# Protistor<sup>®</sup> size 00 aR

#### SEMICONDUCTOR PROTECTION FUSES

## SQUARE BODY HIGH-SPEED FUSE-LINKS AC PROTECTION



The 1000V Protistor<sup>®</sup> fuse-links provide maximum flexibility in equipment design and ultimate protection for small power conversion equipment. These ultra-fast acting aR fuses have been engineered to provide state-of-the-art protection for semiconductors: diodes, thyristors and IGBT devices. They are assembled with die-cut elements embedded in solidified sand, which helps control arcing characteristics for a lower I<sup>2</sup>t and high interrupting rating level. All contact surfaces are silver plated and all hardware is non-magnetic.

Each fuse-link can be equipped with a low voltage trip-indicator which can operate a field mountable microswitch.

## TECHNICAL DATA OVERVIEW

Rated voltage AC (IEC)	1000 V
Ampere Range (A)	20 315 A
Size per Standard	00
Speed/Characteristic	aR
I.R. AC (IEC)	120 kA 50 kA
Package	3

#### FEATURES & BENEFITS

- Very low I<sup>2</sup>t for improved semiconductor protection
- Ultra fast acting
- Superior cycling capability
- Compact Size

#### **APPLICATIONS**

• Protection of inverters, motor drives, UPS systems and similar 1000V or less equipments

#### **STANDARDS**

• EN 60269-4 compliant

## CE WOHS



Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN

**EP.MERSEN.COM** 



## PRODUCT RANGE

#### Size 00 DIN80 1000VAC (IEC)

Catalog number	ltem number	Rated voltage AC (IEC)	Rated current In	Pre-arcing I <sup>2</sup> t	Clearing I²t at Rated Voltage	Rated breaking capacity AC	Power dissipation at In	Weight
DN00UD10C20L	V227580	1000 V	20 A	6.5 A²s	55 A²s	120 kA	15 W	0.22 kg
DN00UD10C35L	W227581	1000 V	35 A	32 A²s	230 A²s	120 kA	17 W	0.22 kg
DN00UD10C40L	G076412	1000 V	40 A	45 A²s	320 A²s	120 kA	18.5 W	0.22 kg
DN00UD10C50L	H076413	1000 V	50 A	102 A <sup>2</sup> s	704 A²s	120 kA	19.5 W	0.22 kg
DN00UD10C63L	J076414	1000 V	63 A	181 A²s	1300 A²s	120 kA	23 W	0.22 kg
DN00UD10C80L	C075534	1000 V	80 A	347 A²s	2420 A²s	120 kA	26.5 W	0.22 kg
DN00UD10C100L	D075535	1000 V	100 A	725 A²s	4800 A <sup>2</sup> s	120 kA	29 W	0.22 kg
DN00UD10C125L	M076417	1000 V	125 A	1400 A²s	9200 A²s	120 kA	34 W	0.22 kg
DN00UC10C160L	X076426	1000 V	160 A	2469 A²s	17300 A²s	120 kA	39 W	0.25 kg
DN00UC10C200L	Y076427	1000 V	200 A	4527 A²s	31500 A²s	120 kA	49 W	0.25 kg
DN00UC10C250L	Z076428	1000 V	250 A	8680 A²s	60000 A²s	120 kA	56.5 W	0.25 kg
DN00UC10C280L	A076429	1000 V	280 A	11810 A²s	81400 A <sup>2</sup> s	120 kA	62 W	0.25 kg
DN00UC10C315L	V076263	1000 V	315 A	15430 A²s	115000 A²s	50 kA	67 W	0.25 kg

Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN



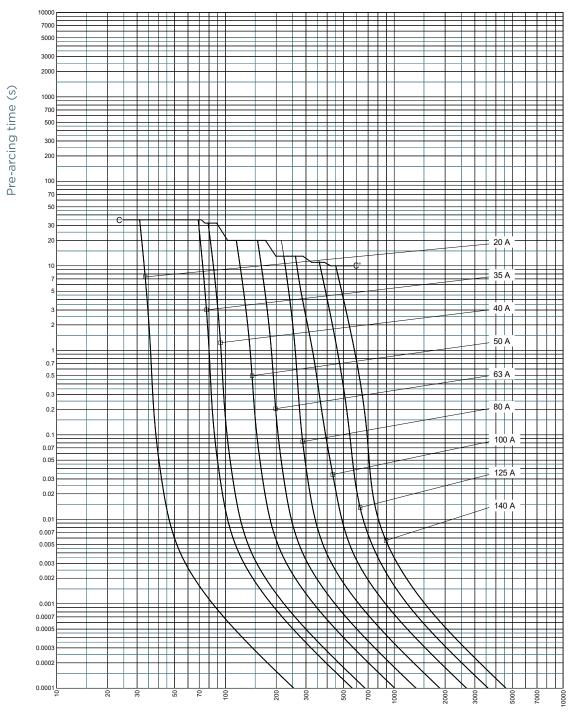
© 2024 Mersen products have been designed by Mersen for a range of specific applications to be operated depending on particular specification and conditions. Mersen makes no representation or/and warranty, and waives any liability, either express or implied for products' reliability and life time or technical performance in case Mersen has not been provided with customer's specifications or if the products are not purchased directly from Mersen or its distributors and/or agents.



2

## TIME CURRENT CHARACTERISTIC CURVES

#### Size 00, 1000VAC, 20A to 140A



RMS value of prospective current (A) +/- 8%

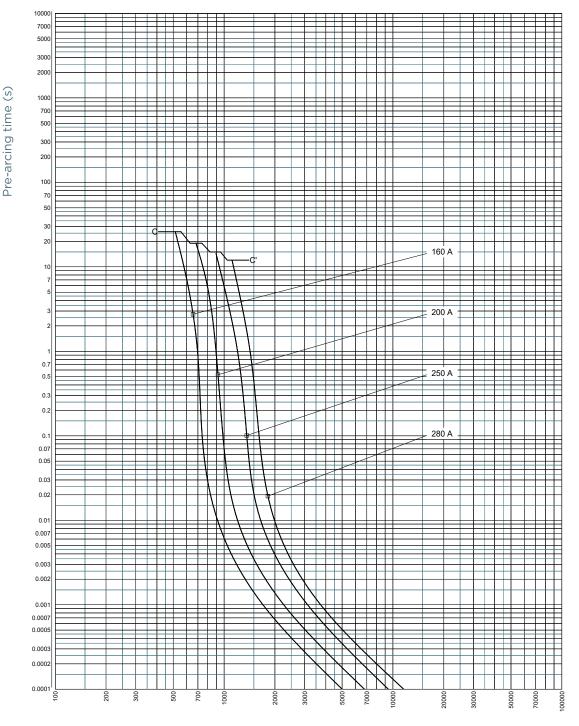






## TIME CURRENT CHARACTERISTIC CURVES

#### Size 00, 1000VAC, 160A to 280A



RMS value of prospective current (A) +/- 8%



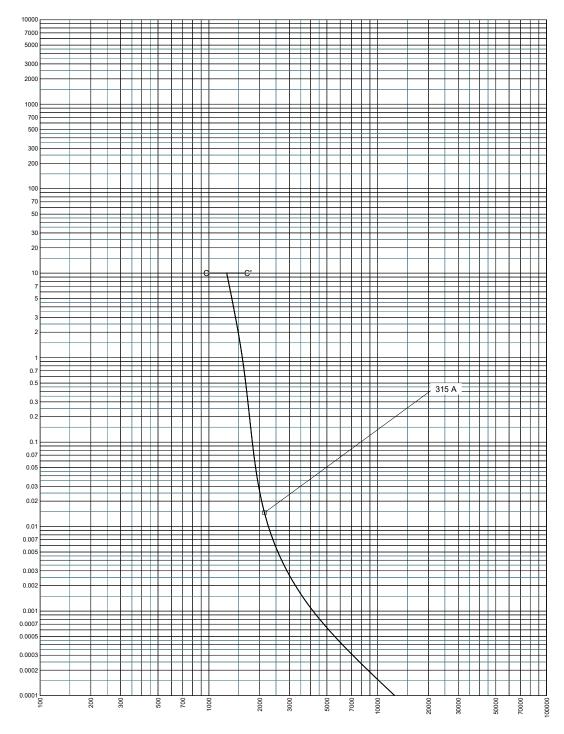




## TIME CURRENT CHARACTERISTIC CURVES

#### Size 00, 1000VAC, 315A

Pre-arcing time (s)



RMS value of prospective current (A) +/- 8%

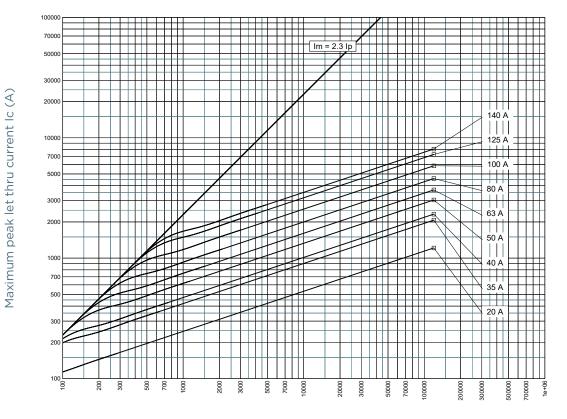
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





## CUT-OFF CURRENT CHARACTERISTIC

#### Size 00, 1000VAC, 20A to 140A



50 Hz RMS symmetrical prospective current Ip (A)

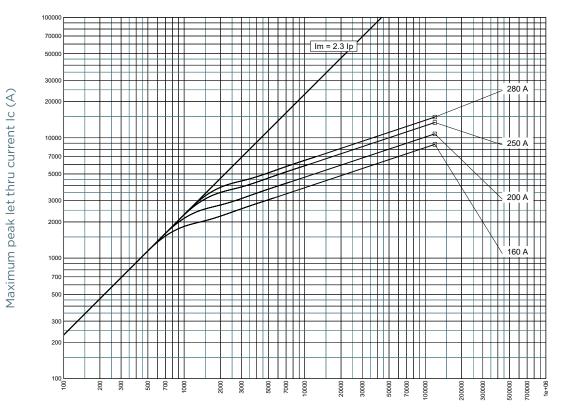
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





## CUT-OFF CURRENT CHARACTERISTIC

#### Size 00, 1000VAC, 160A to 280A



50 Hz RMS symmetrical prospective current Ip (A)

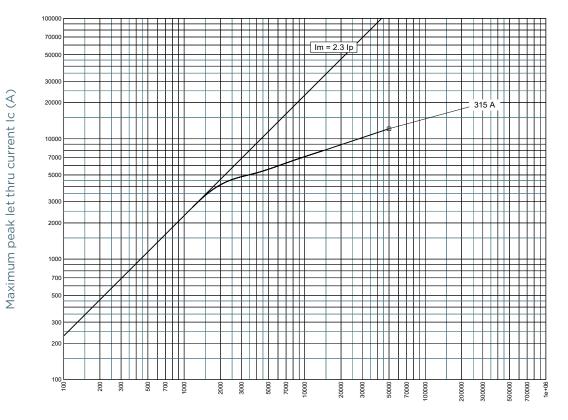
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





## CUT-OFF CURRENT CHARACTERISTIC

#### Size 00, 1000VAC, 315A



50 Hz RMS symmetrical prospective current Ip (A)

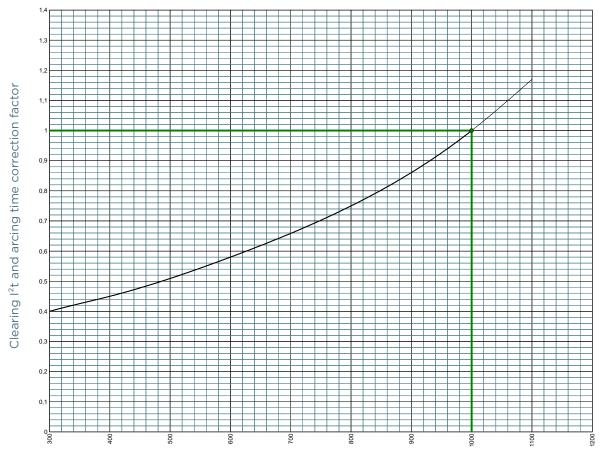
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





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

## Size 00, 1000VAC , 20A to 280A



Applied AC voltage (V)

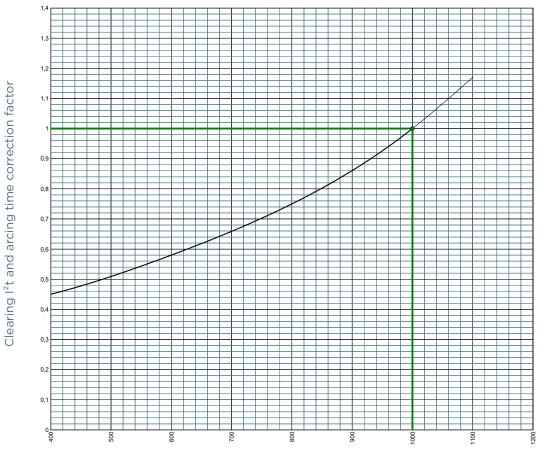
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





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

#### Size 00, 1000VAC , 315A



Applied AC voltage (V)

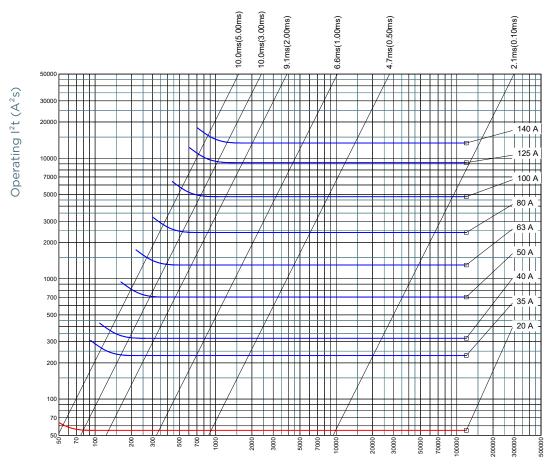
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





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

#### Size 00, 1000VAC, 20A to 140A





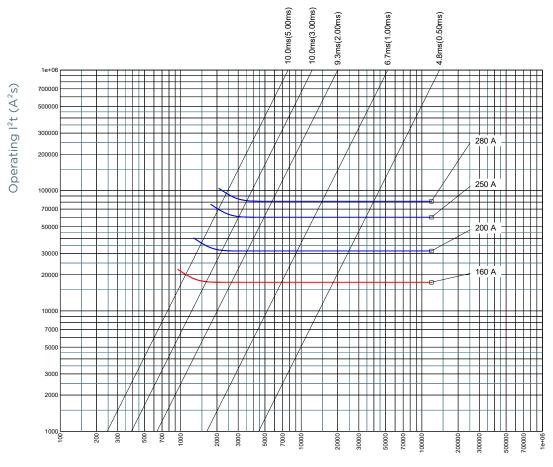
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





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

#### Size 00, 1000VAC, 160A to 280A





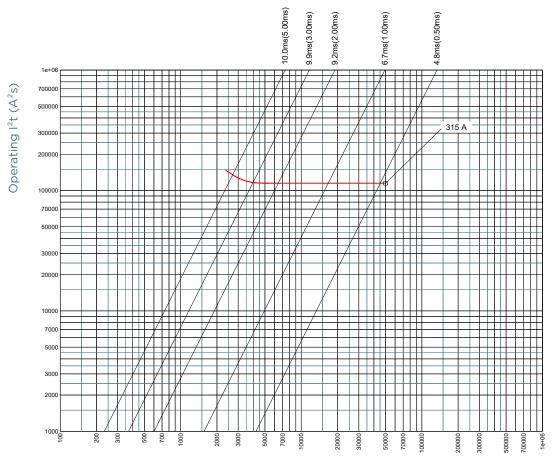
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





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

#### Size 00, 1000VAC, 315A





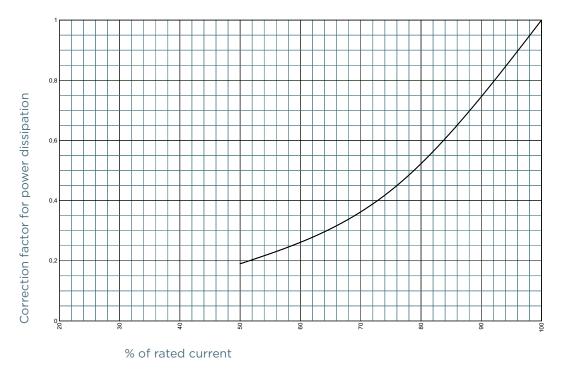
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





## POWER DISSIPATION

## Size 00, 1000VAC, 20A to 315A



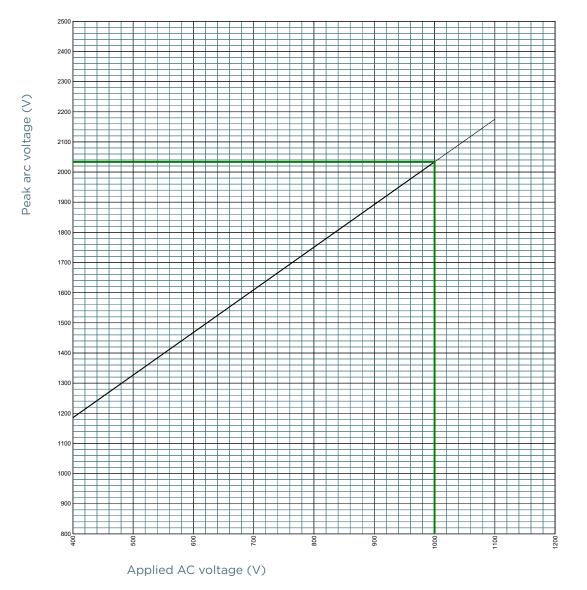
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





## PEAK ARC VOLTAGE

## Size 00, 1000VAC, 20A to 315A



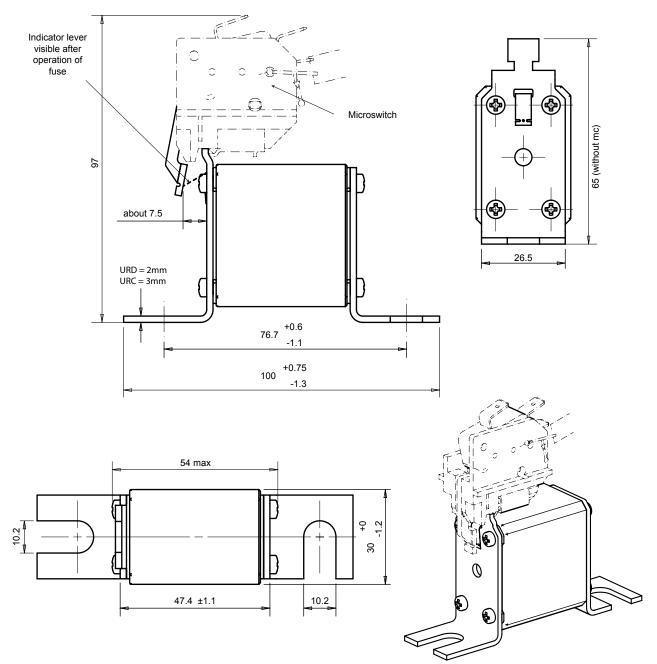
Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN





## DIMENSIONS

#### Size 00, DIN80, 1000VAC, 20 to 315A



Dimensions in mm

Semiconductor Protection Fuses / DS-PFC100AR-03-0524\_EN



