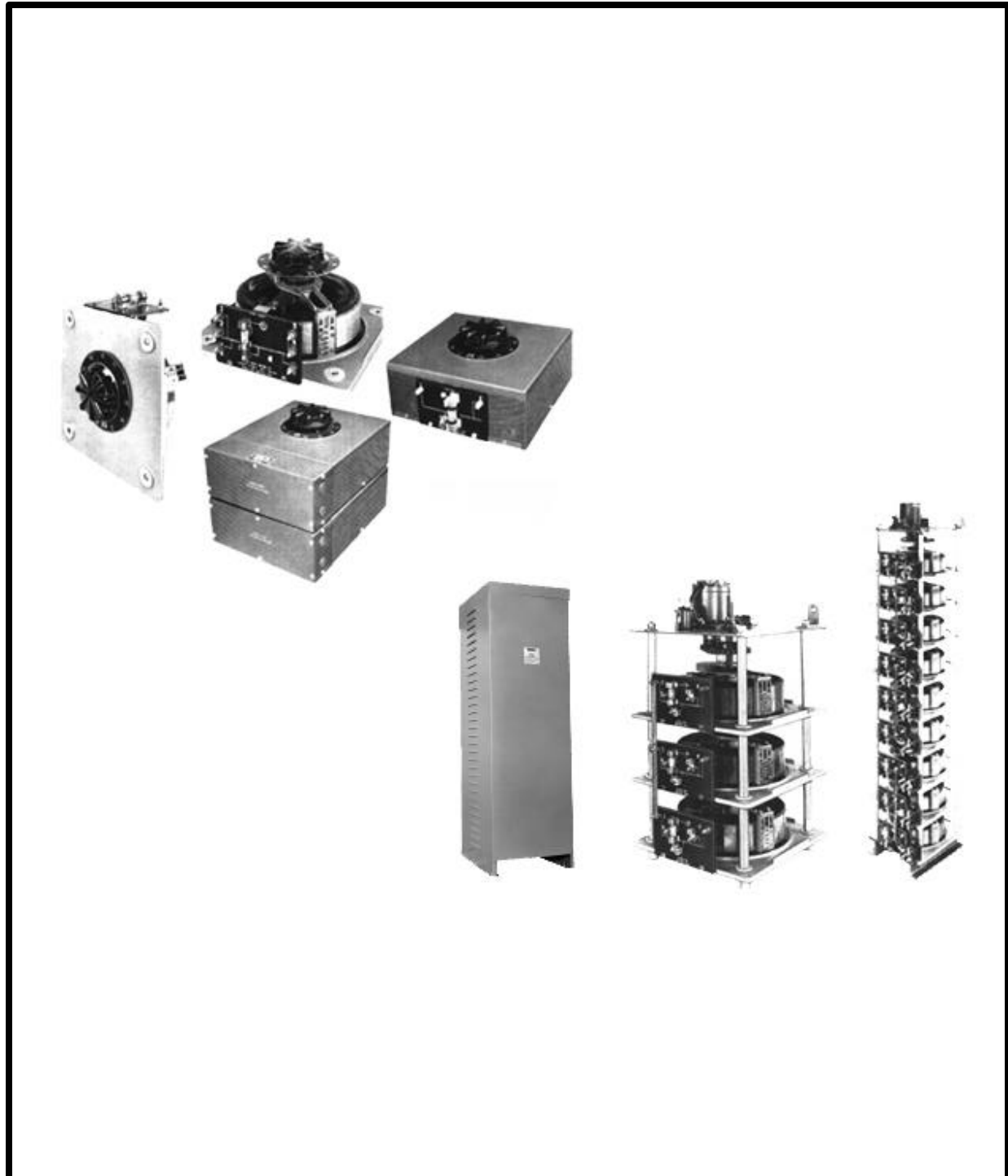


**Variable Transformers**  
**Series 5000 • 28.0 to 252.0 Amperes**



# 5000 Series

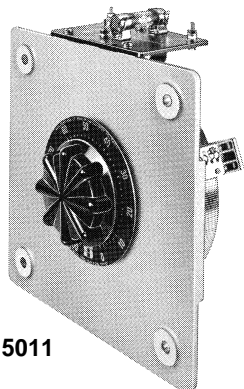
The 5011/5021 Series Variable transformers are designed to control large KVA requirements. The 5011 operates on 120 volts and is rated for constant current of 50 amperes. The 5021 operates on 240 volts and constant current of 28 amperes. The 5011 Series units have coil tapping arrangements allowing output 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 accommodate 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 ROTATION FOR VOLTAGE INCREASE | TERMINAL CONNECTIONS<br>For Increasing Voltage<br>As Viewed from Rotor End |        | SCHE-MATIC<br>(Pg 8 & 9) | NET WEIGHT<br>IN LBS.<br>(MAX) |              |
|----------------------------------|-------------------------------------|---------------------------|-------|-------|--------|----------------|---------|-------------------------------------|--|--------|--------------------------|--------------------------------|--------------|
| MANUALLY OPERATED                | MOTOR DRIVEN                        |                           | VOLTS | HERTZ | VOLTS  | MAX AMPS       | MAX KVA |                                     | INPUT  | OUTPUT |                          | MAN-UAL                        | MOTOR DRIVEN |
| 5011<br>5011C<br>5011CT          | M5011<br>M5011C<br>M5011CT          | Single Phase              | 120   | 50/60 | 0-140  | 50             | 7.0     | CW                                  | 1-2  | 1-3    | 18                       | 57                             | 78           |
| 5021<br>5021C<br>5021CT          | M5021<br>M5021C<br>M5021CT          | Single Phase              | 240   | 50/60 | 0-240  | 28             | 6.7     | CW                                  | 2-4  | 2-3    | 19                       | 57                             | 78           |
|                                  |                                     |                           |       |       | 0-280  | 28             | 7.8     | CCW                                 | 4-2  | 4-3    |                          |                                |              |
|                                  |                                     |                           | 120   | 50/60 | 0-280  | 28*-12<br>VD   | 3.4‡    | CW                                  | 2-5  | 2-3    |                          |                                |              |
| 5011-2D<br>5011C-2D<br>5011CT-2D | M5011-2D<br>M5011C-2D<br>M5011CT-2D | Three Phase<br>Open Delta | 120   | 50/60 | 0-140  | 50             | 12.1    | CW                                  | 2-1-2  | 3-1-3  | 20 & 5                   | 134                            | 155          |
| 5011-2P<br>5011C-2P<br>5011CT-2P | M5011-2P<br>M5011C-2P<br>M5011CT-2P | Single Phase<br>Parallel  | 120   | 50/60 | 0-140  | 100            | 14.0    | CW                                  | 1-2  | 1-B    | 21                       | 136                            | 157          |
| 5011-2S<br>5011C-2S<br>5011CT-2S | M5011-2S<br>M5011C-2S<br>M5011CT-2S | Single Phase<br>Series    | 240   | 50/60 | 0-280  | 50             | 14.0    | CW                                  | 2-2  | 3-3    | 20 & 4                   | 134                            | 155          |
| 5021-2D<br>5021C-2D<br>5021CT-2D | M5021-2D<br>M5021C-2D<br>M5021CT-2D | Three Phase<br>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  |                          |                                |              |
| 5021-2P<br>5021C-2P<br>5021CT-2P | M5021-2P<br>M5021C-2P<br>M5021CT-2P | Single Phase<br>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    |                          |                                |              |
| 5021-2S<br>5021C-2S<br>5021CT-2S | M5021-2S<br>M5021C-2S<br>M5021CT-2S | Single 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  | 28*-12<br>V.D. | 6.8‡    | CW                                  | 5-5  | 3-3    |                          |                                |              |
| 5011-3P<br>5011E-3P              | M5011-3P<br>M5011E-3P               | Single Phase<br>Parallel  | 120   | 50/60 | 0-140  | 150            | 21.0    | CW                                  | 1-2  | 1-D    | 22                       | 216                            | 237          |
| 5011-3Y<br>5011E-3Y              | M5011-3Y<br>M5011E-3Y               | Three Phase<br>Wye        | 240   | 60    | 0-280  | 50             | 24.2    | CW                                  | 2-2-2  | 3-3-3  | 20 & 6                   | 212                            | 233          |



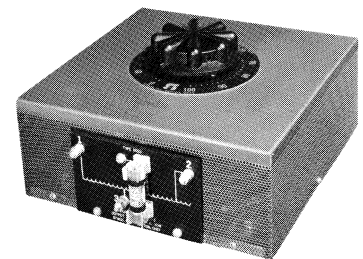
5011



5021



5021CT-2



5011C

# 5000 Series



| PART NUMBER           |                         | WIRING                       | INPUT             |             | OUTPUT         |                    |              | SHAFT ROTATION FOR VOLTAGE INCREASE | TERMINAL CONNECTIONS For Increasing Voltage As Viewed from Rotor End |                | SCHEMATIC (Pg 8 & 9) | NET WEIGHT IN LBS. (MAX) |              |
|-----------------------|-------------------------|------------------------------|-------------------|-------------|----------------|--------------------|--------------|-------------------------------------|--|----------------|----------------------|--------------------------|--------------|
| MANUALLY OPERATED     | MOTOR DRIVEN            |                              | VOLTS             | HERTZ       | VOLTS          | MAX AMPS           | MAX KVA      |                                     | INPUT  | OUTPUT         |                      | MANUAL                   | MOTOR DRIVEN |
| 5021-3P<br>5021E-3P   | M5021-3P<br>M5021E-3P   | Single Phase Parallel        | 240               | 50/60       | 0-240<br>0-280 | 84<br>84           | 20.2<br>23.5 | CW<br>CW                            | 1-4<br>1-2   | 1-D<br>1-D     | 22                   | 216                      | 237          |
|                       |                         |                              | 120               | 50/60       | 0-280          | 84*<br>36<br>V.D.  | 10.2‡        | CW                                  | 1-5  | 1-D            |                      |                          |              |
| 5021-3Y<br>5021E-3Y   | M5021-3Y<br>M5021E-3Y   | Three Phase Wye              | 480               | 50/60<br>60 | 0-480<br>0-560 | 28<br>28           | 23.3<br>27.2 | CW<br>CW                            | 4-4-4<br>2-2-2   | 3-3-3<br>3-3-3 | 20 & 6               | 212                      | 233          |
|                       |                         |                              | 240               | 60          | 0-560          | 28*<br>12<br>V.D.  | 11.8‡        | CW                                  | 5-5-5  | 3-3-3          |                      |                          |              |
|                       |                         |                              | 120               | 50/60       | 0-140          | 100                | 24.2         | CW                                  | 2-1-2  | B-1-B          |                      |                          |              |
| 5011-4D<br>5011E-4D   | M5011-4D<br>M5011E-4D   | Three Phase Open Delta       | 120               | 50/60       | 0-140          | 100                | 24.2         | CW                                  | 2-1-2  | B-1-B          | 21 & 5               | 314                      | 335          |
| 5011-4P<br>5011E-4P   | M5011-4P<br>M5011E-4P   | Single Phase Parallel        | 120               | 50/60       | 0-140          | 200                | 28.0         | CW                                  | 1-2  | 1-D            | 22                   | 316                      | 337          |
| 5011-4PS<br>5011E-4PS | M5011-4PS<br>M5011E-4PS | Single Phase Series Parallel | 240               | 50/60       | 0-280          | 100                | 28.0         | CW                                  | 2-2  | B-B            | 21 & 4               | 314                      | 335          |
| 5021-4D<br>5021E-4D   | M5021-4D<br>M5021E-4D   | Three Phase Open Delta       | 240               | 50/60       | 0-240<br>0-280 | 56<br>56           | 23.3<br>27.2 | CW<br>CW                            | 4-1-4<br>2-1-2   | B-1-B<br>B-1-B | 21 & 5               | 314                      | 335          |
|                       |                         |                              | 120               | 50/60       | 0-280          | 56*<br>24<br>V.D.  | 11.8‡        | CW                                  | 5-1-5  | B-1-B          |                      |                          |              |
| 5021-4P<br>5021E-4P   | M5021-4P<br>M5021E-4P   | Single Phase Parallel        | 240               | 50/60       | 0-240<br>0-280 | 112<br>112         | 26.9<br>31.4 | CW<br>CW                            | 1-4<br>1-2   | 1-D<br>1-D     | 22                   | 316                      | 337          |
|                       |                         |                              | 120               | 50/60       | 0-280          | 112*<br>48<br>V.D. | 13.5‡        | CW                                  | 1-5  | 1-D            |                      |                          |              |
|                       |                         |                              | 480               | 50/60       | 0-480<br>0-560 | 56<br>56           | 26.9<br>31.4 | CW<br>CW                            | 4-4<br>2-2   | B-B<br>B-B     |                      |                          |              |
| 240                   | 50/60                   | 0-560                        | 56*<br>24<br>V.D. | 13.5‡       | CW             | 5-5                | B-B          |                                     |  |                |                      |                          |              |
| 5011-5P<br>5011E-5P   | M5011-5P<br>M5011E-5P   | Single Phase Parallel        | 120               | 50/60       | 0-140          | 250                | 35.0         | CW                                  | 1-2  | 1-D            | 22                   | 400                      | 420          |
| 5011-6D<br>5011E-6D   | M5011-6D<br>M5011E-6D   | Three Phase Open Delta       | 120               | 50/60       | 0-140          | 150                | 36.4         | CW                                  | 2-1-2  | D-1-D          | 22 & 5               | 481                      | 502          |
| 5011-6P<br>5011E-6P   | M5011-6P<br>M5011E-6P   | Single Phase Parallel        | 120               | 50/60       | 0-140          | 300                | 42.0         | CW                                  | 1-2  | 1-D            | 22                   | 483                      | 504          |
| 5011-6PS<br>5011E-6PS | M5011-6PS<br>M5011E-6PS | Single Phase Series Parallel | 240               | 50/60       | 0-280          | 150                | 42.0         | CW                                  | 2-2  | D-D            | 22 & 4               | 481                      | 502          |
| 5011-6Y<br>5011E-6Y   | M5011-6Y<br>M5011E-6Y   | Three Phase Wye              | 240               | 60          | 0-280          | 100                | 48.5         | CW                                  | 2-2-2  | B-B-B          | 21 & 6               | 479                      | 500          |

# 5000 Series

| PART NUMBER           |                           | WIRING                             | INPUT |       | OUTPUT |          |         | SHAFT ROTATION FOR VOLTAGE INCREASE | TERMINAL CONNECTIONS<br>For Increasing Voltage<br>As Viewed from Rotor End |        | SCHEMATIC<br>(Pg 8 & 9) | NET WEIGHT<br>IN LBS.<br>(MAX) |              |
|-----------------------|---------------------------|------------------------------------|-------|-------|--------|----------|---------|-------------------------------------|--|--------|-------------------------|--------------------------------|--------------|
| MANUALLY OPERATED     | MOTOR DRIVEN              |                                    | VOLTS | HERTZ | VOLTS  | MAX AMPS | MAX KVA |                                     | INPUT  | OUTPUT |                         | MANUAL                         | MOTOR DRIVEN |
| 5021-6D<br>5021E-6D   | M5021-6D<br>M5021E-6D     | Three Phase<br>Open Delta          | 240   | 50/60 | 0-240  | 84       | 34.9    | CW                                  | 4-1-4  | D-1-D  | 22 & 5                  | 481                            | 502          |
|                       |                           |                                    |       |       | 0-280  | 84       | 40.7    | CW                                  | 2-1-2  | D-1-D  |                         |                                |              |
| 5021-6P<br>5021E-6P   | M5021-6P<br>M5021E-6P     | Single Phase<br>Parallel           | 240   | 50/60 | 0-240  | 168      | 40.3    | CW                                  | 1-4  | 1-D    | 22                      | 483                            | 504          |
|                       |                           |                                    |       |       | 0-280  | 168      | 47.0    | CW                                  | 1-2  | 1-D    |                         |                                |              |
| 5021-6PS<br>5021E-6PS | M5021-6PS<br>M5021E-6PS   | Single Phase<br>Series<br>Parallel | 480   | 50/60 | 0-480  | 84       | 40.3    | CW                                  | 4-4  | D-D    | 22 & 4                  | 481                            | 502          |
|                       |                           |                                    |       |       | 0-560  | 84       | 47.0    | CW                                  | 2-2  | D-D    |                         |                                |              |
| 5021-6Y<br>5021E-6Y   | M5021-6Y<br>M5021E-6Y     | Three Phase<br>Wye                 | 480   | 50/60 | 0-480  | 56       | 46.6    | CW                                  | 4-4-4  | B-B-B  | 21 & 6                  | 479                            | 500          |
|                       |                           |                                    |       | 60    | 0-560  | 56       | 54.3    | CW                                  | 2-2-2  | B-B-B  |                         |                                |              |
| 5011-7P<br>5011E-7P   | M5011-7P<br>M5011E-7P     | Single Phase<br>Parallel           | 120   | 50/60 | 0-140  | 350      | 49.0    | CW                                  | 1-2  | 1-D    | 22                      | 563                            | 584          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |
| 5021-7P<br>5021E-7P   | M5021-7P<br>M5021E-7P     | Single Phase<br>Parallel           | 240   | 50/60 | 0-240  | 196      | 47.0    | CW                                  | 1-4  | 1-D    | 22                      | 563                            | 584          |
|                       |                           |                                    |       |       | 0-280  | 196      | 54.9    | CW                                  | 1-2  | 1-D    |                         |                                |              |
| 5011-8D<br>5011E-8D   | M5011-8D<br>M5011E-8D     | Three Phase<br>Open Delta          | 120   | 50/60 | 0-140  | 200      | 48.4    | CW                                  | 2-1-2  | D-1-D  | 22 & 5                  | 640                            | 661          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |
| 5011-8P<br>5011E-8P   | M5011-8P<br>M5011E-8P     | Single Phase<br>Parallel           | 120   | 50/60 | 0-140  | 400      | 56.0    | CW                                  | 1-2  | 1-D    | 22                      | 642                            | 663          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |
| 5011-8PS<br>5011E-8PS | M5011-8PS<br>M5011E-8PS   | Single Phase<br>Series<br>Parallel | 240   | 50/60 | 0-280  | 200      | 56.0    | CW                                  | 2-2  | D-D    | 22 & 4                  | 640                            | 661          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |
| 5021-8D<br>5021E-8D   | M5021-8D<br>M5021E-8D     | Three Phase<br>Open Delta          | 240   | 50/60 | 0-240  | 112      | 46.6    | CW                                  | 4-1-4  | D-1-D  | 22 & 5                  | 640                            | 661          |
|                       |                           |                                    |       |       | 0-280  | 112      | 54.3    | CW                                  | 2-1-2  | D-1-D  |                         |                                |              |
| 5021-8P<br>5021E-8P   | M5021-8P<br>M5021E-8P     | Single Phase<br>Parallel           | 240   | 50/60 | 0-240  | 224      | 53.8    | CW                                  | 1-4  | 1-D    | 22                      | 642                            | 663          |
|                       |                           |                                    |       |       | 0-280  | 224      | 62.7    | CW                                  | 1-2  | 1-D    |                         |                                |              |
| 5021-8PS<br>5021E-8PS | M5021-8PS<br>M5021E-8PS   | Single Phase<br>Series<br>Parallel | 480   | 50/60 | 0-480  | 112      | 53.8    | CW                                  | 4-4  | D-D    | 22 & 4                  | 640                            | 742          |
|                       |                           |                                    |       |       | 0-560  | 112      | 62.7    | CW                                  | 2-2  | D-D    |                         |                                |              |
| 5011-9P<br>5011E-9P   | M5011-9P<br>M5011E-9P     | Single Phase<br>Parallel           | 120   | 50/60 | 0-140  | 450      | 63.0    | CW                                  | 1-2  | 1-D    | 22                      | 721                            | 742          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |
| 5011-9Y<br>5011E-9Y   | M5011-9Y<br>M5011E-9Y     | Three Phase<br>Wye                 | 240   | 60    | 0-280  | 150      | 72.5    | CW                                  | 2-2-2  | D-D-D  | 22 & 6                  | 717                            | 738          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |
| 5021-9P<br>5021E-9P   | M5021-9P<br>M5021E-9P     | Single Phase<br>Parallel           | 240   | 50/60 | 0-240  | 252      | 60.5    | CW                                  | 1-4  | 1-D    | 22                      | 721                            | 742          |
|                       |                           |                                    |       |       | 0-280  | 252      | 70.6    | CW                                  | 1-2  | 1-D    |                         |                                |              |
| 5021-9Y<br>5021E-9Y   | M5021-9Y<br>M5021E-9Y     | Three Phase<br>Wye                 | 480   | 50/60 | 0-480  | 84       | 69.8    | CW                                  | 4-4-4  | D-D-D  | 22 & 6                  | 717                            | 738          |
|                       |                           |                                    |       | 60    | 0-560  | 84       | 81.5    | CW                                  | 2-2-2  | D-D-D  |                         |                                |              |
| —                     | M5011-10D<br>M5011E-10D   | Three Phase<br>Open Delta          | 120   | 50/60 | 0-140  | 250      | 60.6    | CW                                  | 2-1-2  | D-1-D  | 22 & 5                  | 812                            | 812          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |
| —                     | M5011-10PS<br>M5011E-10PS | Single Phase<br>Series<br>Parallel | 240   | 50/60 | 0-280  | 250      | 70.0    | CW                                  | 2-2  | D-D    | 22 & 4                  | 812                            | 812          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |
| —                     | M5021-10D<br>M5021E-10D   | Three Phase<br>Open Delta          | 240   | 50/60 | 0-240  | 140      | 58.2    | CW                                  | 4-1-4  | D-1-D  | 22 & 5                  | 812                            | 812          |
|                       |                           |                                    |       |       | 0-280  | 140      | 67.9    | CW                                  | 2-1-2  | D-1-D  |                         |                                |              |
| —                     | M5021-10D<br>M5021E-10D   | Three Phase<br>Open Delta          | 120   | 50/60 | 0-280  | 140      | 29.1    | CW                                  | 5-1-5  | D-1-D  | 22 & 5                  | 812                            | 812          |
|                       |                           |                                    |       |       |        |          |         |                                     |  |        |                         |                                |              |

# 5000 Series

| PART NUMBER       |                           | WIRING                       | INPUT |       | OUTPUT |                  |         | SHAFT ROTATION FOR VOLTAGE INCREASE | TERMINAL CONNECTIONS<br>For Increasing Voltage<br>As Viewed from Rotor End |        | SCHE-MATIC<br>(Pg 8 & 9) | NET WEIGHT<br>IN LBS.<br>(MAX) |              |
|-------------------|---------------------------|------------------------------|-------|-------|--------|------------------|---------|-------------------------------------|--|--------|--------------------------|--------------------------------|--------------|
| MANUALLY OPERATED | MOTOR DRIVEN              |                              | VOLTS | HERTZ | VOLTS  | MAX AMPS         | MAX KVA |                                     | INPUT  | OUTPUT |                          | MAN-UAL                        | MOTOR DRIVEN |
| —                 | M5021-10PS<br>M5021E-10PS | Single Phase Series Parallel | 480   | 50/60 | 0-480  | 140              | 67.2    | CW                                  | 4-4  | D-D    | 22 & 4                   | —                              | 812          |
|                   |                           |                              |       |       | 0-560  | 140              | 78.4    | CW                                  | 2-2  | D-D    |                          |                                |              |
|                   |                           |                              | 240   | 50/60 | 0-560  | 140*60<br>V. D.  | 33.6‡   | CW                                  | 5-5  | D-D    |                          |                                |              |
| —                 | M5011-12D<br>M5011E-12D   | Three Phase Open Delta       | 120   | 50/60 | 0-140  | 300              | 72.7    | CW                                  | 2-1-2  | D-1-D  | 22 & 5                   | —                              | 940          |
| —                 | M5011-12PS<br>M5011E-12PS | Single Phase Series Parallel | 240   | 50/60 | 0-280  | 300              | 84.0    | CW                                  | 2-2  | D-D    | 22 & 4                   | —                              | 940          |
| —                 | M5021-12D<br>M5021E-12D   | Three Phase Open Delta       | 240   | 50/60 | 0-240  | 168              | 69.8    | CW                                  | 4-1-4  | D-1-D  | 22 & 5                   | —                              | 940          |
|                   |                           |                              |       |       | 0-280  | 168              | 81.5    | CW                                  | 2-1-2  | D-1-D  |                          |                                |              |
|                   |                           |                              | 120   | 50/60 | 0-280  | 168*72<br>V. D.  | 34.9‡   | CW                                  | 5-1-5  | D-1-D  |                          |                                |              |
| —                 | M5021-12PS<br>M5021E-12PS | Single Phase Series Parallel | 480   | 50/60 | 0-480  | 168              | 80.6    | CW                                  | 4-4  | D-D    | 22 & 4                   | —                              | 940          |
|                   |                           |                              |       |       | 0-560  | 168              | 94.1    | CW                                  | 2-2  | D-D    |                          |                                |              |
|                   |                           |                              | 240   | 50/60 | 0-560  | 168*72<br>V. D.  | 40.3‡   | CW                                  | 5-5  | D-D    |                          |                                |              |
| —                 | M5011-14D<br>M5011E-14D   | Three Phase Open Delta       | 120   | 50/60 | 0-140  | 350              | 84.9    | CW                                  | 2-1-2  | D-1-D  | 22 & 5                   | —                              | 1097         |
| —                 | M5011-14PS<br>M5011E-14PS | Single Phase Series Parallel | 240   | 50/60 | 0-280  | 350              | 98.0    | CW                                  | 2-2  | D-D    | 22 & 4                   | —                              | 1097         |
| —                 | M5021-14D<br>M5021E-14D   | Three Phase Open Delta       | 240   | 50/60 | 0-240  | 196              | 81.5    | CW                                  | 4-1-4  | D-1-D  | 22 & 5                   | —                              | 1097         |
|                   |                           |                              |       |       | 0-280  | 196              | 95.1    | CW                                  | 2-1-2  | D-1-D  |                          |                                |              |
|                   |                           |                              | 120   | 50/60 | 0-280  | 196*84<br>V. D.  | 40.8‡   | CW                                  | 5-1-5  | D-1-D  |                          |                                |              |
| —                 | M5021-14PS<br>M5021E-14PS | Single Phase Series Parallel | 480   | 50/60 | 0-480  | 196              | 94.1    | CW                                  | 4-4  | D-D    | 22 & 4                   | —                              | 1097         |
|                   |                           |                              |       |       | 0-560  | 196              | 109.8   | CW                                  | 2-2  | D-D    |                          |                                |              |
|                   |                           |                              | 240   | 50/60 | 0-560  | 196*84<br>V. D.  | 47.1‡   | CW                                  | 5-5  | D-D    |                          |                                |              |
| —                 | M5011-16D<br>M5011E-16D   | Three Phase Open Delta       | 120   | 50/60 | 0-140  | 400              | 96.7    | CW                                  | 2-1-2  | D-1-D  | 22 & 5                   | —                              | 1254         |
| —                 | M5011-16PS<br>M5011E-16PS | Single Phase Series Parallel | 240   | 50/60 | 0-280  | 400              | 112.0   | CW                                  | 2-2  | D-D    | 22 & 4                   | —                              | 1254         |
| —                 | M5021-16D<br>M5021E-16D   | Three Phase Open Delta       | 240   | 50/60 | 0-240  | 224              | 93.1    | CW                                  | 4-1-4  | D-1-D  | 22 & 5                   | —                              | 1254         |
|                   |                           |                              |       |       | 0-280  | 224              | 108.6   | CW                                  | 2-1-2  | D-1-D  |                          |                                |              |
|                   |                           |                              | 120   | 50/60 | 0-280  | 224*96<br>V. D.  | 46.6‡   | CW                                  | 5-1-5  | D-1-D  |                          |                                |              |
| —                 | M5021-16PS<br>M5021E-16PS | Single Phase Series Parallel | 480   | 50/60 | 0-480  | 224              | 107.5   | CW                                  | 4-4  | D-D    | 22 & 4                   | —                              | 1254         |
|                   |                           |                              |       |       | 0-560  | 224              | 125.5   | CW                                  | 2-2  | D-D    |                          |                                |              |
|                   |                           |                              | 240   | 50/60 | 0-560  | 224*96<br>V. D.  | 53.8‡   | CW                                  | 5-5  | D-D    |                          |                                |              |
| —                 | M5011-18D<br>M5011E-18D   | Three Phase Open Delta       | 120   | 50/60 | 0-140  | 450              | 109.0   | CW                                  | 2-1-2  | D-1-D  | 22 & 5                   | —                              | 1417         |
| —                 | M5011-18PS<br>M5011E-18PS | Single Phase Series Parallel | 240   | 50/60 | 0-280  | 450              | 126.0   | CW                                  | 2-2  | D-D    | 22 & 4                   | —                              | 1417         |
| —                 | M5021-18D<br>M5021E-18D   | Three Phase Open Delta       | 240   | 50/60 | 0-240  | 252              | 104.5   | CW                                  | 4-1-4  | D-1-D  | 22 & 5                   | —                              | 1417         |
|                   |                           |                              |       |       | 0-280  | 252              | 122.2   | CW                                  | 2-1-2  | D-1-D  |                          |                                |              |
|                   |                           |                              | 120   | 50/60 | 0-280  | 252*108<br>V. D. | 52.5‡   | CW                                  | 5-1-5  | D-1-D  |                          |                                |              |
| —                 | M5021-18PS<br>M5021E-18PS | Single Phase Series Parallel | 480   | 50/60 | 0-480  | 252              | 121.0   | CW                                  | 4-4  | D-D    | 22 & 4                   | —                              | 1417         |
|                   |                           |                              |       |       | 0-560  | 252              | 141.0   | CW                                  | 2-2  | D-D    |                          |                                |              |
|                   |                           |                              | 240   | 50/60 | 0-560  | 252*108<br>V. D. | 60.5‡   | CW                                  | 5-5  | D-D    |                          |                                |              |
| —                 | M5011-12Y<br>M5011E-12Y   | Three Phase Wye              | 240   | 60    | 0-280  | 200              | 96.7    | CW                                  | 2-2-2  | D-D-D  | 22 & 6                   | —                              | 942          |
| —                 | M5021-12Y<br>M5021E-12Y   | Three Phase Wye              | 480   | 50/60 | 0-480  | 112              | 93.1    | CW                                  | 4-4-4  | D-D-D  | 22 & 6                   | —                              | 942          |
|                   |                           |                              |       | 60    | 0-560  | 112              | 108.6   | CW                                  | 2-2-2  | D-D-D  |                          |                                |              |
|                   |                           |                              | 240   | 60    | 0-560  | 112*48<br>V. D.  | 46.6‡   | CW                                  | 5-5-5  | D-D-D  |                          |                                |              |

# 5000 Series

| PART NUMBER       |                         | WIRING          | INPUT |       | OUTPUT |                 |         | SHAFT ROTATION FOR VOLTAGE INCREASE | TERMINAL CONNECTIONS<br>For Increasing Voltage<br>As Viewed from Rotor End |        | SCHEMATIC<br>(Pg 8 & 9) | NET WEIGHT<br>IN LBS.<br>(MAX) |              |
|-------------------|-------------------------|-----------------|-------|-------|--------|-----------------|---------|-------------------------------------|--|--------|-------------------------|--------------------------------|--------------|
| MANUALLY OPERATED | MOTOR DRIVEN            |                 | VOLTS | HERTZ | VOLTS  | MAX AMPS        | MAX KVA |                                     | INPUT  | OUTPUT |                         | MANUAL                         | MOTOR DRIVEN |
| —                 | M5011-15Y<br>M5011E-15Y | Three Phase Wye | 240   | 60    | 0-280  | 250             | 121.0   | CW                                  | 2-2-2  | D-D-D  | 22 & 6                  | —                              | 1179         |
| —                 | M5021-15Y<br>M5021E-15Y | Three Phase Wye | 480   | 50/60 | 0-480  | 140             | 116.5   | CW                                  | 4-4-4  | D-D-D  | 22 & 6                  | —                              | 1179         |
|                   |                         |                 |       | 60    | 0-560  | 140             | 136.0   | CW                                  | 2-2-2  | D-D-D  |                         |                                |              |
|                   |                         |                 | 240   | 60    | 0-560  | 140*60<br>V.D.  | 58.2‡   | CW                                  | 5-5-5  | D-D-D  |                         |                                |              |
| —                 | M5011-18Y<br>M5011E-18Y | Three Phase Wye | 240   | 60    | 0-280  | 300             | 145.5   | CW                                  | 2-2-2  | D-D-D  | 22 & 6                  | —                              | 1415         |
| —                 | M5021-18Y<br>M5021E-18Y | Three Phase Wye | 480   | 50/60 | 0-480  | 168             | 139.5   | CW                                  | 4-4-4  | D-D-D  | 22 & 6                  | —                              | 1415         |
|                   |                         |                 |       | 60    | 0-560  | 168             | 163.3   | CW                                  | 2-2-2  | D-D-D  |                         |                                |              |
|                   |                         |                 | 240   | 60    | 0-560  | 168*72<br>V.D.  | 70.0‡   | CW                                  | 5-5-5  | D-D-D  |                         |                                |              |
| —                 | M5011-21Y<br>M5011E-21Y | Three Phase Wye | 240   | 60    | 0-280  | 350             | 169.5   | CW                                  | 2-2-2  | D-D-D  | 22 & 6                  | —                              | 1654         |
| —                 | M5021-21Y<br>M5021E-21Y | Three Phase Wye | 480   | 50/60 | 0-480  | 196             | 163.0   | CW                                  | 4-4-4  | D-D-D  | 22 & 6                  | —                              | 1654         |
|                   |                         |                 |       | 60    | 0-560  | 196             | 189.5   | CW                                  | 2-2-2  | D-D-D  |                         |                                |              |
|                   |                         |                 | 240   | 60    | 0-560  | 196*84<br>V.D.  | 82.0‡   | CW                                  | 5-5-5  | D-D-D  |                         |                                |              |
| —                 | M5011-24Y<br>M5011E-24Y | Three Phase Wye | 240   | 60    | 0-280  | 400             | 193.7   | CW                                  | 2-2-2  | D-D-D  | 22 & 5                  | —                              | 1892         |
| —                 | M5021-24Y<br>M5021E-24Y | Three Phase Wye | 480   | 50/60 | 0-480  | 224             | 186.5   | CW                                  | 4-4-4  | D-D-D  | 22 & 6                  | —                              | 1892         |
|                   |                         |                 |       | 60    | 0-560  | 224             | 217.8   | CW                                  | 2-2-2  | D-D-D  |                         |                                |              |
|                   |                         |                 | 240   | 60    | 0-560  | 224*96<br>V.D.  | 93.0‡   | CW                                  | 5-5-5  | D-D-D  |                         |                                |              |
| —                 | M5011-27Y<br>M5011E-27Y | Three Phase Wye | 240   | 60    | 0-280  | 450             | 218.4   | CW                                  | 2-2-2  | D-D-D  | 22 & 6                  | —                              | 2131         |
| —                 | M5021-27Y<br>M5021E-27Y | Three Phase Wye | 480   | 50/60 | 0-480  | 252             | 209.5   | CW                                  | 4-4-4  | D-D-D  | 22 & 6                  | —                              | 2131         |
|                   |                         |                 |       | 60    | 0-560  | 252             | 244.0   | CW                                  | 2-2-2  | D-D-D  |                         |                                |              |
|                   |                         |                 | 240   | 60    | 0-560  | 252*108<br>V.D. | 105.0‡  | CW                                  | 5-5-5  | D-D-D  |                         |                                |              |

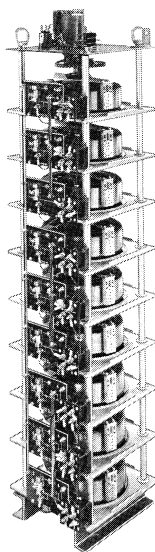
\* Maximum output current in output voltage range from 0 to 25 percent above line voltage. At higher output voltages, output current must be reduced according to rating curve, Figure B, page 6.

‡ Maximum KVA at maximum output and corresponding de-rated current. Maximum KVA at lower output voltages may be calculated from derating curve. Figure B, page 6.

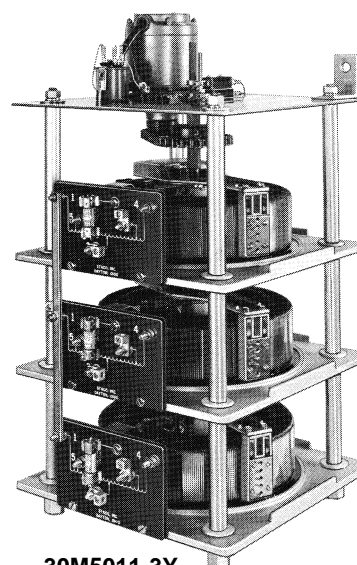
V. D. Voltage Doubler



**5000/6000 Series  
Enclosed Unit**



**30M6020-9Y**



**30M5011-3Y**

# 5000/6000 Series



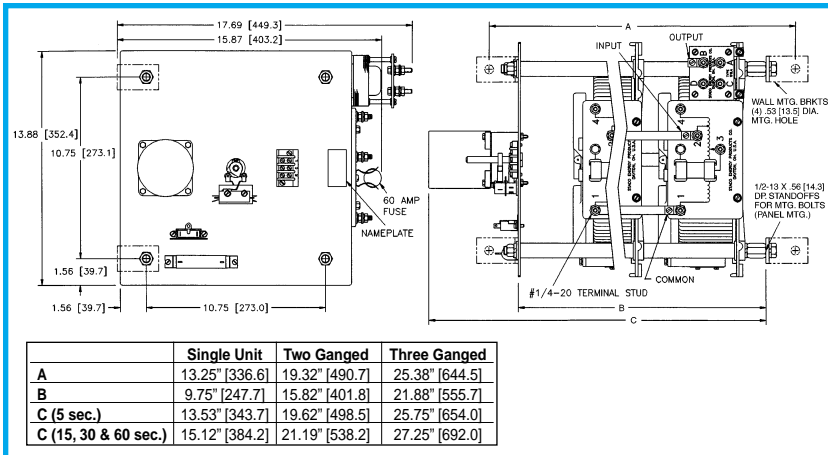
**Manual Single, Uncased**



**Manual Single, Cased**



**Manual Two-Ganged, Cased**



|                      | Single Unit    | Two Ganged     | Three Ganged   |
|----------------------|----------------|----------------|----------------|
| A                    | 13.25" [336.6] | 19.32" [490.7] | 25.38" [644.5] |
| B                    | 9.75" [247.7]  | 15.82" [401.8] | 21.88" [555.7] |
| C (5 sec.)           | 13.53" [343.7] | 19.62" [498.5] | 25.75" [654.0] |
| C (15, 30 & 60 sec.) | 15.12" [384.2] | 21.19" [538.2] | 27.25" [692.0] |

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



**Manual Two and Three-Ganged, Uncased**

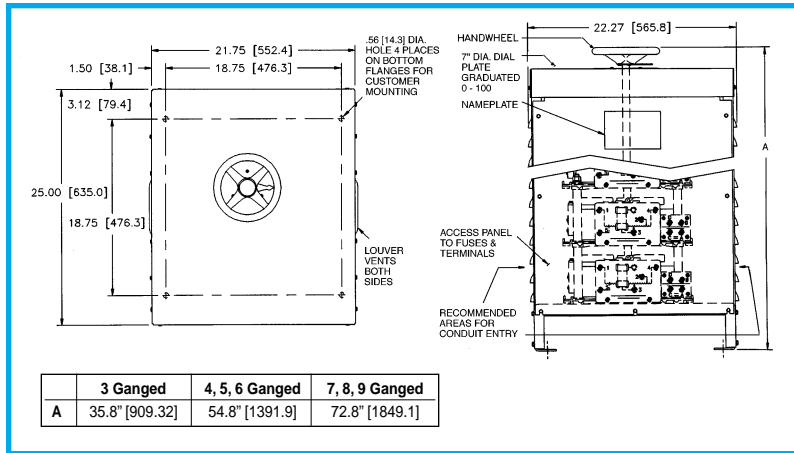
|   | Two Ganged     | Three Ganged   |
|---|----------------|----------------|
| A | 17.06" [433.3] | 23.12" [587.4] |
| B | 13.56" [344.4] | 19.62" [498.3] |
| C | 15.12" [384.2] | 21.19" [538.2] |



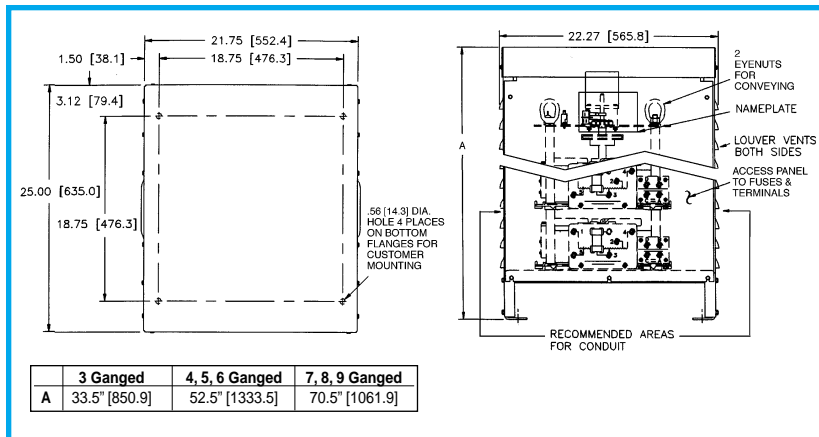
**Motor Driven, Single and Two-Ganged, Cased**

|   | Single Unit    | Two Ganged     |
|---|----------------|----------------|
| A | 12.94" [328.6] | 19.18" [487.3] |
| B | 15.50" [393.7] | 21.56" [547.6] |

# 5000/6000 Series



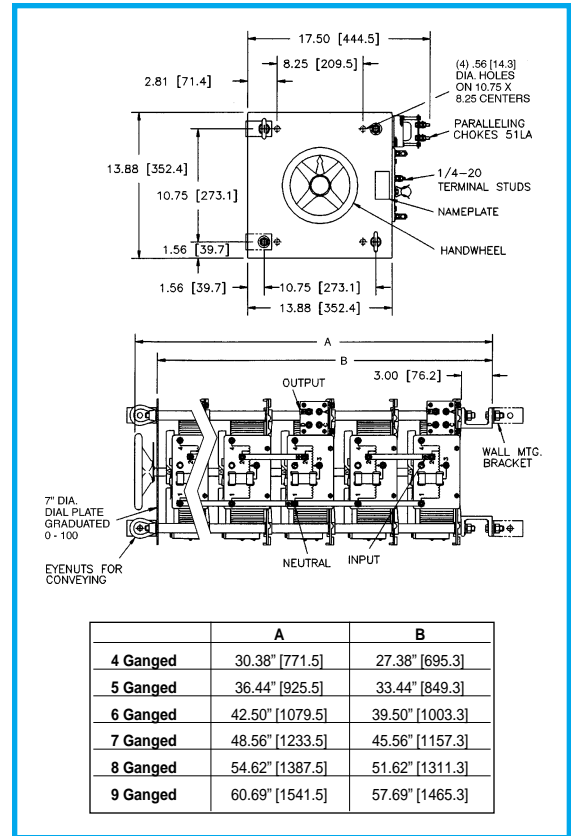
Manual Three to Nine-Ganged, Cased



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



5021-3Y



# 5000/6000 Series



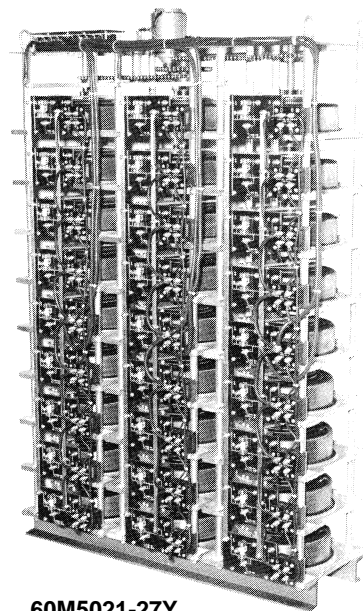
Motor-Driven 12, 15, 18, 21, 24 & 27-Ganged, Uncased



Motor-Driven 12, 15, 18, 21, 24 & 27-Ganged, Cased



Motor-Driven 10, 12, 14, 16 & 18-Ganged Open Delta & Parallel, Uncased



60M5021-27Y

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- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
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- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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