AMETEK®
PROGRAMMABLE POWER

Frequently Asked Questions
Elgar TW series

SUMMARY OF QUESTIONS

QUESTIONS AND ANSWERS

A1. Do I need to have a neutral connection on the input of my TW series source?

For some versions of the TW series, an input neutral is not required. Check the full model number that appears on the nameplate, which is located on the right side panel of the chassis when facing the front. An example model number would look like: TW5250A-1 or TW3500A-3. The last number in the model number grouping indicates the unit's input configuration. If the input configuration is a "1" (as in the first example model number) or a "3" (as in the second example model number), it utilizes a 3-phase input at a nominal 208V line to line, and does not require a neutral connection even though a neutral termination is provided on the input interface (it is not connected internally on these models). Other models in the series (where that same number position in the model number is a "**2**," or "**4**") *must* have a neutral connection. Refer to the installation section of your manual for additional details on input power requirements (subsection 2.8).

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A2. Can I remove the ground bonding jumpers (GND to NEUT) that tie the output neutral of my TW series unit to the chassis ground?

Yes, the output neutral can be disconnected from the chassis. The output neutral can float only about 20V above the ground. Above 20V a safety system shuts the TW output down.

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A3. Can I connect my delta configuration load to the TW source's wye output?

Yes, The output can drive a delta load. Since the programmed voltage is referenced line to neutral, take this into consideration when setting a line-to-line voltage for your delta load.

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A4. How do I use remote sense when using a delta load with the TW series source?

The three phases will go the appropriate remote terminations for the appropriate phases. The Sense Neutral will just be tied locally to the output Neutral termination.

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A5. Since the TW series unit that I have is rated at 1750VA per phase, can I get more than 13A current out if my application is at a low voltage, keeping limit below 1750VA?

No. Even though your application may be less than the rated 1750VA limit, the amplifier can only provide a defined maximum current. The maximum rms current that can be delivered for voltages from 0 to 135V for the low range is 13A. The maximum rms current that can be delivered for voltages from 0 to 270V in the high range is 6.5A. Output voltage can reach 156V in the low range and 312V in the high range; however, the maximum VA limit cannot be exceeded. E.g., at 140V output in the low range the current limit is 12.5A.

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A6. Can I get or modify a TW series source that can run on single phase input power at 120VAC?

No. The input power required to operate this product would demand more current that what is commonly available from 120V distribution.

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A7. Can the TW series phase lock to an external clock or to another AC source?

Yes. Reference section 3.8 in the operation manual.

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A8. Can a clock signal output be provided for a frequency and/or phase reference?

Yes. Reference section 3.8 in the operation manual.

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A9. If my sense leads disconnect, will the output jump to full scale?

No. The TW utilizes an internal resistance to tie the sense leads to the output. If the sense leads disconnect, the output at the load will drop in voltage. The amount of drop depends on the resistance of the output cables and any contacts, switches etc. in the lines.

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A10. Can my TW operate on a 400Hz input?

If your model has the PFC input option, yes. You can determine the input option by the full model number that appears on the nameplate, which is located on the right side panel of the chassis when facing the unit's front panel. An example model number would look like: TW5250A-**4** or TW3500A-**3**. The first number following the dash indicates the unit's input option. If the input option is a "**4**" (as in the first example model number) or a "**3**" (as in the second example model number), then you have the PFC option. (If the first number after the initial seven-character grouping is a "1" or a "2," you have the Rectifier option, which cannot operate on a 400Hz input.

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