Air Cooled Chiller Unit

Nomenclature

ES	S	A	40	I	Q	T	N
1	2	3	4	5	6	7	8

1	ES	ESACIR
2	S	Compressor type S:Scroll type
3	A	Product series A:Air-cooled chiller
4	40	Product seris NO:(USRT/KW/HP)
5	I	Product type I:Industrial type
6	Q	Compressor quantity S:Single type D:Double type T:Triple type Q: Quadruple Type F: Fivefold Type **(Remarks:actual compressor quantity please refer chiller specification)**
7	T	Air outlet direction T:Top exhaust S:Side exhaust
8	N	Refrigerant S:R22 N: R407C or other Eco-friendly refrigerant

Product Photos

Air Cooled Chiller Unit

Unit Brief Introduction

Eurostars air cooled mini industrial chiller is one of the most competitive products, consists of famous brand compressor, electric controlling components, high efficient fin type condenser,coil in tank type or plate type evaporator, etc. With compact structure, elegant appearance, sufficient cooling capacity, high efficiency and maintenance easily.

Eurostars air cooled mini industrial chiller with a widely capacity, chilled water temp. from 4℃ to 25℃ .Multi functions protection ensure to accurate control, high reliability and the best performance.

Eurostars air cooled mini industrial chiller is special designed to be small and medium size for different industries,such as Plastics industry,Electronic industry,Electroplating industry,Mechanical industry,Building industry,Vacuum coating,Food industry,Chemical fiber industry,etc.

Unit Features

High Efficiency

Utilizing advanced high efficient scroll /rotary type compressor, eqipping with high efficient conderser and evaporator and imported expansion valve, to realize high EER .

Reliability Operation

-Multi-protection device to keep units safety operation.
-Modular system is optional for mini chiller unit
-All chiller units has passed national standard safety system test before leaving factory, to accord with national standard.

Intellectualized Control System

Adopt SCM micro computer control,can operate via centralized manage system (PLC controller is optional);clients also can choose remote controller which can also indicate chiller running condition.

Easy and Simply Installation and Maintenance

-Fin coil type air side heat exchanger, no need cooling tower system and machine room, can work in draughty places.
-Refrigerant and refrigeration oil are charged well before leaving factory, just connecting with inlet/outlet water pipe and power on to start running it.
- Controller interface indicating fault information directly in order to know and maintain it in time.

Special Design Is Optional

-Optional for refrigerant R22, R407C ,R134a,R410a,R404a according to customer's need;
-Optional for different kinds of power supply,such as 380/400/415V-3PH-50HZ,220~230/380/460V-3PH-60HZ;
-Customized unit is optional,such anti-corrosion,salt water heat exchanger,etc.

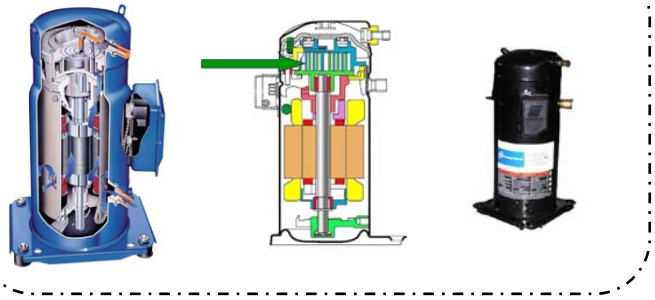
Air Cooled Chiller Unit

Main Components

High Efficiency Scroll Type Compressor

-Flexible high-efficiency scroll compressor,which patent flexible design provides best ability of fluid-attack resistance and impurity tolerance.

-Continuous compression output ensure the pulse of air flow to be reduced,with low vibration noise



High Efficiency Air Side Heat Exchanger

Special”V””shaped design,inner grooved patent sawtooth design and aluminum fin guarantee efficient heat exchange between the air side exchanger and ambient air.

High Efficiency Water Side Heat Exchanger

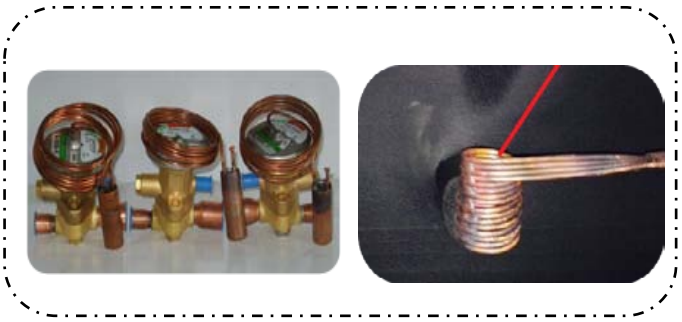
-Brazed-plate evaporator made from stainless steel features a brand-new diagonal design to better utilize heat exchanging surfaces.

-(Optional)Shell and tube evaporator with inner grooved cooper tubes optimizes the cooling and heating efficiency.

Self-cleaning,high intensity,anti-shaking design and heat insulation covering material ensure shell and tube heat exchanger unstained,reliable,quiet,highly efficient.

Throttling Device

Adopt superior quality famous exterior balanced thermal expansion valve or capillary type throtting device, which is high reliability and adjustability, can realize precise refrigerant and temperature control to ensure operating in precise and reliable status.



Axial fan

Adopt famous brand axial fan,compact structure,which is accord with aerodynamic principles;falciform impeller which can assure it runs with high efficiency and low noise,also can keep a better aerodynamic performance even under a short air inlet condition.

Intellectualized Controller

Adopt micro computer control,can operate via centralized manage system;whole system can realize remote operation.The system can monitor the water temperature,capacity status while running.The water temperature can be controlled according to the water outlet temperature.

Air Cooled Chiller Unit

Model ESSA-		01ISSN	02ISSN	03ISTN	04ISTN	05ISTN	06ISTN	08IDTN	10IDTN	12IDTN
Item NO.		1	2	3	4	5	6	8	10	12
Rated Cooling Capacity	KW	2.76	5.72	8.96	11.31	14.12	17.24	22.62	28.24	34.48
	USRT	0.78	1.63	2.55	3.22	4.02	4.90	6.43	8.03	9.81
	×1000 kcal/h	2.37	4.92	7.71	9.73	12.14	14.83	19.45	24.29	29.65
Input Power (KW)		1.20	2.025	3.09	3.82	4.65	5.88	7.74	9.74	11.84
Compressor	Total Input Power(KW)	0.74	1.52	2.53	3.07	3.9	4.95	6.14	7.8	9.9
	Qty	1	1	1	1	1	1	2	2	2
	Type	Rotary		Scroll						
Throttle Mode		Capillary Tube/Thermal Expansion Valve								
Power Supply		1ϕ-220-240V-50HZ		3ϕ-380/400/415/440V-50HZ						
Safety Protection		Pressure,Overload,Anti-freeze,Delay,Over-temperature,Water Flow Protection								
Refrigerant		R410A		R407C/R410A/R404A						
Condenser		Ripple Aluminum Fins around Cooper Pipe								
Fan	Type	Axial Type								
	Qty	1	1	1	2	2	2	2	2	2
	Total Power(KW)	0.09	0.135	0.19	0.38	0.38	0.38	0.5	0.84	0.84
	Total Air flow(CMH)	1650	2670	3500	7000	7000	7000	9000	13000	13000
Evaporator	Type	Stainless Steel Plate Type/Shell and Tube/Coil in Tank								
	Chilled liquid flow(m^3/h)	0.47	0.98	1.54	1.95	2.43	2.97	3.89	4.86	5.93
	Dia. of water inlet/outlet	DN15	DN20	DN25	DN25	DN25	DN25	DN40	DN40	DN40
Water pump	Head(m)	20	20	20	20	20	20	20	20	20
	Power(kw)	0.37	0.37	0.37	0.37	0.37	0.55	1.1	1.1	1.1
Water tank	Material	Stainless Steel								
	Volume(liters)	20	40	50	70	70	80	120	200	200
Running Noise dB(A)		58	59	60	62	62	62	64	65	65
Total weight (Kg)		75	120	150	180	180	200	230	260	350.00
Dimension L×W×H (mm)		500	600	1000	1200	1200	1200	1450	1650	1650
		450	600	550	600	600	600	750	790	790
		800	1000	1300	1350	1350	1350	1450	1550	1550

Note:

1. Rated Cooling Capacity Based on:Evaporating temperature 7℃;Condensing temperature 50℃,Ambient DB=35C, Fouling factor: 0.088㎡.°C/KW;
2. Chilled Water Range: 5～25℃;
3. Specifications are subject to change without notice for further improvement.

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Air Cooled Chiller Unit

Model ESSA-		15IDTN	20IDTN	25IDTN	30IDTN		40IQTN	50IQTN	60IQTN	
Item NO.		15	20	25	30		40	50	60	
Rated Cooling Capacity	KW	43.22	58.2	71.18	87.3	87.78	116.4	142.36	177.95	175.56
	USRT	12.29	16.55	20.24	24.83	24.97	33.11	40.49	50.61	49.93
	×1000 kcal/h	37.17	50.05	61.21	75.08	75.49	100.10	122.43	153.04	150.98
Input Power (KW)		15.31	20.14	23.73	29.85	30.21	39.80	47.12	59.40	59.22
Compressor	Input Power (KW)	12.01	16.24	19.88	24.33	24.66	32.44	39.76	49.7	49.32
	Qty	2	2	2	3	2	4	4	5	4
	Type	Scroll								
Throttle Mode		Thermal Expansion Valve								
Power Supply		3ϕ-380/400/415/440V-50HZ								
Safety Protection		Pressure,Overload,Anti-freeze,Delay,Over-temperature,Water Flow Protection								
Refrigerant		R407C/R410A/R404A								
Condenser		Ripple Aluminum Fins around Cooper Pipe								
Fan	Type	Axial Type								
	Qty	2	2	3	6	3	8	8	10	8
	Total Power(KW)	1.1	1.7	1.65	2.52	2.55	3.36	3.36	4.2	4.4
	Total Air flow(CMH)	15000	21600	22500	39000	32400	5200	52000	65000	60000
Evaporator	Type	Stainless Steel Plate Type/Shell and Tube/Coil in Tank								
	Chilled liquid flow(m^3/h)	7.43	10.01	12.24	15.02	15.10	20.02	24.49	30.61	30.20
	Dia. of water inlet/outlet	DN50	DN50	DN50	DN65	DN65	DN80	DN80	DN80	DN80
Water pump	Head(m)	20	20	20	20	20	20	20	20	20
	Power(kw)	2.2	2.2	2.2	3	3	4	4	5.5	5.5
Water tank	Material	Stainless Steel								
	Volume(liters)	270	350	350	420	420	500	600	650	650
Running Noise dB(A)		67	68	68	68	68	68	68	68	68
Total weight (Kg)		650	750	1200	1300	1300	1500	1800	2100	2100
Dimension L×W×H (mm)		1850	2000	2150	2600	2600	3300	3300	3500	3500
		900	950	1000	1100	1100	1500	1500	1700	1700
		1800	1800	1850	1850	1850	1750	1750	1850	1850

Note:

1. Rated Cooling Capacity Based on:Evaporating temperature 7℃;Condensing temperature 50℃,Ambient DB=35C, Fouling factor: 0.088㎡.°C/KW;
2. Chilled Water Range: 5～25℃;
3. Specifications are subject to change without notice for further improvement.

Air Cooled Chiller Unit

Model ESSA-		01ISSS	02ISSS	03ISTS	04ISTS	05ISTS	06ISTS	08IDTS	10IDTS	12IDTS
Item NO.		1	2	3	4	5	6	8	10	12
Rated Cooling Capacity	KW	2.76	5.72	9.41	11.75	14.81	18.16	23.50	29.62	36.32
	USRT	0.78	1.63	2.68	3.34	4.21	5.16	6.68	8.42	10.33
	×1000 kcal/h	2.37	4.92	8.09	10.11	12.74	15.62	20.21	25.47	31.24
Input Power (KW)		1.20	2.025	3.10	3.97	4.67	5.77	8.04	9.78	11.62
Compressor	Total Input Power(KW)	0.74	1.52	2.54	3.22	3.92	4.84	6.44	7.84	9.68
	Qty	1	1	1	1	1	1	2	2	2
	Type	Rotary		Scroll						
Throttle Mode		Capillary Tube/Thermal Expansion Valve								
Power Supply		1ϕ-220-240V-50HZ		3ϕ-380/400/415/440V-50HZ						
Safety Protection		Pressure,Overload,Anti-freeze,Delay,Over-temperature,Water Flow Protection								
Refrigerant		R22								
Condenser		Ripple Aluminum Fins around Cooper Pipe								
Fan	Type	Axial Type								
	Qty	1	1	1	2	2	2	2	2	2
	Total Power(KW)	0.09	0.135	0.19	0.38	0.38	0.38	0.5	0.84	0.84
	Total Air flow(CMH)	1650	2670	3500	7000	7000	7000	9000	13000	13000
Evaporator	Type	Stainless Steel Plate Type/Shell and Tube/Coil in Tank								
	Chilled liquid flow(m^3/h)	0.47	0.98	1.62	2.02	2.55	3.12	4.04	5.09	6.25
	Dia. of water inlet/outlet	DN15	DN20	DN25	DN25	DN25	DN25	DN40	DN40	DN40
Water pump	Head(m)	20	20	20	20	20	20	20	20	20
	Power(kw)	0.37	0.37	0.37	0.37	0.37	0.55	1.1	1.1	1.1
Water tank	Material	Stainless Steel								
	Volume(liters)	20	40	50	70	70	80	120	200	200
Running Noise dB(A)		58	59	60	62	62	62	64	65	65
Total weight (Kg)		75	120	150	180	180	200	230	260	350.00
Dimension L×W×H (mm)		500	600	1000	1200	1200	1200	1450	1650	1650
		450	600	550	600	600	600	750	790	790
		800	1000	1300	1350	1350	1350	1450	1550	1550

Note:

1. Rated Cooling Capacity Based on:Evaporating temperature 7℃;Condensing temperature 50℃,Ambient DB=35C, Fouling factor: 0.088㎡.°C/KW;
2. Chilled Water Range: 5～25℃;
3. Specifications are subject to change without notice for further improvement.

Eurostars

Air Cooled Chiller Unit

Model ESSA-		15IDTS	20IDTS	25IDTS	30IDTS		40IQTS	50IQTS	60IQTS	
Item NO.		15	20	25	30		40	50	60	
Rated Cooling Capacity	KW	44.36	61.3	73.3	91.95	92.44	122.6	146.6	183.25	184.88
	USRT	12.62	17.43	20.85	26.15	26.29	34.87	41.70	52.12	52.58
	×1000 kcal/h	38.15	52.72	63.04	79.08	79.50	105.44	126.08	157.60	159.00
Input Power (KW)		15.36	20.18	23.55	29.94	30.47	39.92	46.76	58.95	59.74
Compressor	Input Power (KW)	12.06	16.28	19.70	24.42	24.92	32.56	39.40	49.25	49.84
	Qty	2.00	2.00	2.00	3.00	2.00	4.00	4.00	5.00	4.00
	Type	Scroll								
Throttle Mode		Thermal Expansion Valve								
Power Supply		3ϕ-380/400/415/440V-50HZ								
Safety Protection		Pressure,Overload,Anti-freeze,Delay,Over-temperature,Water Flow Protection								
Refrigerant		R22								
Condenser		Ripple Aluminum Fins around Cooper Pipe								
Fan	Type	Axial Type								
	Qty	2	2	3	6	3	8	8	10	8
	Total Power(KW)	1.1	1.7	1.65	2.52	2.55	3.36	3.36	4.2	4.4
	Total Air flow(CMH)	15000	21600	22500	39000	32400	5200	52000	65000	60000
Evaporator	Type	Stainless Steel Plate Type/Shell and Tube/Coil in Tank								
	Chilled liquid flow(m^3/h)	7.63	10.54	12.61	15.82	15.90	21.09	25.22	31.52	31.80
	Dia. of water inlet/outlet	DN50	DN50	DN50	DN65	DN65	DN80	DN80	DN80	DN80
Water pump	Head(m)	20	20	20	20	20	20	20	20	20
	Power(kw)	2.2	2.2	2.2	3	3	4	4	5.5	5.5
Water tank	Material	Stainless Steel								
	Volume(liters)	270	350	350	420	420	500	600	650	650
Running Noise dB(A)		67	68	68	68	68	68	68	68	68
Total weight (Kg)		650	750	1200	1300	1300	1500	1800	2100	2100
Dimension L×W×H (mm)		1850	2000	2150	2600	2600	3300	3300	3500	3500
		900	950	1000	1100	1100	1500	1500	1700	1700
		1800	1800	1850	1850	1850	1750	1750	1850	1850

Note:

1. Rated Cooling Capacity Based on:Evaporating temperature 7℃;Condensing temperature 50℃,Ambient DB=35C, Fouling factor: 0.088㎡.°C/KW;
2. Chilled Water Range: 5～25℃;
3. Specifications are subject to change without notice for further improvement.