Operation Manual

SWL Series

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1. Safety Precautions

Safety Requests

(Please note the following points when using this product.)

1 Before using the product, please read the "Owner's Manual" and "Detailed Specification" well and use it correctly.

2 This switching power source is a direct-current stabilization power source with a special structure designed for embedded devices.
Use only for embedded devices.

3 We are striving to improve the quality and reliability of our products. However, we ask our purchasers to be responsible for designing the safety of equipment so that if this switching power source is used, it will not infringe on life, body or property due to malfunctions or breakdowns.

4 This product is not intended to be used in equipment or devices that require extremely high reliability (such as aerospace equipment, nuclear power control, and medical equipment (Class III or higher in Japanese laws and regulations) whose failure or malfunctioning may harm lives or human bodies) (hereinafter referred to as "application-specific").
We shall not be liable for any damage caused to our customers or third parties by using our products for specific purposes.

5 Regarding the following applications and equipment that are involved in human health and have a significant impact on the maintenance of public functions, ensure that the equipment side has adequate fail-safe functions through the redundancy of systems and other measures.

- Use in trains, elevators, and other equipment that could lead to injury or other damage to human lives.
- Used in automotive, marine, and other applications and equipment that are subject to fluctuations and shocks.
- Use in transportation systems and other uses and equipment that have the potential to have a serious social and public impact.
- Use for similar applications and equipment.

6 Please adhere to the following guidelines when using this product.

- Do not disassemble, repair, or remodel.
- There is a high voltage within the power supply.
- Use within the specified range of input voltage, frequency, output voltage, and current.
- Please strictly observe the specified environmental conditions, such as the environmental temperature and the temperature of the environment.
- Installation and installation methods are determined for each model.
  Do not install or install in a direction outside the designated direction.

■ This document shows matters that should be noted in particular in order to prevent harm to you and other people and damage to property, and to ensure the safe use

■ This switching power source is a direct-current stabilizing power source with a special structure designed for installation and use in machinery and equipment. Avoid using a single power source.

■ For the sake of safety, the product should be handled by anyone with electrical knowledge.

Presentation and implications of safety cautions

Before installation, operation and maintenance, be sure to thoroughly read this "Safety Precautions" and the manual and use it correctly.
In this book, safety precautions are categorized as "danger" and "caution."

Risk	If the product is used without observing the information given under this symbol, serious injury or death may result.
Note	If you ignore this indication and mistreat it, you may be injured.

※ The matters described in Note may lead to significant results in some circumstances. Therefore, be sure to follow the instruction, for every item described is very important.

<Meanings of Figures>


General Prohibitions


May cause electric shock


General mandates


Risk of fire

■ Important warnings

Risk	
	May cause electric shock There is a high-voltage circuit inside the company, which could lead to death or serious injury due to an electric feeling if it is incorrectly touched.
	Risk of fire In the event of odor, noise, smoke, or fire from the device, immediately stop the device and cut the AC input by turning off an external input breaker. Please contact your retailer or we. In the unlikely event of a fire, use a fire extinguisher for electric fire (powdered or ABC) and avoid fire extinguishment with water.

■ Other important information

Note	
⊘	Input and output conditions are determined for each model.Do not use under outside conditions.
❗	Make sure that the total power consumption of the connected load does not exceed the rating output of each power source. If used in an overloaded condition, it may result in a fire.
⊘	Please use a fat line that matches the input/output capacity of the power source for the circuit board for I/O. Fire may occur if the wire is thin.
⊘	Do not use or store the product in an environment where liquids enter it, or where the temperature, humidity or condensation deviates from the ambient conditions described in the catalog or instruction manual.This could cause product failure.When using in such an environment, please take waterproof measures or contact us.
❗	Please take anti-dust measures when using environments that contain a large amount of dust. If used in a state of accumulating dust, it could hinder heat dissipation and cause breakdowns and fires.
❗	Use the assigned size and length of the wire to install the power supply. Otherwise an electric shock or fire could occur.
⊘	We do not anticipate the use of this product in equipment that requires high reliability, such as those related to human life. Do not use for specific applications (nuclear power control, space ship control, specific medical equipment, etc.).
❗	Please ensure that each input and output terminal is connected properly to avoid errors. There is a risk of product malfunctions, damage, or unexpected injury or fire.
⊘	Do not place an external voltage at the output of the product. Internal devices may be destroyed.
⊘	If used or stored in an environment that generates caustic gas (hydrogen sulfur, sulfur dioxide, etc.), the parts may break down, and should not be used or stored in such an environment. When using in such an environment, please take waterproof measures or contact us.
⊘	If the product is used in an environment where radio, electric or magnetic fields are generated, the product may malfunction. Avoid use in such an environment because this could result in a failure.
❗	We strive to improve the quality and reliability of our products, but when using them, we ask the purchaser to be responsible for the safety design of the equipment.

2. Specification Standards

Type			SWL100-12-S	SWL100-24-S	SWL100-36-S	SWL100-48-S
Input Condition	Rated Input Voltage [V]		AC100 ～ 240 1Φ			
	Input Voltage Variation Range [V] *10		AC85 ～ 265 1Φ(With derating)			
	Input Current (typ) [A]*1	AC100V	1.4			
		AC240V	0.6			
	Rated Frequency [Hz]		50 / 60			
	Frequency Variation Range [Hz]		47 ～ 63			
	Power Factor(typ) *1	AC100V	0.99			
		AC240V	0.95			
	Efficiency(typ) [%] *1	AC100V	86	88	89	87
		AC240V	88	90	91	89
	Inrush Current(typ) [A] *2		15 (AC100V) / 30 (AC200V)			
	Leakage Current [mA] *1		0.15/0.30max (AC100V/AC240V 60Hz) 0.06/0.16typ (AC100V/AC240V			
Output Condition *3	Rated Output Voltage [V]		12	24	36	48
	Output Voltage Variable Range [V] *9		–			
	Rated Output Current [A] *8		8.4	4.2	2.8	2.1
	Peak Output Current [A]		–			
	Output Current Allowable Range [A]		0～8.4	0～4.2	0～2.8	0～2.1
	Rated Output Power [W]		100.8	100.8	100.8	100.8
	Peak Output Power [W]		–			
	Voltage Regulation [%] *5		±5			
	Ripple Noise [mVp-p] *1 *4		200	170	220	280
	Hold-up Time(typ) *1		20msec			
	Start-up time(typ) *1		700msec			
Additional Function	Over Current Protection		More than 101% of Rated output current (Auto-restart)			
	Over Voltage Protection *6		More than 115% of rated voltage (output halt: latching halt)			
Environmental Condition	Operating Temperature Range [℃]		-10～+70 (With derating)			
	Storage Temperature Range [℃]		-25～+85			
	Operating humidity range		30-90% (No Condensation)			
	Storage Humidity Range		20-90% (No Condensation)			
	Cooling Condition		Natural Air			
	Vibration	Frequency [Hz]	10～55			
		Swap Time [Minutes]	3			
		Acceleration [m/s^2]	19.6 (2G)			
		Added Vibration Direction	X,Y,Z			
		Added Vibration Time	1 hour each in three directions			
	Shock[m/s^2]		196.1 (20G)			
	Setting Condition		Derating depends on mounting direction			
Insulating *7	Withstand Voltage	Input-Output	AC3000V for 1minutes (Leakage Current : 10mA or less)			
		Input-FG	AC2000V for 1minutes (Leakage Current : 10mA or less)			
		Output-FG	AC500V for 1minutes (Leakage Current : 10mA or less)			
	Insulation Resistance	Input-Output	More than 100MΩ (DC500V)			
		Input-FG				
		Output-FG				
Appearance Structure . Standard	Input and Output Shape		Connector			
	Externals Size(W)×(H)×(D) [mm]		155×33.5×62 (Without Chassis and Cover)			
	Weight [typ]		210g (Without Chassis and Cover) / 400g (With Chassis and Cover)			
	Safety standard		UL62368-1,c-UL(CSA62368-1),ENEC(EN62368-1),IEC62368-1(CB) certification, compliance with the DENAN Law (J62368-1)			
	Conduction noise		FCC ClassB compliance, EN55032 ClassB compliance, VCCI ClassB compliance, CISPR32-B compliance			
	Mains Harmonic Current		IEC61000-3-2 compliance			
Option	Remote ON/OFF Controls		None			
	Terminal Block		None			
	Chassis		Yes			
	Cover		Yes			

1. Defined by the rating input/output conditions at an environmental temperature of 25℃.
2. Excluding inrush current to noise filter.Also, when the power is turned on again, a current exceeding the indicated value may flow.(Ta=25℃)
3. The output conditions are measured at a point of 15 centimeters from the output connectors by connecting 100uF electronic capacitors and 0.1uF film capacitors.
4. Ripple noise is measured with a 100MHz oscilloscope using a 1:1 probe (chassis mounted).
5. Voltage regulation includes the result of static input variation, static load variation,warm-up drift and temperature change. (Transient overshoot, undershoot not specified)
6. Reset is re-input voltage.
7. Insulation conditions are set at room temperature and room temperature.
8. It is a typical value and should be within the rated output power.
9. The output current is a typical value and should be used within the rated output power.
10. AC90V and below requires output delirating.

2. Specification Standards

Type			SWL150-12-S	SWL150-24-S	SWL150-36-S	SWL150-48-S
Input Condition	Rated Input Voltage [V]		AC100 ～ 240 1Φ			
	Input Voltage Variation Range [V] *10		AC85 ～ 265 1Φ(With derating)			
	Input Current (typ) [A]*1	AC100V	1.5	1.7		
		AC240V	0.6	0.7		
	Rated Frequency [Hz]		50 / 60			
	Frequency Variation Range [Hz]		47 ～ 63			
	Power Factor(typ) *1	AC100V	0.99			
		AC240V	0.95			
	Efficiency(typ) [%] *1	AC100V	89		90	
		AC240V	93		94	
	Inrush Current(typ) [A] *2		15 (AC100V) / 30 (AC200V)			
	Leakage Current [mA] *1		0.1/0.25max (AC100V/AC240V 60Hz) 0.05/0.15typ (AC100V/AC240V			
Output Condition *3	Rated Output Voltage [V]		12	24	36	48
	Output Voltage Variable Range [V] *9		–			
	Rated Output Current [A] *8		11	6.3	4.2	3.2
	Peak Output Current [A]		–			
	Output Current Allowable Range [A]		0～11	0～6.3	0～4.2	0～3.2
	Rated Output Power [W]		132.0	151.2	151.2	153.6
	Peak Output Power [W]		–			
	Voltage Regulation [%] *5		±5			
	Ripple Noise [mVp-p] *1 *4		150	150	300	300
	Hold-up Time(typ) *1		20msec			
	Start-up time(typ) *1		300msec			
Additional Function	Over Current Protection		More than 101% of Rated output current (Auto-restart)			
	Over Voltage Protection *6		More than 115% of rated voltage (output halt: latching halt)			
Environmental Condition	Operating Temperature Range [℃]		-10～+70 (With derating)			
	Storage Temperature Range [℃]		-25～+85			
	Operating humidity range		30-90% (No Condensation)			
	Storage Humidity Range		20-90% (No Condensation)			
	Cooling Condition		Natural Air			
	Vibration	Frequency [Hz]	10～55			
		Swap Time [Minutes]	3			
		Acceleration [m/s^2]	19.6 (2G)			
		Added Vibration Direction	X,Y,Z			
		Added Vibration Time	1 hour each in three directions			
	Shock[m/s^2]		196.1 (20G)			
	Setting Condition		Derating depends on mounting direction			
Insulating *7	Withstand Voltage	Input-Output	AC3000V for 1minutes (Leakage Current : 10mA or less)			
		Input-FG	AC2000V for 1minutes (Leakage Current : 10mA or less)			
		Output-FG	AC500V for 1minutes (Leakage Current : 10mA or less)			
	Insulation Resistance	Input-Output	More than 100MΩ (DC500V)			
		Input-FG				
		Output-FG				
Appearance Structure . Standard	Input and Output Shape		Connector			
	Externals Size(W)×(H)×(D) [mm]		155×33.5×62 (Without Chassis and Cover)			
	Weight [typ]		220g (Without Chassis and Cover) / 420g (With Chassis and Cover)			
	Safety standard		UL62368-1,c-UL(CSA62368-1),SEMKO(EN62368-1),IEC62368-1(CB), IEC60950-1(CB) certification, compliance with the DENAN Law (J62368-1)			
	Conduction noise		FCC ClassB compliance, EN55032 ClassB compliance, VCCI ClassB compliance, CISPR32-B compliance			
	Mains Harmonic Current		IEC61000-3-2 compliance			
Option	Remote ON/OFF Controls		None			
	Terminal Block		None			
	Chassis		Yes			
	Cover		Yes			

1. Defined by the rating input/output conditions at an environmental temperature of 25℃.
2. Excluding inrush current to noise filter.Also, when the power is turned on again, a current exceeding the indicated value may flow.(Ta=25℃)
3. The output conditions are measured at a point of 15 centimeters from the output connectors by connecting 100uF electronic capacitors and 0.1uF film capacitors.
4. Ripple noise is measured with a 100MHz oscilloscope using a 1:1 probe (chassis mounted).
5. Voltage regulation includes the result of static input variation, static load variation,warm-up drift and temperature change. (Transient overshoot, undershoot not specified)
6. Reset is re-input voltage.
7. Insulation conditions are set at room temperature and room temperature.
8. It is a typical value and should be within the rated output power.
9. The output current is a typical value and should be used within the rated output power.
10. AC90V and below requires output delirating.

2. Specification Standards

Type			SWL240-12-S	SWL240-24-S	SWL240-36-S	SWL240-48-S
Input Condition	Rated Input Voltage [V]		AC100 ～ 240 1Φ			
	Input Voltage Variation Range [V] *10		AC85 ～ 265 1Φ(With derating)			
	Input Current (typ) [A]*1	AC100V	2.1	2.8		
		AC240V	1.0	1.2		
	Rated Frequency [Hz]		50 / 60			
	Frequency Variation Range [Hz]		47 ～ 63			
	Power Factor(typ) *1	AC100V	0.99			
		AC240V	0.95			
	Efficiency(typ) [%] *1	AC100V	90	91		
		AC240V	92	94		
	Inrush Current(typ) [A] *2		15 (AC100V) / 30 (AC200V)			
	Leakage Current [mA] *1		0.15/0.35max (AC100V/AC240V 60Hz) 0.08/0.19typ (AC100V/AC240V			
Output Condition *3	Rated Output Voltage [V]		12	24	36	48
	Output Voltage Variable Range [V] *9		–			
	Rated Output Current [A] *8		15	10	6.7	5.0
	Peak Output Current [A]		–			
	Output Current Allowable Range [A]		0～15.0	0～10	0～6.7	0～5.0
	Rated Output Power [W]		180	240	241.2	240
	Peak Output Power [W]		–			
	Voltage Regulation [%] *5		±5			
	Ripple Noise [mVp-p] *1 *4		200	150	170	250
	Hold-up Time(typ) *1		20msec			
	Start-up time(typ) *1		300msec			
Additional Function	Over Current Protection		More than 101% of Rated output current (Auto-restart)			
	Over Voltage Protection *6		More than 115% of rated voltage (output halt: latching halt)			
Environmental Condition	Operating Temperature Range [℃]		-10～+70 (With derating)			
	Storage Temperature Range [℃]		-25～+85			
	Operating humidity range		30-90% (No Condensation)			
	Storage Humidity Range		20-90% (No Condensation)			
	Cooling Condition		Natural Air			
	Vibration	Frequency [Hz]	10～55			
		Swap Time [Minutes]	3			
		Acceleration [m/s^2]	19.6 (2G)			
		Added Vibration Direction	X,Y,Z			
		Added Vibration Time	1 hour each in three directions			
	Shock[m/s^2]		196.1 (20G)			
	Setting Condition		Derating depends on mounting direction			
Insulating *7	Withstand Voltage	Input-Output	AC3000V for 1minutes (Leakage Current : 10mA or less)			
		Input-FG	AC2000V for 1minutes (Leakage Current : 10mA or less)			
		Output-FG	AC500V for 1minutes (Leakage Current : 10mA or less)			
	Insulation Resistance	Input-Output	More than 100MΩ (DC500V)			
		Input-FG				
		Output-FG				
Appearance Structure . Standard	Input and Output Shape		Connector			
	Externals Size(W)×(H)×(D) [mm]		160×37×75 (Without Chassis and Cover)			
	Weight [typ]		350g (Without Chassis and Cover) / 600g (With Chassis and Cover)			
	Safety standard		UL62368-1,c-UL(CSA62368-1),SEMKO(EN62368-1),IEC62368-1(CB), IEC60950-1(CB) certification, compliance with the DENAN Law (J62368-1)			
	Conduction noise		FCC ClassB compliance, EN55032 ClassB compliance, VCCI ClassB compliance, CISPR32-B compliance			
	Mains Harmonic Current		IEC61000-3-2 compliance			
Option	Remote ON/OFF Controls		None			
	Terminal Block		None			
	Chassis		Yes			
	Cover		Yes			

1. Defined by the rating input/output conditions at an environmental temperature of 25℃.
2. Excluding inrush current to noise filter.Also, when the power is turned on again, a current exceeding the indicated value may flow.(Ta=25℃)
3. The output conditions are measured at a point of 15 centimeters from the output connectors by connecting 100uF electronic capacitors and 0.1uF film capacitors.
4. Ripple noise is measured with a 100MHz oscilloscope using a 1:1 probe (chassis mounted).
5. Voltage regulation includes the result of static input variation, static load variation,warm-up drift and temperature change. (Transient overshoot, undershoot not specified)
6. Reset is re-input voltage.
7. Insulation conditions are set at room temperature and room temperature.
8. It is a typical value and should be within the rated output power.
9. The output current is a typical value and should be used within the rated output power.
10. AC90V and below requires output delirating.

2. Specification Standards

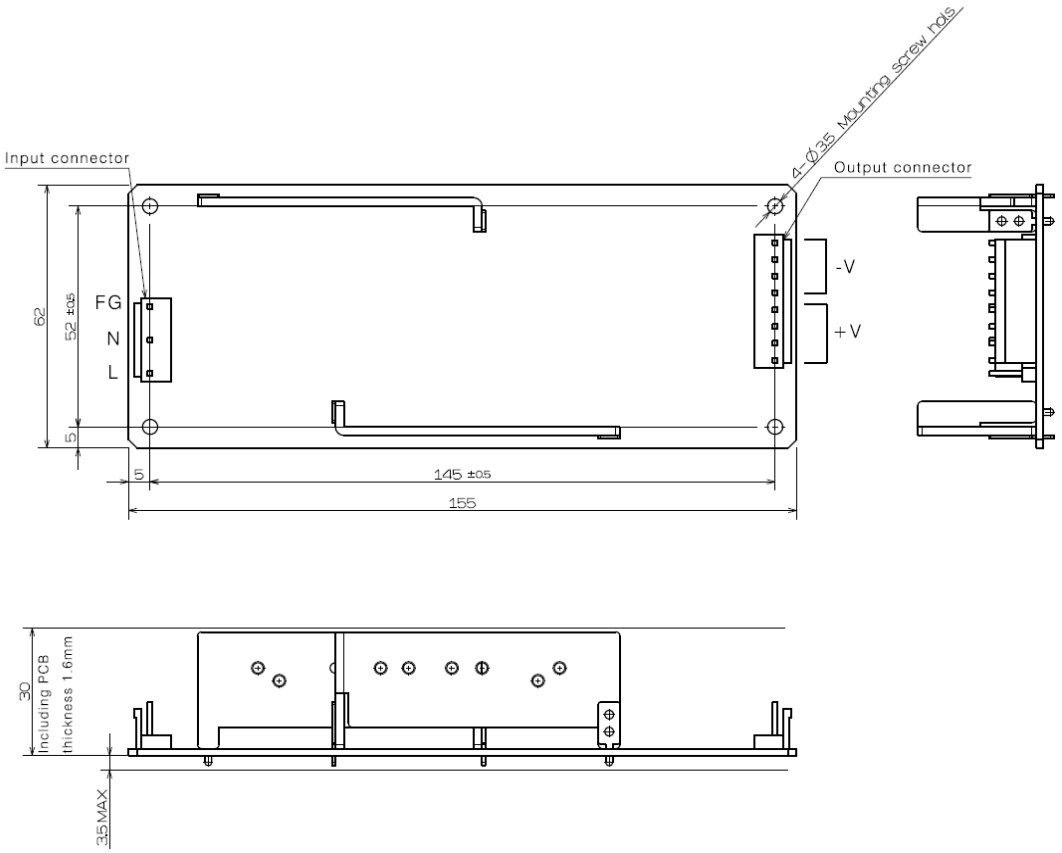
Type			SWL300-24-S	SWL300-36-S	SWL300-48-S
Input Condition	Rated Input Voltage [V]		AC100 ～ 240 1Φ		
	Input Voltage Variation Range [V] *10		AC85 ～ 265 1Φ(With derating)		
	Input Current (typ) [A]*1	AC100V	3.5		
		AC240V	1.5		
	Rated Frequency [Hz]		50 / 60		
	Frequency Variation Range [Hz]		47 ～ 63		
	Power Factor(typ) *1	AC100V	0.99		
		AC240V	0.94		
	Efficiency(typ) [%] *1	AC100V	91		
		AC240V	94		
	Inrush Current(typ) [A] *2		15 (AC100V) / 30 (AC200V)		
	Leakage Current [mA] *1		0.1/0.2max (AC100V/AC240V 60Hz) 0.05/0.13typ (AC100V/AC240V 60Hz)		
Output Condition *3	Rated Output Voltage [V]		24	36	48
	Output Voltage Variable Range [V] *9		–		
	Rated Output Current [A] *8		12.6	8.4	6.3
	Peak Output Current [A]		–		
	Output Current Allowable Range [A]		0 ～ 12.6	0 ～ 8.4	0 ～ 6.3
	Rated Output Power [W]		302.4	302.4	302.4
	Peak Output Power [W]		–		
	Voltage Regulation [%] *5		±3		
	Ripple Noise [mVp-p] *1 *4		260	330	370
	Hold-up Time(typ) *1				
	Start-up time(typ) *1				
Additional Function	Over Current Protection		More than 101% of Rated output current (Auto-restart)		
	Over Voltage Protection *6		More than 115% of rated voltage (output halt: latching halt)		
Environmental Condition	Operating Temperature Range [℃]		-10～+70 (With derating)		
	Storage Temperature Range [℃]		-25～+85		
	Operating humidity range		30-90% (No Condensation)		
	Storage Humidity Range		20-90% (No Condensation)		
	Cooling Condition		Natural Air		
	Vibration	Frequency [Hz]	10～55		
		Swap Time [Minutes]	3		
		Acceleration [m/s^2]	19.6 (2G)		
		Added Vibration Direction	X,Y,Z		
		Added Vibration Time	1 hour each in three directions		
	Shock[m/s^2]		196.1 (20G)		
	Setting Condition		Derating depends on mounting direction		
Insulating *7	Withstand Voltage	Input-Output	AC3000V for 1minutes (Leakage Current : 10mA or less)		
		Input-FG	AC2000V for 1minutes (Leakage Current : 10mA or less)		
		Output-FG	AC500V for 1minutes (Leakage Current : 10mA or less)		
	Insulation Resistance	Input-Output	More than 100MΩ (DC500V)		
		Input-FG			
		Output-FG			
Appearance Structure · Standard	Input and Output Shape		Connector		
	Externals Size(W)×(H)×(D) [mm]		180×42×84 (Without Chassis and Cover)		
	Weight [typ]		550g (Without Chassis and Cover) / 850g (With Chassis and Cover)		
	Safety standard		UL62368-1,c-UL(CSA62368-1),SEMKO(EN62368-1),IEC62368-1(CB), IEC60950-1(CB) certification, compliance with the DENAN Law (J62368-1)		
	Conduction noise		FCC ClassB compliance, EN55032 ClassB compliance, VCCI ClassB compliance, CISPR32-B compliance		
	Mains Harmonic Current		IEC61000-3-2 compliance		
Option	Remote ON/OFF Controls		None		
	Terminal Block		None		
	Chassis		Yes		
	Cover		Yes		

1. Defined by the rating input/output conditions at an environmental temperature of 25℃.
2. Excluding inrush current to noise filter.Also, when the power is turned on again, a current exceeding the indicated value may flow.(Ta=25℃)
3. The output conditions are measured at a point of 15 centimeters from the output connectors by connecting 100uF electronic capacitors and 0.1uF film capacitors.
4. Ripple noise is measured with a 100MHz oscilloscope using a 1:1 probe (chassis mounted).
5. Voltage regulation includes the result of static input variation, static load variation,warm-up drift and temperature change. (Transient overshoot, undershoot not specified)
6. Reset is re-input voltage.
7. Insulation conditions are set at room temperature and room temperature.
8. It is a typical value and should be within the rated output power.
9. The output current is a typical value and should be used within the rated output power.
10. AC90V and below requires output delirating.

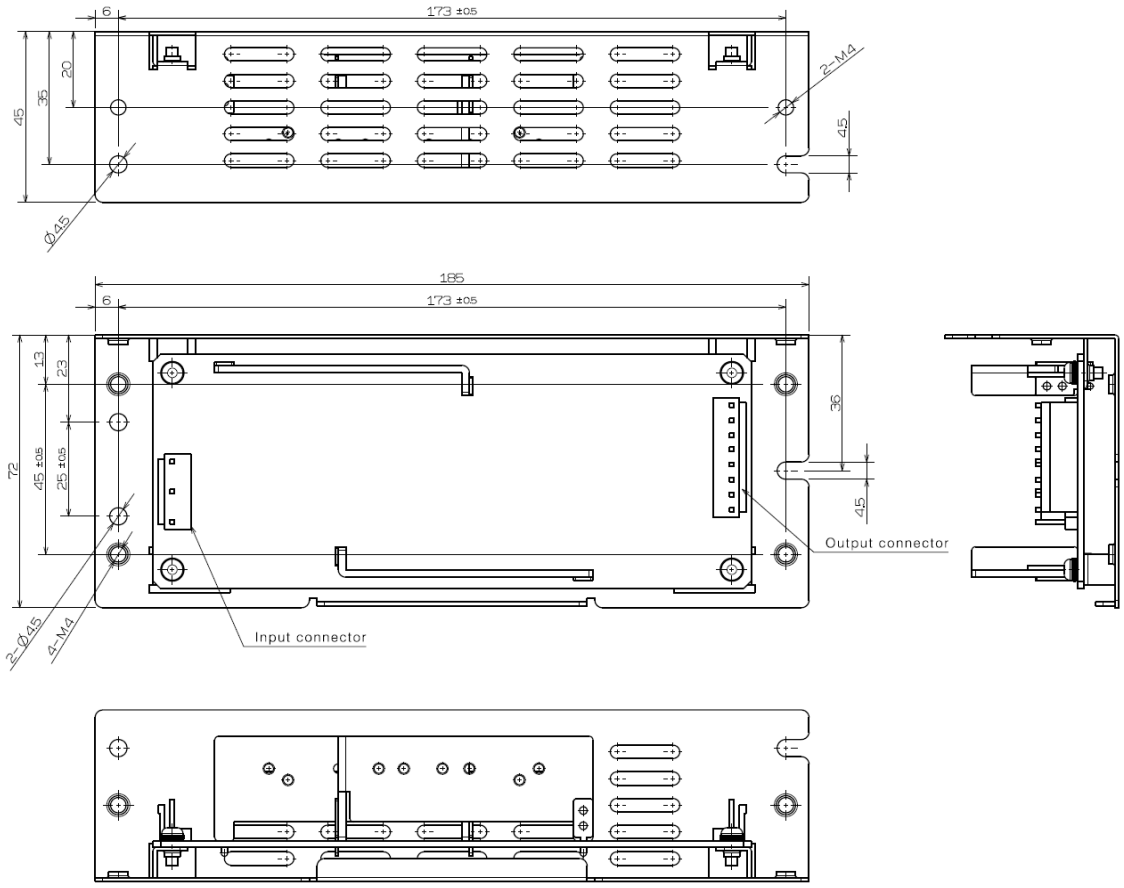
3. Dimensional Outline Drawing

(Unit: mm)
(The error without instruction is ±1.0mm)

■ SWL100-**-S



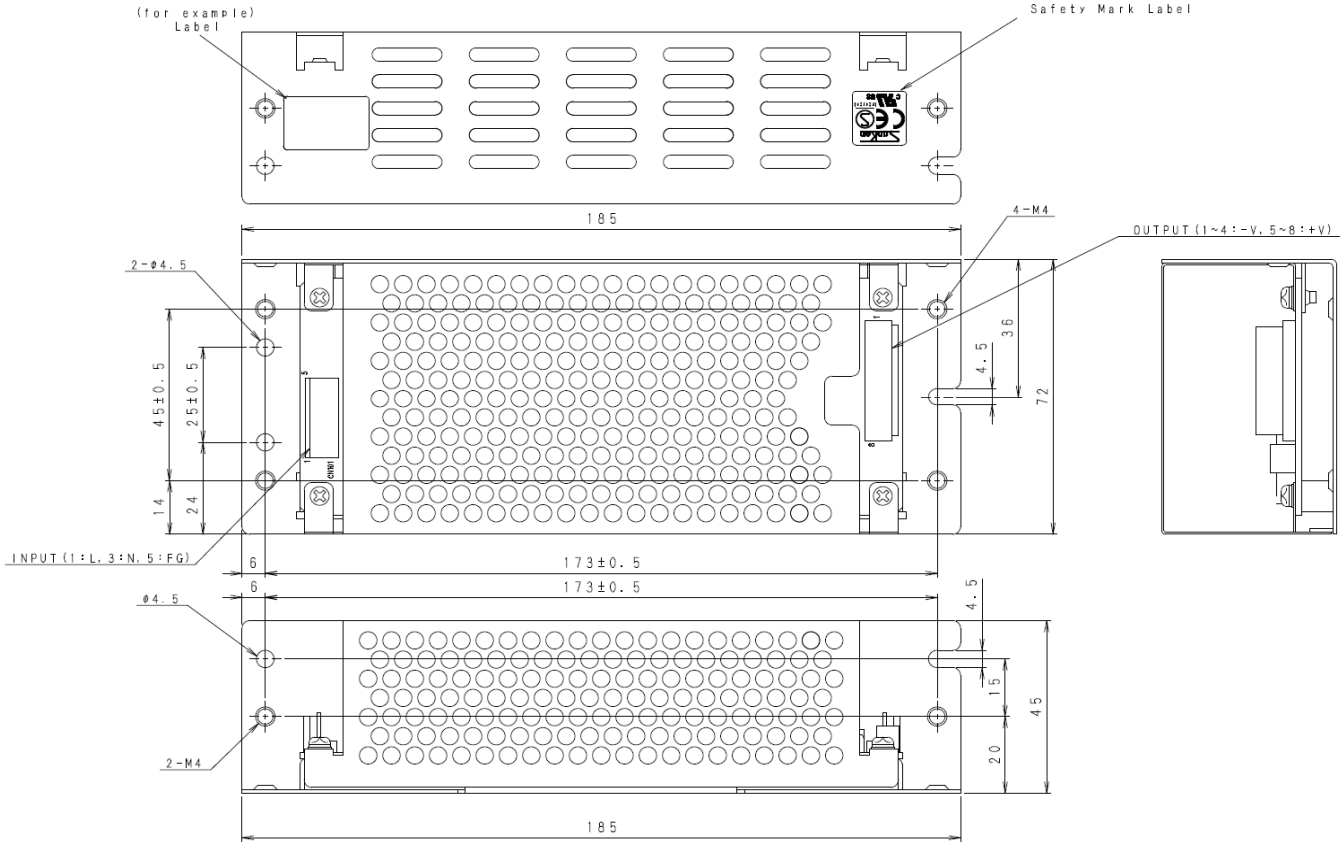
■ SWL100-**-L-S



3. Dimensional Outline Drawing

(Unit: mm)
(The error without instruction is ±1.0mm)

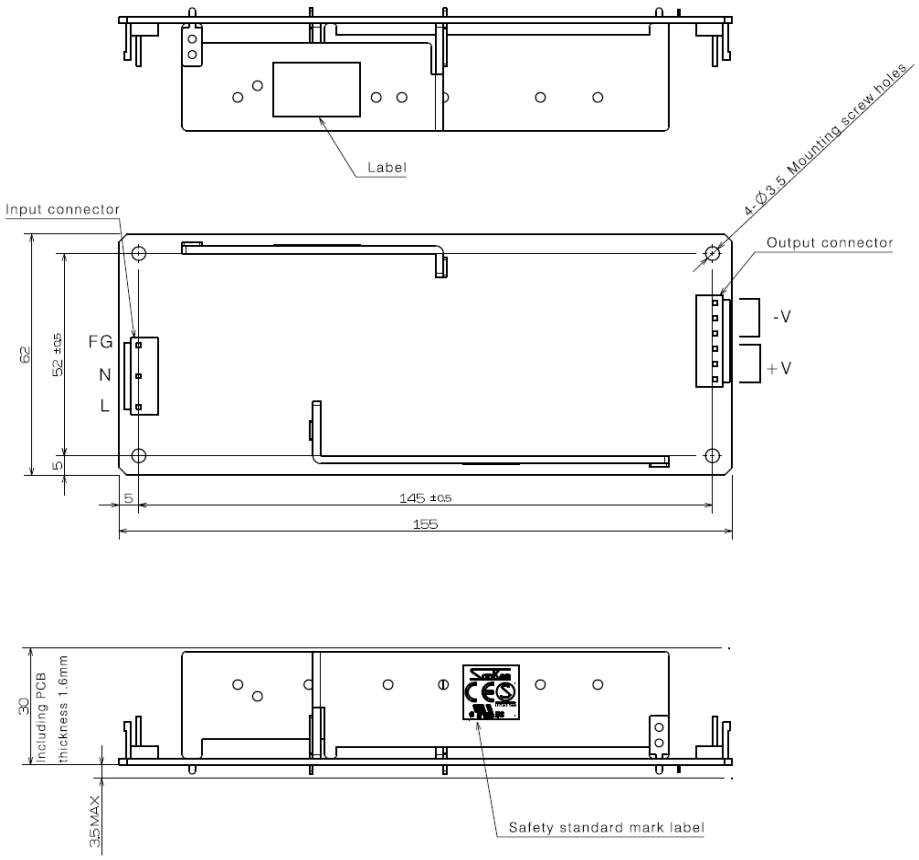
■ SWL100-**-LC-S



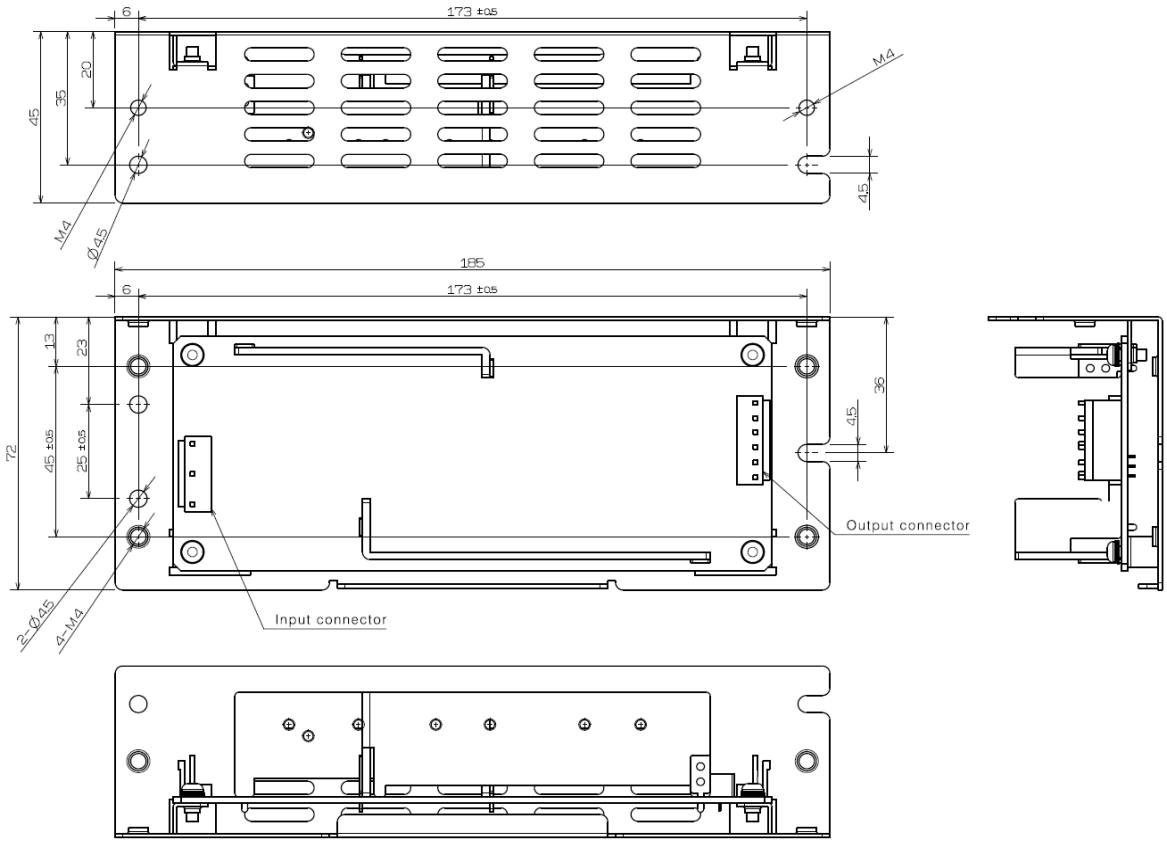
3. Dimensional Outline Drawing

(Unit: mm)
(The error without instruction is ±1.0mm)

■ SWL150-**-S



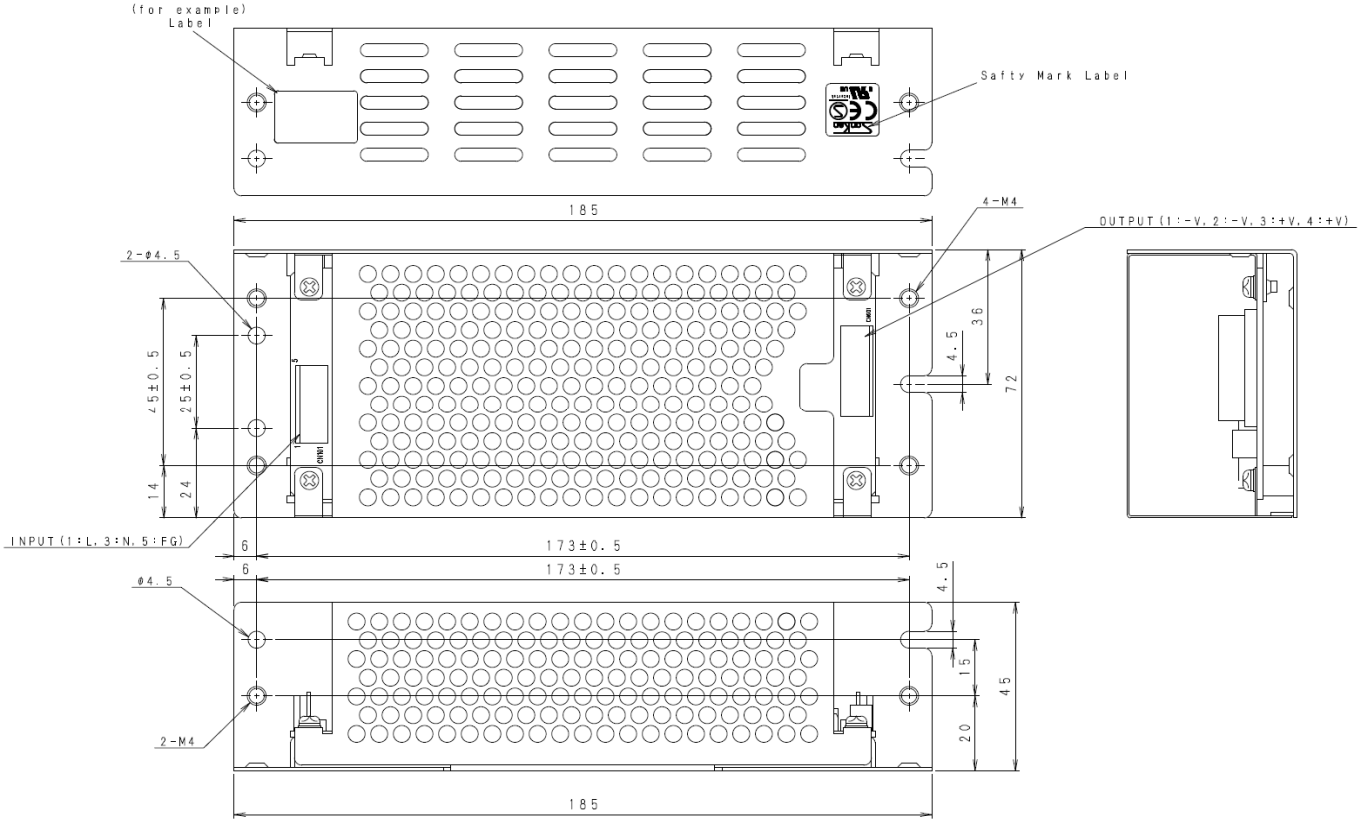
■ SWL150-**-L-S



3. Dimensional Outline Drawing

(Unit: mm)
(The error without instruction is ±1.0mm)

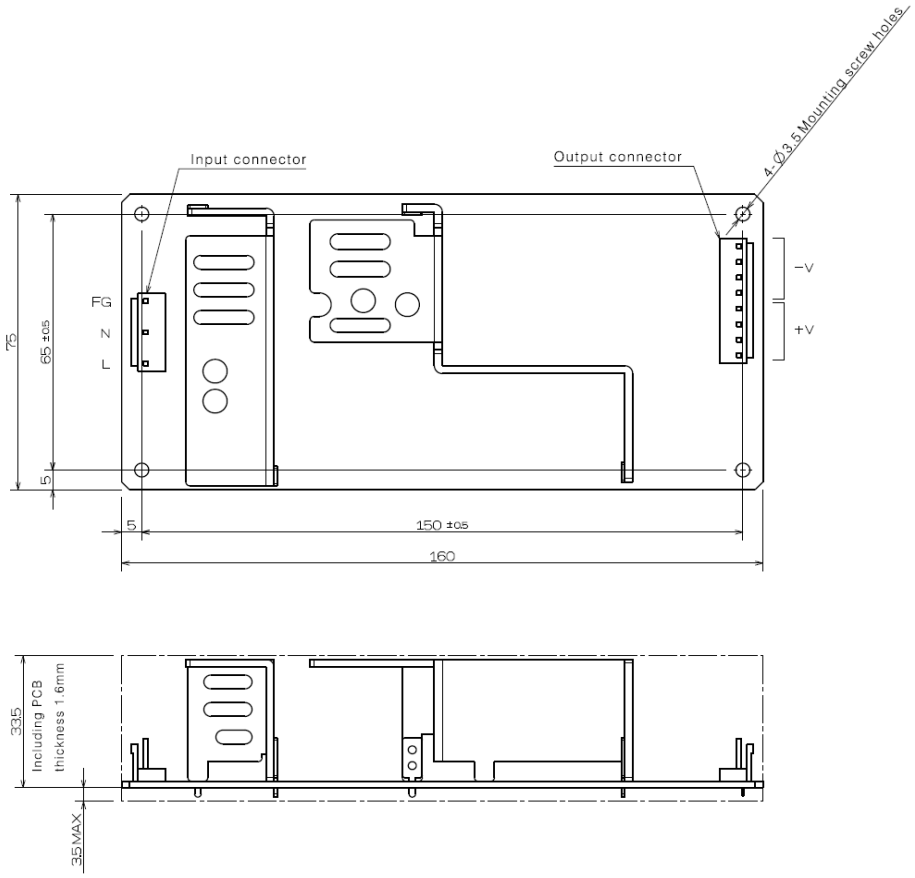
■ SWL150-**-LC-S



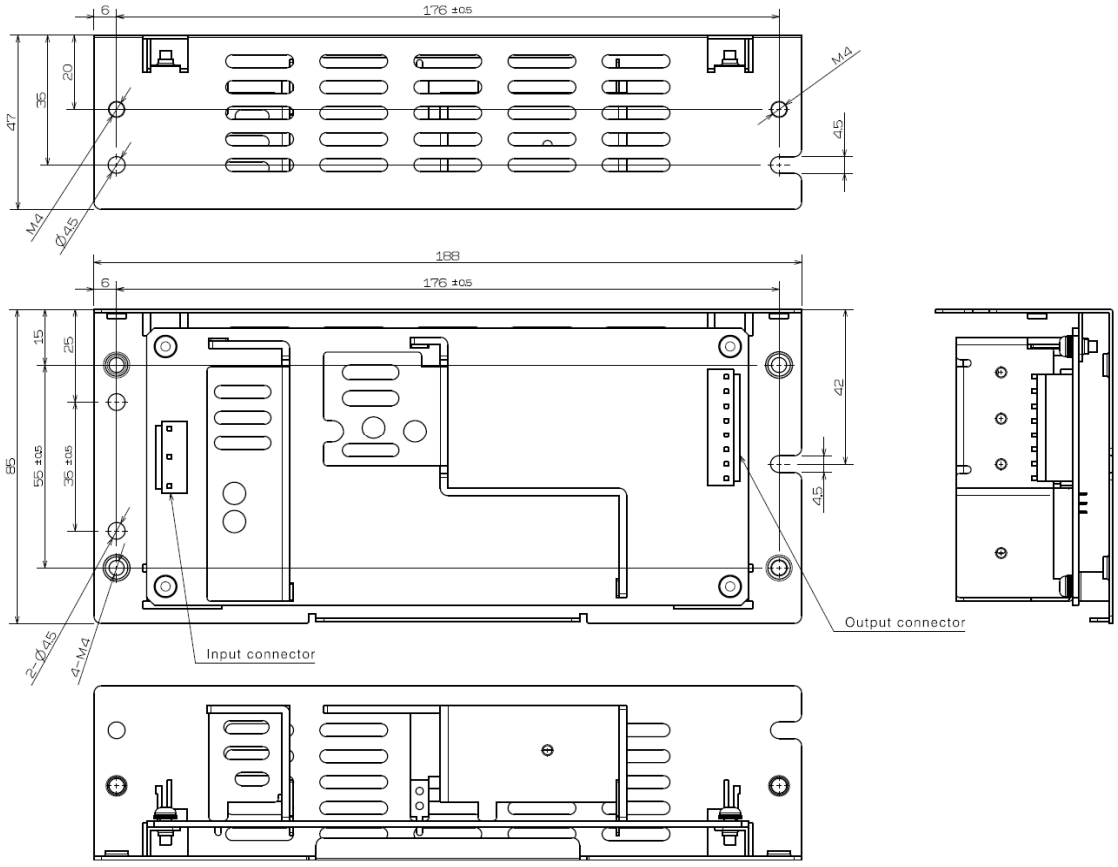
3. Dimensional Outline Drawing

(Unit: mm)
(The error without instruction is ±1.0mm)

■ SWL240-**-S



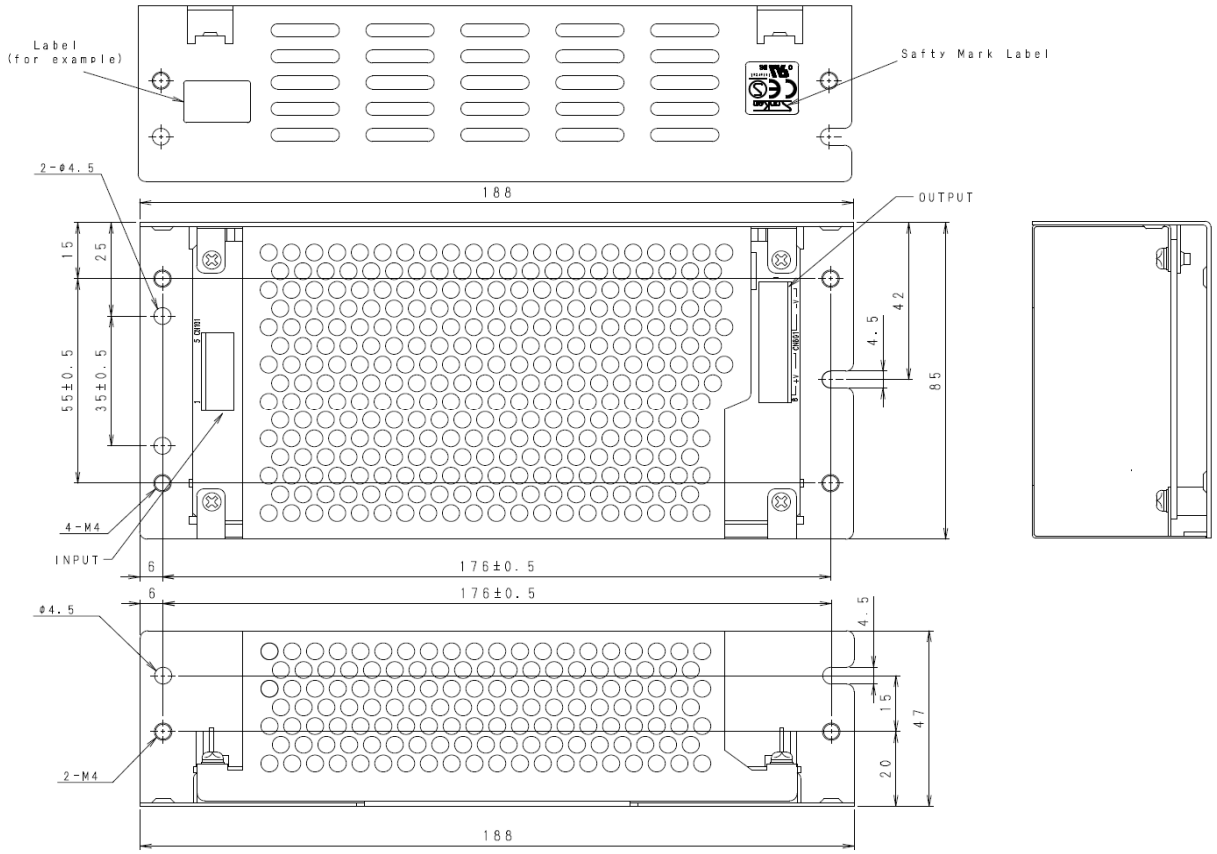
■ SWL240-**-L-S



3. Dimensional Outline Drawing

(Unit: mm)
(The error without instruction is ±1.0mm)

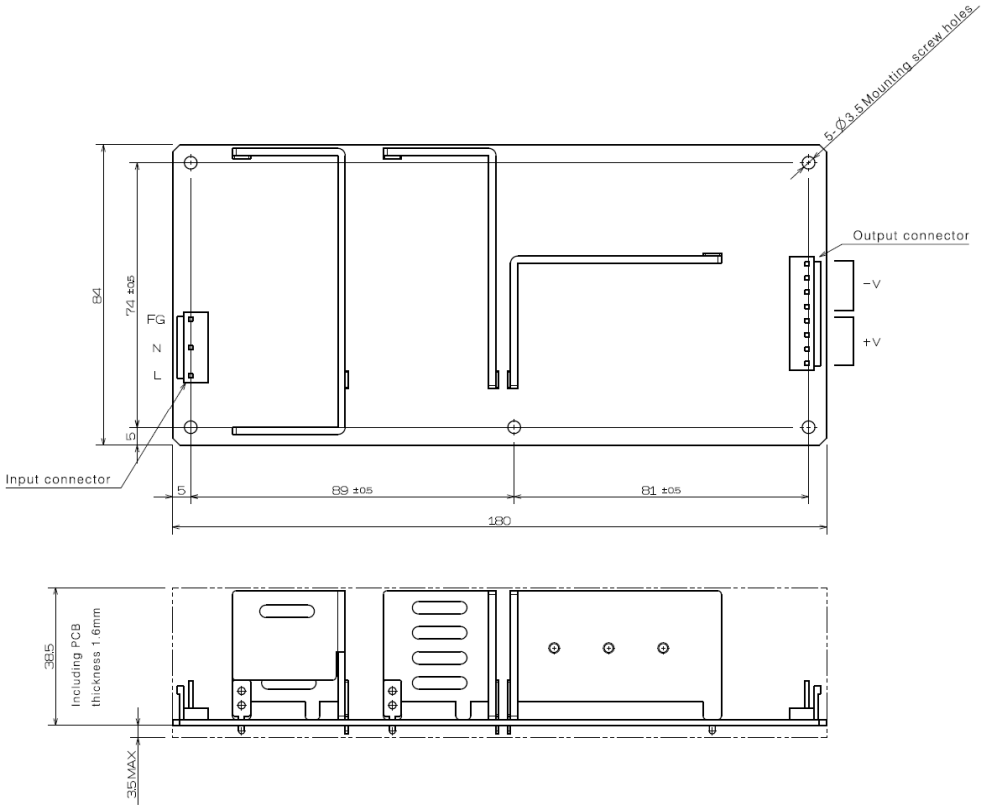
■ SWL240-**-LC-S



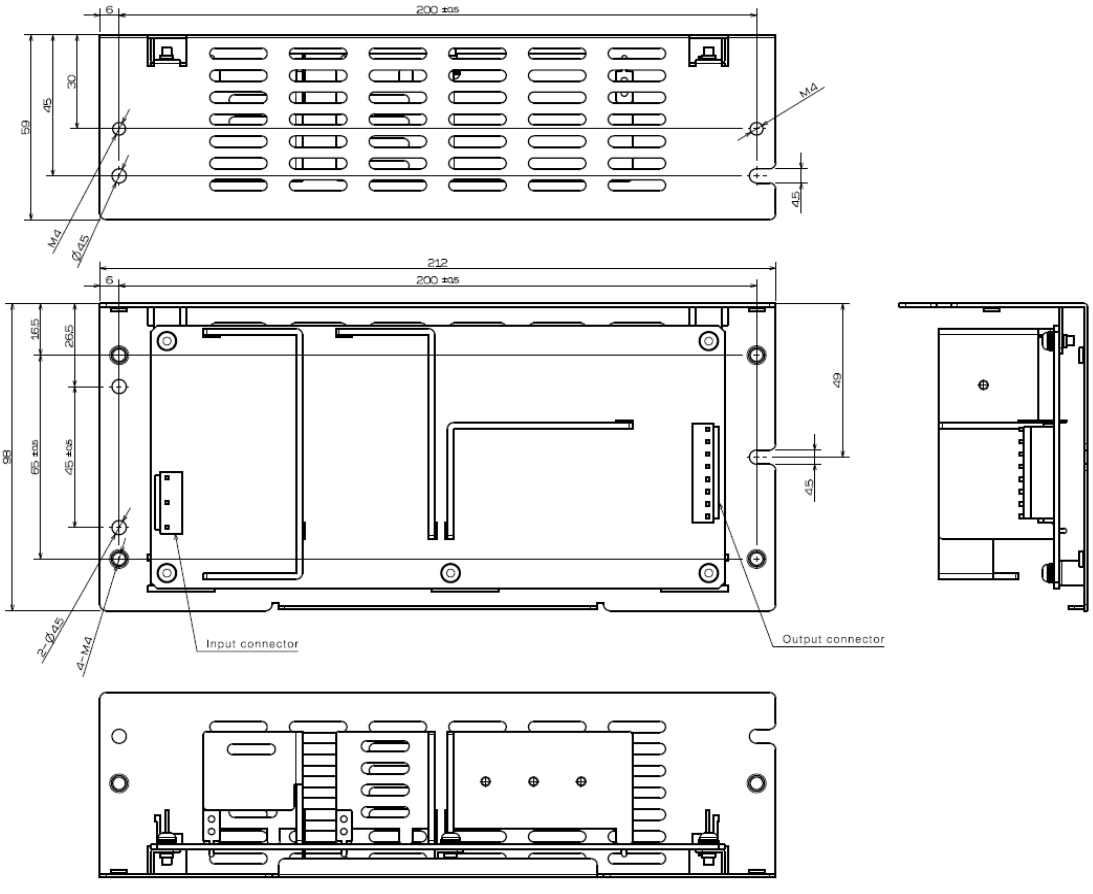
3. Dimensional Outline Drawing

(Unit: mm)
(The error without instruction is ±1.0mm)

■ SWL300-**-S



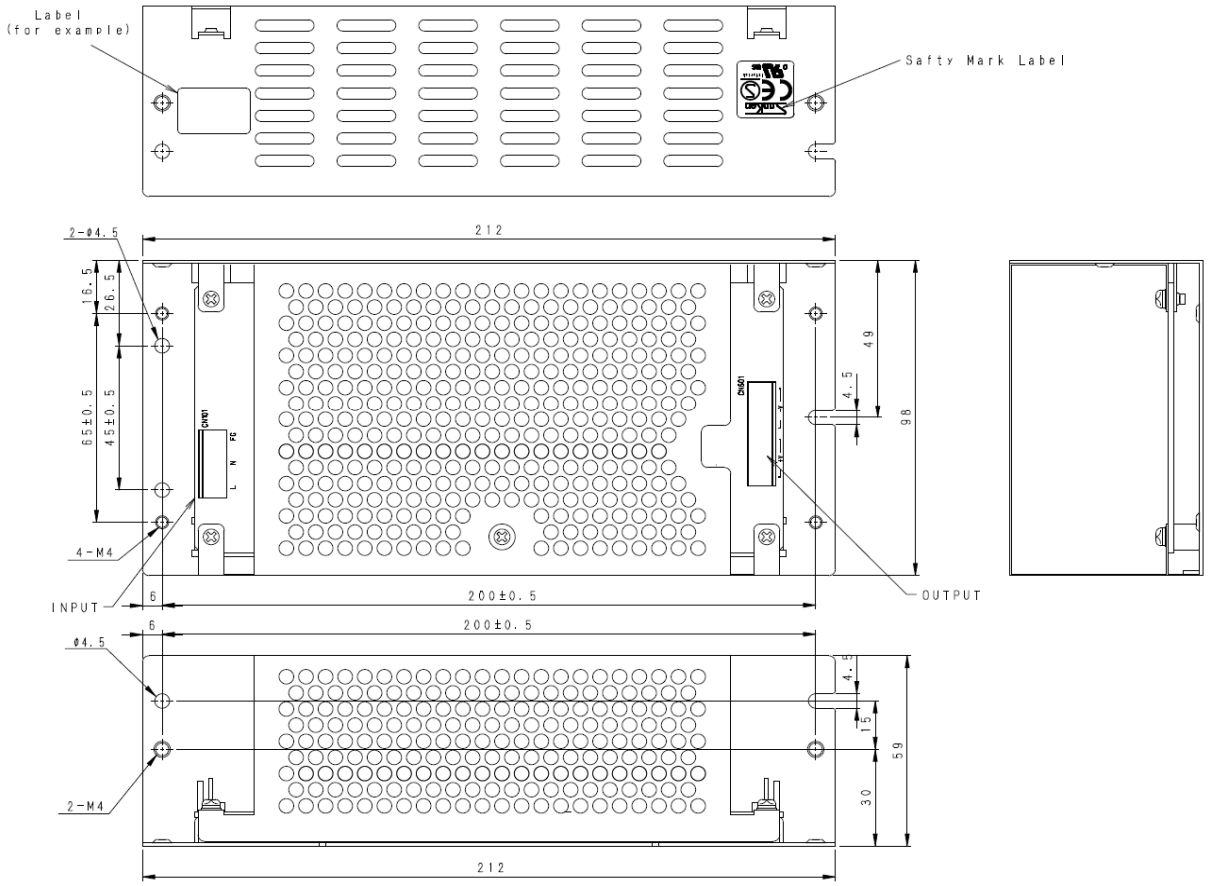
■ SWL300-**-L-S



3. Dimensional Outline Drawing

(Unit: mm)
(The error without instruction is ±1.0mm)

■ SWL300-**-LC-S



4. Model Name Generic Examples, Options

SWL ＊＊＊ - ○○ - △ - △ - S

Series Name	Output Power	Output Voltage	Option1	Option2	No output variable
	100 : 100W 150 : 150W 240 : 240W 300 : 300W	12 : 12V 24 : 24V 36 : 36V 48 : 48V	－L : L-type chassis －LC : L-type chassis cover		

※Please refer to the table below for the mix of options.

Optional Equipment

Output Power	Output Voltage	Type	Standard Products	L-type Chassis	L-type Chassis Cover	Remote ON/OFF
100W 150W 240W	12V 24V 36V 48V	SWL＊＊＊-○○-S	●			
		SWL＊＊＊-○○-L-S		●		
		SWL＊＊＊-○○-LC-S			●	
300W	24V 36V 48V	SWL300-○○-S	●			
		SWL300-○○-L-S		●		
		SWL300-○○-LC-S			●	

5. Terminal connection

Input and Output Connectors　　※Connector manufacturer : Japan Pressure Terminals (JST)

SWL100--S / SWL240-**-S / SWL300-**-S**

Terminal Name	Pin Number	Connector Type	Compliant Connectors	Conforming Contact	Remarks
CN101	1: AC(L) 2: – 3: AC(N) 4: – 5: FG	B3P5-VH	VHR-5N	SVH-21T-P1.1 BVH-21T-P1.1	Input
CN601	1: -V 2: -V 3: -V 4: -V 5: +V 6: +V 7: +V 8: +V	B8P-VH	VHR-8N	SVH-21T-P1.1 BVH-21T-P1.1	Output

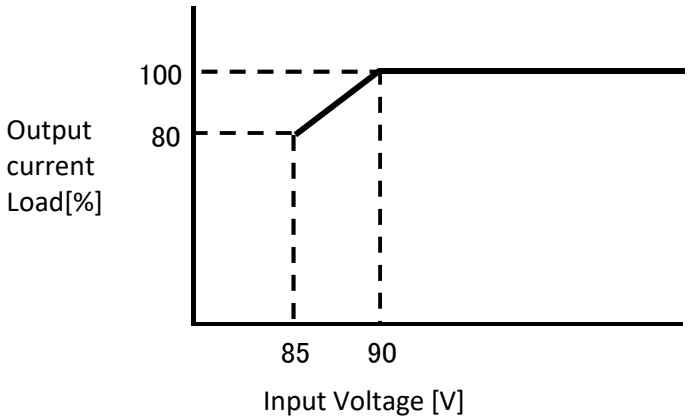
SWL150--S**

Terminal Name	Pin Number	Connector Type	Compliant Connectors	Conforming Contact	Remarks
CN101	1: AC(L) 2: – 3: AC(N) 4: – 5: FG	B3P5-VH	VHR-5N	SVH-21T-P1.1 BVH-21T-P1.1	Input
CN601	1: -V 2: -V 3: -V 4: +V 5: +V 6: +V	B6P-VH	VHR-6N	SVH-21T-P1.1 BVH-21T-P1.1	Output

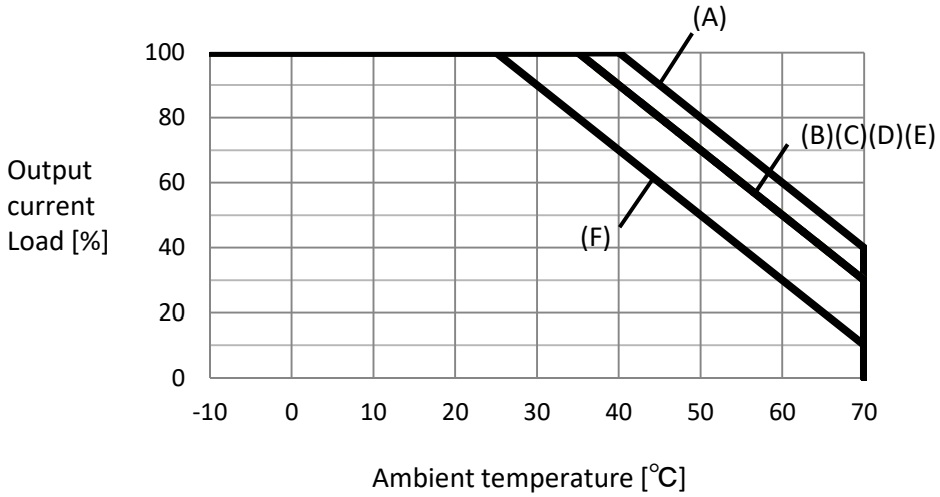
(NOTE)
* 2.4 pin of CN101 nothing
* CN601 should be used at 5 A or less per pin(Rated output)

6. Derating

SWL Series

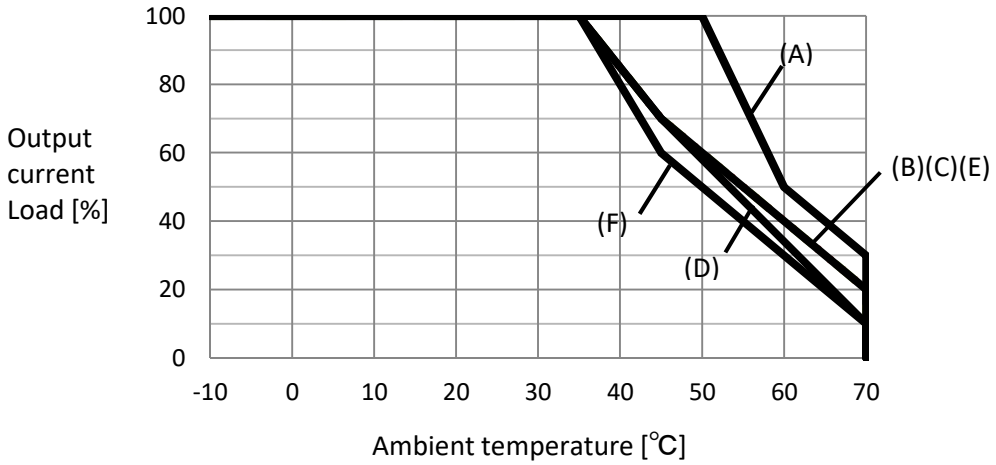


SWL100-12-S



Reference : Derating Curve (Without Chassis & Cover)

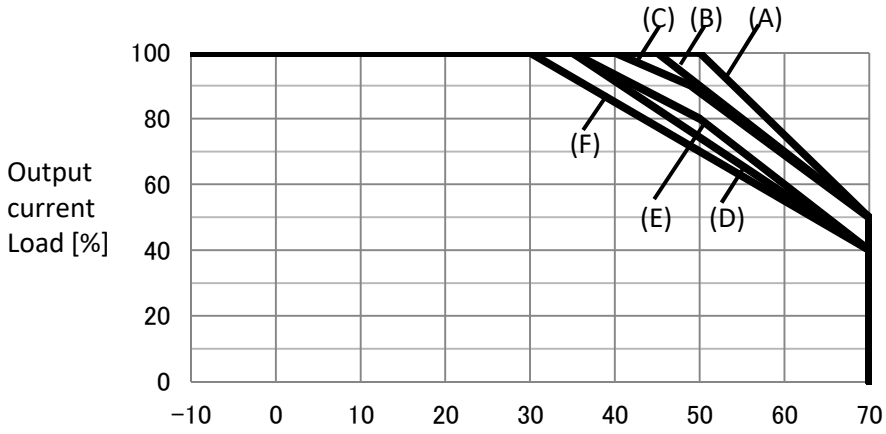
SWL100-24,36,48-S



Reference : Derating Curve (Without Chassis & Cover)

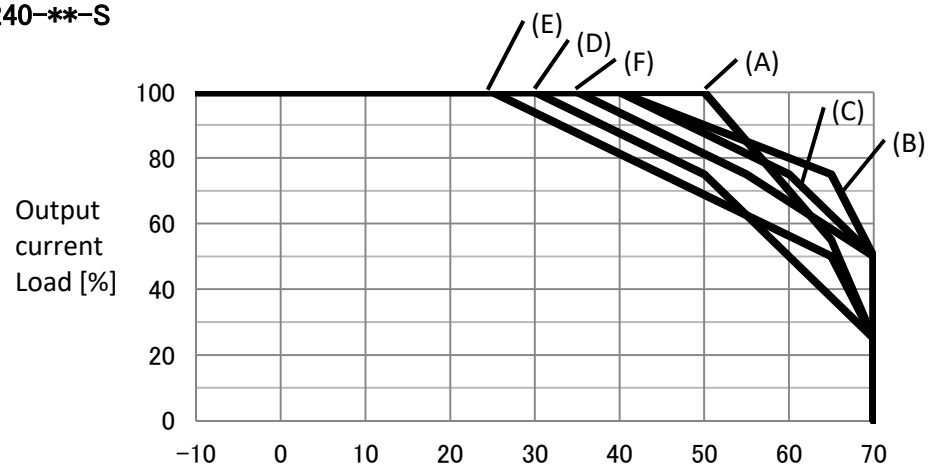
6. Derating

SWL150--S**



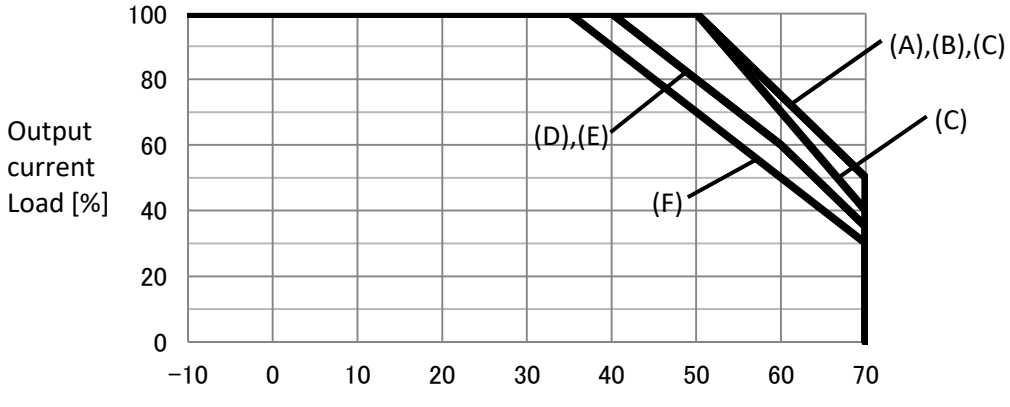
Reference : Derating Curve (Without Chassis & Cover)

SWL240--S**



Reference : Derating Curve (Without Chassis & Cover)

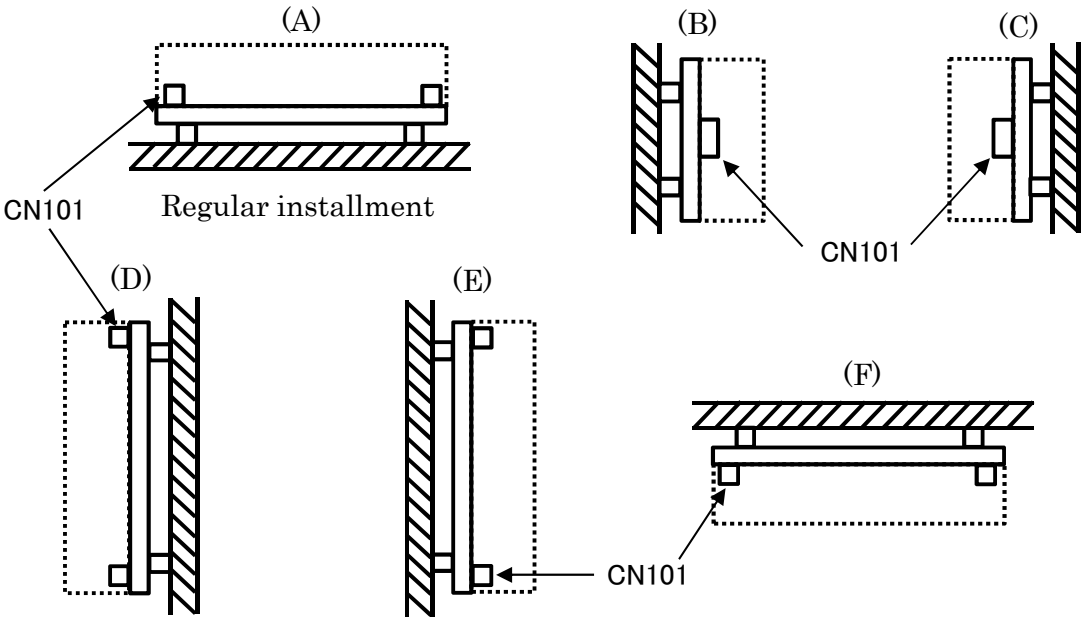
SWL300--S**



Reference : Derating Curve (Without Chassis & Cover)

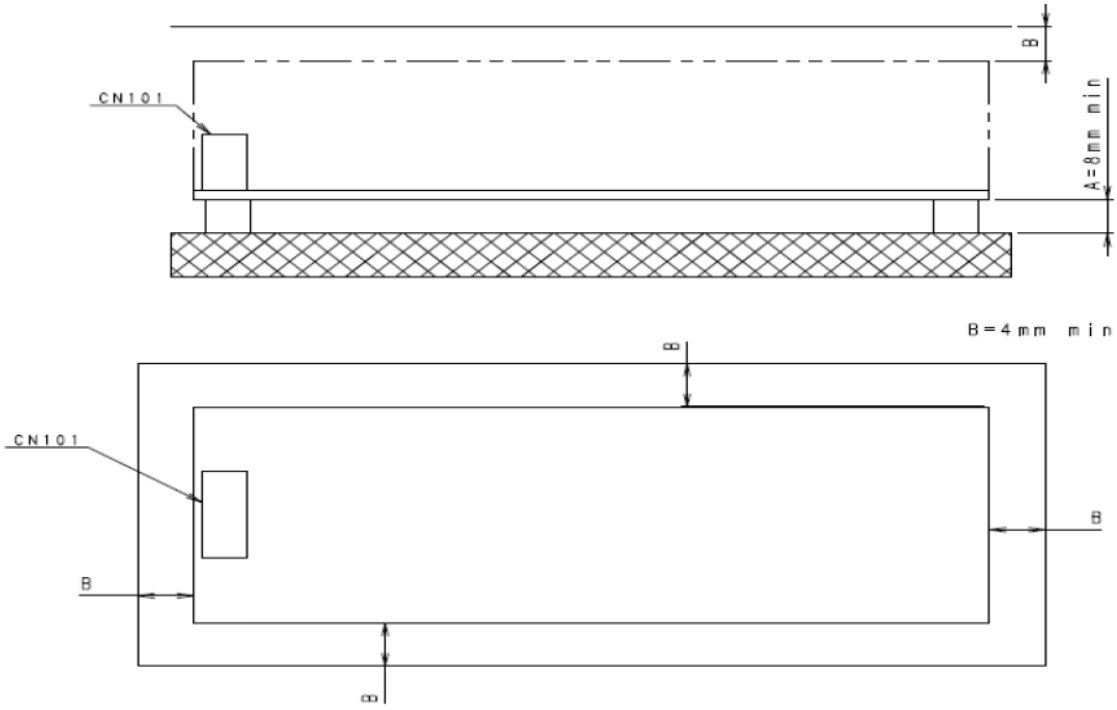
7. Mounting Method

■ Mounting Method



There is a high voltage within the power supply.Do not touch directly.This may lead to an electric shock.
This power supply chassis is not compatible with power supply fixation only on the chassis side.

■ Insulation distance



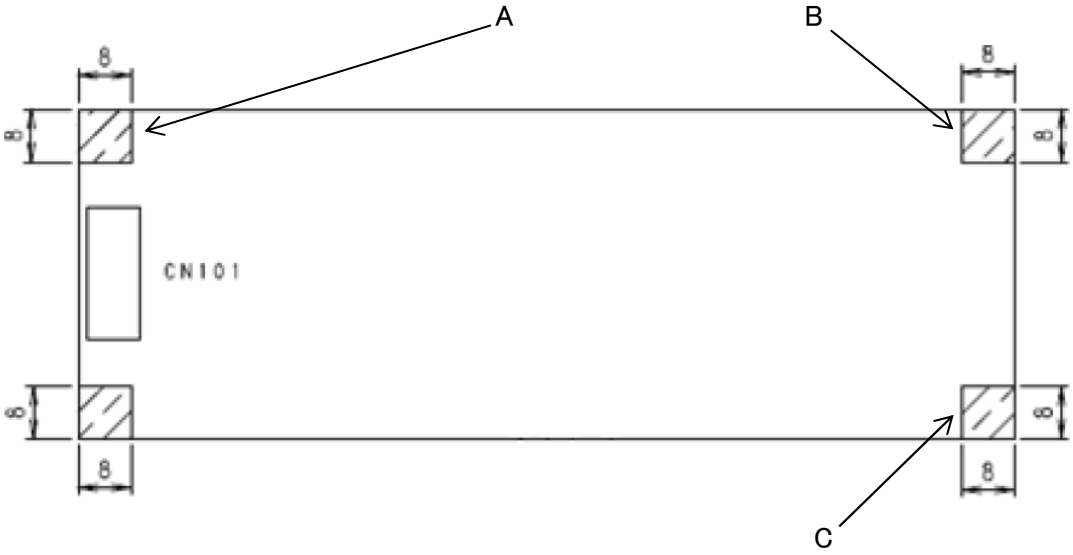
If a metal case is used, secure the dimensions of A and B for the separation between the power supply and the metal case.
This dimension is the necessary distance for the separation and does not satisfy the cool-down condition.

Ensure that the input FG terminal and the installation hole FG are earthed when installing the power supply.
※The protective earth conductor of the final device is not directly connected to the FG(CN101,mounting hole) in the power supply.

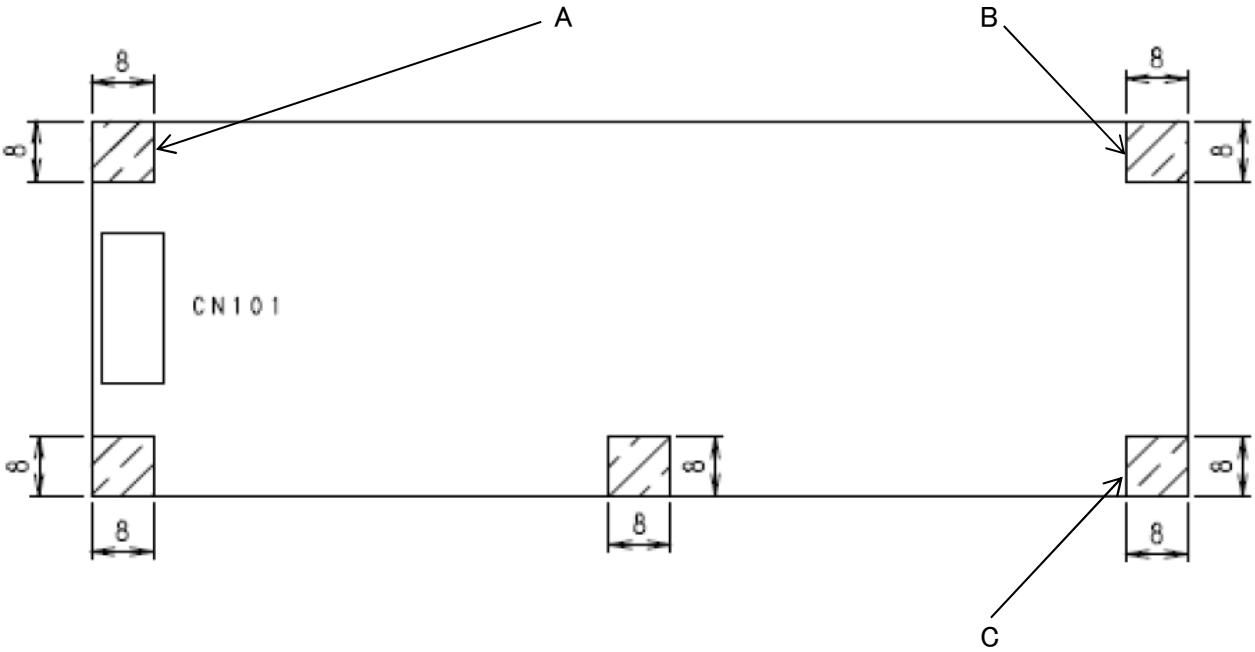
7. Mounting Method

■ Installation location

SWL100--S / SWL150-**-S / SWL240-**-S**



SWL300--S**



Use a small washer W sem screw M3 as the mounting screw.
Hatching indicates the allowable range for the metal part of the installation on the front side of the chip.
The size of the hatched area is the distance required for the purpose of the decoupling.

Use the solders of A, B, and C in the figure with the customer's equipment frame(FG).
SWL100 : A and C are grounded.
SWL150 , SWL240 : A and B are grounded.
SWL300 : A, B, C are grounded.

Because this product uses surface-mounting parts, please be aware of the installation method in which contact and stress are applied to the board at the time of installation.

Please contact us about the option installation method.

8. Expected life

Type	Mounting Method	Ambient temperature	Loading factor	
			75%	100%
SWL100-12	A	Ta=40℃ or less	10 years or more	10 years or more
	B	Ta=35℃ or less	10 years or more	10 years or more
	C	Ta=35℃ or less	10 years or more	5 years
	D	Ta=35℃ or less	10 years or more	6 years
	E	Ta=35℃ or less	10 years or more	4 years
	F	Ta=25℃ or less	10 years or more	10 years or more
SWL100-24,36,48	A	Ta=50℃ or less	7 years	6 years
	B	Ta=35℃ or less	9 years	8 years
	C	Ta=35℃ or less	10 years or more	10 years or more
	D	Ta=35℃ or less	10 years or more	10 years or more
	E	Ta=35℃ or less	10 years or more	6 years
	F	Ta=35℃ or less	10 years or more	6 years
SWL150-**-S	A	Ta=50℃ or less	9 years	5 years
	B	Ta=45℃ or less	10 years or more	8 years
	C	Ta=40℃ or less	10 years or more	10 years or more
	D	Ta=35℃ or less	10 years or more	10 years or more
	E	Ta=35℃ or less	10 years or more	9 years
	F	Ta=30℃ or less	10 years or more	10 years or more
SWL240-**-S	A	Ta=50℃ or less	10 years or more	7 years
	B,C	Ta=40℃ or less	10 years or more	7 years
	D	Ta=30℃ or less	10 years or more	10 years or more
	E	Ta=25℃ or less	10 years or more	8 years
	F	Ta=35℃ or less	10 years or more	10 years or more
SWL300-**-S	A	Ta=50℃ or less	9 years	5 years
	B	Ta=50℃ or less	10 years or more	6 years
	C	Ta=50℃ or less	4 years	2 years
	D	Ta=40℃ or less	10 years or more	9 years
	E	Ta=40℃ or less	8 years	3 years
	F	Ta=35℃ or less	10 years or more	6 years

9. Warranty period

※ Conditions for use of the free warranty range
(We shall not be liable for any secondary damage caused by the failure or use of the Product.)
Use within the scope of the above table and five years after our factory shipment

【Exclusion conditions】
The following cases are excluded from free guarantees.
① Such as inadequate conditions, the environment,
handling of products, and declines and shocks to products,
Use under conditions exceeding the specifications
② Earthquakes, lightning, fire, wind and flood damage, and other natural disasters
③ By modifying, disassembling, and repairing products other than ourselves,
Cases due to reasons other than our responsibilities
④ External factors such as abnormal voltage or other connected equipment

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PAN40012-001E-07

- This promotion sheet is as of October 2020.
- Please note that the contents are subject to change without notice for product improvement.