# 480VAC to 10 X 120VAC & 2 X 240VAC Outlets with GFCI 480V Feed Thru, 25 KVA Power Substation Instruction Manual

The Larson Electronics MGS-DC-25KVA-480-220-110 power distribution substation converts 480VAC electrical current into single phase 120/240VAC. This unit provides operators the ability to safely tap into and distribute 480VAC power from a variety of sources including generators and direct grid power.

## Safety Warnings

For personal safety, always follow the safety instructions in this manual to ensure safe and long- term use. Failing to do so can result in damage to the product or serious bodily injury.

WARNING

**DO NOT** place in a location where the power substation has the potential to roll or tip over.
**DO NOT** perform maintenance while energized.
**DO NOT** stand under power station while elevated for transport.
**DO NOT** use this product for other than its intended use.
**DO NOT** open or modify power substation.
**Always ensure a clear area while maneuvering power substation.**

Line-In Cord: 20' 4/4 SOOW Cord
Line-In Cord Cap: Customer Provided
Primary Voltage: 480V 3-Phase 60Hz
Primary Disconnect: 480V 30A Fused @ 30A N3R, 480V 60A Fused @ 60A N3R
Primary Receptacles: (1) - ADR3034
Primary Protection: Disconnect Switch, Weatherproof Covers
Transformer: 25KVA 480V to 120/240V 1-Phase N3R
Secondary Voltage: 120/240V 1-Phase
Secondary Panel: 120/240V 125A MLO N3R
Secondary Breakers: (2) 30A [240V], (10) 20A [120V]
Secondary Receptacles: (2) L6-30R [240V], (10) 20A 5-20R [120V]
Secondary Protection: GFCI (5-20R), Weatherproof Covers
Max OCP Primary: 30A @ 480V
Max OCP Primary: 60A @ 480V
UL 1640 Portable Power-Distribution Equipment
NEMA 3R Indoor or Outdoor Use

## OPERATION:

Place the power substation on a level surface near a power source. The power substation provides multiple options for maneuvering:

- **Skid Pockets** (Lift with a forklift or similar lift vehicle)
- **Top Pick Eye** (Lift with cable or chain hooks via crane or similar) Use equipment capable of lifting 2000lbs. minimum.
- **Locking Casters** (Roll around on ground surface) Casters lock with foot plate. Keep casters locked to prevent unintentional movement.


SKID POCKETS


PICK EYE


LOCKING CASTER

Ensure all power is disconnected prior to wiring substation and there is no load on the system. Turn off all disconnect switches and primary panel main circuit breaker before energizing substation.

Feed power substation with 480V 3-Phase 60Hz as the primary voltage. Power substation is fed via 20' 4/4 SOOW cord whip. Use appropriate measures and follow all applicable local, state, NEC codes when wiring.

Once power is supplied, energize substation. Pull the lever and switch primary disconnect ON. **Note:** *Each disconnect box will lock itself with the lever turned ON and won't unlock until switched OFF.*

Connect equipment to available receptacles. 480V single phase is fed through to the second primary disconnect powering the ADR3034 receptacle.


480V FEED-THRU DISCONNECT

PRIMARY DISCONNECT


SECONDARY PANEL

The secondary panel contains all breakers for 120V and 240V receptacles. Two 30-amp 240V breakers protect two 30-amp L6-30R twist-lock receptacles and ten 20-amp 120V breakers protect ten 120V 20-amp 5-20R duplex receptacles. All receptacles are equipped with weatherproof covers.

In the event of an overload or power failure, check all breakers. For disconnects, turn off and de-energize prior to servicing. Note fuse type and replace with matching fuse if necessary. (2) 60-amp time delay fuses are installed in the main primary 60A disconnect and (3) 30-amp time delay fuses are installed in second 30A disconnect.


30A 240V AC L6-30R


20A 120V AC 5-20R GFCI


30A 480V AC ADR3034

THESE INSTRUCTIONS MAY NOT COVER ALL DETAILS OR VARIATIONS OF THIS PRODUCT FOR YOUR EQUIPMENT OR INSTALLATION REQUIREMENTS. SHOULD FURTHER INFORMATION NOT COVERED BY THESE INSTRUCTIONS BE REQUIRED, PLEASE CONTACT LARSON ELECTRONICS BY EMAIL AT SALES@LARSONELECTRONICS.COM OR BY PHONE AT 1-800-369-6671 FOR FURTHER ASSISTANCE.

PLEASE VISIT LARSONELECTRONICS.COM FOR **WARRANTY** AND **RETURN** INFORMATION.