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To:	Sales Manual Holder	Category:	Product News
From:	Herbert Blum	Product Group:	1- / 3-Phase Filter
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## FMAB CEE, FMAD CEE

### CEE-Connector with Filter for 1- and 3-Phase Applications



#### Product

With a long history of innovation in the connector and EMC marketplace, SCHURTER expands its range of power entry modules with the introduction of the FMAD and FMAB CEE Connectors, featuring a first of its kind integrated line filter for 1- and 3-Phase industrial and power distribution applications. The integrated filter optimizes suppression of conducted emissions by eliminating cables between the inlet and filter.

The CEE connectors according IEC 60309 are used all over the world for industrial applications and power distribution. The single and three phase connectors can be used for any application with a detachable power cord. Today, noise generating electronics used in machines drive demand for EMI suppression filters in order to meet international EMC standards. This filter is typically mounted on the metal chassis for optimal performance. Traditionally, wires are used to connect the power inlet to the EMI filter mounted separately on the chassis. These wires can vary in length and can cause EMC problems with electromagnetic fields generated by a noise source inside the equipment bypassing the filter! The new CEE connector with integrated filter solves this problem by eliminating these wires and making a direct connection between the filtered connector and its metal shield, which is grounded to the panel cut-out. The fully integrated unit can be front or rear panel mounted directly where the power comes into the equipment.

The new FMAB CEE series is suitable for single phase AC applications. It extends the power entry module concept outlined in IEC 60320, where power input is limited to 16 A. Both the FMAB CEE and the FMAD CEE, which is designed for three phase applications, are rated from 16 up to 32 amperes. They are designed and approved according IEC 60309, UL 1283 and CSA 22.2 no. 8. The voltage rating is 250 VAC (IEC, UL, CSA) and 110 / 125 VAC (UL, CSA). The new filter series are suitable for use in industrial appliances exposed to temperatures ranging from -40 to +85C. Screw terminals provide for ease of installation.

## Technical Data / Approvals / Prices

### FMAB CEE (1-Phase)

- Rated voltage: 110 / 125 VAC (UL, CSA), 250 VAC (ENEC, UL, CSA)
- Rated currents: 16, 30 A (UL, CSA) / 16, 32 A (ENEC, UL, CSA) at 40°C
- Leakage current: max. 0.5 / 1.0 mA
- Operating temperatures: -40 – 85 °C

### FMAD CEE (3-Phase)

- Rated voltage: 277 / 480 VAC (UL, CSA), 240 / 415 VAC (ENEC, UL, CSA)
- Rated currents: 16, 30 A (UL, CSA) / 16, 32 A (ENEC, UL, CSA) at 40°C
- Leakage current: max. 10.0 mA
- Operating temperatures: -40 – 85 °C

Detailed technical data including order numbers can be found on the data sheet [data sheet \[1\]](#) on the SCHURTER Website. [Approval Information \[2\]](#) is available on the SCHURTER Website as well. Price lists can be found on the [Partner Service \[3\]](#).

## Application

- Equipment with detachable power cord
- Industrial machines
- Electrical tools
- Power distribution

## Training & CAD data

Training documentation with application specific information is on the [Partner Service \[3\]](#). [CAD data \[5\]](#) are available on our Website.

## Availability

Samples of the following part numbers are available from stock. Delivery times for higher quantities are on request. Visit [stock check \[6\]](#) on our Website for further stock availability.

### FMAB CEE (1-phase)

In	U	Leakage current	Packaging unit	Approvals		Order Number
				ENEC	UL, CSA	
[A]	[VAC]	[mA]	[pcs.]			
16	110	0.5	1		●	5500.2359
16	125/250	1.0	1	●	●	5500.2360
30	125	0.5	1		●	5500.2361
32	125/250	1.0	1	●	●	5500.2362

## FMAD CEE (3-phase)

In	U	Leakage current	Packaging unit	Approvals		Order Number
				ENEC	UL, CSA	
[A]	[VAC]	[mA]	[pcs.]			
16	240/415	10.0	1	●	●	FMAD-T4QT-1660.EU
30	277/480	10.0	1		●	FMAD-T4QT-3060.US
32	240/415	10.0	1	●	●	FMAD-T4QT-3260.EU

## Advertising & PR text

The [Product news \[4\]](#) on the SCHURTER Website has been updated with the new series FMAB CEE and FMAD CEE.

PR text and advertisement in German and English as well as the PR photo are available on the [Partner Service \[3\]](#).

## Competition

No equivalent product on the market.

If you have any questions please do not hesitate to contact us.

Kind regards

Herbert Blum  
Product Manager EMC  
Werkhofstrasse 8-12  
6002 Lucerne  
Switzerland  
Phone: +41 41 369 33 51  
Email: [herbert.blum@schurter.ch](mailto:herbert.blum@schurter.ch)  
Internet: [schurter.com](http://schurter.com)

## Sales Information Links

- [1] Technical data [http://www.schurter.com/pdf/english/typ\\_fmab-cee.pdf](http://www.schurter.com/pdf/english/typ_fmab-cee.pdf)  
[http://www.schurter.com/pdf/english/typ\\_fmadv-cee.pdf](http://www.schurter.com/pdf/english/typ_fmadv-cee.pdf)
- [2] Approvals information <http://www.schurter.ch/en/Documents-References/Approvals>
- [3] Partner Service <http://www.schurter.com/Partner-Information/Partner-Service>
- [4] Product news <http://www.schurter.com/New-Products/EMC-Products>
- [5] CAD data <http://www.schurter.ch/en/Documents-References/CAD-Drawings>
- [6] Stock check <http://www.schurter.ch/en/Stock-Check>

Microsite CEE-Filter: <http://cee-filter.schurter.com>