

## PSC Square body fuses – Size 7X 600-1300VAC End contact terminals

November 2013 – Issue 2

The IXYS UK range of 1300V/1250V protistor fuse links provides maximum flexibility in equipment design and ultimate protection for today's power conversion equipment. These square body fuse links are available in different body sizes, each size having multiple worldwide acceptable mounting styles.

These protistors have been designed to provide state-of-the-art protection for all IXYS UK high power semiconductors; diodes, thyristors, GTO's and IGBT devices. These fuses are assembled with pure silver, die-cut elements embedded in solidified sand, which helps control arcing characteristics for a lower  $I^2t$  and high interrupting rate level. All contact surfaces are silver plated and all hardware is non-magnetic

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



### Features and Benefits

- Ultra-fast acting
- Current limiting
- Very low  $I^2t$  for improved semiconductor protection
- Superior cycling capability
- Multiple body sizes and terminal connections
- aR class according to VDE 636-23 and IEC 60269-4

### Applications

Protection of inverters, UPS systems, motor drives and similar equipment rated at 1300V/1250V or less

### Approvals

- UL/CSA recognised component
- AC: UL guide no. E76491
- IEC 60269-4 compliance
- RoHS compliant



**Nomenclature**

The IXYS UK range of 1300V/1250V protistor fuse links with blade terminals consists of five different body styles and the following nomenclature details the breakdown of each type

1	2	3	4	5	6
<b>125</b>	<b>UR</b>	<b>2</b>	<b>S</b>	<b>0400</b>	<b>B</b>
Rated voltage ÷ 10	Type and standard	Size	Fixing dimension	RMS current rating	Indicator type

**Type and Standard Information**

US – DIN 43 653 US dimensions, large square body

UR – DIN 43 653, German/French dimensions, large square body

**Body Size**

0 – 70

1 – 71

2 – 72

3 - 73

**Fixing Dimension**

S – Stud/threaded hole, metric thread

U – Stud/threaded hole, imperial thread

**Indicator Type**

B – Button type

**Example**

125UR2S0400B is – 1300V/1250VAC (RMS), DIN 43-635 German/French dimensions, large square body, size 72, metric thread, 400A nominal RMS current with button indicator

### Size 70 fuses – Part numbers

Weight – 350g Max.

### USOU fuses – US dimensions

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
1300/1250	63	aR	130USOU0063B
1300/1250	80	aR	130USOU0080B
1300/1250	100	aR	130USOU0100B
1300/1250	125	aR	130USOU0125B
1300/1250	160	aR	130USOU0160B
1300/1250	200	aR	130USOU0200B
1300/1250	250	aR	130USOU0250B
1300/1250	280	aR	130USOU0280B
1300/1250	315	aR	130USOU0315B
1200/1100	350	aR	120USOU0350B

### UROS fuses – UR dimensions

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
1300/1250	50	aR	125UROS0050B
1300/1250	63	aR	125UROS0063B
1300/1250	80	aR	125UROS0080B
1300/1250	100	aR	125UROS0100B
1300/1250	125	aR	125UROS0125B
1300/1250	160	aR	125UROS0160B
1300/1250	200	aR	125UROS0200B
1300/1250	250	aR	125UROS0250B
1300/1250	280	aR	120UROS0280B
1300/1250	315	aR	120UROS0315B
1200/1100	350	aR	110UROS0350B*
1200/1100	400	aR	110UROS0400B*
1200/1100	450	aR	110UROS0450B*
1100/1000	500	aR	100UROS0500B*
900/800	550	aR	080UROS0550B*

### Size 70 fuses – Ratings

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Pre-arcing I <sup>2</sup> t kA <sup>2</sup> s	Clearing I <sup>2</sup> t @ rated voltage kA <sup>2</sup> s	Watts loss @ 100% In W	Breaking capacity @ rated voltage kA
1300/1250	50	aR	0.116	0.7	16	100
1300/1250	63	aR	0.21	1.2	26	100
1300/1250	80	aR	0.47	2.7	27	100
1300/1250	100	aR	0.83	4.8	30	100
1300/1250	125	aR	1.3	7.5	38	100
1300/1250	160	aR	2.55	15	45	100
1300/1250	200	aR	4.7	27	56	100
1300/1250	250	aR	9.6	55	61	100
1300/1250	280	aR	14	82	64	100
1300/1250	315	aR	20	115	72	100
1200/1100	350	aR	28	158	75	150
1200/1100	400	aR	39	224	90	150
1200/1100	450	aR	62	356	82	150
1100/1000	500	aR	84	483	83	120
900/800	550	aR	128	576	83	100

\* - Non UL recognised rating

### Size 71 fuses – Part numbers

Weight – 500g Max. for US dimensions, 520g Max. for UR dimensions

#### US1U fuses – US dimensions

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
1300/1250	160	aR	130US1U0160B
1300/1250	200	aR	130US1U0200B
1300/1250	250	aR	130US1U0250B
1300/1250	280	aR	130US1U0280B
1300/1250	315	aR	130US1U0315B
1300/1250	350	aR	130US1U0350B
1300/1250	400	aR	130US1U0400B
1300/1250	450	aR	130US1U0450B
1200/1100	500	aR	120US1U0500B
1200/1100	550	aR	120US1U0550B
1100/1000	630	aR	120US1U0630B*

#### UR1S fuses – UR dimensions

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
1300/1250	160	aR	125UR1S0160B
1300/1250	200	aR	125UR1S0200B
1300/1250	250	aR	125UR1S0250B
1300/1250	280	aR	125UR1S0280B
1300/1250	315	aR	125UR1S0315B
1300/1250	350	aR	125UR1S0350B
1300/1250	400	aR	125UR1S0400B
1300/1250	450	aR	125UR1S0450B
1200/1100	500	aR	110UR1S0500B
1200/1100	550	aR	110UR1S0550B
1100/1000	630	aR	100UR1S0630B
1100/1000	700	aR	100UR1S0700B
950/900	800	aR	090UR1S0800B
850/800	900	aR	080UR1S0900B

### Size 71 fuses – Ratings

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Pre-arcing I <sup>2</sup> t kA <sup>2</sup> s	Clearing I <sup>2</sup> t @ rated voltage kA <sup>2</sup> s	Watts loss @ 100% In W	Breaking capacity @ rated voltage kA
1300/1250	160	aR	2.6	15	46	100
1300/1250	200	aR	4.7	27	54	100
1300/1250	250	aR	8.9	51	61	100
1300/1250	280	aR	12	68	70	100
1300/1250	315	aR	16	92	76	100
1300/1250	350	aR	22	127	80	100
1300/1250	400	aR	38	220	80	100
1300/1250	450	aR	47	270	95	100
1200/1100	500	aR	68	390	100	150
1200/1100	550	aR	84	485	112	150
1100/1000	630	aR	125	725	120	150
1100/1000	700	aR	180	1040	105	150
950/900	800	aR	290	1540	116	100
850/800	900	aR	446	2010	120	100

\* - Non UL recognised rating

### Size 72 fuses – Part numbers

Weight – 850g Max. for US dimensions, 800g Max. for UR dimensions

#### US2U fuses – US dimensions

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
1300/1250	280	aR	130US2U0280B
1300/1250	315	aR	130US2U0315B
1300/1250	350	aR	130US2U0350B
1300/1250	400	aR	130US2U0400B
1300/1250	450	aR	130US2U0450B
1300/1250	500	aR	130US2U0500B
1300/1250	550	aR	130US2U0550B
1200/1100	630	aR	120US2U0630B*
1100/1000	700	aR	110US2U0700B*
1100/1000	800	aR	110US2U0800B*

#### UR2S fuses – UR dimensions

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
1300/1250	250	aR	125UR2S0250B
1300/1250	280	aR	125UR2S0280B
1300/1250	315	aR	125UR2S0315B
1300/1250	350	aR	125UR2S0350B
1300/1250	400	aR	125UR2S0400B
1300/1250	450	aR	125UR2S0450B
1300/1250	500	aR	125UR2S0500B
1300/1250	550	aR	125UR2S0550B
1200/1100	630	aR	110UR2S0630B*
1200/1100	700	aR	100UR2S0700B*
1200/1100	800	aR	100UR2S0800B*
1100/1000	900	aR	100UR2S0900B*
900/850	1000	aR	085UR2S1000B*

### Size 72 fuses – Ratings

Rated Voltage (IEC/UL) V	Nominal Current A	Class	Pre-arcing I <sup>2</sup> t kA <sup>2</sup> s	Clearing I <sup>2</sup> t @ rated voltage kA <sup>2</sup> s	Watts loss @ 100% In W	Breaking capacity @ rated voltage kA
1300/1250	250	aR	-	-	-	-
1300/1250	280	aR	10	60	72	100
1300/1250	315	aR	15	87	76	100
1300/1250	350	aR	21	120	77	100
1300/1250	400	aR	32.5	190	80	100
1300/1250	450	aR	44	255	89	100
1300/1250	500	aR	57	330	98	100
1300/1250	550	aR	68	390	120	100
1200/1100	630	aR	105	610	125	150
1200/1100	700	aR	145	815	140	150
1200/1100	800	aR	215	1240	146	150
1100/1000	900	aR	312	1800	152	150
900/850	1000	aR	439	2150	136	100

\* - Non UL recognised rating

**Size 73 fuses – Part numbers**

Weight – 1250g Max.

US3U fuses – US dimensions

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
1300/1250	315	aR	130US3U0315B
1300/1250	350	aR	130US3U0350B
1300/1250	400	aR	130US3U0400B
1300/1250	450	aR	130US3U0450B
1300/1250	500	aR	130US3U0500B
1300/1250	550	aR	130US3U0550B
1300/1250	630	aR	130US3U0630B
1300/1250	700	aR	130US3U0700B
1300/1250	800	aR	130US3U0800B
1300/1200	900	aR	130US3U0900B
1100/1000	1000	aR	110US3U1000B
1000/950	1100	aR	100US3U1100B
1000/900	1250	aR	100US3U1250B
900/850	1400	aR	090US3U1400B
700/690	1600	aR	070US3U1600B
650/600	1800	aR	065US3U1800B

UR3S fuses – UR dimensions

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
1300/1250	315	aR	125UR3S0315B
1300/1250	350	aR	125UR3S0350B
1300/1250	400	aR	125UR3S0400B
1300/1250	450	aR	125UR3S0450B
1300/1250	500	aR	125UR3S0500B
1300/1250	550	aR	125UR3S0550B
1300/1250	630	aR	125UR3S0630B
1300/1250	700	aR	120UR3S0700B
1300/1250	800	aR	125UR3S0800B
1300/1200	900	aR	120UR3S0900B
1100/1000	1000	aR	100UR3S1000B
1000/950	1100	aR	095UR3S1100B
1000/900	1250	aR	090UR3S1250B
900/850	1400	aR	085UR3S1400B
700/690	1600	aR	069UR3S1600B
650/600	1800	aR	060UR3S1800B

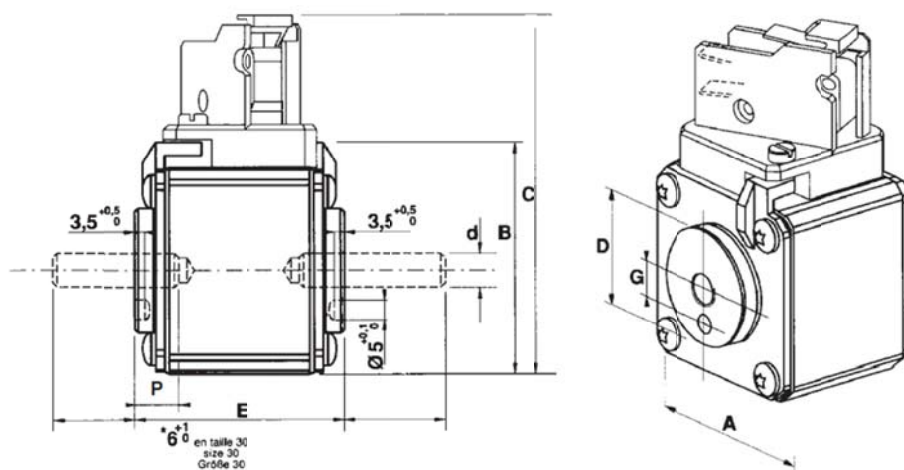
**Size 73 fuses – Ratings**

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Pre-arcing I <sup>2</sup> t kA <sup>2</sup> s	Clearing I <sup>2</sup> t @ rated voltage kA <sup>2</sup> s	Watts loss @ 100% In W	Breaking capacity @ rated voltage kA
1300/1250	315	aR	12	68	84	100
1300/1250	350	aR	17	100	86	100
1300/1250	400	aR	25	145	93	100
1300/1250	450	aR	35.5	205	100	100
1300/1250	500	aR	44	255	112	100
1300/1250	550	aR	57	330	120	100
1300/1250	630	aR	84	485	132	100
1300/1250	700	aR	110	640	-	100
1300/1250	800	aR	190	1090	-	100
1300/1200	900	aR	250	1440	-	100
1100/1000	1000	aR	370	1920	168	150
1000/900	1100	aR	445	2280	-	150
1000/900	1250	aR	585	3080	-	150
900/850	1400	aR	755	3700	-	150
700/690	1600	aR	1430	5740	-	180
650/600	1800	aR	2040	7150	-	120

**Drawings and Dimensions**

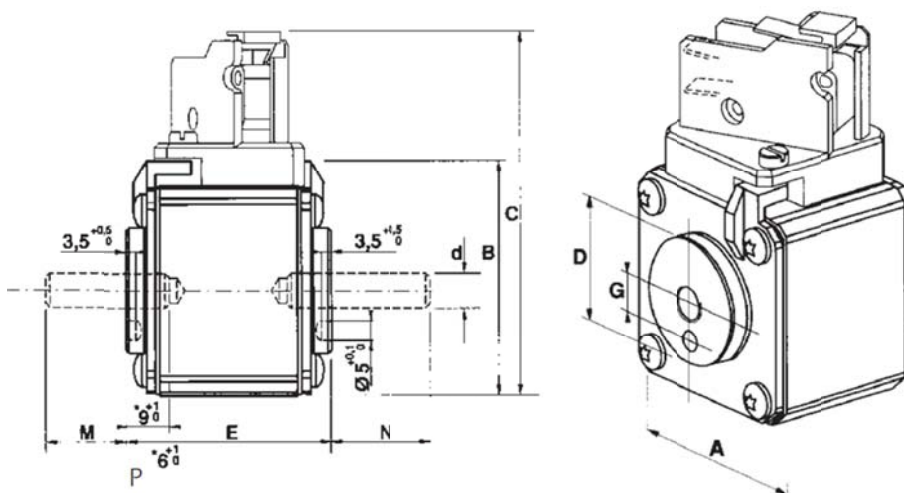
USxU fuses

Size	A	B	C	D	d	E	G	P
US0U	40	46.5	82	26	5/16"-18	74	9	6
US1U	51	56.5	91	30	5/16"-18	74	9	9
US2U	60	65.5	100	38	3/8"-16	74	15	9
US3U	74.5	79.5	114	46	1/2"-13	74	15	9



URxS fuses

Size	A	B	C	D	d	E	G	M	N	P
UR0S	40	46.5	82	26	M8	74	9	22	27	6
UR1S	51	56.5	91	30	M8	74	9	19	24	9
UR2S	60	65.5	100	38	M10	74	15	19	39	9
UR3S	74.5	79.5	114	46	M12	74	15	24	39	9



All dimensions in mm unless otherwise stated

## Microswitches

IXYS UK can offer a range of microswitches to suit our PSC square-bodied fuse ranges

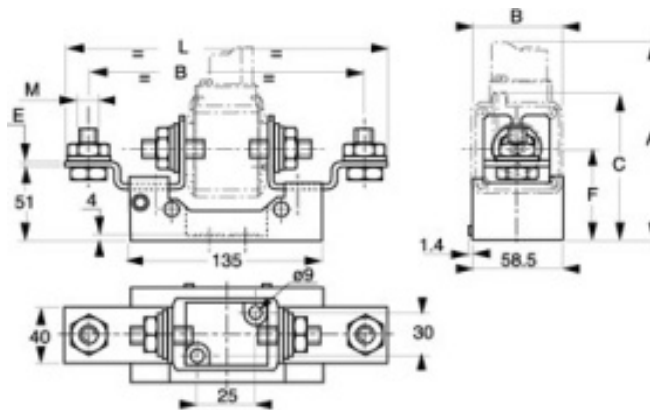
System: MS 7V 1  
 Fuse sizes: 70, 71, 72, 73  
 Indication style: MS 7V 1-5 = Standard NO-NC  
 MS 7V 1-5 BS = Low Level NO-NC  
 MS 7V 1-5 ET = Low Level NO-NC IP 50 (9)  
 MS 7V 1-9 BS = Low Level NO-NC



Part number	AC Insulation Voltage Rating *** (V)	Positive Operating Voltage/Current (V/mA)	Current Rating (A)	Interrupting Rating (A)						AC Voltage Withstand * (kV)	Impulse Voltage test Vimp 1.2/50µs ** (kV)	Fire Class according to UL 94	
				Current (A)	Non inductive circuit			Inductive Circuit: L/R = 25ms					
					30V	110V	250V	30V	110V				250V
MS 7V 1-5	1500	20/50	10	AC 50/60Hz	10	10	10	10	10	10	8.5	14	H.B.
MS 7V 1-5 BS		10/10	3	DC	8	0.4	0.2	4	0.2	0.1	12	20	
				AC 50/60Hz	3	3	3	2	1	1	8.5	14	
MS 7V 1-5 ET		10/10	3	AC 50/60Hz	3	3	3	2	1	1	8.5	14	
				DC	3	0.5	-	2	0.2	-	12	20	
MS 7V 1-9 BS		10/10	3	AC 50/60Hz	3	3	3	2	1	1	8.5	14	
				DC	3	0.5	0.25	2	0.2	0.1	12	20	

## Fuse Holder

Part Number	Fuse size	Fuse Type	Insulation Voltage (V) AC, 50/60Hz & DC	Rated Current (A)	Dimensions								
					A	B	C	D	E	G	L	M	F
SI TT 70/71	70	Stud	1500	1000	118	170	83	42	4	50.6	202	M8	57
	71				123								
SI TT 72/73	72			137									
	73			145									



All dimensions in mm



Certificate FM26085

IXYS UK Westcode Ltd's BS EN ISO9001 quality system is registered by BSI



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