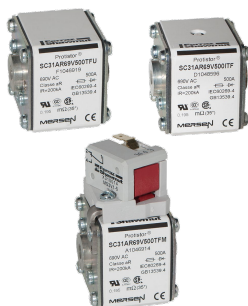


Protistor® SC Series size 31 aR

690VAC (IEC) / 760VAC (UL)

SEMICONDUCTOR PROTECTION FUSES

SQUARE BODY HIGH-SPEED FUSE-LINKS AC PROTECTION



The 690/760V Protistor® SC Series is a specific range to offer cost effective protection without concession on performance for power conversion equipment. These fuses have been engineered to provide protection for all semiconductors: diodes, thyristors and IGBT devices. They are assembled with bimetal silver and copper elements embedded in solidified sand, which helps control arcing characteristics for a lower I^2t and high interrupting rating level. Contact surfaces are tin plated to get an optimized interface with the best quality/price ratio.

This SC Series has been conceived and specially optimized to match integrators' and equipment manufacturers' main requirements while offering competitive prices.

TECHNICAL DATA OVERVIEW

Voltage AC	690 VAC
Ampere Range (A)	315 ... 500 A
Speed/Characteristic	aR
I.R. AC (IEC)	200 kA
Product Size	31

FEATURES & BENEFITS

- “One rating, one size” range
- aR Class according to IEC 60269-4 and VDE 636-23
- Very low I^2t for improved semiconductor protection
- High speed AC & DC protection
- Current limiting

APPLICATIONS

- Protection of standard power conversion systems such as low voltage drives, UPS, inverter systems and similar
- All AC standard networks (up to 690V) or DC standard networks

STANDARDS

- IEC 60269-4 Compliance in AC and DC voltage
- UL/CSA Recognized E76491 in AC and DC voltage
- CCC GB 1539.4



Protistor® SC Series size 31 aR

690VAC (IEC) / 760VAC (UL)

PRODUCT RANGE



SC31AR69V500TFU

Size 31 type TTF without indicator

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	Package	Weight
SC31AR69V315TFU	B1046915	690 V	760 V	600 V	315 A	7.54 kA ² s	47.5 kA ² s	200 kA	72 W	12	0.34 kg
SC31AR69V350TFU	C1046916	690 V	760 V	600 V	350 A	10.3 kA ² s	65 kA ² s	200 kA	74 W	12	0.34 kg
SC31AR69V400TFU	D1046917	690 V	760 V	600 V	400 A	20 kA ² s	125 kA ² s	200 kA	74 W	12	0.34 kg
SC31AR69V450TFU	E1046918	690 V	760 V	600 V	450 A	26.5 kA ² s	166 kA ² s	200 kA	77 W	12	0.34 kg
SC31AR69V500TFU	F1046919	690 V	760 V	600 V	500 A	36.2 kA ² s	230 kA ² s	200 kA	80 W	12	0.34 kg



SC31AR69V500TF

Size 31 type TTF with indicator

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	Package	Weight
SC31AR69V315TF	G1046920	690 V	760 V	600 V	315 A	7.54 kA ² s	47.5 kA ² s	200 kA	72 W	12	0.34 kg
SC31AR69V350TF	H1046921	690 V	760 V	600 V	350 A	10.3 kA ² s	65 kA ² s	200 kA	74 W	12	0.34 kg
SC31AR69V400TF	J1046922	690 V	760 V	600 V	400 A	20 kA ² s	125 kA ² s	200 kA	74 W	12	0.34 kg
SC31AR69V450TF	K1046923	690 V	760 V	600 V	450 A	26.5 kA ² s	166 kA ² s	200 kA	77 W	12	0.34 kg
SC31AR69V500TF	L1046924	690 V	760 V	600 V	500 A	36.2 kA ² s	230 kA ² s	200 kA	80 W	12	0.34 kg



SC31AR69V500TFM

Size 31 type TTF with microswitch

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	Package	Weight
SC31AR69V315TFM	W1046910	690 V	760 V	600 V	315 A	7.54 kA ² s	47.5 kA ² s	200 kA	72 W	12	0.39 kg
SC31AR69V350TFM	X1046911	690 V	760 V	600 V	350 A	10.3 kA ² s	65 kA ² s	200 kA	74 W	12	0.39 kg
SC31AR69V400TFM	Y1046912	690 V	760 V	600 V	400 A	20 kA ² s	125 kA ² s	200 kA	74 W	12	0.39 kg
SC31AR69V450TFM	Z1046913	690 V	760 V	600 V	450 A	26.5 kA ² s	166 kA ² s	200 kA	77 W	12	0.39 kg
SC31AR69V500TFM	A1046914	690 V	760 V	600 V	500 A	36.2 kA ² s	230 kA ² s	200 kA	80 W	12	0.39 kg

Protistor® SC Series size 31 aR

690VAC (IEC) / 760VAC (UL)

PRODUCT RANGE



SC31AR69V500TIU

Size 31 type TTI without indicator

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	Package	Weight
SC31AR69V315TIU	W1047048	690 V	760 V	600 V	315 A	7.54 kA ² s	47.5 kA ² s	200 kA	72 W	12	0.34 kg
SC31AR69V350TIU	Y1047050	690 V	760 V	600 V	350 A	10.3 kA ² s	65 kA ² s	200 kA	74 W	12	0.34 kg
SC31AR69V400TIU	Z1047051	690 V	760 V	600 V	400 A	20 kA ² s	125 kA ² s	200 kA	74 W	12	0.34 kg
SC31AR69V450TIU	A1047052	690 V	760 V	600 V	450 A	26.5 kA ² s	166 kA ² s	200 kA	77 W	12	0.34 kg
SC31AR69V500TIU	B1047053	690 V	760 V	600 V	500 A	36.2 kA ² s	230 kA ² s	200 kA	80 W	12	0.34 kg



SC31AR69V500TI

Size 31 type TTI with indicator

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	Package	Weight
SC31AR69V315TI	Q1047043	690 V	760 V	600 V	315 A	7.54 kA ² s	47.5 kA ² s	200 kA	72 W	12	0.34 kg
SC31AR69V350TI	R1047044	690 V	760 V	600 V	350 A	10.3 kA ² s	65 kA ² s	200 kA	74 W	12	0.34 kg
SC31AR69V400TI	S1047045	690 V	760 V	600 V	400 A	20 kA ² s	125 kA ² s	200 kA	74 W	12	0.34 kg
SC31AR69V450TI	T1047046	690 V	760 V	600 V	450 A	26.5 kA ² s	166 kA ² s	200 kA	77 W	12	0.34 kg
SC31AR69V500TI	V1047047	690 V	760 V	600 V	500 A	36.2 kA ² s	230 kA ² s	200 kA	80 W	12	0.34 kg

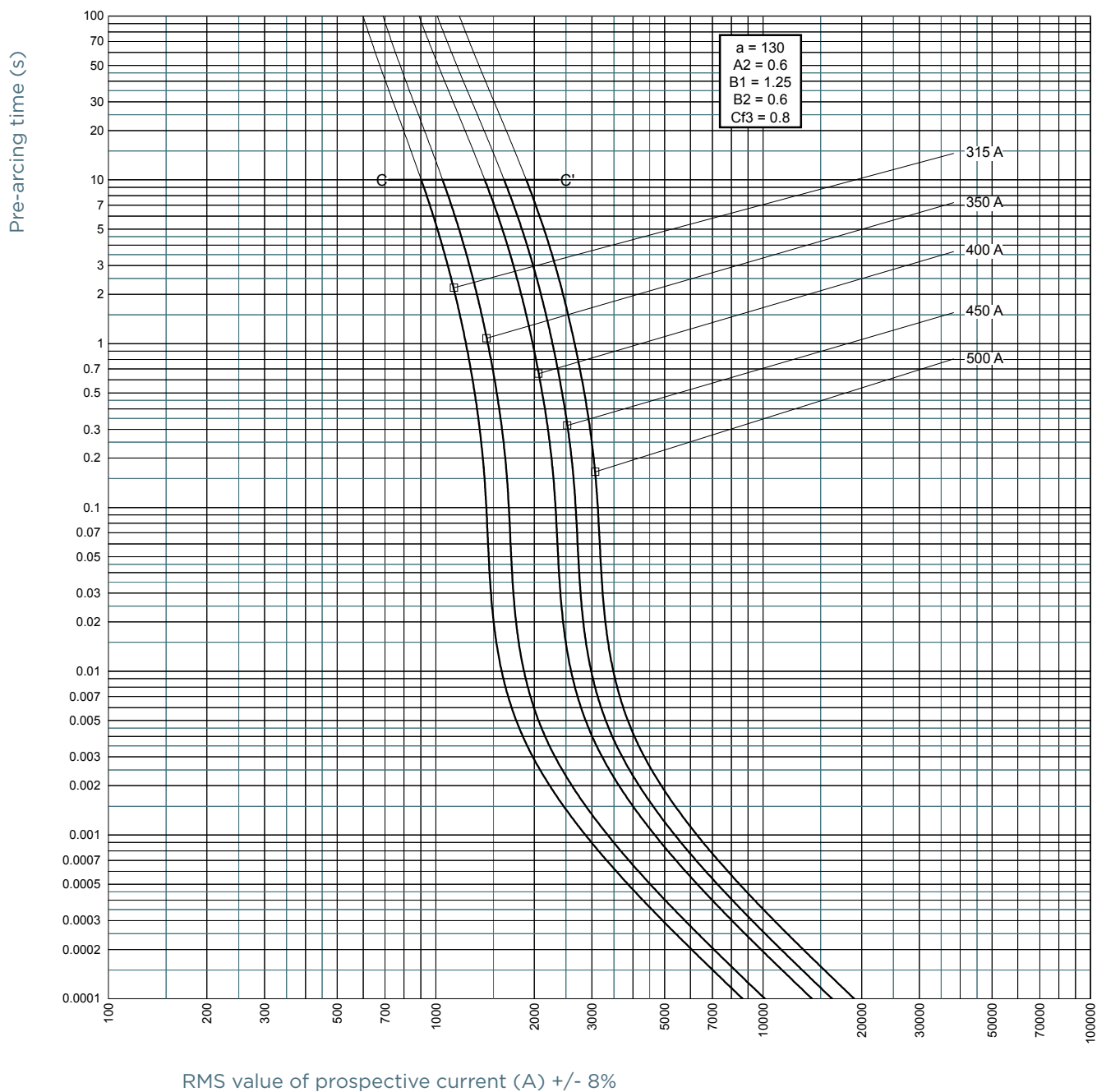


SC31AR69V500TIM

Size 31 type TTI with microswitch

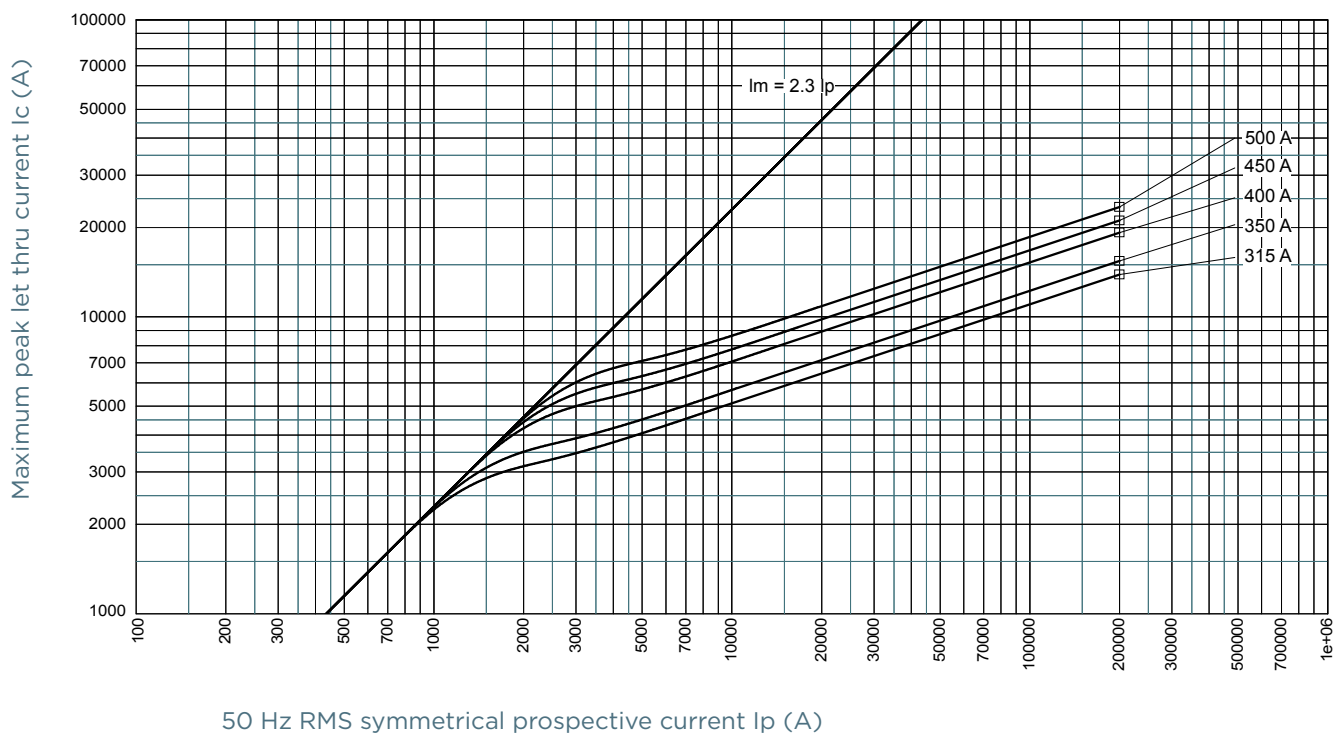
Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I _n	Pre-arcing I ² t	Clearing I ² t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I _n	Package	Weight
SC31AR69V315TIM	K1047038	690 V	760 V	600 V	315 A	7.54 kA ² s	47.5 kA ² s	200 kA	72 W	12	0.39 kg
SC31AR69V350TIM	L1047039	690 V	760 V	600 V	350 A	10.3 kA ² s	65 kA ² s	200 kA	74 W	12	0.39 kg
SC31AR69V400TIM	M1047040	690 V	760 V	600 V	400 A	20 kA ² s	125 kA ² s	200 kA	74 W	12	0.39 kg
SC31AR69V450TIM	N1047041	690 V	760 V	600 V	450 A	26.5 kA ² s	166 kA ² s	200 kA	77 W	12	0.39 kg
SC31AR69V500TIM	P1047042	690 V	760 V	600 V	500 A	36.2 kA ² s	230 kA ² s	200 kA	80 W	12	0.39 kg

TIME CURRENT CHARACTERISTIC CURVES

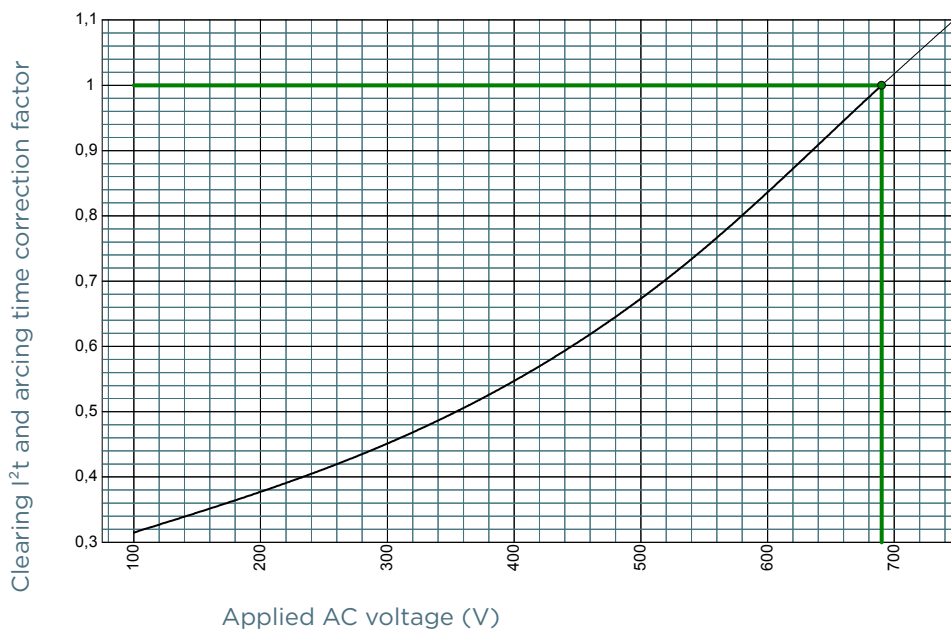


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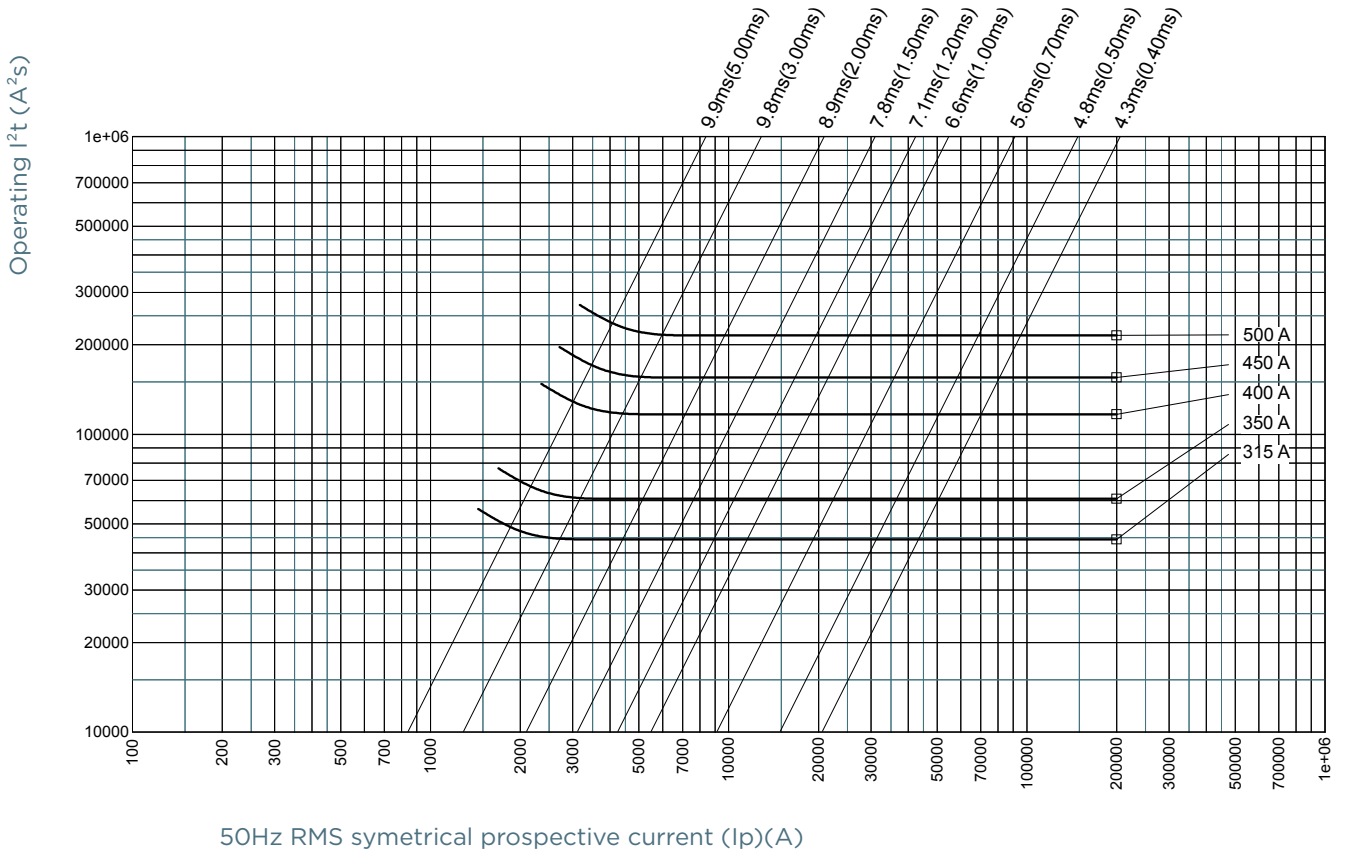
CUT-OFF CURRENT CHARACTERISTIC



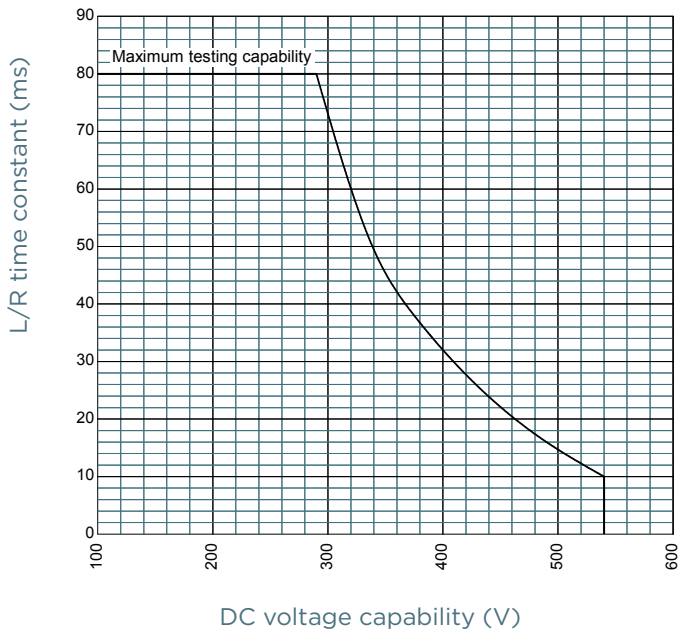
I^2t MULTIPLIER COEFFICIENT



CHARACTERISTICS TOTAL I²T CURVE

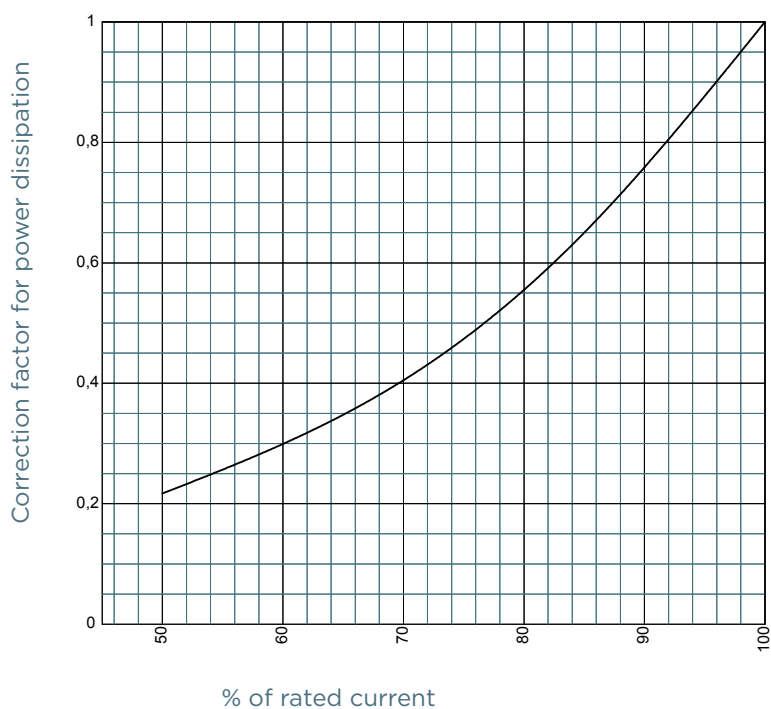


L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY

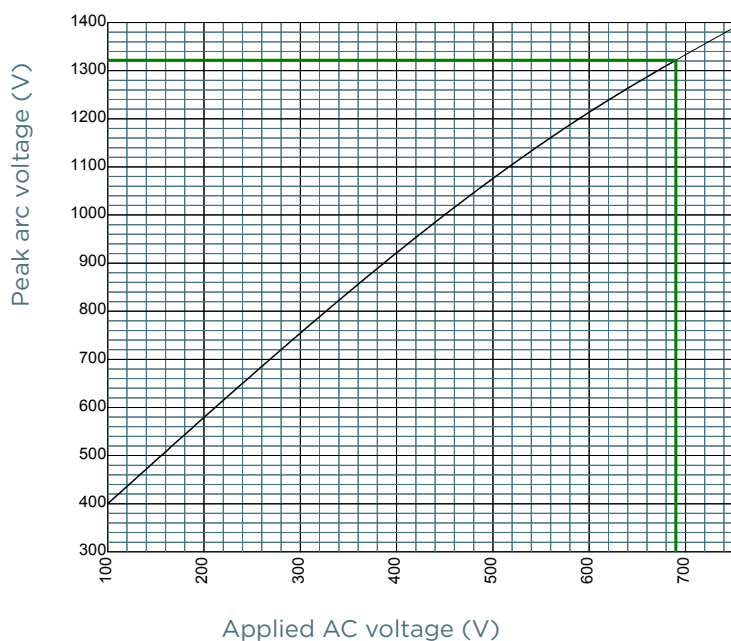


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POWER DISSIPATION



PEAK ARC VOLTAGE

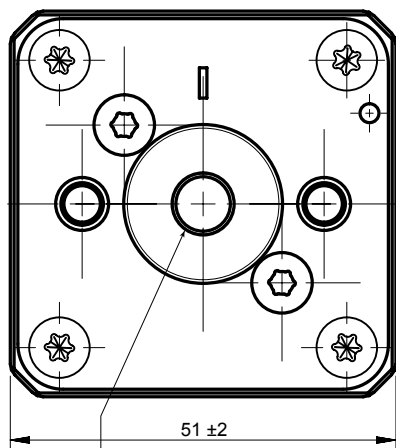


Protistor® SC Series size 31 aR

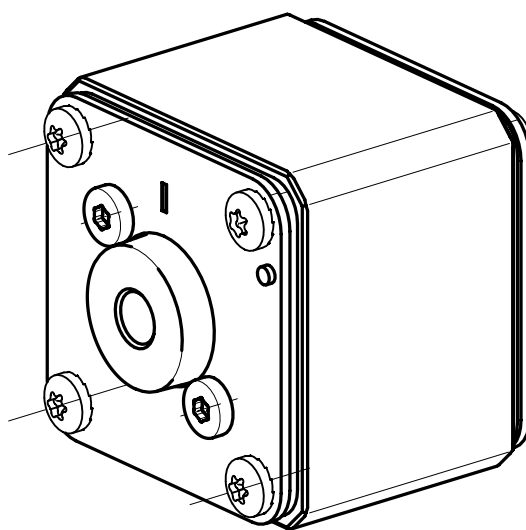
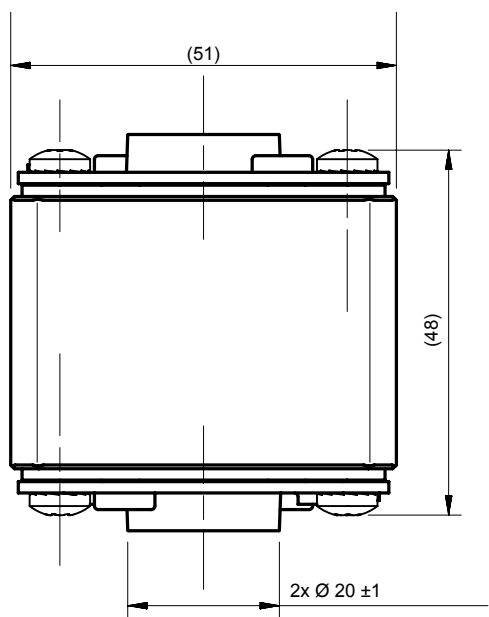
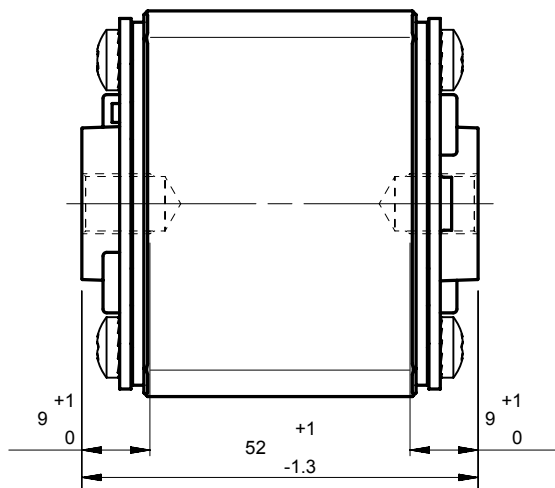
690VAC (IEC) / 760VAC (UL)

DIMENSIONS

TTI & TTF



TTI: 2x Ø 5/16 - 18 UNC
TTF: 2x M 8

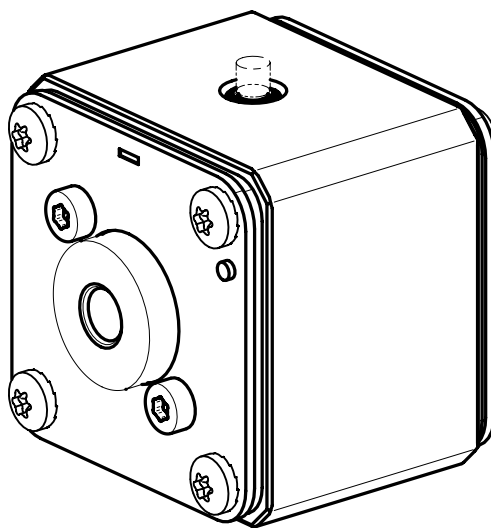
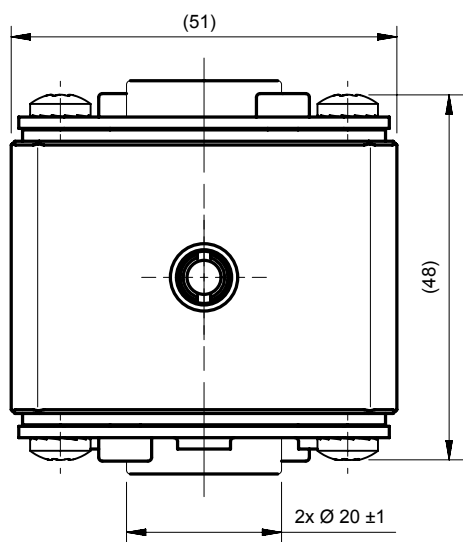
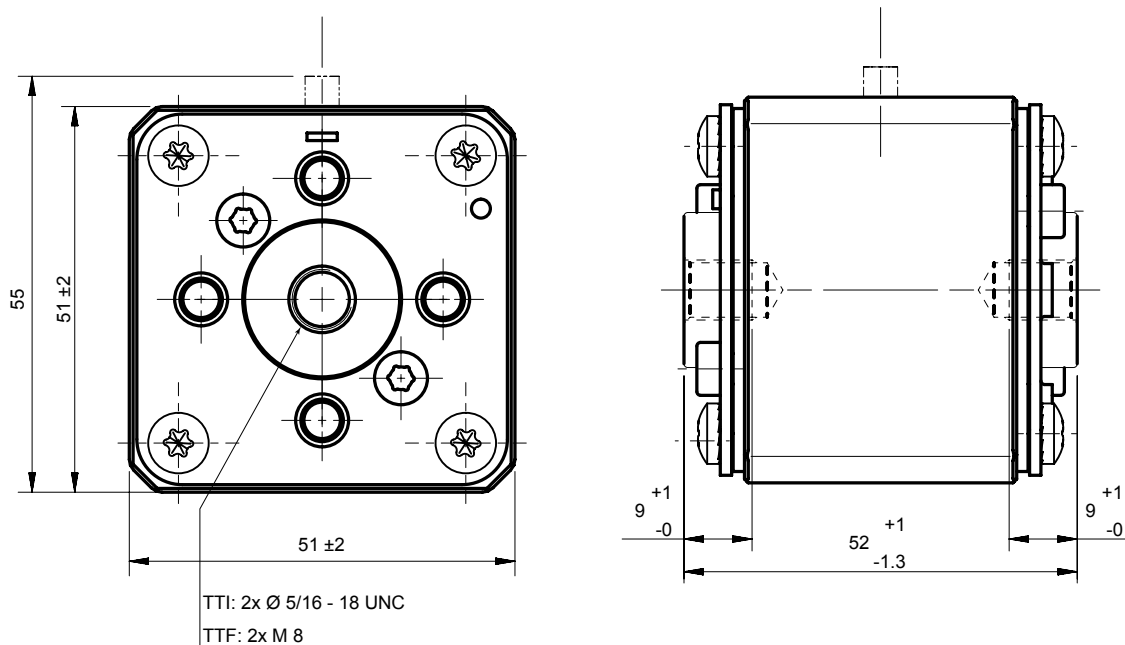


Protistor® SC Series size 31 aR

690VAC (IEC) / 760VAC (UL)

DIMENSIONS

TTI & TTF with indicator

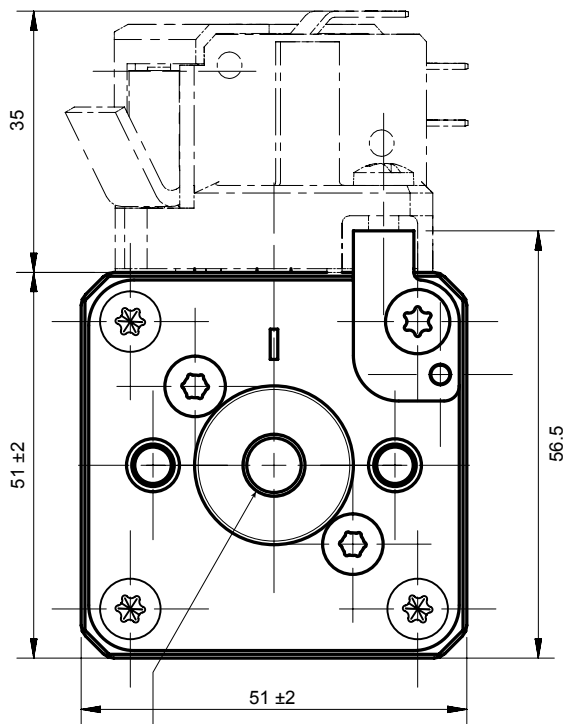


Protistor® SC Series size 31 aR

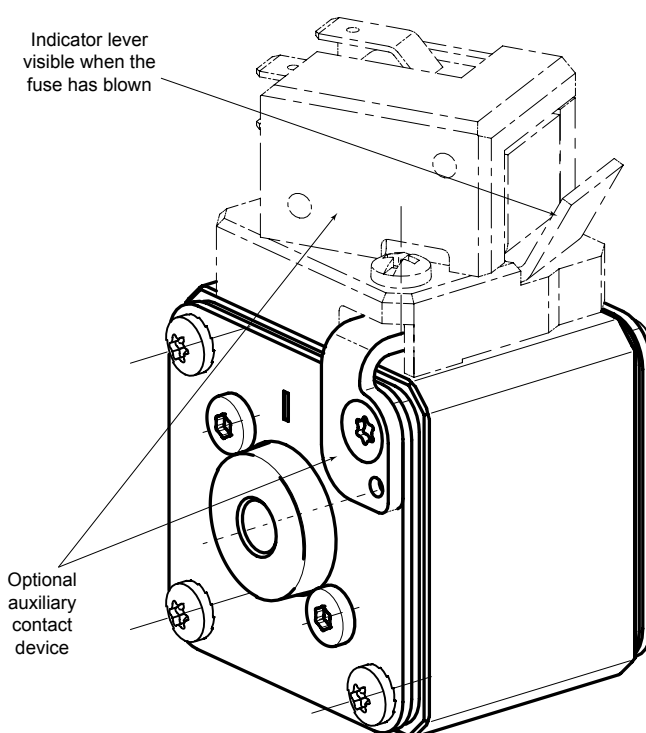
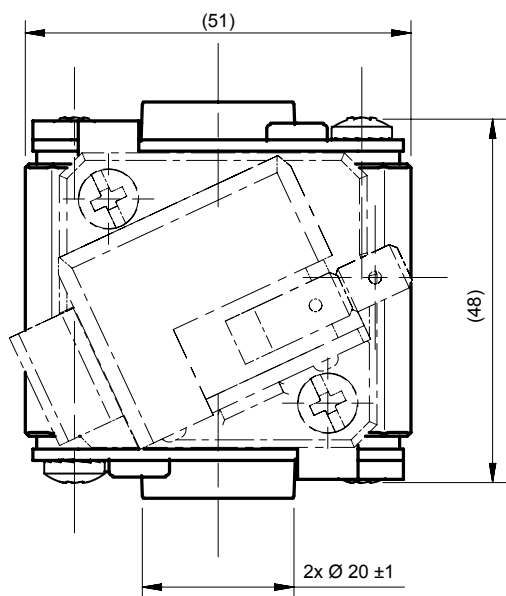
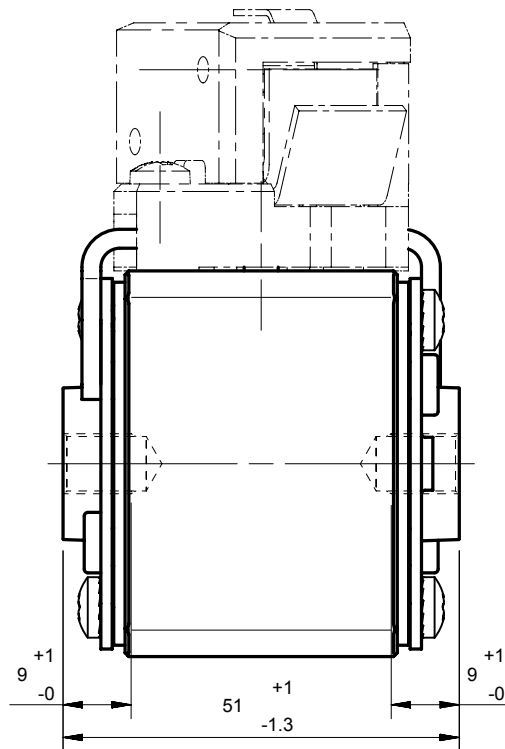
690VAC (IEC) / 760VAC (UL)

DIMENSIONS

TTI & TTF with microswitch



TTI: 2x Ø 5/16 - 18 UNC
TTF: 2x M 8



Indicator lever visible when the fuse has blown

Optional auxiliary contact device