

JREF DX A

Radial



AIR CONDENSED PERIMETER MOUNTED UNITS FOR DATA CENTERS

7-25 kW



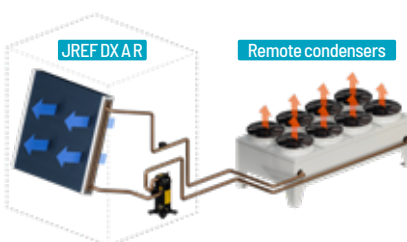
The JREF DX Radials series perimeter mounted units are direct expansion units with EC radial fans designed to be installed in small-sized premises such as server rooms and labs or for applications where **accurate control of thermo-hygrometric parameters and round-the-clock operation are required**. The top priority for internal design and for the choice of components is **energy efficiency** - to **optimise the system overall electricity consumption** with a positive impact on the Data Center Power Usage Effectiveness (PUE). Versatile and flexible range It is available with different cooling configurations:

The JREF DX A Radial units are air-condensed perimeter-mounted units in the JREF range; they are widely used for the cooling of Data Centers. The air-condensed solution offers a **simple system design**, thanks to the absence of auxiliary circuits and pumps; the cooling circuit is managed by the cabinet, and both the indoor unit and the remote condenser are **easy to install**.

Green

HiRef is constantly committed to the search for refrigerants that have an increasingly reduced environmental impact. The use of ASHRAE Class A1 refrigerants, non-toxic and non-flammable, is essential for the "close control" application. JREF DX A Radial units are available with R134a and R513A refrigerants.

AIR CONDENSED



AIRFLOW CONFIGURATIONS



Upflow



Downflow



Displacement

- Refrigerant R410A or R513A
- EC Fans
- Scroll on/off compressors
- Temperature control through heating and post-heating systems with electric heating elements, hot water and hot gas (optional)
- Humidity control through dehumidification and humidification (optional)
- Broad choice of accessories, including base modules and plenums for ducting
- Air filter class G3 as standard. Air Filters G4, M5, F7 (optional)
- Double power supply with automatic switch (optional)
- Constant-flow (airflow control) or constant available overpressure (ΔP control) ventilation modulation (optional)
- Electronic expansion valves (optional)
- Low temperature kits for optimal operation in the case of installation in particularly cold environments (on request)
- Long distance kits for optimal operation in the event of large distances between indoor and outdoor units (on request)



Safety in the server room

All models in the JREF DX A Radial range feature heat exchange coils with hydrophilic coating. This special coating - together with adequate adjustment of air through-flow speeds - **helps condensate collection during the dehumidification process, preventing any dripping on the inside and outside of the unit.**



Ventilation EC

EC PLUG fans, standard throughout the range, are adjustable using different logics: flow rate, overpressure, constant ΔP and ΔT . Their accurate adjustment allows an efficient use of power for ventilation and **a consequent reduction of the system's PUE.** Extended range speed adjustment is carried out via Modbus protocol. The "emergency speed" function allows for fan operation **even in the event of microprocessor malfunctions.**



Efficiency

The performance, reliability and efficiency of HiRef units are guaranteed **by using the best quality components and by cleverly designed internal and external layouts.**



Remote condensers

All units can be combined with HiRef remote condensers, choosing from **different combinations to meet all system needs. Oversize remote condensers** are ideal for warmer environments, where it is necessary to keep the condensing temperature under control, while **the compact condensers** on the other hand are small in terms of both size and consumption. The condensers, used with dual-circuit units, are available with a single cooling circuit for **maximum reliability and redundancy of the system** or with a double cooling circuit, **to reduce installation spaces and costs.**



Easier scheduled maintenance

The unit has been painstakingly designed to ensure frontal access to components. This makes **routine maintenance easier in full compliance with safety standards.**



JREF DX A R		0060	0080	0100	0110	0130	0160	0190	0205	0212
R410A - Indoor air 24°C - 50% / Outdoor air 35°C										
Cooling capacity	kW	6.5	8.6	10.8	11.9	13.8	16.7	19.7	22.6	22.8
Total absorbed power	kW	2	2	3	3.3	4.5	5.2	6	6.3	6.8
EER		3.49	4.76	3.92	3.89	3.38	3.83	3.82	4.12	3.79
SHR		0.99	0.94	0.98	0.97	0.89	1	0.95	0.89	0.88
R410A - Indoor air 30°C - 35% / Outdoor air 35°C										
Cooling capacity	kW	7.1	9.4	12.1	13.4	15.2	18.9	22.1	24.7	24.9
Total absorbed power	kW	2	2	3.1	3.4	4.6	5.4	6.1	6.4	6.9
EER		3.71	5.14	4.33	4.32	3.63	4.17	4.16	4.43	4.09
SHR		1	1	1	1	1	1	1	1	1
R513A - Indoor air 24°C - 50% / Outdoor air 35°C - 50%										
Cooling capacity	kW	6.8	7.7	9.9	11.7	13.6	15.7	17.7	-	-
Total absorbed power	kW	1.8	2.2	2.4	3.1	3.5	4.6	5.2	-	-
EER		4.05	3.76	4.63	4.09	4.36	4.2	4.07	-	-
SHR		0.94	0.95	1	0.99	0.93	1	0.99	-	-
R513A - Indoor air 30°C - 35% / Outdoor air 35°C - 50%										
Cooling capacity	kW	7.5	8.6	11.4	13.3	15.1	18	19.9	-	-
Total absorbed power	kW	1.8	2.3	2.5	3.2	3.6	4.7	5.5	-	-
EER		4.36	4.09	5.14	4.5	4.71	4.62	4.3	-	-
SHR		1	1	1	1	1	1	1	-	-
Rated air flow	m³/h	1785	2150	3530		3700	5100			
Power supply	V/ph/Hz	400/3+N/50								
Number of circuits		1	1	1	1	1	1	1	1	2
Lp @ nominal rpm; dist.=2m Q=2	db(A)	49	50	53	53	54	55	56	56	56
Dimensions [LxHxD]	mm	600x1875x600				900x1875x600				

Also available with 60 Hz power supply. | Model height Displacement 2125 mm.