

AF-DS201 SERIES DIRECT AIR COOLING DualXchange Cabinet DAC

PART NUMBERS: AF-DS201-0, AF-DS201-1, AF-DS201-2

Rev. B | April 2025



DualXchange: Hybrid Ecosystem for Thermal Management in Telecom Cabinets

The DualXchange DAC (Direct Air Cooling) is a versatile solution designed to integrate seamlessly with existing HVAC systems. When the temperature inside the enclosure is below the maximum allowable threshold, DualXchange recirculates air to maintain the temperature. If the temperature exceeds the threshold, the ecosystem introduces fresh, filtered ambient air. This DC-powered, NEMA 4-rated solution ensures continuous operation during power outages, reduces operational expenses by significantly lowering HVAC operation and power consumption, and decreases HVAC replacement and maintenance costs, extending the lifespan of HVAC systems.



FEATURES

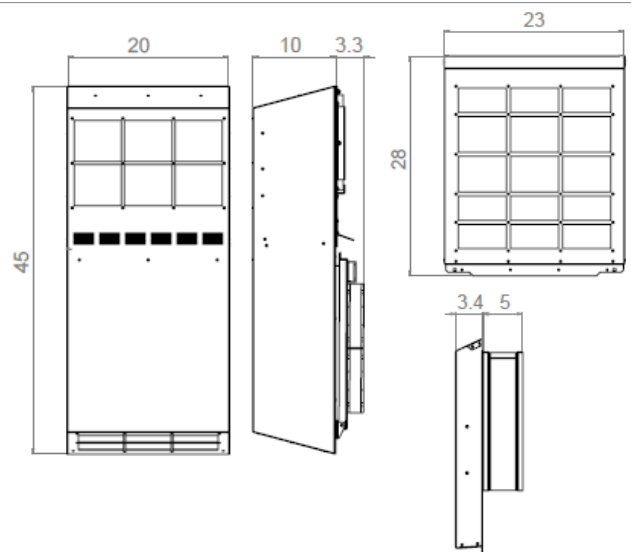
- MERV14 Deep Media Filter
- Patented Variable Speed Fans Control
- Actuated Isolation/Recirculation Dampers
- HVAC Inhibit Interlocks
- Fits typical equipment cabinets
- Kit may be retrofitted in the field or may be factory installed by the cabinet OEM
- Custom replacement doors can be designed and provided separately to facility field retrofit
- Low Maintenance – annual filter cleaning / replacement – no special certifications needed

BENEFITS

- Provides efficient backup cooling for walk-up cabinets to ensure operation during power outages
- Reduces operational expenses by lowering site power consumption
- Decreases site visits by extending the lifespan of HVAC systems
- Sensors enable predictive maintenance to prevent costly repairs

PHYSICAL SPECIFICATIONS

Part Number	AF-DS201-1
Dimensions	45"H x 20"W x 10"D
Color	White
System Input Voltage	-36V to -60V (supports transients up to -72V)
Power Consumption	11W to 450W
Noise Level	< 64 dBA
Operating Temperature Range	Min -30° C to Max 65° C
Storage Temperature Range	Min -40° C to Max 70° C



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ORDERING INFORMATION

AF-DS201-1: The system includes (1) DAC, a controller, and an exhaust for higher thermal load applications and for venting in multi-bay situations.

AF-DS201-2: The system includes (2) DACs, a controller, and an exhaust for higher thermal load applications and for venting in multi-bay situations.

System Features:

- Combined Temperature Controller to support DAC and HVAC
- NEMA 4 Exterior Hood
- 4 Variable Speed Axial Fans
- MERV14 Deep Media filter
- Patented Variable Speed Fan Control with HVAC Inhibit Interlock
- Auxiliary Exhaust Hood with Actuated Damper; protection against wind-driven rain

AF-DS201-0: The system includes (1) DAC and a controller for baseline applications

System Features:

- All of the above except for the exhaust hood

INTEGRATED SOLUTIONS

Save time and cost on installation with our preconfigured equipment kits.

For those instances where a custom solution is required, RF Industries engineers are able to quickly develop a customized solution to meet your unique specifications. Our engineers have expertise in all four key engineering disciplines including electrical engineering, mechanical engineering, thermal engineering, and RF engineering allowing us to optimize the most robust solution into the smallest footprint.

PRECONFIGURED DAC EQUIPMENT KITS INCLUDE

Doors	Equipment pre-installed onto OEM cabinet door
Controllers & Cabling	Patented variable speed fan control with HVAC interlock
Heaters	Available upon request
Deep-Media Filters & Covers	MERV14 synthetic, deep-media filter ensures only clean air gets into the shelter/cabinet
Integrated and Auxiliary Exhausts	Fan trays have an integrated exhaust. Auxiliary exhaust hoods can be used to optimize airflow

Other configurations available upon request.

ABOUT RF INDUSTRIES

Thousands of RF Industries DAC environmental ecosystems are already providing automated thermal management in telecom shelters, cabinets and edge data centers nationwide. Customers choose the next-gen, made-in-the-USA systems because they use fresh, filtered air and variable-speed fans to reliably control airflow and temperature in a far more energy-efficient and environmentally friendly way than traditional HVAC systems.

Our high-touch customer approach allows us to be responsive, accessible and hands-on when needed, every step of the way. Unlike large organizations, you will always be our number one priority. Our end-to-end support promises personal attention, guidance, and partnership all the way through site deployment.

RFI's unique flexibility also gives us a competitive advantage. As an agile business, we are able to identify and react to challenges quickly and easily, resulting in a smoother overall customer experience.

