



AIR-COOLED SCREW CHILLER

| 37 R134a Air-cooled Screw Chiller

| 42 R22 Air-cooled Screw Chiller

AIR-COOLED SCREW CHILLER R134a

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High Efficiency

High efficient compressor

The unit adopts high efficient twin-screw compressor.

- High efficiency: The compressor adopt 5:6 non-symmetry bear design, large volume, high efficiency.
- The units adopt multi-stage adjustment, each unit can realize 25%-50%-75%-100% volume control, suit for various condition, high part load EER value.
- Motor adopts Y-Δ start method, low start current, low impact to the power network.
- High precise manufacturing process, avoid any leakage, increase the compressor efficiency.
- The inner refrigerant suction system is cooled by the refrigerant, avoid any capacity loss.
- The suction side adopt temp. insulation material, avoid any condensing and energy loss.



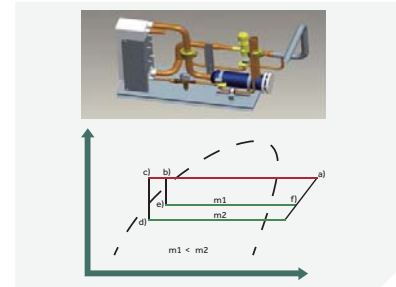
V-shape condenser

Condenser adopts the copper tube & hydrophilic aluminum fin coil type structure, the appearance is V type, this design increases the heat exchange area, reduces the temp. differences, thus increases the heat exchange efficiency by 20%.



Economizer sub-cooling design

R134a air cooled screw chiller takes high efficiency plate heat exchanger as economizer. It sub cool the refrigerant for another 18 degrees in high pressure side, increase the capacity, so EER increase 3-5%.



EEV design

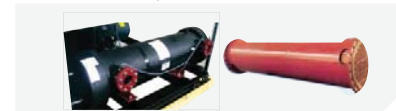
R134a air cooled screw chiller takes 3810 steps EEV to control the refrigerant flow.

The refrigerant flow is precise according to the need, increase the EER also keep the products more stable.



SHELL & TUBE heat exchanger

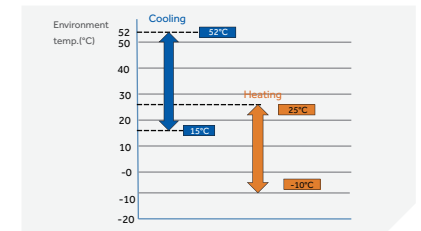
- The SHELL & TUBE heat exchanger adopts high efficiency copper pipe.
- In cooling mode, SHELL & TUBE heat exchanger is as the evaporator, while, in heating mode, it is as the condenser.
- In the SHELL & TUBE heat exchanger, the frozen water will flow out of the copper pipe, while the refrigerant flowing in the copper pipe.
- There is the heat insulation material covering the SHELL & TUBE heat exchanger.



Reliability

Wide running application

Products can run under 52 high degree in cooling, even in the hot summer, in the roof, products can still run stably.



Convenience

Password design

The controller can set password, so only the administrator can operate the chiller.



Functional control screen

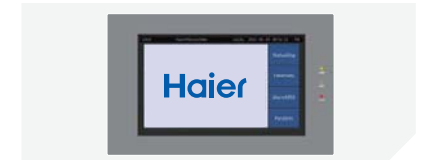
7 inch colorful touch screen.

Status: Water temperature, pressure/current/pump/running curve/history curve

Timer: Weekly timer

Error: Error history check

User: Local control/BMS control



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MODEL			CI0360DAND	CI0360DANE	CI0480DAND	CI0480DANE
Cooling	Cooling capacity	kW	350	350	475	475
	Power input	kW	106	106	144	144
	Running current	A	187	187	257	257
Heating	Heating capacity	kW	375	375	510	510
	Power input	kW	110	110	150	150
	Running current	A	195	195	267	267
Max.Power input		kW	189	189	253	253
Max. running current		A	340	340	450	450
Power supply		Ph/V/Hz	3/380/50			
Refrigerant throttle type			Electronic expansion valve			
Capacity control			25%.50%.75%.100%			
Safe protection			High and low pressure protection, safe protection, water-lack delay protection, automatic antifreezing protection, fan motor overload protection, overheating protection, phase lack & sequence protection			
Compressor	Type		Semi-Hermetic screw chiller			
	Quantity		1	1	1	1
	Input power	kW	91	91	124	124
Refrigerant	Type		R134a			
	Charge	kg	90	90	135	135
Air side heat exchanger	Type		Inner grooved copper pipe & hydrophilic aluminum fin coil			
	Fan power	kW	2.5*6	2.5*6	2.5*8	2.5*8
	Fan type		Axial fan with low noise			
Water side heat exchanger	Fan quantity		6	6	8	8
	Type		Dry type Shell & Tube heat exchanger			
	Rated water flow	m³/h	60	60	82	82
External dimension	Inlet/outlet pipe	DN	100	100	125	125
	Water dirt coefficient	m²·°C/kW	0.018			
	Standard pressure	MPa	1			
	Water resistance	KPa	50	50	50	50
Package dimension	Unit length	mm	3450	3450	4600	4600
	Unit width	mm	2050			
	Unit height	mm	2520			
Weight	Unit length	mm	3450	3450	4600	4600
	Unit width	mm	2210			
	Unit height	mm	2620			
Weight	Unit weight	kg	3800	3800	5000	5000
	Gross weight	kg	3850	3850	5070	5070
	Operation weight	kg	4104	4104	5400	5400

Note: 1. The CI**DAND is the master unit, CI**DANE is the slave unit. Every system can be 4 units maximum, with one master unit only.
2. The chiller running weight is 1.05-1.1 times net weight.
3. Due to our policy of innovation some specifications may be changed without notification.

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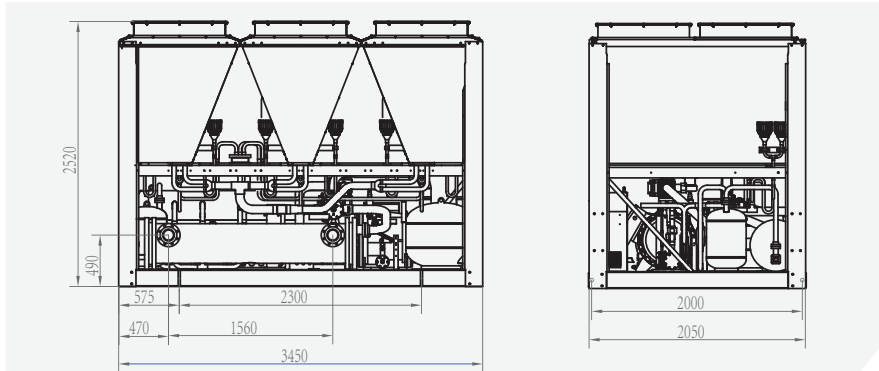
MODEL			CI0600DAND	CI0600DANE
Cooling	Cooling capacity	kW	600	600
	Power input	kW	182	182
	Running current	A	325	325
Heating	Heating capacity	kW	645	645
	Power input	kW	186	186
	Running current	A	332	332
Max.Power input		kW	313	313
Max. running current		A	558	558
Power supply		Ph/V/Hz	3/380/50	
Refrigerant throttle type			Electronic expansion valve	
Capacity control			25%.50%.75%.100%	
Safe protection			High and low pressure protection, safe protection, water-lack delay protection, automatic antifreezing protection, fan motor overload protection, overheating protection, phase lack & sequence protection	
Compressor	Type		Semi-Hermetic screw chiller	
	Quantity		1	1
	Input power	kW	157	157
Refrigerant	Type		R134a	
	Charge	kg	150	150
Air side heat exchanger	Type		Inner grooved copper pipe & hydrophilic aluminum fin coil	
	Fan power	kW	2.5*10	2.5*10
	Fan type		Axial fan with low noise	
Water side heat exchanger	Fan quantity		10	10
	Type		Dry type Shell & Tube heat exchanger	
	Rated water flow	m³/h	103	103
External dimension	Inlet/outlet pipe	DN	150	150
	Water dirt coefficient	m²·°C/kW	0.018	
	Standard pressure	MPa	1.0	
	Water resistance	KPa	70	70
Package dimension	Unit length	mm	5750	5750
	Unit width	mm	2050	
	Unit height	mm	2520	
Weight	Unit length	mm	5750	5750
	Unit width	mm	2210	
	Unit height	mm	2620	
Weight	Unit weight	kg	6000	6000
	Gross weight	kg	6070	6070
	Operation weight	kg	6480	6480

Note: 1. The CI**DAND is the master unit, CI**DANE is the slave unit. Every system can be 4 units maximum, with one master unit only.
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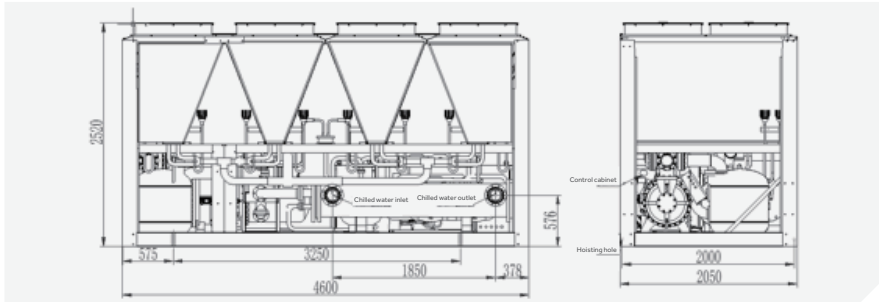
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Unit Dimension Diagram

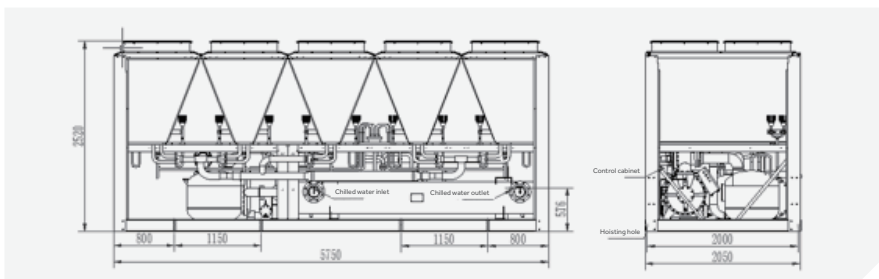
•CI0360DAND CI0360DANE Unit dimension



•CI0480DAND CI0480DANE Unit dimension



•CI0600DAND CI0600DANE Unit dimension



Performance Table

•Cooling capacity and power input table

Water outlet temp.(°C)	Ambient temp.(°C)	18	21	24	27	30	33	35	38	41	43
5	Cooling capacity(kW)	1.069	1.050	1.040	1.012	0.993	0.974	0.955	0.935	0.907	0.878
	Power input capacity(kW)	0.700	0.754	0.791	0.854	0.891	0.953	0.982	1.036	1.100	1.173
6	Cooling capacity(kW)	1.090	1.070	1.061	1.032	1.012	0.993	0.973	0.954	0.925	0.895
	Power input capacity(kW)	0.706	0.761	0.798	0.862	0.899	0.962	0.991	1.046	1.110	1.184
7	Cooling capacity(kW)	1.120	1.100	1.090	1.060	1.040	1.020	1.000	0.980	0.950	0.920
	Power input capacity(kW)	0.713	0.768	0.805	0.870	0.907	0.971	1.000	1.056	1.120	1.195
8	Cooling capacity(kW)	1.157	1.137	1.126	1.095	1.075	1.054	1.033	1.013	0.982	0.951
	Power input capacity(kW)	0.720	0.776	0.814	0.879	0.917	0.981	1.011	1.067	1.132	1.207
9	Cooling capacity(kW)	1.186	1.165	1.154	1.122	1.101	1.080	1.059	1.038	1.006	0.974
	Power input capacity(kW)	0.726	0.782	0.820	0.886	0.924	0.989	1.018	1.075	1.141	1.217
10	Cooling capacity(kW)	1.213	1.192	1.181	1.148	1.127	1.105	1.083	1.062	1.029	0.997
	Power input capacity(kW)	0.729	0.785	0.823	0.890	0.928	0.993	1.022	1.079	1.146	1.221
11	Cooling capacity(kW)	1.246	1.224	1.213	1.179	1.157	1.135	1.113	1.090	1.057	1.024
	Power input capacity(kW)	0.731	0.789	0.827	0.893	0.931	0.997	1.026	1.083	1.150	1.226
12	Cooling capacity(kW)	1.277	1.254	1.243	1.209	1.186	1.163	1.140	1.118	1.083	1.049
	Power input capacity(kW)	0.738	0.796	0.834	0.901	0.940	1.006	1.036	1.093	1.160	1.237
13	Cooling capacity(kW)	1.310	1.287	1.275	1.240	1.217	1.193	1.170	1.146	1.111	1.076
	Power input capacity(kW)	0.738	0.796	0.834	0.901	0.940	1.006	1.036	1.093	1.160	1.237
14	Cooling capacity(kW)	1.343	1.319	1.307	1.271	1.247	1.223	1.199	1.175	1.139	1.103
	Power input capacity(kW)	0.747	0.806	0.845	0.913	0.952	1.019	1.049	1.107	1.175	1.253
15	Cooling capacity(kW)	1.372	1.348	1.335	1.299	1.274	1.250	1.225	1.201	1.164	1.127
	Power input capacity(kW)	0.761	0.820	0.860	0.929	0.969	1.037	1.068	1.127	1.196	1.276

•Heating capacity and power input table

Water outlet temp.(°C)	Ambient temp.(°C)	-10	-5	0	5	7	10	15	21
25	Heating capacity(kW)	0.685	0.776	0.900	1.007	1.059	1.134	1.292	1.402
	Power input capacity(kW)	0.643	0.662	0.683	0.701	0.705	0.718	0.730	0.738
30	Heating capacity(kW)	0.680	0.770	0.893	1.000	1.051	1.126	1.282	1.392
	Power input capacity(kW)	0.701	0.722	0.746	0.765	0.769	0.783	0.796	0.805
35	Heating capacity(kW)	0.677	0.767	0.890	0.996	1.047	1.121	1.277	1.386
	Power input capacity(kW)	0.761	0.784	0.810	0.831	0.835	0.850	0.864	0.874
40	Heating capacity(kW)	0.672	0.762	0.883	0.988	1.039	1.113	1.268	1.376
	Power input capacity(kW)	0.840	0.865	0.893	0.916	0.921	0.938	0.953	0.964
45	Heating capacity(kW)	0.647	0.733	0.850	0.951	1.000	1.071	1.220	1.324
	Power input capacity(kW)	0.912	0.939	0.969	0.995	1.000	1.018	1.035	1.046
50	Heating capacity(kW)	0.614	0.696	0.807	0.902	0.949	1.016	1.158	1.256
	Power input capacity(kW)	1.007	1.037	1.070	1.098	1.104	1.124	1.143	1.155