



# CERUS™

We Respond. 



## SAS Enclosed Starter with thermal overload (optional MCP).

### Operation Manual

**Thank you for purchasing Cerus Industrial's Standard Automation HVAC Starter! Please read this manual thoroughly to ensure a safe installation and proper operation.**



**UL listed & built to the highest standards!**



**For all your motor control products and replacement parts please call**



# CERUS™

We Respond. 

22995 NW Evergreen Pkwy, Hillsboro OR 97124, USA

## 800-962-3787

### SAFETY INSTRUCTIONS

To prevent injury and property damage, follow these instructions. Failure to adhere to installation/operation procedures and all applicable codes may result in hazards as indicated by warning codes below:

**⚠ DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.

**⚠ WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Follow these safety indications:

**⚠** This is the safety alert symbol. Read and follow instructions carefully to avoid a dangerous situation.

**⚡** This symbol alerts the user to the presence of "dangerous voltage" inside the product that might cause harm or electrical shock.

**⚠ CAUTION** As with all electrical products, read manual thoroughly. Only qualified, expert personnel should perform maintenance and installation. Contact the nearest authorized service facility for examination, repair, or adjustment. Do not disassemble or repair unit unless described in this manual; death or injury to electrical shock or fire hazard may result. Specifications and manual data subject to change. Consult factory for additional information.



# NON COMBINATION STARTER

**Universal Control Power Transformer**  
Primary voltage taps for 480/240/208/120V with 24V secondary tap (120V option available).

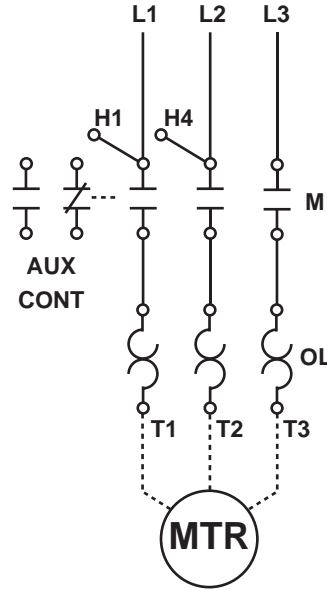
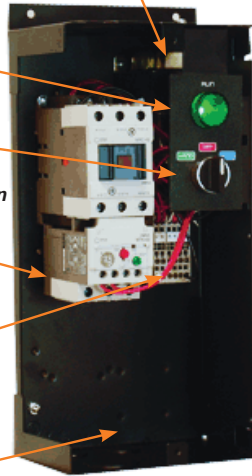
**Run Pilot Light**  
Bright LED annunciation for all status indication.

**HOA Operation**  
3-position rotary switch for HAND/OFF/AUTOMATIC.

**Bimetallic Thermal Overload Protection**  
Adjustable current setting with differential current phase failure protection. Ambient compensated between -5° and 40° C.

**Control Integration Ready**  
Available run terminal contacts for AUTO mode operation.

**Space & Time Saving Enclosure**  
NEMA 1 construction mounts & wires easily. Narrow design conserves valuable wall space.



**NON COMB. 3-PHASE**

# OPERATION ⚠ DANGER

- Ensure that all connections are properly torqued and enclosure is closed prior to applying power to the device.
- Ensure all mechanical equipment operated by the starter is clear for safe operation in case of starter activation.
- When in AUTO mode, starter may be activated remotely by the automation system.

**⚠ CAUTION** Always inspect and determine the cause of an overload trip. Failure to correct the problem may result in permanent damage to the motor or motor starter.

# INSTALLATION

**⚠ DANGER**  
**HAZARDOUS VOLTAGE**

- Disconnect and lock out all power before installing or servicing equipment.
- This equipment may require locking out multiple power sources prior to service
- Install and wire in accordance with all applicable local & national electrical and construction codes

**FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN DEATH OR SERIOUS INJURY**

## Mounting

Mount the starter on a vertical surface, with the line terminals facing up.

Install using bolts, 1/4" diameter, suitable for the mounting surface.

**⚠ WARNING**

- Do not locate starter in an environment subject to flammable gases, dusts, or materials. Contact arcing can induce explosion or fire.
- Locate starter in a location appropriate to enclosure ratings and operational ratings (e.g. NEMA 1 should only be located in a dry, protected environment).
- Do not allow any metal shavings or debris from installation to enter enclosure.

## Wiring

Use only copper wiring for power wiring. Rated at 60°C < 100A and 75°C ≥ 100A. Ensure appropriate clearances are maintained and there is not possibility for shorting between any power conductors and enclosure. Ensure that wires are not under stress and all insulation is intact. Terminals must be tightened to appropriate torques when installing, assembling, or adjusting the device, and indicated in **TABLE 2**. Low voltage automation system control wiring should be run in a separate conduit. Verify voltage input matches label and CPT Taps as in **TABLE 1**.

# COMBINATION STARTER

**Universal Control Power Transformer**  
Primary voltage taps for 480/240/208/120V with 24V secondary tap (120V option available).

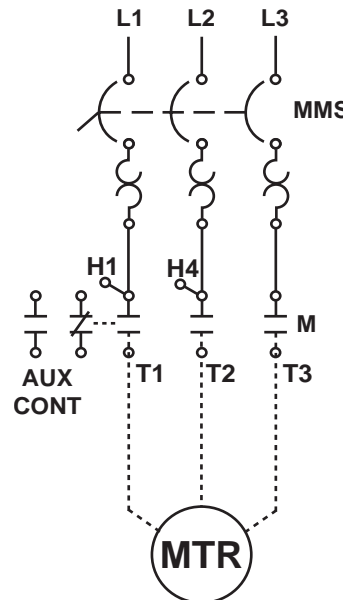
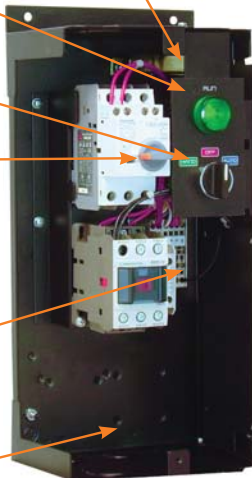
**Run Pilot Light**  
Bright LED annunciation for all status indication.

**HOA Operation**  
3-position rotary switch for HAND/OFF/AUTOMATIC.

**Motor Circuit Protection**  
UL Type F motor circuit protector disconnect with up to 100 KAIC and Pad lockable operator handle. Incorporates adjustable thermal overload with differential current phase failure protection. Ambient compensated between -5° and 40°C.

**Control Integration Ready**  
Available run terminal contacts for AUTO mode operation.

**Space & Time Saving Enclosure**  
NEMA 1 construction mounts & wires easily. Narrow design conserves valuable wall space.



**COMBO 3-PHASE**

	H1	H4	Voltage
Terminal Positions	1	2	120
	1	3	208
	1	4	240
	1	5	480

AC3 Rating	NEMA Size	L1, L2, L3	T1, T2, T3
9	00	7-22	Up to 20
25	0	7-22	Up to 20
40	1	26-39	Up to 35
50	2	26-39	Up to 35
85	3	35-53	Up to 45