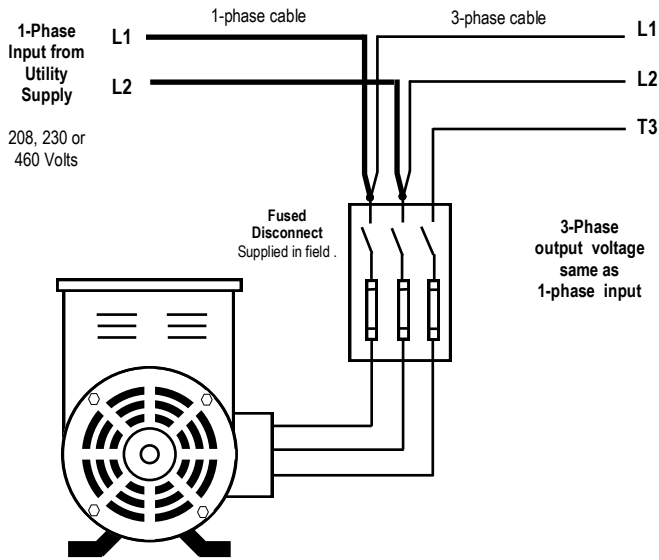


TYPE MA General Purpose Phasemaster Converter with Field Mounted Controls

Connection Configuration #1

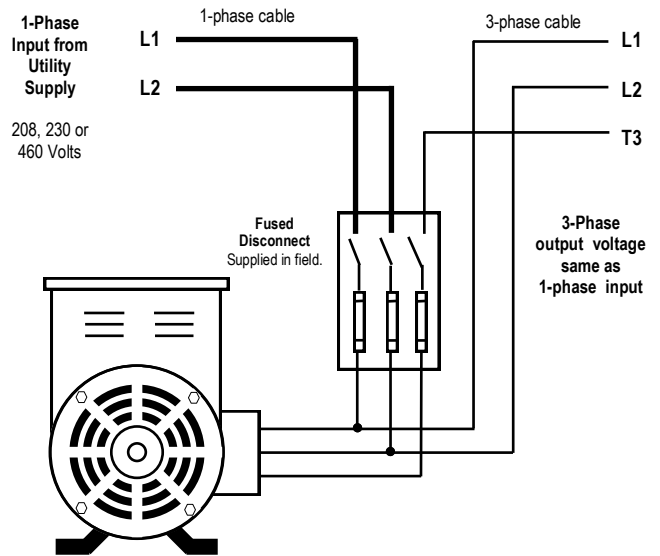


This connection arrangement allows the L1 & L2 line to remain energized regardless of whether the converter is operating. It is used where any downstream load equipment requires continuous single-phase service. The converter must be started and running to operate any 3-phase load.

Advantages: Allows continuous 1-phase service to loads that require continuous control power even when 3-phase is not required. Converter is fused separately from load thus offering better overload protection

Disadvantages: The load equipment could try to start on 1-phase if the converter is not started prior to energizing the 3-phase portion of the load.

Connection Configuration #2



The disconnect switch controls the L1-L2 input supply line to the converter and isolates those lines from the load. All three output lines are de-energized as long as the switch remains off. This control arrangement requires the disconnect switch be sized large enough to withstand the entire 1-phase input current to the load.

Advantages: Safety. All lines de-energized when switch is open. No possibility of single-phasing load

Disadvantages: Converter must be running to power any 1-phase power or control loads. Requires larger disconnect switch and fuses than **Config #1**. The converter and load are group-fused and not separately

DISCONNECT SWITCH AND WIRE SIZE SELECTION CHART *

		Configuration 1							
Model No.	Start HP	230 Volts				460 Volts			
		Switch	Fuse	1-Ph Cable	3-Ph Cable	Switch	Fuse	1-Ph Cable	3-Ph Cable
SD-60	1.5	30	10	#12	#12	30	10	#12	#12
MA-00	2	30	15	10	12	30	10	12	12
MA-0	3	30	20	8	10	30	10	10	12
MA-1	5	30	30	8	10	30	15	10	12
MA-1B	7.5	60	35	6	8	30	15	8	12
MA-2	10	60	40	4	8	30	20	8	10
MA-3	15	60	60	1	6	30	30	6	10
MA-4	20	100	80	1/0	4	60	40	4	8
MA-5	25	100	100	3/0	4	60	50	2	6
MA-6	30	200	125	4/0	2	60	60	1/0	6
MA-7	40	200	150	2-1/0	1/0	100	80	2/0	4
MA-8	50	200	175	2-2/0	2/0	100	80	2/0	4
MA-9	60	200	200	2-2/0	3/0	100	100	3/0	2

DISCONNECT SWITCH AND WIRE SIZE SELECTION CHART *

		Configuration 2							
Model No.	Start HP	230 Volts				460 Volts			
		Switch	Fuse	1-Ph Cable	3-Ph Cable	Switch	Fuse	1-Ph Cable	3-Ph Cable
SD-60	1.5	30	20	#12	#12	30	10	#12	#12
MA-00	2	30	20	10	12	30	15	12	12
MA-0	3	60	30	8	10	30	20	10	12
MA-1	5	60	60	8	10	30	30	10	12
MA-1B	7.5	100	80	6	8	60	35	8	12
MA-2	10	100	80	4	8	60	40	8	10
MA-3	15	200	100	1	6	100	80	6	10
MA-4	20	200	150	1/0	4	100	80	4	8
MA-5	25	200	200	3/0	4	100	100	2	6
MA-6	30	400	250	4/0	2	200	125	1/0	6
MA-7	40	400	300	2-1/0	1/0	200	150	2/0	4
MA-8	50	400	350	2-2/0	2/0	200	175	2/0	4
MA-9	60	400	400	2-2/0	3/0	200	200	3/0	2

This table is based on utilizing the converter at approximately 150% of start rating, it is conservative and applies in 95% of all installations. For total loads exceeding 150% of start rating, contact Kay Industries.

INSTALLATION AND WIRING NOTES

- This diagram does not replace or supersede any requirements of local, state or national electric codes.
- Conductor sizes are based on type THHN, 90° C, copper conductors in 30° C max. ambient.
- Use only dual element time delay fuses to protect the phase converter.
- Do not bolt converter to floor. Use vibration pads supplied with unit.
- Do not connect control circuits to manufactured phase, T3.
- Increase wire size for Aluminum conductors or runs in excess of 50 feet.
- No-load output voltage L2-T3 will exceed L1-L2 by 12-15%. Voltages will balance when load is connected.

0302-MA