One system.
Worldwide application.

3VA molded case circuit breakers with UL certification – tested in accordance with the North American standard.

Published by
Siemens AG 2016
Energy Management Division
Siemensstrasse 10
93055 Regensburg, Germany

Subject to changes and errors.
The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.
Molded case circuit breaker – heart of the electrical power distribution

Whether in industrial applications, buildings, or infrastructure: The 3VA range of molded case circuit breakers ensures reliable all-round protection of personnel and plants and additionally supports every process phase – from planning to the ongoing operation of an electrical power distribution.

Individual solutions
With more than 500 accessory components, 3VA molded case circuit breakers can be configured as needed, expanded with additional functions, and flexibly tailored to meet specific requirements.

Minimal effort
All product and planning data is available online. Using the QR code laser-printed on the device (Knowledge Manager), technical information can even be retrieved directly on-site at the plant. This significantly shortens the time required for commissioning and maintenance.

More transparency
The integrated metering function of the 3VA6 molded case circuit breaker makes it possible to record the current, voltage, energy data, and plant conditions, for increased transparency of energy flows and higher plant availability.

Reliable operation
The new “100% rated” versions of the 3VA6 molded case circuit breaker ensure additional safety: They can be operated continuously with 100% of the specified nominal current. They were specifically tested and certified for this kind of operation.

Certified safety

Perfect for global challenges

The 3VA UL molded case circuit breakers are ideal for machine builders and switchgear manufacturers who export worldwide: In addition to the IEC standard, both 3VA5 and 3VA6 model ranges also meet the UL standard. You can use all the functionalities of the modular and highly variable molded case circuit breaker system for plants that operate in North America and in Europe.

That means:
- Tested in accordance with UL 489 and IEC 60947 to ensure conformity with standards
- Simplified planning and ordering processes
- Lower storage costs

Perfect for global challenges

<table>
<thead>
<tr>
<th>Contents</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfect for global challenges</td>
<td>02–03</td>
</tr>
<tr>
<td>3VA5 molded case circuit breaker</td>
<td>04</td>
</tr>
<tr>
<td>3VA6 molded case circuit breaker</td>
<td>05</td>
</tr>
<tr>
<td>Nearly unlimited combinations</td>
<td>06–07</td>
</tr>
<tr>
<td>Flexible planning</td>
<td>08–09</td>
</tr>
<tr>
<td>Reducing effort</td>
<td>10–11</td>
</tr>
<tr>
<td>Collecting relevant data</td>
<td>12–13</td>
</tr>
<tr>
<td>Accelerating processes</td>
<td>14</td>
</tr>
<tr>
<td>Our support is always there for you</td>
<td>15</td>
</tr>
</tbody>
</table>
Flexible use
With a rated current of 15 A to 250 A and a breaking capacity of up to 100 kA at 480 V, the 3VA5 molded case circuit breaker can be used in a wide range of applications in residential and commercial buildings, in infrastructure, and in industrial plants – all thanks to the worldwide IEC and UL certification.

Reliable starter protection
The 3VA5 molded case circuit breaker ensure smooth operation – with the reliable protection of motor starter combinations thanks to a motor circuit protector.

Expanded functions
The molded case switch version of the 3VA5 complies with IEC 60947-2 Annex L “CBI-X” (Circuit Breaker Interrupter) and features self-protection in a molded case circuit breaker design. This version enables you to safely disconnect individual plant sections from the grid. It perfectly complements the range of circuit breakers by adding further functionalities – in a consistent design and with the same accessories.

Transparent in operation
You can easily integrate the 3VA6 molded case circuit breaker into higher-level energy management or automation systems. It reliably reports system status and measured values, helping you to increase plant availability and identify potential energy savings.

Versatile use
Whether in the industrial sector or in infrastructure, 3VA6 molded case circuit breaker can handle any jobs that come their way, thanks to line protection from 40 A to 600 A, electronic trip unit, extensive communication options, and integrated metering functions for current, voltage, and energy values.

Expanded functions
The molded case switch version of the 3VA5 complies with IEC 60947-2 Annex L “CBI-X” (Circuit Breaker Interrupter) and features self-protection in a molded case circuit breaker design. This version enables you to safely disconnect individual plant sections from the grid. It perfectly complements the range of circuit breakers by adding further functionalities – in a consistent design and with the same accessories.

Transparent in operation
You can easily integrate the 3VA6 molded case circuit breaker into higher-level energy management or automation systems. It reliably reports system status and measured values, helping you to increase plant availability and identify potential energy savings.

Versatile use
Whether in the industrial sector or in infrastructure, 3VA6 molded case circuit breaker can handle any jobs that come their way, thanks to line protection from 40 A to 600 A, electronic trip unit, extensive communication options, and integrated metering functions for current, voltage, and energy values.

Transparent in operation
You can easily integrate the 3VA6 molded case circuit breaker into higher-level energy management or automation systems. It reliably reports system status and measured values, helping you to increase plant availability and identify potential energy savings.

Ideal for standard applications: 3VA5 molded case circuit breaker
For standard applications in the electrical power distribution, the 3VA5 molded case circuit breaker is the optimal solution.

For challenging situations: 3VA6 molded case circuit breaker
The 3VA6 molded case circuit breaker is ideally equipped for your extended applications.

3VA5 technical data
- Line protection from 15 A to 250 A
- Breaking capacity up to 100 kA at 480 V
- 1- and 3-pole breaker variants
- Thermal-magnetic trip unit
- Also available as molded case switch and as motor circuit protector

3VA6 technical data
- Line protection from 40 A to 600 A
- Breaking capacity up to 150 kA at 480 VAC
- 3- or 4-pole versions
- Electronic trip unit
- Integrated metering function for current, voltage, and energy values
- Optional communication connection via PROFINET, PROFINET, Ethernet (Modbus TCP), and Modbus RTU
- Easy integration into higher-level energy management and automation systems
- Also available as a molded case switch and as a motor circuit protector
- Different circuit breaker versions available as “100% rated” (continuous operation with nominal rated current)
Nearly unlimited combinations

The 3VA molded case circuit breaker is always the right solution – for standard applications or extended tasks, for your customers in the European and North American markets.

Simply tailor the 3VA molded case circuit breaker to meet your needs – because all series are supplemented with a broad and uniform range of accessories. Even feature enhancements are possible at any time – easy, fast, and nearly unlimited.

01 Test devices
02 powerconfig software
03 Communication
04 Internal accessories
05 Accessories for locking, blocking and interlocking
06 Motor operators
07 Manual operators
08 Max-Flex™ Bowden cable operator
09 Knowledge Manager
10 Plug-in technology
11 Draw-out technology
12 Connection technology

Nearly unlimited combinations
Flexible planning

Needs-based design
Select from more than 500 accessory components to create your solution and replace components as needed. A consistent accessories platform makes it all possible.

Tailor-made application
The manual operator Max-Flex with Bowden cable can be conveniently ordered as a kit with a switching mechanism, Bowden cable, and metal handle. The parts are also available individually. The kit offers Bowden cables in varying lengths as well as handles for the 3VA5 and 3VA6 series. With motor operators and manual operators with or without Bowden cable, with various locking options as well as auxiliary and alarm switches, you can respond flexibly to all requirements.

Intelligent draw-out technology
To ensure flexible installation and removal of the molded case circuit breaker in the event of revisions or service, the draw-out technology is available as a complete kit or a conversion kit. This process is easily accomplished using a racking handle to crank the molded case circuit breaker out of or into the draw-out unit. The connection of the main circuits takes place via plug-in contacts. Thanks to this design, the molded case circuit breaker can be easily installed and removed, and it is possible to implement electrical isolation and a clearly visible opening distance.

- Feature enhancements easy to implement
- Internal accessories can be combined in many variations
- Space-saving installation thanks to compact design
- Manual operating mechanism Max-Flex with Bowden cable
- Auxiliary and alarm switches as well as different shunt trip units
Reducing effort

Save valuable time when it comes to the planning, configuration, and documentation of your electrical power distribution. The 3VA molded case circuit breaker supports you throughout the entire engineering process and beyond.

Fast selection
With Planning Efficiency™ and numerous intelligent tools, you will save valuable time when it comes to searching for products and transferring data. With the product configurator, it is easy and convenient to select the desired combination of basic device and accessories and subsequently extract them as a parts list or technical documentation.

Extensive CAx data
The CAx Download Manager provides you with online access to all available CAx data types. 2D dimensional drawings and 3D models, product images, and EPLAN Electric P8 and ProPanel macros: A total of 12 different data types are available. With all this, you can save up to 80 percent of your valuable time.

In addition, UL approved device circuit diagrams and product master data are available in the AutoCAD electrical catalog database.

Knowledge Manager – all information retrievable on site
If technical information is required during installation, configuration, or maintenance, you can retrieve it directly on site via a QR code. This provides you with access to information that is completely up to date – failsafe, worldwide, and available 24/7.

A smartphone or tablet can be used to scan the QR code. For the full range of features, use the free “Industry Support” app from Siemens to scan the QR code.

This feature enables you to directly view or download all relevant product information.

3VA molded case circuit breaker with UL certification | Reducing effort

Mobile information
With the Knowledge Manager, you can access technical information at any time. Via the QR code lasered onto the molded case circuit breaker, for the first time you can retrieve all relevant data directly on site via smartphone or tablet – information such as characteristic curves, certificates, or manuals. This significantly reduces the time needed to collect information – time that is often limited – during service calls, for instance.

Knowledge Manager – all information retrievable on site
If technical information is required during installation, configuration, or maintenance, you can retrieve it directly on site via a QR code. This provides you with access to information that is completely up to date – failsafe, worldwide, and available 24/7.

A smartphone or tablet can be used to scan the QR code. For the full range of features, use the free “Industry Support” app from Siemens to scan the QR code.

This feature enables you to directly view or download all relevant product information.

Fast selection
With Planning Efficiency™ and numerous intelligent tools, you will save valuable time when it comes to searching for products and transferring data. With the product configurator, it is easy and convenient to select the desired combination of basic device and accessories and subsequently extract them as a parts list or technical documentation.

Extensive CAx data
The CAx Download Manager provides you with online access to all available CAx data types. 2D dimensional drawings and 3D models, product images, and EPLAN Electric P8 and ProPanel macros: A total of 12 different data types are available. With all this, you can save up to 80 percent of your valuable time.

In addition, UL approved device circuit diagrams and product master data are available in the AutoCAD electrical catalog database.
The 3VA6 molded case circuit breakers provide for a consistently safe, efficient, and flexible supply of energy. At the same time, they ensure smooth production processes because they can be seamlessly integrated into digital environments.

**Integrated metering functions**

The 3VA6 model range with an electronic trip unit (ETU) from the 8-series is ideally equipped to collect and transmit energy-relevant data.

This offers you an integrated metering function – for the end-to-end monitoring and evaluation of current, voltage, and energy values. You can immediately increase the transparency of the energy flows and optimize energy consumption and efficiency. In addition, plant conditions are monitored so that you can quickly and flexibly respond to faults at any time.

**Integration into the automation system**

The 3VA6 molded case circuit breakers can be connected to higher-level energy management or automation systems via the standard PROFIBUS, PROFINET, Ethernet (Modbus TCP), and Modbus RTU bus systems. The values of up to eight devices can be bundled with the help of a data concentrator and transferred to higher-level systems. This means that energy- and plant-relevant data is available at any time.

**Diverse communication options – flexibility right down the line**

- Integrated metering function for current, voltage, and energy values (ETU 8-series)
- Continuous overview of breaker status and measured values
- Communication connection via PROFIBUS, PROFINET, Ethernet (Modbus TCP), and Modbus RTU
- DSP800 display installed in the control cabinet displays the measured data from up to eight molded case circuit breakers

**Power monitoring software powermanager**

**powerconfig configuration software**

**3VA line**

**Ethernet (Modbus TCP)**

**SIMATIC S7**

**PROFINET**

**PROFIBUS**

**Power monitoring software powermanager**

**powerconfig configuration software**

**3VA6 molded case circuit breaker**

**T-connector**

**T-connector**

**3VA6 molded case circuit breaker**

**COM060 communication module**

**COM800 data concentrator**

**Expansion module**

**DSP800 display**

**Ethernet**

**Switched Ethernet**

**PROFINET**

**PROFIBUS DP**

**RS485**

**7KM PAC**

**Switched Ethernet**

**PROFINET**

**7KM PAC PROFIBUS DP**

**7KM PAC RS485**
We offer you one of the most extensive data offerings: Up to 12 CAx data types actively support you during the entire engineering process.

24/7 service
On the Internet, the CAx Download Manager provides you with fast and easy access to all product types – free of charge and around the clock.

Within seconds
The required data can be flexibly compiled, downloaded within seconds, and smoothly integrated into all the conventional configuration tools. This approach provides you with time savings of as much as 95 percent compared to manual data searches.

Error-free
The central provision of high-quality data replaces the manual acquisition and generation of 2D dimensional drawings or connection diagrams, for example. Errors caused by manual data generation are avoided.

Detailed view of the 12 CAx data types

<table>
<thead>
<tr>
<th>Commercial and technical data</th>
<th>Dimensional drawings</th>
<th>3D models</th>
<th>Connection diagrams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device circuit diagrams</td>
<td>EPLAN electrical and ProPanel macros</td>
<td>Operating instructions</td>
<td>Manuals</td>
</tr>
<tr>
<td>Product data sheets</td>
<td>Characteristic curves</td>
<td>Certificates</td>
<td>Product images</td>
</tr>
</tbody>
</table>

Do you still have questions about 3VA molded case circuit breakers?
If so, please take advantage of our comprehensive support. We are happy to assist you at any time, from planning to commissioning to operation.