

# MechoNet PoE+ Motor Hub

## Data Sheet

**Model Number**  
**MPMH-UPOE-TP-AS**



### Description

The MechoNet UPoE+ Motor Hub is an IOT interface used to bring MechoNet-equipped shade motors and controls to POE. This motor hub attaches to IEEE 802.3 AF/AT/BT Type 3 or Type 4 PoE Network Switches and provides up to 90W of 24VDC power and Ethernet communication for devices attached to MechoNet. It works directly with Mecho's WhisperShade IQ2-DC and standard IQ2 AC-powered motorized shade solutions forming a single network solution for the various shading needs across the entire project. It also provides access to MechoNet Wireless sensors and switches to offer industry-leading shade control and automation flexibility for optimizing today's intelligent buildings and embracing a healthy and productive building experience for the occupant.

The Motor Hub employs CoAP (Constrained Application Protocol) messaging and MUD (Manufacturer Usage Description) partnering with Cisco's Smart Building Solutions to provide industry-leading open and secure communication across all building systems. Together with Mecho's SolarLinc and SolarTrac 4.0 automation solutions this device is uniquely positioned to support various levels of automation strategies covering solar penetration, solar heat gain control, occupancy, glare, 3D reflection and 3D shadow. This provides unprecedented control of daylight and view which can be used to maximize building performance and sustainability while promoting best-in-class occupant comfort, productivity and wellness. Furthermore, operational and environmental data can be securely shared with other building systems over a future-proofed PoE network allowing the owner to customize and optimize their investment as their needs and budget require.

### Features and Benefits

- UPoE+ (90W) Shade Controller and MechoNet Hub
- Supports IEEE 802.3af, 802.3at, 802.3bt Type 3 or Type 4 POE Network Switches with LLDP. (PoE, PoE+, UPoE, UPoE+ compliant)
- Single cable pull for power and data on both the POE side and on the MechoNet side.
- Provides Ethernet-to-MechoNet routing and 90W of 24VDC continuous power for MechoNet shade motors (WhisperShade IQ2-DC) and controls.
- Offers the industry's greatest window area to POE port power ratios by supporting simultaneous group control of multiple IQ2-DC motors over 1 hub.
- Controls virtually unlimited line voltage AC-powered WhisperShade IQ2 and IQ2+ motorized shades from one (1) hub.
- Single network solution across the building for windows of all sizes using both AC and DC motorized shades.
- Provides POE access to MechoNet Wireless sensors and keypads through MechoNet MWC+ controllers.
- Cisco DNA / Smart Building Solutions Partner - Employs CoAP (Constrained Application Protocol) messaging and MUD (Manufacturer Usage Description) for secure, open communication across sub-systems.
- SolarLinc and SolarTrac 4.0 compliant for industry-leading automation strategy efficacy and flexibility.
- UL Listed  
FCC and CE compliant

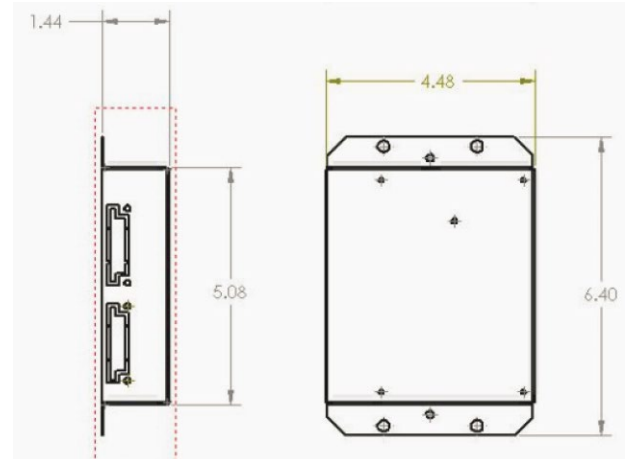
# MechoNet UPoE+ Motor Hub

## Specifications

Electrical	
Power Input	IEEE 802.3bt Type 3 and Type 4 (UPoE/UPoE+) for motor control 42 – 57 VDC, 100W
Standby Power	3W
Output Power	24VDC, 90W
Input	1 x PoE Port, RJ45 CoAP, MUD, LLDP, NuSPICE
Output	1 x MechoNet Port, 4-position term block - Power: 24VDC +/- 20%, 4A Max or up to 2 x fully loaded IQ2-DC motorized shades. - Network: +13V/-8VDC  Optional: 1 x Color Beacon Output Optional: 1 x PoE Voltage Output Tap
Immunity	IEC/EN61000 <ul style="list-style-type: none"> <li>- IEC/EN61000-4-2 (ESD): +/- 6kV direct contact, +/- 8kV air discharge</li> <li>- IEC/EN61000-4-3 (RF Radiated): 3V/m</li> <li>- IEC/EN61000-4-4 (Fast Transient): 0.5kV (I/O)</li> <li>- IEC/EN61000-4-5 (Surge): 1kV</li> <li>- IEC/EN61000-4-6 (RF Conducted): 3V/m</li> <li>- IEC/EN61000-4-8 (Magnetic Field) 1A/m</li> <li>- IEC/EN61000-4-11 (Voltage Dips): per requirements</li> </ul>
Certifications	UL Listed FCC Compliant CE Compliant
Mechanical	
Housing Material	Anodized Aluminum
Size	6.5 in. (165mm) x 4.5 in. (114mm) x 1.5 in. (38mm)
Mounting	Screw mounted flange Surface or Stand-alone
Wiring	POE: CAT5e or CAT6 - 328 ft (100m) Max MechoNet: Liberty 9020127 - 230ft (70m) max to IQ2-DC, - 4000 ft (1219m) cumulative max
Environmental - INDOOR USE ONLY	
Ambient Temp Range	32 to 104°F (0° to 40°C)
Relative Humidity	10-80% Non-Condensing

## Mounting

Should be mounted to wood or drywall backing via mounting tabs.



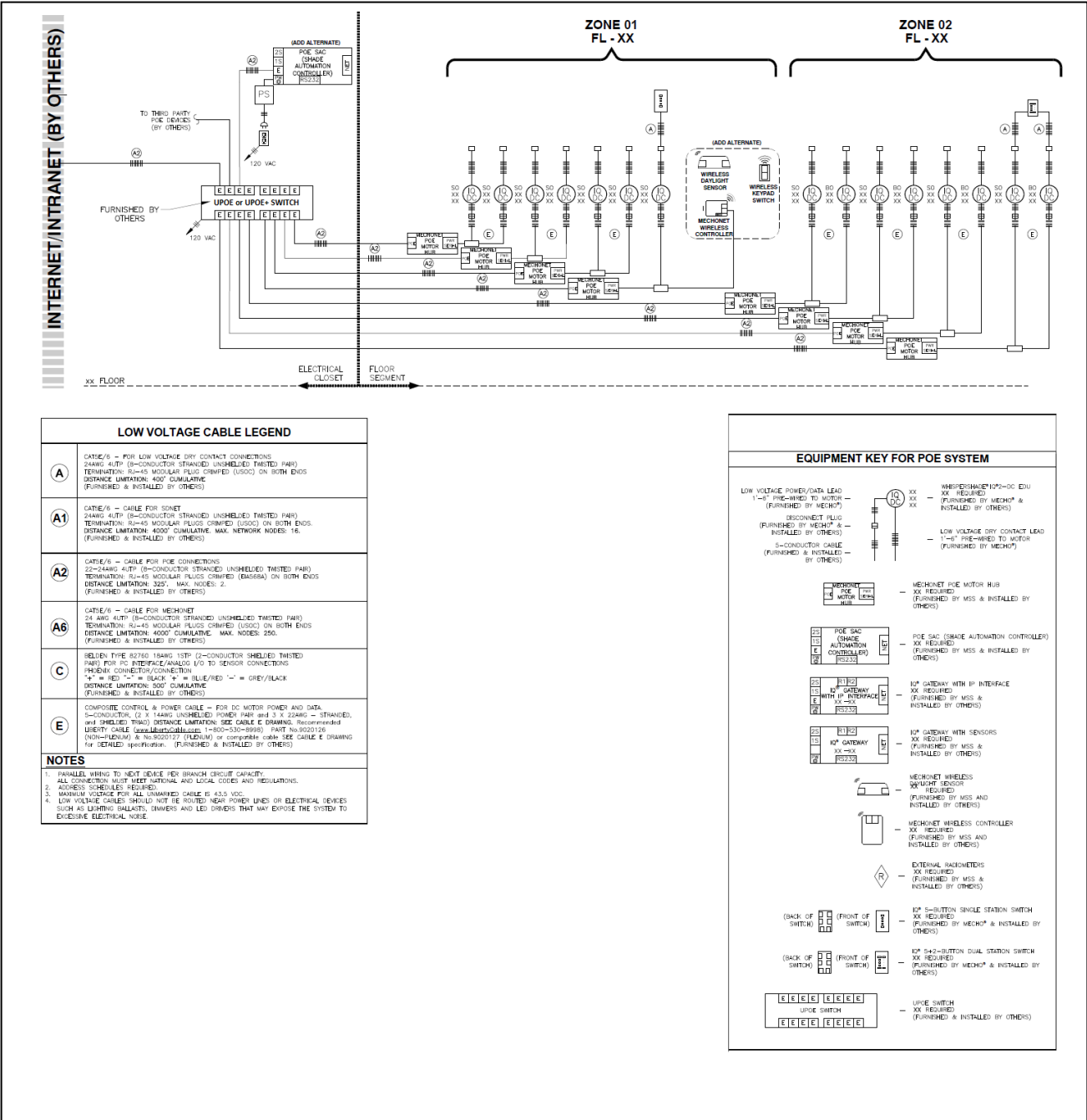
## Warning

- Caution - Observe precautions for handling electrostatic sensitive devices.
- Do not use outdoors.
- Warning - Risk of Electric Shock. Do not handle energized module with wet hands or when standing on wet or damp surfaces.
- Use only with Class 2 Power Unit - 60VDC maximum.
- Conforms to UL60950-1, CE, FCC standards
- Warranty - Voided if device has been modified from its original configuration

Mounting pattern is shown below for both versions (North American and European versions)

# MechoNet UPoE+ Motor Hub

## System Drawing



## MechoNet UPoE+ Motor Hub

### Warranty

Mecho's warranty ensures its products against defects in materials and workmanship up to 25 years depending on the product. For complete warranty information, contact your Mecho Representative or find it at

<https://www.mechoshade.com/warranty/>

### Technical support

Mecho

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