ENCLOSED CONTACTOR OPERATION + INSTALLATION

OVERVIEW

The American Rotary Enclosed Contactor is an accessory that can be added to a rotary phase converter (RPC) to add automatic control of the output on the RPC. The phase monitor relay continuously monitors the output of the phase converter and only allows operation of the three-phase equipment when there is proper three phase power present. In the event of a phase converter shutdown or malfunction, the phase monitor will shut down the three-phase equipment before damage can result.

FEATURES

- Monitors operation of converter and protects equipment from phase loss
- No extra control circuit wiring is required
- Prevents starting of the load before the phase converter is running
- Will shut down load if phase converter shuts down or malfunctions
- Will shut down load if phase converter is accidentally turned off

DANGER: HIGH VOLTAGE Electric shock could result in death or injury. Please consult qualified personnel for installation. This manual is to serve the purpose of providing recommendations for proper performance but is not to supersede or replace local or national electric codes. Installation should be done by a licensed electrician who is familiar with phase converter installations.

INSTALLATION

NOTE: Disconnect single phase power before installing. All phase converter controls are 240v.

Mount the contactor panel allowing enough space to install wires from the RPC and out to the load. Connect the output of the phase converter to terminals 1L1, 3L2, and 5L3 on the contactor. Make sure any existing control wires in these terminals remain. Install the auxiliary contact in the phase converter as shown on page 2. Connect terminals 53NO and 54NO on the aux. contact to terminals 95NC and 1 in the enclosed contactor. Connect the load to terminals 2T1, 4T2, and 6T3 of the contactor.

SETTING THE OVERLOAD

Turn the dial on the overload relay to match the FLA rating on the nameplate of the motor that will be controlled by the contactor panel.

Reconnect the power supply.

OPERATION

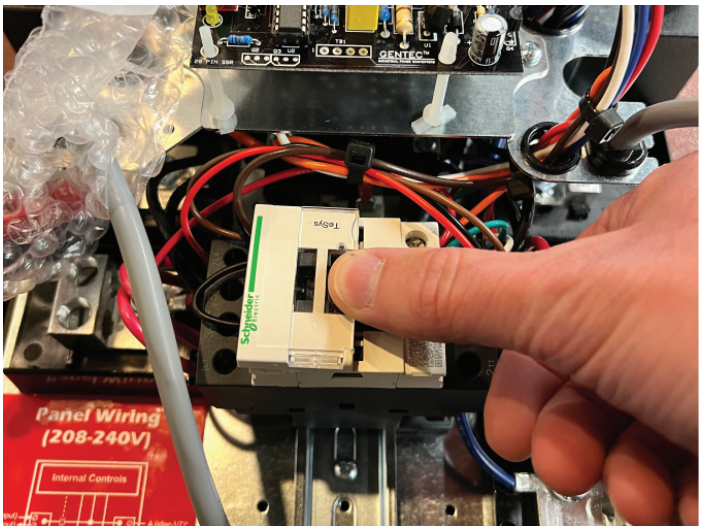
The operation of the contactor is completely automatic. Once the phase converter is started the phase monitor will check for proper voltage and balance before closing the contactor. A steady green light will be visible inside the contactor enclosure if it is operating correctly. A red light will illuminate or flash if there is a fault or if 3 phase power is not present from the phase converter.

ENCLOSED CONTACTOR

NOTE: Disconnect single phase power before installing or servicing.

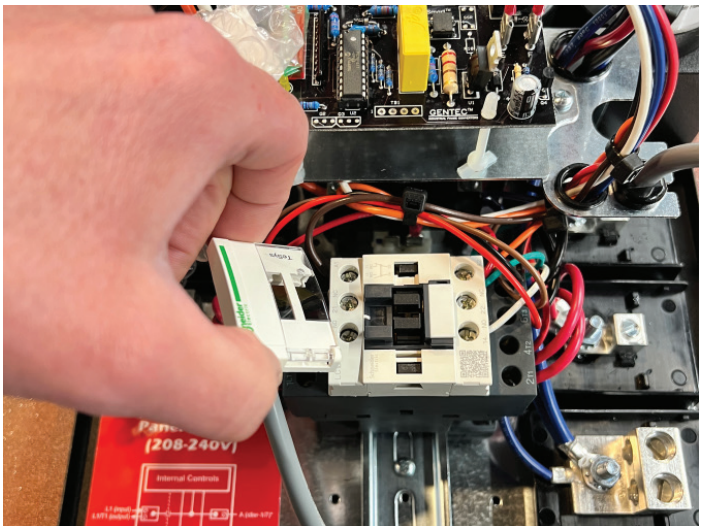
An auxiliary contact is provided for each phase converter that will be connected. They are to be installed onto the contactor in the phase converter. The phase converter has one or two contactors depending on the size. Either contactor can be used.

STEP 1



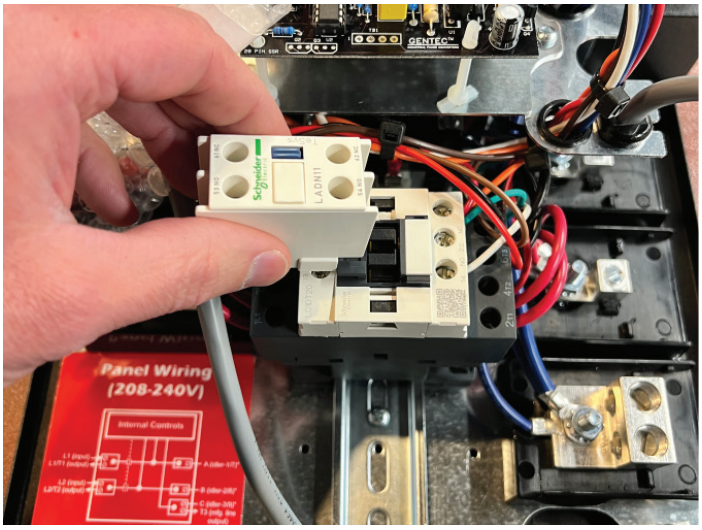
Locate the main contactor in each phase converter panel. Push the plastic contact cover to the left.

STEP 2



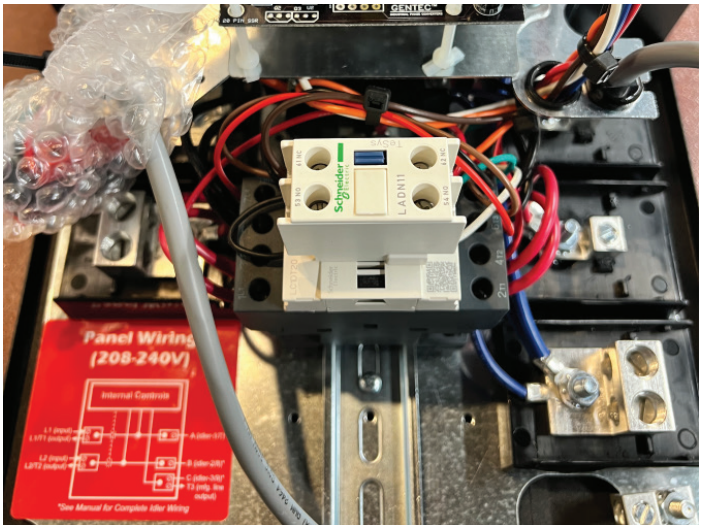
Remove the contact cover.

STEP 3



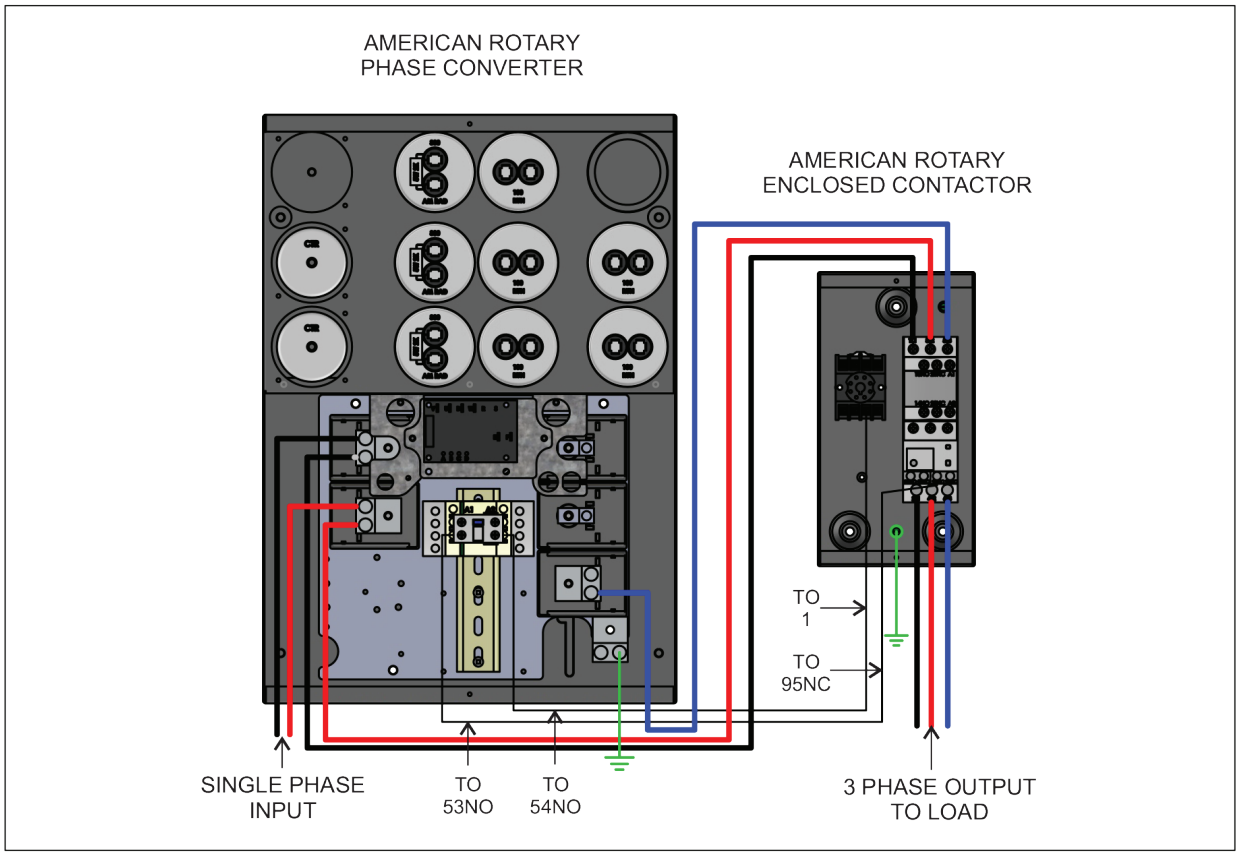
Install the auxiliary contact by sliding it to the right and listening for a click.

STEP 4



Confirm the contact is locked in place before continuing to wiring section.

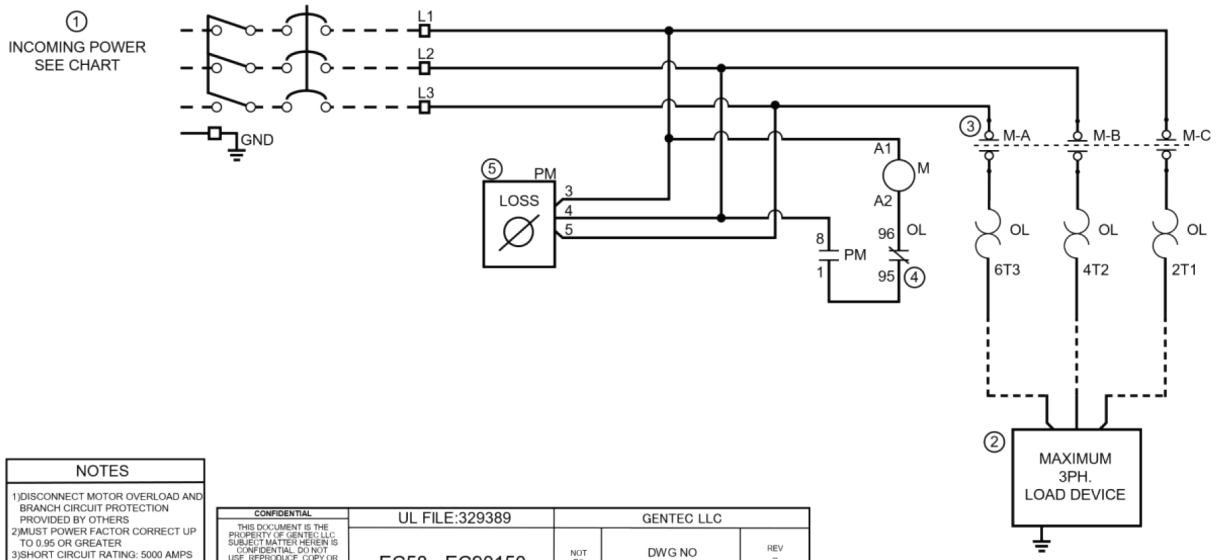
WIRING EXAMPLE



American Rotary

1			2	3	4	5
INCOMING		PANEL PART	MAX LOAD	CONTACTOR	OVERLOAD	PHASE MONITOR
VAC	FLA	NUMBER	(AMPS)		RELAY	RELAY
240	8	EC-58	8	LC1D12U7	LR3D12	DS MAC 101
240	10	EC-710	10	LC1D12U7	LR3D14	DS MAC 101
240	18	EC-1218	18	LC1D18U7	LR3D21	DS MAC 101
240	24	EC-1624	24	LC1D25U7	LR3D22	DS MAC 101
240	32	EC-2332	32	LC1D32U7	LR3D32	DS MAC 101

1			2	3	4	5
INCOMING		PANEL PART	MAX LOAD	CONTACTOR	OVERLOAD	PHASE MONITOR
VAC	FLA	NUMBER	(AMPS)		RELAY	RELAY
240	50	EC-3750	50	LC1D50AU7	LR3D350	DS MAC 101
240	65	EC-4865	65	LC1D65AU7	LR3D365	DS MAC 101
240	80	EC-6380	80	LC1D80U7	LR3D3363	DS MAC 101
240	104	EC-80104	104	LC1D115U7	LRD4365	DS MAC 101
240	115	EC-95115	115	LC1D115U7	LRD4367	DS MAC 101
240	150	EC-90150	150	LC1F150U7	LR9F69	DS MAC 101



NOTES
1)DISCONNECT MOTOR OVERLOAD AND BRANCH CIRCUIT PROTECTION PROVIDED BY OTHERS
2)MUST POWER FACTOR CORRECT UP TO 0.95 OR GREATER
3)SHORT CIRCUIT RATING: 5000 AMPS RMS SYMMETRICAL 240VAC
4)COPPER WIRE REQUIRED AT 75°C

UL FILE:329389	GENTEC LLC		
EC58 - EC90150	NOT TO SCALE	DWG NO Enclosed Contactor EC58-EC90150	REV – SHEET 1 OF 1