

24V HVAC SYSTEM & THERMOSTAT DATA SHEET

Technical Specifications & Wiring Configurations

1. 220V to 24V Converter Box Pinout

Use the following mapping to wire the 220V step-down adapter to line-voltage equipment and standard 24V smart thermostats.

Terminal	Voltage Side	Function / Component	Thermostat Mapping
ACN	220V AC Input	Power - Neutral	N/A
ACL	220V AC Input	Power - Line / Live	N/A
H	220V AC Output	Fan - High Speed	N/A
M	220V AC Output	Fan - Medium Speed	N/A
L	220V AC Output	Fan - Low Speed	N/A
NO	220V AC Output	Cooling On (Normally Open)	N/A
NC	220V AC Output	Cooling Off (Normally Closed)	N/A
Y2	24V Input	Thermostat Signal - Medium Fan	Y2
*	24V Input	Thermostat Signal - Low Fan	* (Configurable)
Y1	24V Input	Thermostat Signal - Cooling	Y1 / Y
G	24V Input	Thermostat Signal - High Fan	G
RC	24V Output	24V Power - Line / Live	Rc / R
C	24V Output	24V Power - Common	C

Operational Note: The converter box operates via internal relays. A 24V signal triggered from the thermostat (e.g., G for Fan) closes the corresponding 220V relay circuit to operate the line-voltage fan coil. The RC and C terminals provide continuous 24V power required for smart thermostat operation.

2. Ethernet (CAT5e/CAT6) Wiring for Dropair & Converter-box With Thermostat

When running Ethernet cable for thermostat installations, adhere to the standard T568B color configuration to ensure accurate signal mapping between the 24V converter outputs and the thermostat base plate.

T568B Standard Color Code

Pin	Color Pair
01	 White-Orange
02	 Orange
03	 White-Green
04	 Blue
05	 White-Blue
06	 Green
07	 White-Brown
08	 Brown

Thermostat Base Matrix

Terminal	Standard Function
Y1	Cooling (Stage 1)
Y2	Medium Fan (<i>via converter</i>)
G	High Fan
O / B	Heat Pump Valve (N/A)
Rc / Rh	24V Power (Line)
W1 / W2	Aux / Heating
C	24V Common
*	Low Fan (<i>via converter</i>)

Suggested CAT Cable to Thermostat Mapping

Below is a recommended mapping for adapting standard T568B ethernet wire pairs into the standard smart thermostat backplate, matching the 3-speed fan requirements of the 24V adapter box:

Wire Color (T568B)	Converter Terminal	Thermostat Terminal	System Action
 Solid Brown (Pin 8)	RC	Rc / R	24V Power Line
 White-Brown (Pin 7)	C	C	24V Power Common
 Solid Green (Pin 6)	G	G	High Fan Speed
 Solid Blue (Pin 4)	Y1	Y1	Cooling On
 White-Blue (Pin 5)	Y2	Y2	Medium Fan Speed
 White-Green (Pin 3)	*	*	Low Fan Speed