



## Line Card – Electrical Equipment for Industry, Commerce & Renewables



### Power Quality

#### **3-Phase UPS**

- 3-Phase UPS Systems
- Precision Cooling & Containment
- 1-Phase UPS Systems



### Switchgear

- Medium Voltage Switchgear
- Padmounted Switchgear
- Switchboards
- Disconnects
- Panels
- Mini Power Centers
- Isolated Power Panels
- Transfer Switches
- Generator Connection Cabinets
- Secondary Termination Cabinets



### Overhead Distribution

- Gang-Operated Air Break Switches
- Reclosers
- Customer Metering
- Fusible Cutouts
- Power Fuse Holders & Refills
- Disconnect & Bypass Switches
- Arresters
- Insulators
- Crossarms



### Transformers

#### **Liquid Filled Transformers**

- Substation Transformers
- Voltage Regulators

#### **Dry Type Transformers**

- Unit Substations
- Cast Coil Transformers
- 600VAC Dry Type Transformers
- Grounding Transformers
- Reactors
- Neutral Grounding Resistors



### Cable Accessories

- Junction Enclosures
- Junctions
- Termination Kits
- Splice Kits
- Loadbreak Connectors
- Deadbreak Connectors
- Cable Fault Indicators
- Elbow Arresters



### Services

#### **Transformer Repairs**

#### **Rental Transformers & Switchgear**

#### **Buy-Back: We'll buy your surplus!**

- Switchgear
- Transformers
- UPS Systems
- Fuses



### Substations

- Structural Steel
- Overhead Vertical Break Switches
- Circuit Breakers
- Power Transformers
- Voltage Transformers
- Relay Control Panels
- Grounding Material
- Substation Connectors



### Accessories & Parts

- Fuses
- Switchgear Parts
- Relays
- Meters
- Power Sensing Transformers
- Transformer Parts
- Breakers



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Solving unsolvable medium voltage problems for 75+ years

### Low-Voltage Quick Reference

| Single Phase Transformers |                             |       |       |       |
|---------------------------|-----------------------------|-------|-------|-------|
| KVA Rating                | Full Load Current (Amperes) |       |       |       |
|                           | 120 V                       | 240 V | 480 V | 600 V |
| 0.050                     | 0.42                        | 0.21  | 0.1   | 0.08  |
| 0.075                     | 0.63                        | 0.31  | 0.16  | 0.13  |
| 0.100                     | 0.83                        | 0.42  | 0.21  | 0.17  |
| 0.150                     | 1.25                        | 0.63  | 0.31  | 0.25  |
| 0.250                     | 2.08                        | 1.04  | 0.52  | 0.42  |
| 0.500                     | 4.17                        | 2.08  | 1.04  | 0.83  |
| 0.750                     | 6.25                        | 3.13  | 1.56  | 1.25  |
| 1                         | 8.33                        | 4.17  | 2.08  | 1.67  |
| 1.5                       | 12.5                        | 6.25  | 3.13  | 2.5   |
| 2                         | 16.7                        | 8.33  | 4.17  | 3.33  |
| 3                         | 25                          | 12.5  | 6.25  | 5     |
| 5                         | 41.7                        | 20.8  | 10.4  | 8.33  |
| 7.5                       | 62.5                        | 31.3  | 15.6  | 12.5  |
| 10                        | 83.3                        | 41.7  | 20.8  | 16.7  |
| 15                        | 125                         | 62.5  | 31.2  | 25    |
| 25                        | 208                         | 104   | 52    | 41.7  |
| 37.5                      | 312                         | 156   | 78.1  | 62.5  |
| 50                        | 417                         | 208   | 104   | 83.3  |
| 75                        | 625                         | 312   | 156   | 125   |
| 100                       | 833                         | 417   | 208   | 167   |
| 167                       | 1392                        | 696   | 348   | 278   |
| 333                       | 2775                        | 1387  | 694   | 555   |

| Three Phase Transformers |                             |       |       |       |
|--------------------------|-----------------------------|-------|-------|-------|
| KVA Rating               | Full Load Current (Amperes) |       |       |       |
|                          | 208 V                       | 240 V | 480 V | 600 V |
| 3                        | 8.33                        | 7.22  | 3.61  | 2.89  |
| 6                        | 16.6                        | 14.4  | 7.22  | 5.77  |
| 9                        | 25                          | 21.6  | 10.8  | 8.66  |
| 15                       | 41.6                        | 36.1  | 18    | 14.4  |
| 25                       | 69.4                        | 60.1  | 30.1  | 24.1  |
| 30                       | 83.3                        | 72.2  | 36.1  | 28.9  |
| 37.5                     | 104                         | 90.2  | 45.1  | 36.1  |
| 45                       | 125                         | 108   | 54.1  | 43.3  |
| 50                       | 139                         | 120   | 60.1  | 48.1  |
| 60                       | 166                         | 144   | 72.2  | 57.7  |
| 75                       | 208                         | 180   | 90.2  | 72.2  |
| 100                      | 278                         | 241   | 120   | 96.2  |
| 112.5                    | 312                         | 271   | 135   | 108   |
| 150                      | 416                         | 361   | 180   | 144   |
| 225                      | 625                         | 541   | 271   | 217   |
| 300                      | 833                         | 722   | 361   | 289   |
| 400                      | 1110                        | 962   | 481   | 385   |
| 500                      | 1388                        | 1203  | 601   | 481   |
| 750                      | 2082                        | 1804  | 902   | 722   |
| 1000                     | 2776                        | 2406  | 1203  | 962   |

### Formulas for Calculation

$I_{Line}$  Line Current (Amps)  
 $V_{Line}$  Line-to-Line Voltage (Volts)  
 KVA Power in kilovoltamperes

**Three Phase**

$$I_{Line} = \frac{KVA \cdot 1000}{\sqrt{3} \cdot V_{Line}}$$

$$KVA = \frac{\sqrt{3} \cdot V_{Line} \cdot I_{Line}}{1000}$$

**Single Phase**

$$I_{Line} = \frac{KVA \cdot 1000}{V_{Line}}$$

$$KVA = \frac{V_{Line} \cdot I_{Line}}{1000}$$

### Medium-Voltage Quick Reference

| KVA Rating | Primary Full Load Current (Amperes) |        |        |        |         |         |         |         |         |         |
|------------|-------------------------------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
|            | 2400 V                              | 4160 V | 4800 V | 7200 V | 12000 V | 12470 V | 13200 V | 13800 V | 14400 V | 34500 V |
| 112.5      | 27.1                                | 15.6   | 13.5   | 9      | 5.4     | 5.2     | 4.9     | 4.7     | 4.5     | 2       |
| 150        | 36.1                                | 20.8   | 18     | 12     | 7.2     | 6.9     | 6.6     | 6.3     | 6       | 3       |
| 225        | 54.1                                | 31.2   | 27.1   | 18     | 10.8    | 10.4    | 9.8     | 9.4     | 9       | 4       |
| 300        | 72.2                                | 41.6   | 36.1   | 24.1   | 14.4    | 13.9    | 13.1    | 12.6    | 12      | 5       |
| 500        | 120                                 | 69.4   | 60.1   | 40.1   | 24.1    | 23.1    | 21.9    | 20.9    | 20      | 8       |
| 750        | 180                                 | 104    | 90.2   | 60.1   | 36.1    | 34.7    | 32.8    | 31.4    | 30.1    | 13      |
| 1000       | 241                                 | 139    | 120    | 80.2   | 48.1    | 46.3    | 43.7    | 41.8    | 40.1    | 17      |
| 1500       | 361                                 | 208    | 180    | 120    | 72.2    | 69.4    | 65.6    | 62.8    | 60.1    | 25      |
| 2000       | 481                                 | 278    | 241    | 160    | 96.2    | 92.6    | 87.5    | 83.7    | 80.2    | 33      |
| 2500       | 601                                 | 347    | 301    | 200    | 120     | 116     | 109     | 105     | 100     | 42      |
| 3000       | 722                                 | 416    | 361    | 241    | 144     | 139     | 131     | 126     | 120     | 50      |
| 3750       | 902                                 | 520    | 451    | 301    | 180     | 174     | 164     | 157     | 151     | 63      |
| 5000       | 1203                                | 694    | 601    | 401    | 241     | 232     | 219     | 209     | 201     | 84      |

| KVA Rating | Secondary Full Load Current (Amperes) |       |       |       |
|------------|---------------------------------------|-------|-------|-------|
|            | 208 V                                 | 240 V | 480 V | 600 V |
| 112.5      | 312                                   | 271   | 135   | 108   |
| 150        | 416                                   | 361   | 180   | 144   |
| 225        | 625                                   | 541   | 271   | 217   |
| 300        | 833                                   | 722   | 361   | 289   |
| 500        | 1388                                  | 1203  | 601   | 481   |
| 750        | 2082                                  | 1804  | 902   | 722   |
| 1000       | 2776                                  | 2406  | 1203  | 962   |
| 1500       | 4164                                  | 3608  | 1804  | 1443  |
| 2000       | 5551                                  | 4811  | 2406  | 1925  |
| 2500       | 6939                                  | 6014  | 3007  | 2406  |
| 3000       | 8327                                  | 7217  | 3608  | 2887  |

### Quick Turn-Around Items

- Pad Mount Transformers
- Dry Type Transformers
- Medium Voltage Fusible Switchgear
- GOAB Switches
- Station Breakers
- Arresters
- Fuses
- Termination Kits
- Splice Kits
- Loadbreak & Deadbreak Elbows
- Sectionalizing Cabinets