

## Ecoflair™ Indirect Air Economizer Active Flow Controller Installation

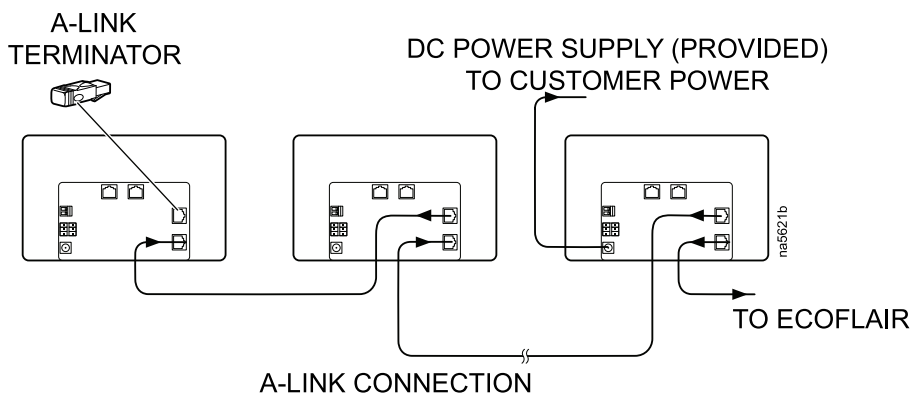
### Overview

This addendum outlines the specific process to connect the Active Flow Controller (AFC) directly to the Ecoflair™ Indirect Air Economizer. Use the *Active Flow Controller User Manual* to install the AFC in the IT space and for component identification of the AFC unit.

### Communication and Electrical Connections

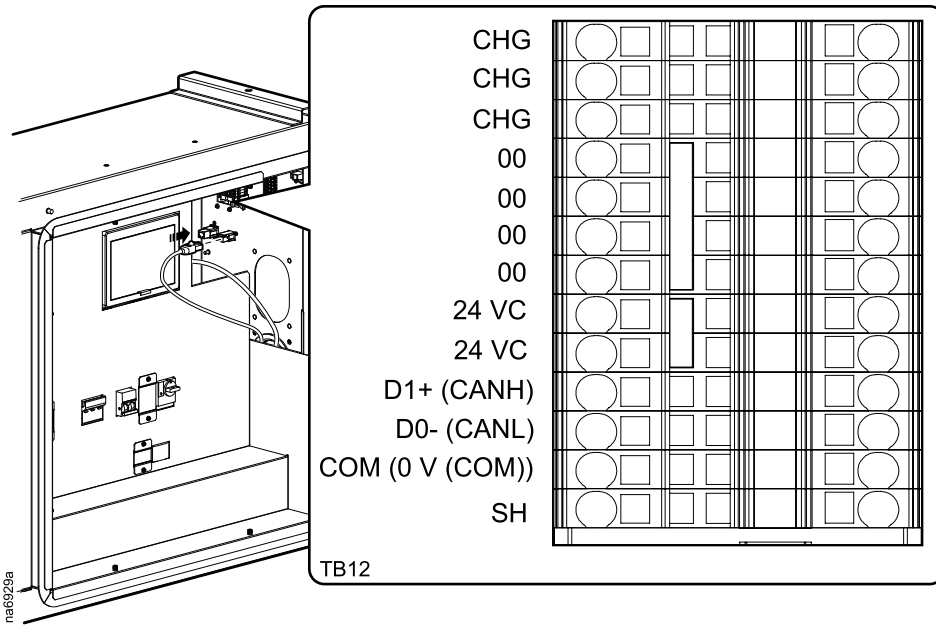
**NOTE:** The maximum cable length is 305 m (1000 ft).

**NOTE:** It is recommended to connect the power supply to the AFC that is connected directly to the Ecoflair unit.



## Ecoflair-to-AFC Connections

The recommended type of cable is CAT-5 or equivalent. The maximum cable length is 305 m (1000 ft).



AFC	Ecoflair	
RJ-45 Pin	TB12 Terminal Block	
1	CANH	Pair 1
2	CANL	Pair 1
4	0V (COM)	Pair 2
5	0V (COM)	Pair 2

## AFC Configuration

**NOTE:** Active Flow Controller devices should be connected directly to an Ecoflair Indirect Air Economizer only if a single 250-kW unit is being installed. If more than one 250-kW Ecoflair unit or a 500-kW Ecoflair unit is being installed, an Automation Server must be used.

**NOTE:** Up to four (4) AFC devices can be connected to a single 250-kW unit.

Path for Web interface settings: **Path: Main > Configuration > AFC**

Path for display interface settings: **Path: Main > AC > AFC**

The visible settings will differ depending on the selection for **Containment System: EcoAisle** or **Under Floor**.

## Aisle Containment

These settings are used for applications when the unit fans in the IT space are above floor. The AFC is connected via bus for a containment system environment.

- **Containment Setpoint:** This setting is used to change the bias of the controller by adjusting the contained aisle pressure threshold. **Zero** is the default setting. Only qualified service personnel can make changes to these settings.
  - Hot Aisle Containment (HACS)
    - If the cooling units seem to be under-cooling, select **Negative** or **Slightly Negative** to adjust the aisle pressure for additional cooling.
    - If the cooling units seem to be over-cooling, select **Positive** or **Slightly Positive** to adjust the aisle pressure for less cooling.
  - Cold Aisle Containment (CACS)
    - If the cooling units seem to be under-cooling, select **Positive** or **Slightly Positive** to adjust the aisle pressure for additional cooling.
    - If the cooling units seem to be over-cooling, select **Negative** or **Slightly Negative** to adjust the aisle pressure for less cooling.

Setting	Blue LED—HACS Red LED—CACS	Setpoint Green LED	Red LED—HACS Blue LED—CACS
<b>Positive</b>	< -0.008 in. ±3%	0.004 ±0.0004 in.	> 0.016 in. ±3%
<b>Slightly Positive</b>	< -0.010 in. ±3%	0.002 ±0.0004 in.	> 0.014 in. ±3%
<b>Zero</b>	< -0.012 in. ±3%	0.000 ±0.0004 in.	> 0.012 in. ±3%
<b>Slightly Negative</b>	< -0.014 in. ±3%	-0.002 ±0.0004 in.	> 0.010 in. ±3%
<b>Negative</b>	< -0.016 in. ±3%	-0.004 ±0.0004 in.	> 0.008 in. ±3%

- **Containment Systems:** Select **EcoAisle** for aisle containment installations.
- **Number of AFCs:** Select the number of AFC devices connected to the Ecoflair unit. (0–4)
- **EcoAisle Pressure Measurement Source:** Select if the aisle containment is cold-aisle containment (**CACS**), hot-aisle containment (**HACS**), or rack-aisle containment (**RACS**).
- **IT Fan Speed When AFC Not Available:** Select an IT fan speed to be used in the event that the AFC is not available to control the fans. (15–100%)

## Under Floor Application

These settings are used for applications when the unit fans in the IT space are below the floor and the AFC is also below the floor.

- **Under Floor Pressure Setpoint:** Enter the group setpoint for the pressure to be maintained under the floor. (0.0–124.42 Pa (0.0–0.5 in. WC))
- **Containment Systems:** Select **Under Floor** for under floor installations
- **Number of AFCs:** Select the number of AFC devices connected to the Ecoflair unit. (0–4)
- **Under Floor Pressure Measurement Source:** Select how the measurement is utilized: the **Minimum** value of all readings or the **Average** value of all readings.
- **IT Fan Speed When AFC Not Available:** Select an IT fan speed to be used in the event that the AFC is not available to control the fans. (15–100%)