

Product Overview





Product Overview

FILTER TYPE	Power entry modules		
SERIES	P-series	C-series	EGG-series
	RoHS	RoHS Ready	RoHS Ready
PERFORMANCE	General purpose	Wide range performance	Wide range performance
Features	 Multifunction module with up to 15.000 different configurations Two pole line switch IEC-connector Double voltage selector Combined fuseholder Filter with good attenuation for standard and medical applications Available also without filter but internal bridge plug 	 IEC-connector w/wo Filter Good attenuation Small & compact design Two pole line switch Medical version available Available also without filter but internal bridge plug 	 High attenuation Very slim and compact design Fuseholder for 1 or optional 2 fuses 5 x 20 Medical version available (EHG) C-Version with ground choke
Approvals	UL / VDE / CSA	UL / VDE / CSA	UL / VDE / CSA
ELECTRICAL PARAMETERS			
Max. voltage (VAC)	250	250	250
Current rating (A)	3 / 6 / 10	1/3/6/10	1/3/6/10
Leakage current each line	0,38 mA	0,38 mA	0,38 mA
to ground 250 VAC, 50 Hz	5,0 µA (medical versions)	5,0 µA (medical versions)	5,0 µA (medical versions)
Electrical setup	Single stage (medical versions without y-capacitors)	Single stage (medical versions without y-capacitors)	Single stage (medical versions without y-capacitors)
MECHANICAL PARAMETERS			
Mounting features	Screw mounting / Snap-In	Screw mounting / Snap-In	Screw mounting / Snap-In
Termination input	IEC connector 320/C14	IEC connector 320/C14	IEC connector 320/C14
Termination output	FASTON 4,8 mm if required: 2/4-pole interconnection assembly	FASTON 4,8 mm (versions without Filter) FASTON 6,35 mm (versions with Filter)	FASTON 6,35 mm / wire leads (18 AWG)
OTHERS			
Typical applications	Wide banded RFI suppresssion for all kinds of consumer electronic applications, e.g.: – TV / Audio / Video – Computing & accessories – Home appliances – Medical equipment – Gambling machines – Fitness equipment	Wide banded RFI suppresssion for all kinds of consumer electronic applications with limited space for the supression unit, e.g.: – TV / Audio / Video – Computing & accessories – Home appliances – Medical equipment – Gambling machines – Fitness equipment	Wide banded RFI suppresssion for all kinds of consumer electronic applications with very limited space for the supression unit, e.g.: - TV / Audio / Video - Computing & accessories - Home appliances - Medical equipment - Gambling machines - Fitness equipment

Product Overview

IEC connector filters

SRB-series



EEA / EEB-series



EJ-series



EJT-series



General purpose

- One of the smallest footprints available
- Complete shield design
- Available unfiltered or with one of eight different capacitor values
- Compact and cost effective design

General purpose

- IEC-connector with filter
- Compatible with many standard filters
- Normal attenuation (EEA)
- Good attenuation (EEB)
- Very good price-performance ratio
- Compact design
- Medical version available

Wide range performance

- Next generation of power inlet
- High attenuation between 1-30 MHz
- Improved high frequency EMI shielding
- Compact design
- Easy-to-install design
- Very good price perfprmance ratio
- For current up to 20 A
- Medical version available

superior performance

- Newest generation of power inlet
- Very high attenuation up to 1 GHz
- Improved high frequency EMI shielding
- -Compact design
- -Easy-to-install design
- Very good price performance ratio
- For current up to 20 A

UL / VDE / CSA

250	250	250	250
15 (UL) / 10 (VDE)	1/3/6/10	1 / 3 / 6 / 10 / 15 / 20	1 / 3 / 6 / 10 / 15 / 20
5 μA to 0,42 mA	0,38 mA	0,38 mA	0,38mA
(depending on capacitor value)	5,0 µA (medical versions)	5,0 µA (medical versions)	
Capacitive	Single stage (medical versions	Single stage (medical versions	Dual stage
	without y-capacitors)	without y-capacitors)	
Screw mounting / Snap-In	Screw mounting / Snap-In	Screw mounting / Snap-In	Screw mounting
IEC connector 320/C14	IEC connector 320/C14	IEC connector 320/C14	IEC connector 320/C14
		(1-15 A version)	(1-15 A version)

FASTON 6,35 mm FASTON 6,35 mm angle 90° PCB mount angle 90° Wire AWG 18

FASTON 6,35 mm FASTON 6,35 mm angle 90° PCB mount angle 90°

(20 A version) FASTON 6,35 mm FASTON 6,35 mm angle 90° PCB mount angle 90° / additional lead wire (AWG14) for 20 A versions

Wide banded RFI suppresssion for

all kinds of consumer electronic

IEC connector 320/C20

IEC connector 320/C20 (20 A version) FASTON 6,35 mm Wire AWG 18 (1-15 A versions) Wire AWG 14 (20 A versions)

Wide banded RFI suppression for all kinds of consumer electronic application with very limited space for the suppression unit, e.g.:

- TV / Audio / Video
- Home appliances
- Power supplies

Wide banded RFI suppresssion for all kinds of consumer electronic applications, e.g.:

- TV / Audio / Video
- Computing & accessories
- Home appliances
- Medical equipment
- Gambling machines
- Fitness equipment

- applications, e.g.: - TV / Audio / Video
- Computing & accessories
- Home appliances
- Medical equipment
- Gambling machines
- Fitness equipment

Specially designed to attenuate noise in the high frequency range up to 1 GHz. To be used for various consumer electronic application, e.q.:

- Plasma TV
- LCD Screens
- Computing equipment & accessories



Product Overview

FILTER TYPE 1-phase filters / chassis mounted SERIES B-series R-series RoHS RoHS Ready **PERFORMANCE** General purpose General purpose General purpose - Universal Chassis Mount Filter **Features** - Comparable to B-Series, - Double tuned circuit filter for low with different leakage current with increased symmetrical impedance loads (VB; EB) for a wide range of elecattenuation - Low leakage current tronic and electrical applications - EK-series with very low leakage - Normal attenuation in current mid-range-frequency - Effective in control of line-to-line - Space saving and cost effective as well as line-to-ground interdesian ference - Broad selection of termination - Suitable as clean up Filter **Approvals** UL / VDE / CSA UL / VDE / CSA UL / VDE / CSA **ELECTRICAL PARAMETERS** Max. voltage (VAC) 250 250 250 1/2/3/5/10/20/30 1 / 2 / 3 / 5 / 10 / 20 / 30 1/2/3/5/10/20 Current rating (A) (EK models) 1 / 2 / 3 / 5 / 10 / 20 / 30 / 40 / 60 (VK models) 0,36 mA (EB-versions) 0,36 mA (EK-versions) 0,36 mA (ER-versions) Leakage current each line to ground 250 VAC, 50 Hz 0,70 mA (VB-versions) 1,00 mA (VK-versions) 0,70 mA (VR-versions) Electrical setup Single stage Single stage Dual stage **MECHANICAL PARAMETERS** Screw mounting (flange) Mounting features Screw mounting Screw mounting (flange / back panel) (flange / back panel) Termination input FASTON 6,35 mm / terminal bolt & FASTON 6,35 mm / Wire leads / FASTON 6,35 mm / Wire leads / nut 8-32 / Wire AWG 18 IEC-connector C320/14 (1-10 A IEC-connector C320/14 (1-10 A versions) / IEC-connector C320/20 versions) Terminal bolt & nut 8-32 (20 A versions) Terminal bolt & nut 8-32 FASTON 6.35 mm / Terminal bolt FASTON 6.35 mm / Wire leads / FASTON 6.35 mm / Wire leads / Termination output & nut 8-32 / Wire AWG 18 Terminal bolt & nut 8-32 Terminal bolt & nut 8-32 **OTHERS** Typical applications Wide banded RFI suppression for Universal useable filter-series for Universal useable filter-series for all kinds of consumer electronic all kinds of consumer electronic all kinds of low impedance loads, applications requiring low range applications requiring middle range e.g.: of attenuation, e.g.: of attenuation, e.g.: - Motors - Semiconductor actuators - TV / Audio / Video - TV / Audio / Video - Computing & accessories - Computing & accessories - Home appliances - Home appliances - Home appliances - Gambling machines - Medical equipment - Medical equipment - Fitness equipment - Gambling machines - Gambling machines - Fitness equipment - Fitness equipment

Product Overview

1-phase filters / chassis mounted

DK-series





SK-series









General purpose

- Extended K-series
- Higher performance in line-to-line applications than the VK-series
- E-version (EDK): low leakage current
- V-version (VDK) cost effective package for applications without strict leakage curent requirements

- Computing & accessories

- Home appliances

- Medical equipment

- Gambling machines

- Fitness equipment

Wide range performance

- Compact tubular design
- Cost effective
- Space saving

Dishwashers

- Refrigerators

- Coffee machines

 Different versions for fixed and moveable appliances

Wide range performance

- Available in various electronic design
- Optimized for respective impedance requirements
- Very wide range of different models in this filter-series
- Universal useable filter series

Wide range performance

- Single stage filter with very high symmetrical and asymmetrical attenuation
- Extended frequency range (effective above 10kHz)
- Uses significantly higher element values than the general purpose K-series

strict leakage curent requirements			
UL / VDE / CSA	UL / VDE / CSA	UL / VDE / CSA	UL / VDE / CSA
250	250	250	250
1/3 6/10/20	16	3 / 6 / 10 / 20	3 / 6 / 10 / 20 / 30 / 40 (VSK)
0,38mA (EDK-versions)	0,17 mA (A, B & C models)	0,82mA	0,36 mA (3-10 A ESK-series)
0,70mA (VDK-versions)	0,10 mA (D, E & F models)		0,50 mA (20-30 A ESK-series) 0,70 mA (3-10 A VSK-series) 1,25 mA (20-40 A VSK-series)
Single stage	Single stage	Dual stage	Single stage
Screw mounting (flange)	Mounting stud	Screw mounting (flange)	Screw mounting (flange / back panel)
FASTON 6,35 mm / Wire leads / Terminal bolt & nut 8-32	Wire AWG18 / FASTON 6,35 mm	FASTON 6,35 mm / Terminal bolt & nut 8-32	FASTON 6,35 mm / Wire leads / IEC-connector C320/14 (1-10A versions) Terminal bolt & nut 8-32 / Terminal bolt & nut 10-32
FASTON 6,35 mm / Wire leads / Terminal bolt & nut 8-32	Wire AWG18 / FASTON 6,35 mm	FASTON 6,35 mm / Terminal bolt & nut 8-32	FASTON 6,35 mm / Wire leads / Terminal bolt & nut 8-32 / Terminal bolt & nut 10-32
Universal useable filter-series for all kinds of consumer electronic applications requiring improved range of attenuation, e.g.: — TV / Audio / Video	Wide banded RFI suppression for all kinds of home appliances, specially designed for the white goods market, e.g.: – Washing machines	Multipurpose Power Line RFI Filter for Emission control and high noise industrial enviroments, e.g.: – All kinds of consumer electronic – Small machine tools	Universal useable filter-series for all kinds of consumer electronic applications requiring premium range of attenuation, e.g.: — TV / Audio / Video

Computing & accessoriesHome appliances

- Medical equipment

- Gambling machines

- Fitness equipment

- All kinds of machines for the

nutrition sector (baking

machines; ovens, ...)

Product Overview

FILTER TYPE 1-phase filters / chassis mounted SERIES **GN-series** X-, Z-series **EMC-series** RoHS RoHS RoHS **PERFORMANCE** Wide range performance Wide range performance Wide range performance - For increased requirements - Compact, PC-mountable filter - Very compact dual stage filter **Features** - Excellents symmetric and series series asymmetric attenuation - Three different performance - For current up to 30 A - Size and cost effective solution - Cost effective Design levels - Very low leakage current - Available in plastic or metal case - Very high differential mode and (EG-models) - Clean up filter for digital common mode attenuation from For very noisy equipment equipment 100 kHz - 30 MHz (N-models) - Space saving design but high performance technology UL / VDE / CSA **Approvals** UL / VDE / CSA UL / VDE / CSA **ELECTRICAL PARAMETERS** Max. voltage (VAC) 250 250 Current rating (A) 6 / 10 1/2/3/4/6 3 / 6 / 10 / 15 / 20 / 30 0,50 mA (EG-series) Leakage current each line 0,50 mA 0,43 mA (3-10 A versions) to ground 250 VAC, 50 Hz 2,00 mA (VG / N-series) 1,52 mA (15-30 A versions) Electrical setup Single stage (6 A-models) Single stage Dual stage Dual stage (10 A-models) MECHANICAL PARAMETERS Mounting features Screw mounting (flange) Screw mounting Screw mounting (flange) (EZ1 / EX1-models) PCB-mounting (EXP / EYP / EZP) FASTON 6,35 mm FASTON 6,35 mm (3-20 A) / Wire **Termination input** FASTON 6,35 mm / PCB-pins AWG 18 (3-15 A) / terminal bolt & nut 8-32 (10-20 A) / terminal bolt & nut 10-32 (30 A) FASTON 6,35 mm FASTON 6,35 mm (3-20 A) / Wire **Termination output** FASTON 6,35 mm / PCB-pins AWG 18 (3-15 A) / terminal bolt & nut 8-32 (10-20 A) / terminal bolt & nut 10-32 (30 A) **OTHERS** Typical applications RFI Filter series specially RFI Filter series specially designed Wide banded RFI suppression designed for most digital electronic to bring digital electronic equipfor all kinds of single phase equipment requiring a high range ment to level B. Ideal for all applications requiring high of symmetric and asymmetric applications with limited space attenuation level: attenuation, e.g.: for the suppression unit, e.g.: - All kinds of consumer electronic - Switching power supplies - Switching power supplies - Single phase industrial - Motordrives - Industrial single phase applications - Small machine tools applications - Industrial single phase Ideal for inverters and switching applications power supplies with current up to 30 A

Product Overview

1-phase filters / chassis mounted

T-series **EP-series FC-series Q-series** RoHS RoHS RoHS RoHS Superior performance Superior performance Superior performance Superior performance - Optimized filter with special - High insertion loss for line-to-line - Very high attenuation and low - High performance single phase regard to attenuation and size and line-to-ground emissions leakage current also at high filter for industrial applications - Designed to meet the very - Very high symmetrical and current transients - Highest symmetrical and asym- Optimized filter regarding metrical attenuation over the asymmetrical attenuation above stringint level B symmetrical and asymmetrical 10 kHz - EP-models with very low leakage complete frequency range - Low leakage current attenuation in the broad - Insulated safety terminals current - Medical versions available (EHT) - New 7 and 12 A versions offer frequency range between - Ideal for EMC trouble shooting higher performance in a smaller 10 kHz and 30 MHz and refurbishing in the field package at a low price - Mecical versions available UL / VDE / CSA UL / VDE / CSA UL / VDE / CSA UL (6-50 A) / VDE (6-36 A) 250 3 / 6 / 10 / 15 / 20 3 / 6 / 7 / 10 / 12 / 20 3/6/20 6 / 12 / 16 / 25 / 36 / 50 0,38 mA (EQ versions 3; 20 A) 0,50 mA (ET-versions) 0,36 mA (EP-versions) 5,2 mA (6-36 A dual stage version) 1,25 mA (VT-versions 3-10 A) 0,51 mA (EQ versions 6 A) 1,27 mA (VP-versions) 6,5 mA (50 A dual stage version) 1,27 mA (VQ versions 3; 20 A) 2,00 mA (VT-versions 15-20 A) 7,0 mA (6-50 A single stage 5 μA (medical versions EHT) 5 μA (medical versions EHT) version) Single stage (3-6 A versions) Dual stage (medical versions Dual stage Dual stage Dual stage (10-20 A versions) without y-capacitors) Single stage (B-versions) medical versions without y-capacitors Screw mounting Srew mounting Srew mounting Screw mounting (flange) (flange / back panel) (flange / back panel) (flange / back panel) FASTON 6,35 mm / Wire AWG 18 FASTON 6,35 mm / Wire (3-12 A FASTON 6,35 mm / Wire AWG 18 Screw type terminal 4 mm² (3-10 A versions / terminal bolt & versions) / terminal bolt & nut 8-32 (3-6 A versions) / IEC-connector (6-16 A) screw type terminal 6 mm² nut 8-32 (15-20 A versions) / (20 A versions) / IEC connector 320/C14 (3-6 A versions) IEC connector 320/C14 320/C14 (3 A versions) (25-50 A)(3-6 A versions 7) FASTON 6,35 mm / Wire AWG 18 FASTON 6,35 mm / Wire FASTON 6,35 mm / Wire AWG 18 Screw type terminal 4 mm² (3-10 A versions / terminal bolt & (3-12 A versions) / terminal bolt & (6-16 A)nut 8-32 (15-20 A versions) nut 8-32 (20 A versions) Screw type terminal 6 mm² (25-50 A) Wide banded attenuation for Wide banded attenuation for Trouble shooter for wide banded Wide banded RFI suppression of applications with very high RFI applications with very high RFI suppression of applications industrial single phase applications emissions, e.g.: RFI emissions. This filter-series with very high RFI emissions, e.g.: with very high RFI emissions, - All kinds of consumer electronic offers excellent attenuation. - All kinds of consumer electronic specially: - Single phase industrial applica-Useable for e.g.: - Single phase industrial applica-- FC-drives with long motor-cables tions, specially all kinds of motor - All kinds of consumer electronic tions, specially all kinds of - Various variable speed motor drives - Single phase industrial applicaswitching power supplies with drive applications tions, specially all kinds of motor transient currents drives

Product Overview

FILTER TYPE 3-phase filters / chassis mounted SERIES AYO-series **AYA-series** RoHS RoHS RoHS Wide range performance **PERFORMANCE** General purpose Wide range performance **Features** - Cost effective 3-phase-filter - Filter series designed for - Filter series designed for series for 3-phase, four wire 3-phase, four wire, 3-phase, four wire, - Good attenuation beginning WYE wiring applications WYE wiring applications - High attenuation over the at 100 kHz - Cost effective, universal useable - Space saving design complete frequency range filter series - Easy to connect design - Integrated ground-inductor - Good attenuation over the - Low leakage current - Effective by symmetrical and complete frequency range asymmetrical load from - Two different mounting styles 50 kHz to 30 MHz available Shielded construction UL / VDE / CSA UL / CSA / VDE up to 30 A UL (440 VAC 16-50 A) **Approvals ELECTRICAL PARAMETERS** Max. voltage (VAC) 440 440 480 Current rating (A) 3 / 6 / 10 / 20 20 / 30 / 45 / 60 16 / 25 / 36 / 50 3,0 mA (3-10 A versions) Leakage current each line 3,40 mA 2,82 mA to ground 250 VAC, 50 Hz 5,5 mA (20 A version) * voltage from virtual neutral to ground Electrical setup Single stage (AYP6C-versions) Single stage Single stage Dual stage (AYT6C-versions) MECHANICAL PARAMETERS Mounting features Screw mounting (flange) Screw mounting 8/32 Screw mounting flange (front & back side) Screw mounting by inserts **Termination input** FASTON 6,35 mm Terminal bolt & nut 1/4 x 20 Terminal bolt & nut: 8-32 (16 & 25AYA6/A) / 10-32 (36AYA6/A) 1/4-20 (50AYA6/A) Screw type terminals: 6 mm² (16 A) / 10 mm² (36 A) / 16 mm² (63 A) FASTON 6,35 mm Terminal bolt & nut 1/4 x 20 Terminal bolt & nut: **Termination output** 8-32 (16 & 25AYA6/A) / 10-32 (36AYA6/A) 1/4-20 (50AYA6/A) Screw type terminals: 6 mm² (16 A) 10 mm² (36 A) / 16 mm² (63 A) **OTHERS** Typical applications Wide banded RFI suppression Wide banded RFI suppression for Universal useable filter series for general purpose 3-phase industrial 3-phase applications equipped with 2 different with high noise emissions applications with low to middle connecting versions. (AYP-models) and lower noise RFI emissions, e.g.: To be used in various industrial 3-phase applications with low to emission (AYT-models), e.g.: - Vending machines - All kinds of machines for - All kinds of big machine tools middle noise emissions, e.g.: - Special custom made machines - Uninterruptible power supplies the nutrition sector (baking machines, ovens, ...) - Input filter for motor drives - Industrial control systems - Gambling machines - Machine tools - Small machine tools

Product Overview

3-phase filters / chassis mounted

CFN-series ADT-series BCD-series BCF-series









RoHS		RoHS	RoHS- Peady
Wide range performance	Superior performance	Superior performance	Superior performance
 Universal high current filter for industrial applications up to 700 A High quality aluminium case Available in two operating voltages 	 Filter series with very high insertion loss for industrial Delta applications Available with common or differential (S-models) coils for the correct protection to fit the application Hermetically sealed metal sheet case Corrosion protected 	 Bookform Filter with insulated safety terminals Very high attenuation over the whole frequency range from 10 kHz to 30 MHz Ideal for EMC trouble shooting and refurbishing in the field Very high insertion loss 	 Bookform filter with insulated safety terminals Very compact size Low weight Very high attenuation in the frequency range between 100 kHz and 30 MHz Low leakage current High insertion loss
UL (400 A version)	UL		UL / ENEC
480 / 520	480	480	480
300 / 400 / 500 / 600 / 700 /	63 / 100 / 160 / 200	6 / 12 / 16 / 25 / 36 / 50 / 63 / 80 / 110 / 130 / 150 / 180 / 230	7 / 16 / 30 / 42 / 55 / 75 / 100 / 130 / 180
39,00 mA	0,76 A (ADT6) 1,5 A (63 ADT6S) 2,7 A (100-200 ADT6S)	0,26 mA/V (6 A versions)* 0,45 mA/V (12-16 A versions)* 0,52 mA/V (25-63 A versions)* 3,25 mA/V (80-230 A versions)*	1 mA/V*
Dual stage	Single stage with feedthrough capacitors	Single stage	Single stage
Srow mounting (flange)	Scrow mounting	Srow mounting (flange)	Scrow mounting (flange)
Srew mounting (flange)	Screw mounting (flange + front side)	Srew mounting (flange)	Screw mounting (flange)
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Srew mounting (flange)	Screw mounting (flange + front side)	Srew mounting (flange)	Screw mounting (flange)
Busbars (copper)	Terminal & nuts: 3/8-16 (63 & 100 A versions) 7/16-20 (160 & 200 A versions)	Insulated screw type terminals 4 mm² (6-12 A) / 6 mm² (16A) / 10 mm² (25-36 A) / 25 mm² (50-63 A) / 50 mm² (80-150 A) / 95 mm² (180-230 A)	Insulated screw type terminals 4 mm ² (7; 16A) / 6 mm ² (30 A) / 10 mm ² (42 A) / 16 mm ² (55 A) / 25 mm ² (75 A) / 50 mm ² (100; 130 A) / 95 mm ² (180 A)
Busbars (copper)	Terminal & nuts: 3/8-16 (63 & 100 A versions) 7/16-20 (160 & 200 A versions)	Insulated screw type terminals 4 mm² (6-12 A) / 6 mm² (16A) / 10 mm² (25-36 A) / 25 mm² (50-63 A) / 50 mm² (80-150 A) / 95 mm² (180-230 A)	Insulated screw type terminals 4 mm² (7; 16A) / 6 mm² (30 A) / 10 mm² (42 A) / 16 mm² (55 A) / 25 mm² (75 A) / 50 mm² (100; 130 A) / 95 mm² (180 A)

Universal useable for all kinds of big, heavy, high current industrial applications; e.g.:

- Machine tools
- Welding machines
- Industrial pressing machines

Ideal for all kinds of industrial 3-phase applications with exorbitant high noise emissions, e.g.:

- High current motor drives
- Spot-welding machines

Also useable as "Trouble-shooter" for very difficult supression problems

Specially suited for regeneration systems of returning power. Wide banded RFI suppression for all industrial 3-phase applications with very high RFI emissions, e.g.:

- Machine tools
- Elevators, escalators, ...
- Frequency converters
- Motor drives

Wide banded RFI suppression for all industrial 3-phase applications with high RFI emissions, e.g.:

- All kinds of machine tools
- Drives
- Frequency converters with long motor cables

Optimized for use in industrial cabinets



Product Overview

FILTER TYPE 3-phase filters / chassis mounted SERIES FCD-series FCD10BS-series **AYC-series** RoHS RoHS RoHS **PERFORMANCE** Superior performance Superior performance Superior performance - Suitable to meet the latest - Filter series with very high - 3-phase plus neutral filter **Features** EMC standards insertion loss - Very high attenuation - Specially designed for all - Insulated safety terminals - Low leakage current - Ideal for EMC troubleshooting kinds of industrial applications - Ideal for EMC troubleshooting and refurbishing in the field requiring a very high level of and refurbishing in the field - Very high attenuation asymmetrical attenuation in - Low leakage current the very low frequency range - High insertion loss between 10 - 100 kHz UL UL (in process) UL (16- 180 A) **Approvals ELECTRICAL PARAMETERS** Max. voltage (VAC) 480 480 480 16 / 25 / 36 / 63 / 80 / 110 / 150 / 6 / 12 / 25 / 36 / 50 (FCD10) 12 / 36 / 50 / 80 / 110 / 150 / Current rating (A) 16 / 25 / 36 / 50 / 80 / 110 / 150 / 180 / 230 180 / 200 180 / 200 / 230 (FCD10B) 0,70 mA/V (16-150 A versions)* Leakage current each line 0,26 mA/V (6 A versions)* 3,25 mA/V* 0,45 mA/V (12-16 A versions)* to ground 250 VAC, 50 Hz 1,05 mA/V (180-200 A version)* 0,52 mA/V (25-50 A versions)* * voltage from virtual neutral to ground 0,63 mA/V (80-150 A versions)* 0,92 mA/V (180-230 A versions)* Electrical setup Single stage (FCD10B) Single stage Single stage Dual stage (FCD10) MECHANICAL PARAMETERS Mounting features Screw mounting (flange) Screw mounting (flange) Screw mounting (flange) **Termination input** Insulated screw type terminals Insulated screw type terminals: Insulated screw type terminals 4 mm² (6-16 A) / 6 mm² (25-36 A) 16 mm² (36 & 50 A) / 50 mm² 4 mm² (16 A) / 6 mm² (25 A) 10 mm² (50 A) / 50 mm² (80-150 A) (80-150 A) / 95 mm² (180 & 230 A) 10 mm² (36 A) / 16 mm² (63 A) 95 mm² (150-230 A) 50 mm² (80-150 A) / 95 mm² (180-200 A) Insulated screw type terminals **Termination output** Insulated screw type terminals Insulated screw type terminals: 4 mm² (6-16 A) / 6 mm² (25-36 A) 16 mm² (36 & 50 A) / 50 mm² 4 mm² (16 A) / 6 mm² (25 A) 10 mm² (50 A) / 50 mm² (80-150 A) (80-150 A) / 95 mm² (180 & 230 A 10 mm² (36 A) / 16 mm² (63 A) 95 mm² (150-230 A) 50 mm² (80-150 A) / 95 mm² (180-200 A) **OTHERS** Typical applications Wide banded RFI suppression for Optimized filter series for all kinds Wide banded RFI suppression for all industrial 3-phase applications of industrial 3-phase applications all wye applications with very high with very high RFI emissions, e.g.: using infeed/regenerative RFI emissions, e.g.: - Machine tools (ER)-modules, e.g.: - Frequency converters with very - Elevators, escalators, ... long motor cables - Machine tools - Frequency converters - Frequency converters - Machine tools - Electrical drives - Automation & Drives - Industrial cabinets technologies Optimized filter series for the use - Industrial cabinets in industrial cabinets



Product Overview

2-phase filters	PCB filters	High frequency filters	IEC outlet filters
IK-series	EBP-, EDP-, EOP-series	AQ-series	EBF-series
RoHS Ready	RoHS	RoHS	RoHS
Wide range performance	General purpose	Superior performance	Wide range performance
 Specially designed for industrial 2-phase applications Wide range performance 2-phase Filter Good attenuation over the complete frequency rang Unique filter series because of original custom made design 1IK1C available with ground choke 	 PCB filter for different needs Very compact design Low weight Good attenuation (common mode & differential mode) Cost effective alternative to on board units" 	 The AQ-series provide a cost effective solution to meet tempest requirements Available in different configurations (IEC-connector / switch / fuse) High symmetrical and asymmetrical performance from 10 kHz to 1 GHz 	 Accessory outlet filter Good attenuation across the complete frequency range Low leakage current Grounded connection
	UL / VDE / CSA (only EDP and EOP)	UL / CSA	UL / VDE / CSA
480	250	250	250
1 / 6 / 16 / 35 / 50 / 80	1/3/6/10	3 / 6	1/3/6/10
1,20 mA (1 & 6 A versions) 3,20 mA (16-50 A versions) 7,90 mA (80 A version)	0,38 mA	2,30 mA (3 A-models) 1,20 mA (6 A-models)	0,50mA
Dual stage (6-80 A versions) Dual stage + ground choke (1 A version)	Single stage	Multi stage	Single stage
Screw mounting (flange)	PCB mountable (Pins)	Screw mounting	Screw mounting
FASTON 6,35 mm (1 & 6 A version) screw type terminals 6 mm ² (16 & 35 A) screw type terminals 25 mm ² (50 & 80 A)	PCB Pins 0,6 x 0,6 mm	(flange / inserts / back panel) IEC-connector / wire	IEC socket 320/F
FASTON 6,35 mm (1 & 6 A version) wire AWG 12 (16 & 35 A) Screw type terminals 25 mm ² (50 & 80 A)	PCB Pins 0,6 x 0,6 mm	Wire	FASTON 6,35 mm / Wire (AWG 18)
Wide banded RFI suppression of industrial 2-phase applications with high RFI emissions, e.g.: - Transportation bands - Site applications - Small construction machinery (concrete mixers;)	Designed for "on board mounting" for various different applications, e.g.: - Gambling machines - Cash terminals - Office equipment - Various small consumer electronics applications	Ideal filter-series for hardened computer applications, where computers are used to process secrete or confidential information. The filters of the AQ-series protect these systems against misuse by unauthorized personnel	Specially designed to connect accessories while filtering noise between the system and the accessories attached. To be used for all kinds of consumer electronics, e.g.: – Computing & accessories – TV / Audio / Video

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