

NEX-EVHP-4CH

Harmony EVHP Smart Panel

Datasheet

Issued:FEB 2026

Version :1.4

The EVECTRIX NEX-EVHP Smart Harmony 4CH Panel is an advanced electrical load management controller designed to optimize power distribution in electrical systems with limited service capacity. The unit is equipped with three 40 A contactors, enabling the connection and intelligent control of up to four 208/240 VAC loads, including Level 2 EV chargers, heat pumps, domestic hot water (DHW) tanks, dryers, and ranges, with a maximum operating current of 40 A per channel. This architecture is ideal for retrofit and electrification projects where the existing electrical service lacks sufficient capacity for additional dedicated circuits, allowing high-demand loads such as Level 2 EV chargers or high-efficiency heat pumps to be installed without requiring an electrical service upgrade.

KEY FEATURES

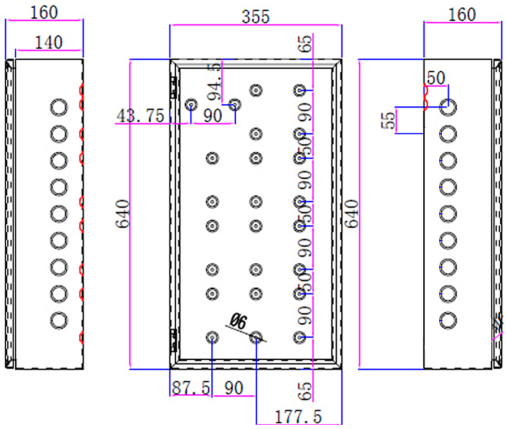
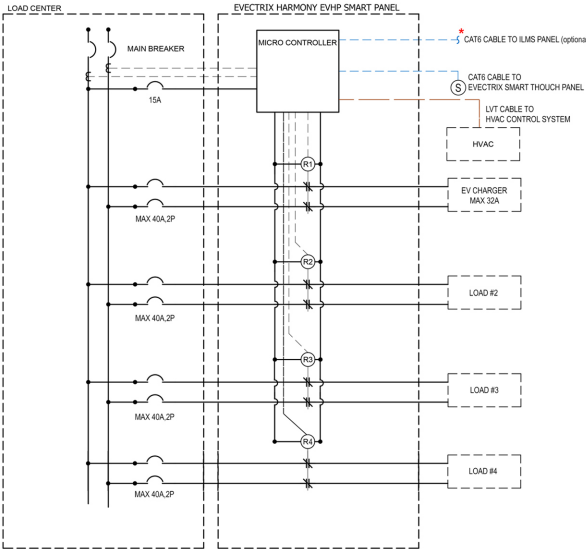
- ▶ Supports standalone operation for single-family homes or whole networked operation for MURBs, townhouses, and condominium environments.
- ▶ Continuously measures the electrical demand of connected appliances and, in multi-unit applications, monitors the main service panel for available capacity via CT's.
- ▶ Supports deployment of up to 250 units per ILMS Panel, enabling large-scale applications in multi-residential buildings.
- ▶ Offers advanced HVAC integration, including temperature setpoints, fan speed control, zoning, weekly scheduling, night setback mode, and EV-priority override functionality.
- ▶ Operates independently in standalone mode or as part of a coordinated, multi-panel network through integration with the EVECTRIX ILMS panels.
- ▶ Intelligently distributes available electrical capacity among level 2 EV chargers, any Heat Pumps with the EVECTRIX associated smart touchpad/programmable thermostat, domestic hot-water (DHW) systems (both electric and HP versions), dryers, ranges, etc., ensuring safe and efficient operation while considering limited available capacity.

\* TECHNICAL SPECIFICATIONS

- Supported Building Types : Detached houses, townhouses, MURBs/condos
- Max Units (Networked) : 250 per ILMS Harmony panel
- Controlled Loads : EV chargers, AC/Heat pumps, DHW tanks, Dryers.Stoves,Hot-tubs,Heaters
- Communication (for Multi-mode+ILMS) : Cat5/Cat 6
- Control System INPUT: 120VAC - 15A
- Control Voltage : 24 VDC 2A
- Working Temperature : -20°C to +40°C
- Storage Temperature : -20°C TO +40°C
- Input/Output: 4x40A 208/240 VAC + HeatPump LV Connectivity
- Enclosure Type: NEMA 3R
- Weight: 30 lbs

\*Specifications are subject to change without prior notice.

WIRING SCHEMATICS



## SYSTEM COMPONENTS

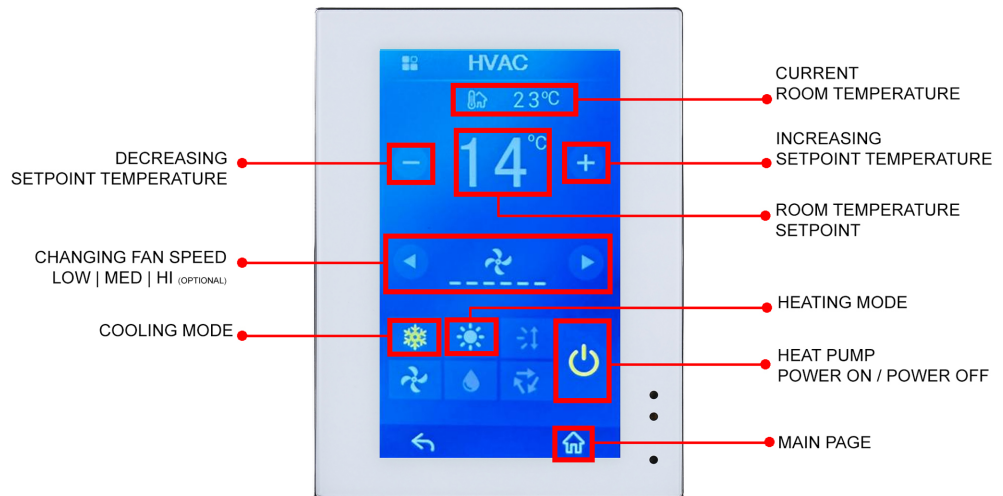
## PACKAGE INCLUDED :

- 1 X Harmony Smart Panel
- 2 X Current Transformer (CT)
- 1 X EVECTRIX Smart Touchpanel

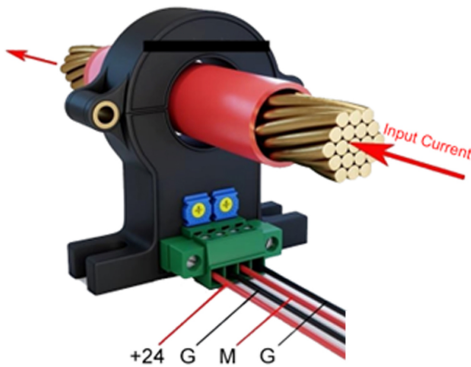


EVECTRIX SMART TOUCHPANEL

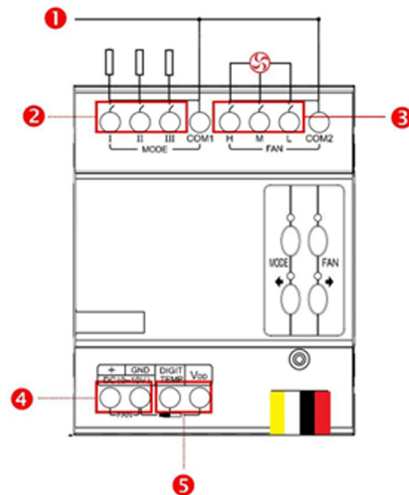
## SMART TOUCHPANEL FUNCTIONALITY OVERVIEW



## HEAT PUMP CONTROL WIRE CONNECTION



CURRENT TRANSFORMER (CT)  
WITH 4-20 mA OUTPUT



- 1 R WIRE – 24VAC POWER
- 2 HEAT PUMP MODE WIRE
- 3 INDOOR UNIT FAN TERMINAL 3 STAGE (DEFAULT HIGH SPEED)
- 4 OPTIONAL IN-DOOR UNIT FAN 0-10 V TERMINAL
- 5 OPTIONAL OUTDOOR TEMPERATURE DIGITAL SENSOR



PLEASE CONFIRM WITH THE HEAT PUMP MANUFACTURER ABOUT COMPATIBILITY WITH A THIRD-PARTY THERMOSTAT BEFORE MAKING ANY WIRING CONNECTIONS. ANY REQUIRED 3rd PARTY INTERFACE MUST BE PROVIDED, WIRED BY OTHERS AT THE FIELD.