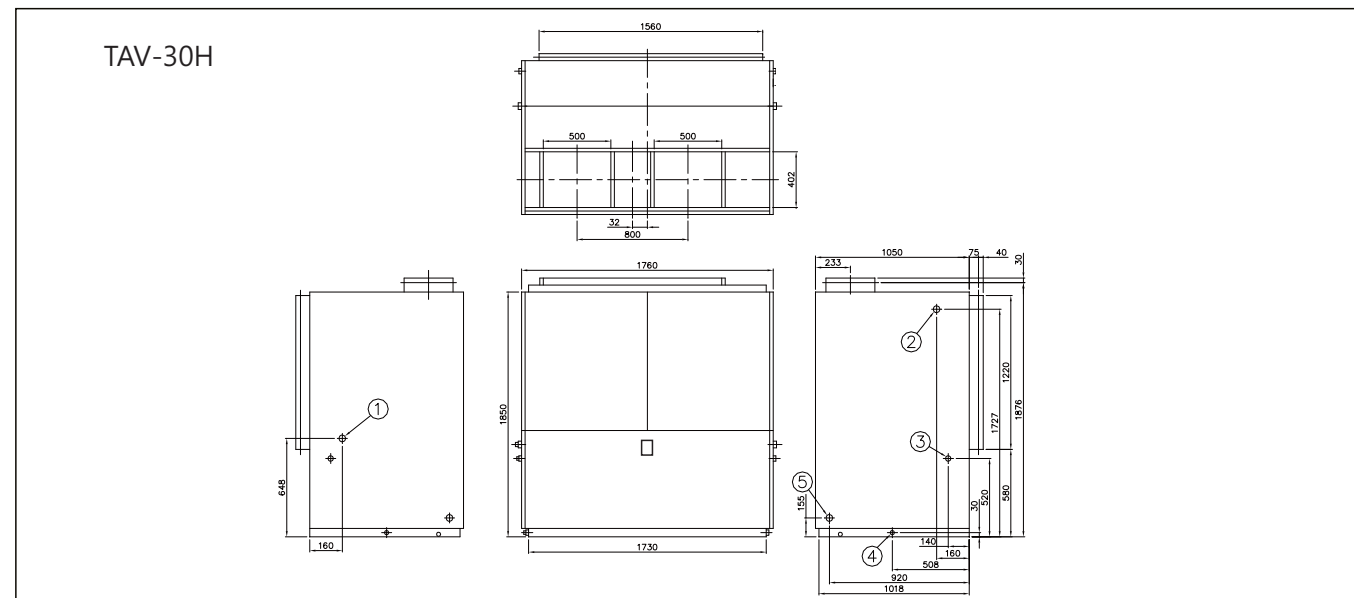
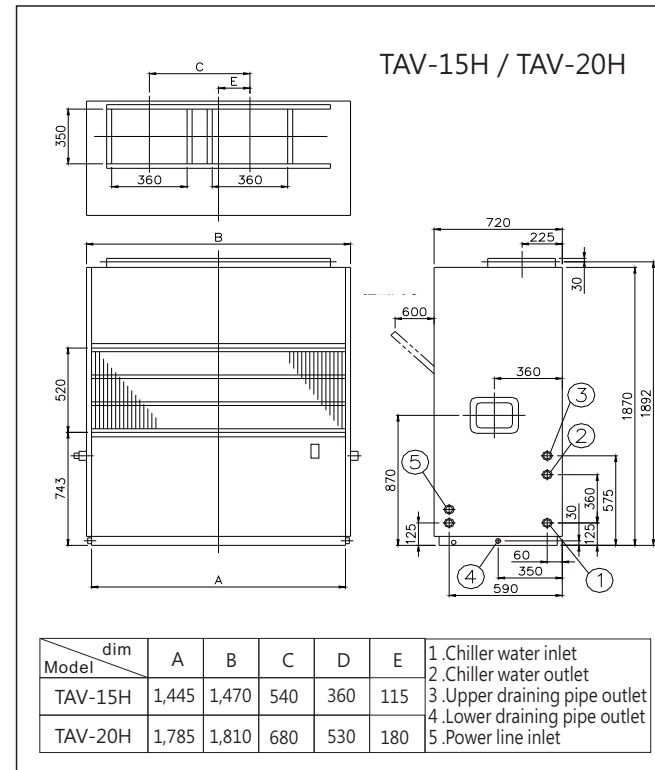
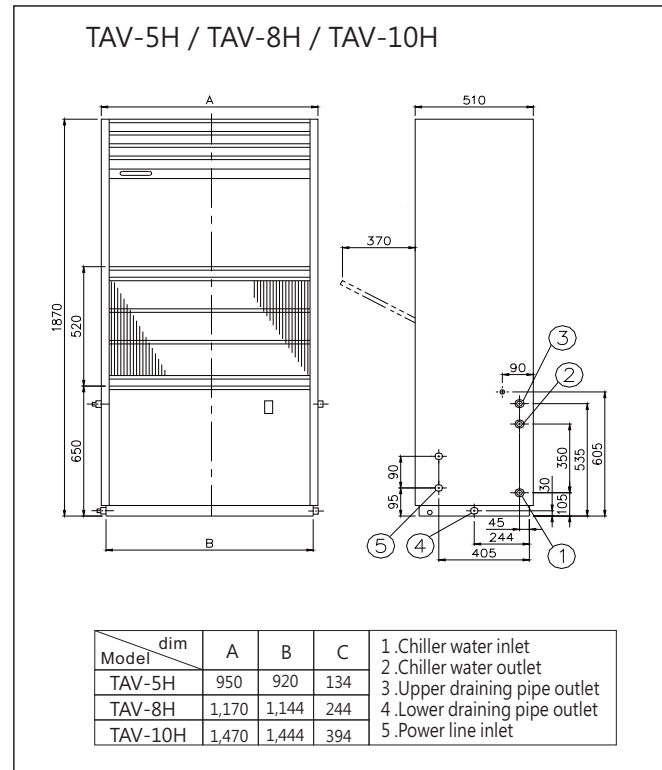


Specifications

Model		TAV-5H	TAV-8H	TAV-10H	TAV-15H	TAV-20H	TAV-30H	TAV-40H	
Power Source		3ø 380V 50Hz							
Cooling Capacity	kw	17.6	26.4	35.2	53.0	70.3	105.5	141.0	
	Btu/hr	60,000	90,000	120,000	180,000	240,000	360,000	480,000	
Chiller Water	L / min	45	75	100	150	200	300	400	
Head loss	mH ₂ O	3.0	3.0	3.5	3.0	3.0	3.0	3.5	
Fan	Type	Dual suction multi-blades							
	Air volume	CMM	45	68	90	135	180	270	360
	Motor output	kw	0.4	0.75	0.75	2.2	3.7	5.5	7.5
	Plenum chamber		Standard			Optional			—
External static pressure	Standard	pa	0	0	0	80	80	150	200
	Optional	pa	50	50	50	0	0	—	—
Evaporator		Cross fin coil							
Safety devices		Fan motor overload switch							
Chiller water inlet & outlet	inch	1 1/4	1 1/2	1 1/2	2	2	2 1/2	2 1/2	
Drain pipe	inch	1	1	1	1	1	1	1	
Dim.	Height	mm	1,870	1,870	1,870	1,870	1,870	1,850	
	Width	mm	950	950	1,470	1,470	1,810	1,760	
	Depth	mm	510	510	510	720	720	1,050	
Weight	kg	130	180	240	300	360	450	550	

- Notes:
- Cooling capacity is based on indoor air temperature 27°CDB/19.0°C WB, entering chiller water temperature 7°C and leaving chiller water temperature 12°C.
 - 1KW=860 kcal/hr ; 1kcal/hr=3.968 Btu/hr.

■ Dimensions (mm)

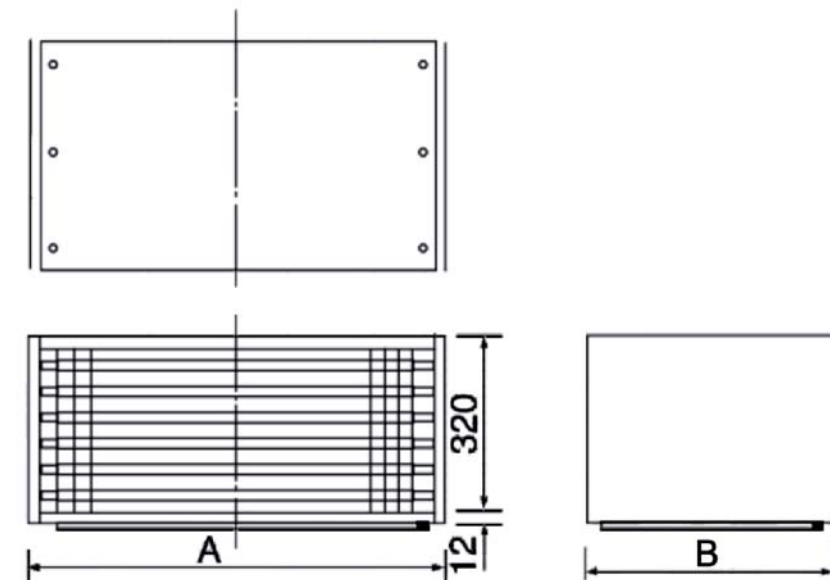


Plenum Chamber (Optional for free blow type)



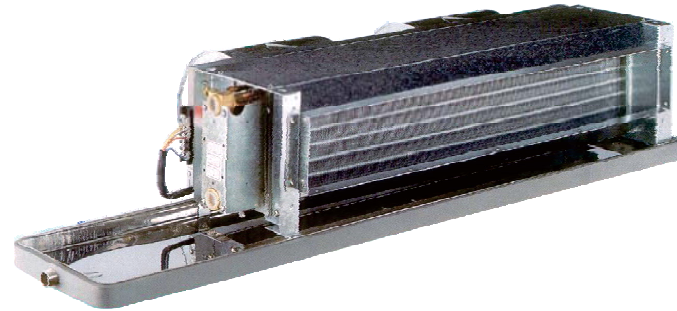
■ Dimensions:

Model	Dimensions:			Fitting units
	Height	Width(A)	Depth(B)	
FA-15	342	1470	720	TAV-15H
FA-20	342	1810	720	TAV-20H



FAN COIL UNITS

Ceiling Concealed Type



Specifications

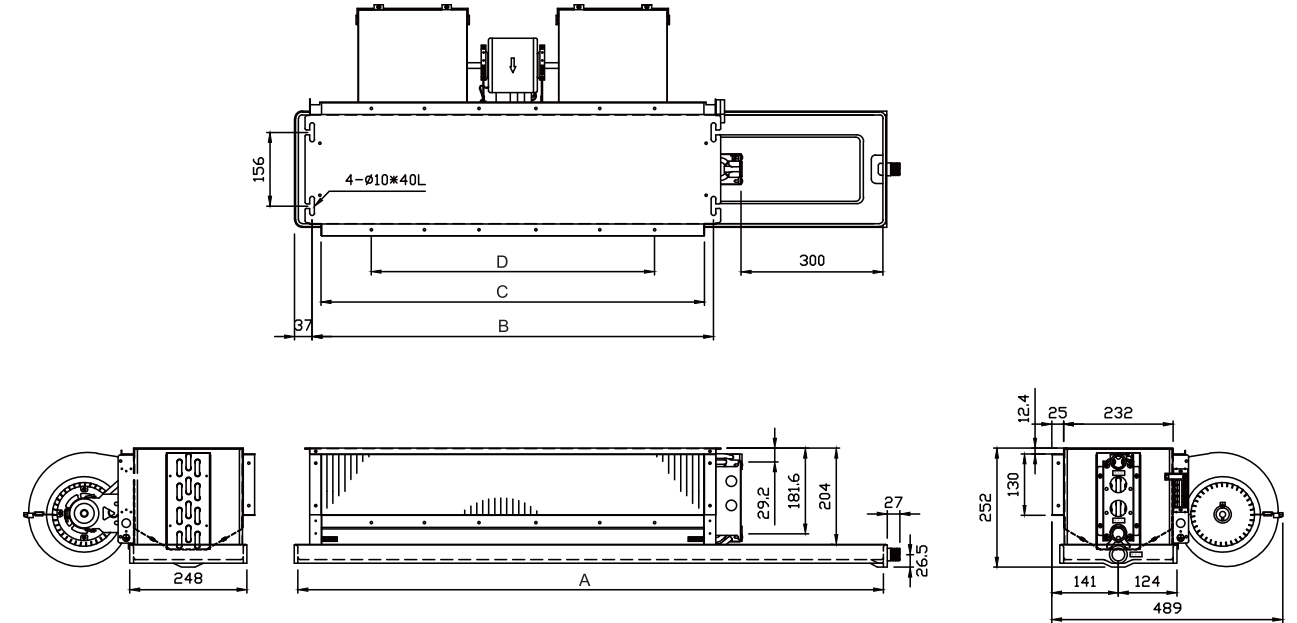
MODEL	Dimensions			
	A	B	C	D
302C	850	460	422	P200x1=200
402C	1,040	650	612	P200x2=400
602C	1,240	850	812	P200x3=600
802C	1,470	1,080	1,042	P200x5=1000
1002C	1,690	1,300	1,262	P200x6=1200
1202C	1,900	1,510	1,472	P200x7=1400
1402C	2,090	1,700	1,662	P200x8=1600
1602C	1,690	1,300	1,260	P200x5=1000

MODEL	TFWM-302C	TFWM-402C	TFWM-602C	TFWM-802C	TFWM-1002C	TFWM-1202C	TFWM-1402C	TFWM-1602C	
Cooling Capacity	kcal/hr	2,500	3,000	4,500	6,000	7,500	9,000	10,500	15,000
	kw	2.9	3.5	5.2	7.0	8.7	10.5	12.2	17.4
Power source	1 φ 220V 50HZ								
Moter Quantity	1	1	1	1	2	2	2	1	
Fan	Type	Dual suction multi-blades							
	Quantity	1	1	2	2	3	4	4	2
	Air volume (CFM)	300	400	600	800	1,000	1,200	1,400	1,600
	External static pressure (mmAq)	4	4	4	4	4	4	4	4
Coil	Type	Cross fin coil							
	Water flow (L/min)	8.3	10	15	20	25	30	35	50
	Water conn(Inch)	3/4"							
Dimensions	Height (mm)	252	252	252	252	252	252	252	340
	Width (mm)	850	1,040	1,240	1,470	1,690	1,900	2,090	1,717
	Depth (mm)	489	489	489	489	489	489	489	530
Weight (kg)	18	22	28	33	42	50	60	75	

Notes:

Cooling capacity is based on indoor air temperature 27°CDB/19.0°C WB, entering chiller water temperature 7°C and leaving chiller water temperature 12°C.

TFWM-302~1402C



TFWM-1602C

