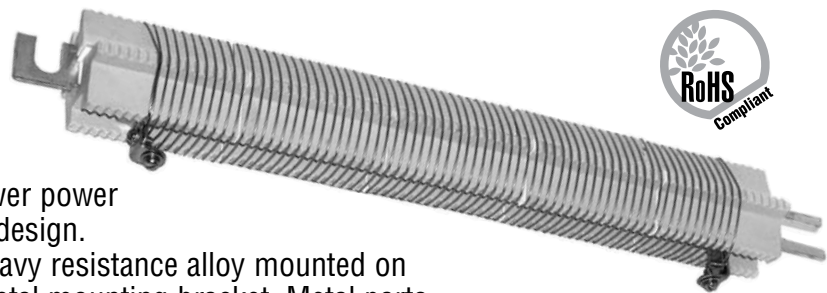


# PFE and PFR Series

## Powr-Rib® Edgewound Edgewound and Round Wire

Designed in both Edgewound and Round Wire formats, these rugged resistors can handle 700 to 1000 Watts of power. Specify our Edgewound design for very low resistance and high power capacity. When higher resistance with lower power capacity is required use our Round Wire design.

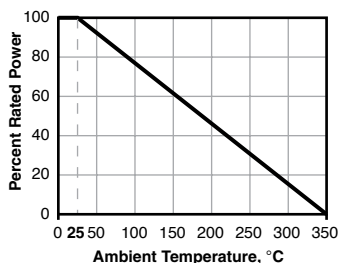
These resistors are constructed of a heavy resistance alloy mounted on ceramic insulators and supported by a metal mounting bracket. Metal parts, except for the resistance element, are heavily plated to prevent oxidation at high operating temperatures and to prevent corrosion. The mounting bar is slotted on each end to facilitate installation. Edgewound units provide clamp-type terminals, permitting a reliable connection which can be moved along the resistive element to obtain intermediate values.



### CHARACTERISTICS

|                                |                                                                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Current Rating</b>          | Continuous duty as listed on following page.                                                                                               |
| <b>Wattage Rating</b>          | 700 to 1,000 (up to 1,600 watts on special order)                                                                                          |
| <b>Resistance Tolerance</b>    | ±10% standard, ±5% available                                                                                                               |
| <b>Terminals</b>               | Clamps, movable along resistor wire for setting intermediate resistance values on Edgewound units (current must be derated in proportion). |
| <b>Temperature Coefficient</b> | ±300 ppm/°C for resistors 50 amps and more; ±500 ppm/°C for resistors 47 amps or less                                                      |
| <b>Ohmic Values</b>            | See chart on following page                                                                                                                |
| <b>Mounting</b>                | Metal mounting bar is slotted on each end to facilitate installation.                                                                      |
| <b>Short Term Overload</b>     | 10x rated wattage for five seconds                                                                                                         |

### Derating



| Size* (No. of Insulator-Sections Long) | 2                        | 3                  | 4                  | 5 (std.)           | 6                  | 7                  | 8                  |
|----------------------------------------|--------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>Dimension A</b>                     | in. 8.875<br>mm (225.43) | 11.875<br>(301.63) | 14.875<br>(377.83) | 17.875<br>(454.03) | 20.875<br>(530.23) | 23.875<br>(606.43) | 26.875<br>(682.63) |
| <b>Dimension B</b>                     | in. 7.250<br>mm (184.15) | 10.250<br>(260.35) | 13.250<br>(336.55) | 16.250<br>(412.75) | 19.250<br>(488.95) | 22.250<br>(565.15) | 25.250<br>(641.35) |
|                                        | Max. Amps                | Ohms               | Ohms               | Ohms               | Ohms               | Ohms               | Ohms               |
| <b>PFE Edgewound</b>                   |                          |                    |                    |                    |                    |                    |                    |
|                                        | 100                      | 0.033              | 0.057              | 0.080              | 0.100              | 0.120              | 0.160              |
|                                        | 91                       | 0.040              | 0.070              | 0.100              | 0.120              | 0.140              | 0.180              |
|                                        | 89                       | 0.046              | 0.078              | 0.110              | 0.140              | 0.170              | 0.200              |
|                                        | 78                       | 0.052              | 0.088              | 0.120              | 0.160              | 0.190              | 0.220              |
|                                        | 75                       | 0.060              | 0.100              | 0.140              | 0.180              | 0.210              | 0.300              |
|                                        | 68                       | 0.070              | 0.120              | 0.180              | 0.220              | 0.260              | 0.340              |
|                                        | 63                       | 0.080              | 0.130              | 0.190              | 0.250              | 0.300              | 0.400              |
|                                        | 57                       | 0.100              | 0.160              | 0.230              | 0.300              | 0.360              | 0.480              |
|                                        | 54                       | 0.110              | 0.180              | 0.250              | 0.330              | 0.400              | 0.540              |
|                                        | 50                       | 0.120              | 0.200              | 0.280              | 0.370              | 0.450              | 0.610              |
|                                        | 47                       | 0.170              | 0.280              | 0.380              | 0.500              | 0.600              | 0.800              |
|                                        | 43                       | 0.210              | 0.330              | 0.460              | 0.600              | 0.720              | 0.980              |
|                                        | 41                       | 0.230              | 0.360              | 0.510              | 0.670              | 0.800              | 1.06               |
|                                        | 39                       | 0.260              | 0.420              | 0.580              | 0.750              | 0.900              | 1.20               |
|                                        | 33                       | 0.350              | 0.560              | 0.770              | 1.00               | 1.20               | 1.60               |
|                                        | 29                       | 0.450              | 0.730              | 1.00               | 1.30               | 1.50               | 2.00               |
|                                        | 26                       | 0.560              | 0.900              | 1.20               | 1.60               | 1.90               | 2.50               |
|                                        | 18.4                     | 0.690              | 1.20               | 1.70               | 2.20               | 2.70               | 3.50               |
|                                        | 16.3                     | 0.880              | 1.50               | 2.20               | 2.80               | 3.40               | 4.60               |
|                                        | 14.6                     | 1.10               | 1.90               | 2.70               | 3.50               | 4.30               | 5.90               |
|                                        | 12.7                     | 1.40               | 2.40               | 3.50               | 4.50               | 5.50               | 7.50               |
|                                        | 11.8                     | 1.70               | 2.90               | 4.20               | 5.40               | 6.60               | 9.00               |
|                                        | 10.3                     | 2.10               | 3.70               | 5.30               | 6.80               | 8.30               | 11.3               |
|                                        | 9.4                      | 2.70               | 4.60               | 6.50               | 8.50               | 10.40              | 14.2               |
| <b>PFR Round-Wire</b>                  |                          |                    |                    |                    |                    |                    |                    |
|                                        | 8.3                      | 3.4                | 5.9                | 8.5                | 11.0               | 13.5               | 18.5               |
|                                        | 7.6                      | 4.1                | 7.1                | 10.0               | 13.0               | 15.9               | 21.7               |
|                                        | 6.6                      | 5.3                | 9.2                | 13.0               | 17.0               | 20.8               | 28.4               |
|                                        | 5.9                      | 6.3                | 10.9               | 15.4               | 20.0               | 24.5               | 33.5               |
|                                        | 5.1                      | 7.9                | 13.6               | 19.3               | 25.0               | 30.7               | 42.1               |

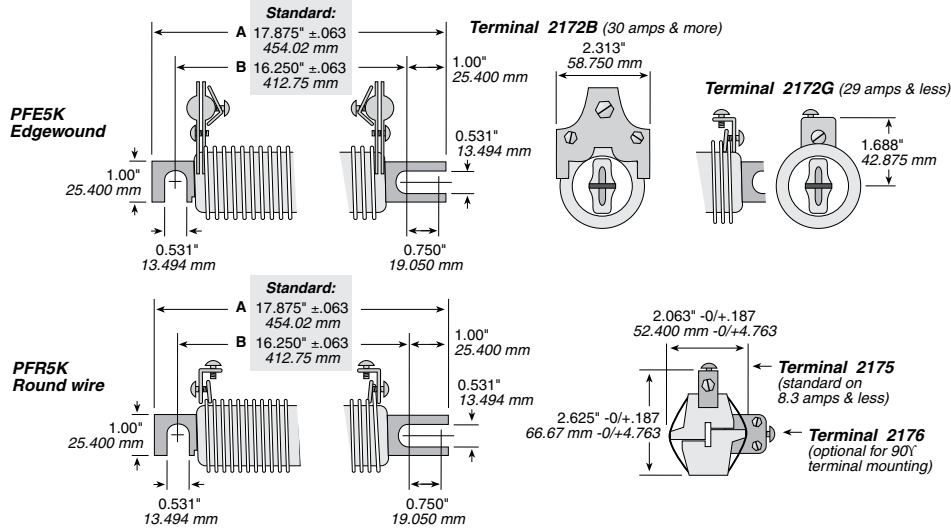
\*Standard 5-section units are stocked; part numbers are listed on the following page.

(continued)

# PFE and PFR Series

## Powr-Rib® Edgewound Edgewound and Round Wire

### DIMENSIONS



All values for reference only;  
Consult factory for details.

| Size (No. of Insulator Sections Long) | 2        | 3        | 4        | 5 (std.) | 6        | 7        | 8        |
|---------------------------------------|----------|----------|----------|----------|----------|----------|----------|
| <b>Dimension A</b>                    |          |          |          |          |          |          |          |
| in.                                   | 8.875    | 11.875   | 14.875   | 17.875   | 20.875   | 23.875   | 26.875   |
| mm                                    | (225.43) | (301.63) | (377.83) | (454.03) | (530.23) | (606.43) | (682.63) |
| <b>Dimension B</b>                    |          |          |          |          |          |          |          |
| in.                                   | 7.250    | 10.250   | 13.250   | 16.250   | 19.250   | 22.250   | 25.250   |
| mm                                    | (184.15) | (260.35) | (336.55) | (412.75) | (488.95) | (565.15) | (641.35) |

### HOW TO ORDER

| Style           | # of Sections | Tolerance | Ohms        |
|-----------------|---------------|-----------|-------------|
| PFE = Edgewound | 2 5           | K = 10%   | R100 = 0.10 |
| PFR = Roundwire | 3 6           |           | 1R00 = 1.0  |
|                 | 4 7           |           | 10R0 = 10   |
|                 | 8             |           |             |

| Ohms | Part #       | Watts | Amps |
|------|--------------|-------|------|
| 0.1  | ✓ PFE5KR100E | 1000  | 100  |
| 0.12 | ✓ PFE5KR120E | 994   | 91   |
| 0.14 | ✓ PFE5KR140E | 1100  | 89   |
| 0.16 | ✱ PFE5KR160E | 973   | 78   |
| 0.18 | ✱ PFE5KR180E | 1012  | 75   |
| 0.22 | ✓ PFE5KR220E | 1017  | 68   |
| 0.25 | ✓ PFE5KR250E | 992   | 63   |
| 0.3  | ✱ PFE5KR300E | 975   | 57   |
| 0.33 | ✓ PFE5KR330E | 962   | 54   |
| 0.37 | ✓ PFE5KR370E | 925   | 50   |
| 0.5  | ✓ PFE5KR500E | 1105  | 47   |
| 0.6  | ✓ PFE5KR600E | 1109  | 43   |
| 0.67 | ✓ PFE5KR670E | 1126  | 41   |
| 0.75 | ✓ PFE5KR750E | 1141  | 39   |
| 1    | ✓ PFE5K1R00E | 1089  | 33   |
| 1.3  | ✓ PFE5K1R30E | 1093  | 29   |
| 1.6  | ✓ PFE5K1R60E | 1082  | 26   |
| 2.2  | ✓ PFE5K2R20E | 745   | 18.4 |
| 2.8  | ✓ PFE5K2R80E | 744   | 16.3 |
| 3.5  | ✓ PFE5K3R50E | 746   | 14.6 |
| 4.5  | ✓ PFE5K4R50E | 726   | 12.7 |
| 5.4  | ✓ PFE5K5R40E | 752   | 11.8 |
| 6.8  | ✓ PFE5K6R80E | 721   | 10.3 |
| 8.5  | ✓ PFE5K8R50E | 751   | 9.4  |

| Ohms | Part #       | Watts | Amps |
|------|--------------|-------|------|
| 11   | ✓ PFR5K11R0E | 757   | 8.3  |
| 13   | ✓ PFR5K13R0E | 750   | 7.6  |
| 17   | ✓ PFR5K17R0E | 740   | 6.6  |
| 20   | ✓ PFR5K20R0E | 696   | 5.9  |
| 25   | ✓ PFR5K25R0E | 650   | 5.1  |

✓ = Standard values  
✱ = Non-standard values subject to minimum handling charge per item.