



CIRCUIT-BREAKER VL 800 UL; TYP MG (CAT NO. NMX3W800)  
NON-INTERCHANGEABLE FRAME W. APPROBATION CIRCUIT-  
BREAKER TO UL489 STANDARD BREAKING CAPACITY 3-POLE,  
NEMA RATING 35KA/480V, (MOLDED CASE CIRCUIT BREAKER)  
ELECTRONIC TRIP UNIT ETU, LIG TU= 40 DEGR. CELSIUS 3  
PHASES/4 CABLES IN= 800A, RATED CURRENT II= 1.25 TO 8 X  
IN, SHORT-CIRCUIT PROTECTION IR= 300-800A  
OVERCURRENT REL. F. PLANT PROTECTION W/O  
CONNECTION ACCESSORIES

| Model                                                                                   |         |
|-----------------------------------------------------------------------------------------|---------|
| Type of the driving mechanism / motor drive                                             | No      |
| Design of the overcurrent release                                                       | ETU545  |
| General technical data                                                                  |         |
| Number of poles                                                                         | 3       |
| Size of the circuit-breaker                                                             | 3VL6 UL |
| Electrical endurance (switching cycles) / typical                                       | 3 000   |
| Usage category                                                                          | A       |
| Performance class for circuit breaker                                                   | N       |
| Mechanical service life (switching cycles) / typical                                    | 10 000  |
| Equipment marking / acc. to DIN 40719 extended according to IEC 204-2 / acc. to IEC 750 | Q       |
| Operating frequency / maximum                                                           | 60 1/s  |
| Voltage                                                                                 |         |
| Rated operational voltage $U_e$ / max.                                                  | 690 V   |
| Insulation voltage                                                                      |         |
| • rated value                                                                           | 800 V   |
| • at AC / rated value                                                                   | 800 V   |

|                                                                          |                   |
|--------------------------------------------------------------------------|-------------------|
| Surge voltage resistance / rated value                                   | 8 kV              |
| <b>Protection class</b>                                                  |                   |
| Protection class IP                                                      | IP20              |
| Protective function of the overcurrent release                           | LIG               |
| <b>Dissipation</b>                                                       |                   |
| Power loss [W]                                                           |                   |
| • maximum                                                                | 250 W             |
| <b>Electricity</b>                                                       |                   |
| Operating current / at 45 °C / rated value                               | 760 A             |
| Continuous current / rated value                                         | 800 A             |
| Derating temperature / for the rated value of the continuous current     |                   |
| • acc. to UL 489                                                         | 40 °C             |
| <b>Main circuit</b>                                                      |                   |
| Operating frequency                                                      |                   |
| • 1 / rated value                                                        | 50 Hz             |
| • 2 / rated value                                                        | 60 Hz             |
| Operating voltage                                                        |                   |
| • rated value / maximum                                                  | 690 V             |
| • for main current circuit / at AC / at 50 Hz / acc. to UL 489 / maximum | 600 V             |
| • for main current circuit / at AC / at 50 Hz / maximum                  | 690 V             |
| • for main current circuit / at AC / at 60 Hz / acc. to UL 489 / maximum | 600 V             |
| • for main current circuit / at AC / at 60 Hz / maximum                  | 690 V             |
| Operating current                                                        |                   |
| • at 40 °C / rated value                                                 | 800 A             |
| • at 50 °C / rated value                                                 | 760 A             |
| • at 55 °C / rated value                                                 | 640 A             |
| • at 60 °C / rated value                                                 | 640 A             |
| <b>Suitability</b>                                                       |                   |
| Suitability for use                                                      | system protection |
| <b>Product details</b>                                                   |                   |
| Product component                                                        |                   |
| • Trip indicator                                                         | No                |
| • Auxiliary switch                                                       | No                |
| • Voltage trigger                                                        | No                |
| • undervoltage release                                                   | No                |

|                                                                  |                                                         |
|------------------------------------------------------------------|---------------------------------------------------------|
| • undervoltage release with leading contact                      | No                                                      |
| Product extension / optional / motor drive                       | Yes                                                     |
| <b>Product function</b>                                          |                                                         |
| <b>Product function</b>                                          |                                                         |
| • of thermal overload trip unit                                  | adjustable                                              |
| • Ground fault protection                                        | Yes                                                     |
| • for neutral conductors / Short-circuit and overload proof      | No                                                      |
| • Overload protection                                            | Yes                                                     |
| <b>Short circuit</b>                                             |                                                         |
| <b>Operational short-circuit current breaking capacity (Ics)</b> |                                                         |
| • at 240 V / rated value                                         | 65 kA                                                   |
| • at 415 V / rated value                                         | 50 kA                                                   |
| • at 690 V / rated value                                         | 10 kA                                                   |
| <b>Maximum short-circuit current breaking capacity (Icu)</b>     |                                                         |
| • at 240 V / rated value                                         | 65 kA                                                   |
| • at 415 V / rated value                                         | 50 kA                                                   |
| • at 480 V / acc. to NEMA / rated value                          | 35 kA                                                   |
| • at 600 V / acc. to NEMA / rated value                          | 25 kA                                                   |
| • at 690 V / rated value                                         | 20 kA                                                   |
| <b>Connections</b>                                               |                                                         |
| Arrangement of electrical connectors / for main current circuit  | front side                                              |
| Type of electrical connection / for main current circuit         | without connection accessoires                          |
| <b>Mechanical Design</b>                                         |                                                         |
| <b>Height</b>                                                    | 406.5 mm                                                |
| <b>Width</b>                                                     | 190 mm                                                  |
| <b>Depth</b>                                                     | 176.5 mm                                                |
| <b>Mounting type</b>                                             | fixed mounting                                          |
| <b>Environmental conditions</b>                                  |                                                         |
| <b>Ambient temperature</b>                                       |                                                         |
| • during operation / minimum                                     | -25 °C                                                  |
| • during operation / maximum                                     | 70 °C                                                   |
| • during storage / minimum                                       | -40 °C                                                  |
| • during storage / maximum                                       | 80 °C                                                   |
| <b>Certificates</b>                                              |                                                         |
| <b>Certificate of suitability</b>                                | UL standard switching capacity (N), non-interchangeable |
| <b>Equipment marking</b>                                         |                                                         |
| • acc. to DIN EN 61346-2                                         | Q                                                       |

| General Product Approval                                                          |                               | EMC                                                                               | Declaration of Conformity                                                         | Test Certificates                                                                   |
|-----------------------------------------------------------------------------------|-------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|  | <a href="#">Miscellaneous</a> |  |  |  |
| CSA                                                                               |                               | UL                                                                                | C-Tick                                                                            | EG-Konf.                                                                            |

| Shipping Approval                                                                 | other                         |                                             |                              |  |
|-----------------------------------------------------------------------------------|-------------------------------|---------------------------------------------|------------------------------|--|
|  | <a href="#">Miscellaneous</a> | <a href="#">Environmental Confirmations</a> | <a href="#">Confirmation</a> |  |
| RMRS                                                                              |                               |                                             |                              |  |

#### Further information

##### Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/lowvoltage/catalogs>

##### Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3VL6180-1PD30-0AA0>

##### Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3VL6180-1PD30-0AA0>

##### Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3VL6180-1PD30-0AA0](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3VL6180-1PD30-0AA0)

##### CAX-Online-Generator

<http://www.siemens.com/cax>

##### Tender specifications

<http://www.siemens.com/specifications>