

Standoff Insulators

Hi-Pot Tested to Assure Electrical Reliability

Standoff insulators are molded of UL®-recognized flame resistant fiberglass-reinforced thermoset polyester molding compound. Insulators 1603, 2015, 1461, 1872, 4610 and 4640 are UL -recognized according to UL Standard for Safety 891.

They feature shatter resistance and closer height tolerances than commonly available in porcelain insulators. Moisture and heat-resistance properties of these insulators are higher than those of conventional plastic insulators.

Voltage Rating

This is only meant to be a guide for indoor service. Insulators mounted within a suitable electrical cabinet are considered indoors even though the cabinet itself is outdoors. An insulator will withstand its rated voltage continuously, but industry standards or other specifications may require a different spacing from conductor to ground for a particular voltage. Wet or dirty conditions may require derating an insulator.

Outdoor Use

Insulators are primarily intended to be used indoors or inside a suitable enclosure. Insulators 1642 and 2450 should not be used upside down if there is a possibility of the center hole filling with water.



UL Recognition

All insulators are molded from UL-recognized molding materials (UL File E23525). When submitting your equipment to UL, you may need to furnish the molding material grade number used for a particular insulator. This information is available from Röchling Glastic Composites. All of the molding materials used in our insulators have a generic relative Thermal Index of 130° C Electrical/130° C Mechanical. 1603, 2165, 2015, 1461, 1872, 4610 and 4640 insulators are UL-recognized according to UL standard for Safety 891 (UL File E81713).

Physical and Electrical Properties

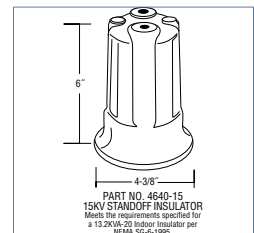
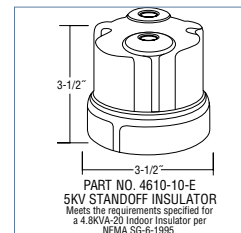
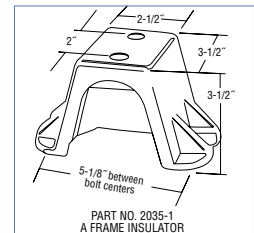
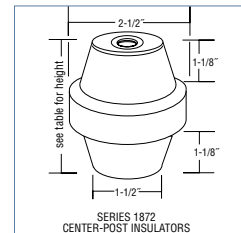
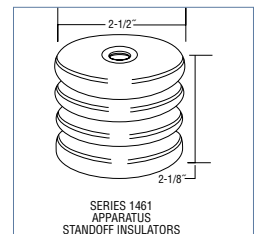
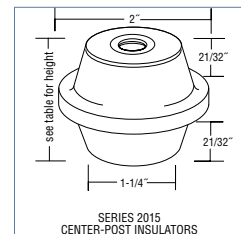
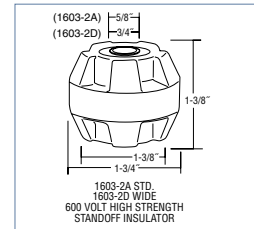
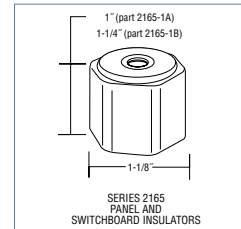
| VALUES | 2165 | 1603-2A | 1603-2D | 2015 | 1461 | 1872 | 2035-1 | 4610-10-E | 4640-15 |
|---------------------------------|------------------|---------|---------|----------------------|--------|----------------------|--------|-----------|---------|
| Tensile Strength (lbs.) | 1000 | 2,000 | 2500 | 2,000 | 3,000 | 2,500 | 2,500 | 3,000 | 5,000 |
| Cantilever Strength (inch lbs.) | 400 | 1,500 | 1,800 | 1,750 | 3,500 | 3,000 | 3,600 | 6,000 | 10,000 |
| Compression Strength (lbs.) | 8000 | 20,000 | 20,000 | 20,000 | 60,000 | 25,000 | 25,000 | 20,000 | 20,000 |
| Torque Strength (ft. lbs.) | 12 | 25 | 30 | 35 | 35 | 35 | – | 200 | 285 |
| Arc Resistance (sec.) | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 |
| UL Subject 94 Flame Resistance | 94 V-0 | 94 V-0 | 94 V-0 | 94 V-0 | 94 V-0 | 94 V-0 | 94 V-0 | 94 V-0 | 94 V-0 |
| Height Tolerance (in.) | ± .015 | ± .015 | ± .015 | ± .015 | ± .015 | ± .015 | ± .015 | ± .010 | ± .015 |
| Creep Distance (in.) | Insulator Height | 1½ | 1½ | ¼ + Insulator Height | ¾ | ⅝ + Insulator Height | ¾ | 3⅛ | 7 |
| Dry Hi-Pot (volts) NEMA Specs. | – | – | – | – | – | – | – | 19,000 | 36,000 |
| Dew Hi-Pot (volts) NEMA Specs. | – | – | – | – | – | – | – | 15,000 | 26,000 |
| Impulse (volts, 1.5 x 40 wave) | – | – | – | – | – | – | – | 60,000 | 95,000 |
| Track Resistance (minutes) | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |





Standoff Insulators

| Part No. | Height (In.) | Thread Size (In.) | DIMENSIONS | | |
|----------|--------------|--|---------------------------------|-----------------------------------|--------------|
| | | | Suggested Indoor Voltage Rating | Short Time Electrical Strength Kv | Weight (Lb.) |
| 2165-1A | 1 | 1/4 x 20 x 5/16 deep | 600 | 18.6 | 0.06 |
| 2165-1B | 1 1/4 | 1/4 x 20 x 5/16 deep | 600 | — | 0.06 |
| 1603-2A | 1 3/8 | 3/8 x 16 x 3/8 deep | 600 | 10.0 | 0.19 |
| 1603-2D | 1 1/2 | 3/8 x 16 x 3/8 deep | 600 | 10.0 | 0.19 |
| 2015-1A | 1 1/2 | 1/4 x 20 x 1/2 deep | 1500 | 33.4 | 0.20 |
| 2015-2A | 1 1/2 | 5/16 x 18 x 7/16 deep | 1500 | 33.4 | 0.19 |
| 2015-3A | 1 1/2 | 3/8 x 16 x 3/8 deep | 1500 | 33.4 | 0.20 |
| 2015-2B | 1 3/4 | 5/16 x 18 x 7/16 deep | 2000 | — | 0.25 |
| 2015-3B | 1 3/4 | 3/8 x 16 x 3/8 deep | 2000 | — | 0.25 |
| 2015-2C | 2 | 5/16 x 18 x 7/16 deep | 2300 | 43.1 | 0.30 |
| 2015-3C | 2 | 3/8 x 16 x 9/16 deep | 2300 | 43.1 | 0.31 |
| 2015-4C | 2 | 1/2 x 13 x 5/8 deep | 2300 | 43.1 | 0.30 |
| 2015-3D | 2 1/4 | 3/8 x 16 x 9/16 deep | 2700 | — | 0.36 |
| 2015-4D | 2 1/4 | 1/2 x 13 x 5/8 deep | 2700 | — | 0.36 |
| 1461-1A | 2 1/8 | 3/8 x 16 x 9/16 deep | 2500 | 49.3 | 0.61 |
| 1461-1B | 2 1/8 | 1/2 x 13 x 5/8 deep | 2500 | 27.9 | 0.61 |
| 1461-1C | 2 1/8 | 5/8 x 11 x 5/8 deep | 2500 | 21.0 | 0.61 |
| 1872-1A | 2 1/2 | 3/8 x 16 x 9/16 deep | 3200 | 51.4 | 0.44 |
| 1872-2A | 2 1/2 | 1/2 x 13 x 5/8 deep | 3200 | 51.4 | 0.45 |
| 1872-3F | 2 5/8 | 5/8 x 11 x 11/16 deep | 3400 | — | 0.60 |
| 1872-1B | 2 3/4 | 3/8 x 16 x 9/16 deep | 3600 | — | 0.53 |
| 1872-2B | 2 3/4 | 1/2 x 13 x 5/8 deep | 3600 | — | 0.51 |
| 1872-1C | 3 | 3/8 x 16 x 9/16 deep | 4100 | — | 0.59 |
| 1872-2C | 3 | 1/2 x 13 x 5/8 deep | 4100 | — | 0.60 |
| 1872-1D | 3 1/4 | 3/8 x 16 x 9/16 deep | 4500 | — | 0.67 |
| 1872-2D | 3 1/4 | 1/2 x 13 x 5/8 deep | 4500 | — | 0.67 |
| 1872-1E | 3 1/2 | 3/8 x 16 x 9/16 deep | 5000 | 55.2 | 0.76 |
| 1872-2E | 3 1/2 | 1/2 x 13 x 5/8 deep | 5000 | 55.2 | 0.58 |
| 1872-3E | 3 1/2 | 5/8 x 11 x 11/16 deep | 5000 | 55.2 | 0.74 |
| 2035-1 | 3 1/2 | 2" bolt circle | 5000 | — | 1.20 |
| 4610-10E | 3 1/2 | 3/8 x 16 x 9/16 deep — 2" bolt circle | 5000 | — | 1.78 |
| 4640-15 | 6 | 3/8 x 16 x 9/16 deep — 2" bolt circle | 15,000 | — | 3.49 |



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