Product Research Report: Siemens 3VA MAX Molded Case Circuit Breaker

1. Product Name

Siemens SIRIUS 3VA MAX MCCB

2. SEO Keywords

- Siemens 3VA MAX MCCB
- Siemens molded case circuit breaker
- 3VA MAX circuit breaker datasheet
- Siemens 200kA breaking capacity MCCB
- 3VA9 electronic trip unit
- Siemens industrial circuit breaker
- SIRIUS 3VA high performance MCCB
- Siemens IEC 60947-2 circuit breaker

3. Category

[new] Circuit Breaker → Siemens → SIRIUS 3VA MAX

4. Product Introduction

Series#: Circuit Breaker → Siemens → SIRIUS 3VA MAX
- Siemens SIRIUS 3VA MAX MCCB
- We have large inventory for Siemens SIRIUS 3VA MAX Circuit Breakers, 3VA MCCBs and related accessories.
- 100% Original and new,In stock by Eaton Company.
- Delivery time: Ready in stock and 1 days for ship out
- MOQ: 1pcs

5. Brand & Model

model：3VA MAX
brand：Siemens

6. Service & Applications

The Siemens 3VA MAX Series is a high-performance molded case circuit breaker (MCCB) platform designed for demanding industrial applications requiring robust protection, exceptional breaking capacity, and integrated communication capabilities. Available in 3-pole and 4-pole configurations with rated currents from 16 A to 2000 A across multiple frame sizes. Rated insulation voltage is 1000 V AC with operational voltage up to 690 V AC 50/60 Hz and DC applications up to approximately 750 V DC. The hallmark of the 3VA MAX is its extreme short-circuit breaking capacity: up to 200 kA (Icu) at 415/440 V AC and 80–100 kA at 690 V, with Ics often reaching 100% of Icu. Trip unit options include thermal-magnetic (TM) for standard applications and advanced electronic trip units (ETU) with LSI protection (Long-time, Short-time, Instantaneous), adjustable settings, ground fault protection (N), and motor protection curves. Integrated communication via IO-Link, Modbus, PROFIBUS, or PROFINET is available in ETU models. IP40 front / IP20 terminals protection, operating temperature range -25°C to +70°C. Typical applications include main and feeder protection in industrial power distribution, motor control centers, renewable energy systems (solar PV, battery storage), data centers, infrastructure projects, and any installation requiring high short-circuit withstand, selective coordination, and remote monitoring.

7. Specifications Table

Feature	Specification
Product Series	SIRIUS 3VA MAX (3VA9xxx)
Product Type	Molded Case Circuit Breaker (MCCB)
Number of Poles	3-pole (3P) and 4-pole (4P)
Rated Current (In)	16 A – 2000 A (frame dependent)
Rated Operational Voltage (Ue)	AC 690 V, 50/60 Hz; DC up to ~750 V
Rated Insulation Voltage (Ui)	1000 V AC
Rated Impulse Withstand Voltage (Uimp)	12 kV (8 kV for some ETU models)
Breaking Capacity Icu @ 415/440 V	Up to 200 kA
Breaking Capacity Ics @ 415/440 V	Up to 150 kA (often 100% Icu)
Breaking Capacity Icu @ 690 V	80–100 kA
Breaking Capacity Ics @ 690 V	80–100 kA
Breaking Capacity Icu @ DC 750 V	Up to 65 kA
Trip Unit Types	TM (Thermal-Magnetic), ETU (Electronic)
Protection Functions (ETU)	L (Overload), S (Short-time), I (Instantaneous), N (Ground Fault), M (Motor)
Adjustability (ETU)	Ir, Isd, Ii, tr — fully adjustable settings
Communication (ETU)	IO-Link, Modbus, PROFIBUS, PROFINET
Utilization Category	Category A
Mounting	Fixed, Plug-in, Draw-out
Mechanical Endurance	20,000–100,000 operations
Operating Temperature	-25°C to +70°C (up to +80°C with derating)
Storage Temperature	-50°C to +80°C
Degree of Protection	IP40 (front), IP20 (terminals)
Standards	IEC 60947-2, UL 489, CSA C22.2 No. 5, CCC

8. FAQ

Q: What is the maximum breaking capacity of the Siemens 3VA MAX?
A: Up to 200 kA Icu at 415/440 V AC, with Ics often reaching 100% of Icu (150 kA). At 690 V, breaking capacity is 80–100 kA.

Q: What current range does the 3VA MAX cover?
A: Rated currents from 16 A up to 2000 A, depending on the specific frame size and model selected from the 3VA9xxx range.

Q: What trip unit options are available for the 3VA MAX?
A: Two types: thermal-magnetic (TM) for basic overcurrent protection, and electronic trip units (ETU) with advanced LSI protection, ground fault detection, motor curves, and communication interfaces.

Q: Can the 3VA MAX be used in DC applications?
A: Yes, it supports DC applications up to approximately 750 V DC with breaking capacity up to 65 kA, suitable for solar PV, battery storage, and traction power systems.

Q: What communication protocols does the 3VA MAX support?
A: ETU-equipped models support IO-Link, Modbus, PROFIBUS, and PROFINET for integration into industrial automation and energy management systems.

Q: How is the 3VA MAX mounted?
A: Fixed mounting, plug-in, or draw-out configurations are available depending on the model and accessories selected.

Q: What international standards does the 3VA MAX comply with?
A: IEC 60947-2, UL 489, CSA C22.2 No. 5, and CCC — making it suitable for global deployment.

Q: What is the difference between the 3VA and older Siemens MCCB series (like 3VL)?
A: The 3VA MAX replaces and upgrades the 3VL series with higher breaking capacity, more compact design, advanced electronic trip units, integrated communication, and DC rating capabilities.