

MDT-12470D.225KVA-480D.75KVA-2XLT-1XCT-AC.3T-MOD1

24' Mobile Observation Trailer - (2) Transformers - (1) AC Unit (4) LED Lights (1) HD Camera

Product ID: 234824

Please see last page for supporting documentation for this product(certificates, CAD files & drawings, IES files, wiring diagrams, etc).



Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

MDT-12470D.225KVA-480D.75KVA-2XLT-1XCT-AC.3T-MOD1 Mobile Observation Trailer

System Type: Mobile Observation Trailer

Transformer Specs

Qty: (2)

#1 Unit Type: Dry-type Transformer

Line-In: (5) 50' #1/0 Flexible 15kV Umbilical Cables w/ 200A Dead Break Connectors - Heavy-duty Cable Entrance Glands

Primary Voltage: 12,470V

Primary Phase: 3PH

Transformer: 225KVA 12470V to 480Y/277V 3PH, 60Hz

Secondary Voltage: 480Y/277V

Secondary Phase: 3PH

Secondary Output: Cam-locks

Temp Rise: 150°C

Insulation: 220°C

Materials: Aluminum Windings, Neoprene Pads

Enclosure Dimensions: 80" x 80" x 54"

Core/Coil Dimensions: 49" x 61" x 23"

Ratings/Features

UL 1640 Power Distribution

Towable Aluminum Trailer

Mitsubishi Heat / AC Unit

External Power Receptacles

Top Observation Deck

#2 Unit Type: 75 kVA Step-down Transformer - 480V to 208Y/120V 3PH 60Hz

Panels: (1) 480V 3PH Distribution Panel, (1) 225A 208V 3PH Panelboard w/ 42 ckt
Receptacles: (2) 60A Pin/Sleeve [480V], (2) 30A Pin/Sleeve [480V], (4) 20A GFCI Quad [125V]
Receptacle Protection: Weatherproof Covers, GFCI
Receptacle Location: Mounted @ Sides of Trailer
TVSS Surge Protection: 200 KA, 480Y/277V AC 3PH, 4-wire
Power Meter Accuracy: 0.5%
Power Meter Protocol: Modbus RTU
Mount: Distribution Rack

Air Conditioner Specs

Dimensions: 9-7/8" x 55-1/8" x 28-7/8" (Indoor), 53-1/8" x 37-3/8" x 13" + 1-3/16"
Voltage: 208/230V 1PH, 60Hz
Cooling Capacity Range: 18,000-36,000 Btu/h
Heating Capacity Range @ 47°F: 18,000-40,000 Btu/h
Minimum Circuit Capacity: 3.3A (Indoor), 28A (Outdoor)
Blower Motor FLA: 2.64 FLA
Blower Motor Output: 244W
SHF/Moisture Removal: 0.76 / 7.3 pt./h
Outdoor Fan Motor FLA: 0.4 FLA + 0.4 FLA
Airflow Rate (Indoor; Dry): 847 CFM (Low), 1024 CFM (Mid), 1201 CFM (Hi)
Airflow Rate (Indoor; Wet): 777 CFM (Low), 953 CFM (Mid), 1130 CFM (Hi)
Airflow Rate (Outdoor; Dry): 3530 CFM
Sound Pressure Level (Indoor): 33 dBA (Low), 38 dBA (Mid), 42 dBA (Hi)
Sound Pressure Level (Outdoor): 52 dBA (Cooling), 53 dBA (Heating)
Refrigerant: R410a
External Finish: Galvanized Steel (Indoor), Munsell No. 3Y 7.8/1.1 (Outdoor)
Mount Location: Front of Trailer

Light Tower Specs

Qty: (3)
Length: Telescoping from 8.75' to 30'
Capacity: 150 lbs
Materials: Steel
Finish: Powder Coated - Gloss Blue
Operation: 2,500lbs Manual Winch
Cable: 3/16" Aircraft Cable

LED Light Specs

LED Lamp Qty: (4) - (2) LED Lamps per Light Pole
Lamp Type: CREE® LED
Single-lamp Dimensions: 22.92"-L x 14.51"-W x 5.153"-D
Voltage: 120-277V AC
Total Watts: 2,000W
Single-lamp Watts: 500W
Total Lumens: 270,000 lms
Single-lamp Lumens: 67,500 lms
Luminous Efficiency: 135 lm/w
Beam Configurations: 10° Spot, 24° Wide Spot, 38° Narrow Flood, 60° Flood, or 90° Wide Flood
LED Color Temperature: Cool White - 5500-6500K
LED Life Expectancy: 80,000 hours
Optics Efficiency: 98% - PMMA High Transmittance Optics
LED Drive %: 90%
Amp Draw: 20A @ 120V, 10A @ 240V, 7.2A @ 277V
Ambient Temperature Range: -40°C to +80°C
Materials: Die Cast Aluminum Housing, PMMA (Acrylic) Optics
Mounting: Light Tower w/ U-Bracket
Wiring: -
Housing Color: Natural Aluminum

Outdoor Camera Specs

Qty: (1)

Dimensions: 14.38" H x 7.12" D

Total Watts: 25.5 (Max)

Voltage: 24V AC (PoE - 802.3at)

Image Sensor: CMOS

Connectors: 1.0Vp-p, 75 Ohm, BNC

Effective Pixels: 2.1 MP, 1920 x 1080 Resolution

Min. Illumination: 0.02 Lux @ F1.6 AGC On, 0 Lux w/ IR

Electronic Shutter: 1 ~ 1/10,000s

Lens: 4.7-94mm Varifocal Lens

Angle of View: 58.3° (Wide) ~ 3.2° (Tele)

Optical Zoom: 20x

Day/Night: ICR

IR Distance: 492' (850 nm)

Video Framerate: 1080p @ 30fps

Video Offload: MP4

Video Output: (1) BNC

Language: English

Ambient Temperature Range: -22°F to 149°F

Housing Materials: Aluminum

Lens Material: Polycarbonate

Mounting: Pole/Tower

Color: Beige/Black

Trailer/Observation Deck Specs

Trailer Type: Enclosed, Bumper Pull, Graphics

Trailer Length: 24'

Axle: Tandem

Trailer Materials: Aluminum

Observation Deck: Roof Mounted w/ Ladder

Safety Light: Energized Low Intensity Light(Red)

Observation Deck: Roof Mounted w/ Ladder

Total Weight: -

Shipping: Common Freight

Shipping Dimensions: -

Shipping Weight: -

Special Orders - Special Requirements

Contact us for special requirements

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The J17011 from Larson Electronics is a Mobile Observation Trailer for use in outdoor locations and aerospace projects. The entire system is mounted on a 22' tandem axle trailer for ease of transportation around work sites.

The J17011 is a complete mobile observation trailer for aerospace applications. This system is equipped with two transformers, two power distribution panels, eight receptacles, five 50' umbilical cables with heavy-duty protection, 3T air conditioner, three telescoping light towers, four high-intensity LED lights, one outdoor HD observation camera, TVSS surge protection, power meter with Modbus RTU capabilities, electrical rack and one low-intensity red LED safety light. All components are secured on a 22' tandem axle trailer with a roof-mounted observation deck and accessible ladder.

Transformers: The assembly contains two transformers. The first unit is a 225kVA dry-type transformer, with three-phase 12,470V primary and three-phase 480Y/277V secondary. Input power is brought into the system via five, 50' #1/0 umbilical cables with 200-amp dead break connectors. Output on the secondary side is facilitated by cam-locks.

The second transformer is a 75kVA step-down unit, with three-phase 480V primary and three-phase 208Y/120V secondary. Operators may access one three-phase 480V

distribution panel and one three-phase 225-amp 208V panelboard with 42 circuits. The following receptacles are available for powering electrical equipment: (2) 60-amp pin/sleeve, (2) 30-amp pin/sleeve and (4) 20-amp quad GFCI receptacles.

Accessories: TVSS surge protection is provided with the system. This 4-wire component is rated at 200 KA and operates with three-phase 480Y/277V AC. Operators can monitor power usage in real-time via a provided power meter. The meter offers 0.5% monitoring accuracy and Modbus RTU capabilities. For protection against rugged elements, the power meter is protected by a NEMA 4X rated enclosure with a lockable door. All electrical equipment is secured on a distribution rack inside the trailer.

Air Conditioning Unit: Cooling is provided by a 3T indoor/outdoor air conditioner. Tied to the 208V panel, this unit features 18,000-36,000 Btu/h cooling and 18,000-40,000 Btu/h heating (at 47°F) capacities. Equipped with a drain lift mechanism, the air conditioner is finished in galvanized steel (indoor) and Munsell No. 3Y 7.8/1.1 (Outdoor). This unit is mounted at the front of the trailer.

Light Towers: The J17011 contains three light towers, which are used to elevate four LED lamps and one HD outdoor camera above the observation trailer. This light boom can be extended to 30' for maximum area coverage and collapsed to 8.75' for applications where a smaller footprint is required. The tower is constructed of square steel tubing with a base section 8.75' in length and 6" by 6" by 3/16" thick, lower section 6.78' in length and 5" by 5" by 3/16" thick, middle section 6.93' in length and 4" by 4" by 1/8" thick, upper section 7.08' in length and 3" by 3" by 1/8" thick, and top section 7.58' in length and 2" by 2" by 1/8" thick. Each section has a 1' + overlap. The mast is extended to its full height using an included 2,500 lbs hand winch with 3/16" galvanized steel cable.

The LM series of telescoping towers are powder coated with glossy blue finish for corrosion resistances and aesthetics. The masts are mounted to the trailer via a wall mounting bracket found near the bottom of the towers. The LM family of telescoping towers feature a proprietary mast guidance system, which provides increased stability during high winds. When lowered to 8.75', the mast can withstand winds up to 125 mph.

LED Lights: This assembly is equipped with four Larson Electronics GAU-LTL-500W-LED-600V high intensity LED lamps. Two LED lights are mounted per light tower, which are located outside of the mobile observation trailer. Each unit produces 67,500 lumens of high intensity light while drawing only 500 watts at 0.8 amps from a 600 volt electrical system. Forty-Eight Cree® high output LEDs producing 1,406 lumens each are arranged in rows and paired with PMMA high purity optics to produce a well focused 24° wide spot beam that is ideal for providing far reaching concentrated illumination while still covering a substantial amount of area.

We also offer optional optics with 10° spot, 38° narrow flood, 60° flood, and 90° wide flood beam spreads. The spot beams are tightly focused and are designed for high elevation mounting to achieve distance, making spot versions ideal for high mast and spots lighting. The flood beams are designed to provide more light over a larger area nearer the fixture, making flood versions ideal for use as dedicated work and area lights.

The GAU-LTL-500W-LED-600V series of LED lights from Larson Electronics also offer IP67 rated construction that is designed to withstand extremes of environmental and operating conditions. These units can withstand rapid temperature changes of -40° Celsius to +80° Celsius, are waterproof, and resist ingress of dust, dirt and humidity. The housings are formed from die cast aluminum and the optics are high transmission PMMA with 98% light transmittance. The Cree® LEDs help these units achieve resistance to vibrations and are rated at 70% lumen maintenance after 80,000 hours of use. We recommend these LED lights for use in applications where a lot of vibration, dust, dirt, dampness and abusive working conditions are encountered.

HD Camera: Designed for outdoor observation, this unit features one full-HD security camera mounted on a powder-coated mast. The device provides operators with crisp 1080p full-HD high resolution images. A 4.7-94mm varifocal lens automatically adjusts focus, providing operators with precise 20x optical zoom levels. Integrated long-range IR LEDs, with a wavelength measurement of 850 nm, enable the day/night camera to see distances up to 492' under nighttime conditions. This unit offloads videos in MP4 format and features H.264 and MJPEG video compression. The PTZ camera measures a

compact 14.38" x 7.12" and supports a variety of mounting options.

The IP security camera is designed to perform in outdoor locations and rainy conditions. This IP66-rated unit resists the negative effects of non-corrosive liquids. De-fogging features enable the unit to operate in rainy and foggy conditions. This device is capable of operating in temperatures between -22°F and 149°F.

Trailer: All system components are secured on a 22' tandem axle trailer for mobility and seamless deployment around the work site. The enclosed, bumper-pull trailer is equipped with a roof-mounted observation deck, which is accessible by an attached ladder on the side of the trailer. For increased safety, the aluminum trailer contains one red low-intensity LED safety light at the side of the assembly.

Applications: Aerospace, power distribution, mobile observation, launch pads and more.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.

Frequently Asked Questions (FAQ)



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