

# MEDIUM VOLTAGE DIN Fuse-Links

## 36kV, Current Limiting Back-Up Fuse-Links, 3.15 to 63 Amps

**MV DIN**



**Catalogue Symbol:** 36TDQSJ(amp)  
36TFQSJ(amp)  
3TXQEJ(amp)

**Class of Operation:** Back-up as IEC 60282-1 (2005)

**Dimensional Data:**

Fuse Reference	A	C	D	Weight (Kg)
TDQSJ	537	54	51	2.9
TFQSJ	537	80	76	6.0
TXQEJ	537	88	88	6.5

**Standards/Approvals:**

DIN 43625, VDE 0670 part 4, VDE 0670 part 402 and IEC 60282-1 (2005)

**Description:**

A range of medium voltage DIN Fuses, complete with sealed striker, suitable for transformer protection. The fuses can be used even where there is no secondary LV protection, provided they are used with fuse switches fitted with instantaneous striker tripping.

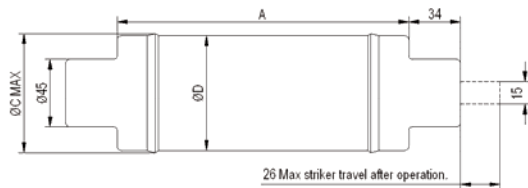
**Packaging:**

All fuse-links are individually.  
MOQ: 3  
Packaging 100% recyclable

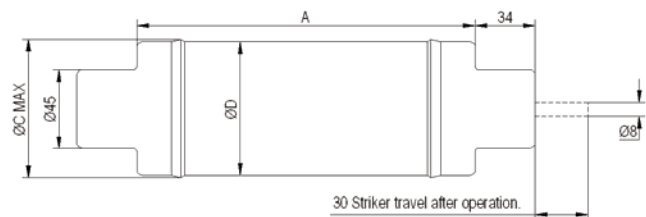
**Technical Data:**

DIN fuse-links  
Rated voltage: 17.5kV - 36kV  
Amps: 3.15A to 63A  
Rated breaking capacity: 20kA to 35.5kA  
Rated frequency: 50Hz - 60Hz  
Suitable for outdoor and indoor use  
RoHS compliant

**SJ Outline**



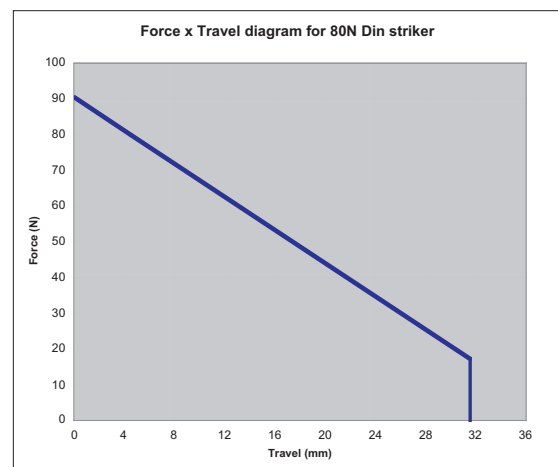
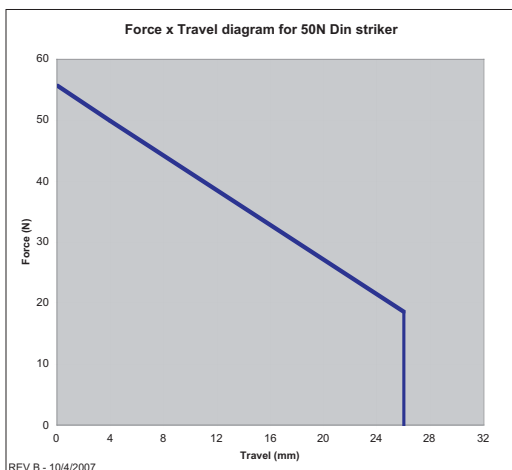
**EJ Outline**



**Striker Diagram:**

S = Spring Striker 50N to DIN 43625 and IEC 60282-1 designation "medium"

E = Spring Striker 80N to IEC 60282-1 designation "medium"



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### Table of Ratings

**Standard Approvals:** DIN 43625, VDE 0670 part 4, VDE 0670 part 402 and IEC 60282-1 (2005)

**Technical Data:** 3.15, 6.3, 10, 16, 20, 25, 31.5, 40, 50, 63 Amps

Part Number	Current Rating $I_n$ (A)	Breaking Capacity $I_1$ (kA)	Minimum Breaking Capacity $I_3$ (A)	Cold Resistance & Watts Loss in Free Air		Joule Integral ( $I^2t$ )		Length mm	Diameter mm	Weight kg
				mΩ	W	Minimum Pre-Arcing	Maximum Operating			
36TDQJSJ3.15	3.15	20	23	1455	18	$2.0 \times 10^1$	$2.4 \times 10^2$	537	51	2.9
36TDQJSJ6.3	6.3	35.5	23	684	34	$1.0 \times 10^2$	$1.2 \times 10^3$	537	51	2.9
36TDQJSJ10	10	35.5	35	402	44	$3.1 \times 10^2$	$3.6 \times 10^3$	537	51	2.9
36TDQJSJ16	16	35.5	70	165	52	$4.6 \times 10^2$	$5.1 \times 10^3$	537	51	2.9
36TDQJSJ20	20	35.5	98	117	62	$8.9 \times 10^2$	$8.2 \times 10^4$	537	51	2.9
36TDQJSJ25	25	35.5	112	98.0	85	$1.2 \times 10^3$	$1.5 \times 10^4$	537	51	2.9
36TFQJSJ31.5	31.5	35.5	116	73.4	96	$2.1 \times 10^3$	$2.3 \times 10^4$	537	51	6.0
36TFQJSJ40	40	35.5	178	52.4	116	$4.1 \times 10^3$	$3.9 \times 10^4$	537	76	6.0
36TFQJSJ50	50	35.5	255	36.8	133	$8.3 \times 10^3$	$8.1 \times 10^4$	537	76	6.0
36TXQEJ63*	63	20	360	35.0	271	$1.1 \times 10^4$	$6.2 \times 10^4$	537	88	6.5

\* Not compliant with VDE 0670 part 402

### Cross-Reference

Bussmann	EFEN	SIBA	MESA	ETI (80N Striker)	ETI (50N Striker)	Merlin Gerin	eilmren	INDEL	ABB
36TDQJSJ3.15	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
36TDQJSJ6.3	67150.0060	3000813	CF-36/6.3	4266005	4265005	51006 549 M0	ES 6515-006	IB-D1	1YMB531006M0001
36TDQJSJ10	67150.0100	3000813	CF-36/10	4266006	4265006	51006 550 M0	ES 6515-010	IB-D1	1YMB531006M0002
36TDQJSJ16	67150.0160	3000813	CF-36/16	4266007	4265007	51006 551 M0	ES 6515-016	IB-D1	1YMB531006M0003
36TDQJSJ20	67150.0200	3000813	CF-36/20	4266008	4265008	51006 552 M0	ES 6515-020	IB-D1 & IB-D2	N/A
36TDQJSJ25	67150.0250	3000813	CF-36/25	4266009	4265009	51006 553 M0	ES 6515-025	IB-D1 & IB-D2	1YMB531006M0004
36TFQJSJ31.5	67150.0320	3001613	CF-36/31.5	4266010	4265010	51006 554 M0	ES 6515-030	IB-D2	N/A
36TFQJSJ40	67150.0400	3001613	CF-36/40	4266011	4265011	51006 555 M0	ES 6515-040	IB-D2	1YMB531006M0005
36TFQJSJ50	67150.0500	3002413	CF-36/50	4266012	4265012	51006 556 M0	ES 6515-050	IB-D3	N/A
36TXQEJ63	67150.0630	3002413	CF-36/63	4266013	4265013	51006 557 M0	ES 6515-063	IB-D3	N/A

### Watts Loss Comparison

Lowest Watts Loss

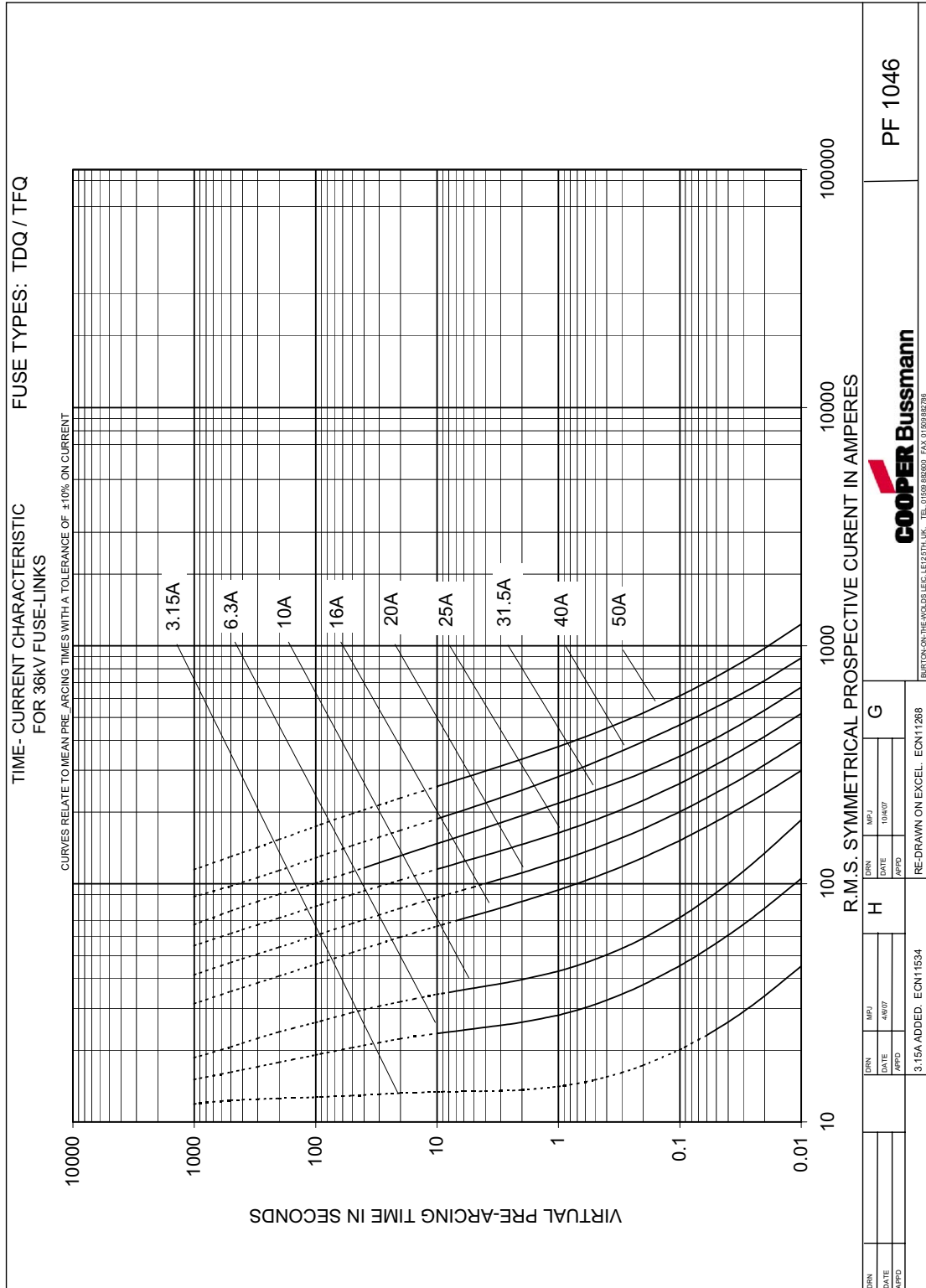
Bussmann	Bussmann	EFEN	SIBA	MESA Watts loss	ETI Watts Loss	Merlin Gerin	eilmren	INDEL	ABB
Part Number	Watts Loss	Watts Loss	Watts Loss	Watts loss	Watts Loss	Watts Loss	Watts Loss	Watts Loss	Watts Loss
36TDQJSJ3.15	-	-	-	-	-	-	-	-	-
36TDQJSJ6.3	34	39	42	39	41	39	54	32	137
36TDQJSJ10	44	65	70	50	27	50	48	55	93
36TDQJSJ16	52	67	79	98	46	98	94	82	109
36TDQJSJ20	62	84	66	120	66	120	110	85	-
36TDQJSJ25	85	100	87	133	85	133	118	87	144
36TFQJSJ31.5	96	119	102	171	113	171	135	125	-
36TFQJSJ40	116	176	144	207	134	207	198	164	176
36TFQJSJ50	133	183	186	198	112	198	237	195	-
36TXQEJ63	271	271	224	240	175	240	268	235	-

# MEDIUM VOLTAGE DIN Fuse-Links

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**MV DIN**

### Time Current Curves

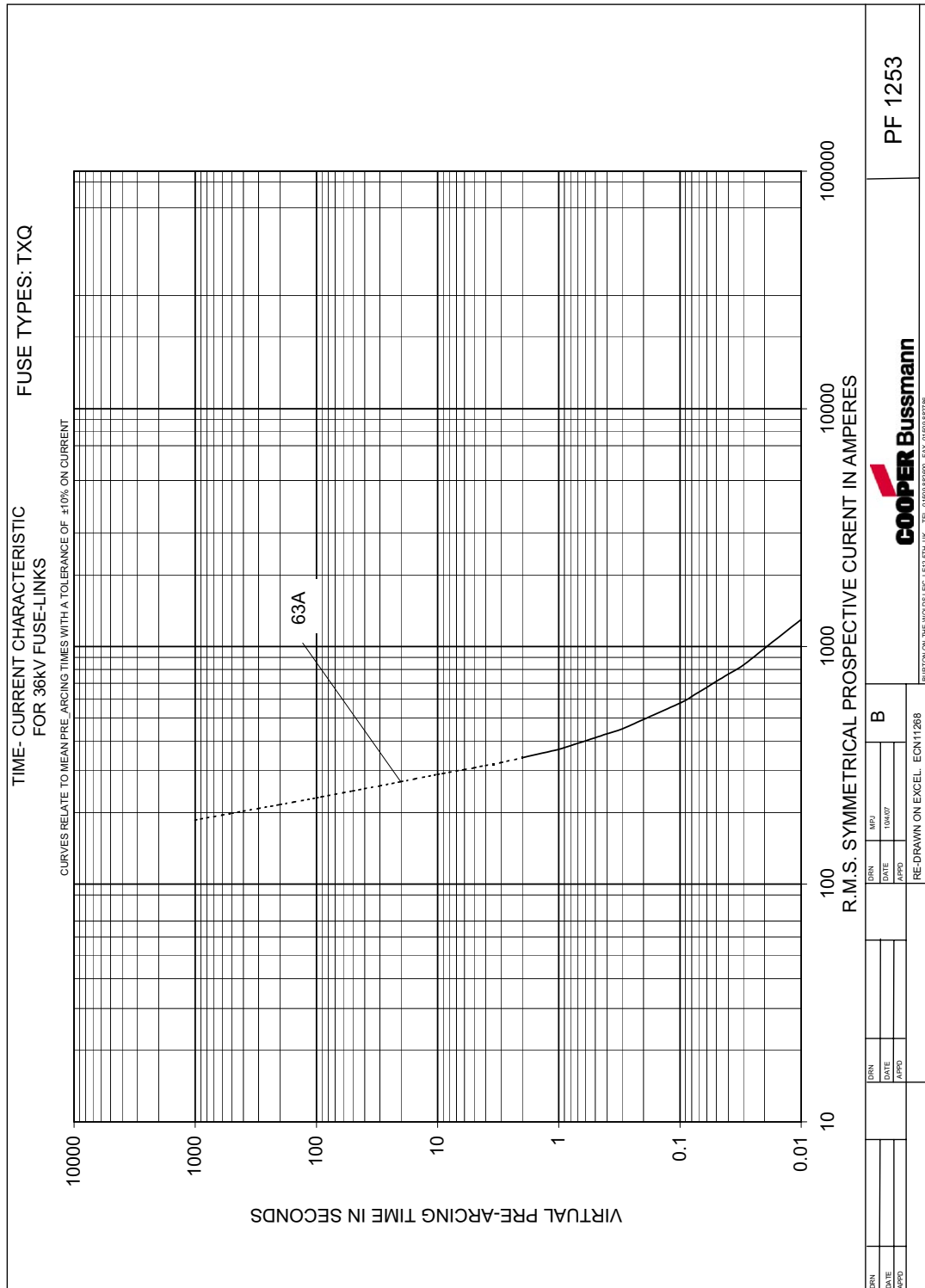


# MEDIUM VOLTAGE DIN Fuse-Links

## 36kV, Current Limiting Back-Up Fuse-Links, 3.15 to 63 Amps

**MV DIN**

### Time Current Curves



# MEDIUM VOLTAGE DIN Fuse-Links

## 36kV, Current Limiting Back-Up Fuse-Links, 3.15 to 63 Amps

**MV DIN**

### Cut-Off Curves

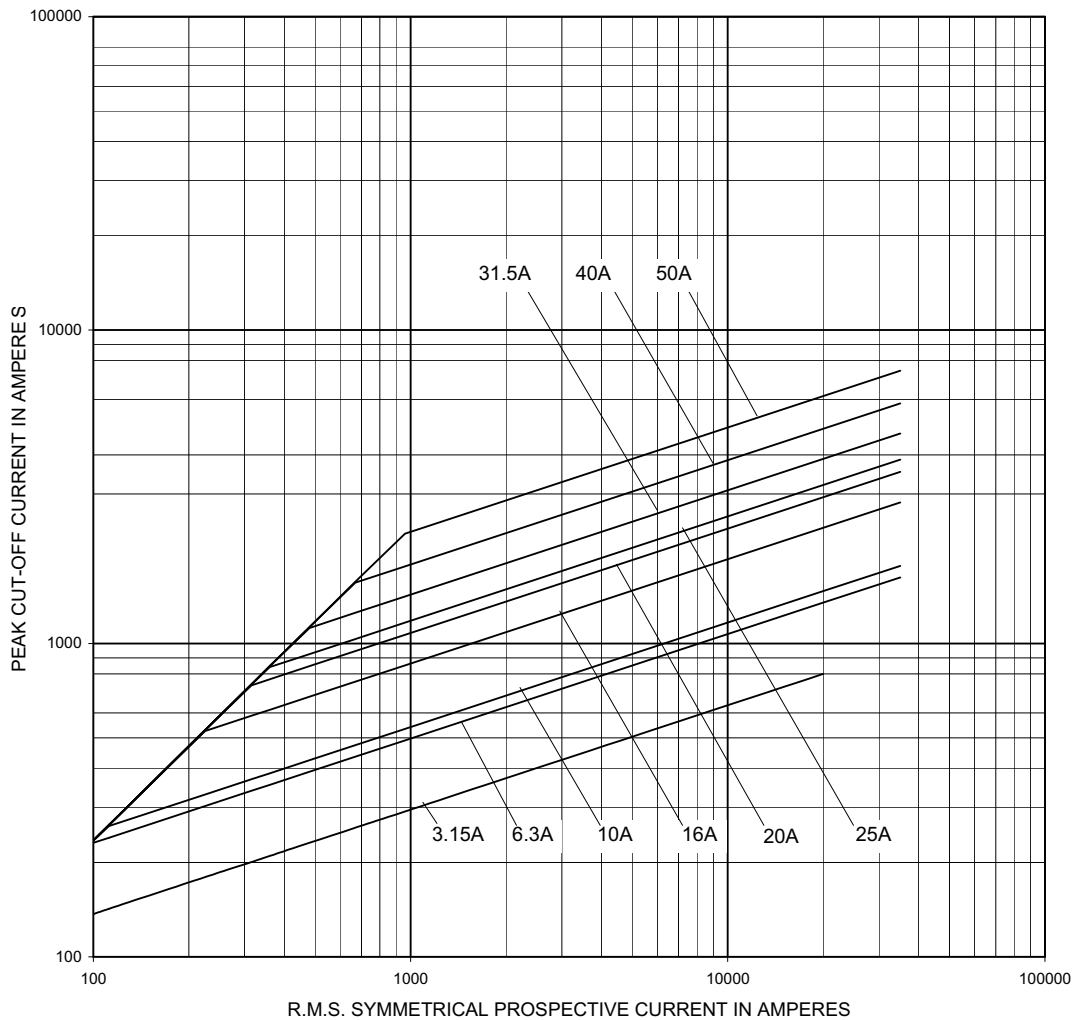
REF. No. PF 2046


**CUT-OFF CURRENT  
CHARACTERISTIC  
FOR 36KV FUSE-LINKS**

**FUSE TYPE  
TDQ/TFQ**

**NOTES**

1. CURVES SHOW EXTREME MAXIMUM VALUES WHICH WILL NOT BE EXCEEDED UNDER CONDITIONS STATED IN 2 AND 3 BELOW.
2. FOR HIGH VALUES OF PROSPECTIVE CURRENT A SYMMETRICAL FAULT GIVES THE HIGHEST CUT-OFF CURRENT. FOR LOW VALUES OF PROSPECTIVE CURRENT, WHERE THERE IS LITTLE OR NO CURRENT LIMITATION, AN ASYMMETRICAL FAULT PASSES THE HIGHEST PEAK CURRENT. THE CURVES ARE THEREFORE BASED ON THE DEGREE OF ASYMMETRY WHICH GIVES THE MAXIMUM CUT-OFF CURRENT AT ANY PARTICULAR VALUE OF PROSPECTIVE CURRENT.
3. CURVES RELATE TO FREQUENCY OF 50 Hz AND A RECOVERY VOLTAGE EQUAL TO THE FUSE RATED VOLTAGE.



DRN		DRN	MPJ	E	DRN	MPJ	D	 <b>PF2046</b>
DATE		DATE	4/6/07		DATE	21/3/07		
APPD	F	APPD			APPD			
		3.15A ADDED MPJ. ECN11534		RE-DRAWN IN EXCEL MPJ. ECN11268		BURTON-ON-THE-WOLDS, LEICS., LE12 5TH, U.K. TEL +44 (0) 1509 882600 FAX +44 (0) 1509 882788		

# MEDIUM VOLTAGE DIN Fuse-Links

## 36kV, Current Limiting Back-Up Fuse-Links, 3.15 to 63 Amps

**MV DIN**

### Cut-Off Curves 36kV

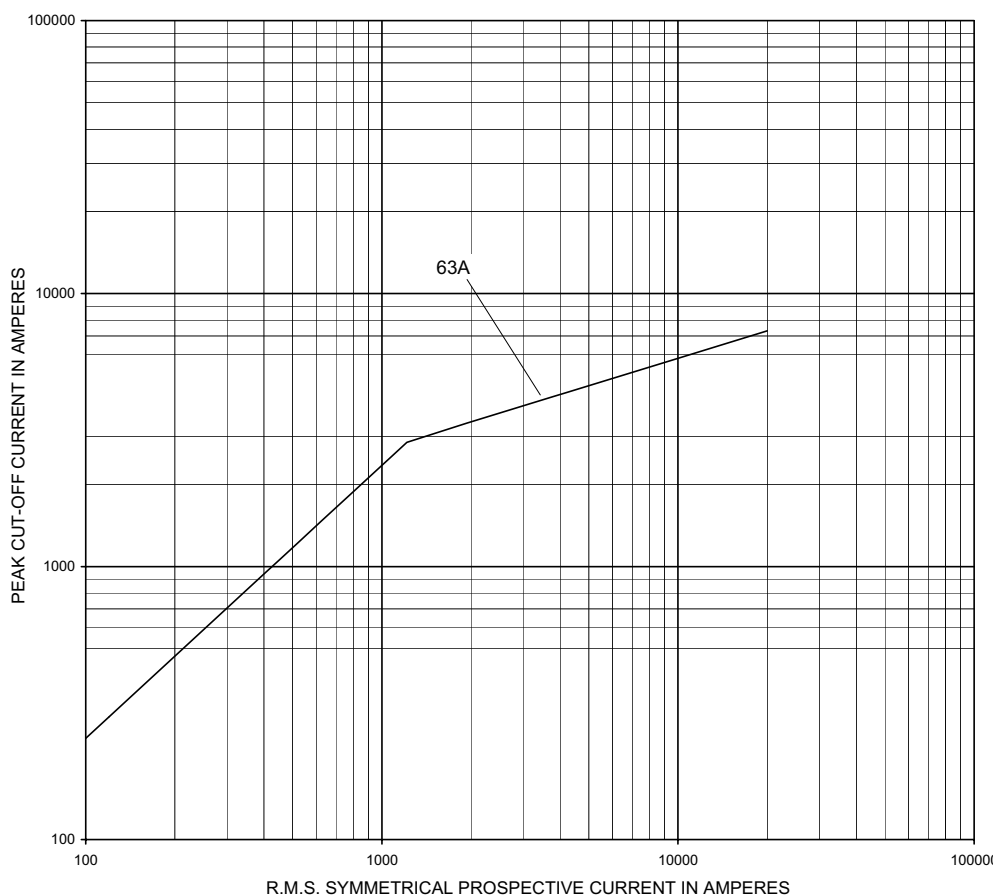
REF. No. PF 2253

CUT-OFF CURRENT  
CHARACTERISTIC  
FOR 36kV FUSE-LINKS

FUSE TYPE  
TXQ

**NOTES**

1. CURVES SHOW EXTREME MAXIMUM VALUES WHICH WILL NOT BE EXCEEDED UNDER CONDITIONS STATED IN 2 AND 3 BELOW.
2. FOR HIGH VALUES OF PROSPECTIVE CURRENT A SYMMETRICAL FAULT GIVES THE HIGHEST CUT-OFF CURRENT. FOR LOW VALUES OF PROSPECTIVE CURRENT, WHERE THERE IS LITTLE OR NO CURRENT LIMITATION, AN ASYMMETRICAL FAULT PASSES THE HIGHEST PEAK CURRENT. THE CURVES ARE THEREFORE BASED ON THE DEGREE OF ASYMMETRY WHICH GIVES THE MAXIMUM CUT-OFF CURRENT AT ANY PARTICULAR VALUE OF PROSPECTIVE CURRENT.
3. CURVES RELATE TO FREQUENCY OF 50 Hz AND A RECOVERY VOLTAGE EQUAL TO THE FUSE RATED VOLTAGE.



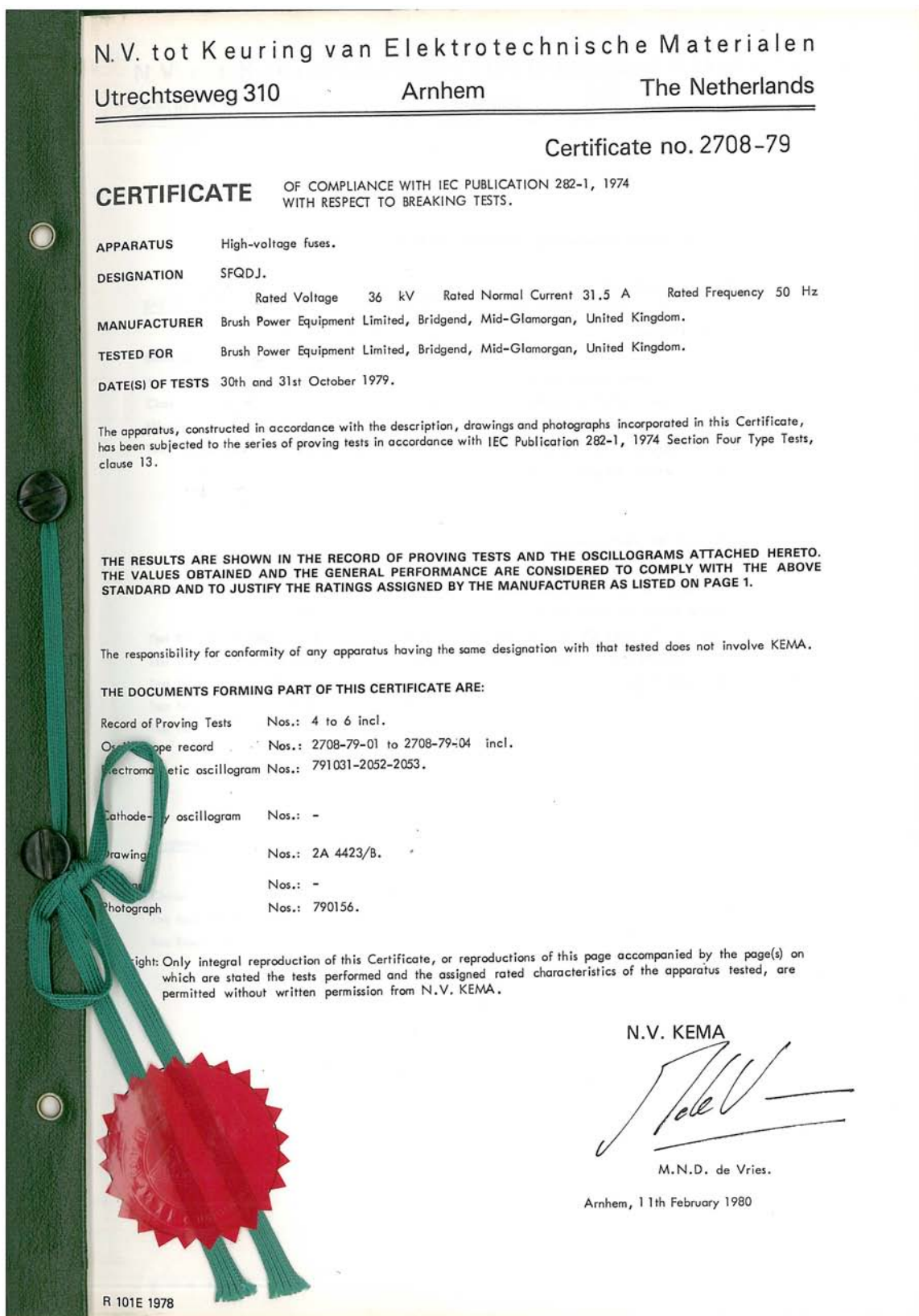
DRN		DRN		DRN	MPJ	A		PF2253
DATE	C	DATE	B	DATE	20/4/07			
APPD		APPD		APPD				
				1st ISSUE MPJ ECN11268		BURTON-ON-THE-WOLDS, LEIGS., LE12 5TH, U.K. TEL +44 (0) 1509 882600 FAX +44 (0) 1509 882786		

# MEDIUM VOLTAGE DIN Fuse-Links

36kV, Current Limiting Back-Up Fuse-Links, 3.15 to 63 Amps

MV DIN

## KEMA Certificate



This certificate refers to SFQDJ 36kV fuse-links, which are electrically identical to the new T range, other than the fuses are sealed for outdoor use, have a brown ceramic body and use a 50N striker.



# MEDIUM VOLTAGE DIN Fuse-Links

## 36kV, Current Limiting Back-Up Fuse-Links, 3.15 to 63 Amps

# MV DIN

### KEMA Certificate

N.V. tot Keuring van Elektrotechnische Materialen  
Utrechtseweg 310 Arnhem The Netherlands

Certificate no. 2829-79

**CERTIFICATE** OF COMPLIANCE WITH IEC PUBLICATION 282-1, 1974  
WITH RESPECT TO BREAKING TESTS.

APPARATUS High-voltage fuses.  
DESIGNATION SDQDJ.  
Rated Voltage 36 kV Rated Normal Current 25 A Rated Frequency 50 Hz  
MANUFACTURER Brush Power Equipment Limited, Bridgend, Mid-Glamorgan, United Kingdom.  
TESTED FOR Brush Power Equipment Limited, Bridgend, Mid-Glamorgan, United Kingdom.  
DATE(S) OF TESTS 30th and 31st October 1979.

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in this Certificate, has been subjected to the series of proving tests in accordance with IEC Publication 282-1, 1974 Section Four Type Tests, clause 13.

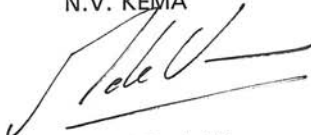
THE RESULTS ARE SHOWN IN THE RECORD OF PROVING TESTS AND THE OSCILLOGRAMS ATTACHED HERETO. THE VALUES OBTAINED AND THE GENERAL PERFORMANCE ARE CONSIDERED TO COMPLY WITH THE ABOVE STANDARD AND TO JUSTIFY THE RATINGS ASSIGNED BY THE MANUFACTURER AS LISTED ON PAGE 1.

The responsibility for conformity of any apparatus having the same designation with that tested does not involve KEMA.

THE DOCUMENTS FORMING PART OF THIS CERTIFICATE ARE:

Record of Proving Tests	Nos.: 4 to 6 incl.
Oscilloscope record	Nos.: 2829-79-01 to 2829-79-04 incl.
Electromagnetic oscillogram	Nos.: 791031-2050-2051.
Cathode-ray oscillogram	Nos.: -
Drawing	Nos.: 2A 4421/A.
Diagram	Nos.: -
Photograph	Nos.: 790156.

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N.V. KEMA  
  
M.N.D. de Vries.

Arnhem, 11th February 1980

R 101E 1978

This certificate refers to SDQDJ 36kV fuse-links, which are electrically identical to the new T range, other than the fuses are sealed for outdoor use, have a brown ceramic body and use a 50N striker.



# MEDIUM VOLTAGE DIN Fuse-Links

## 36kV, Current Limiting Back-Up Fuse-Links, 3.15 to 63 Amps

MV DIN

### KEMA Report

N.V. tot Keuring van Elektrotechnische Materialen  
Utrechtseweg 310 Arnhem The Netherlands

Certificate no. 272 -80

**CERTIFICATE** OF COMPLIANCE WITH IEC PUBLICATION 282-1: 1974  
WITH RESPECT TO BREAKING TESTS.

APPARATUS High-voltage fuses.

DESIGNATION SFQDJ.  
Rated Voltage 36 kV Rated Normal Current 50 A Rated Frequency 50 Hz

MANUFACTURER Brush Power Equipment Ltd., Bridgend, Mid-Glamorgan, United Kingdom.

TESTED FOR Brush Power Equipment Ltd., Bridgend, Mid-Glamorgan, United Kingdom.

DATE(S) OF TESTS 6th and 7th May and 16th June 1980.

The apparatus, constructed in accordance with the description, drawings and photographs incorporated in this Certificate, has been subjected to the series of proving tests in accordance with IEC Publication 282-1: 1974 clause 13 and the STL Guide as appropriate.

Note: According to STL Objectives and Operating Principles KEMA issues a Certificate of compliance with the above mentioned IEC Publication following exclusively the STL Guide wherever applicable.


THE RESULTS ARE SHOWN IN THE RECORD OF PROVING TESTS AND THE OSCILLOGRAMS ATTACHED HERETO. THE VALUES OBTAINED AND THE GENERAL PERFORMANCE ARE CONSIDERED TO COMPLY WITH THE ABOVE STANDARD AND TO JUSTIFY THE RATINGS ASSIGNED BY THE MANUFACTURER AS LISTED ON PAGE 1.

The responsibility for conformity of any apparatus having the same designation with that tested does not involve KEMA.

THE DOCUMENTS FORMING PART OF THIS CERTIFICATE ARE:

Record of Proving Tests	Nos.: 4 to 7 incl.
Oscilloscope record	Nos.: 272-80-01 to 272-80-07 incl.
Electromagnetic oscillogram	Nos.: 800507-2045-2046; 800616-2045-2046.
Code-ray oscillogram	Nos.: -
Drawing	Nos.: 2A 4427/B; 2A 4428/B; PF 2046.
Diagram	Nos.: -
Photograph	Nos.: 800441.

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N.V. KEMA  
  
M.N.D. de Vries.  
Arnhem, October 17, 1980

R 101E 1978

This certificate refers to SFQDJ 36kV fuse-links, which are electrically identical to the new T range, other than the fuses are sealed for outdoor use, have a brown ceramic body and use a 50N striker.

# MEDIUM VOLTAGE DIN Fuse-Links

## 36kV, Current Limiting Back-Up Fuse-Links, 3.15 to 63 Amps

MV DIN

### KEMA Report

N.V. tot Keuring van Elektrotechnische Materialen  
 Utrechtseweg 310                      Arnhem                      The Netherlands

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**REPORT OF PERFORMANCE No. 318-83**

CLIENT                      Brush Fusegear Ltd., Burton-on-the-Wolds, Leicestershire, United Kingdom.  
 MANUFACTURER              Brush Fusegear Ltd., Burton-on-the-Wolds, Leicestershire, United Kingdom.  
 APPARATUS                      High Voltage Fuses.  
 DESIGNATION                  SFQAJ.                                      SERIAL NO.

**RATINGS ASSIGNED BY THE MANUFACTURER**

Voltage                      : 36 kV  
 Normal Current              : 50 A  
 Breaking Current            : 35.5 kA  
 Frequency                    : 50 Hz

The tests have been made in accordance with client's instructions based on IEC Publication 282-1 (test-duty 1).  
 Date of tests                      21st June 1983.

The performance of the apparatus tested and the observations made during the tests have been recorded in the tables with test results and oscillograms.

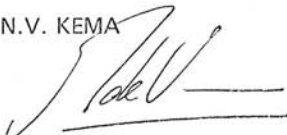
**THE DOCUMENTS FORMING PART OF THIS REPORT ARE**

Table with test results      nos.: 3.  
 Oscilloscope record        nos.: -  
 Electromagnetic oscillogram nos.: -

TRS      oscillogram      nos.: 830621-2024-2026-2027-2028.  
 Drawing                      nos.: C 2 A 4485; PF 1046.  
 Diagram                      nos.: -  
 Photograph                    nos.: -

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**SUMMARY OF TESTS ON PAGE 1**

N.V. KEMA  
  
 M.N.D. de Vries.  
 Arnhem, 12th August 1983.

R 112F 1076

This certificate refers to SFQAJ 36kV fuse-links, which are electrically identical to the new T range, other than the fuses are sealed for outdoor use, have a brown ceramic body and use a 50N striker.