C3-A3x

11-pin standard relays, 3-pole, plug-in, IEC 61810

Type	**C3-A3x/ ... V**		
	Standard relays, 3 change-over contacts		
Maximum contact load	**10 A/250**	**AC-1**	**0,5 A/110 V DC-1**
	10 A/30	**DC-1**	**0,2 A/220 V DC-1**
Recommended minimum contact load	**10 mA/10 V**	**Code 0, 9**	
	5 mA/5 V	**Code 8**	

Contacts

Material	Standard	Code 0	AgNi
	Optional	Code 8	AgNi + 10 µ Au
	Optional	Code 9	AgNi + 0,2 µ Au
Rated current			10 A
Switch-on current max. (20 ms)			30 A
Switching voltage max.			250 V
AC load (Fig 1)			2,5 kVA
DC load			see Fig. 2

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0,8 x U_N
Release voltage	≥ 0,1 x U_N
Nominal power	2,2 VA (AC)/1,3 W (DC)

Coil table

VAC	Ω	mA	VDC	Ω	mA
24	67	92	24	480	50
48	296	46	48	1K8	26
115	1K7	19	110	9K	12
230	7K1	9,5	220	36K1	6

Insulation

	Volt rms, 1 min
Contact open	1000 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	≥1 GΩ
Insulation, IEC 61810-1	2,5 kV/3

Specifications

Ambient temperature operation/storage	-40 (no ice)….60 °C /-40 ... 80 °C
Pick-up time/bounce time	16 ms/≤ 3 ms
Release time/bounce time	8 ms/≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100000 switching cycles
Switching frequency at rated load	≤ 1200/ops/h
Protection class	IP40
Weight	81 g

Standard types

VAC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)	**C3-A30/AC ... V**	**C3-A38/AC ... V**	**C3-A39/AC ... V**
LED	**C3-A30X/AC ... V**	**C3-A38X/AC ... V**	**C3-A39X/AC ... V**
VDC 24, 48, 110, 220	**C3-A30/DC ... V**	**C3-A38/DC ... V**	**C3-A39/DC ... V**
LED	**C3-A30X/DC ... V**	**C3-A38X/DC ... V**	**C3-A39X/DC ... V**
Free wheeling diode	**C3-A30DX/DC ... V**	**C3-A38DX/DC ... V**	**C3-A39DX/DC ... V**
Polarity and free wheeling diode	**C3-A30FX/DC ... V**	**C3-A38FX/DC ... V**	**C3-A39FX/DC ... V**
AC/DC bridge rectifier 24 V, 48 V, 60 V	**C3-A30BX/UC ... V**	**C3-A38BX/UC ... V**	**C3-A39BX/UC ... V**

"..." Enter the voltage for full type designation

Accessories

Socket:	**S3-B, S3-S, S3-L, S3-P, S3-P0**
Optional accessories (blanking plug):	**SO-NP, SO-OP**
Retaining clip, plastic:	**S30-CM**

Connection diagram

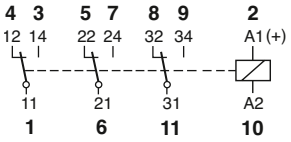


Fig. 1 AC voltage endurance

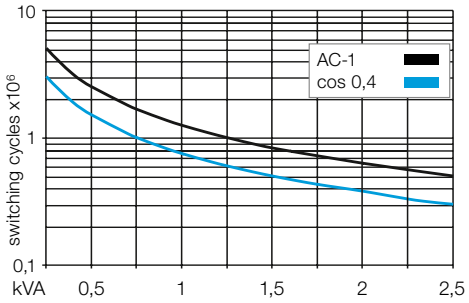
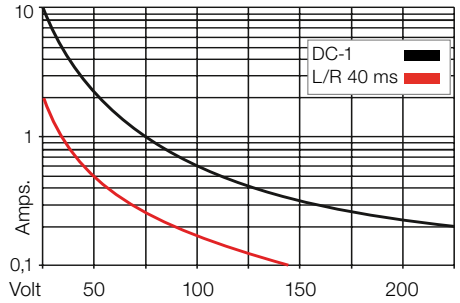
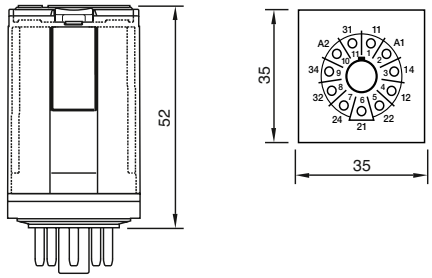


Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities

cULus cSAus Lloyd's

IEC 61810; EN 60947

MRC series

C3-T3x

11-pin standard relay, 3-pole, twin contact, plug-in, IEC 61810

Type	**C3-T3x/ ... V** Standard relays for low level 3 change-over twin contacts
Maximum contact load	**6 A/250 V AC-1 6 A/30 V DC-1**
Recommended minimum contact load	**5 mA/5 V Code 1** **1 mA/5 V Code 2**

Contacts

Material	Standard	Code 1	AgNi + 0,2 µ Au
	Optional	Code 2	AgNi + 10 µ Au
Rated current			6 A
Switch-on current max. (20 ms)			15 A
Switching voltage max.			250 V
AC load (Fig 1)			1,2 kVA
DC load			see Fig. 2

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0,8 x U_N
Release voltage	≥ 0,1 x U_N
Nominal power	2,2 VA (AC)/1,3 W (DC)

Coil table

VAC	Ω	mA	VDC	Ω	mA
24	67	92	24	480	50
48	296	46	48	1K8	26
115	1K7	19	110	9K	12
230	7K1	9,5	220	36K1	6

Insulation

	Volt rms, 1 min
Contact open	1000 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	≥1 GΩ
Insulation, EN 61810-1	2,5 kV/3

Specifications

Ambient temperature operation/storage	-40 … 70 °C /-40 … 80 °C
Pick-up time/bounce time	8 ms/≤ 3 ms
Release time/bounce time	18 ms/≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥100000 switching cycles
Switching frequency at rated load	≤ 1200/ops/h
Protection class	IP40
Weight	81 g

Standard types

VAC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)	**C3-T31/AC ... V**	**C3-T32/AC ... V**
LED	**C3-T31X/AC ... V**	**C3-T32X/AC ... V**
VDC 24, 48, 110, 220	**C3-T31/DC ... V**	**C3-T32/DC ... V**
LED	**C3-T31X/DC ... V**	**C3-T32X/DC ... V**
Free wheeling diode	**C3-T31DX/DC ... V**	**C3-T32DX/DC ... V**
Polarity and free wheeling diode	**C3-T31FX/DC ... V**	**C3-T32FX/DC ... V**
AC/DC bridge rectifier 24 V, 48 V, 60 V	**C3-T31BX/UC ... V**	**C3-T32BX/UC ... V**

"..." Enter the voltage for full type designation

Accessories

Socket:	**S3-B, S3-S, S3-L, S3-P, S3-P0**
Optional accessories (blanking plug):	**SO-NP, SO-OP**
Retaining clip, plastic:	**S30-CM**

Connection diagram

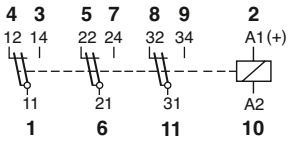


Fig. 1 AC voltage endurance

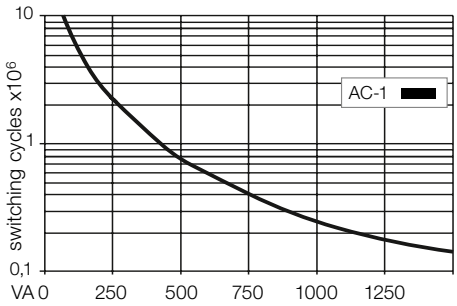
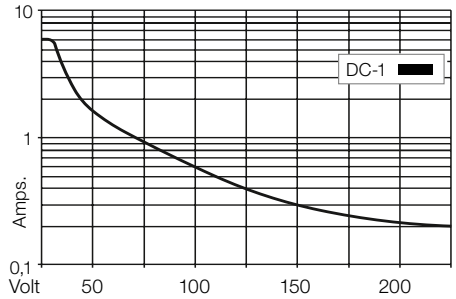
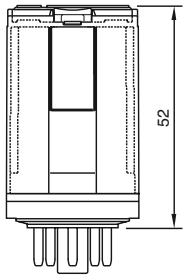
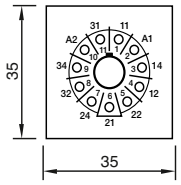


Fig. 2 DC load limit curve



Dimensions [mm]





Technical approvals, conformities

Lloyd's

IEC 61810; EN 60947

C3-G3x

11-pin standard relay, 3-pole, open contact, IEC 61810

Type	**C3-G3x/ ... V** Standard relays, DC application 3 open contacts
Maximum contact load	**10 A 250 V AC-1 1,2 A/110 V DC-1** **10 A 30 V DC-1 0,4 A/220 V DC-1**

Contacts

Material	Standard	Code 0	AgNi
Rated current			10 A
Switch-on current max. (20 ms)			30 A
Switching voltage max.			250 V
AC load (Fig 1)			2,5 kVA
DC load			see Fig. 2

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0,8 x U_N
Release voltage	≥ 0,1 x U_N
Nominal power	2,4 VA (AC)/1,6 W (DC)

Coil table

VAC	Ω	mA	VDC	Ω	mA
24	65	100	24	360	66
48	286	50	48	1K4	34
115	1K7	21	110	7K6	15
230	6K8	10	220	30K3	7,5

Insulation

	Volt rms, 1 min
Contact open	2000 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	≥1 GΩ
Insulation, IEC 61810-1	2,5 kV/3

Specifications

Ambient temperature operation/storage	-40 (no ice)….60 °C /-40 ... 80 °C
Pick-up time/bounce time	20 ms/≤ 3 ms
Release time/bounce time	8 ms/≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥100000 switching cycles
Switching frequency at rated load	≤ 1200/ops/ h
Protection class	IP40
Weight	81 g

Standard types

VAC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)	**C3-G30/AC ... V**
LED	**C3-G30X/AC ... V**
VDC 24, 48, 110, 220	**C3-G30/DC ... V**
LED	**C3-G30X/DC ... V**
Free wheeling diode	**C3-G30DX/DC... V**
Polarity and free wheeling diode	**C3-G30FX/DC ... V**
AC/DC bridge rectifier 24 V, 48 V, 60 V	**C3-G30BX/UC ... V**

"..." Enter the voltage for full type designation

Accessories

Socket:	**S3-B, S3-S, S3-L, S3-P, S3-P0**
Optional accessories (blanking plug):	**SO-NP, SO-OP**
Retaining clip, plastic:	**S30-CM**

Connection diagram

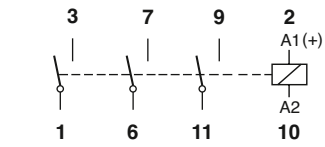


Fig. 1 AC voltage endurance

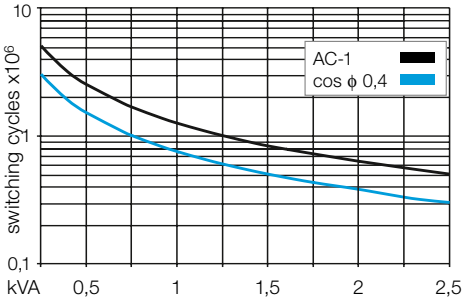
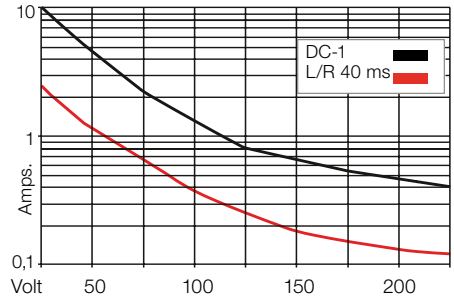
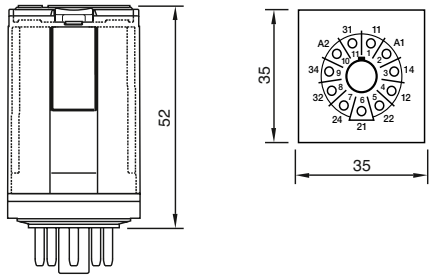


Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities

Lloyd´s

IEC 61810; EN 60947

C3-M1x

11-pin power relay, 1-pole, magnetic blow out, IEC 61810

Type	**C3-M1x/ ... V** Power relays, DC, application 1 pole, magnetic blow out
Maximum contact load	**10 A 250 V AC-1 10 A 220 V DC-1**

Contacts

Material	Standard	Code 0	AgNi
Rated current			10 A
Switch-on current max. (20 ms)			30 A
Switching voltage max.			250 V
AC load (Fig 1)			2,5 kVA
DC load			see Fig. 2

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0,8 x U_N
Release voltage	≥ 0,1 x U_N
Nominal power	2,4 VA (AC) / 1,3 W (DC)

Coil table

VAC	Ω	mA	VDC	Ω	mA
24	65	100	24	480	50
48	286	50	48	1K8	26
115	1K7	21	110	9K	12
230	6K8	10	220	29K	7,5

Insulation

	Volt rms, 1 min
Contact open	2500 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	≥1 GΩ
Insulation, IEC 61810-1:	2,5 KV / 3

Specifications

Ambient temperature operation/storage	-40 … 70 °C (55° C AC) /-40 ... 80 °C
Nominal coil power	2,4 VA (AC), 1,3 W (DC)
Pick-up time/bounce time	20 ms/≤ 3 ms
Release time/bounce time	10 ms/≤ 1 ms
Isolation: EN 60947, pollution rate 3, Gr C	250 V
Dielectric strength, Contact/Coil	2,5 KV

Standard types

VAC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)	**C3-M10/AC ... V**
LED	**C3-M10X/AC ... V**
VDC 24, 48, 110, 220	**C3-M10/DC ... V**
LED	**C3-M10X/DC ... V**
Free wheeling diode	**C3-M10DX/DC ... V**
Polarity and free wheeling diode	**C3-M10FX/DC ... V**
AC/DC bridge rectifier 24 V, 48 V, 60 V	**C3-M10BX/UC ... V**

"..." Enter the voltage for full type designation

Accessories

Socket:	**S3-B, S3-S, S3-L, S3-P, S3-P0**
Optional accessories (blanking plug):	**SO-NP, SO-OP**
Retaining clip, plastic:	**S30-CM**

Connection diagram

Gap: > 3 mm (1,7 + 1,7)

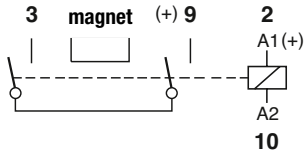


Fig. 1 AC voltage endurance

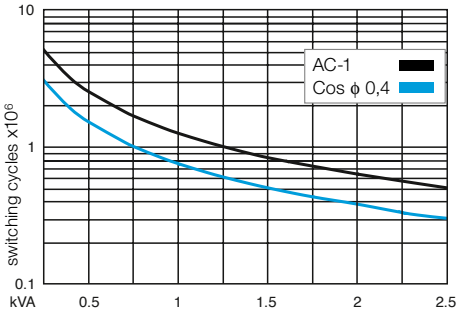
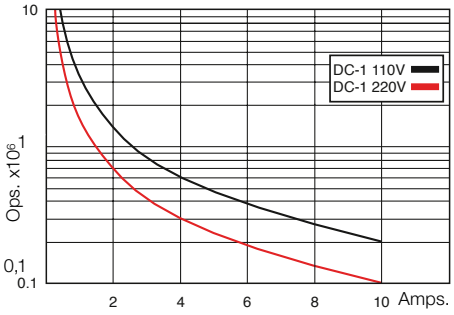
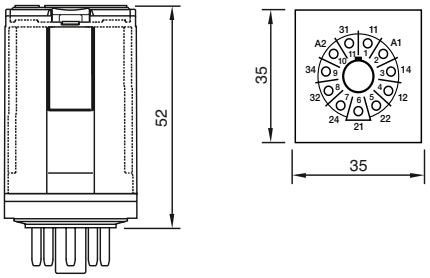


Fig. 2 DC voltage endurance



Dimensions [mm]



Technical approvals, conformities

IEC 61810; EN 60947

C3-X1x

11-pin power relay, 1-pole, double make, IEC 61810

Type	**C3-X1x/ ... V** Power relays for DC application 1 pole, NO, double make
Maximum contact load	**10 A/250 V AC-1 7 A/110 V DC-1** **10 A/30 V DC-1 1,2 A/220 V DC-1**

Contacts

Material	Standard	Code 0	AgNi
Rated current			10 A
Switch-on current max. (20 ms)			30 A
Switching voltage max.			250 V
AC load (Fig 1)			2,5 kVA
DC load			see Fig. 2

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0,8 x U_N
Release voltage	≥ 0,1 x U_N
Nominal power	2,4 VA (AC)/1,3 W (DC)

Coil table

VAC	Ω	mA	VDC	Ω	mA
24	65	100	24	480	54
48	286	50	48	1K8	26
115	1K7	21	110	9K	12
230	6K8	10	220	29K	7,5

Insulation

	Volt rms, 1 min
Contact open	2500 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	≥1 GΩ
Insulation, IEC 61810-1	2,5 kV/3

Specifications

Ambient temperature operation/storage	-40 (no ice)….60 °C /-40 ... 80 °C
Pick-up time/bounce time	18 ms/≤ 3 ms
Release time/bounce time	8 ms/≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥100000 switching cycles
Switching frequency at rated load	≤ 1200/ops/h
Protection class	IP40
Weight	83 g

Standard types

VAC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)	**C3-X10/AC ... V**
LED	**C3-X10X/AC ... V**
VDC 24, 48, 110, 220	**C3-X10/DC ... V**
LED	**C3-X10X/DC ... V**
Free wheeling diode	**C3-X10DX/DC ... V**
Polarity and free wheeling diode	**C3-X10FX/DC ... V**
AC/DC bridge rectifier 24 V, 48 V, 60 V	**C3-X10BX/UC ... V**

"..." Enter the voltage for full type designation

Accessories

Socket:	**S3-B, S3-S, S3-L, S3-P, S3-P0**
Optional accessories (blanking plug):	**SO-NP, SO-OP**
Retaining clip, plastic:	**S30-CM**

Connection diagram

Gap:
> 3 mm
(1,7 + 1,7)

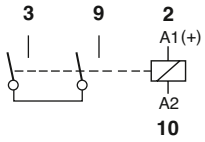


Fig. 1 AC voltage endurance

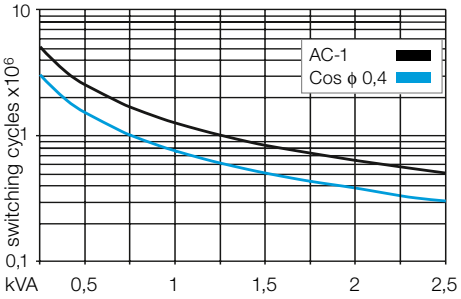
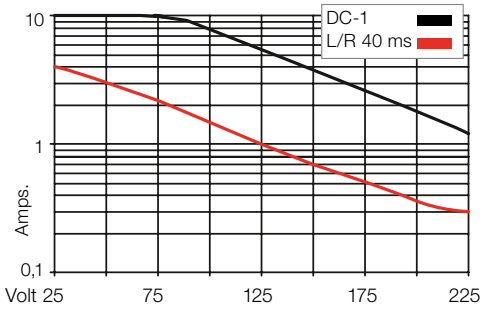
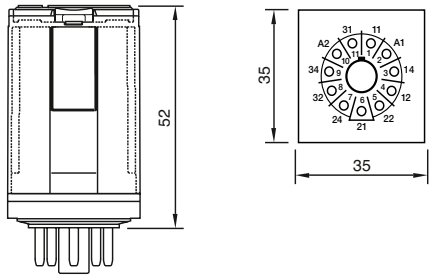


Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities

IEC 61810; EN 60947

MRC series

C3-R2x

11-pin remanence relays, 2-pole, IEC 61810

Type	**C3-R2x/ ... V** Remanence plug-in relays, 2 change-over contacts
Maximum contact load	**10 A/250 V AC-1 0,5 A/110 V DC-1** **10 A/30 V DC-1 0,2 A/220 V DC-1**
Recommended minimum contact load	**10 mA/10 V Code 0, 9** **5 mA/5 V Code 8**

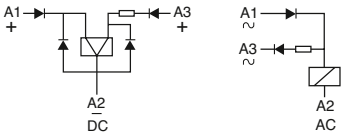
Contacts

Material	Standard	Code 0	AgNi
	Optional	Code 8	AgNi + 10 µ Au
	Optional	Code 9	AgNi + 0,2 µ Au
Rated current			10 A
Switch-on current max. (20 ms)			30 A
Switching voltage max.			250 V
AC load (Fig 1)			2,5 kVA
DC load			see Fig. 2

Coil

Coil resistance	see table; tolerance ± 10 %
ON pulse power	1,5 VA/W
OFF pulse power	0,5 VA/W
Pull-in ON/OFF	≤ 0,8 x U_N

Internal Diagram:



Coil table

VAC	mA ON	mA OFF	VDC	mA ON	mA OFF
24	75	12	12	125	41
48	38	6	24	63	21
115	16	2,5	48	31	10
230	8	1,3	110	14	4,5

Insulation

	Volt rms, 1 min
Contact open	1000 V
Contact/contact	2,5 kV
Contact/coil	2,5 kV
Insulation resistance at 500 V	≥1 GΩ
Insulation, IEC 61810-1	2,5 kV/3

Specifications

Ambient temperature operation/storage	-40 (no ice)….60 °C /-40 ... 80 °C
Minimum pulse length for ON/OFF	50 ms
Mechanical life ops	10 Mill.
DC voltage endurance at rated load	≥100000 switching cycles
Switching frequency at rated load	≤ 1200/ops/h
Protection class	IP40
Weight	81 g

Standard types

VAC 50 Hz/60 Hz: 24, 48, 115, 230	**C3-R20/AC ... V**	**C3-R28/AC ... V**	**C3-R29/AC ... V**
VDC 12, 24, 48, 110	**C3-R20/DC ... V**	**C3-R28/DC ... V**	**C3-R29/DC ... V**

"..." Enter the voltage for full type designation

Accessories

Socket:	**S3-B, S3-S, S3-L, S3-P, S3-P0**
Retaining clip, plastic:	**S30-CM**

Connection diagram

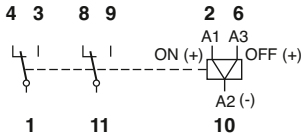


Fig. 1 AC voltage endurance

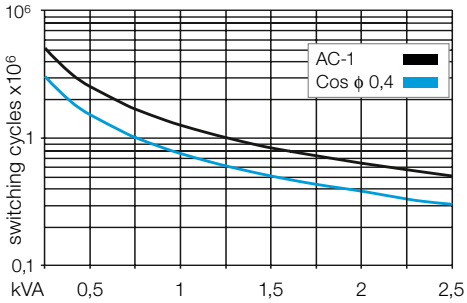
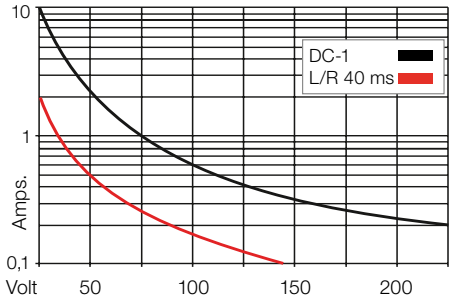
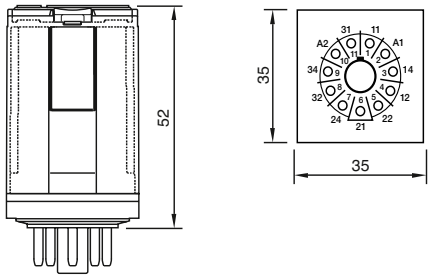


Fig. 2 DC load limit curve



Dimensions [mm]



Technical approvals, conformities

Lloyd's

IEC 61810; EN 60947