

VSP Series



Description:

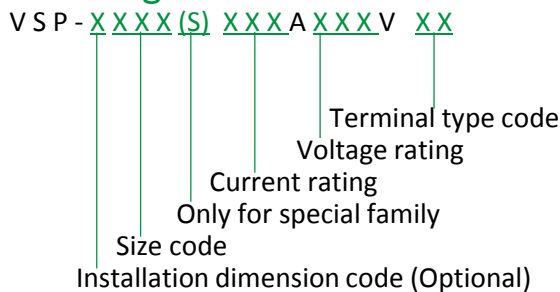
VSP series square body fuses are designed for semiconductor protection. It can provide protection for semiconductor, rectifier, AC/DC drive and UPS, etc.

Features:

- Designed according to IEC60269, DIN43620, GB13539
- Complying with CE and RoHS
- UL certificated
- Multiple mounting configurations
 - Terminal D11 (DIN 43 653)
 - Terminal D08 (DIN 43 620)
 - Terminal FS (Flush End)
 - Terminal FB (French Style)
 - Terminal AB (US Style)
 - Terminal BB (Buss-bar Style)
- Operating class:
 - gR for semiconductor protection
 - aR for semiconductor protection



Ordering Information:



Note:

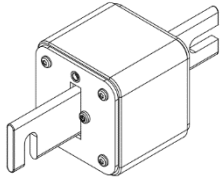
For size code, size B is defaulted.
 While terminal type is optional, the terminal type code should be indicated immediately behind the voltage rating, and the D11 type is default;
 Indicator is optional, and followed by a indicator code while indicator is necessary, such as V1 for type 1 visual Indicator (default), V2 for type 2 visual Indicator, T for type T indicator, K for type K indicator, etc. Read [Introduction for indicators](#) for more detail.
 While gR/aR are optional, aR is default and gR should followed the indicator code.
 Eg. VSP-B 100A690V D08-V2-gR

Terminal type code	Terminal type
D11	Terminal D11
D08	Terminal D08
FS	Terminal FS
FB	Terminal FB
AB	Terminal AB
BB	Terminal BB

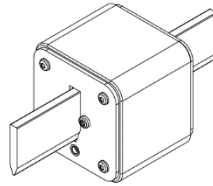
Size code	Maximum cross section size of body	
000	21×36	
00	30×47	
0	30×65	
A	45×45	
B	53×53	
C	61×61	
D	68×68	
E	76×76	
F	78×78	
G	85×85	
H	105×105	
I	118×118	

Semiconductor Protection Fuses

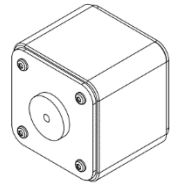
Terminal type:



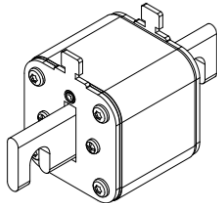
Terminal D11



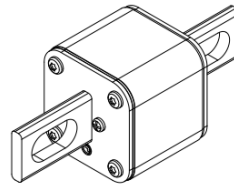
Terminal D08



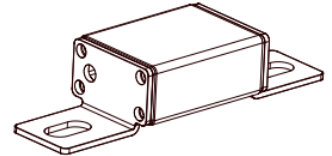
Terminal FS



Terminal FB



Terminal AB



Terminal BB

Fuse Selection Recommendations

Selection of The Voltage Rating U_n

The voltage rating U_n of a semiconductor fuse should be larger than the line to line voltage $U_{\text{line to line}}$ and fault voltage U_{fault} :

$$U_n > U_{\text{line to line}} \ \& \ U_n > U_{\text{fault}}$$

In regenerative DC drives, U_{fault} is higher than $U_{\text{line to line}}$;

Faults are not always with an AC voltage (inverters & regenerative DC drives);

Examples: Generally, the fuse voltage rating U_n should satisfy the following conditions.

Fuse complying with IEC 60269	For most ratings	$1.06 U_n \geq U_{\text{ac max}}$
	For some ratings	$1.1 U_n \geq U_{\text{ac max}}$
	For some 690V fuses	$1.05 U_n \geq U_{\text{ac max}}$
Fuses complying with UL248 only		$U_n \geq U_{\text{ac max}}$

Note: $U_{\text{ac max}}$ is the max R.M.S. value of the line to line voltage.
 $U_{\text{ac max}}$ = rated voltage + possible variation (usually +5% to 10%).

Selection of The Current Rating I_n

The current rating of the fuse I_n should be larger than the R.M.S. value in the circuit.

$$I_n \geq I_{\text{R.M.S.}}$$

Corrective coefficients should be taking into account for some special conditions:

- ambient temperature inside the cubicle;
- cooling;
- size of cables or bars connected to the fuse;
- variations of the current;

What's more, a suitable melting curve at 15ms would be required while coordinating with a circuit breaker. A fuse rating larger than that calculated from the R.M.S. value of the current would be required in such coordination.

Selection of The Total I^2t

The total I^2t should be less than that of the semiconductor junction and the semiconductor case rupture:

$$\text{Total } I^2t \text{ of the fuse} < I^2t \text{ of the semiconductor junction}$$

&

$$\text{Total } I^2t \text{ of the fuse} < I^2t \text{ of the semiconductor case rupture}$$

A lower voltage is always selected in real application. In this case, the total I^2t would be reduced as the current limiting action is more effective.

Selection of The Breaking Capacity

The breaking capacity of the fuse I_R should be higher than the largest R.M.S. value of the short circuit current I_{fault} :

$$I_R > I_{fault}$$

Selection of The Minimum Interrupting Capacity

The minimum interrupting capacity of the fuse should be higher than the minimum fault current.

Selection of The Arc Voltage

The peak arc voltage of the fuse should be less than the reverse voltage of the semiconductor. Generally, a curve of maximum peak arc voltages VS applied voltage would be required while considering the arc voltage.

Selection for Circuit with Overload Current

“Overload” is generally used for excess current flowing in a circuit which is electrically sound. Overload currents are usually not much greater than the normal full-load current of the system. As a rough rule, the overload current is less than 8 or 10 times the current rating.

The imposed max overload current I_{max} is related with the duration and the frequency of occurrence. While select a fuse for the application, it is helpful to utilize the time/current curve of the fuse and the formula “ $I_{max} < \text{factor \%} \times I_t$ ”. I_t can be read from the time/current curve for a certain time t . The general guidelines are listed as follow:

Frequency of Occurrence	Overloads	
	> 1 sec	< 1 sec
Less than once per month	$I_{max} < 80\% \times I_t$	$I_{max} < 70\% \times I_t$
Less than twice per week	$I_{max} < 70\% \times I_t$	$I_{max} < 60\% \times I_t$
Several times per day	$I_{max} < 60\% \times I_t$	$I_{max} < 50\% \times I_t$

Example:

Considering a circuit should withstand some occurrence of overload current and need for short-circuit current protection. Then the VSP 400A700V FS-K would be taken as an example.

VSP 400A700V FS-K is designed according to IEC 60269 (690V), and it is certificated by UL (700V). The total I^2t is $103.6 \times 10^3 \text{ A}^2\text{s}$, the breaking capacity is 100kA (700V), the max arc voltage is about 1300V while the applied voltage is 700V.



Therefore,

the $U_{ac\ max}$ in a circuit should be less than $1.05 \times 690V = 724.5V$;

the R.M.S. value in the circuit $I_{R.M.S} < 400A$;

the total I^2t of the semiconductor junction or the semiconductor case rupture should be larger than $103.6 \times 10^3 A^2s$;

the short circuit current I_{fault} should be less than $100kA$;

the max reverse voltage of the semiconductor should be less than $1300V$ while the applied voltage is $700V$;

the imposed max overload current I_{max} should be less than $570A$ while an overload occurs one time per hour and last for 60 sec. It is calculated from the expression $I_{max} < 60\% \times I_t$ with I_t read from the time/current curve of VSP 400A700V FS-K.

While all the situation in the circuit satisfying the above conditions, VSP 400A700V FS-K is the right fuse you are looking for. If not, try another one.

690V

Ratings:

Voltage Rating:

- AC 380V
- AC 500V
- AC 690V
- AC 1000V

Current Rating:

- 10A-1000A

Interrupt Rating:

- 100kA-200kA

Terminal D11

Mechanical Dimensions:

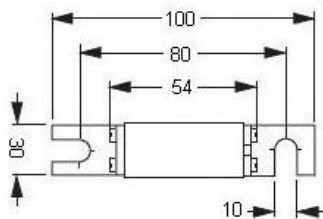


Fig. 1

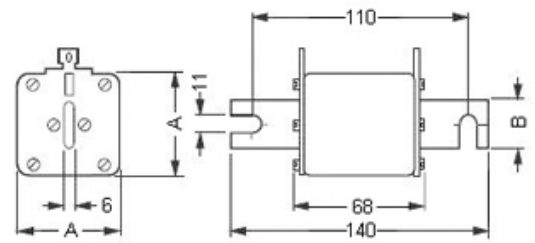
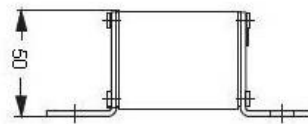


Fig. 2

Size	Current Rating (A)	Mechanical Dimensions (Tolerances: $\pm 3.5\text{mm}$)		
		A	B	C
00	25-400	Shown in Fig. 1		
BS	80-250	48	26	135
CS	200-400	58	32	150
DS	315-630	68	38	150

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Voltage Rating (V)	Interrupt Rating	Weight & Packaging
VSP-00	25	AC 380V	100kA	0.2 KG/PCS (app.) 10PCS/Carton
	32			
	40			
	50			
	63			
	80	AC 500V		
	100			
	125			
	160	AC 690V		
	200			
	250			
315				
VSP-BS	350	AC 1000V	100kA	0.5 KG/PCS (app.) 10PCS/Carton
	400			
	80			
	100			
	125			
	200			
	250			

690V

Catalog Numbers	Current Rating (A)	Voltage Rating (V)	Interrupt Rating	Weight & Packaging
VSP-CS	200	AC 380V AC 500V AC 690V	100kA	0.7KG/PCS (app.) 10PCS/Carton
	250			
	280			
	315			
	355			
VSP-DS	400	AC 1000V		0.9KG/PCS (app.) 10PCS/Carton
	315			
	400			
	450			
	500			
	630			

690V

Terminal D08

Mechanical Dimensions:

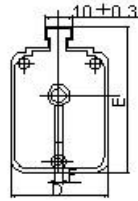
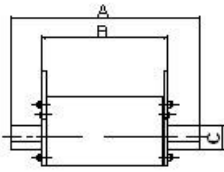


Fig. 1

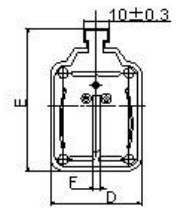
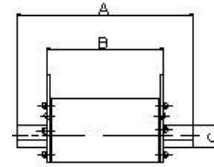


Fig. 2

Size	Ref. Fig.	Current Rating (A)	Mechanical Dimensions (Tolerances: ±3.5mm)					
			A	B	C	D	E	F
000	1	10-315	78	49	15	21	48	6
00	1	25-160	78	49	15	29	57	6
BS	2	80-250	132	66	20	48	62	6
CS	2	200-400	148	67	26	58	71	6
DS	2	350-630	148	67	32	67	85	6

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Voltage Rating (V)	Interrupt Rating	Note
VSP-000	10	AC 690V (IEC) AC 700V (UL)	100kA@690V	aR
	16			
	20			
	25			
	32			
	40			
	50			
	63			
	80			
	100			
	125			
	160			
	200			
250				
315				

690V

Catalog Numbers	Current Rating (A)	Voltage Rating (V)	Interrupt Rating	Note
VSP-00	25			
	32			
	40			
	50			
	63			
	80			
	100			
	125			
	160			
VSP-BS	80	AC 690V (IEC) AC 700V (UL)	100kA@690V	aR
	100			
	125			
	160			
	200			
	250			
VSP-CS	200			
	250			
	315			
	350			
	400			
VSP-DS	350			
	400			
	450			
	500			
	630			

690V

Fuse Base for VSP-XX XXXA690V D08 Series

Basic Information:

Products Pic.	Catalog Numbers	Referred Fuse	Current Rating (A)	Voltage Rating (V)	Connection Style	Weight & Packaging
	NT00-SIST101	VSP-000 XXXA690V D08 & VSP-00 XXXA690V D08	160	AC 500V AC 690V DC 250V	One pole, for double terminal connection	225g/PCS (app.) 3PCS/Carton
	NT1-SIST201	VSP-BS XXXA690V D08	250		One pole, for double terminal connection	740g/PCS (app.) 1PCS/Carton
	NT2-SIST401	VSP-CS XXXA690V D08	400	AC 500V AC 690V DC 440V	One pole, for double terminal connection	1110g/PCS (app.) 1PCS/Carton
	NT3-SIST601	VSP-DS XXXA690V D08	630		One pole screw-type connection , With terminal	1310g/PCS (app.) 1PCS/Carton

690V

Fuse Base for VSP-XX XXXA690V D08 Series

Mechanical Dimensions:

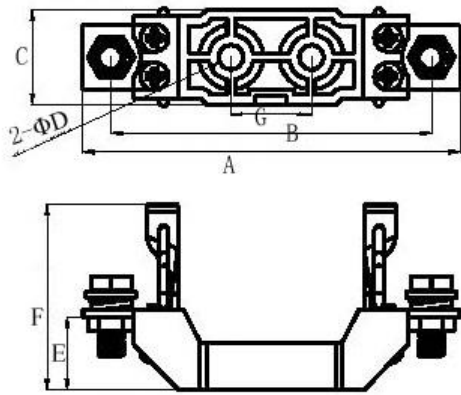


Fig. 1

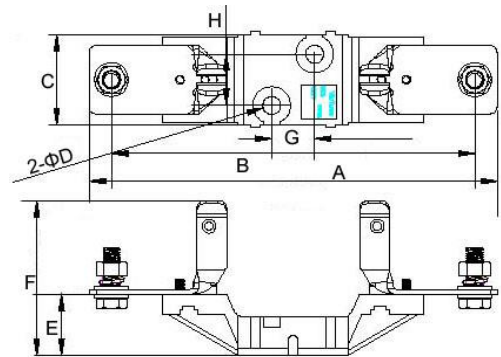


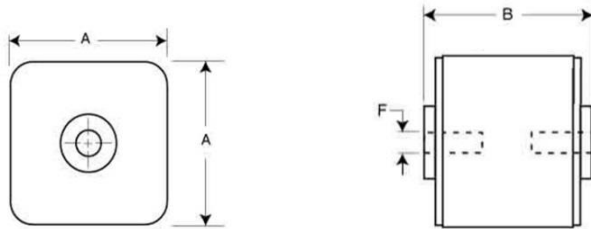
Fig. 2

Catalog Numbers	Ref. Fig.	Current Rating (A)	Mechanical Dimensions (Tolerances: ±4mm)							
			A	B	C	φD	E	F	G	H
NT00-SIST101	1	160	118	100	30	7	23	57	25	-
NT1-SIST201	2	250	200	175	53	10	34	82	25	30
NT2-SIST401		400	225	200	53	10	35	95	25	30
NT3-SIST601		630	237	210	53	10	35	90	25	30

690V

Terminal FS

Mechanical Dimensions:



Size	Current Rating (A)	Mechanical Dimensions (Tolerances: $\pm 3.5\text{mm}$)		
		A	B	F
CS	200-400	58	77	10
DS	315-630	68	77	12

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Voltage Rating (V)	Interrupt Rating	Weight & Packaging
VSP-CS	200	AC 500V AC 690V	100kA	*
	250			
	280			
	315			
	355			
	400			
VSP-DS	315	AC 1000V	100kA	*
	355			
	400			
	450			
	500			
	630			

690V

Terminal BB

Mechanical Dimensions:

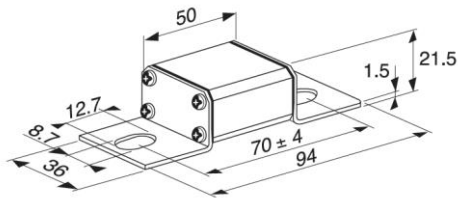


Fig. 1

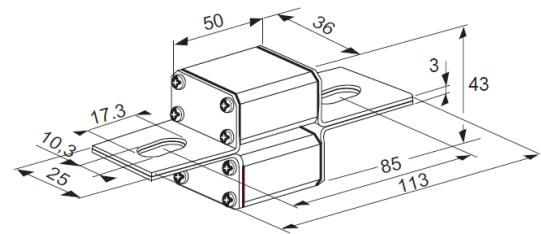


Fig. 2

Electrical Specifications:

Catalog Numbers	Ref. Fig.	Current Rating (A)	Voltage Rating (V)	Interrupt Rating	Note
VSP-000	1	20	AC 690V	200kA @690V AC	gR
		25			
		32			
		40			
		50			
		63			
		80			
		100			
		125			
		160			
		200			
		250			
		315			
				350	
400					
2×VSP-000	2	175	AC 690V	200kA @690V AC	
		200			
		235			
		300			
		325			
		355			
		400			
		450			
		500			
		630			

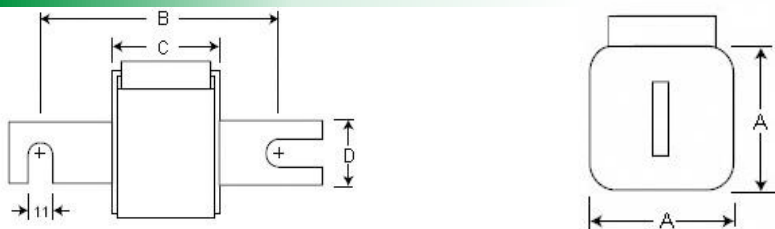
690V (IEC) / 700V (UL)

Ratings:

Voltage Rating:
 AC 690V (IEC)
 AC 700V (UL)
 Current Rating:
 20A-7500A
 Interrupt Rating:
 200KA

Mechanical Dimensions:

Terminal D11



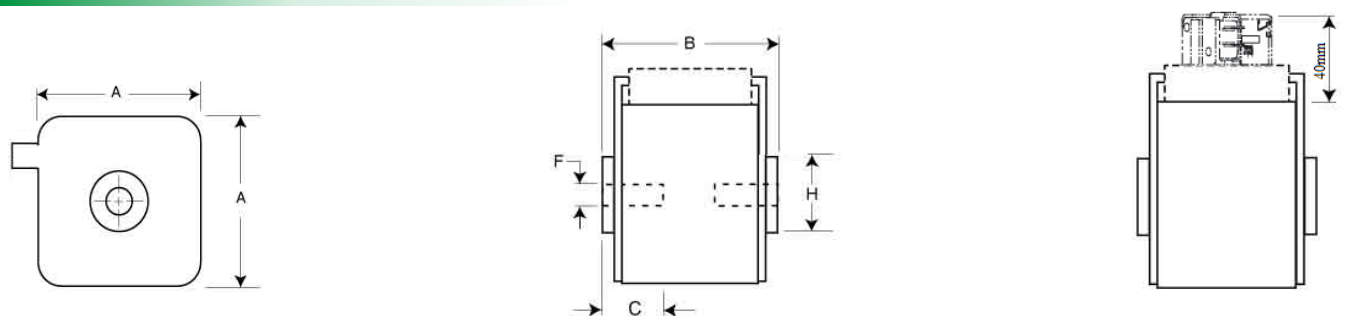
Size	Current Rating (A)	Mechanical Dimensions (mm)				
		A	Type LL Contact B	Type L Contact B	C	D
A	40-630	45	108	78	50	22
B	200-900	53	108	78	50	25
C	400-1250	60	108	78	50	25
E	500-2000	75	108	78	51	30

Note:

Type LL contact and Type L contact is optional for Installation dimension B, and Type L contact should be indicated while ordering (eg. VSP-LE 1500A700V D11).

Terminal D08 (See NT1/NT2/NT3)

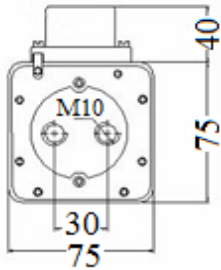
Terminal FS



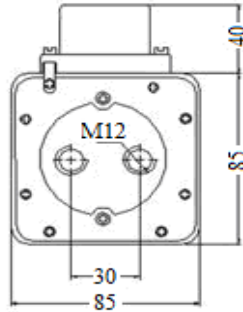
Size	Current Rating (A)	Mechanical Dimensions (mm)				
		A	B	C	H	F
A	40-630	45	51	5	Φ17	M8
B	200-900	53	51	8	Φ20	M8
C	400-1250	61	51	10	Φ24	M10
E	500-2000	76	53	10	Φ30	M12
G	2000-2800	85	58	10	Φ30	M14
H	2800-4000	105	67	15	Φ45	M16

690V (IEC) / 700V (UL)

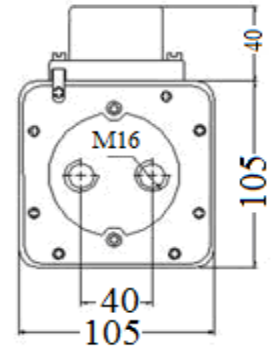
Note:



Size F Double M10

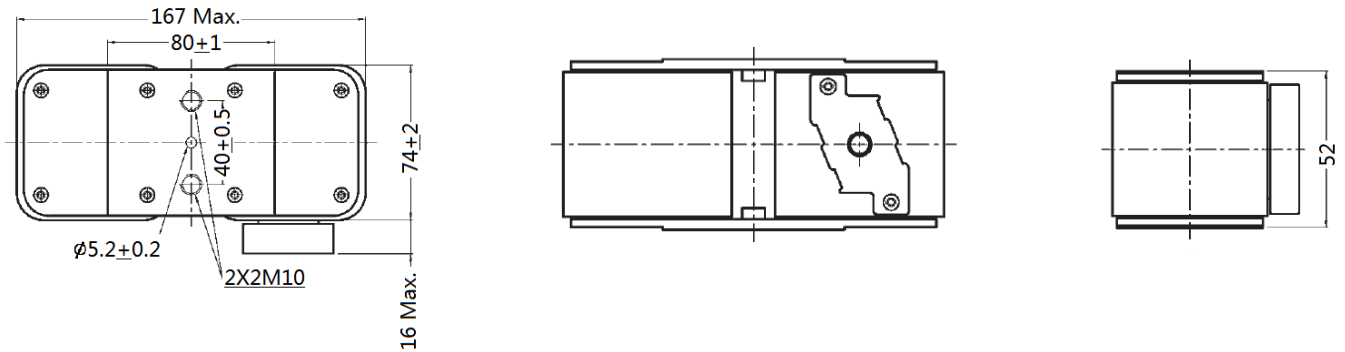


Size G Double M12

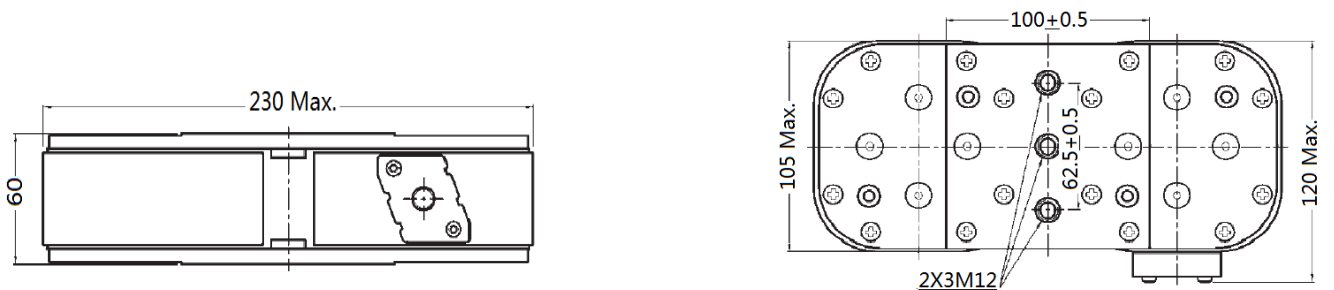


Size H Double M16

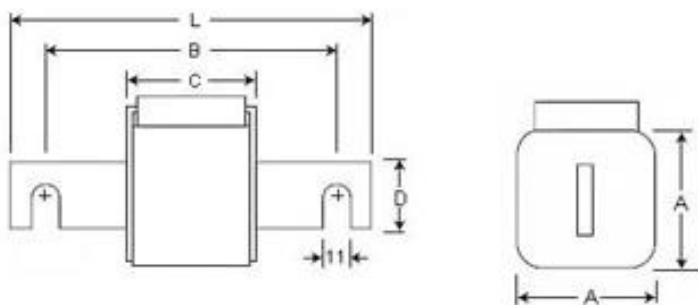
Dimensions for 2 × VSP-E



Dimensions for 2 × VSP-H



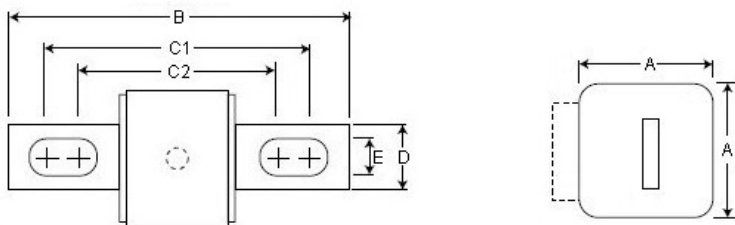
Terminal FB



690V (IEC) / 700V (UL)

Size	Current Rating (A)	Mechanical Dimensions (mm)				
		A	B	C	D	L
A	40-630	45	76	50	18	102
B	200-900	53	86	50	25	111
C	400-1250	61	91	50	30	126
E	500-2000	75	91	51	36	126

Terminal AB



Size	Current Rating (A)	Mechanical Dimensions (mm)							
		A	B	Type LL Contact		Type L Contact		D	E
				C1	C2	C1	C2		
A	40-630	45	110	85	123	72	110	20	10
B	200-900	53	135	104	126	78	100	25	14
C	400-1250	61	135	105	125	78	99	25	14
E	500-2000	75	135	106	125	77	97	36	16

Note:

Type LL contact and Type L contact is optional for Installation dimension C1 and C2, and Type L contact should be indicated while ordering (eg. VSP-LE 1500A700V AB).

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 700V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-A	20	*	*	*	690V(IEC) 700V(UL)	200KA	gR/aR
	32	*	*	*			
	40	*	*	*			
	50	*	*	*			
	63	*	*	*			
	80	*	*	*			
	100	*	*	*			
	125	*	*	*			
	160	*	*	*			
	200	*	*	*			
250	*	*	*	*			

Note:

* For detail information, contact us please!

690V (IEC) / 700V (UL)

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 700V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note		
VSP-A	280	*	*	*	690V(IEC) 700V(UL)	200KA	gR/aR		
	315	*	*	*					
	350	*	*	*					
	400	*	*	*					
	450	*	*	*					
	500	*	*	*					
	550	*	*	*					
	630	*	*	*					
VSP-B	200	*	*	*			690V(IEC) 700V(UL)	200KA	aR
	250	*	*	*					
	315	*	*	*					
	350	*	*	*					
	400	*	*	*					
	450	*	*	*					
	500	*	*	*					
	550	*	*	*					
	630	*	*	*					
	700	*	*	*					
800	*	*	*						
900	*	*	*						
VSP-C	400	*	*	*	690V(IEC) 700V(UL)	200KA	aR		
	450	*	*	*					
	500	*	*	*					
	550	*	*	*					
	630	*	*	*					
	700	*	*	*					
	800	*	*	*					
	900	*	*	*					
	1000	*	*	*					
	1100	*	*	*					
1250	*	*	*						
VSP-E	500	*	*	*	690V(IEC) 700V(UL)	200KA	aR		
	550	*	*	*					
	630	*	*	*					
	700	*	*	*					
	800	*	*	*					
	900	*	*	*					

Note:

* For detail information, contact us please!

690V (IEC) / 700V (UL)

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 700V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-E	1000	*	*	*	690V(IEC) 700V(UL)	200KA	aR
	1100	*	*	*			
	1250	*	*	*			
	1400	*	*	*			
	1500	*	*	*			
	1600	*	*	*			
	1800	*	*	*			
	2000	*	*	*			
VSP-G	2000	*	*	*	690V(IEC) 700V(UL)	200KA	aR
	2200	*	*	*			
	2300	*	*	*			
	2500	*	*	*			
	2800	*	*	*			
VSP-H	1000	*	*	*	690V(IEC) 700V(UL)	200KA	aR
	1250	*	*	*			
	1400	*	*	*			
	1600	*	*	*			
	2000	*	*	*			
	2500	*	*	*			
	3000	*	*	*			
	3500	*	*	*			
2×VSP-E	1000	*	*	*	660V 600V 550V	200KA	aR
	1100	*	*	*			
	1250	*	*	*			
	1400	*	*	*			
	1500	*	*	*			
	1600	*	*	*			
	1800	*	*	*			
	2000	*	*	*			
	2200	*	*	*			
	2500	*	*	*			
	3000	*	*	*			
	3500	*	*	*			
	4000	*	*	*			
2×VSP-H	2000	*	*	*	690V	200KA	aR
	2500	*	*	*			

Note:

* For detail information, contact us please!

690V (IEC) / 700V (UL)

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 700V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-H	3000	*	*	*	690V	200KA	aR
	3500	*	*	*			
	4000	*	*	*			
	4500	*	*	*			
	5000	*	*	*			
	5500	*	*	*			
	6000	*	*	*			
	6500	*	*	*			
	7000	*	*	*			
	7500	*	*	*	500V		

Note:

* For detail information, contact us please!

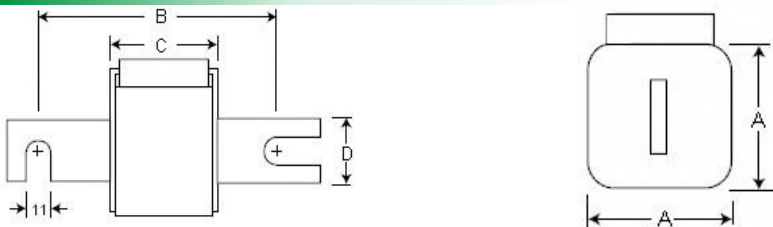
1000V (IEC) / 1100V (UL)

Ratings:

Voltage Rating:
 AC 1000V (IEC)
 AC 1100V (UL)
 Current Rating:
 50A-4000A
 Interrupt Rating:
 200KA

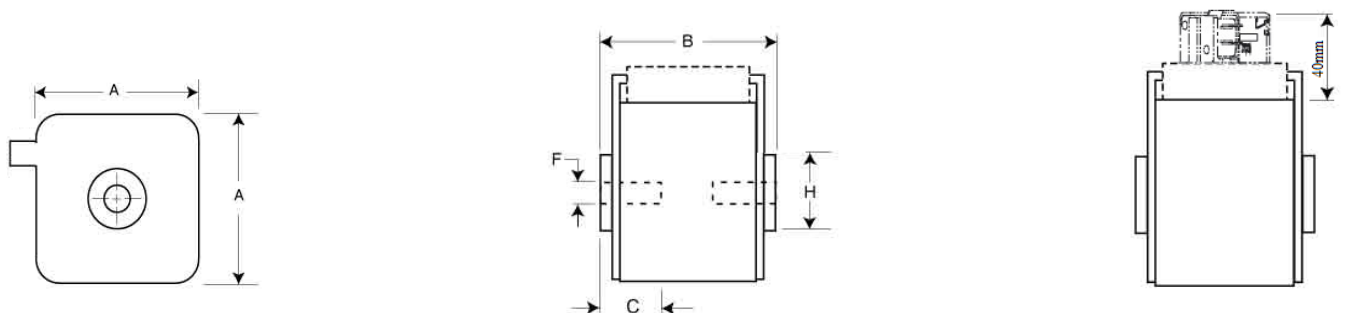
Mechanical Dimensions:

Terminal D11



Size	Current Rating (A)	Mechanical Dimensions (mm)			
		A	B	C	D
A	50-400	45	108	80	22
B	160-630	51	108	80	25
C	250-800	60	108	80	25
E	350-1400	75	108	81	32

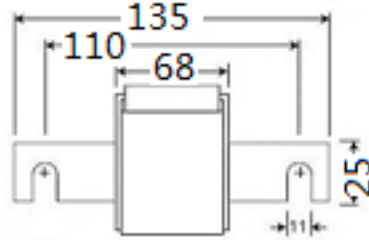
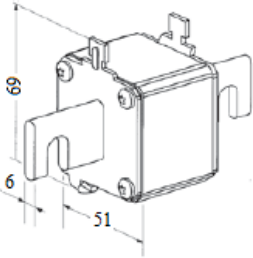
Terminal FS



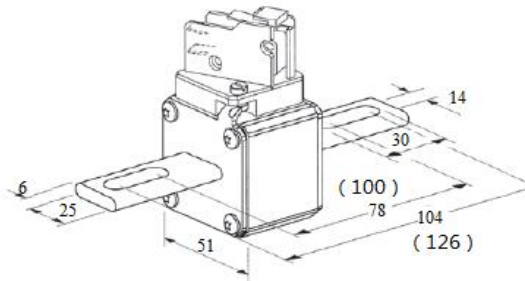
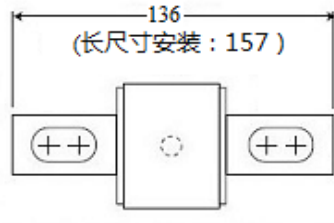
Size	Current Rating (A)	Mechanical Dimensions (mm)				
		A	B	C	H	F
A	50-400	45	74	5	Φ17.5	M8
B	160-630	53	74	8	Φ20.0	M8
C	250-800	60	74	10	Φ24.0	M10
E	350-1400	75	75	10	Φ30.0	M12
G	900-2800	85	78	12	Φ35.0	M12
H	1000-2700	105	80	12	Φ40.0	M16
I	3000-4000	118	80	16	Φ45.0	M16

1000V (IEC) / 1100V (UL)

Terminal FB



Terminal AB



Electrical Specifications:

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 1100V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-A	50	*	*	*	1000V(IEC) 1100V(UL)	200KA	aR
	63	*	*	*			
	80	*	*	*			
	100	*	*	*			
	125	*	*	*			
	160	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
VSP-B	160	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			

Note:

* For detail information, contact us please!

1000V (IEC) / 1100V (UL)

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 1100V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-B	350	*	*	*	1000V(IEC) 1100V(UL)	200KA	aR
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			
VSP-C	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			
VSP-E	800	*	*	*			
	350	*	*	*			
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			
	800	*	*	*			
	900	*	*	*			
	1000	*	*	*			
	1100	*	*	*			
	1250	*	*	*			
VSP-G	1400	*	*	*			
	900	*	*	*			
	1000	*	*	*			
	1100	*	*	*			
	1250	*	*	*			
	1400	*	*	*			
	1500	*	*	*			
	1600	*	*	*			
	1800	*	*	*			
	2000	*	*	*			
2200	*	*	*				

Note:

* For detail information, contact us please!

1000V (IEC) / 1100V (UL)

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 1100V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-G	2300	*	*	*	1000V(IEC) 1100V(UL)	200KA	aR
	2500	*	*	*			
	2800	*	*	*			
VSP-H	1000	*	*	*			
	1100	*	*	*			
	1500	*	*	*			
	1700	*	*	*			
	2000	*	*	*			
	2200	*	*	*			
	2500	*	*	*			
	2700	*	*	*			
VSP-I	3000	*	*	*			
	3600	*	*	*			
	4000	*	*	*			

Note:

* For detail information, contact us please!

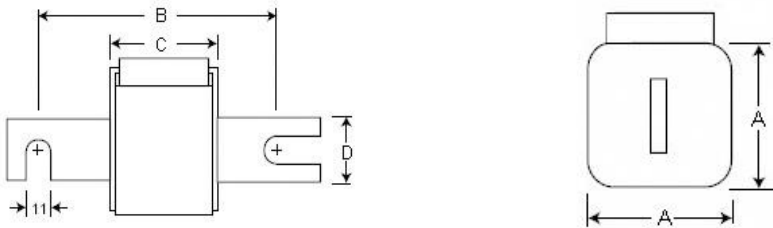
1250V (IEC) / 1300V (UL)

Ratings:

Voltage Rating:
 AC 1250V (IEC)
 AC 1300V (UL)
 Current Rating:
 50A-4000A
 Interrupt Rating:
 100KA

Mechanical Dimensions:

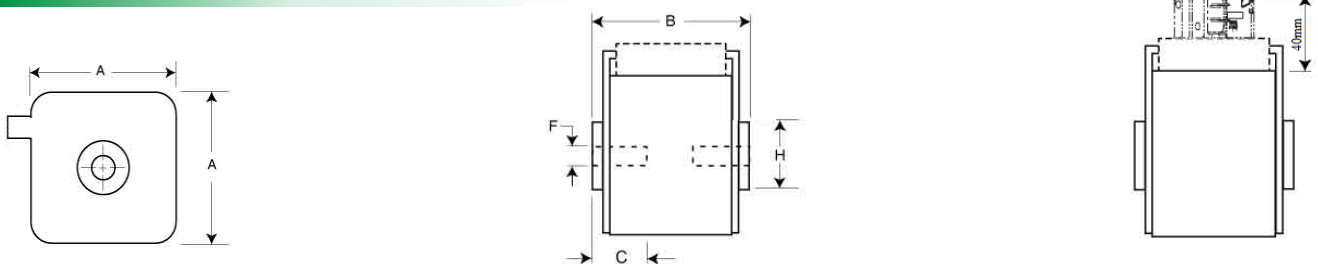
Terminal D11



Size	Current Rating (A)	Mechanical Dimensions (mm)			
		A	B	C	D
A	50-400	45	110	65	25
B	160-630	53	110	65	25
C	250-1000	60	110	65	25
E	315-1500	75	110	65	30

Terminal D08 (See NT1/NT2/NT3)

Terminal FS



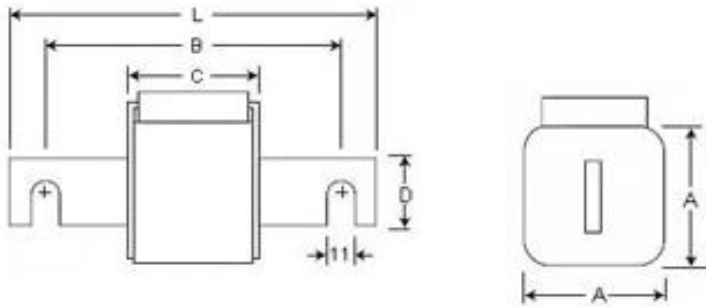
Size	Current Rating (A)	Mechanical Dimensions (mm)				
		A	B	C	H	F
A	50-400	45	74/80	5	Φ17.0	M8
B	160-630	53	74/81	8	Φ20.0	M8
C	250-1000	61	74/81/91	10	Φ24.0	M10
E	315-1500	75	75/83/91	10	Φ30.0	M12
G	1500-2200	85	78	12	Φ35.0	M12
H	1400-2800	105	80	12	Φ56.0	M16
I	2800-4000	118	80	16	Φ60.0	M16

Note:

Multi type of length is optional for Installation dimension B of fuse with size A, B, C and E, and dimension B should be indicated while ordering (eg. VSP-83E 500A1300V D11).

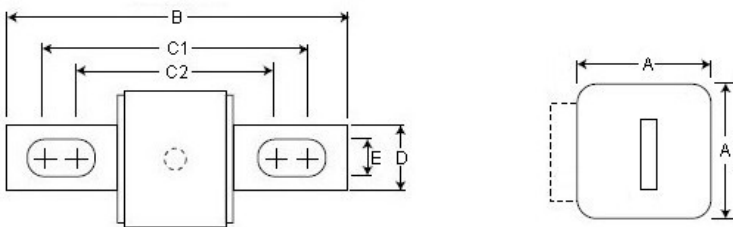
1250V (IEC) / 1300V (UL)

Terminal FB



Size	Current Rating (A)	Mechanical Dimensions (mm)				
		A	B	C	D	L
A	50-400	45	76	50	18	102
B	160-630	53	86	50	25	111
C	250-1000	61	91	50	30	126
E	315-1500	75	91	51	36	126

Terminal AB



Size	Current Rating (A)	Mechanical Dimensions (mm)					
		A	B	Type LL Contact		D	E
				C1	C2		
A	50-400	45	156	130	101	20	10
B	160-630	53	160	127	102	25	14
C	250-1000	61	160	127	102	25	14
E	315-1500	75	160	128	101	36	16

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 1300V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-A	50	*	*	*	1250V (IEC)	100KA	aR
	63	*	*	*			
	80	*	*	*	1300V (UL)		
	100	*	*	*			

Note:

* For detail information, contact us please!

1250V (IEC) / 1300V (UL)

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 1300V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-A	125	*	*	*	1250V (IEC) 1300V (UL)	100KA	aR
	160	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
	400	*	*	*			
VSP-B	160	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			
VSP-C	250	*	*	*			
	280	*	*	*			
	315	*	*	*			
	350	*	*	*			
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			
	700	*	*	*			
	800	*	*	*			
	900	*	*	*			
	1000	*	*	*			
VSP-E	315	*	*	*			
	350	*	*	*			
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			

Note:

* For detail information, contact us please!

Semiconductor Protection Fuses

1250V (IEC) / 1300V (UL)

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 1300V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-E	700	*	*	*	1250V (IEC) 1300V (UL)	100KA	aR
	800	*	*	*			
	900	*	*	*			
	1000	*	*	*			
	1100	*	*	*			
	1250	*	*	*			
	1400	*	*	*			
	1500	*	*	*			
VSP-G	1500	*	*	*			
	1600	*	*	*			
	1800	*	*	*			
	2000	*	*	*			
	2200	*	*	*			
VSP-H	1400	*	*	*			
	1500	*	*	*			
	1700	*	*	*			
	1800	*	*	*			
	2000	*	*	*			
	2200	*	*	*			
	2400	*	*	*			
	2500	*	*	*			
VSP-I	2800	*	*	*			
	3000	*	*	*			
	3200	*	*	*			
	3600	*	*	*			
	4000	*	*	*			

Note:

* For detail information, contact us please!

1500V

Ratings:

Voltage Rating:

AC 1500V

Current Rating:

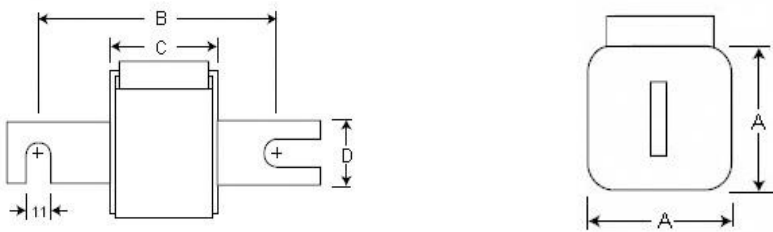
100A-2500A

Interrupt Rating:

100KA

Mechanical Dimensions:

Terminal D11

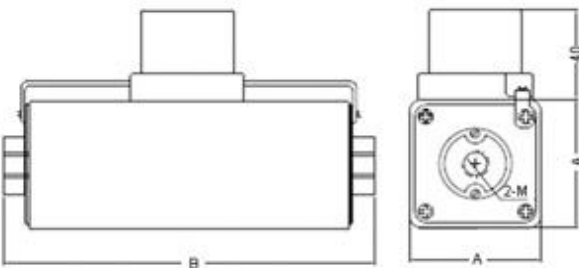


Size	Current Rating (A)	Mechanical Dimensions (mm)				
		A	Type LL Contact B	Type L Contact B	C	D
B	100-350	53	162	140	117	25
E	250-750	75	162	140	117	30

Note:

Type LL contact and Type L contact is optional for Installation dimension B, and Type L contact should be indicated while ordering (eg. VSP-LE 500A1500V D11).

Terminal FS



Size	Current Rating (A)	Mechanical Dimensions (mm)		
		A	B	M
B	100-350	51	128	M8
E	250-750	75	96/108/130	M12
G	800-1600	85	130	M12
I	1600-2500	75	100/132	M12

1500V

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 1500V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-B	100	*	*	*	1500 V	100 kA	aR
	125	*	*	*			
	160	*	*	*			
	180	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
VSP-E	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
	375	*	*	*			
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			
	700	*	*	*			
VSP-G	750	*	*	*			
	800	*	*	*			
	900	*	*	*			
	1000	*	*	*			
	1100	*	*	*			
	1250	*	*	*			
	1400	*	*	*			
	1500	*	*	*			
VSP-I	1600	*	*	*			
	1800	*	*	*			
	2000	*	*	*			
	2200	*	*	*			
	2300	*	*	*			
	2500	*	*	*			

Note:

* For detail information, contact us please!

2000V

Ratings:

Voltage Rating:

AC 2000V

Current Rating:

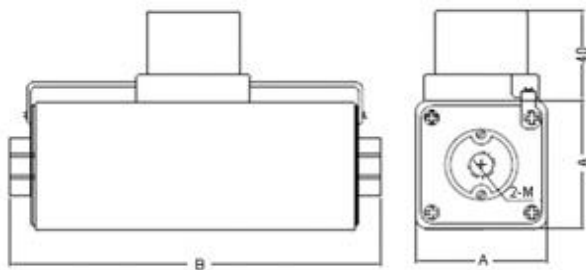
100A-2500A

Interrupt Rating:

100KA

Mechanical Dimensions:

Terminal FS



Size	Current Rating (A)	Mechanical Dimensions (mm)		
		A	B	M
B	100-350	51	128	M8
E	250-800	75	130/148	M12
G	800-1400	85	130	M12
I	1500-2500	118	132	M16

Note:

Multi type of length is optional for Installation dimension B of fuse with size E, and dimension B should be indicated while ordering (eg. VSP-130E 500A2000V D11).

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2 t$ (A ² s)	$10^3 \times I^2 t$ (A ² s, 2000V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-B	100	*	*	*	2000 V	100 kA	aR
	125	*	*	*			
	160	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			
VSP-E	350	*	*	*			
	250	*	*	*			
	315	*	*	*			
	350	*	*	*			

Note:

* For detail information, contact us please!

2000V

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 2000V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-E	375	*	*	*	2000 V	100 kA	aR
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			
	700	*	*	*			
	750	*	*	*			
	800	*	*	*			
VSP-H	800	*	*	*			
	900	*	*	*			
	1000	*	*	*			
	1100	*	*	*			
	1250	*	*	*			
	1400	*	*	*			
VSP-I	1500	*	*	*			
	1600	*	*	*			
	1800	*	*	*			
	2000	*	*	*			
	2200	*	*	*			
	2300	*	*	*			
	2500	*	*	*			

Note:

* For detail information, contact us please!

2500V

Ratings:

Voltage Rating:

AC 2500V

Current Rating:

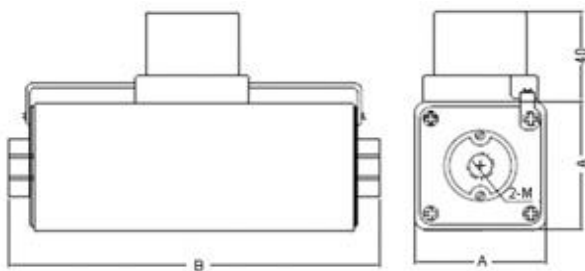
100A-2500A

Interrupt Rating:

100KA

Mechanical Dimensions:

Terminal FS



Size	Current Rating (A)	Mechanical Dimensions (mm)		
		A	B	M
B	100-350	51	128	M8
E	250-800	75	130/148	M12
G	800-1400	85	130	M12
I	1500-2500	118	132	M16

Note:

Two type of length is optional for Installation dimension B of fuse with size E, and dimension B should be indicated while ordering (eg. VSP-130E 500A2500V D11).

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 2500V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-B	100	*	*	*	2500 V	100 kA	aR
	125	*	*	*			
	160	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
VSP-E	250	*	*	*			
	315	*	*	*			
	350	*	*	*			

Note:

* For detail information, contact us please!

2500V

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 2500V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-E	375	*	*	*	2500 V	100 kA	aR
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			
	550	*	*	*			
	630	*	*	*			
	700	*	*	*			
	750	*	*	*			
	800	*	*	*			
VSP-H	800	*	*	*			
	900	*	*	*			
	1000	*	*	*			
	1100	*	*	*			
	1250	*	*	*			
	1400	*	*	*			
VSP-I	1500	*	*	*			
	1600	*	*	*			
	1800	*	*	*			
	2000	*	*	*			
	2200	*	*	*			
	2300	*	*	*			
	2500	*	*	*			

Note:

* For detail information, contact us please!

6000V

Ratings:

Voltage Rating:

AC 6000V

Current Rating:

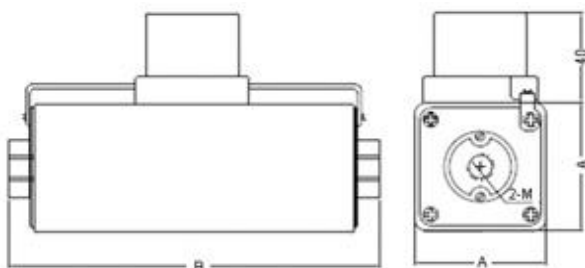
40A-800A

Interrupt Rating:

100KA

Mechanical Dimensions:

Terminal FS



Size	Current Rating (A)	Mechanical Dimensions (mm)		
		A	B	M
E	40-800	75	188	M12

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 6000V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-E	40	*	*	*	6000 V	100 kA	aR
	50	*	*	*			
	63	*	*	*			
	80	*	*	*			
	100	*	*	*			
	125	*	*	*			
	160	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			

Note:

* For detail information, contact us please!

6000V

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 6000V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-E	550	*	*	*	6000 V	100 kA	aR
	630	*	*	*			
	700	*	*	*			
	750	*	*	*			
	800	*	*	*			

Note:

* For detail information, contact us please!

10000V

Ratings:

Voltage Rating:

AC 10000V

Current Rating:

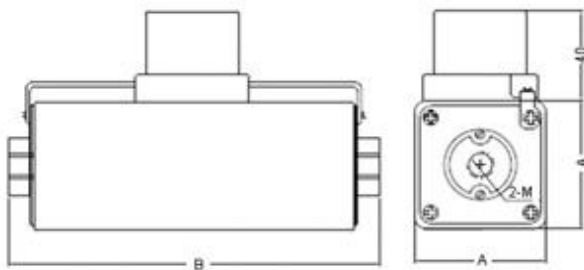
40A-800A

Interrupt Rating:

100KA

Mechanical Dimensions:

Terminal FS



Size	Current Rating (A)	Mechanical Dimensions (mm)		
		A	B	M
E	40-800	75	223	M12

Electrical Specifications:

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 10000V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-E	40	*	*	*	10000 V	100 kA	aR
	50	*	*	*			
	63	*	*	*			
	80	*	*	*			
	100	*	*	*			
	125	*	*	*			
	160	*	*	*			
	200	*	*	*			
	250	*	*	*			
	315	*	*	*			
	350	*	*	*			
	400	*	*	*			
	450	*	*	*			
	500	*	*	*			

Note:

* For detail information, contact us please!

10000V

Catalog Numbers	Current Rating (A)	Pre-arcing $10^3 \times I^2t$ (A ² s)	$10^3 \times I^2t$ (A ² s, 10000V)	Power Loss (W)	Voltage Rating (V)	Interrupt Rating	Note
VSP-E	550	*	*	*	10000 V	100 kA	aR
	630	*	*	*			
	700	*	*	*			
	750	*	*	*			
	800	*	*	*			

Note:

* For detail information, contact us please!

Caution:

1. While assembling, the closest clearance distance between two fuses should be more than 10mm, and a insulating board should be placed between them;
2. The fuse links must be changed if there are mechanical damaged;
3. The operating temperature are -5 °C to 40 °C, and the equable value of ambient air temperature should not be higher than 35 °C within 24 hour;
4. altitude: 2000 meters and below;
5. The air should be clear, and the relative humidity does not exceed 50% at a max temperature of 40 °C;
6. The rated frequency should be 45Hz to 62Hz for AC network;
7. The fuse links are installed without shaking and impact obviously.