DATA CENTER | INDUSTRIAL

JREF DX W
Radial

WATER CONDENSED PERIMETER MOUNTED UNITS FOR DATA CENTERS

JREF DX W > 7–24 kW

JREF DX Z > 7–27 kW

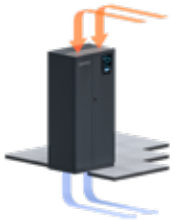
- LOW GWP REFRIGERANT
- MULTI-PROTOCOL COMMUNICATION INTERFACE
- SCROLL COMPRESSORS
- EC RADIAL FANS
- MODBUS CONTROLLED FANS
- FAST RESTART
- ON-BOARD HUMIDIFIER
- MODULATING HOT GAS POST-HEATING
- PLATE HEAT EXCHANGER

JREF W Radial units are water-condensed perimeter-mounted cabinets and they use Dry Cooler water. The JREF units of this series are "monobloc" units inside which **the entire cooling circuit is concentrated**. Cooling is via a **brazed plate exchanger made of stainless steel AISI 304**.

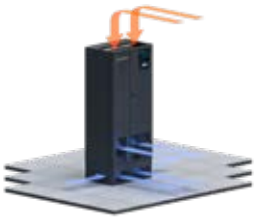
JREF Z Radial units are water-condensed perimeter-mounted cabinets they use low temperature mains water or groundwater (15°C). The JREF units of this series are "monobloc" units inside which **the entire cooling circuit is concentrated**. Cooling is via a **brazed plate exchanger made of stainless steel AISI 304**.

AIRFLOW CONFIGURATIONS

Upflow

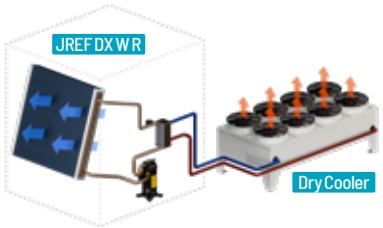


Downflow

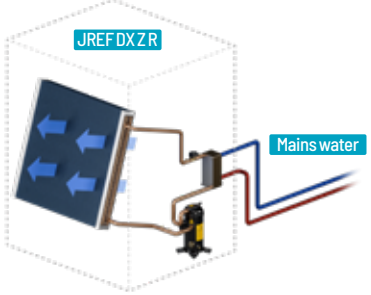


Displacement

WATER CONDENSED



MAINS WATER CONDENSED



- 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)
- Low temperature kits for optimal operation in the case of installation in particularly cold environments (on request)
- 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)

Safety in the server room

All models in the JREF W 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.**

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.**

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. All JREF W Radial units are available with R134a and R513A refrigerants.

JREF DX W R		0060	0080	0100	0110	0130	0160	0190	0205	0212
R410A - Indoor air 24°C - 50% / Water 40°C - 45°C										
Cooling capacity	kW	6.6	8	10.5	11.5	13.6	16.3	18.9	20.8	22
Total absorbed power	kW	1.9	2.3	3.2	3.5	4.7	5.3	6.3	7.4	7.4
EER		3.82	3.78	3.54	3.54	3.18	3.66	3.45	3.17	3.35
SHR		0.98	0.98	1	0.98	0.91	1	0.97	0.93	0.9
R410A - Indoor air 30°C - 35% / Water 40°C - 45°C										
Cooling capacity	kW	7.3	8.8	11.8	13.2	15.1	18.7	21.5	23.1	24.2
Total absorbed power	kW	1.9	2.3	3.2	3.5	4.7	5.3	6.4	7.5	7.4
EER		4.12	4.17	4	4.04	3.49	4.17	3.88	3.48	3.69
SHR		1	1	1	1	1	1	1	1	1
R513A - Indoor air 30°C - 35% / Water 40°C - 45°C										
Cooling capacity	kW	6.6	7.6	9.6	11.5	12.9	15.1	16.6	-	-
Total absorbed power	kW	1.9	2.3	2.6	3.3	3.8	4.9	5.7	-	-
EER		3.71	3.66	4.12	3.83	3.73	3.68	3.42	-	-
SHR		0.95	0.95	1	1	0.95	1	1	-	-
R513A - Indoor air 30°C - 35% / Water 40°C - 45°C										
Cooling capacity	kW	7.4	8.6	11.1	13	14.5	17.4	19	-	-
Total absorbed power	kW	1.9	2.3	2.7	3.3	3.9	5	5.9	-	-
EER		4.15	4.07	4.68	4.27	4.13	4.16	3.77	-	-
SHR		1	1	1	1	1	1	1	-	-

JREF DX Z R		0060	0080	0100	0110	0130	0160	0190	0205	0212
R410A - Indoor air 24°C - 50% / Water 15°C - 30°C										
Cooling capacity	kW	7.3	9.1	11.7	12.8	15.7	19.1	22.2	24.1	24.5
Total absorbed power	kW	1.3	1.7	2.5	2.8	3.5	4.1	4.8	5.7	6
EER		5.99	6.07	5.21	5.01	5.03	5.8	5.53	4.99	4.74
SHR		0.89	0.89	0.94	0.92	0.86	0.93	0.9	0.86	0.85
R410A - Indoor air 30°C - 35% / Water 15°C - 30°C										
Cooling capacity	kW	7.8	9.9	12.9	14.3	16.8	21.2	24.3	25.9	26.5
Total absorbed power	kW	1.3	1.7	2.5	2.9	3.5	4.2	4.9	5.7	6
EER		6.39	6.55	5.73	5.57	5.37	6.39	5.97	5.34	5.14
SHR		1	1	1	1	1	1	1	1	1
R513A - Indoor air 24°C - 50% / Water 15°C - 30°C										
Cooling capacity	kW	7.4	8.6	10.4	12.5	14.6	17	18.9	-	-
Total absorbed power	kW	1.4	1.8	2.2	2.8	3	4	4.7	-	-
EER		5.58	5.35	5.57	5.04	5.52	5.41	4.88	-	-
SHR		0.88	0.91	1	0.96	0.91	1	0.95	-	-
R513A - Indoor air 30°C - 35% / Water 15°C - 30°C										
Cooling capacity	kW	8.2	9.4	12	14	16	19.3	21.1	-	-
Total absorbed power	kW	1.5	1.8	2.2	2.8	3.1	4	4.9	-	-
EER		6.12	5.77	6.15	5.51	5.98	6.02	5.18	-	-
SHR		1	1	1	1	1	1	1	-	-
Rated air flow	m^3/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.

HiRef S.p.A. · Viale Spagna 31/33 35020 Tribano (PD) – IT · Tel. +39 0499588511 · info@hiref.it
hiref@pec.it · CF/PIVA: 02191431200 · REA: PD – 327685