

# Wind CUBEFuse™

## For Wind Power Generation Applications



**Catalog Symbol:** WCF\_RN

**Description:** Finger-safe, fast-acting CUBEFuse for wind power generation.

**Electrical Characteristics:** Maximum clearing time at 200% rated current:

- 4 Minutes for 1 to 30A fuses
- 6 Minutes for 35 to 60A fuses
- 8 Minutes for 70 to 100A fuses

**Ratings:**

- Volts — 690Vac
- Amps — 1-100A
- IR — 50kA AC (1-60A)
- IR — 30kA AC (70-100A)

**Agency Information:**

- UL Recognized Fuse: Guide JFHR, File E56412
- cURus component certified C22.2

**Other Ratings/Specifications:**

- Watts Loss at Rated Current:** WCF15RN: 3.48W  
WCF30RN: 5.45W  
WCF60RN: 7.27W  
WCF100RN: 11.50W

**Operating and Storage Temperature Range:** -40 to 90°C

**Material Specifications:**

- Case: Glass filled PES (Polyethersulfone)
- Terminals: Copper alloy
- Terminal plating: Electroless tin

**Installation:**

Fits 690V WCF holders as listed in the table

**Application:**

- Wind Systems:
  - Transformer protection
  - Pitch and speed control
  - Turbine HVAC and lighting

**Carton Quantity and Weight**

| Amp Rating | Carton Qty. | Weight Per Carton |      |
|------------|-------------|-------------------|------|
|            |             | lbs               | kg   |
| WCF1-30A   | 12          | 1.39              | 0.63 |
| WCF35-60A  | 12          | 1.42              | 0.65 |
| WCF70-100A | 6           | 1.74              | 0.79 |

**Features and Product Benefits**

- Maximize uptime and reliability using fuses designed and recognized to UL 248 for low voltage fuses
- Fast-acting protection specifically designed for low-fault current conditions that occur in wind power generation systems
- Minimize chances of equipment failure and personnel injury when using full range fuses having fast response time to low-magnitude faults
- Simplify compatibility with readily available industry standard Class CF holders while minimizing panel space by up to 80%
- Meets all UL specified overload opening requirements
- Minimizes incident energy and reduces arc flash hazards utilizing Class J electrical characteristics
- Finger-safe feature minimizes exposure to live parts, reducing hazard to personnel

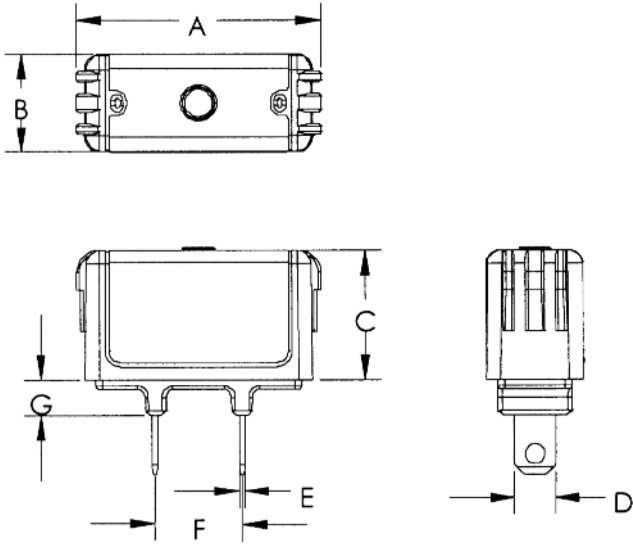
**Catalog Numbers (amp rating)**

| Non-Indicating Wind CUBEFuse |         |         |         |          |
|------------------------------|---------|---------|---------|----------|
| WCF1RN                       | WCF15RN | WCF35RN | WCF60RN | WCF100RN |
| WCF3RN                       | WCF20RN | WCF40RN | WCF70RN | —        |
| WCF6RN                       | WCF25RN | WCF45RN | WCF80RN | —        |
| WCF10RN                      | WCF30RN | WCF50RN | WCF90RN | —        |

**Wind CUBEFuse Holders**

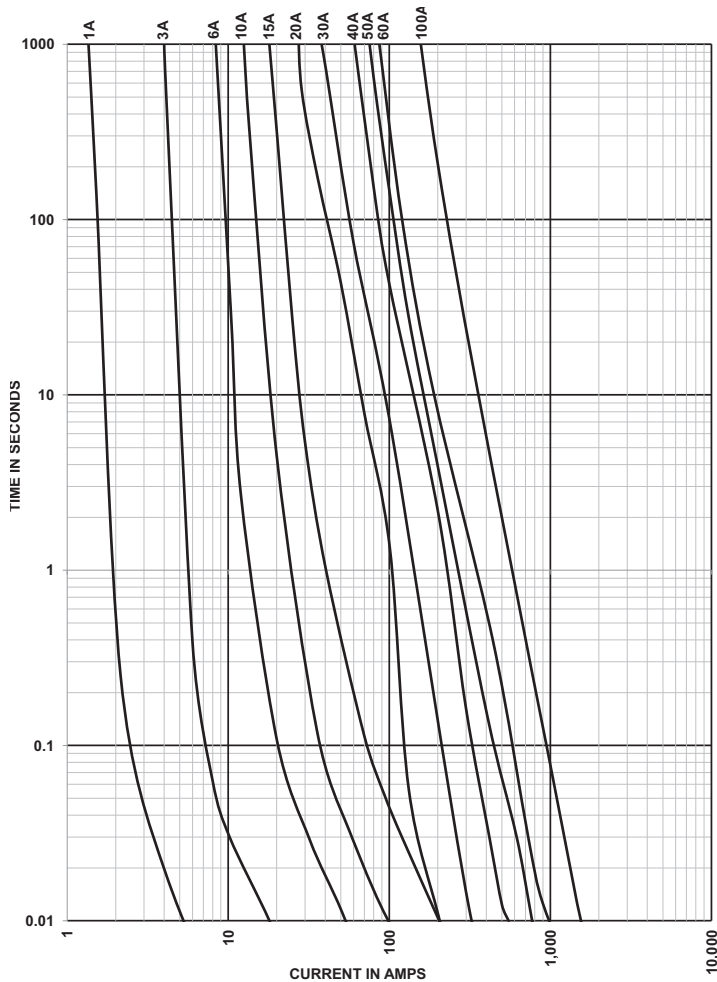
| Catalog Numbers (amps) | Fits 690V Wind CUBEFuse Holder |          |           |
|------------------------|--------------------------------|----------|-----------|
|                        | TCFH30NW                       | TCFH60NW | TCFH100NW |
| WCF1RN                 | X                              | X        | X         |
| WCF3RN                 | X                              | X        | X         |
| WCF6RN                 | X                              | X        | X         |
| WCF10RN                | X                              | X        | X         |
| WCF15RN                | X                              | X        | X         |
| WCF20RN                | X                              | X        | X         |
| WCF25RN                | X                              | X        | X         |
| WCF30RN                | X                              | X        | X         |
| WCF35RN                |                                | X        | X         |
| WCF40RN                |                                | X        | X         |
| WCF50RN                |                                | X        | X         |
| WCF60RN                |                                | X        | X         |
| WCF70RN                |                                |          | X         |
| WCF80RN                |                                |          | X         |
| WCF90RN                |                                |          | X         |
| WCF100RN               |                                |          | X         |

## WCF\_RN Dimensions – in (mm)

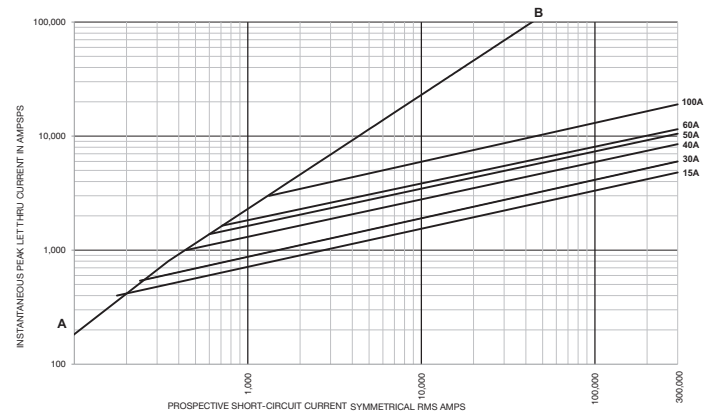


| Fuse Amps | Dimensions - in (mm) |                 |                 |                 |                |                 |                |
|-----------|----------------------|-----------------|-----------------|-----------------|----------------|-----------------|----------------|
|           | A                    | B               | C               | D               | E              | F               | G              |
| 1-15      | 1.88<br>(47.75)      | 0.75<br>(19.05) | 1.00<br>(25.40) | 0.23<br>(5.84)  | 0.04<br>(1.02) | 0.63<br>(15.93) | 0.28<br>(7.11) |
| 20        | 1.88<br>(47.75)      | 0.75<br>(19.05) | 1.00<br>(25.40) | 0.31<br>(7.87)  | 0.04<br>(1.02) | 0.63<br>(15.93) | 0.28<br>(7.11) |
| 25-30     | 1.88<br>(47.75)      | 0.75<br>(19.05) | 1.00<br>(25.40) | 0.31<br>(7.87)  | 0.04<br>(1.02) | 0.63<br>(15.93) | 0.28<br>(7.11) |
| 35-40     | 2.13<br>(54.10)      | 1.00<br>(25.40) | 1.13<br>(28.58) | 0.36<br>(9.10)  | 0.04<br>(1.02) | 0.63<br>(15.93) | 0.38<br>(9.65) |
| 45-50     | 2.13<br>(54.10)      | 1.00<br>(25.40) | 1.13<br>(28.58) | 0.44<br>(11.13) | 0.04<br>(1.02) | 0.63<br>(15.93) | 0.38<br>(9.65) |
| 60        | 2.13<br>(54.10)      | 1.00<br>(25.40) | 1.13<br>(28.58) | 0.44<br>(11.13) | 0.04<br>(1.02) | 0.63<br>(15.93) | 0.38<br>(9.65) |
| 70        | 3.01<br>(76.45)      | 1.00<br>(25.40) | 1.26<br>(32.00) | 0.49<br>(12.45) | 0.06<br>(1.60) | 0.58<br>(14.78) | 0.38<br>(9.65) |
| 80-90     | 3.01<br>(76.45)      | 1.00<br>(25.40) | 1.26<br>(32.00) | 0.49<br>(12.45) | 0.06<br>(1.60) | 0.58<br>(14.78) | 0.38<br>(9.65) |
| 100       | 3.01<br>(76.45)      | 1.00<br>(25.40) | 1.26<br>(32.00) | 0.57<br>(14.48) | 0.06<br>(1.60) | 0.58<br>(14.78) | 0.38<br>(9.65) |

## Time-Current Characteristic Curves—Average Melt



## Current Limitation Curves



## Wind CUBEFuse Holders



All 690V 100, 60 and 30A Wind CUBEFuse holders can be dovetail together for the required number of poles.

## 690V Fuse Holder Catalog Numbers

| Catalog Numbers | Amp Range |
|-----------------|-----------|
| TCFH30NW        | 1-30      |
| TCFH60NW        | 1-60      |
| TCFH100NW       | 1-100     |

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