



ES MINI SERIES

The ideal cooling system for compact space with reliable performance



PRECISION | EFFICIENCY | CREATIVITY



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We at CITEC, are committed to deliver innovative products and services that are revolutionizing advances the precision cooling needs.

From design and manufacturing to product and after sales support services, we constantly build upon our proven innovation of precision, efficiency and creativity to deliver a full range of consultancy for customized business needs or an array of designs and models to a myriad of clientele.

CITEC ES MINI SERIES



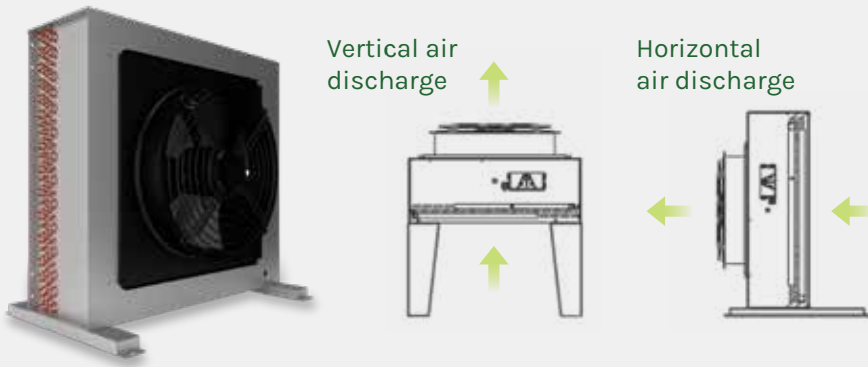
CITEC ES Mini Series is designed to provide ultimate in precise control of temperature, humidity and filtration where environmental control is required, particularly if space is at a premium. The concept is based on the reliability, efficiency, flexibility and serviceability that is the hallmark of all CITEC equipment. The ES Mini Series is ideal for use in: Computer rooms, Laboratories, Clean rooms and High tech office suites.

There are 4 cooling capacities ranges from 10kW to 20kW with a footprint from just 650 x 655mm ensures minimal presence and full front access allows for maximum utilization of floor space.

DESIGN FEATURES

- Compact and stylish full functions unit
- Air Cooled, Water Cooled and Chilled Water system
- Upflow or Downflow configuration
- R410A Refrigerant Scroll Compressor
- Electronic Expansion Valve
- 2-way Chilled Water Modulating Valve
- AC Plug Fan, EC Fan (optional)
- User friendly Genius-U Controller
- 7" Colour Touch Screen Display
- Full front access for ease of servicing and maintenance

HCC Air Cooled Condenser



The latest CITEC compact air cooled condenser series is built for high performance. Unit is fitted with high efficient axial fan, enclosed with powder coated panel body and weatherproof isolator.

Condenser may be installed in both vertical or horizontal air discharge orientation.

TECHNICAL SPECIFICATION

UNIT MODEL (HCC)		184	244
Heat Rejection	kW	17.71	24.30
Air flow	m ³ /s	2.16	2.05
No. of Fan		1	1
UNIT DIMENSION & WEIGHT			
Width	mm	820	925
Depth	mm	530	530
Height	mm	825	860
Gross Weight	kg	55	60

HCC Air Cooled Condenser

Notes

1. Heat rejection capacity based on 35°C ambient and 15°C delta T.
2. Above data is for 230V/1Ph/50Hz power supply.
3. Unit dimensions do not include mounting legs, isolator and piping.

ES Mini: CW Series

UNIT MODEL (ESM xx C)		8	10	16	19
Gross Total Capacity	kW	8.86	10.01	16.54	19.14
Gross Sensible Capacity	kW	8.44	9.27	15.74	17.55
Sensible Heat Ratio		0.95	0.93	0.95	0.92
GENERAL DATA					
Nominal Air Flow	m ³ /s	0.83	0.81	1.55	1.51
No. of Fan		1	1	1	1
Sound Level	dBA	51	51	60	60
CHILLED WATER COIL					
Nominal Water Flow Rate	l/s	0.42	0.48	0.79	0.92
Water Pressure Drop	kPa	54.3	45.3	67.3	70.4
PTC HEATER					
Nominal Heater Capacity	kW	4	4	6	6
HUMIDIFIER					
Nominal Humidifier Capacity	kg/hr	3	3	5	5
UNIT DIMENSION & WEIGHT					
Width	mm	650	650	800	800
Depth	mm	655	655	890	890
Height	mm	1940	1940	1985	1985
Gross Weight	kg	140	160	180	190
Min. Service Allowance	mm	600	600	725	725

Notes

1. Cooling capacity is based on 24°C, 45%RH, return air condition with 7/12°C chilled water in/out temperature under nominal airflow. 400V/3Ph+N/50Hz power supply, 50Pa ESP.
2. Sound level is for downflow models measured at 1m in freefield conditions.

ES Mini: DX Series

UNIT MODEL (ESM xx A/W)		10	12	16	20
Gross Total Capacity	kW	10.24	12.41	16.55	21.22
Gross Sensible Capacity	kW	9.63	10.95	16.55	19.59
Sensible Heat Ratio		0.94	0.88	1.00	0.92
GENERAL DATA					
Nominal Air Flow	m ³ /s	0.83	0.81	1.55	1.51
No. of Fan		1	1	1	1
No. of Compressor		1	1	1	1
Sound Level	dBA	52	52	61	61
CONDENSER					
Nominal Air Cooled Model		HCC 184	HCC 184	HCC 244	HCC 244
Nominal Water Cooled Model		N/A	N/A	WBN30	WBN40
Nominal Water Flow	l/s	N/A	N/A	1.00	1.28
Waterside Pressure Drop of Condenser	kPa	N/A	N/A	21.3	21.5
PTC HEATER					
Nominal Heater Capacity	kW	4	4	6	6
HUMIDIFIER					
Nominal Humidifier Capacity	kg/hr	3	3	5	5
UNIT DIMENSION & WEIGHT					
Width	mm	650	650	800	800
Depth	mm	655	655	890	890
Height	mm	1940	1940	1985	1985
Gross Weight - "A" Version	kg	150	180	250	280
- "W" Version	kg	170	200	280	300
Min. Service Allowance	mm	600	600	725	725

Notes

1. Cooling capacity is based on 24°C, 45%RH, R410A refrigerant at 45°C condensing temperature under nominal airflow, 400V/3Ph+N/50Hz power supply, 50Pa ESP.
2. Sound level is for downflow models measured at 1m in freefield conditions.
3. Nominal air cooled condenser sizing is suggestion only based on 35°C ambient temperature and nominal operating condition at sea level. Other sizes may be selected to suit requirement as necessary.
4. Nominal water cooled condenser sizing is suggestion only based on water in/out 30/35°C and nominal operating condition. Other sizes may be selected to suit requirement as necessary.



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