

# LIGHTNING & SURGE PROTECTION

## MC SERIES - COARSE OR TYPE 1 ARRESTORS



MC50-B	Multi-Carbon Spark Gap Lightning Controller - Single Pole - 50kA (10/350)	\$506.11
MC50-B/3	Multi-Carbon Spark Gap Lightning Controller - Three Pole - 150kA (10/350)	\$1,452.87
MC50-B/3+1	Multi-Carbon Spark Gap Lightning Controller - Four Pole - 125kA (10/350)	\$1,992.97
MC125-B/NPE	NPE Lightning Controller - 125kA (10/350)	\$596.97
MC-V3	Copper Bridge 16mm <sup>2</sup> for MC Arrestors - Three Pole	\$21.73
MC-V4	Copper Bridge 16mm <sup>2</sup> for MC Arrestors - Four Pole	\$26.79
LC63	Lightning Co-ordinator - 63 Amp	\$299.26

## MCD SERIES - COMBINED COARSE & MEDIUM - TYPE 1 & 2 ARRESTORS



MCD50-B	Multi-Carbon Type 1 & 2 Arrestor - Single Pole - 50kA (10/350)	\$549.56
MCD50-B-OS	Multi-Carbon Type 1 & 2 Arrestor - Single Pole with Indication - 50kA (10/350)	\$648.48
MCD50-B/3	Multi-Carbon Type 1 & 2 Arrestor - Three Pole - 150kA (10/350)	\$1,577.58
MCD50-B/3+1	Multi-Carbon Type 1 & 2 Arrestor - Four Pole - 125kA (10/350)	\$2,164.63
MCD125-B/NPE	NPE Lightning Controller - 125kA (10/350)	\$596.97
PS3-B+C/TNC	3 Pole Protection Set - 100kA (10/350)	\$2,012.75
PS3-B+C/TNC+FS	3 Pole Protection Set with Remote Signalling - 100kA (10/350)	\$2,130.46
PS4-B+C/TT+TNS	4 Pole Protection Set - 100kA (10/350)	\$2,512.62
PS4-B+C/TNS+FS	4 Pole Protection Set with Remote Signalling - 100kA (10/350)	\$2,678.62
PS2-B+C/TT+TNS	2 Pole Protection Set - 100kA (10/350)	\$1,019.83
MC-V3	Copper Bridge 16mm <sup>2</sup> for MC Arrestors - Three Pole	\$21.73
MC-V4	Copper Bridge 16mm <sup>2</sup> for MC Arrestors - Four Pole	\$26.79

## MCF SERIES - COMBINED COARSE & MEDIUM - TYPE 1 & 2 ARRESTORS



MCF75-3+FS	3 Pole Combination Arrestor with Remote Signalling - 75kA (10/350)	\$1,828.41
MCF100-3+NPE+FS	4 Pole Combination Arrestor with Remote Signalling - 100kA (10/350)	\$2,023.66

# LIGHTNING & SURGE PROTECTION

## V50 SERIES - COMBINED COARSE & MEDIUM - TYPE 1 & 2 ARRESTORS



V50-1-280	Single Pole Surge & Lightning Arrestor - 50kA (8/20)	\$242.46
V50-1+FS-280	Single Pole Arrestor with Remote Signalling - 50kA (8/20)	\$338.52
V50-1+NPE-280	Single Pole Arrestor with NPE Protection - 80kA (8/20)	\$407.75
V50-1+NPE+FS-280	Single Pole Arrestor with NPE & Remote Signalling - 80kA (8/20)	\$541.20
V50-2+NPE-280	Double Pole Arrestor with NPE Protection - 80kA (8/20)	\$663.37
V50-3-280	3 Pole Surge & Lightning Arrestor - 120kA (8/20)	\$668.94
V50-3+FS-280	3 Pole Arrestor with Remote Signalling - 120kA (8/20)	\$809.05
V50-3+NPE-280	3 Pole Arrestor with NPE Protection - 80kA (8/20)	\$919.25
V50-3+NPE+FS-280	3 Pole Arrestor with NPE & Remote Signalling - 80kA (8/20)	\$1,071.15
V50-4-280	4 Pole Surge & Lightning Arrestor - 160kA (8/20)	\$908.95
V50-4+FS-280	4 Pole Arrestor with Remote Signalling - 160kA (8/20)	\$1,049.06
V50-0-280	V50 Replacement Module	\$205.64
C50-0-255	V50 Type NPE Replacement Module	\$94.64

## V20 SERIES - MEDIUM - TYPE 2 ARRESTORS



V20-1-280	Single Pole Surge Arrestor - 40kA (8/20)	\$147.33
V20-1+FS-280	Single Pole Arrestor with Remote Signalling - 40kA (8/20)	\$185.70
V20-1+NPE-280	Single Pole Arrestor with NPE Protection - 60kA (8/20)	\$351.43
V20-1+NPE+FS-280	Single Pole Arrestor with NPE & Remote Signalling - 60kA (8/20)	\$408.77
V20-2-280	Double Pole Arrestor - 80kA (8/20)	\$290.05
V20-2+FS-280	Double Pole Arrestor with Remote Signalling - 80kA (8/20)	\$382.12
V20-2+NPE-280	Double Pole Arrestor with NPE Protection - 60kA (8/20)	\$505.59
V20-2+NPE+FS-280	Double Pole Arrestor with NPE & Remote Signalling - 60kA (8/20)	\$578.60
V20-3-280	3 Pole Surge Arrestor - 120kA (8/20)	\$423.54
V20-3+FS-280	3 Pole Arrestor with Remote Signalling - 120kA (8/20)	\$563.66
V20-3+NPE-280	3 Pole Arrestor with NPE Protection - 60kA (8/20)	\$601.55
V20-3+NPE+FS-280	3 Pole Arrestor with NPE & Remote Signalling - 60kA (8/20)	\$704.39
V20-4-280	4 Pole Surge & Lightning Arrestor - 160kA (8/20)	\$580.09
V20-4+FS-280	4 Pole Arrestor with Remote Signalling - 160kA (8/20)	\$697.93
V20-0-280	V20 Replacement Module	\$107.88
C20-0-255	V20 Type NPE Replacement Module	\$94.64

## V20-C SERIES - MEDIUM - TYPE 2 ARRESTORS WITH SPECIAL REMOTE SIGNALLING



V20-C/2+AS	Double Pole Arrestor with Audible Signal - 40kA (8/20)	\$937.64
V20-C/3+AS	Triple Pole Arrestor with Audible Signal - 60kA (8/20)	\$1,080.82
V20-C/4+AS	Four Pole Arrestor with Audible Signal - 80kA (8/20)	\$2,226.46
V20-C/3+NPE-AS	Triple Pole Arrestor & NPE with Audible Signal - 80kA (8/20)	\$917.76
V20-C/3+FS-SU	Triple Pole Arrestor with Function Monitoring - 60kA (8/20)	\$861.38
V20-C/4+FS-SU	Four Pole Arrestor with Function Monitoring - 80kA (8/20)	\$986.43

# SURGE PROTECTION

## V10-C SERIES - MEDIUM & FINE - TYPE 2 & 3 ARRESTORS



V10-C/1	Single Pole Arrestor - 20kA (8/20)	\$139.64
V10-C/2	Double Pole Arrestor - 20kA (8/20)	\$255.04
V10-C/3	Triple Pole Arrestor - 40kA (8/20)	\$324.39
V10-C/4	Four Pole Arrestor - 40kA (8/20)	\$514.93
V10-C/1+NPE	Single Pole Arrestor & NPE Spark Discharge - 20kA (8/20)	\$221.26
V10-C/2+NPE	Double Pole Arrestor & NPE Spark Discharge - 20kA (8/20)	\$309.81
V10-C/3+NPE	Triple Pole Arrestor & NPE Spark Discharge - 40kA (8/20)	\$415.73
V10-C/1+FS	Single Pole Arrestor with Remote Signalling - 20kA	\$173.62
V10-C/2+FS	Double Pole Arrestor with Remote Signalling - 20kA	\$290.51
V10-C/3+FS	Triple Pole Arrestor with Remote Signalling - 40kA	\$369.46
V10-C/1+NPE+FS	Single Pole Arrestor & NPE with Remote Signalling - 20kA	\$265.62
V10-C/2+NPE+FS	Double Pole Arrestor & NPE with Remote Signalling - 20kA	\$382.08
V10-C/3+NPE+FS	Triple Pole Arrestor & NPE with Remote Signalling - 40kA (8/20)	\$529.47
V10-C/0-280	Replacement Module Single Pole - 280V	\$85.82

## V10 COMPACT SERIES - MEDIUM & FINE - TYPE 2 & 3 ARRESTORS



V10 Compact	V10 Arrestor Set - 3 Phase Neutral & Earth - 255V - 60kA (8/20)	\$391.29
V10 Compact-FS	V10 Arrestor Set with Remote Signalling - 3~/N/E - 255V - 60kA (8/20)	\$449.63
V10 Compact-AS	V10 Arrestor Set with Audible Signal - 3~/N/E - 255V - 60kA (8/20)	\$453.82
VB-V10 Compact 200	Connection Bridge 200mm for V10 Compact Products	\$73.92
VB-V10 Compact 400	Connection Bridge 400mm for V10 Compact Products	\$85.71

## VF SERIES - FINE - TYPE 3 ARRESTORS



VF12-AC/DC	Single Pole Surge Arrestor - 12VAC/DC - 20 Amp	\$314.59
VF24-AC/DC	Single Pole Surge Arrestor - 24VAC/DC - 20 Amp	\$314.59
VF48-AC/DC	Single Pole Surge Arrestor - 48VAC/DC - 20 Amp	\$391.34
VF60-AC/DC	Single Pole Surge Arrestor - 60VAC/DC - 20 Amp	\$391.34
VF110-AC/DC	Single Pole Surge Arrestor - 110VAC/DC - 20 Amp	\$391.34
VF230-AC/DC	Single Pole Surge Arrestor - 230VAC/DC - 20 Amp	\$314.59
VF24-AC/DC-FS	Single Pole Arrestor with Remote Signalling - 24VAC/DC - 20 Amp	\$356.03
VF110-AC/DC-FS	Single Pole Arrestor with Remote Signalling - 110VAC/DC - 20 Amp	\$356.03
VF230-AC-FS	Single Pole Arrestor with Remote Signalling - 230VAC - 20 Amp	\$356.03

## BUILT IN SERIES - FINE - TYPE 3 ARRESTORS & LED STREET LIGHT PROTECTION



KNS-D	Flush Box Installed Fine Protection	\$271.06
ÜSM-A	Surge Protection for Socket Outlets with Audible Signal	\$151.52
ÜSM-A-2	Surge Protection for Socket Outlets with Audible Signal - V Connection	\$185.52
ÜSM-LED-230	LED Light Fitting Protection	\$177.33
ÜSM-20-230I1P+PE	LED Street Light Protection - 20kA	\$143.03
ÜSM-10-230I1P+PE	LED Street Light Protection - 10kA	\$130.93

# OBO - A COMPLETE SYSTEM

## TESTING SURGE & LIGHTNING PROTECTION COMPONENTS



The BET Test Centre was founded in 1995 and possesses a lightning current generator for lightning current tests of up to 200 kA and a hybrid generator for surge current tests of up to 20 kV. The lightning current generator is used to test products from the lightning and surge protection systems product range. This generator can release 250kJ of electrical energy which is the energy you would need to fire a 10kg ball 2.55km vertically into the sky. The same energy would also raise the temperature of a litre of water by almost 60 °C in just one millisecond - much faster than you can read this sentence. The hybrid generator is used to test data cable protection devices as well as all kinds of cable routing and cable support systems up to lengths of eight metres.

## COMPLETE PROTECTION SYSTEM FROM OBO







# SOLAR PROTECTION SYSTEMS

## PV TYPE 1 & 2 ARRESTORS



<b>V-PV-T1+2-1000</b>	Lightning and Surge Protection to 1000VDC	<b>\$514.10</b>
<b>V-PV-T1+2-1000FS</b>	Lightning and Surge Protection to 1000VDC with Remote Signalling	<b>\$563.56</b>
<b>V-PV-T1+2-1500</b>	Lightning and Surge Protection to 1500VDC	<b>\$563.56</b>
<b>V-PV-T1+2-1500FS</b>	Lightning and Surge Protection to 1500VDC with Remote Signalling	<b>\$613.00</b>
<b>V25-B+C/3-PH900</b>	Lightning and Surge Protection to 900VDC	<b>\$616.58</b>
<b>V25-B+C/3PHFS900</b>	Lightning and Surge Protection to 900VDC with Remote Signalling	<b>\$701.30</b>
<b>V25-B+C/0-450PV</b>	Replacement Module for 900VDC Arrestor - 450VDC	<b>\$165.65</b>
<b>V20-C/U-3PH-Y</b>	PV 3 Pole Surge Arrestor Base	<b>\$114.62</b>
<b>V20-C/U-3PH-Y-FS</b>	PV 3 Pole Surge Arrestor Base with Remote Signalling	<b>\$293.72</b>

## PV TYPE 2 ARRESTORS



<b>V-PV-T2-1500</b>	Surge Protection to 1500VDC	<b>\$484.44</b>
<b>V-PV-T2-1500FS</b>	Surge Protection to 1500VDC with Remote Signalling	<b>\$533.89</b>
<b>V20-C/3-PH-600</b>	Photovoltaic Surge Arrestor, 3 Pole, 600VDC	<b>\$366.99</b>
<b>V20-C/3PHFS-600</b>	Photovoltaic Surge Arrestor with Remote Signalling, 3 Pole, 600VDC	<b>\$457.10</b>
<b>V20-C/3-PH-1000</b>	Photovoltaic Surge Arrestor, 3 Pole, 1000VDC	<b>\$395.90</b>
<b>V20-C/3PHFS-1000</b>	Photovoltaic Surge Arrestor with Remote Signalling, 3 Pole, 1000VDC	<b>\$502.35</b>
<b>V20-C/0-300PV</b>	Replacement Module for 600VDC Arrestor, 300VDC	<b>\$84.33</b>
<b>V20-C/0-500PV</b>	Replacement Module for 1000VDC Arrestor, 500VDC	<b>\$94.64</b>
<b>V20-C/U-3PH-Y</b>	PV 3 Pole Surge Arrestor Base	<b>\$114.62</b>
<b>V20-C/U-3PH-Y-FS</b>	PV 3 Pole Surge Arrestor Base with Remote Signalling	<b>\$293.72</b>

# DATA & COMMUNICATION PROTECTION

## DATA COMBINATION ARRESTORS



<b>TD-2D-V</b>	<b>Combination Protection Device - VDSL, DSL, IP, ISDN or Analogue</b>	<b>\$207.40</b>
<b>TD-4/I</b>	<b>Combination Protection Device - DSL, IP, ISDN or Analogue</b>	<b>\$281.30</b>
<b>TD-2/D-HS</b>	<b>Combination Protection Device - DSL, IP, ISDN or Analogue</b>	<b>\$287.21</b>
<b>SC-Tele/4-C-G</b>	<b>Combination Protection Device for Point of Entry - IP54</b>	<b>\$448.31</b>
<b>RJ11-Tele/4-C</b>	<b>Combined Protection Device with RJ11 Connections</b>	<b>\$342.23</b>
<b>RJ11-Tele/4-F</b>	<b>Precision Protection Device with RJ11 Connections</b>	<b>\$259.35</b>
<b>RJ45-Tele/4-C</b>	<b>Combined Protection Device with RJ45 Connections</b>	<b>\$342.23</b>
<b>RJ45-Tele/4-F</b>	<b>Precision Protection Device with RJ45 Connections</b>	<b>\$259.35</b>

## LSA PLUS SYSTEM



<b>LSA-M</b>	<b>LSA Plus Base</b>	<b>\$41.46</b>
<b>LSA-A-LEI</b>	<b>LSA Plus Connection Block suitable for LSA-B-MAG Arrester</b>	<b>\$40.48</b>
<b>LSA-T-LEI</b>	<b>LSA Plus Connection Block suitable for both LSA-B-MAG &amp; LSA-BF Arresters</b>	<b>\$51.56</b>
<b>LSA-B-MAG</b>	<b>LSA Basic Protection Arrester Block 10 Channel</b>	<b>\$247.15</b>
<b>LSA-E</b>	<b>LSA Earthing Strip for LSA-BF Arresters</b>	<b>\$20.92</b>
<b>LSA-BF-24</b>	<b>LSA 24 V Combined Protection Device Single Channel</b>	<b>\$112.42</b>
<b>LSA-BF-180</b>	<b>LSA 180 V Combined Protection Device Single Channel</b>	<b>\$112.42</b>
<b>LSA-G</b>	<b>Protective housing for a LSA 10</b>	<b>\$89.93</b>

## COAX PROTECTION



<b>DS-Nm/w</b>	<b>Basic Coaxial Protection Device for HF Technology, 0 - 5.3 GHz</b>	<b>\$251.95</b>
<b>DS-BNCm/w</b>	<b>BNC Coaxial Protection Device, 0 - 2.2 GHz</b>	<b>\$287.22</b>
<b>S-UHFm/w</b>	<b>Coaxial Protection Device for UHF Technology, 0 - 1.3 GHz</b>	<b>\$501.62</b>

# DATA & CONTROL PROTECTION

## NETWORK ARRESTORS



<b>ND-CAT6A/EA</b>	High Speed Network Protection Class EA/CAT6A with POE (up to 1 Amp)	<b>\$358.10</b>
<b>RJ45S-ATM/8-F</b>	Universal Fine Data Line Protection Device with RJ45 Connections	<b>\$726.38</b>
<b>ND-CAT6A/E-B</b>	Network Protection Type 1 with POE (up to 1 Amp)	<b>\$165.65</b>
<b>ND-CAT6A/E-F</b>	Network Protection Type 2 & 3 with POE (up to 1 Amp)	<b>\$205.15</b>

## SERIAL INTERFACE PROTECTION

<b>SD09-V24-9</b>	Serial Cable Protection - D-SUB 9 Pole Connection RS232	<b>\$287.36</b>
<b>SD09-V11-9</b>	Serial Cable Protection - D-SUB 9 Pole Connection RS485	<b>\$386.22</b>

## MCR PROTECTION



<b>TKS-B</b>	Basic Protection Device for MCR and Telecommunication Systems	<b>\$136.46</b>
<b>FLD 5</b>	Lightning Barrier for Measurement & Control Connections - 5V	<b>\$439.36</b>
<b>FLD 24</b>	Lightning Barrier for Measurement & Control Connections - 24V	<b>\$439.36</b>
<b>FLD 60</b>	Lightning Barrier for Measurement & Control Connections - 60V	<b>\$439.36</b>
<b>FLD 110</b>	Lightning Barrier for Measurement & Control Connections - 110V	<b>\$439.36</b>
<b>FRD 24</b>	Lightning Barrier for Measurement & Control Connections - 24V	<b>\$138.13</b>
<b>FRD 48</b>	Lightning Barrier for Measurement & Control Connections - 48V	<b>\$138.13</b>
<b>FRD 110</b>	Lightning Barrier for Measurement & Control Connections - 110V	<b>\$138.13</b>
<b>FRD 5 HF</b>	Lightning Barrier for High Frequency Measurement Connections - 5V	<b>\$138.13</b>
<b>FRD 24 HF</b>	Lightning Barrier for High Frequency Measurement Connections - 24V	<b>\$188.26</b>

## MDP SERIES MULTI-CABLE PROTECTION



<b>MDP-2/D-5-T</b>	Terminal Lightning Barrier, 5V, 2 Pole	<b>\$240.01</b>
<b>MDP-3/D-5-T</b>	Terminal Lightning Barrier, 5V, 3 Pole	<b>\$302.57</b>
<b>MDP-4/D-5-T</b>	Terminal Lightning Barrier, 5V, 4 Pole	<b>\$366.56</b>
<b>MDP-2/D-24-T</b>	Terminal Lightning Barrier, 24V, 2 Pole	<b>\$240.01</b>
<b>MDP-3/D-24-T</b>	Terminal Lightning Barrier, 24V, 3 Pole	<b>\$240.01</b>
<b>MDP-4/D-24-T</b>	Terminal Lightning Barrier, 24V, 4 Pole	<b>\$366.56</b>
<b>MDP-2/D-48-T</b>	Terminal Lightning Barrier, 48V, 2 Pole	<b>\$240.01</b>
<b>MDP-3/D-48-T</b>	Terminal Lightning Barrier, 48V, 3 Pole	<b>\$302.57</b>
<b>MDP-4/D-48-T</b>	Terminal Lightning Barrier, 48V, 4 Pole	<b>\$366.56</b>
<b>VB-MDP/10-MD</b>	MDP Series Connection Bridge, 10 Pole	<b>\$30.55</b>
<b>LFC</b>	Life Control Tester for the MDP Lightning Barriers	<b>POA</b>

# DATA & CONTROL PROTECTION

## MDP SERIES MULTI-CABLE PROTECTION (EX)



MDP-4-D-5-EX	Terminal Lightning Barrier for EX MCR Circuits - 5V, 4 Pole	\$311.67
MDP-4-D-24-EX	Terminal Lightning Barrier for EX MCR Circuits - 24V, 4 Pole	\$311.67
MDP-4-D48-EX	Terminal Lightning Barrier for EX MCR Circuits - 48V, 4 Pole	\$311.67

## EARTH SYSTEM SPARK GAP ARRESTORS (EX)



480-180	Spark Gap Arrestor (EX)- closed type with 180mm leads	\$501.94
480-250	Spark Gap Arrestor (EX)- closed type with 250mm leads	\$521.22
480-350	Spark Gap Arrestor (EX)- closed type with 350mm leads	\$540.50
481	Spark Gap Arrestor	\$247.91

## PETROL FIELD PROTECTOR (EX)



FDB-2-24-M	Petrol Field Protector - 24V, 2 Pole, M20 Thread	\$289.07
FDB-2-24-N	Petrol Field Protector - 24V, 2 Pole, 1/2" NPT Thread	\$289.07
FDB-3-24-M	Petrol Field Protector - 24V, 3 Pole, M20 Thread	\$289.07
FDB-3-24-N	Petrol Field Protector - 24V, 3 Pole, 1/2" NPT Thread	\$289.07



Please ask for a copy of the OBO Bettermann lighting and surge voltage protection catalogue.