ENERGY PRoDUCTSCO.
Variable Transformers
Series 5000 • 28.0 to 252.0 Amperes


The 5011/5021 Series Variable transformers are designed to control large KVA requirements. The 5011 operates on 120 volts and is rated for constant current of 50 amperes. The 5021 operates on 240 volts and constant current of 28 amperes. The 5011 Series units have coil tapping arrangements allowing output voltage from $0-117 \%$ of line voltage, while the 5021 Series allows output voltage from 0 to line voltage or $17 \%$ above line voltage. They can be operated at frequencies between 50 and 400 Hertz with a rating at higher than rated frequency.

Adjustable shaft design on manually operated models permits back-of-panel or bench mounting. Terminals are $1 / 4^{"}$ screw type. For single and two ganged units, case styles are available in either "C" style, which encloses only the coil, or the "CT" style,
which provides protective housing for both the coil and terminal board. Knockouts are provided in the terminal board housing to accomodate conduit or cable connections. For three ganged and above, we offer our Nema 1, dripproof, fully front accessible "E" enclosure.

Motor-driven models are available from single thru 27 ganged assemblies; cased or uncased (identified with the prefix " M " in the part number). The synchronous motor is designed for operation on 120 volt, $50 / 60$ Hertz, single phase lines and draws approximately 0.3 amperes. To meet a wide range of application requirements, standard motor speeds of 5, 15, 30 and 60 seconds are available depending upon the size of the variable transformer.

| PART NUMBER |  | WIRING | INPUT |  | OUTPUT |  |  | SHAFT <br> ROTATION FOR <br> VOLTAGE INCREASE | TERMINAL CONNECTIONS <br> For Increasing Voltage As Viewed from Rotor End |  | $\begin{gathered} \text { SCHE- } \\ \text { MATIC } \\ (\text { Pg } 8 \& 9) \end{gathered}$ | NET WEIGHT IN LBS. (MAX) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MANUALLY OPERATED | MOTOR DRIVEN |  | VOLTS | HERTZ | VOLTS | MAX AMPS | $\begin{aligned} & \text { MAX } \\ & \text { KVA } \end{aligned}$ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | INPUT | OUTPUT |  | MANUAL | MOTOR DRIVEN |
| $\begin{gathered} 5011 \\ 5011 \mathrm{C} \\ 5011 \mathrm{CT} \end{gathered}$ | $\begin{gathered} \text { M5011 } \\ \text { M5011C } \\ \text { M5011CT } \\ \hline \end{gathered}$ | Single Phase | 120 | 50/60 | 0-140 | 50 | 7.0 | CW | 1-2 | 1-3 | 18 | 57 | 78 |
| $\begin{gathered} 5021 \\ 5021 \mathrm{C} \\ 5021 \mathrm{CT} \end{gathered}$ | $\begin{gathered} \text { M5021 } \\ \text { M5021C } \\ \text { M5021CT } \end{gathered}$ | Single Phase | 240 | 50/60 | 0-24 | 28 | 6.7 | CW | 2-4 | 2-3 | 19 | 57 | 78 |
|  |  |  |  |  | 0-24 | 28 | 6.7 | CCW | 4-2 | 4-3 |  |  |  |
|  |  |  |  |  | 0-280 | 28 | 7.8 | CW | 2-5 | 2-3 |  |  |  |
|  |  |  |  |  |  | $\begin{gathered} 28^{*}-12 \\ \text { VD } \end{gathered}$ | $3.4 \ddagger$ | CWW | 4-1 | 4-3 |  |  |  |
|  |  |  | 120 | 50/60 | 0-280 |  |  | CCW | 4-7 | 4-3 |  |  |  |
| $\begin{gathered} 5011-2 \mathrm{D} \\ 5011 \mathrm{C}-2 \mathrm{D} \\ 5011 \mathrm{CT}-2 \mathrm{D} \\ \hline \end{gathered}$ | $\begin{gathered} \text { M5011-2D } \\ \text { M5011C-2D } \\ \text { M5011CT-2D } \\ \hline \end{gathered}$ | Three Phase Open Delta | 120 | 50/60 | 0-140 | 50 | 12.1 | CW | 2-1-2 | 3-1-3 | 20 \& 5 | 134 | 155 |
| $\begin{gathered} 5011-2 P \\ 5011 \mathrm{C}-2 \mathrm{P} \\ 5011 \mathrm{CT}-2 \mathrm{P} \end{gathered}$ | $\begin{gathered} \text { M5011-2P } \\ \text { M5011C-2P } \\ \text { M5011CT-2P } \\ \hline \end{gathered}$ | Single <br> Phase <br> Paralle | 120 | 50/60 | 0-140 | 100 | 14.0 | CW | 1-2 | 1-B | 21 | 136 | 157 |
| $\begin{gathered} 5011-2 \mathrm{~S} \\ 5011 \mathrm{C}-2 \mathrm{~S} \\ 5011 \mathrm{CT}-2 \mathrm{~S} \end{gathered}$ | $\begin{gathered} \text { M5011-2S } \\ \text { M5011C-2S } \\ \text { M5011CT-2S } \end{gathered}$ | Single <br> Phase <br> Series | 240 | 50/60 | 0-280 | 50 | 14.0 | CW | 2-2 | 3-3 | 20 \& 4 | 134 | 155 |
| $\begin{gathered} 5021-2 D \\ 5021 C-2 D \\ 5021 C T-2 D \end{gathered}$ | $\begin{gathered} \text { M5021-2D } \\ \text { M5021C-2D } \\ \text { M5021CT-2D } \end{gathered}$ | Three Phase Open Delta | 240 | 50/60 | 0-240 | 28 | 11.6 | CW | 4-1-4 | 3-1-3 | 20 \& 5 | 134 | 155 |
|  |  |  |  |  | 0-280 | 28 | 13.6 | CW | 2-1-2 | 3-1-3 |  |  |  |
|  |  |  | 120 | 50/60 | 0-280 | $\begin{gathered} 28^{\star}-12 \\ \text { V.D. } \\ \hline \end{gathered}$ | $5.8 \ddagger$ | CW | 5-1-5 | 3-1-3 |  |  |  |
| $\begin{gathered} 5021-2 P \\ 5021 \mathrm{C}-2 \mathrm{P} \\ 5021 \mathrm{CT}-2 \mathrm{P} \end{gathered}$ | $\begin{aligned} & \text { M5021-2P } \\ & \text { M5021C-2P } \\ & \text { M5021CT-2P } \end{aligned}$ | Single Phase Parallel | 240 | 50/60 | 0-240 | 56 | 13.4 | CW | 1-4 | 1-B | 21 | 136 | 157 |
|  |  |  |  |  | 0-280 | 56 | 15.7 | CW | 1-2 | 1-B |  |  |  |
|  |  |  | 120 | 50/60 | 0-280 | $\begin{gathered} 56^{*}-24 \\ \text { V.D. } \\ \hline \end{gathered}$ | $6.8 \ddagger$ | CW | 1-5 | 1-B |  |  |  |
| $\begin{aligned} & 5021-2 \mathrm{~S} \\ & 5021 \mathrm{C}-2 \mathrm{~S} \\ & 5021 \mathrm{CT}-2 \mathrm{~S} \end{aligned}$ | $\begin{aligned} & \text { M5021-2S } \\ & \text { M5021C-2S } \\ & \text { M5021CT-2S } \end{aligned}$ | Single <br> Phase <br> Series | 480 | 50/60 | 0-480 | 28 | 13.5 | CW | 4-4 | 3-3 | 20 \& 4 | 134 | 155 |
|  |  |  |  |  | 0-560 | 28 | 15.7 | CW | 2-2 | 3-3 |  |  |  |
|  |  |  | 240 | 50/60 | 0-560 | $\begin{gathered} 28^{\star}-12 \\ \text { V.D. } \end{gathered}$ | $6.8 \ddagger$ | CW | 5-5 | 3-3 |  |  |  |
| $\begin{gathered} 5011-3 \mathrm{P} \\ 5011 \mathrm{E}-3 \mathrm{P} \end{gathered}$ | $\begin{aligned} & \text { M5011-3P } \\ & \text { M5011E-3P } \end{aligned}$ | Single <br> Phase <br> Paralle | 120 | 50/60 | 0-140 | 150 | 21.0 | CW | 1-2 | 1-D | 22 | 216 | 237 |
| $\begin{gathered} 5011-3 Y \\ 5011 \mathrm{E}-3 \mathrm{Y} \end{gathered}$ | $\begin{aligned} & \text { M5011-3Y } \\ & \text { M5011E-3Y } \end{aligned}$ | Three Phase Wye | 240 | 60 | 0-280 | 50 | 24.2 | CW | 2-2-2 | 3-3-3 | 20 \& 6 | 212 | 233 |




Manual Single, Uncased


Manual Single, Cased


Manual Two-Ganged, Cased


Motor Driven, Single, Two and Three-Ganged, Uncased


Manual Two and Three-Ganged, Uncased


Motor Driven, Single and Two-Ganged, Cased

## 5000/6000 Series



Manual Three to Nine-Ganged, Cased


Motor-Driven Three to Nine-Ganged, Cased


Motor-Driven 10, 12, 14, 16 \& 18-Ganged Open Delta and Parallel, Cased


Manual Four to Nine-Ganged, Uncased

