ENERGY PROOUCTSCO.
Variable Transformers
Series 1000 • 3.5 to 10.0 Amperes


## 1000 Series

STACO's 1010B operates on 120 volts and is rated for constant current of 10 amperes. The 1020B operates on 240 volts and constant current of 3.5 amperes. Coil tapping arrangements allow for 0 to input line voltage or $17 \%$ above line voltage. These variable transformers may be operated from 501500 hertz with no reduction in output current.

Uncased models have the shaft extending from the base end. This shaft is fully adjustable and can be extended from either end for general utility mounting. Cased styles, which have a "CT" suffix, feature the protective screening over the coil
assembly and a terminal box cover with knock-outs to accept conduit.

Motor driven units are available in single, two and three ganged assemblies; cased or uncased styles as identified by the prefix " M " in the type number. If a motor driven model is ordered, be sure to prefix the part number with the desired travel time from 0 to maximum of $5,15,30$, or 60 seconds.

The synchronous motor is designed for operation on 120 volts, 50/60 hertz single phase lines and draws approximately 0.3 amperes.

| PART NO. | WIRING | INPUT |  | OUTPUT |  |  |  |  | SHAFT ROTATION FOR VOLTAGE INCREASE | TERMINAL CONNECTIONS (For increasing Voltage) As Viewed from Base End |  |  | $\begin{array}{\|c\|} \hline \text { SCHE- } \\ \text { MATIC } \\ \text { (Pg } 8 \& 9) \end{array}$ | NETWT LBS. | (Max) MOTOR DRIVEN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | VOLTS | HERTZ | VOLTS | $\begin{aligned} & \text { CONSTANT } \\ & \text { CURRENT } \\ & \text { LOAD } \end{aligned}$ |  | $\begin{aligned} & \text { CONSTANT } \\ & \text { IMPEDANCE } \\ & \text { LOAD } \end{aligned}$ |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Input | Jumper- |  | Output |  |  |  |
|  |  |  |  |  | $\begin{aligned} & \text { MAX } \\ & \text { AMPS } \end{aligned}$ | $\begin{aligned} & \hline \text { MAX } \\ & \text { KVA } \end{aligned}$ |  |  |  |  | $\begin{aligned} & \hline \text { MAX } \\ & \text { AMPS } \end{aligned}$ | $\begin{aligned} & \text { MAX } \\ & \text { KVA } \end{aligned}$ |  |  |  |
| $\begin{gathered} \text { 1010B } \\ \text { 1010BCT } \\ \text { M1010B } \dagger \\ \text { M1010BCT } \dagger \end{gathered}$ | Single Phase | 120 | 50/60 | 0-120 | 10 | 12 | 13 | 1.56 | CW | 1-4 | - | 4-3 | 10 | $101 / 4$ | $163 / 4$ |
|  |  |  |  |  |  |  |  |  | CCW | 1-4 | - | 1-3 |  |  |  |
|  |  |  |  | 0-140 | 10 | 1.4 | - | - | CWW | 4-5 <br> $1-2$ | - | 4.3 1.3 |  |  |  |
| $\left\|\begin{array}{c} \text { 1010B-2 } \\ 1010 B C T-2 \\ \text { M1010B-2 } \\ \text { M1010BCT-2 } \end{array}\right\|$ | Single Phase Series | 240 | 50/60 | 0-240 | 10 | 24 | 13 | 3.12 | CW | 1-1 | 4-4 | 3-3 | 10 \& 4 | 22 1/2 | $307 / 8$ |
|  |  |  |  | 0-240 | 10 | 2.4 | 13 | 3.12 | CCW | 4-4 | 1-1 | 3-3 |  |  |  |
|  |  |  |  | 0-280 | 10 | 2.8 | - | - | CW | 5-5 | 4-4 | 3-3 |  |  |  |
|  | Three Phase Open Deltan | 120++ | 50/60 |  |  |  |  |  | CCW | 2-2 | 1-1 | 3.3 |  |  |  |
|  |  |  |  | 0-120 | 10 | 2.08 | 13 | 2.70 | CW | 1-4-1 | 4-4 | 3-4-3 | 10 \& 5 |  |  |
|  |  |  |  |  |  |  |  |  | CCW | 4-1-4 | $1-1$ | 3-1-3 |  |  |  |
|  |  |  |  | 0-140 | 10 | 2.42 | - | - | CW | 5-4-5 | 4-4 | 3-4-3 |  |  |  |
| $\begin{array}{\|c\|} \hline 1010 \mathrm{~B}-3 \\ 1010 \mathrm{BCT}-3 \\ \mathrm{M} 1010 \mathrm{~B}-3 \mathrm{H} \\ \mathrm{M} 1010 \mathrm{TCT}-3+3 \end{array}$ | Three Phase Wyen | 240++ |  |  |  |  |  |  | CW | 1-1-1 | 4-4-4 | 3-3-3 | 10 \& 6 | $341 / 2$ | $421 / 2$ |
|  |  |  | 50/60 | 0-240 | 10 | 4.16 | 13 | 5.4 | CCW | 4-4-4 | 1-1-1 | 3-3-3 |  |  |  |
|  |  |  | 60 | 0-280 | 10 | 4.85 | - | - | CW | 5-5-5 | 4-4-4 | 3-3-3 |  |  |  |
|  |  |  |  |  |  |  |  |  | CCW | 2-2-2 | 1-1-1 | 3-3-3 |  |  |  |
| 3 3P1010B | Single Phase | 120 | 50/60 | 0-140 | $10 \ddagger$ | 1.4 | - | - | CW | LINE CORD \& RECEPTACLE |  |  | 3 | $101 / 4$ | - |
| $\begin{array}{\|l\|} \hline \text { 3PN1010BA } \\ \text { 3PN1010BV } \\ \hline \end{array}$ | Single Phase | 120 | 50/60 | 0-140 | $10 \ddagger$ | 1.4 | w/Ammeter w/Voltmeter |  | CW | LINE CORD \& RECEPTACLE |  |  | 9 | $101 / 4$ | - |
| $\begin{gathered} \text { 1020B } \\ \text { 1020BCT } \\ \text { M1020B } \dagger \\ \text { M1020BCT } \dagger \end{gathered}$ | Single <br> Phase | 240 | 50/60 | 0-240 | 3.5 | 0.84 | 5.0 | 1.20 | CW | 1-4 | - | 4.3 | 12 | $101 / 4$ | $163 / 4$ |
|  |  |  |  | 0-240 | 3.5 | 0.84 | 5.0 | 1.20 | CCW | 1-4 | - | 1-3 |  |  |  |
|  |  |  |  | 0-280 | 3.5 | 0.98 | - | - | CWW | 4-5 $1-2$ | - | 4-3 $1-3$ |  |  |  |
|  |  | 120 | 50/60 | 0-280 | 3.5\# | 0.42§ | - | - | CW | $4-7$ | - | 4-3 |  |  |  |
|  |  |  | 50/60 |  |  |  |  |  | CCW | 1-6 | - | 1-3 |  |  |  |
| $\begin{gathered} \text { 1020B-2 } \\ \text { 10202CT-2 } \\ \text { M1020B-2+ } \\ \text { M1020BCT-2+ } \end{gathered}$ | Single Phase Series | 480 |  | 0-480 | 3.5 | 1.68 | 5.0 | 2.4 | CW | 1-1 | 4-4 | 3-2 | 12 \& 4 | 22 1/2 | $303 / 4$ |
|  |  |  |  |  |  |  |  |  | CW | 5-5 | 4-4 | 3-3 |  |  |  |
|  |  |  |  | 0-560 | 3.5 | 1.96 | - | - | CCW | 2-2 | 1-1 | 3-3 |  |  |  |
|  |  | 240 | 50/60 | 0-560 | 3.5\# | 0.84§ | - | - | CW | 7-7 | 4-4 | 3-3 |  |  |  |
|  |  | 240 | 50/60 | 0-560 | 3.5\# | 0.84§ |  |  | CCW | 6-6 | 1-1 | 3-3 |  |  |  |
|  | Three Phase Open Delta $\pi$ | 240++ | 50/60 | 0-240 | 3.5 | 1.45 | 5.0 | 2.08 | CW | 1-4-1 | 4-4 | 3-4-3 | 12 \& 5 |  |  |
|  |  |  |  |  |  |  |  |  | CCW | 4-1-4 | 1-1 | 3-1-3 |  |  |  |
|  |  |  |  | 0-280 | 3.5 | 1.70 | - | - | CW | $5-4-5$ $2-1-2$ | 4-4 | $3-4-3$ $3-1-3$ |  |  |  |
|  |  |  |  |  |  |  |  |  | CW | 7-4-7 | 4-4 | 3-4-3 |  |  |  |
|  |  | 120++ | 50/60 | 0-280 | 3.5\# | $0.73 \S$ | - | - | CCW | 6-1-6 | 1-1 | 3-1-3 |  |  |  |
| $\left\lvert\, \begin{gathered} \text { 1020B-3 } \\ \text { 1020BCT-3 } \\ \text { M1020B-3 } \\ \text { M1020BCT-3 } \end{gathered}\right.$ | Three <br> Phase Wyer | 480++ | 50/60 | 0-480 | 3.5 | 2.91 | 5.0 | 4.16 | CW | 1-1-1 | 4-4-4 | 3-3-3 | 12 \& 6 | $341 / 2$ | 42 1/4 |
|  |  |  |  |  |  |  |  |  | CW | 5-5-5 | 4-4-4 | 3-3-3 |  |  |  |
|  |  |  | 60 | 0-560 | 3.5 | 3.40 | - | - | CCW | 2-2-2 | 1-1-1 | 3-3-3 |  |  |  |
|  |  | 240++ | 60 | 0-560 | 3.5\# | 1.46§ | - | - | CW | 7-7-7 | 4-4-4 | 3-3-3 |  |  |  |
| 3PN1020B | Single | 240 | 50/60 | 0-280 | $3.5 \ddagger$ | 0.98 | - | - | CW | $\begin{aligned} & \text { LINE CORD \& } \\ & \text { RECEPTACLE } \\ & \hline \end{aligned}$ |  |  | 3 | $101 / 4$ | - |
| $\begin{array}{\|l\|} \hline \text { 3PN1020BA } \\ \text { 3PN1020BV } \end{array}$ | Single Phase | 240 | 50/60 | 0-280 | $3.5 \ddagger$ | 0.98 | w/Ammeter w/Voltmeter |  | CW | LINE CORD \& RECEPTACLE |  |  | 9 | $101 / 4$ | - |

[^0]$\pi$ If ganged units are used in a system that ordinarily has a common neutral or ground between source and load, the neutral or ground must be connected to the common terminals of the variable transformer assembly. If the system has no neutral, the load must be balanced or the transformers will be damaged.
\# Maximum output current in output voltage range from 0 to $25 \%$ above line voltage. At higher output voltages, the output current must be reduced according to the derating curve, Figure B, page 6.


## 1000/1200 Series



Motorized Single, Two and Three Ganged, Uncased


Motorized Single, Two and Three Ganged, Cased


1220BCT-2
15M1010B-2



[^0]:    - Jumper provided in the standard common position and should be moved or removed as required.
    ++ Line to line voltage
    $\ddagger \quad$ Unit is fused for the constant current rating at the factory.
    $\dagger$ Motor driven units use terminal connections for CCW increasing voltage, as viewed from the base end. See Fig 23 on page 9 for motor wiring.
    § Maximum KVA at maximum output voltage and corresponding derated output current. Maximum KVA for lower voltages may be calculated from derating curve Figure B, page 6.

