



NO: SD-076 **PRODUCT:** S8VS Power Supplies
DATE: July 2013 **TYPE:** Partial Discontinuation

Selected S8VS Switch Mode Power Supplies will be Discontinued June 2014; Use S8VS or S8VK Models

Effective Date: Last orders due June, 2014

Affected Parts

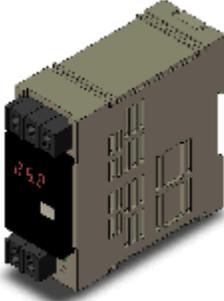
Product discontinuation	Recommended replacement
S8VS-01505	S8VK-G01505
S8VS-01512	S8VK-G01512
S8VS-01524	S8VK-G01524
S8VS-03005	S8VK-G03005
S8VS-03012	S8VK-G03012
S8VS-03024	S8VK-G03024
S8VS-06024	S8VS-06024A
	S8VK-C06024
	S8VK-G06024
S8VS-06024-F	S8VS-06024A-F
S8VS-9024	S8VS-09024A
	S8VK-G12024
S8VS-09024-F	S8VS-09024A-F
S8VS-12024	S8VS-12024A
	S8VK-C12024
	S8VK-G12024
S8VS-12024-F	S8VS-12024A-F
S8VS-18024	S8VS-18024A

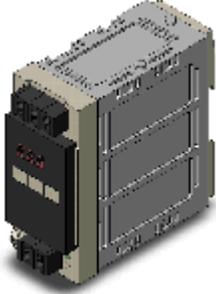
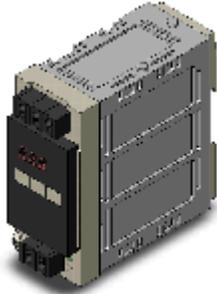
Compare features and specifications on the following pages.

Reference Documentation

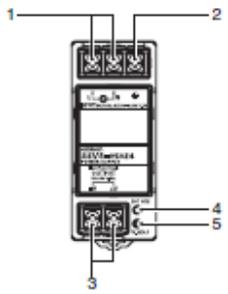
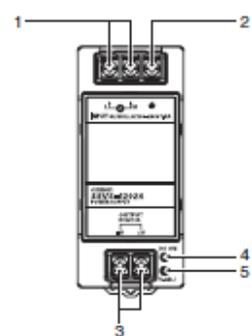
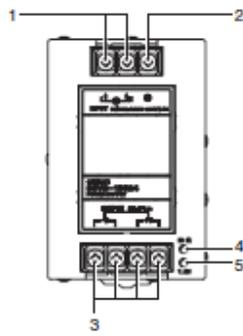
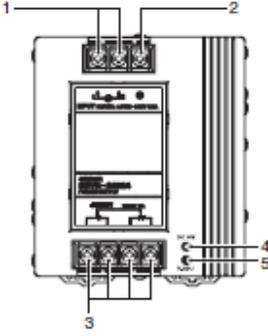
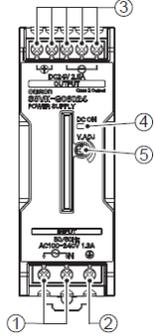
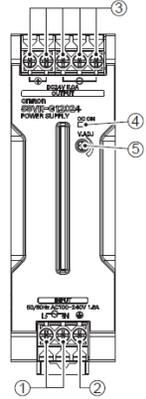
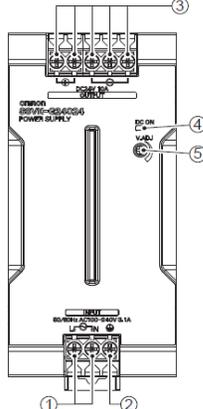
Description	Media	Publication number
S8VS Data Sheet	PDF	T026-E1-08
S8VK-G Data Sheet	PDF	T056-E1-01

Appearance

Product discontinuation S8VE series	Recommended replacement S8VS series
<p>S8VS-01505 S8VS-01512 S8VS-01524</p> 	<p>S8VK-G01505 S8VK-G01512 S8VK-G01524</p> 
<p>S8VS-03005 S8VS-03012 S8VS-03024</p> 	<p>S8VK-G03005 S8VK-G03012 S8VK-G03024</p> 
<p>S8VS-06024</p> 	<p>S8VS-06024A S8VK-C06024 S8VK-G06024</p> 
<p>S8VS-06024-F</p> 	<p>S8VS-06024A-F</p> 
<p>S8VS-09024</p> 	<p>S8VS-09024A S8VK-G12024</p> 

Product discontinuation S8VE series	Recommended replacement S8VS series
S8VS-09024-F 	S8VS-09024A-F 
S8VS-12024 	S8VS-12024A S8VK-C12024 S8VK-G12024 
S8VS-12024-F 	S8VS-12024A-F 
S8VS-18024 	S8VS-18024A 

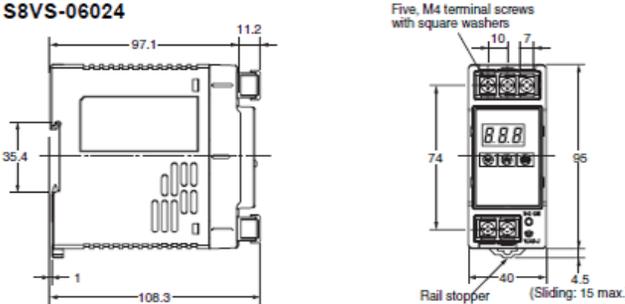
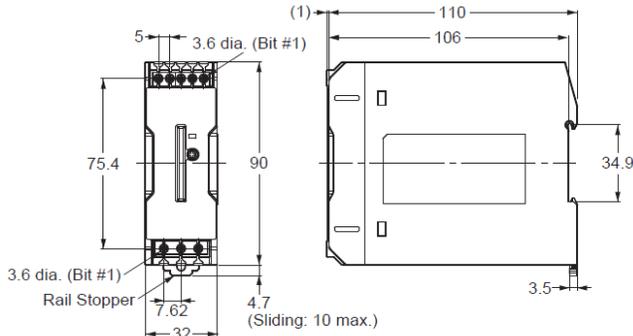
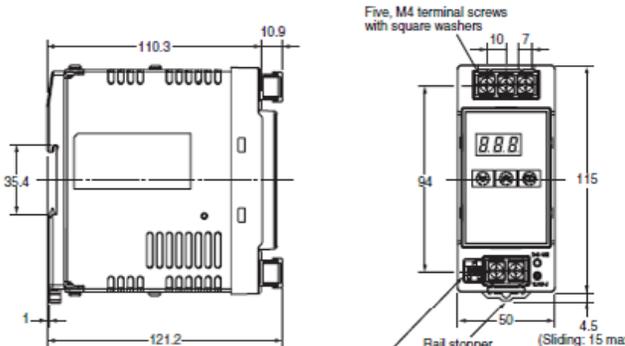
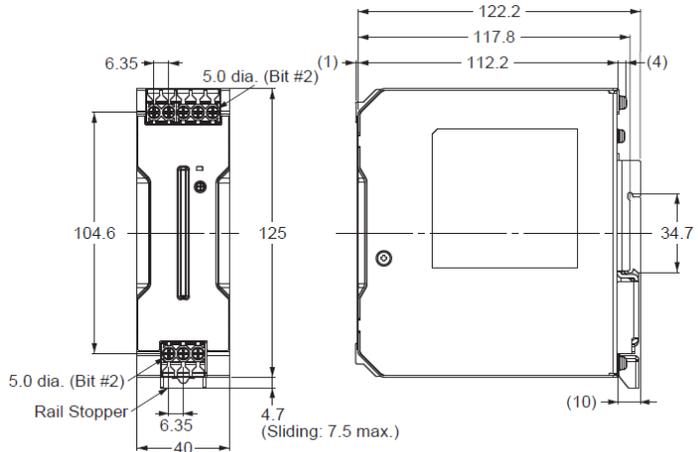
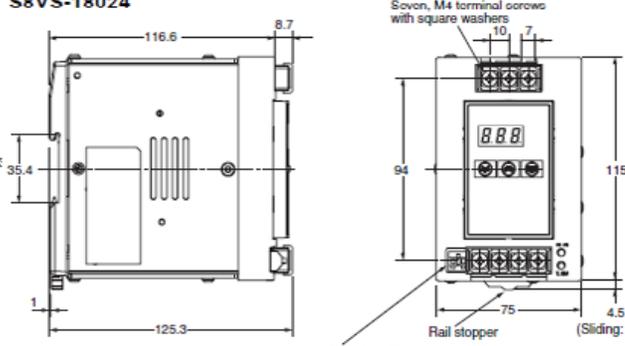
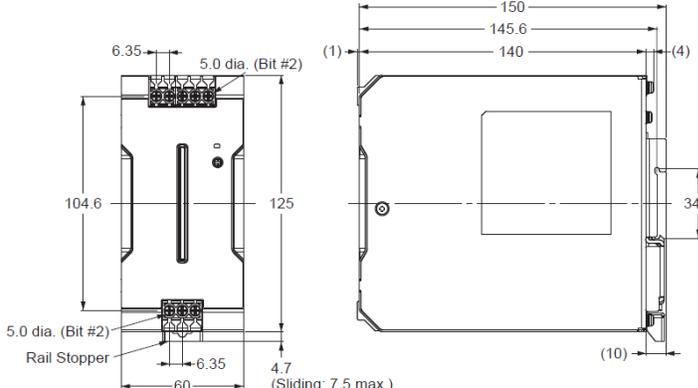
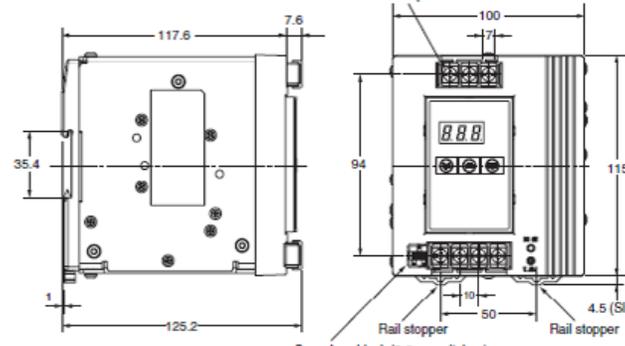
Wiring Diagram

Product discontinuation S8VS series	Recommended replacement S8VK-G series																																				
<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>60-W Models Standard Model S8VS-06024</p>  </div> <div style="width: 45%;"> <p>90-W/120-W Models Standard Models S8VS-09024/S8VS-0924S/ S8VS-12024</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="width: 45%;"> <p>180-W Models Standard Model S8VS-18024</p>  </div> <div style="width: 45%;"> <p>240-W Models Standard Model S8VS-24024</p>  </div> </div> <p style="font-size: small;">* The terminal arrangement is the same for models with screwless terminal blocks and standard models.</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>No.</th> <th>Name</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Input terminals (L), (N)</td> <td>Connect the input lines to these terminals. *1</td> </tr> <tr> <td>2</td> <td>Protective Earth terminal (PE)</td> <td>Connect the ground line to this terminal. *2</td> </tr> <tr> <td>3</td> <td>DC Output terminals (-V), (+V)</td> <td>Connect the load lines to these terminals.</td> </tr> <tr> <td>4</td> <td>Output indicator (DC ON: Green)</td> <td>Lights while a direct current (DC) output is ON.</td> </tr> <tr> <td>5</td> <td>Output voltage adjuster (V.ADJ)</td> <td>Use to adjust the voltage. *3</td> </tr> </tbody> </table> <p style="font-size: x-small;">*1. The fuse is located on the (L) side. For a DC input, connect the positive voltage to the L terminal. *2. This is the protective earth terminal specified in the safety standards. Always ground this terminal. *3. The output voltage cannot be adjusted for the S8VS-09024:□□□S.</p>	No.	Name	Function	1	Input terminals (L), (N)	Connect the input lines to these terminals. *1	2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2	3	DC Output terminals (-V), (+V)	Connect the load lines to these terminals.	4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.	5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage. *3	<div style="display: flex; justify-content: space-around;"> <div style="width: 45%;"> <p>60-W Models S8VK-G06024</p>  </div> <div style="width: 45%;"> <p>120-W Models S8VK-G12024</p>  </div> </div> <div style="margin-top: 20px;"> <p>240-W Models S8VK-G24024</p>  </div> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>No.</th> <th>Name</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Input terminals (L), (N)</td> <td>Connect the input lines to these terminals. *1</td> </tr> <tr> <td>2</td> <td>Protective Earth terminal (PE)</td> <td>Connect the ground line to this terminal. *2</td> </tr> <tr> <td>3</td> <td>DC Output terminals (V), (+V)</td> <td>Connect the load lines to these terminals.</td> </tr> <tr> <td>4</td> <td>Output indicator (DC ON: Green)</td> <td>Lights while a direct current (DC) output is ON.</td> </tr> <tr> <td>5</td> <td>Output voltage adjuster (V.ADJ)</td> <td>Use to adjust the voltage</td> </tr> </tbody> </table> <p style="font-size: x-small;">*1. The fuse is located on the (L) side. It is not user-replaceable. For a DC input, connect the positive voltage to the L terminal. *2. This is the protective earth terminal specified in the safety standards. Always ground this terminal.</p>	No.	Name	Function	1	Input terminals (L), (N)	Connect the input lines to these terminals. *1	2	Protective Earth terminal (PE)	Connect the ground line to this terminal. *2	3	DC Output terminals (V), (+V)	Connect the load lines to these terminals.	4	Output indicator (DC ON: Green)	Lights while a direct current (DC) output is ON.	5	Output voltage adjuster (V.ADJ)	Use to adjust the voltage
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Mounting Dimensions

Product discontinuation S8VS series	Recommended replacement S8VK-G series
<p>Mounting</p> <p>60, 90, 120, 180, 240, and 480 W</p> <div data-bbox="186 315 738 535"> <p>Correct Incorrect</p> <p style="text-align: center;">Upper Upper</p> <p style="text-align: center;">Standard mounting Face-up mounting</p> </div> <p>Note: Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. It may also result in failure of the maintenance forecast monitor function. Use the standard mounting method only.</p> <ul style="list-style-type: none"> Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product. Be sure to allow convection in the atmosphere around devices when mounting. Do not use in locations where the ambient temperature exceeds the range of the derating curve. When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Products. <div data-bbox="170 850 690 1102"> <p style="text-align: right;">*1. Convection of air *2. 20 mm min.</p> </div>	<p>Mounting</p> <ul style="list-style-type: none"> Take adequate measures to ensure proper heat dissipation to increase the long-term reliability of the Product. Be sure to allow convection in the atmosphere around devices when mounting. Do not use in locations where the ambient temperature exceeds the range of the derating curve. When cutting out holes for mounting, make sure that cuttings do not enter the interior of the Products. <div data-bbox="844 472 1437 808"> <p style="text-align: right;">*1. Convection of air *2. 20 mm min.</p> </div> <ul style="list-style-type: none"> Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the Product within the derating curve for the mounting direction that is used. Use a mounting bracket when the Product is mounted facing horizontally. Heat dissipation will be adversely affected. When the Product is mounted facing horizontally, always place the side with the label facing upward. Operate the Power Supply within a range that is 5°C less than the values in the derating curve in <i>Engineering Data</i> on page 9 if the Power Supply is used with an installation spacing of 10 mm min. (20 mm max.) on the left and right.
<p>60-W, 90-W, 120-W, 180-W, 240-W, and 480-W Models</p> <ul style="list-style-type: none"> Improper mounting will interfere with heat dissipation and may occasionally result in deterioration or damage of internal parts. Use the standard mounting method only. The internal parts may occasionally deteriorate and be broken due to adverse heat radiation. Do not loosen the screw on the side face of the main body. <p>DIN Rail Mounting</p> <p>To mount the Block on a DIN Rail, hook portion (A) of the Block onto the rail and press the Block in direction (B).</p> <div data-bbox="349 1459 560 1627"> </div> <p>To dismantle the Block, pull down portion (C) with a flat-blade screwdriver and pull out the Block.</p> <div data-bbox="300 1690 609 1921"> <p style="text-align: center;">Track stopper</p> </div>	<p>DIN Rail Mounting</p> <p>To mount the Block on a DIN Rail, hook portion (A) of the Block onto the rail and press the Block in direction (B).</p> <div data-bbox="1088 1354 1307 1543"> </div> <p>To dismantle the Block, pull down portion (C) with a flat-blade screwdriver and pull out the Block.</p> <div data-bbox="1047 1627 1339 1869"> <p style="text-align: center;">Track stopper</p> </div>

Dimensions

Product discontinuation S8VS series	Recommended replacement S8VK-G series
<p>S8VS-06024</p>  <p>Note: The illustration is the S8VS-06024A model.</p>	<p>S8VK-G06024 (60 W)</p> 
<p>S8VS-09024 S8VS-12024</p>  <p>Note: The illustration is the S8VS-12024A model.</p>	<p>S8VK-G12024 (120 W)</p> 
<p>S8VS-18024</p>  <p>Note: The illustration is the S8VS-18024A model.</p>	<p>S8VK-G24024 (240 W)</p> 
<p>S8VS-24024</p>  <p>Note: The illustration shows the S8VS-24024A model.</p>	

Specifications

Item	Product discontinuation	Recommended replacement	
	Model S8VS series	Model S8VK-G series	Model S8VK-C series
Input voltage	100 to 240 VAC (allowable range: 85 to 264 VAC), 80 to 370 VDC	100 to 240 VAC, 90 to 350 VDC, 2-phase input from 3-phase source <240 VAC	
Inrush current	17.5 A max., 14 A typical (for 100 VAC input) 35 A max., 28 A typical (for 200 VAC input) * for a cold start at 25°C	16 A (for 115 VAC input), 32 A (for 230 VAC input) for cold start at 25°C	40 A max (for 230 VAC input)
Start-up time	60 W 620 ms typical (for 100 VAC input) 400 ms typical (for 200 VAC input) 90 W 460 ms typical (for 100 VAC input) 300 ms typical (for 200 VAC input) 120 W 550 ms typical (for 100 VAC input) 400 ms typical (for 200 VAC input)	15 W 520 to 580 ms (for 115 VAC) 400 ms (for 230 VAC), 30W 550 to 600 ms (for 115 VAC) 430 to 490 ms (for 230 VAC), 60 W 570 to 650 ms (115 VAC) 430 to 500 ms (230 VAC), 120 W 790 ms (for 115 VAC) 750 ms (for 230 VAC)	N/A
	180 W 570 ms typical (for 100 VAC input) 470 ms typical (for 200 VAC input) 240 W 540 ms typical (for 100 VAC input) 230 ms typical (for 200 VAC input)	240 W 250 to 290 ms (for 115/230 VAC input); 480 W 290 ms (for 115 VAC input) 260 ms (for 230 VAC input)	N/A
Output hold time	60 W 34 ms typical (for 100 VAC input) 158 ms typical (for 200 VAC input) 90 W 28 ms typical (for 100 VAC input) 132 ms typical (for 200 VAC input) 120 W 52 ms typical (for 100 VAC input) 54 ms typical (for 200 VAC input)	15 W 28 to 32 ms (for 115 VAC) 34 to 138 ms (for 230 VAC), 30 W 23 to 36 ms (for 115 VAC) 154 to 177 ms (230 VAC, 60 W 25 to 26 ms (115 VAC) 129 to 139 ms (230 VAC), 120 W 42 ms (115/230 VAC)	N/A
	180 W 58 ms typical (for 100 VAC input) 62 ms typical (for 200 VAC input) 240 W 64 ms typical (for 100 VAC input) 64 ms typical (for 200 VAC input)	240 W 44 ms (for 115/230 VAC) 480 W 40 ms (115 VAC) 50 ms (230 VAC)	N/A
Overload protection	105% to 160% of rated load current, Inverted L voltage drop, Automatic reset.	121% to 160% of rated load current (130% typical value)	Yes
Parallel operation	No (However, backup operation is possible. An external diode is required.)	Yes	N/A
Operating ambient temperature	-10°C to +60°C	-40°C to +70°C	-25°C to 60°C
EMI (Conducted Emissions)	Conforms to EN6120-3 EN55011 Class B and based on FCC Class A	Conforms to EN61204- 3 EN55011 Class B and based on FCC Class A	Conforms to EN61204-3, EN55011 Class A

Item	Product discontinuation	Recommended replacement	
Model	Model S8VS series	Model S8VK-G series	Model S8VK-C series
EMI (Radiated Emissions)	Conforms to EN61204-3 EN55011 Class B	Conforms to EN61204-3 EN55011 Class B	Conforms to EN61204-3, EN55011 Class A
Approved standards	UL Listed: UL508 (Listing, Class 2 Output: Per 1310) UL UR: UL60950-1 (Recognition) cUL: CSA C22.2 No.107.1 (Class 2 Output: Per CSA C22.2 No.223) cUR: CSA C22.2 No.60950-1 EN/VDE: EN50178 (=VDE0160), EN60950-1 (=VDE0805 Teil1)	UL Listed: UL508 (Listing) UL UR: UL60950-1 (Recognition) cUL: CSA C22.2 No.107.1 cUR: CSA C22.2 No.60950-1 EN/VDE: EN50178 (=VDE0160), EN60950-1 (=VDE0805) Lloyd's standards	UL: UL508 (Listing), UL60950-1, cUL: CSA C22.2 No.107.1 and No.60950-1, EN/VDE: EN50178 (=VDE0160), EN60950-1 (=VDE0805)

Operation Ratings

<p>Product discontinuation S8VS series</p>	<p>Recommended replacement S8VK-GS series</p>
<p>Derating Curve 60, 90, 120, 180, 240, and 480 W</p> <p>* Using side mounting bracket for right-side mounting (excluding 240-W models). UL certification conditions do not apply if the side mounting bracket is used.</p> <p>Note:</p> <ol style="list-style-type: none"> Internal parts may occasionally deteriorate or be damaged. Do not use the Power Supply in areas outside the derating curve (i.e., the area shown by shading ① in the above graph). If there is a derating problem, use forced air-cooling. When using a 480-W model at an input voltage of 95 VAC or less, derate the load by at least 80%. DC Inputs If the input voltage is less than 100 VDC, reduce the load given in the above derating curve by at least the following factor. 60-W models: 0.9 max. 90-W models: 0.85 max. 120-W/180-W/240-W models: 0.8 max. 	<p>Derating Curve</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="779 241 1104 577"> <p>120 W (S8VK-G12024)</p> </div> <div data-bbox="1104 241 1555 577"> <p>240 W (S8VK-G24024)</p> </div> </div> <p>Note:</p> <ol style="list-style-type: none"> At less than 90 VAC, the derating is 2.5%/V For a DC power input, reduce the load given in the above derating curve by multiplying the following coefficients. S8VK-G12024: 0.9 Gray shaded area: See “-40°C Operation Guarantee Condition” <p>A. Standard mounting 60°C and over: the derating is 3.5%/°C</p> <p>B. Face-up mounting 40°C and over: the derating is 1.67%/°C</p>
<p>Overload Protection</p> <p>The load and the power supply are automatically protected from overcurrent damage by this function. Overload protection is activated if the output current rises above 105% of the rated current. When the output current returns within the rated range overload protection is automatically cleared.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="66 1323 406 1659"> <p>60-W/90-W Models</p> </div> <div data-bbox="406 1323 779 1659"> <p>120-W/180-W/240-W/480-W Models</p> </div> </div> <p>Note:</p> <ol style="list-style-type: none"> Internal parts may occasionally deteriorate or be damaged if a short-circuited or overcurrent state continues during operation. Internal parts may possibly deteriorate or be damaged if the Power Supply is used for applications with frequent inrush current or overloading at the load end. Do not use the Power Supply for such applications. 	<p>Overvoltage Protection</p> <p>Consider the possibility of an overvoltage and design the system so that the load will not be subjected to an excessive voltage even if the feedback circuit in the Power Supply fails. If an excessive voltage that is approximately 130% of the rated voltage or more is output, the output voltage is shut OFF. Reset the input power by turning it OFF for at least three minutes and then turning it back ON again.</p> <p>The values shown in the above diagram is for reference only.</p> <p>Note: Do not turn ON the power again until the cause of the overvoltage has been removed.</p>