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MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15

1-Phase Buck/Boost Step-Up Prewired Transformer - 208V Primary - 230V Secondary - 20 Amps - 50/60Hz

Product ID: 301113

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



Image: MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15

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.

MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 Buck and Boost Step-Up Prewired Transformer

Transformer Type: Buck/Boost Step-Up Autotransformer
Transformer Configuration: Boost (increase)
Phase: Single Phase
Frequency: 50/60 Hz
Input Voltage: 208 V AC
Primary Amps: 20 A @ 208 V
Primary Configuration: Two winding
kVA: 4.77
Output Voltage: 230 V AC
Secondary Amps: 18.6 A @ 230 V
Voltage Difference: 22 V
Voltage % Difference: 90%
Secondary Configuration: Two winding
Winding Material: Aluminum
Wiring: Prewired with 6' 12/3 SOOW Whips on Primary Side and 2' 12/3 SOOW Whips on Secondary Side w/ Cord Caps
Cord Caps: 15A NEMA 6-15P Straight Blade Plug on Primary Side; 15A NEMA 6-15C Straight Blade Receptacle

Ratings

NRTL Listed for United States and Canada
Prewired Transformer
NEMA 3R Indoor/Outdoor Enclosure
Meets or Exceeds NEMA ST-20 Standards
Buck and Boost Step-Up Transformer

Knockouts: Side and rear
Wiring Termination: Front access (8) Lead Wires
Cooling: Air / Dry Type
Insulation: 130°C
Temperature Rise: 80°C
Sound Level: 36 dB
Enclosure Rating: NEMA 3R
Encapsulation: Silica sand, resin compounds
Enclosure Material: Steel
Finish: ANSI 61 Grey
Mounting: Wall mount via mounting tabs
Dimensions: 9.30"H x 5.06"W x 4.56"D
Weight: 15 lb
Wiring: Use Wiring Diagram D, includes wire nuts

Special Orders - Special Requirements
Contact us for special requirements
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The MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 single phase step-up Buck and Boost Prewired Transformer from Larson Electronics is powerful, reliable, and designed with the environment in mind. This transformer is designed to increase 208 volts to 230 volts, and is needed when the line-voltage is lower than the required voltage for equipment. Suitable for both indoor and outdoor applications, the MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 provides increased reliability, higher efficiency, protection against critical equipment failures and an extra level of protection by isolating the power source from the connected device. The lower operating costs, lower heat emissions and lower cost of ownership make this transformer ideal for a wide range of applications and businesses. The MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 is a prewired transformer for customer installation and is equipped with 6' 12/3 SOOW cable on Primary side and 2' of 12/3 SOOW cable on Secondary side connected to the transformer with a 15 amp NEMA 6-15P straight blade plug and the secondary side whip is equipped with a 15 amp NEMA 6-15C straight blade receptacle.

Transformer Features: The MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 buck and boost transformer is a single phase unit with a 23.08A kVA rating and a primary voltage of 208 VAC using a maximum of 20 amps on the primary side. This step-up transformer has a secondary voltage of 230 V and provides up to 20.88 amps available on the secondary side. Featuring robust construction, this unit's cores are manufactured with non-aging, cold-rolled silicon steel laminations using state of the art technology.

The MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 is designed to increase voltage from an input voltage of 208 volts to an output voltage of 230 volts. The increase of voltage is necessary when the on-site line-voltage is consistently lower than the voltage required by the equipment being operated or installed, preserving the lifespan of the equipment and guarantees correct operation without risking damage due to incorrect voltage. This step-up transformer will allow equipment that draws up to 20.8A amps at 230 to be powered from 208 volt power sources. Situations for this type of transformer may include lower voltage from your electrical provider or within the existing establishment, or operating equipment that requires a lower voltage than is provided at the existing establishment.

This prewired unit boasts a low cost of ownership and is highly energy efficient. Lower heat emissions mean less cooling is needed as well. The NEMA 3R painted steel enclosure makes the unit suitable for both indoor and outdoor applications. This step-up transformer can be

either floor or wall mounted. The MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 features a 130°C insulation with a 80°C temperature rise.

Construction: The aluminum winding in the MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 are formed from high quality aluminum wire helps to improve performance. The close tolerances used during manufacturing also eliminate burrs which hinder performance. Each core is specially coated to prevent the ingress of moisture and are electrically balanced to minimize axial forces during short circuit situations. Buck and boost transformers are designed to maximize the performance and life of electrical equipment. The MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 is encapsulated in silica sand and resin, and cased in a NEMA 3R steel enclosure. NEMA 4, NEMA 4X, and NEMA 12 enclosures are available upon request.



Click Image to Enlarge

Benefits: The MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 buck/boost step-up transformer offers many benefits to the consumer. Buck/boost transformers pass the majority of the load voltage directly through the transformer, only transforming a small percentage of the load. Due to this technology, a smaller and quieter step-up transformer is manufactured and uses less material. This provides owners with significant energy savings as well as offering environmental benefits.

Higher efficiency extends the life of the transformer and turn into cost savings for owners in the form of lower energy bills and a decrease cost of ownership when compared to large autotransformers. Installation and maintenance costs are reduced due to the smaller form factor, and less overall space requirements are decreased. In addition, these step-up transformers operate quieter than a standard autotransformer of the same capacity.

Mounting: Integrated wall mounting brackets make installation fast and easy. Because of the smaller overall footprint, heavy machinery is rarely needed for mounting and installation.

Wiring/Installation: The MPD-MT-BBT-208V-230V-20.8A-6.2FT-6.15 is equipped with 6' 12/3 SOOW whips on primary and 2' 12/3 SOOW whips on secondary sides. The primary side whip is equipped with a 15 amp NEMA 6-15P straight blade plug and the secondary side whip is equipped with a 15 amp NEMA 6-15C straight blade receptacle. This transformer makes installation simple. Operators connect them to the corresponding current. For example, the 208 V whip gets connected to 208 V current.

Applications: Air conditioners, lighting systems, heating elements, motor applications and other applications that require the ability to power loads that differ from the available line voltage.

Limitations: While there are many benefits to a buck/boost transformer, there are some

limitations to consider. This transformer will only transformer voltage, it will not convert phases, it will not create even legs between line 1 and line 2 (L1 and L2 WILL be UNEVEN), has no circuit isolation, and does not create a neutral for applications where a neutral is not already present. If any of these limitations apply to you, you will need a standard transformer. Please see below link for our standard line of industrial transformers or our line of phase converters.

Note on Phases: This buck/boost transformer is a single phase step-up transformers. For three phase transformers, click on the following links:
Three Phase Delta Buck/Boost Transformers
Three Phase Wye Buck/Boost Transformers

Larson Electronics is a manufacturer and as such can build stationary and portable transformer systems to your specifications. Although we carry several models of power distribution transformer systems, we can deliver custom ordered units almost as quickly as our prebuilt units. If this model does not meet your needs, please contact us at 1-800-369-6671 or sales@larsonelectronics.com to discuss your specific requirements.

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Frequently Asked Questions (FAQ)

There are no Faqs

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Export Control Classification Number (ECCN): EAR99

Links (Click on the below items to view):

- **Operations Manual**(https://www.larsonelectronics.com/images/product/Manual/301113.PDF)
- **Wiring Diagram**(https://www.larsonelectronics.com/images/product/WiringDiagram/301113.PDF)
- **HigResPic1**(https://www.larsonelectronics.com/images/product/HigResPic1/301113.JPG)
- **HigResPic2**(https://www.larsonelectronics.com/images/product/HigResPic2/301113.JPG)
- **HigResPic3**(https://www.larsonelectronics.com/images/product/HigResPic3/301113.JPG)
- **HigResPic4**(https://www.larsonelectronics.com/images/product/HigResPic4/301113.JPG)
- **HigResPic5**(https://www.larsonelectronics.com/images/product/HigResPic5/301113.JPG)
- **HigResPic6**(https://www.larsonelectronics.com/images/product/HigResPic6/301113.JPG)
- **HigResPic7**(https://www.larsonelectronics.com/images/product/HigResPic7/301113.JPG)
- **HigResPic8**(https://www.larsonelectronics.com/images/product/HigResPic8/301113.JPG)
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- **Business Certificate**(https://www.larsonelectronics.com/images/pdfdocs/w9.PDF)
- **Shipping Time Map**(https://www.larsonelectronics.com/images/product/ShippingTimeMap/ShippingTimeMap.pdf)