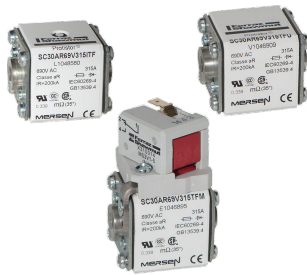


# Protistor® SC Series size 30 aR

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, IGBT and MOSFET 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)	80 ... 315 A
Speed/Characteristic	aR
I.R. AC (IEC)	200 kA
Product Size	30

### 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



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# Protistor® SC Series size 30 aR

690VAC (IEC) / 760VAC (UL)

## PRODUCT RANGE



SC30AR69V315TFU

### Size 30 type TTF without indicator

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Clearing I <sup>2</sup> t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I <sub>n</sub>	Package	Weight
SC30AR69V080TFU	N1046903	690 V	760 V	550 V	80 A	0.33 kA <sup>2</sup> s	2.25 kA <sup>2</sup> s	200 kA	18 W	12	0.22 kg
SC30AR69V100TFU	P1046904	690 V	760 V	550 V	100 A	0.48 kA <sup>2</sup> s	3.21 kA <sup>2</sup> s	200 kA	26 W	12	0.22 kg
SC30AR69V125TFU	Q1046905	690 V	760 V	550 V	125 A	0.84 kA <sup>2</sup> s	5.7 kA <sup>2</sup> s	200 kA	32 W	12	0.22 kg
SC30AR69V160TFU	R1046906	690 V	760 V	550 V	160 A	1.59 kA <sup>2</sup> s	10.8 kA <sup>2</sup> s	200 kA	40 W	12	0.22 kg
SC30AR69V200TFU	S1046907	690 V	760 V	550 V	200 A	2.95 kA <sup>2</sup> s	20 kA <sup>2</sup> s	200 kA	46 W	12	0.22 kg
SC30AR69V250TFU	T1046908	690 V	760 V	550 V	250 A	5.79 kA <sup>2</sup> s	37 kA <sup>2</sup> s	200 kA	50.5 W	12	0.22 kg
SC30AR69V315TFU	V1046909	690 V	760 V	550 V	315 A	11.8 kA <sup>2</sup> s	74 kA <sup>2</sup> s	200 kA	56 W	12	0.22 kg



SC30AR69V315TF

### Size 30 type TTF with indicator

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Clearing I <sup>2</sup> t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I <sub>n</sub>	Package	Weight
SC30AR69V080TF	F1046896	690 V	760 V	550 V	80 A	0.33 kA <sup>2</sup> s	2.25 kA <sup>2</sup> s	200 kA	18 W	12	0.22 kg
SC30AR69V100TF	G1046897	690 V	760 V	550 V	100 A	0.48 kA <sup>2</sup> s	3.21 kA <sup>2</sup> s	200 kA	26 W	12	0.22 kg
SC30AR69V125TF	H1046898	690 V	760 V	550 V	125 A	0.84 kA <sup>2</sup> s	5.7 kA <sup>2</sup> s	200 kA	32 W	12	0.22 kg
SC30AR69V160TF	J1046899	690 V	760 V	550 V	160 A	1.59 kA <sup>2</sup> s	10.8 kA <sup>2</sup> s	200 kA	40 W	12	0.22 kg
SC30AR69V200TF	K1046900	690 V	760 V	550 V	200 A	2.95 kA <sup>2</sup> s	20 kA <sup>2</sup> s	200 kA	46 W	12	0.22 kg
SC30AR69V250TF	L1046901	690 V	760 V	550 V	250 A	5.79 kA <sup>2</sup> s	37 kA <sup>2</sup> s	200 kA	50.5 W	12	0.22 kg
SC30AR69V315TF	M1046902	690 V	760 V	550 V	315 A	11.8 kA <sup>2</sup> s	74 kA <sup>2</sup> s	200 kA	56 W	12	0.22 kg



SC30AR69V315TFM

### Size 30 type TTF with microswitch

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Clearing I <sup>2</sup> t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I <sub>n</sub>	Package	Weight
SC30AR69V080TFM	Y1046889	690 V	760 V	550 V	80 A	0.33 kA <sup>2</sup> s	2.25 kA <sup>2</sup> s	200 kA	18 W	12	0.26 kg
SC30AR69V100TFM	Z1046890	690 V	760 V	550 V	100 A	0.48 kA <sup>2</sup> s	3.21 kA <sup>2</sup> s	200 kA	26 W	12	0.26 kg
SC30AR69V125TFM	A1046891	690 V	760 V	550 V	125 A	0.84 kA <sup>2</sup> s	5.7 kA <sup>2</sup> s	200 kA	32 W	12	0.26 kg
SC30AR69V160TFM	B1046892	690 V	760 V	550 V	160 A	1.59 kA <sup>2</sup> s	10.8 kA <sup>2</sup> s	200 kA	40 W	12	0.26 kg
SC30AR69V200TFM	C1046893	690 V	760 V	550 V	200 A	2.95 kA <sup>2</sup> s	20 kA <sup>2</sup> s	200 kA	46 W	12	0.26 kg
SC30AR69V250TFM	D1046894	690 V	760 V	550 V	250 A	5.79 kA <sup>2</sup> s	37 kA <sup>2</sup> s	200 kA	50.5 W	12	0.26 kg
SC30AR69V315TFM	E1046895	690 V	760 V	550 V	315 A	11.8 kA <sup>2</sup> s	74 kA <sup>2</sup> s	200 kA	56 W	12	0.26 kg

# Protistor® SC Series size 30 aR

690VAC (IEC) / 760VAC (UL)

## PRODUCT RANGE



SC30AR69V315TIU

### Size 30 type TTI without indicator

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Clearing I <sup>2</sup> t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I <sub>n</sub>	Package	Weight
SC30AR69V080TIU	C1047031	690 V	760 V	550 V	80 A	0.33 kA <sup>2</sup> s	2.25 kA <sup>2</sup> s	200 kA	18 W	12	0.22 kg
SC30AR69V100TIU	D1047032	690 V	760 V	550 V	100 A	0.48 kA <sup>2</sup> s	3.21 kA <sup>2</sup> s	200 kA	26 W	12	0.22 kg
SC30AR69V125TIU	E1047033	690 V	760 V	550 V	125 A	0.84 kA <sup>2</sup> s	5.7 kA <sup>2</sup> s	200 kA	32 W	12	0.22 kg
SC30AR69V160TIU	F1047034	690 V	760 V	550 V	160 A	1.59 kA <sup>2</sup> s	10.8 kA <sup>2</sup> s	200 kA	40 W	12	0.22 kg
SC30AR69V200TIU	G1047035	690 V	760 V	550 V	200 A	2.95 kA <sup>2</sup> s	20 kA <sup>2</sup> s	200 kA	46 W	12	0.22 kg
SC30AR69V250TIU	H1047036	690 V	760 V	550 V	250 A	5.79 kA <sup>2</sup> s	37 kA <sup>2</sup> s	200 kA	50.5 W	12	0.22 kg
SC30AR69V315TIU	J1047037	690 V	760 V	550 V	315 A	11.8 kA <sup>2</sup> s	74 kA <sup>2</sup> s	200 kA	56 W	12	0.22 kg



SC30AR69V315TI

### Size 30 type TTI with indicator

Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Clearing I <sup>2</sup> t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I <sub>n</sub>	Package	Weight
SC30AR69V080TI	V1047024	690 V	760 V	550 V	80 A	0.33 kA <sup>2</sup> s	2.25 kA <sup>2</sup> s	200 kA	18 W	12	0.22 kg
SC30AR69V100TI	W1047025	690 V	760 V	550 V	100 A	0.48 kA <sup>2</sup> s	3.21 kA <sup>2</sup> s	200 kA	26 W	12	0.22 kg
SC30AR69V125TI	X1047026	690 V	760 V	550 V	125 A	0.84 kA <sup>2</sup> s	5.7 kA <sup>2</sup> s	200 kA	32 W	12	0.22 kg
SC30AR69V160TI	Y1047027	690 V	760 V	550 V	160 A	1.59 kA <sup>2</sup> s	10.8 kA <sup>2</sup> s	200 kA	40 W	12	0.22 kg
SC30AR69V200TI	Z1047028	690 V	760 V	550 V	200 A	2.95 kA <sup>2</sup> s	20 kA <sup>2</sup> s	200 kA	46 W	12	0.22 kg
SC30AR69V250TI	A1047029	690 V	760 V	550 V	250 A	5.79 kA <sup>2</sup> s	37 kA <sup>2</sup> s	200 kA	50.5 W	12	0.22 kg
SC30AR69V315TI	B1047030	690 V	760 V	550 V	315 A	11.8 kA <sup>2</sup> s	74 kA <sup>2</sup> s	200 kA	56 W	12	0.22 kg

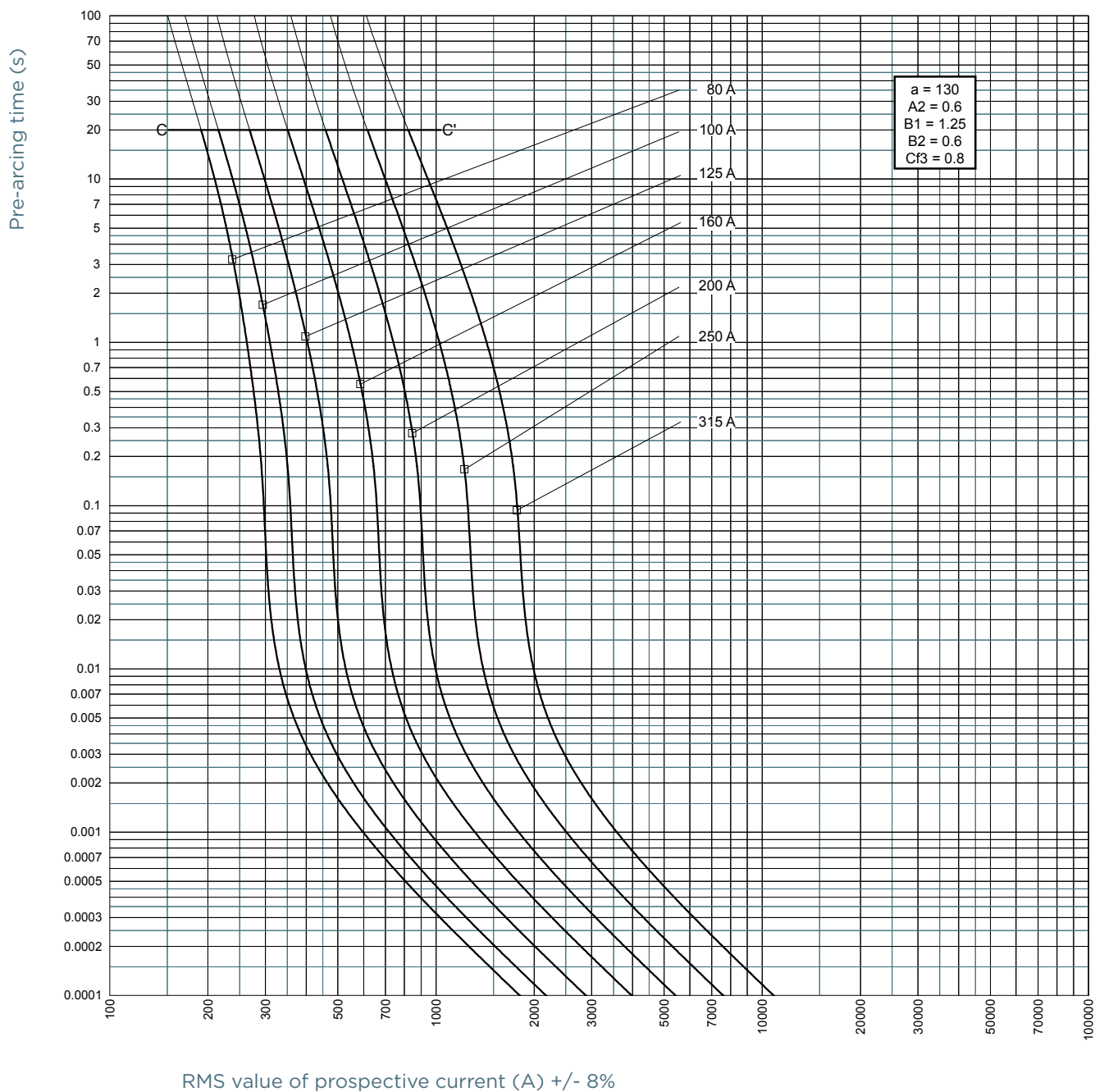


SC30AR69V315TIM

### Size 30 type TTI with microswitch

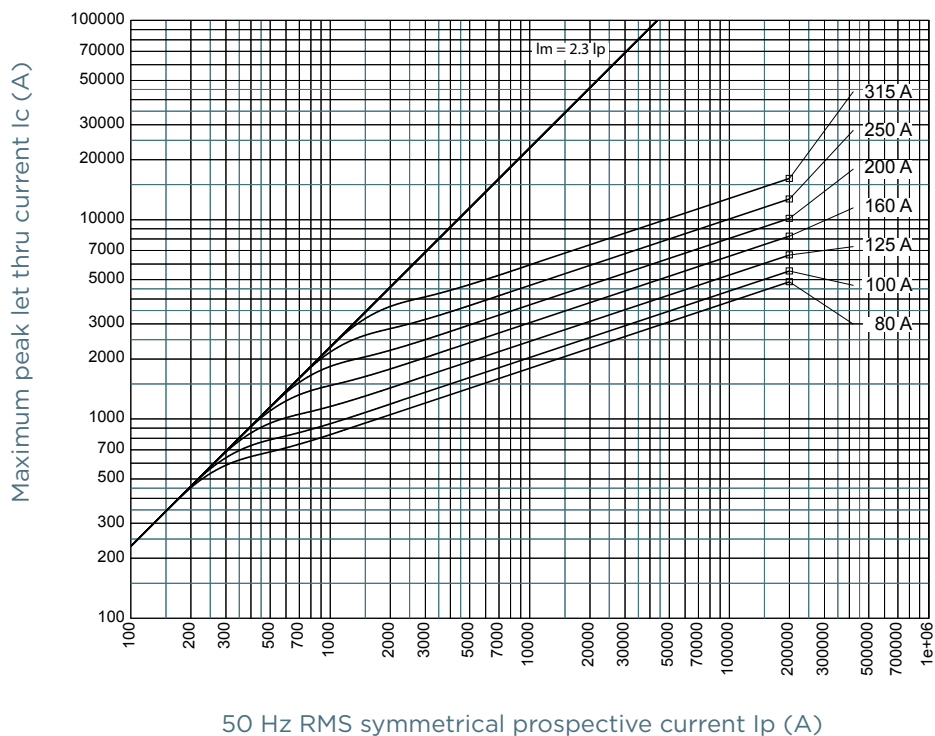
Catalog number	Item number	Rated voltage AC (IEC)	Rated voltage AC (UL)	Rated voltage DC (UL)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Clearing I <sup>2</sup> t at Rated Voltage	Rated breaking capacity AC	Power dissipation at I <sub>n</sub>	Package	Weight
SC30AR69V080TIM	H1046990	690 V	760 V	550 V	80 A	0.33 kA <sup>2</sup> s	2.25 kA <sup>2</sup> s	200 kA	18 W	12	0.26 kg
SC30AR69V100TIM	J1046991	690 V	760 V	550 V	100 A	0.48 kA <sup>2</sup> s	3.21 kA <sup>2</sup> s	200 kA	26 W	12	0.26 kg
SC30AR69V125TIM	M1046994	690 V	760 V	550 V	125 A	0.84 kA <sup>2</sup> s	5.7 kA <sup>2</sup> s	200 kA	32 W	12	0.26 kg
SC30AR69V160TIM	N1046995	690 V	760 V	550 V	160 A	1.59 kA <sup>2</sup> s	10.8 kA <sup>2</sup> s	200 kA	40 W	12	0.26 kg
SC30AR69V200TIM	P1046996	690 V	760 V	550 V	200 A	2.95 kA <sup>2</sup> s	20 kA <sup>2</sup> s	200 kA	46 W	12	0.26 kg
SC30AR69V250TIM	Q1046997	690 V	760 V	550 V	250 A	5.79 kA <sup>2</sup> s	37 kA <sup>2</sup> s	200 kA	50.5 W	12	0.26 kg
SC30AR69V315TIM	R1046998	690 V	760 V	550 V	315 A	11.8 kA <sup>2</sup> s	74 kA <sup>2</sup> s	200 kA	56 W	12	0.26 kg

## TIME CURRENT CHARACTERISTIC CURVES

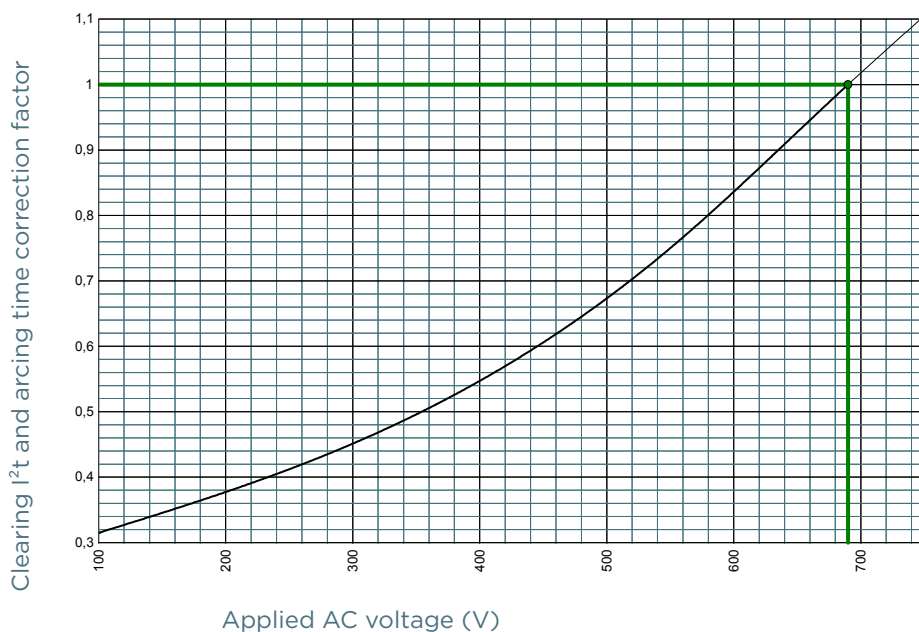


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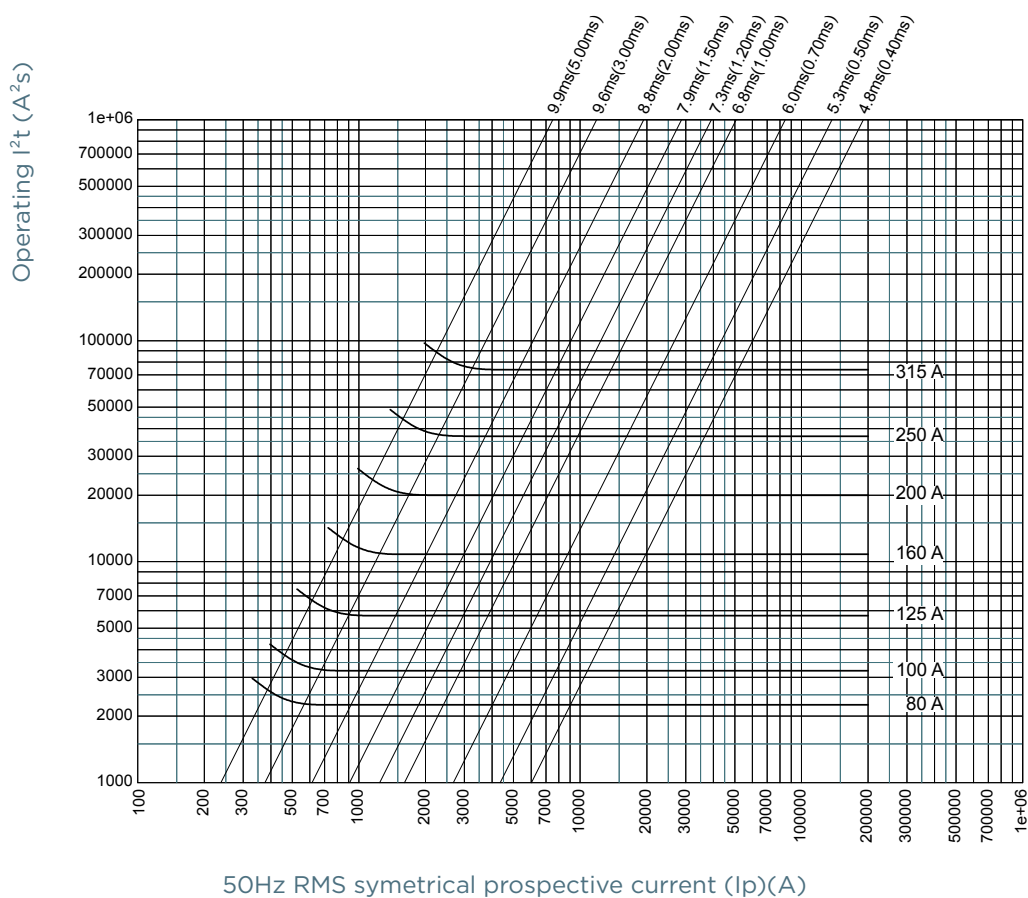
## CUT-OFF CURRENT CHARACTERISTIC



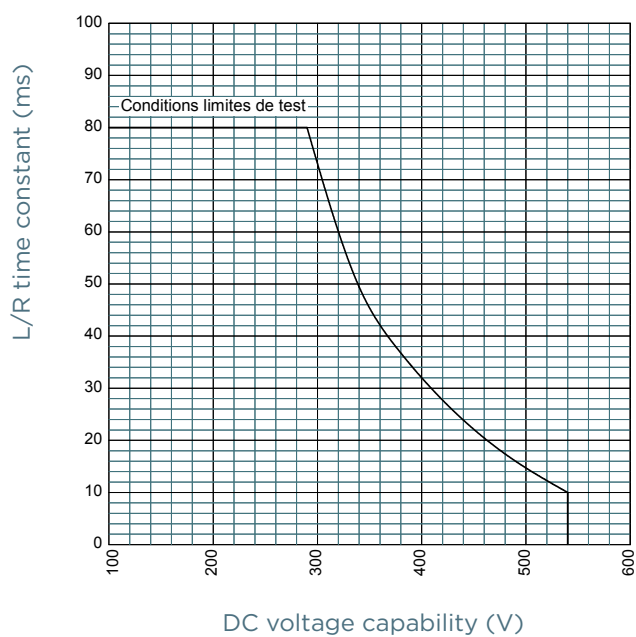
## I<sup>2</sup>T MULTIPLIER COEFFICIENT



## CHARACTERISTICS TOTAL I<sup>2</sup>T CURVE



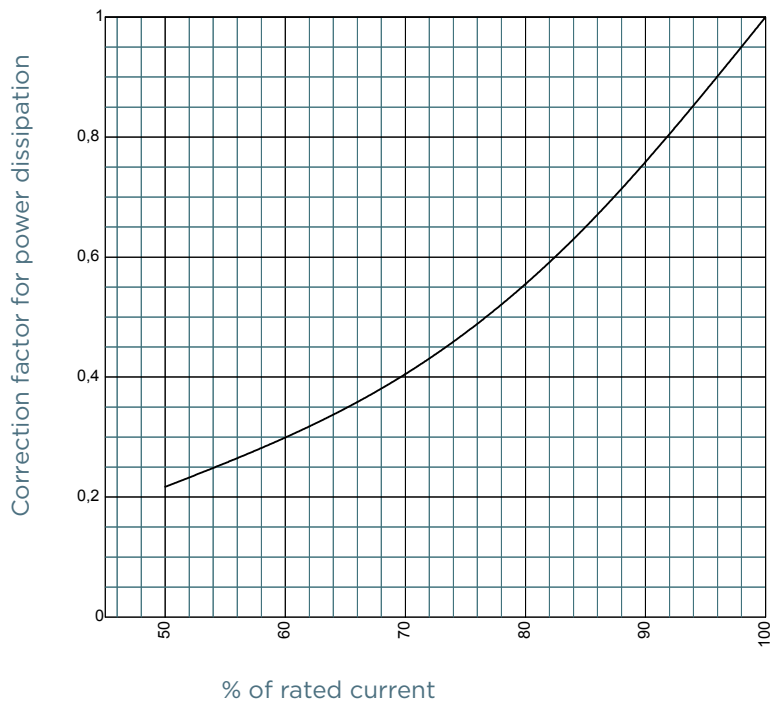
## L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY



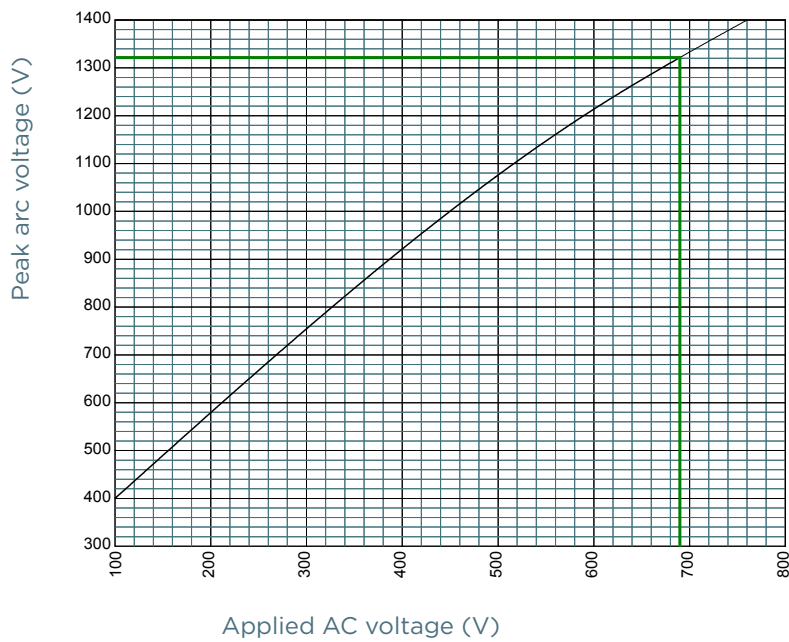
# Protistor® SC Series size 30 aR

690VAC (IEC) / 760VAC (UL)

## POWER DISSIPATION



## PEAK ARC VOLTAGE

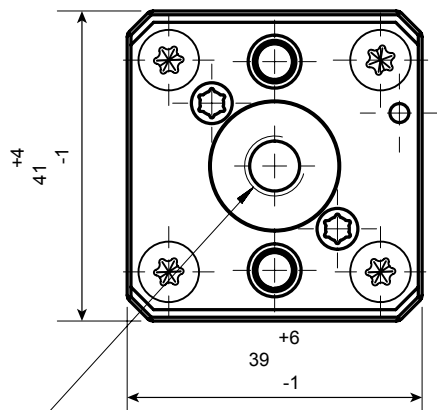


# Protistor® SC Series size 30 aR

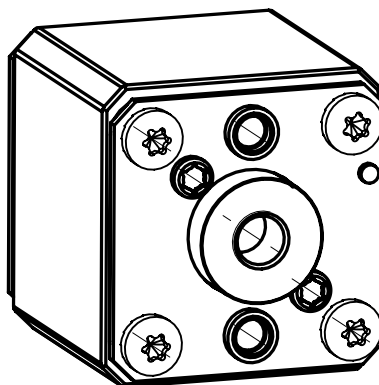
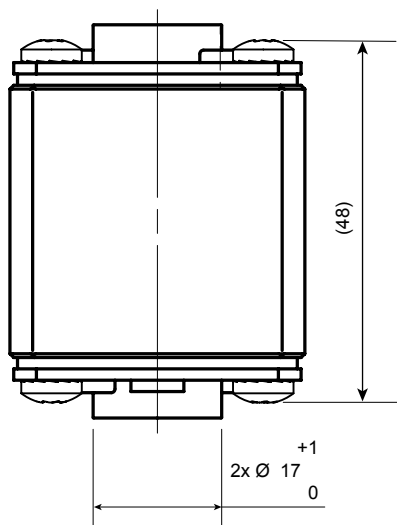
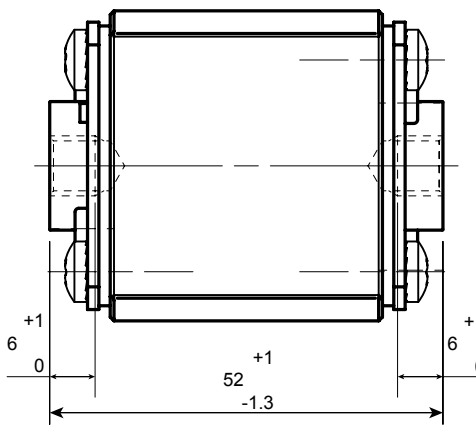
690VAC (IEC) / 760VAC (UL)

## DIMENSIONS

### TTF & TTI



TTI: 2x Ø 5/16 - 18 UNC  
TTF: 2x M 8



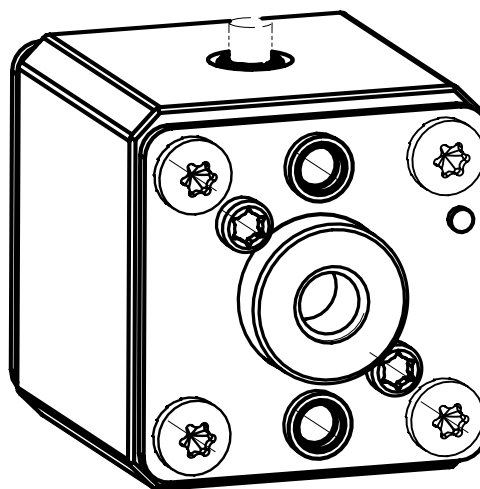
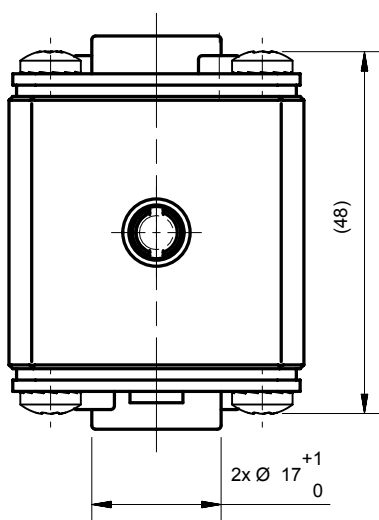
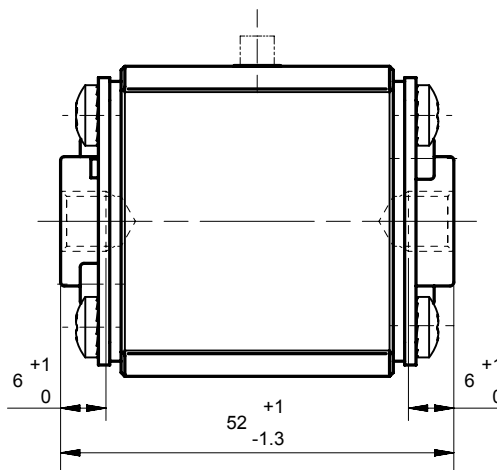
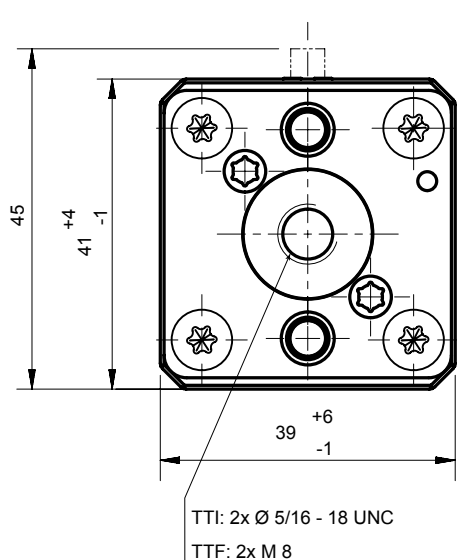


# Protistor® SC Series size 30 aR

690VAC (IEC) / 760VAC (UL)

## DIMENSIONS

### TTF & TTI with indicator



# Protistor® SC Series size 30 aR

690VAC (IEC) / 760VAC (UL)

## DIMENSIONS

### TTF & TTI with microswitch

