**RT** series

# RT8122-12-5M0

SAP Code: 816958



#### PCB Common Mode Choke

- Horizontal 12 A PCB two line Common Mode Choke with 5 mH Inductance
- General
- 2 Line





#### **Family Technical Specifications**

Rated currents	12
Rated inductance	0.3 to 6 mH (3-line) 0.5 to 10 mH (2-line)
Altitude	2000 m, current and voltage derating above
Vibration and shock	3M4 (according IEC 60721-3-3)
Flammability according to	UL 94 V0
MTBF	>2'000'000 h (MIL-HDBK-217)
Operating voltage	600 VAC (3-line) 300 VAC/425 VDC (2-line)
Operating frequency	DC to 400 Hz
Stray inductance	Max. 1% of rated inductance (@ 100 kHz 1 V, 0 A)
High potential test voltage	3 kV DC 3s (coil to coil) Repetition with max. 80% of the HV test voltage
Temperature range (operation and storage)	-40°C to +100°C (6 to 20 A) / -40°C to +125°C (25 to 63 A)
Climatic category	40/100/56 (acc. IEC 60068-1) (6 to 20 A) / 40/125/56 (acc. IEC 60068-1) (25 to 63 A)
Design corresponding to	UL/IEC 60938-1/-2 UL1446 (>20A)
Overvoltage category	III (acc. IEC 60664-1)
Creepage and clearance distances	Creepage & Clearance (2-line): ≥ 3.5 mm (Coil - Coil) / ≥ 3.0 mm (Coil-Core) Creepage & Clearance (3-line): ≥ 6.3 mm (Coil - Coil) / ≥ 5.5 mm (Coil-Core)

PD2 (acc. IEC60664-1)

**Pollution degree** 

#### Approvals & Compliances



EIS applicable for currents > 20A

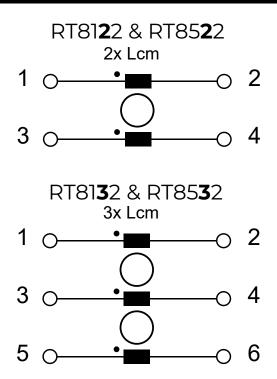
#### **Features and Benefits**

- Cost-effective PCB designs for up to 100 A with forced cooling \*
- EIS (elektrical insulation system E332676) for currents > 20A acc. to UL 1446
- Compact size and light weight
- Low magnetic leakage flux
- Excellent winding insulation
- Standardized foot print
- Broad range of inductance ratings
- Custom-specific versions on request

### **Typical Applications**

- AC and DC filtering for midsize power range drives, photovoltaic inverters, fast chargers, EV charging stations, UPS and switch mode power supplies
- Filter with low leakage current noise or improved immunity against grid disturbances
- Electronic devices, automation and (industrial)
- LED lighting
- Communication devices
- Medical and laboratory Equipment
- Converters

#### Typical electrical schematic



### **General Specification**

Voltage AC	300 (Volt)
Voltage DC	425 (Volt)
Nominal Frequency	50 (Hertz)
Rated Current @ambient	12
Ambient temperature [°C]	60

### **Electric Specification**

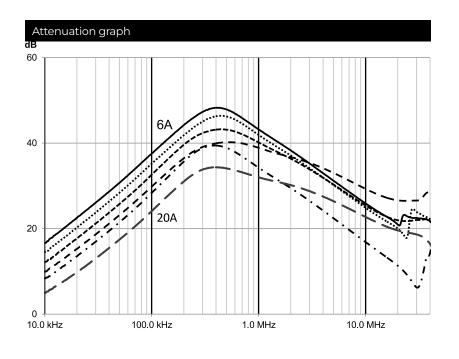
Input terminal

### **Attenuation Specification**

### Inductance L1

02 - PCB Pin

5 (Millihenry)



## **Mechanic Specification**

### Schaffner schemes

Martine D. Branches (Class 4, C)														
Vertical 2-line chokes (Size 4-6)			V	ertical	5-line ch	nokes (S	ize 10-1	2)						
		ann. A		* 5 0	(X)				WPONEN	- And				5
vimensions														
vimensions	A	A1	В	L	» + *	H	11	12	L3	W1	W2	ØD2	ØD3	x
	(±0.5)	A1 (±0.5)	(±0.5)	(max)	(max)	(max)	(±0.5)	(±0.5)	L3	(±0.5)	(±0.5)			
ize 4 (RT8522-6-10M0, RT8522-8-8M0, RT 8522-10-6M0)	(±0.5) 16		(±0.5) 20	(max) 43	(max) 32	(max) 44	(±0.5) 32	(±0.5) 26	L3	(±0.5) 27.8	(±0.5) 22	1.5	2.5	3
5ize 4 (RT8522-6-10M0, RT8522-8-8M0, RT 8522-10-6M0) 5ize 5 (RT8522-12-5M0, RT8522-16-4M0)	(±0.5) 16 16		(±0.5) 20 22	(max) 43 50	(max) 32 32	(max) 44 52	(±0.5) 32 39	(±0.5) 26 33	L3	(±0.5) 27.8 27	(±0.5) 22 23	1.5 1.9	2.5 2.5	3 3
ize 4 (RT8522-6-10M0, RT8522-8-8M0, RT 8522-10-6M0) ize 5 (RT8522-12-5M0, RT8522-16-4M0)	(±0.5) 16		(±0.5) 20	(max) 43	(max) 32	(max) 44	(±0.5) 32	(±0.5) 26	L3 - -	(±0.5) 27.8	(±0.5) 22	1.5	2.5	3
Size 4 (RT8522-6-10M0, RT8522-8-8M0, RT 8522-10-6M0) Size 5 (RT8522-12-SM0, RT8522-16-4M0) Size 6 (RT8522-20-3M0)	(±0.5) 16 16		(±0.5) 20 22	(max) 43 50	(max) 32 32	(max) 44 52	(±0.5) 32 39	(±0.5) 26 33	L3 - - -	(±0.5) 27.8 27	(±0.5) 22 23	1.5 1.9	2.5 2.5	3 3
Size 4 (RT8522-6-10M0, RT8522-8-8M0, RT 8522-10-6M0)   Size 5 (RT8522-12-5M0, RT8522-16-4M0)   Size 6 (RT8522-20-3M0)   Size 10 (RT8532-6-6M0, RT8532-8-4M8)	(±0.5) 16 16 16	(±0.5) - -	(±0.5) 20 22 22	(max) 43 50 56	(max) 32 32 32	(max) 44 52 57	(±0.5) 32 39 42	(±0.5) 26 33 35	-	(±0.5) 27.8 27 31.2	(±0.5) 22 23	1.5 1.9 2.1	2.5 2.5 2.5	3 3 3.5

### Dimensions