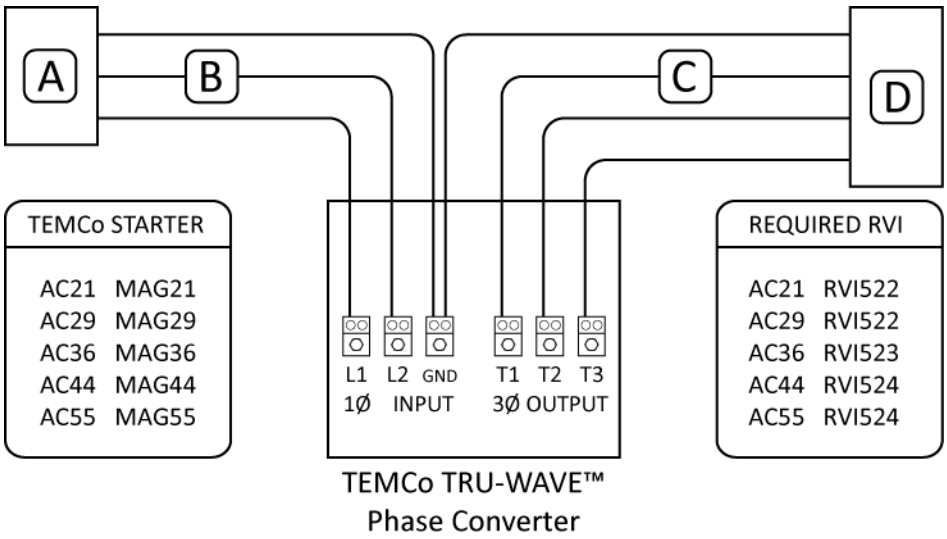
AC SERIES TRU-WAVE™

Rotary Phase Converter Wiring

Single Unit Operation Electrical Connection Diagram:



A Single Phase TEMCo MAG Starter or Fused Disconnect: Refer to technical specifications for sizing. For optimal protection, device setting(s) should be based on minimum requirements of three phase load converted to single phase (3 –phase load amps x 1.732) but not lower than recommendation in technical specifications.

B Single phase supply conductors should be based on circuit protection rating as required by NEC.

C Three phase output conductors should be based on circuit protection rating as required by NEC and the requirement of the three phase load equipment.

D Three phase TEMCo MAG Starter, Fused Disconnect or Circuit Breaker. Refer to three phase load equipment specifications for sizing details.

For Multiple Unit Operation:

E Single Phase Input Buss: Each unit should be brought on-line separately to reduce system start up current and it's affect on the single phase line. Verify that all units wiring corresponds with one another. L1 connected to L1 etc.

F Three Phase Output Buss: Verify that all units wiring corresponds with one another. T2 connected to T2 etc.

Corporate Headquarters: *TEMCo* – Tower Electric Motor Company 41474 Christy St. Fremont CA 94538 USA
Inside USA (800) 613-2290 International (510) 490-2187 Fax (510) 490-1507 www.temcophaseconverter.com

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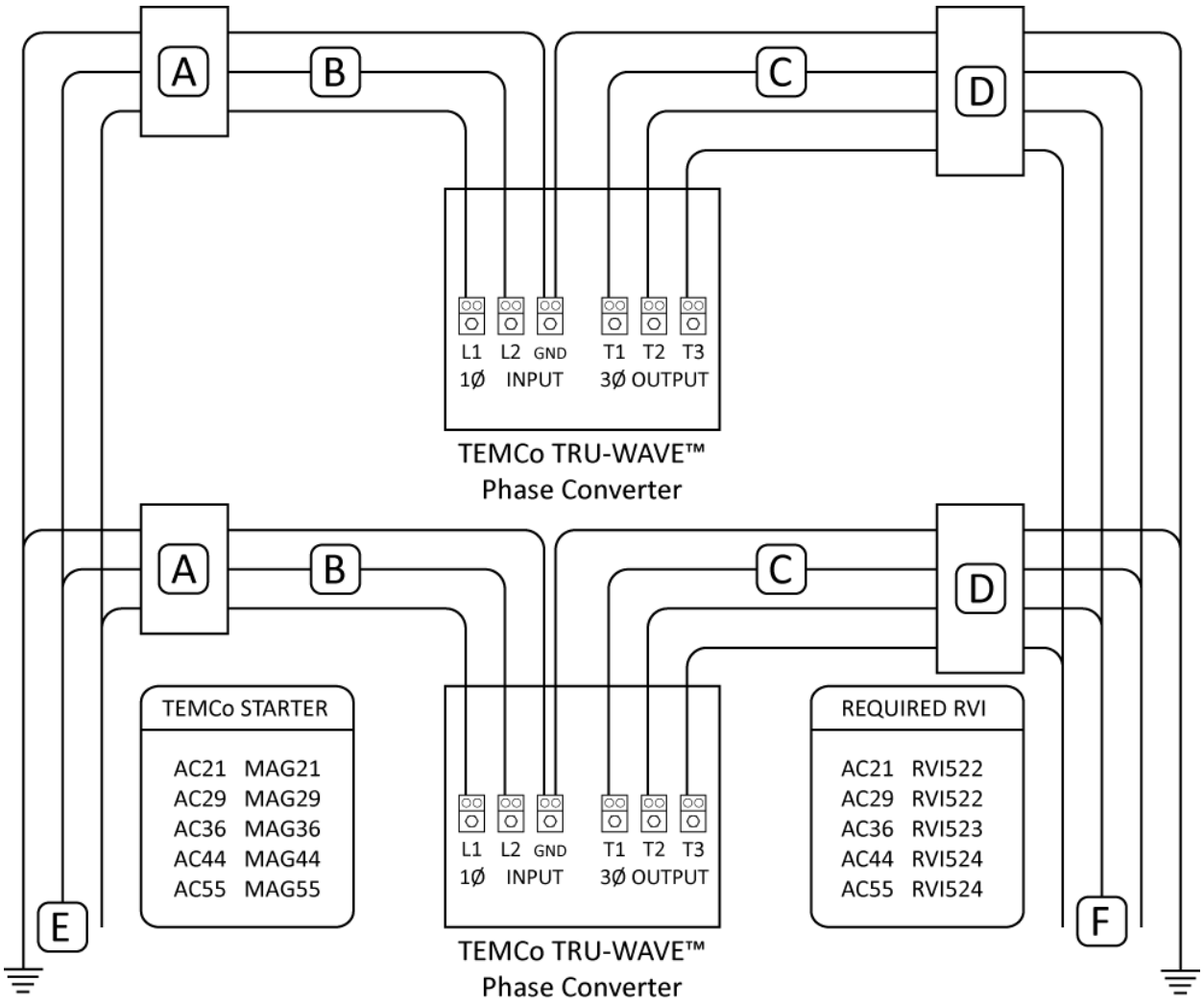
Multiple Unit Operation Electrical Connection Diagram:



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Installation Notes:

1. These diagrams are not intended to replace or supersede any requirements of local, state or national electrical codes.
2. Use only protective dual element time delay fuses or a magnetic starter with thermal overloads that carry an amperage rating within the limits set by the technical specifications.
3. Do not bolt the TEMCo Phase Converter directly to the floor. Solid mounting can cause a reduction in life expectancy of the rotating assembly, loosening of connections and hardware, and will amplify noise levels. TEMCo offers engineered Resilient Vibration Isolators for this purpose.
4. No load voltage on the three phase output from T1 – T2 or T3 – T2 will exceed T1 – T3 by 5% (T2 on the output is the generated line). Voltages will balance when a load is applied.
5. Do not connect control circuits which require ground or neutral to the generated line T2 on the three phase output. This TEMCo Phase Converter provides a three phase *DELTA* output. On the output, voltage from T2 (generated line) to ground/neutral will be 180-220V on a 208-240V system. If a *WYE* (or 4 wire) three phase output is required, a three phase *DELTA* to *WYE* transformer is required. Please consult your TEMCo sales representative for the supply of this type of transformer.
6. This TEMCo Phase Converter must always be started before any load is applied. Loads include non-loaded three phase transformers which constitute a small inductive load.
7. All loads must be turned off in the event of a power failure to prevent the TEMCo Phase Converter from being restarted under load when the power comes back on. Equipping three phase loads with magnetic starters is recommended. A magnetic starter will automatically shut off equipment if power is lost, thus protecting the TEMCo Phase Converter from starting under load when power is restored.
8. As many TEMCo TRU-WAVE™ Phase Converters as are needed to suit your application may be connected in parallel for increased output provided that your single phase branch circuit is capable of supporting the load. It is recommended that each unit be started independently to reduce single phase supply line loading during TEMCo Phase Converter start up.

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