

# ABB wall-mounted TPME 80 kA series

## Surge protective devices



### Product features

- UL Listed 1449 5th Edition, Type 1, Type 2
- cUL Listed, CSA C22.2
- UL 96A, for use in lightning protection systems
- Thermally protected MOV design eliminates the need for additional upstream over-current protection
- Standard features include a surge counter, audible alarm, indicating lights and dry contacts
- 10-year limited warranty

### Available configurations

| Model number  | Voltage                | Configuration            |
|---------------|------------------------|--------------------------|
| TPME120S08WMN | 240/120                | 1-phase, 3-wire + ground |
| TPME120Y08WMN | 208Y/120               | 3-phase, 4-wire + ground |
| TPME220Y08WMN | 380Y/220               | 3-phase, 4-wire + ground |
| TPME240D08WMN | 240 Delta              | 3-phase, 3-wire + ground |
| TPME240H08WMN | 240/120 High-Leg Delta | 3-phase, 4-wire + ground |
| TPME240Y08WMN | 415Y/240               | 3-phase, 4-wire + ground |
| TPME277Y08WMN | 480Y/277               | 3-phase, 4-wire + ground |
| TPME347Y08WMN | 600Y/347               | 3-phase, 4-wire + ground |
| TPME480D08WMN | 480 Delta              | 3-phase, 3-wire + ground |

# Product specifications and performance data

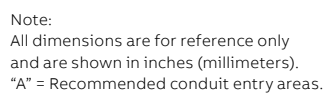
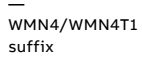
## Product specifications

| Electrical                                               |                                                                                                                                                                                                                                  |         |                   |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------------|
| Maximum surge current rating                             | 160 kA per phase, 80 kA per mode                                                                                                                                                                                                 |         |                   |
| Nominal discharge current rating                         | 20 kA                                                                                                                                                                                                                            |         |                   |
| Operating frequency                                      | 50–60 Hz                                                                                                                                                                                                                         |         |                   |
| Surge life (IEEE C62.41–C3 10 kA )                       | >5,000 impulses                                                                                                                                                                                                                  |         |                   |
| Connection method                                        | #6 to 2/0 AWG conductors, parallel connected                                                                                                                                                                                     |         |                   |
| Modes of protection                                      | All modes (L-N, L-G, N-G, L-L)                                                                                                                                                                                                   |         |                   |
| Fault rating (SCCR)                                      | 200 kA                                                                                                                                                                                                                           |         |                   |
| Standard monitoring                                      | Status indicator lights (one per phase) and red service light<br>Audible alarm with silencer and test switch<br>Contacts for remote monitoring (2 amp, 125 V AC)–(1 amp, 30 V DC)<br>6-digit LCD re-settable surge event counter |         |                   |
| Mechanical                                               |                                                                                                                                                                                                                                  |         |                   |
| Weight                                                   | Varies and depends on enclosure type; please see available options below                                                                                                                                                         |         |                   |
| Installation location                                    | Service entrance equipment, primary distribution equipment                                                                                                                                                                       |         |                   |
| Mounting method                                          | Surface mount, 4-point mounting brackets                                                                                                                                                                                         |         |                   |
| Operating environment                                    | -40 °F to 149 °F (-40 °C to 65 °C)                                                                                                                                                                                               |         |                   |
| Altitude                                                 | 0–12,000 ft. (3.66 km)                                                                                                                                                                                                           |         |                   |
| Product design                                           | Individually fused thermally protected MOV technology                                                                                                                                                                            |         |                   |
| Regulatory                                               |                                                                                                                                                                                                                                  |         |                   |
| UL 1449 5th Edition                                      | VZCA: E320456 Type 1 / Type 2                                                                                                                                                                                                    |         |                   |
| cUL, CSA C22.2                                           | VZCA7: E320456 Type 2 / Type 2                                                                                                                                                                                                   |         |                   |
| UL 1283                                                  | FOKY: E320456 Type 2                                                                                                                                                                                                             |         |                   |
| UL 96A                                                   | Yes                                                                                                                                                                                                                              |         |                   |
| IEEE C62.62, C62.72, C62.41                              | Yes                                                                                                                                                                                                                              |         |                   |
| Listed by                                                | UL                                                                                                                                                                                                                               |         |                   |
| EMI/RFI filter attenuation                               |                                                                                                                                                                                                                                  |         |                   |
| Max. attenuation frequency                               | -50 dB minimum at 100 kHz                                                                                                                                                                                                        |         |                   |
| Warranty                                                 |                                                                                                                                                                                                                                  |         |                   |
| 10-year limited warranty                                 |                                                                                                                                                                                                                                  |         |                   |
|                                                          |                                                                                                                                                                                                                                  |         |                   |
| Options                                                  | Suffix                                                                                                                                                                                                                           | UL type | Weight            |
| Painted steel, NEMA 4 surface mount                      | 4S                                                                                                                                                                                                                               | Type 2  | 44 lbs. (20.0 kg) |
| Stainless steel, NEMA 4X surface mount                   | 4X                                                                                                                                                                                                                               | Type 2  | 50 lbs. (22.7 kg) |
| Painted steel, NEMA 1 surface mount, integral disconnect | 1                                                                                                                                                                                                                                | Type 2  | 63 lbs. (28.5 kg) |
| Fiberglass, NEMA 4X surface mount, integral disconnect   | 4                                                                                                                                                                                                                                | Type 2  | 56 lbs. (25.4 kg) |
| Painted steel, NEMA 4 surface mount                      | 4ST1                                                                                                                                                                                                                             | Type 1  | 44 lbs. (20.0 kg) |
| Stainless steel, NEMA 4X surface mount                   | 4XT1                                                                                                                                                                                                                             | Type 1  | 50 lbs. (22.7 kg) |
| Painted steel, NEMA 1 surface mount, integral disconnect | 1T1                                                                                                                                                                                                                              | Type 1  | 63 lbs. (28.5 kg) |
| Fiberglass, NEMA 4X surface mount, integral disconnect   | 4T1                                                                                                                                                                                                                              | Type 1  | 56 lbs. (25.4 kg) |

## Performance data

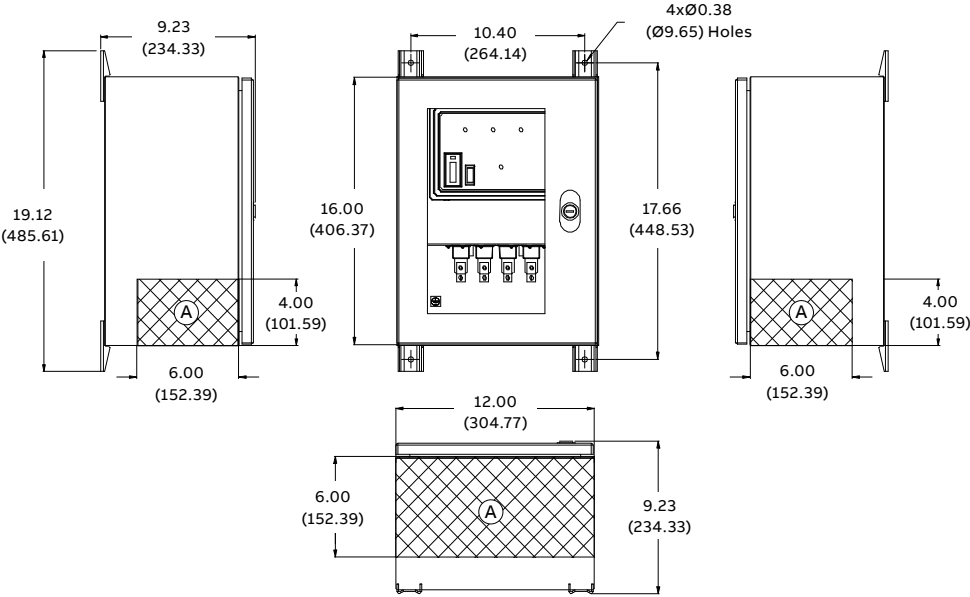
| Model number | Protection mode | MCOV | VPR  | IEEE Cat. B3 100 kHz/500 A | IEEE Cat. B3/ C1 6 kV/3 kA | IEEE Cat. C3 20 kV/10 kA |
|--------------|-----------------|------|------|----------------------------|----------------------------|--------------------------|
| TPME120S     | L-L             | 300  | 1200 | 752                        | 844                        | 1007                     |
|              | L-N             | 150  | 900  | 470                        | 600                        | 793                      |
|              | L-G             | 150  | 800  | 463                        | 485                        | 670                      |
|              | N-G             | 150  | 700  | 452                        | 476                        | 680                      |
| TPME120Y     | L-L             | 300  | 1200 | 752                        | 844                        | 1007                     |
|              | L-N             | 150  | 900  | 470                        | 600                        | 793                      |
|              | L-G             | 150  | 800  | 463                        | 485                        | 670                      |
|              | N-G             | 150  | 700  | 452                        | 476                        | 680                      |
| TPME220Y     | L-L             | 640  | 2000 | 1393                       | 1597                       | 1827                     |
|              | L-N             | 320  | 1500 | 763                        | 1053                       | 1170                     |
|              | L-G             | 320  | 1200 | 836                        | 893                        | 1073                     |
|              | N-G             | 320  | 1200 | 828                        | 880                        | 1180                     |
| TPME240D     | L-L             | 540  | 1800 | 1240                       | 1453                       | 1640                     |
|              | L-N             | –    | –    | –                          | –                          | –                        |
|              | L-G             | 270  | 1200 | 750                        | 763                        | 890                      |
|              | N-G             | –    | –    | –                          | –                          | –                        |
| TPME240H     | L-L             | 300  | 2000 | 752                        | 844                        | 1007                     |
|              | L-N             | 150  | 1000 | 470                        | 600                        | 793                      |
|              | L-G             | 150  | 800  | 463                        | 485                        | 670                      |
|              | N-G             | 150  | 700  | 452                        | 476                        | 680                      |
|              | H-L             | 420  | 2500 | 1393                       | 1597                       | 1827                     |
|              | H-N             | 270  | 1200 | 763                        | 1053                       | 1170                     |
| TPME240Y     | L-L             | 640  | 2000 | 1393                       | 1597                       | 1827                     |
|              | L-N             | 320  | 1500 | 763                        | 1053                       | 1170                     |
|              | L-G             | 320  | 1200 | 836                        | 893                        | 1073                     |
|              | N-G             | 320  | 1200 | 828                        | 880                        | 1180                     |
| TPME277Y     | L-L             | 640  | 2000 | 1340                       | 1597                       | 1827                     |
|              | L-N             | 320  | 1500 | 727                        | 1053                       | 1170                     |
|              | L-G             | 320  | 1200 | 800                        | 893                        | 1073                     |
|              | N-G             | 320  | 1200 | 792                        | 880                        | 1180                     |
| TPME347Y     | L-L             | 840  | 2500 | 1723                       | 2020                       | 2220                     |
|              | L-N             | 420  | 1500 | 883                        | 1187                       | 1467                     |
|              | L-G             | 420  | 1500 | 1000                       | 1113                       | 1240                     |
|              | N-G             | 420  | 1500 | 1000                       | 1120                       | 1240                     |
| TPME480D     | L-L             | 1110 | 3000 | 1800                       | 2647                       | 2933                     |
|              | L-N             | –    | –    | –                          | –                          | –                        |
|              | L-G             | 550  | 1800 | 1223                       | 1407                       | 1607                     |
|              | N-G             | –    | –    | –                          | –                          | –                        |

WMN1/WMN1T1  
suffix



# Dimensional specifications

WMN4S/WMN4ST1,  
WMN4X/WMN4XT1



Note:  
All dimensions are for reference only  
and are shown in inches (millimeters).  
"A" = Recommended conduit entry areas.

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