

# GiCRAC(dx)

Perimeter Mounted Precision Direct Expansion cooling for optimum operating conditions



## Efficient and targeted cooling

Rooms exposed to high thermal loads need constant climatic conditions in order to function reliably. If you need precise, reliable and cost effective air conditioning for data centers and server rooms, the GiCRAC<sub>(dx)</sub> series is an energy efficient and long-lasting series that fits the bill. These units cool more efficiently, more reliably and more sustainably than conventional comfort air conditioning systems. They occupy little floor space, and their compact size means they can be integrated in existing server rooms without problem.

### + Advantages at a glance

- Maximum cooling capacity with a minimal footprint
- High operational reliability with continuous operation 24/7, 365 days a year
- EC fans for maximum energy efficiency
- Precise regulation of room temperature and air humidity
- Reduction in noise levels by 4-5dB(A)
- 20% efficiency increase



## Features

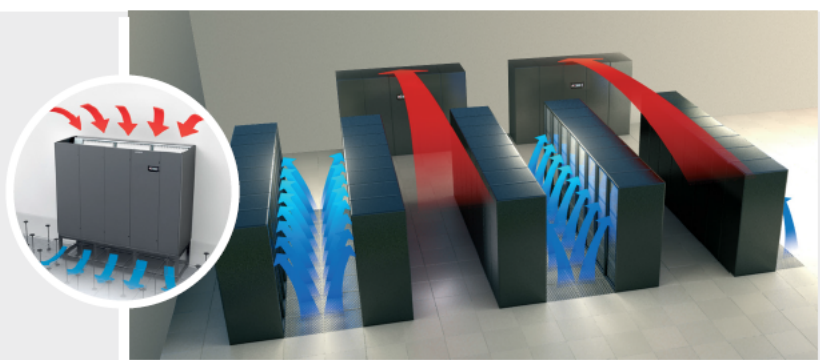
- Cooling capacity range from 30 kW to 240 kW
- Available in 14 sizes
- Available in several refrigeration systems
- Downflow and Upflow versions of units
- Simple installation and maintenance via door on the front
- Air filtering with filter class G4
- Filter control manager for a constant airflow
- ModBus onboard for integration in the building services management system

## Options

- 7 inch touch panel user interface
- Communication via SNMP/HTTP IP protocols
- Humidifier
- Winter Start Kit
- Smoke and fire alarms
- Eco-Cool with Direct Free Cooling
- R410a high-temperature refrigerant

Computer room air conditioners, known as CRAC units, are located around the perimeter of the data room.

These systems draw warm air in from the racks, while cooler conditioned air is then typically blown under a raised floor and out through grilles to the front of the server racks, to create hot and cold aisles within the data room.



## Precise temperature and humidity control

Complex IT environments are characterised by extremely variable thermal loads, which require a high level of cooling capacity at full load, to ensure the continual efficient and effective operation of IT equipment. The GiCRAC<sub>(dx)</sub> provide this, ensuring a reliable performance throughout the lifetime of the system.



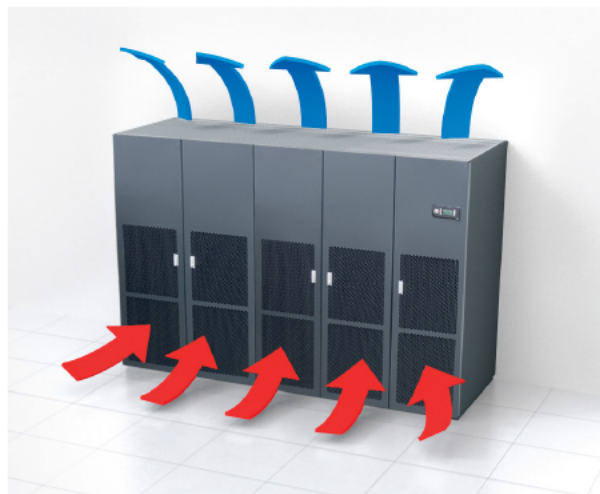
## Airflow configurations

The GiCRAC<sub>(dx)</sub> systems are available in both downflow and upflow configurations, ensuring installation flexibility across a multitude of applications.

### Downflow (under)



### Upflow (over)



## EC plug fans

Specifically designed for high precision air conditioners, the new EC-Fans of the GiCRAC<sub>(dx)</sub> feature a new compact design and an innovative blade geometry, resulting in a higher airflow rate and reduced operating costs.



## Technical Data

GiCRAC Direct Expansion (DX)								
MODEL		30	35	40	60	70	80	90
NET DX COOLING CAPACITY - MBH (Includes Motor Heat @ Rated CFM & ESP)								
Total <sup>1</sup>	MBH (kW)	102.3 (30)	119.4 (35)	136.4 (40)	204.7 (60)	238.8 (70)	272.9 (80)	307.1 (90)
Sensible <sup>1</sup>	MBH (kW)	102.3 (30)	119.4 (35)	136.4 (40)	204.7 (60)	238.8 (70)	272.9 (80)	307.1 (90)
Blower/Motor - Backward Inclined, Plenum Style Fan, with an EC Motor								
Max. Air Flow(E.S.P) <sup>2</sup>	CFM (Pa)	6,000 (350)		7,000 (400)	12,000 (370)		14,000 (390)	18,000 (290)
Q <sub>t</sub> (Pcs)		1			2			3
Physical Data								
Approx. Weight (lbs)		440	450	460	860	880	900	1,280
Dimensions (W") <sup>3</sup>		23.6			47.2			70.8
MODEL		105	120	140	160	175	200	240
NET DX COOLING CAPACITY - MBH (Includes Motor Heat @ Rated CFM & ESP)								
Total <sup>1</sup>	MBH (kW)	358.2 (105)	409.4 (120)	477.7 (140)	545.9 (160)	597.1 (175)	682.4 (200)	818.9 (240)
Sensible <sup>1</sup>	MBH (kW)	358.2 (105)	409.4 (120)	477.7 (140)	545.9 (160)	597.1 (175)	682.4 (200)	818.9 (240)
Blower/Motor - Backward Inclined, Plenum Style Fan, with an EC Motor								
Max. Air Flow(E.S.P) <sup>2</sup>	CFM (Pa)	20,000 (420)		25,000 (440)		30,000 (450)		36,000 (490)
Q <sub>t</sub> (Pcs)		3		4		5		6
Physical Data								
Approx. Weight (lbs)		1,310	1,340	1,700	1,750	2,100	2,160	2,500
Dimensions (W") <sup>3</sup>		70.8		94.4		118.0		141.6

1) Air inlet temperature: 35 °C; r.h. 30 %, Condensing temperature: 45 °C  
Comments: All data applies at 400 V/3 ph/50 Hz

2) External static fan pressure: 30 Pa

3) All Dimensions(inch) : H:70.8", D:23.6"

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