

**Ordering Information:**

VBSXXXX-XXX A XXX V XX aR

_____ Operating class
 _____ AC, DC
 _____ Voltage rating
 _____ Current rating
 _____ Size code

Description:

VBS series semiconductor protection fuse is a kind of british style fast-acting fuse designed to provide protection for semiconductor

Features:

. Designed according to IEC60269-4/-4,BS88.4
 Complying with CE and RoHS

. Operating class: aR

Ratings:

Voltage Rating: 690VAC 800VAC 800VDC

Current Rating: 0.5A-200A

Interrupt Rating: 100kA@690VAC

50kA@800VAC

50kA@800VDC

Operating temperature and humidity: -40°C to +125°C 5% to 90%

Storage temperature and humidity: -40°C to +70°C 5% to 70%

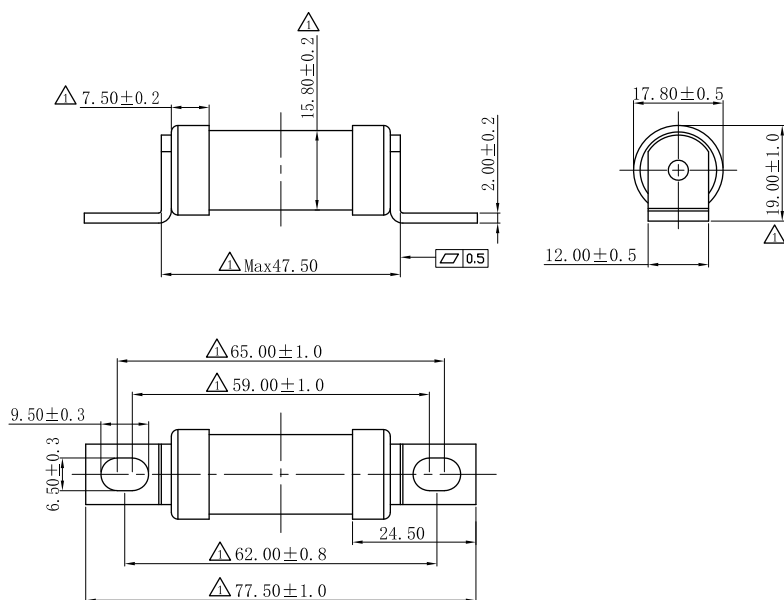
Mechanical Dimensions:


Fig.1:1749

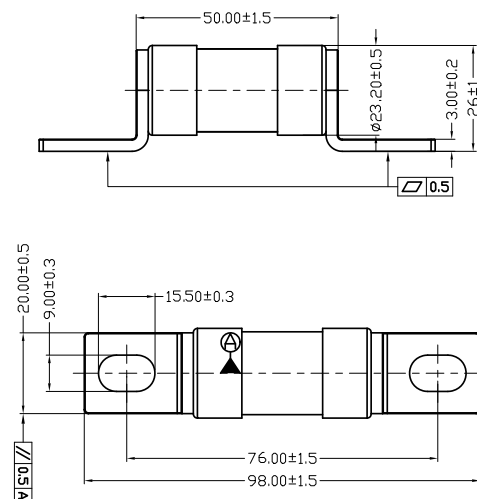
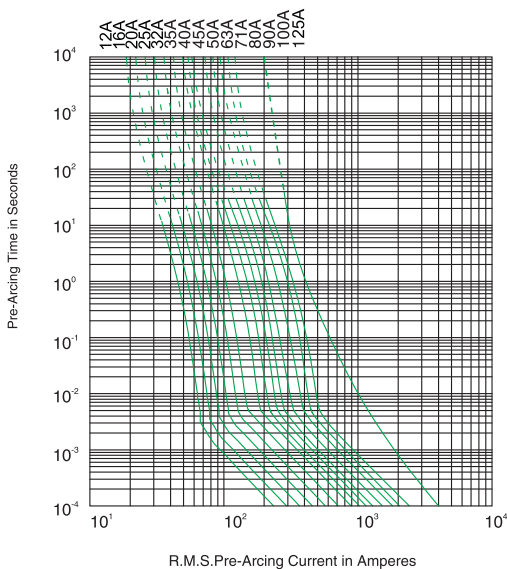


Fig.2:1749L

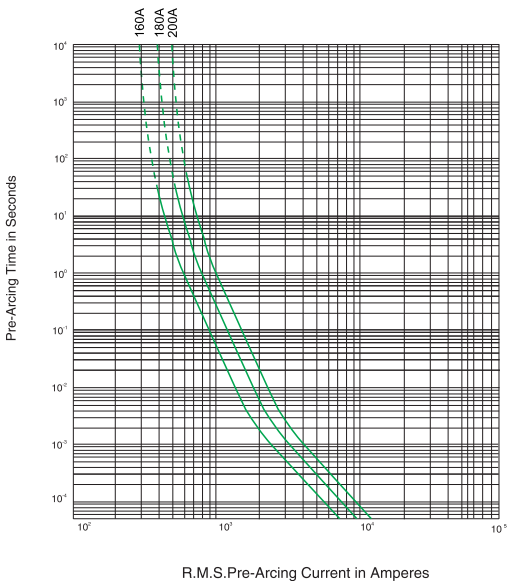
● Electrical Specifications:

Catalog Numbers	Current Rating(A)	Pre-arc I ² t(A ² S)	Clearing I ² t(A ² S)	Power Loss (W)	Voltage Rating	Interrupt Rating	Note
VBS1749	0.5	-	-	-	690V AC 800VAC 800VDC	100kA@690V AC 50kA@800VAC 50kA@800VDC	
	1	-	-	-			
	2	-	-	-			
	4	-	-	-			
	6	-	-	-			
	10	-	-	-			
	12	4.1	30	3.5			
	16	9.5	64	4.0			
	20	17	108	5.4			
	25	26.5	165	8.0			
	32	29.6	196	8.9			
	35	33.5	221	9.4			
	40	52.3	303	10.4			
	45	78.6	456	11.4			
	50	108.3	605	12.6			
	56	130.3	691	13.6			
	63	138.2	761	14.2			
	71	222	975	18.3			
	75	238	1232	19			
	80	256	1580	21.2			
VBS1749L	90	372	2150	21.8			
	100	496	2870	24			
	125	996	4770	31			
	160	4433	17634	33			
	180	6336	24560	35			
	200	7885	31350	38			

Average Time-Current Curve for VBS1749 (aR)



Average Time-Current Curve for VBS1749L (aR)



■ Temperature Correction Curve Kc

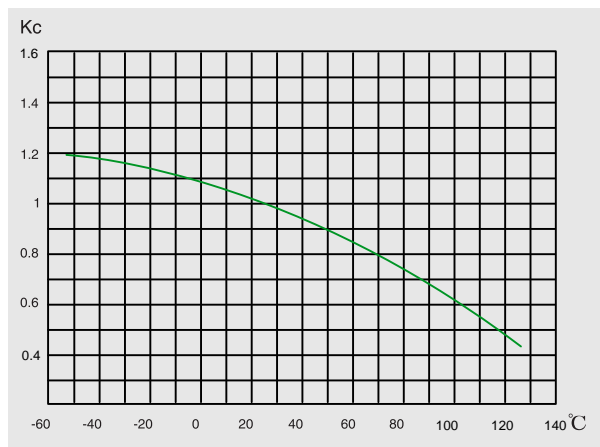
The rated current value of our fuses is based on the ambient temperature in the space below the fuse of 25°C up to 30°C max. The following graph gives correction factors Kc for a range of temperatures -55°C to +125°C.

Altitude: IEC defines normal atmospheric operating conditions. Regarding the altitude, it's generally below 2000M. For altitude above 2000M, the fuse's rated current is derated by 0.5% every 100M.

■ 温度折减率曲线Kc

熔断器的额定电流定义在温度为20°C最大不超过30°C，左图给出了从-55°C到+125°C时的温度修正曲线。

高海拔对熔断器的使用影响：IEC标准规定，熔断器在海拔2000米下使用性能不受影响；高过2000米海拔高度，每升高100米，熔断器的额定电流减少0.5%

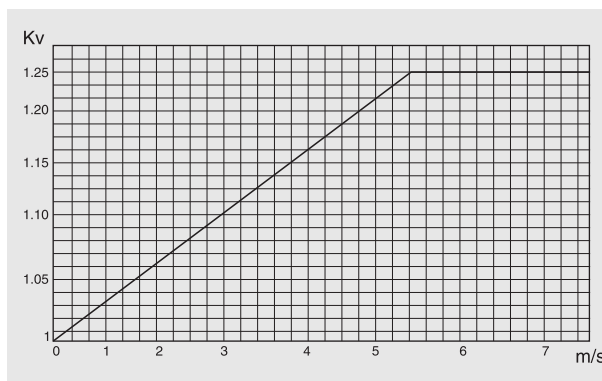


■ Forced cooling correction coefficient Kv

If forced air is used to cool the fuse in working, the continuous current rating of the fuse may be increased, by multiplying the rated current by a coefficient Kv. The value of the correction coefficient used by vicfuse is shown in the right chart above. Kv increases linearly with air speed up to 5m/s. Further increase in air speed does not improve the fuse cooling. The limiting value Kv is typically 1.25. Often, box mounted fuses are given an additional Kv factor of 0.8.

■ 冷却条件Kv

如果采用风冷方式对工作中的熔断器进行降温，则熔断器的负载在风速为5米/秒时的系数为1.25，高过此风速对熔断器的额定负载无影响，通常封闭环境内的Kv=0.8.



风速修正系数曲线

JFHR2.E356490 - Special-purpose Fuses - Component

Note: We are enhancing our systems and you may notice duplicate entries/missing/outdated data. During this interim period, please contact our Customer Service at <https://www.ul.com/about/locations>.

Special-purpose Fuses - Component

SHENZHEN VICTORS INDUSTRIAL CO LTD

503A, Unit B, Building 3, Cloud Park, Bantian, Longgang District
SHENZHEN, GUANGDONG 518129 China

E356490

Marking: Company name or trademark *Vicfuse*, and model designation.

Note: For additional marking information, refer to the [Guide Information Page](#).

Fuses for protection of semiconductor devices, Model(s): VBS 10A-1500A/700V AC, VBS 10A-2000A/500V AC, VD(e), VD2(a), VD2(b), VD3(c), VD3(d), VFA 10A-1500A/700V AC, VFA 10A-1600A/600V AC, VFA 10A-2000A/500V AC, VFH 10A-2000A/500V AC, VFP 10A-1500A/700V AC, VFP 10A-1600A/600V AC, VFP 10A-2000A/500V AC, VFS 10A-1600A/600V AC, VJH 10A-1600A/600V AC, VJP 10A-1600A/600V AC, VRC 35A-200A/500V AC/DC, VRH 225A-600A/500V AC/DC, VRH 35A-200A/500V AC/DC, VRP 35A-400A/700V AC/DC, VSP 40A-900A/700V AC, VSP AB 10A-1500A/700V AC, VSP AB 10A-1600A/600V AC, VSP AB 10A-2000A/500V AC, VSP D08 10A-1500A/500V AC, VSP D11(L or LL) 10A-1500A/500V AC, VSP D11(L or LL) 10A-1600A/500V AC, VSP D11(L or LL) 10A-2000A/500V AC, VSP FB 10A-1500A/500V AC, VSP FB 10A-1600A/500V AC, VSP FB 10A-2000A/500V AC, VSP FS 10A-1500A/700V AC, VSP FS 10A-1600A/600V AC, VSP FS 10A-2000A/500V AC

Fuses for protection of semiconductor devices, Model(s): VD2, VD0, VD1, VDF, VDC, VHF, 750VSF, 900VSF, 1000VSF, 1200VSF, 1500VSF or VSP (a)

Fuses for protection of semiconductor devices, rated 1000Vac/440Vdc/800Vdc, 0.1A thru 50A, Model(s): VC14S, VDC14, VGC14-32S, VRB14, VRB14S

Fuses for protection of semiconductor devices, rated 125Vac/dc, 250Vac/dc, 600Vac, 300Vdc, 30A, Model(s): VR10, VR10F, VR10T

Fuses for protection of semiconductor devices, rated 170Vdc, 1A thru 125A, Model(s): VT1

Fuses for protection of semiconductor devices, rated 250Vac/150Vdc, 50A thru 525A, Model(s): VBS3627

Fuses for protection of semiconductor devices, rated 250Vac/150Vdc, 7A thru 180A, Model(s): VBS1727

Fuses for protection of semiconductor devices, rated 300Vac/170Vdc/300Vdc, 1A thru 125A, Model(s): VT1S

Fuses for protection of semiconductor devices, rated 690Vac/800Vdc, 10A thru 350A, Model(s): VSP-000 IGBT FUSE

Fuses for protection of semiconductor devices, rated 700Vac//450Vdc, 10A thru 100A, Model(s): VC22

Fuses for protection of semiconductor devices, rated 700Vac/450Vdc, 10A thru 100A, Model(s): VBS1749

Fuses for protection of semiconductor devices, rated 700Vac/450Vdc, 10A thru 315A, 500Vac/450Vdc, 10A thru 400A, Model(s): VSP-000

Fuses for protection of semiconductor devices, rated 700Vac/450Vdc, 10A thru 400A, Model(s): VBS3655

Fuses for protection of semiconductor devices, rated 700Vac/450Vdc, 5A thru 50A, Model(s): VC14

Fuses for protection of semiconductor devices, rated 700Vac/500Vdc/450Vdc/150Vdc, 10A thru 100A, Model(s): VBS1749S, VBS1749W, VBS1749HW or VBS1749E/F/T

Semiconductor Fuse, rated 300Vac/170Vac/150Vac/300Vdc/170Vdc/150Vdc, 35A thru 400A, Model(s): VT2, VTE, VL17T, TPL, TPN, TPS, TPM, TPC, TGL, TGN, TGS, VRA, VRX

Semiconductor Fuse, rated 300Vac/170Vac/150Vac/300Vdc/170Vdc/150Vdc, 420A thru 800A, Model(s): VT3, VTE, VL17T, TPL, TPN, TPS, TPM, TPC, TGL, TGN, TGS, VRA, VRX

Simiconductor Fuse, rated 690Vac/800Vac/800Vdc, 0.5A thru 125A, Model(s): Cat. Nos. VBS 1749, VC17, VSF17 and VBF17

Simiconductor Fuse, rated 690Vac/800Vac/800Vdc, 160A thru 200A, Model(s): Cat. Nos. VBS 1749L, VC17L, VSF17L and VBF17L

Special-purpose Fuses, Rated 125/250Vac, 125/450Vdc, 0.04A thru 5 A, 250Vac, 125Vdc, 0.04A thru 50A and 250Vac, 65/75/86/125Vdc, 0.04 thru 100A., Model(s): 4SF-H, 6UF, 6UH, 6UT, VF202, VF203, VF459, VF460, VF881, VF881F

Special-purpose Fuses, Rated 125/250Vac, 60/125/450Vdc, 0.15A thru 20 A., Model(s): AFC, AFN, GMS, GMT, VF481

Special-purpose Fuses, rated 32/60/125Vac, 32/60Vdc, 20-200A, Model(s): AFD, AFG, AFS, AFT, BF1, VF142, VF153, VF498

Special-purpose Fuses, rated 32/60/80/125/130Vac, 32/60/80Vdc, 20-800 A, Model(s): AML, ANB, ANG, ANL, ANN, CNL, CNN, VF157

Special-purpose Fuses, rated 32/60/80/125/250Vac, 32/60/80Vdc, 15-120 A, Model(s): ATM, FK3, TOE, VF166, VF299, VF999

Special-purpose Fuses, rated 32/60/80/125Vac, 32/60/70/80Vdc, 20-500 A, Model(s): AFM, BF2, HMD, MEG, VF298

Special-purpose Fuses, rated 350Vac/600Vdc, 40mA thru 315mA; 125Vac/125Vdc, 40mA thru 60mA; 250Vac/72Vdc, 40mA thru 100A, Model(s): VF464, VF465, VF485, VF462, 4SF and 4ST

Special-purpose Fuses, Rated 450Vac, 450Vdc, 0.04A thru 32 A, 60/86/125/250Vac, 60/86/125Vdc, 0.04A thru 50A and 86/250Vac, 86Vdc, 0.04 thru 63A., Model(s): 6SF, 6SF-P, 6SH, 6SH-A, 6SH-P, 6ST, 6ST-A, 6ST-P, ASF-A, AXF, AXF-A, AXF-P, AXH, AXH-A, AXH-P, AXT, AXT-A, AXT-P, TCP70, TCP70-A, TCP70-P, VF688, VF688-A, VF688-P

(a) - followed by 20A-420A, followed by 750VDC, 800VDC, 900VDC, 1000VDC, 1100VDC, 1200VDC, 1500VDC, 750VAC, 800VAC, 900VAC, 1000VAC, 1100VAC, 1200VAC, 1300VAC or 1500VAC followed by VMS or VMS-D or blank.

(b) - followed by 20A-400A, followed by followed by 750VDC, 900VDC, 1000VDC, 1200VDC or 1500VDC, followed by VMS or VMS-D or blank.

(c) - followed by 100A-1000A, followed by followed by 750VDC, 900VDC, 1000VDC or 1200VDC, followed by VMS or VMS-D or blank.

(d) - followed by 100A-800A, followed by followed by 750VDC, 900VDC, 1000VDC, 1200VDC or 1500VDC, followed by VMS or VMS-D or blank.

(e) - followed by 20A-1000A, followed by 750VDC, 900VDC, 1000VDC, 1200VDC or 1500VDC.

Note: - Conditions of Acceptability: 1. The suitability of the fuses with respect to current-carrying capacity and operating temperatures will be determined in the end-use product; 2. The fuses have been tested for survival only and are suitable for operation on overload and interrupt currents between the minimum and maximum interrupting values; 3. These fuses are intended for use in equipment, which provides additional coordinated overcurrent protection such that the fuses will not be required to operate at currents below the minimum interrupting level; 4. Temperatures at the terminations should comply with the requirements of the end use product Standard; 5. The maximum energy and minimum breaking capacity has not been evaluated for these fuses.

Last Updated on 2021-06-10

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