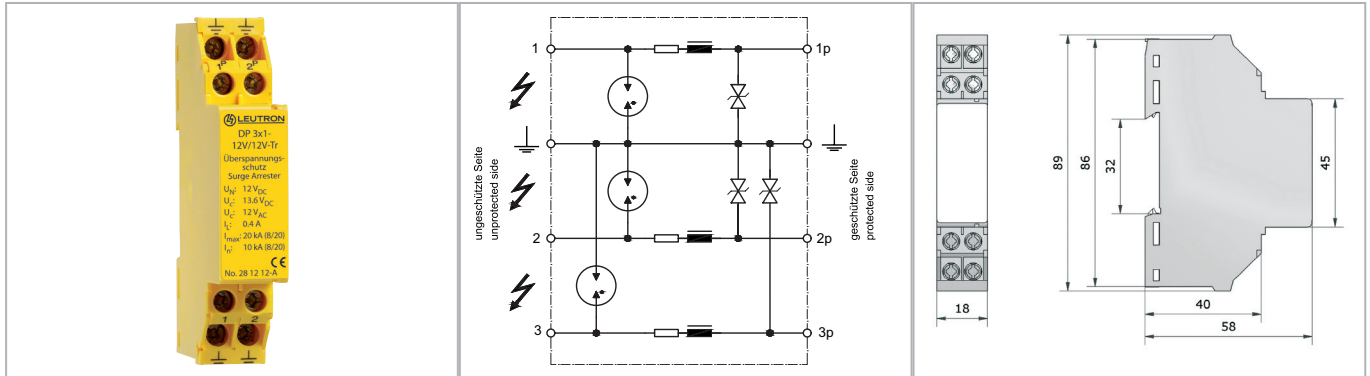


EMC filter with integrated surge protection

MCR technology with integrated low-pass filter



EMC filter for data and signal lines combined with surge protection enables smooth operation of sensitive electronic equipment in rough environment.

- Signal and data line protection with low-pass filter
- Protective circuit for 3 signal lines with common ground
- Applicable at the boundaries LPZ 0A - 2 and higher
- Mounting on 35 mm DIN rail (EN 60715)
- Degree of protection according to IEC EN 60529: IP 20
- Space required for installation: 18 mm
- EAC certification

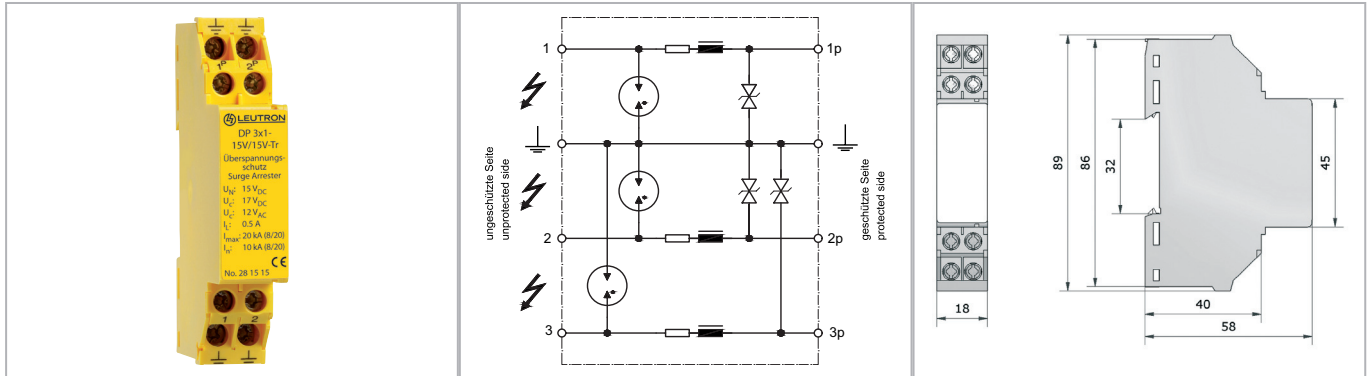
Technical Data		DP 3x1-12V/12V-Tr
IEC category		D1 / C2 / C1 / C3
Nominal voltage DC	UN	12 V=
Max. continuous operating voltage DC	Uc	13,6 V=
Max. continuous operating voltage AC (50/60 Hz)	Uc	12 V~
Nominal current	IL	0,4 A
D1 lightning impulse current (10/350 µs) per line	Iimp	2,5 kA
D1 lightning impulse current (10/350 µs) total	Itotal	7,5 kA
C2 nominal discharge current (8/20 µs) per line	In	10 kA
C2 nominal discharge current (8/20 µs) total	I _{max}	20 kA
Protection level at In (line-earth)	Up	≤ 18 V
Leakage current at U _{max} DC		≤ 5 µA
DC resistance	R	3,2 Ω
Series inductance, typ.	L	30 µH
Capacitance, line-earth	C	≤ 2,3 nF
Max. operating frequency (-3 dB)	fG	600 kHz
Operating temperature range	TU	-25 - +85 °C
Max. conductor cross section		2.5mm ² solid or 1.5mm ² flexible with sleeve
Max. connection torque for terminals		1,5 Nm
Enclosure material / colour		polycarbonate (halogen-free) UL 94-V0 / yellow
Degree of protection (IEC EN 60529)		IP 20

Order Data

Product	DP 3x1-12V/12V-Tr
Article-No.	28 12 12-A

EMC filter with integrated surge protection

MCR technology with integrated low-pass filter



EMC filter for data and signal lines combined with surge protection enables smooth operation of sensitive electronic equipment in rough environment.

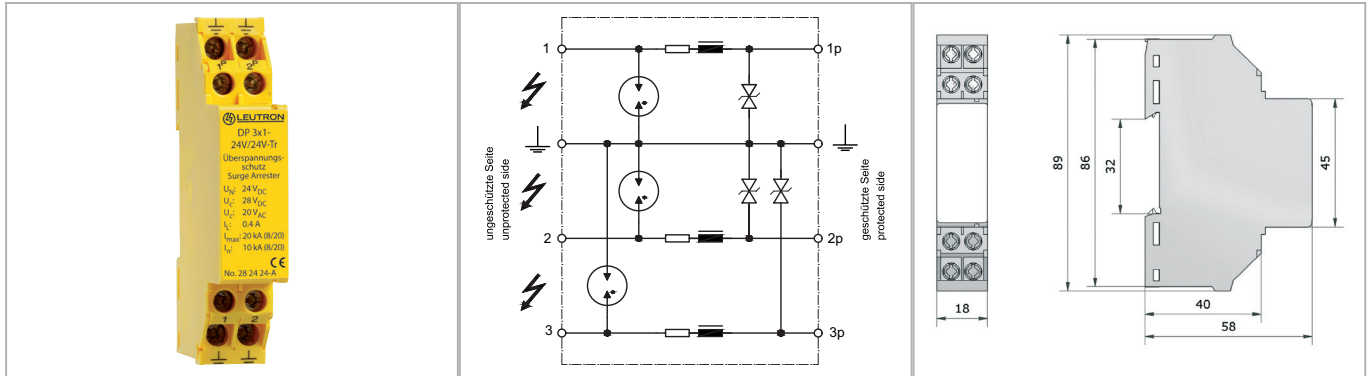
- Signal and data line protection with low-pass filter
- Protective circuit for 3 signal lines with common ground
- Applicable at the boundaries LPZ 0A - 2 and higher
- Mounting on 35 mm DIN rail (EN 60715)
- Degree of protection according to IEC EN 60529: IP 20
- Space required for installation: 18 mm
- EAC certification

Technical Data		DP 3x1-15V/15V-Tr
IEC category		D1 / C2 / C1 / C3
Nominal voltage DC	UN	15 V=
Max. continuous operating voltage DC	UC	17 V=
Max. continuous operating voltage AC (50/60 Hz)	UC	12 V~
Nominal current	IL	0,4 A
D1 lightning impulse current (10/350 µs) per line	Iimp	2,5 kA
D1 lightning impulse current (10/350 µs) total	Itotal	7,5 kA
C2 nominal discharge current (8/20 µs) per line	In	10 kA
C2 nominal discharge current (8/20 µs) total	I _{max}	20 kA
Protection level at In (line-earth)	Up	≤ 23 V
Leakage current at U _{max} DC		≤ 5 µA
DC resistance	R	3,2 Ω
Series inductance, typ.	L	30 µH
Capacitance, line-earth	C	≤ 1,5 nF
Max. operating frequency (-3 dB)	fG	600 kHz
Operating temperature range	TU	-25 - +85 °C
Max. conductor cross section		2.5mm ² solid or 1.5mm ² flexible with sleeve
Max. connection torque for terminals		1,5 Nm
Enclosure material / colour		polycarbonate (halogen-free) UL 94-V0 / yellow
Degree of protection (IEC EN 60529)		IP 20

Order Data	
Product	DP 3x1-15V/15V-Tr
Article-No.	28 15 15-A

EMC filter with integrated surge protection

MCR technology with integrated low-pass filter



EMC filter for data and signal lines combined with surge protection enables smooth operation of sensitive electronic equipment in rough environment.

- Signal and data line protection with low-pass filter
- Protective circuit for 3 signal lines with common ground
- Applicable at the boundaries LPZ 0A - 2 and higher
- Mounting on 35 mm DIN rail (EN 60715)
- Degree of protection according to IEC EN 60529: IP 20
- Space required for installation: 18 mm
- EAC certification

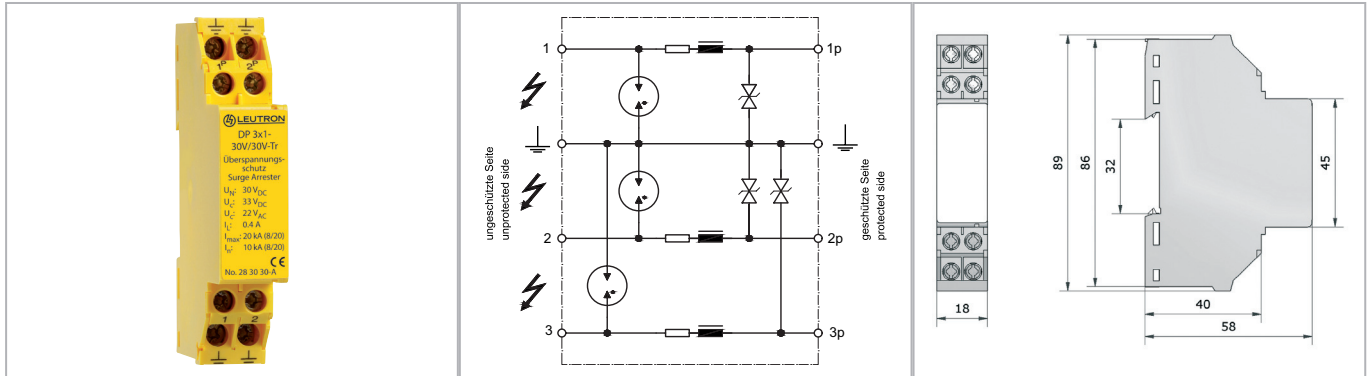
Technical Data		DP 3x1-24V/24V-Tr
IEC category		D1 / C2 / C1 / C3
Nominal voltage DC	UN	24V=
Max. continuous operating voltage DC	Uc	28V=
Max. continuous operating voltage AC (50/60 Hz)	Uc	20V~
Nominal current	IL	0,4 A
D1 lightning impulse current (10/350 μs) per line	Iimp	2,5 kA
D1 lightning impulse current (10/350 μs) total	Itotal	7,5 kA
C2 nominal discharge current (8/20 μs) per line	In	10 kA
C2 nominal discharge current (8/20 μs) total	I _{max}	20 kA
Protection level at In (line-earth)	Up	≤ 36 V
Leakage current at U _{max} DC		≤ 5 μA
DC resistance	R	3,2 Ω
Series inductance, typ.	L	30 μH
Capacitance, line-earth	C	≤ 1,3 nF
Max. operating frequency (-3 dB)	fG	600 kHz
Operating temperature range	TU	-25 - +85 °C
Max. conductor cross section		2.5mm ² solid or 1.5mm ² flexible with sleeve
Max. connection torque for terminals		1,5 Nm
Enclosure material / colour		polycarbonate (halogen-free) UL 94-V0 / yellow
Degree of protection (IEC EN 60529)		IP 20

Order Data

Product	DP 3x1-24V/24V-Tr
Article-No.	28 24 24-A

EMC filter with integrated surge protection

MCR technology with integrated low-pass filter



EMC filter for data and signal lines combined with surge protection enables smooth operation of sensitive electronic equipment in rough environment.

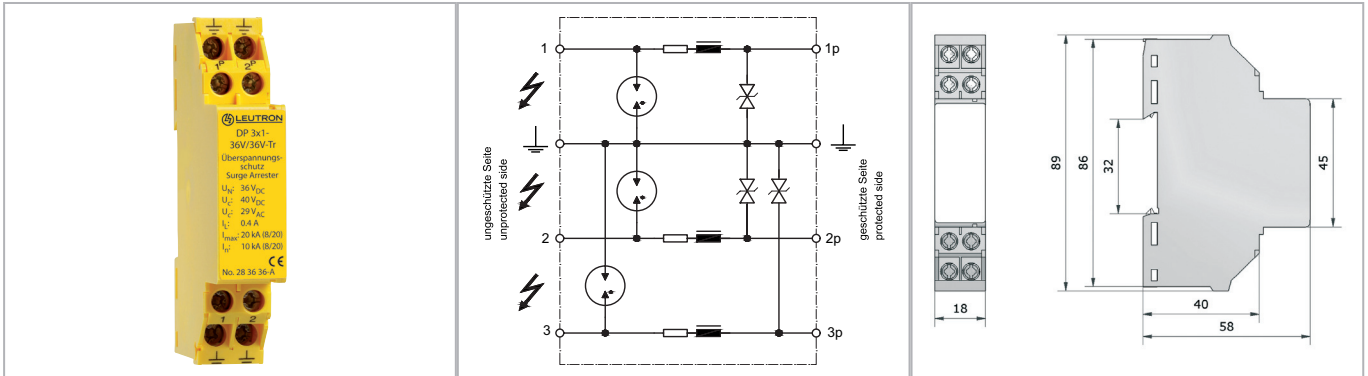
- Signal and data line protection with low-pass filter
- Protective circuit for 3 signal lines with common ground
- Applicable at the boundaries LPZ 0A - 2 and higher
- Mounting on 35 mm DIN rail (EN 60715)
- Degree of protection according to IEC EN 60529: IP 20
- Space required for installation: 18 mm
- EAC certification

Technical Data		DP 3x1-30V/30V-Tr
IEC category		D1 / C2 / C1 / C3
Nominal voltage DC	UN	30V=
Max. continuous operating voltage DC	Uc	33V=
Max. continuous operating voltage AC (50/60 Hz)	Uc	22V~
Nominal current	IL	0,4 A
D1 lightning impulse current (10/350 µs) per line	Iimp	2,5 kA
D1 lightning impulse current (10/350 µs) total	Itotal	7,5 kA
C2 nominal discharge current (8/20 µs) per line	In	10 kA
C2 nominal discharge current (8/20 µs) total	I _{max}	20 kA
Protection level at In (line-earth)	Up	≤ 45 V
Leakage current at U _{max} DC		≤ 5 µA
DC resistance	R	3,2 Ω
Series inductance, typ.	L	30 µH
Capacitance, line-earth	C	≤ 1 nF
Max. operating frequency (-3 dB)	fG	600 kHz
Operating temperature range	TU	-25 - +85 °C
Max. conductor cross section		2.5mm ² solid or 1.5mm ² flexible with sleeve
Max. connection torque for terminals		1,5 Nm
Enclosure material / colour		polycarbonate (halogen-free) UL 94-V0 / yellow
Degree of protection (IEC EN 60529)		IP 20

Order Data	
Product	DP 3x1-30V/30V-Tr
Article-No.	28 30 30-A

EMC filter with integrated surge protection

MCR technology with integrated low-pass filter



EMC filter for data and signal lines combined with surge protection enables smooth operation of sensitive electronic equipment in rough environment.

- Signal and data line protection with low-pass filter
- Protective circuit for 3 signal lines with common ground
- Applicable at the boundaries LPZ 0A - 2 and higher
- Mounting on 35 mm DIN rail (EN 60715)
- Degree of protection according to IEC EN 60529: IP 20
- Space required for installation: 18 mm
- EAC certification

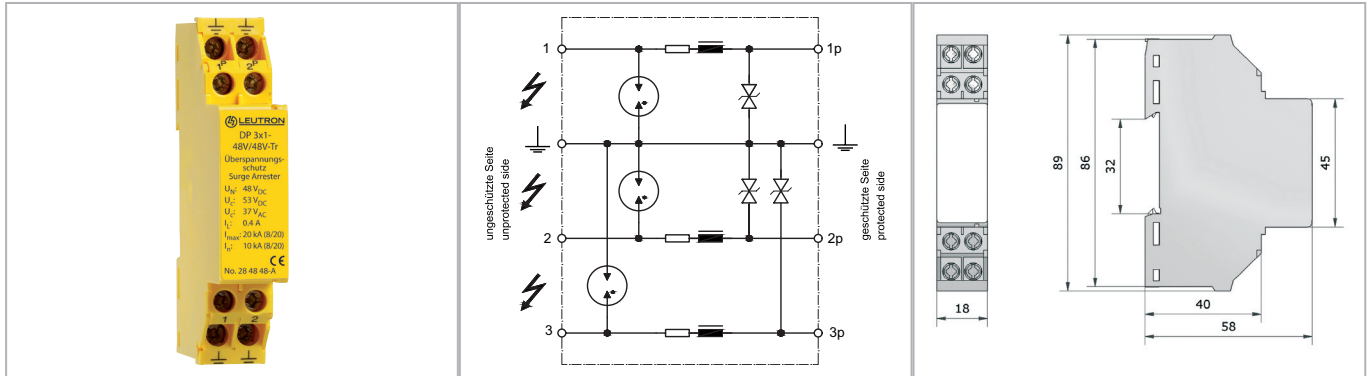
Technical Data		DP 3x1-36V/36V-Tr
IEC category		D1 / C2 / C1 / C3
Nominal voltage DC	UN	36V=
Max. continuous operating voltage DC	Uc	40V=
Max. continuous operating voltage AC (50/60 Hz)	Uc	29V~
Nominal current	IL	0,4 A
D1 lightning impulse current (10/350 µs) per line	Iimp	2,5 kA
D1 lightning impulse current (10/350 µs) total	Itotal	7,5 kA
C2 nominal discharge current (8/20 µs) per line	In	10 kA
C2 nominal discharge current (8/20 µs) total	I _{max}	20 kA
Protection level at In (line-earth)	Up	≤ 55 V
Leakage current at U _{max} DC		≤ 5 µA
DC resistance	R	3,2 Ω
Series inductance, typ.	L	30 µH
Capacitance, line-earth	C	≤ 1 nF
Max. operating frequency (-3 dB)	fG	600 kHz
Operating temperature range	TU	-25 - +85 °C
Max. conductor cross section		2.5mm ² solid or 1.5mm ² flexible with sleeve
Max. connection torque for terminals		1,5 Nm
Enclosure material / colour		polycarbonate (halogen-free) UL 94-V0 / yellow
Degree of protection (IEC EN 60529)		IP 20

Order Data

Product	DP 3x1-36V/36V-Tr
Article-No.	28 36 36-A

EMC filter with integrated surge protection

MCR technology with integrated low-pass filter



EMC filter for data and signal lines combined with surge protection enables smooth operation of sensitive electronic equipment in rough environment.

- Signal and data line protection with low-pass filter
- Protective circuit for 3 signal lines with common ground
- Applicable at the boundaries LPZ 0A - 2 and higher
- Mounting on 35 mm DIN rail (EN 60715)
- Degree of protection according to IEC EN 60529: IP 20
- Space required for installation: 18 mm
- EAC certification

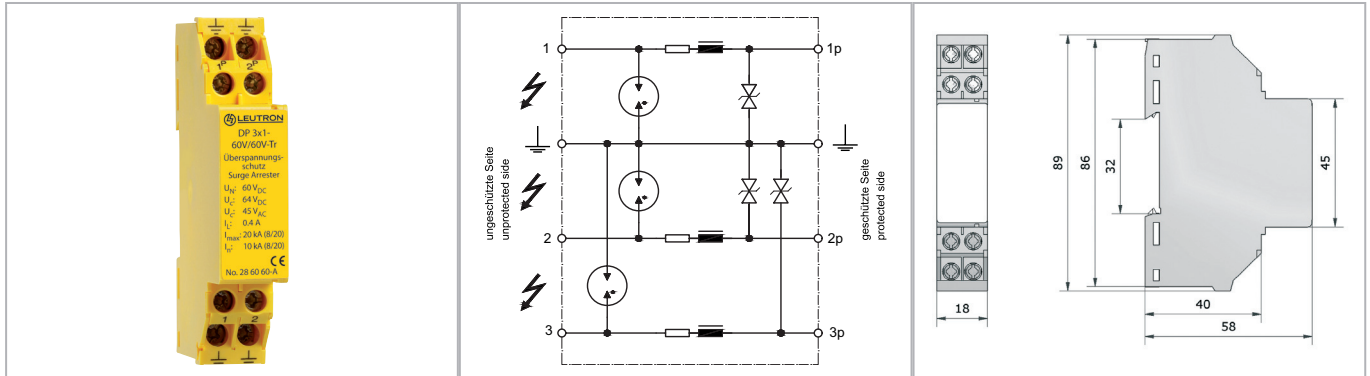
Technical Data		DP 3x1-48V/48V-Tr
IEC category		D1 / C2 / C1 / C3
Nominal voltage DC	UN	48 V=
Max. continuous operating voltage DC	Uc	53 V=
Max. continuous operating voltage AC (50/60 Hz)	Uc	37 V~
Nominal current	IL	0,4 A
D1 lightning impulse current (10/350 µs) per line	Iimp	2,5 kA
D1 lightning impulse current (10/350 µs) total	Itotal	7,5 kA
C2 nominal discharge current (8/20 µs) per line	In	10 kA
C2 nominal discharge current (8/20 µs) total	I _{max}	20 kA
Protection level at In (line-earth)	Up	≤ 72 V
Leakage current at U _{max} DC		≤ 5 µA
DC resistance	R	3,2 Ω
Series inductance, typ.	L	30 µH
Capacitance, line-earth	C	≤ 0,8 nF
Max. operating frequency (-3 dB)	fG	600 kHz
Operating temperature range	TU	-25 - +85 °C
Max. conductor cross section		2.5mm ² solid or 1.5mm ² flexible with sleeve
Max. connection torque for terminals		1,5 Nm
Enclosure material / colour		polycarbonate (halogen-free) UL 94-V0 / yellow
Degree of protection (IEC EN 60529)		IP 20

Order Data

Product	DP 3x1-48V/48V-Tr
Article-No.	28 48 48-A

EMC filter with integrated surge protection

MCR technology with integrated low-pass filter



EMC filter for data and signal lines combined with surge protection enables smooth operation of sensitive electronic equipment in rough environment.

- Signal and data line protection with low-pass filter
- Protective circuit for 3 signal lines with common ground
- Applicable at the boundaries LPZ 0A - 2 and higher
- Mounting on 35 mm DIN rail (EN 60715)
- Degree of protection according to IEC EN 60529: IP 20
- Space required for installation: 18 mm
- EAC certification

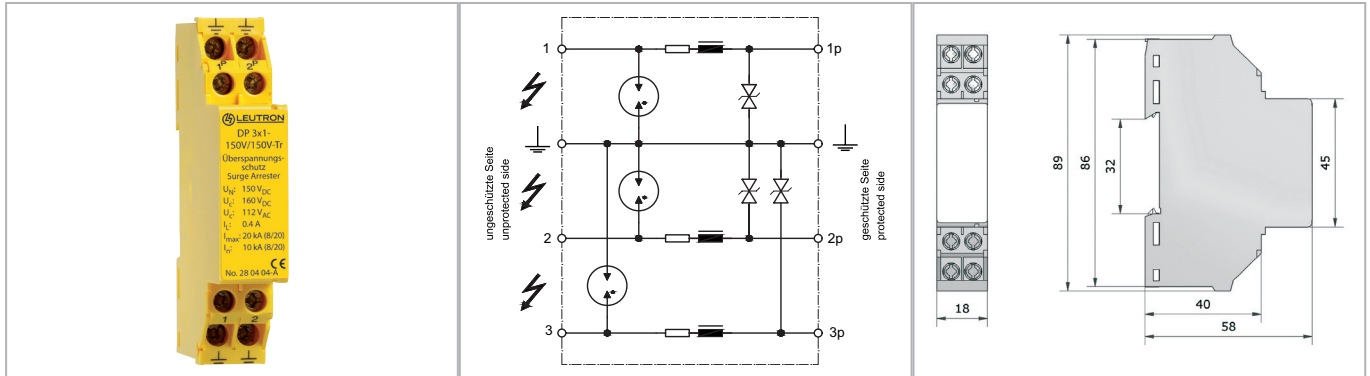
Technical Data		DP 3x1-60V/60V-Tr
IEC category		D1 / C2 / C1 / C3
Nominal voltage DC	UN	60 V=
Max. continuous operating voltage DC	Uc	64 V=
Max. continuous operating voltage AC (50/60 Hz)	Uc	45 V~
Nominal current	IL	0,4 A
D1 lightning impulse current (10/350 µs) per line	Iimp	2,5 kA
D1 lightning impulse current (10/350 µs) total	Itotal	7,5 kA
C2 nominal discharge current (8/20 µs) per line	In	10 kA
C2 nominal discharge current (8/20 µs) total	I _{max}	20 kA
Protection level at In (line-earth)	Up	≤ 90 V
Leakage current at U _{max} DC		≤ 5 µA
DC resistance	R	3,2 Ω
Series inductance, typ.	L	30 µH
Capacitance, line-earth	C	≤ 0,7 nF
Max. operating frequency (-3 dB)	fG	600 kHz
Operating temperature range	TU	-25 - +85 °C
Max. conductor cross section		2.5mm ² solid or 1.5mm ² flexible with sleeve
Max. connection torque for terminals		1,5 Nm
Enclosure material / colour		polycarbonate (halogen-free) UL 94-V0 / yellow
Degree of protection (IEC EN 60529)		IP 20

Order Data

Product	DP 3x1-60V/60V-Tr
Article-No.	28 60 60-A

EMC filter with integrated surge protection

MCR technology with integrated low-pass filter



EMC filter for data and signal lines combined with surge protection enables smooth operation of sensitive electronic equipment in rough environment.

- Signal and data line protection with low-pass filter
- Protective circuit for 3 signal lines with common ground
- Applicable at the boundaries LPZ 0A - 2 and higher
- Mounting on 35 mm DIN rail (EN 60715)
- Degree of protection according to IEC EN 60529: IP 20
- Space required for installation: 18 mm
- EAC certification

Technical Data		DP 3x1-150V/150V-Tr
IEC category		D1 / C2 / C1 / C3
Nominal voltage DC	UN	150 V=
Max. continuous operating voltage DC	Uc	160 V=
Max. continuous operating voltage AC (50/60 Hz)	Uc	112 V~
Nominal current	IL	0,4 A
D1 lightning impulse current (10/350 µs) per line	Iimp	2,5 kA
D1 lightning impulse current (10/350 µs) total	Itotal	7,5 kA
C2 nominal discharge current (8/20 µs) per line	In	10 kA
C2 nominal discharge current (8/20 µs) total	I _{max}	20 kA
Protection level at In (line-earth)	Up	≤ 250 V
Leakage current at U _{max} DC		≤ 5 µA
DC resistance	R	3,2 Ω
Series inductance, typ.	L	30 µH
Capacitance, line-earth	C	≤ 1 nF
Max. operating frequency (-3 dB)	fG	600 kHz
Operating temperature range	TU	-25 - +85 °C
Max. conductor cross section		2.5mm ² solid or 1.5mm ² flexible with sleeve
Max. connection torque for terminals		1,5 Nm
Enclosure material / colour		polycarbonate (halogen-free) UL 94-V0 / yellow
Degree of protection (IEC EN 60529)		IP 20

Order Data	
Product	DP 3x1-150V/150V-Tr
Article-No.	28 04 04-A