

# Altech Corp.®



Quality  
Endorsed  
Company



## Features

- Ultra Slim size
- Conformal coated PCB
- Parallel option available
- Universal input
- Three-year Warranty



# Compact Power Supplies

# PSC-75 Series



Input: 85-264VAC 47/63Hz  
 Output Voltage: 12, 24 & 48 V DC  
 Rated Power: 75W max.



## FEATURES

- Universal AC input range(85~264Vac)
- Support 1+1 or N+1 redundant system (suggest to use redundancy modules.)
- Built-in active PFC,PF>0.95
- High efficiency up to 91%
- Built-in current sharing function
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-25°~70°)
- 150% peak load capacity
- Easy Fuse Tripping due to High Overload Current
- Excellent Partial Load Efficiency
- Built-in DC OK relay contact
- Can be installed on 35 mm DIN rail
- 100% full load burn-in test
- PCB with conformal coating
- Suitable for critical applications
- Ultra-slim,32mm width
- 3 years warranty

## CATALOG NUMBER

### INPUT

### PSC-7512

### PSC-7524

### PSC-7548

Voltage Range	85Vac~264Vac, 127Vdc-360Vdc		
Frequency Range	47Hz~63Hz		
Power Factor (typical)	0.99/100Vac	0.95/230Vac	
AC Current (max.)	<0.95 A/100Vac	<0.45A/230Vac	
Inrush Current (Typical)	<30A/100Vac	<60A/230Vac	Cold start
Leakage Current	Input—output: ≤0.25mA	Input—PG: ≤3.5mA	
Efficiency ( Typical) @230Vac	88%	91%	91%

### OUTPUT

DC Output	12V	24V	48V
Rated Current	6.3A	3.2A	1.6A
Current Range <i>Note 1</i>	0~6.3A	0~3.2A	0~1.6A
Ripple and Noise	0~70°C ≤100mV	≤120mV	≤120mV
	-25°C~0 ≤200mV	≤240mV	≤240mV
Voltage ADJ. Range	12~14V	24~28V	48~56V
Voltage Accuracy	±1.0%		
Line Regulation	±0.5%		
Load Regulation	±1.0%		
Set-up Time	<250mS@230Vac ; <500mS@100Vac		
Hold up Time	≥20mS(230Vac input, Full load)		
Temperature Coefficient	±0.03%/°C		
Overshoot	<5.0%		

## ENVIRONMENTAL

Operating amb. Temp. & Hum.	-25°C~70°C; 20%~90%RH No condensing
Storage Temp. & Hum.	-40°C~85°C; 5%~95%RH No condensing

## PROTECTIONS

Over voltage	15~18V	29~33V	58~65V
Over Load	Protection type: Hiccup mode, Auto recovery 110%~150% of rated current, Constant power limiting for some time(150% of rated current, last 3S) then PS stop working for 7S,after 7S,if the load ≤rated current, PS will work normally, auto recovery		
Over temperature	100±5°C, detect on heat sink of power transistor; shut down O/P, auto recovery after temperature goes down.		
Short Circuit	Long-term mode, auto recovery		

## SAFETY & EMC

*Note 3*

Safety Standards	UL508, UL60950-1, EN62368-1
Withstand Voltage	Primary-Secondary:3.0kVac/10mA .Primary-PG:2.5kVac/10mA. Secondary-PG:0.5kVac/20mA.
Isolation Resistance	10M ohms
EMC Emission	Compliance to EN55032 Class B
Harmonic Current	Compliance to EN61000-3-2, Class A
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,11;

## OTHER

MTBF (MIL-HDBK-217F)	More than 300,000Hrs (25°C, Full load)
Dimension (L*W*H)	124 x 119 x 32mm
Packing	28pcs/CTN,17.6Kg, 0.04cbm
Cooling method	Cooling by free air convection

## NOTES

1. All parameters NOT specially mentioned are measured at rated input, rated load and 25°C of ambient temperature.
2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.
3. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies"

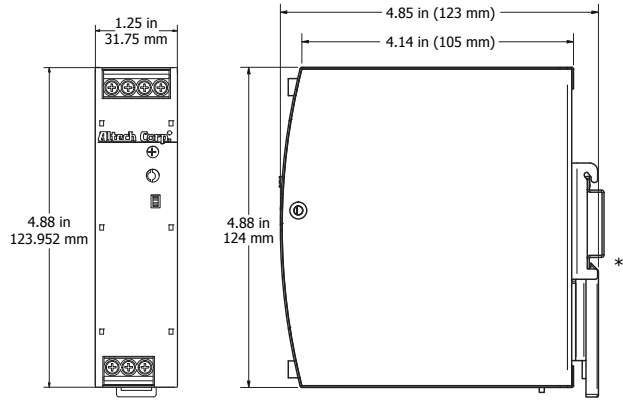
## Mechanical Specification

### 1.AC terminal blocks installation information

Terminal No.	Function	Wire Spec	Recommended Torque
1	L	20~10AWG	1Nm
2	N		
3	PG		

### 2.DC terminal blocks installation information

Terminal No.	Function	Wire Spec	Recommended Torque
4 & 5	DC OK Relay Contact	20~10AWG	1Nm
6	-V		
7	+V		



\* DIN Rail sold separately.

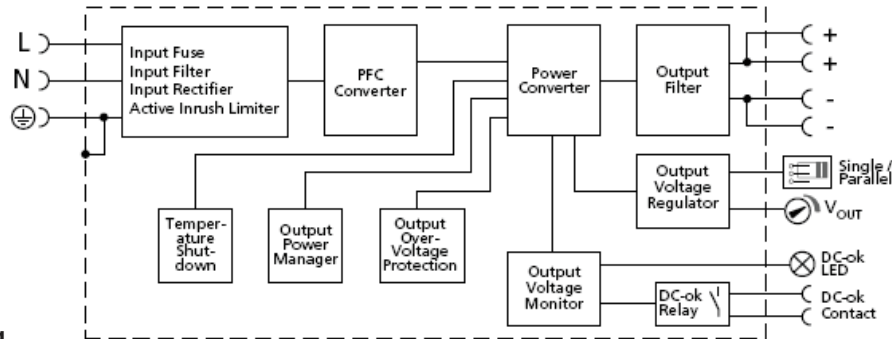
### AC/DC Terminal

Type	Screw terminal blocks
Solid Wire	0.5-6mm <sup>2</sup>
Strand Wire	0.5-4mm <sup>2</sup>
Wire Spec	AWG20-10 (PG wire >18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	1NM

Power boost	150% of rated current
DC OK	V On: when output voltage is up to 90% of rated output voltage
	V Off: when output voltage is down to 80% of rated output voltage
DC OK relay contact rating	Max 30V/1A or 60V/0.3A or 30Vac/0.3A Resistive load
Parallel function	support

## Block Diagram

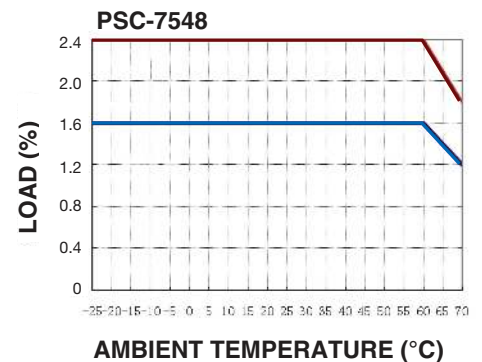
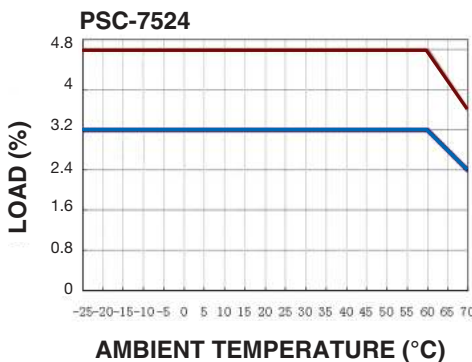
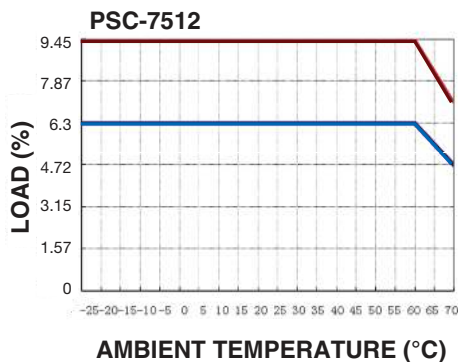
## Functional Diagram



## Peak Loading



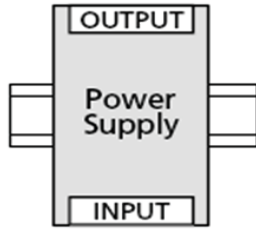
## Derating Curve



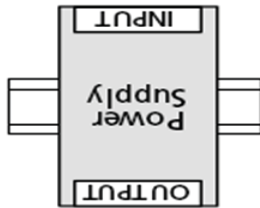
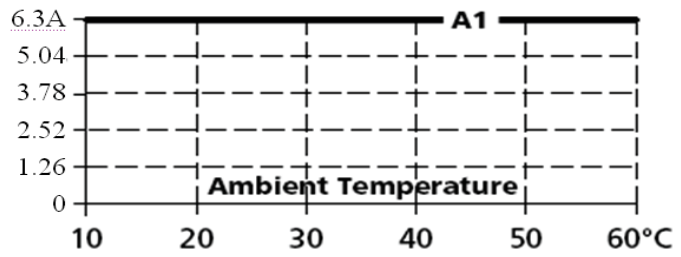
## Mounting method instruction PSC-7512

A1 is recommended output current.

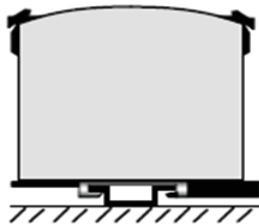
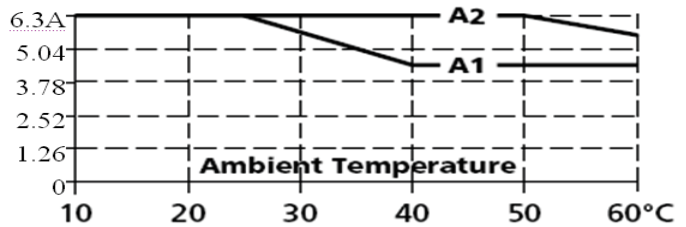
A2 is the allowed max output current (PSU lifetime is around half of A1).



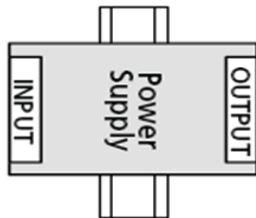
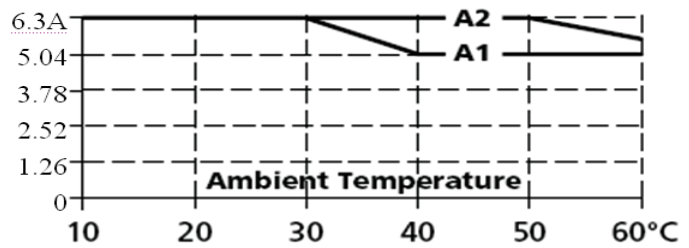
**Output Current**



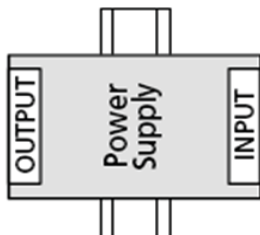
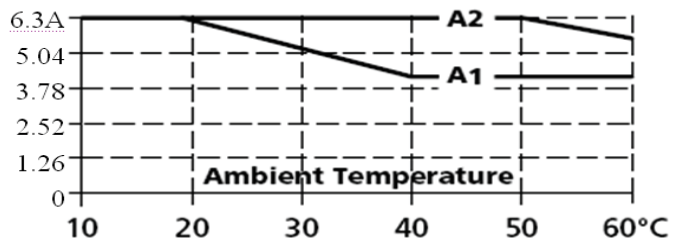
**Output Current**



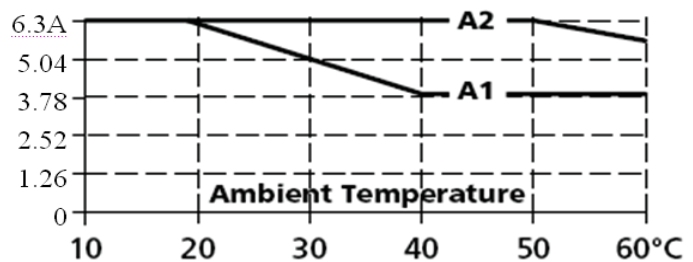
**Output Current**



**Output Current**



**Output Current**

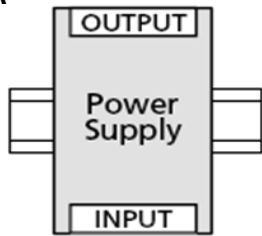


## Mounting method instruction PSC-7524

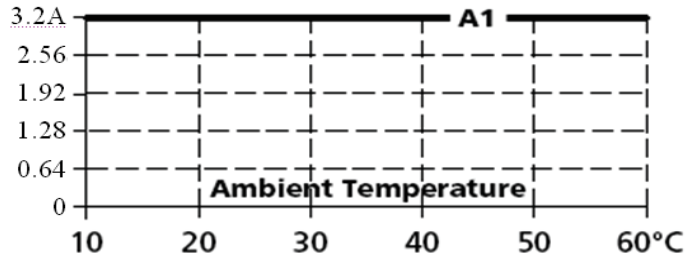
A1 is recommended output current.

A2 is the allowed max output current (PSU lifetime is around half of A1).

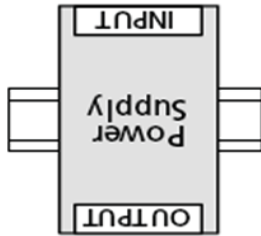
**Mounting A**



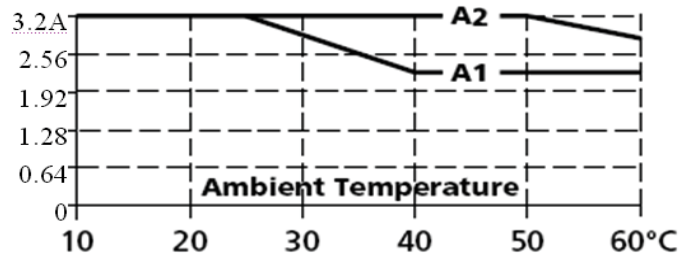
**Output Current**



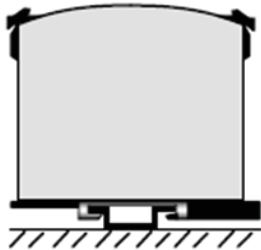
**Mounting B**



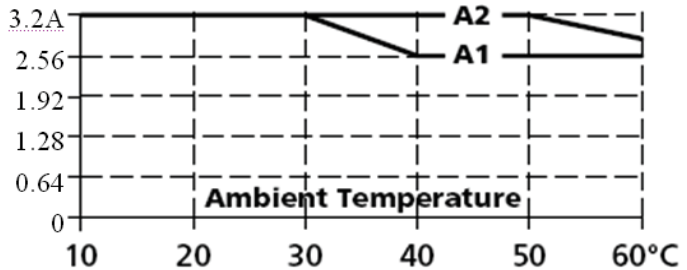
**Output Current**



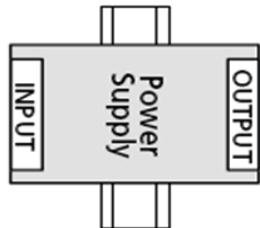
**Mounting C**



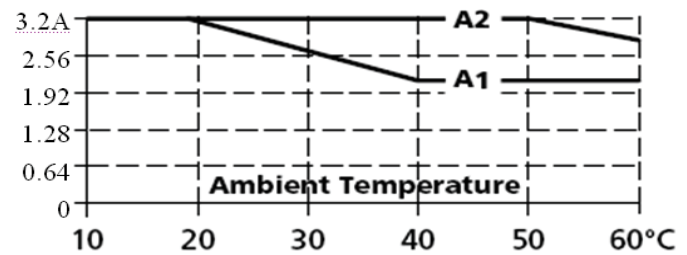
**Output Current**



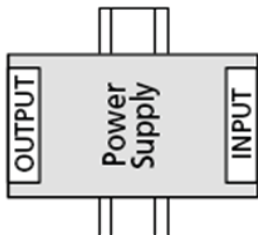
**Mounting D**



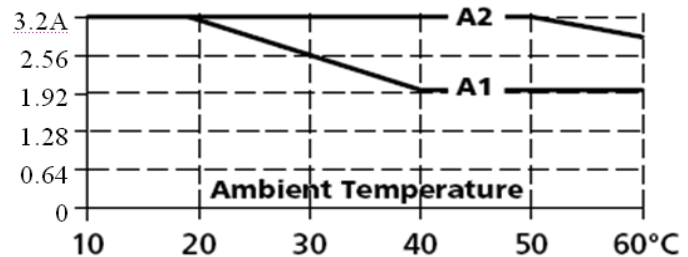
**Output Current**



**Mounting E**



**Output Current**

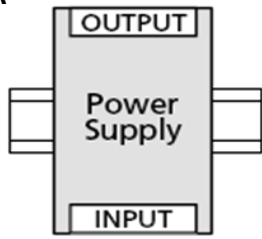


## Mounting method instruction PSC-7548

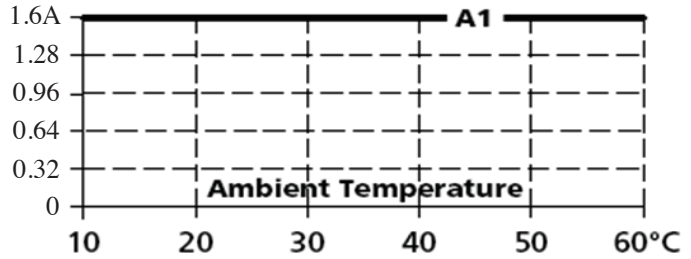
A1 is recommended output current.

A2 is the allowed max output current (PSU lifetime is around half of A1).

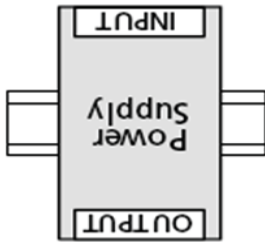
**Mounting A**



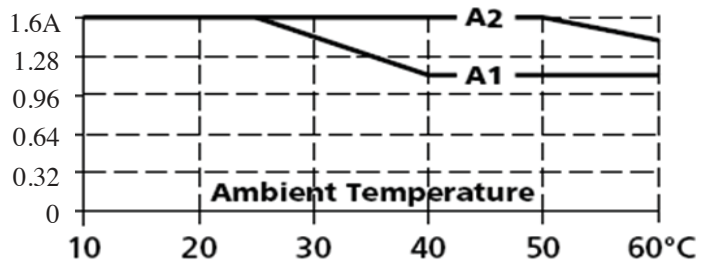
**Output Current**



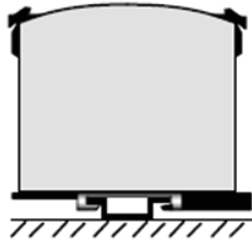
**Mounting B**



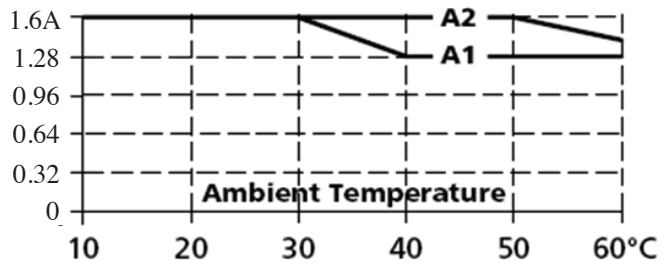
**Output Current**



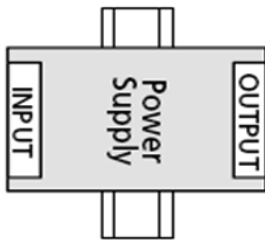
**Mounting C**



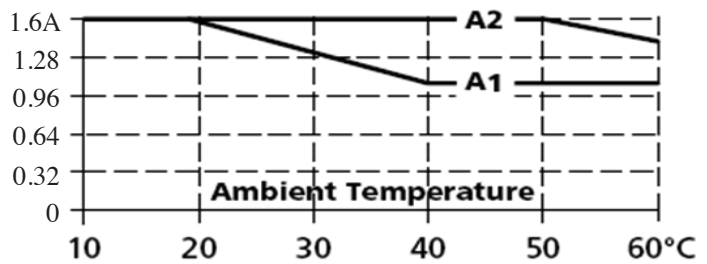
**Output Current**



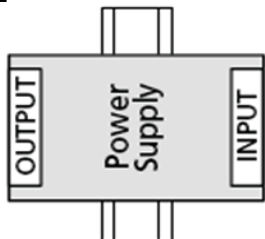
**Mounting D**



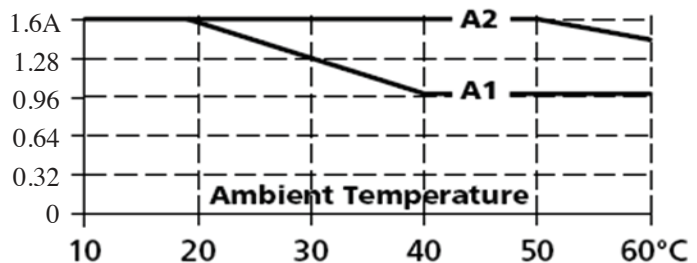
**Output Current**



**Mounting E**



**Output Current**



# PSC-120 Series



Input: 85-264VAC 47/63Hz  
 Output Voltage: 12, 24 & 48 V DC  
 Rated Power: 120W max.



## FEATURES

- Universal AC input range(85~264Vac)
- Support 1+1 or N+1 redundant system (suggest to use redundancy modules.)
- Built-in active PFC,PF>0.95
- High efficiency up to 92%
- Built-in current sharing function
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-25°C~70°C)
- 150%(180W) peak load capacity
- Easy Fuse Tripping due to High Overload Current
- Excellent Partial Load Efficiency
- Built-in DC OK relay contact
- Can be installed on 35 mm DIN rail
- 100% full load burn-in test
- PCB with conformal coating
- Suitable for critical applications
- Ultra-slim,32mm width
- 3 years warranty

## CATALOG NUMBER

**PSC-12012**

**PSC-12024**

**PSC-12048**

### INPUT

Voltage Range	85Vac~264Vac, 127Vdc-360Vdc		
Frequency Range	47Hz~63Hz		
Power Factor (typical)	0.99/100Vac	0.95/230Vac	
AC Current (max.)	<1.3 A/100Vac	<0.55A/230Vac	
Inrush Current (Typical)	<30A/100Vac	<60A/230Vac	Cold start
Leakage Current	Input—output: ≤0.25mA	Input—PG: ≤3.5mA	
Efficiency ( Typical) @230Vac	89.5%	91%	92%

### OUTPUT

DC Output	12V	24V	48V
Rated Current	8.33A	5A	2.5A
Current Range <i>Note 1</i>	0~8.33A	0~5A	0~2.5
Ripple and Noise	0~70°C ≤100mV	≤120mV	≤240mV
	<i>Note 2</i> -25°C~0 ≤200mV	≤240mV	≤240mV
Voltage ADJ. Range	12~14V	24~28V	48~56V
Voltage Accuracy	±1.0%		
Line Regulation	±0.5%		
Load Regulation	±1.0%		
Set-up Time	<250mS@230Vac ; <500mS@100Vac		
Hold up Time	≥20mS(230Vac input, Full load)		
Temperature Coefficient	±0.03%/°C		
Overshoot	<5.0%		

### ENVIRONMENTAL

Operating amb. Temp. & Hum.	-25°C~70°C; 20%~90%RH No condensing
Storage Temp. & Hum.	-40°C~85°C; 5%~95%RH No condensing

### PROTECTIONS

Over voltage	15~18V	29~33V	58~65V
Over Load	Protection type: Hiccup mode, Auto recovery 110%~150% of rated current, Constant current limiting for some time(150% of rated current, last 3S) then PS stop working for 7S,after 7S,if the load ≤rated current, PS will work normally, auto recovery		
Over temperature	100±5°C, detect on heat sink of power transistor; shut down O/P, auto recovery after temperature goes down.		
Short Circuit	Long-term mode, auto recovery		

### SAFETY & EMC

*Note 3*

Safety Standards	UL508, UL60950-1, EN62368-1
Withstand Voltage	Primary-Secondary:3.0KVac/10mA .Primary-PG:2.5KVac/10mA. Secondary-PG:0.5KVac/20mA.
Isolation Resistance	10M ohms
EMC Emission	Compliance to EN55032 Class B
Harmonic Current	Compliance to EN61000-3-2, Class A
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,11;

### OTHER

MTBF (MIL-HDBK-217F)	More than 300,000Hrs (25°, Full load)
Dimension (L*W*H)	124 x 119 x 32mm
Packing	28pcs/CTN,18.02Kgs, 0.04cbm
Cooling method	Cooling by free air convection

### NOTES

1. All parameters NOT specially mentioned are measured at rated input, rated load and 25° of ambient temperature.
2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.
3. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies".

# PSC-120 Series

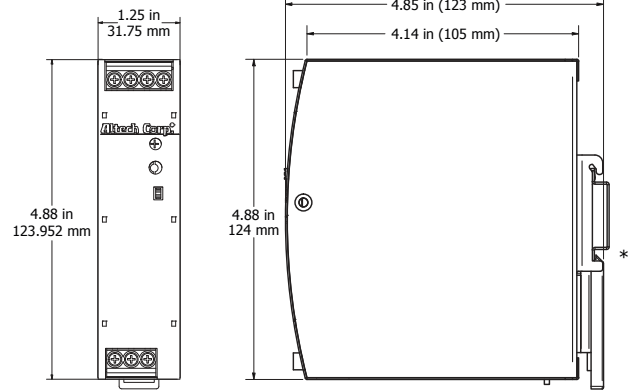
## Mechanical Specification

### 1.AC terminal blocks installation information

Terminal No.	Function	Wire Spec	Recommended Torque
1	L	20~10AWG	1Nm
2	N		
3	PG		

### 2.DC terminal blocks installation information

Terminal No.	Function	Wire Spec	Recommended Torque
4 & 5	DC OK Relay Contact	20~10AWG	1Nm
6	-V		
7	+V		



\* DIN Rail sold separately.

### AC/DC Terminal

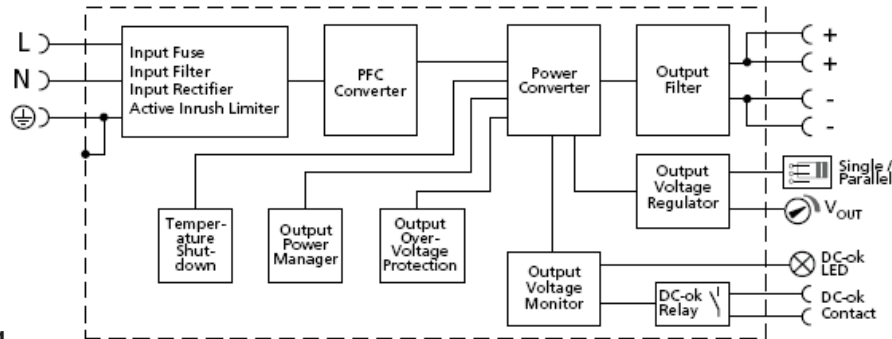
Type	Screw terminal blocks
Solid Wire	0.5-6mm <sup>2</sup>
Strand Wire	0.5-4mm <sup>2</sup>
Wire Spec	AWG20-10 (PG wire >18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	1NM

### Additional Functions

Power boost	150% of rated current
DC OK	V On: when output voltage is up to 90% of rated output voltage
	V Off: when output voltage is down to 80% of rated output voltage
DC OK relay contact rating	Max 30V/1A or 60V/0.3A or 30Vac/0.3A Resistive load
Parallel function	support

## Block Diagram

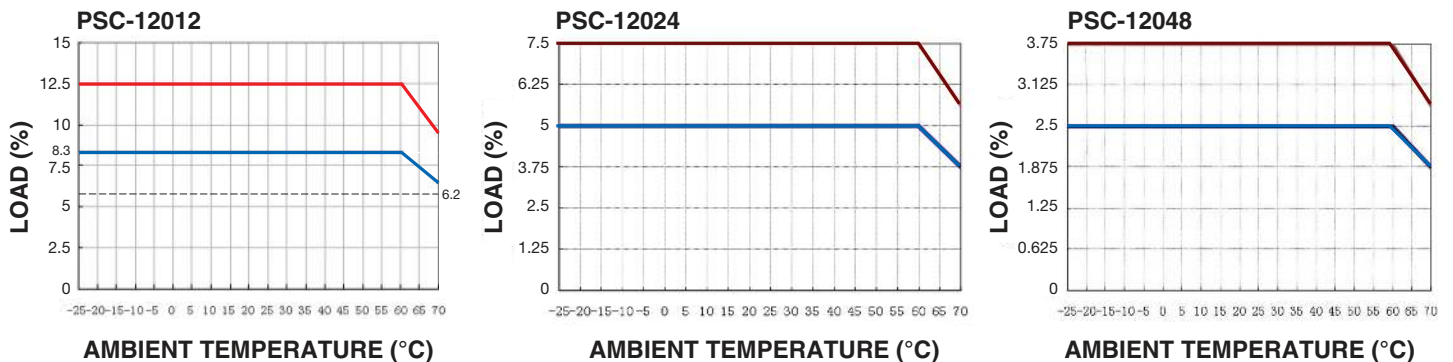
## Functional Diagram



## Peak Loading



## Derating Curve



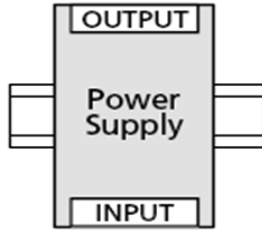


## Mounting method instruction PSC-12012

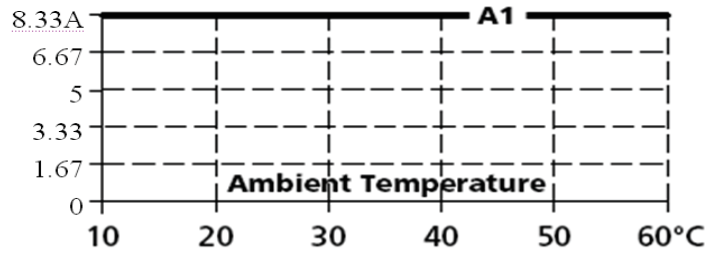
A1 is recommended output current.

A2 is the allowed max output current (PSU lifetime is around half of A1).

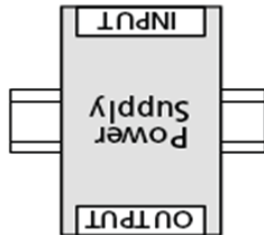
**Mounting A**



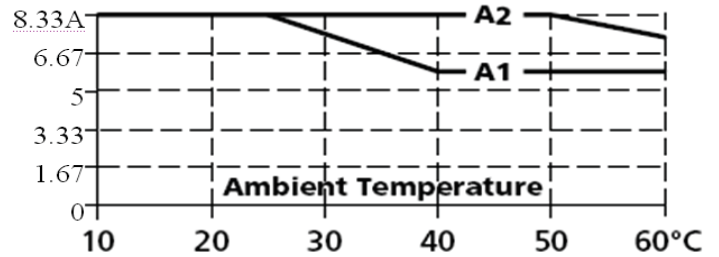
**Output Current**



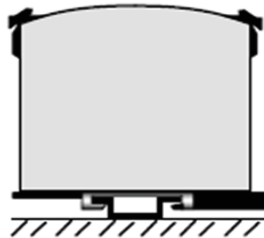
**Mounting B**



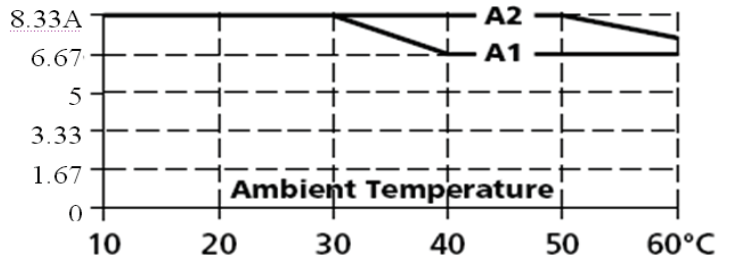
**Output Current**



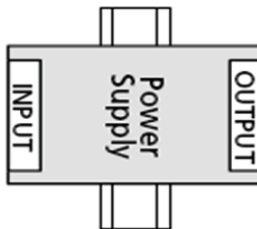
**Mounting C**



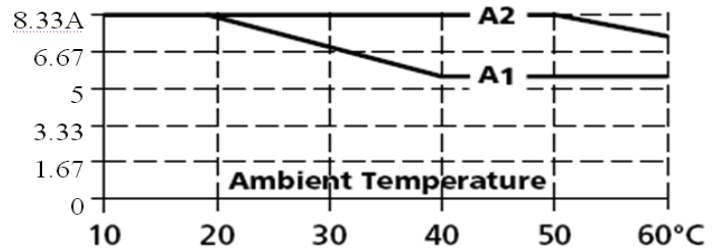
**Output Current**



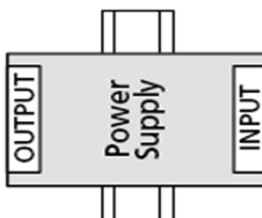
**Mounting D**



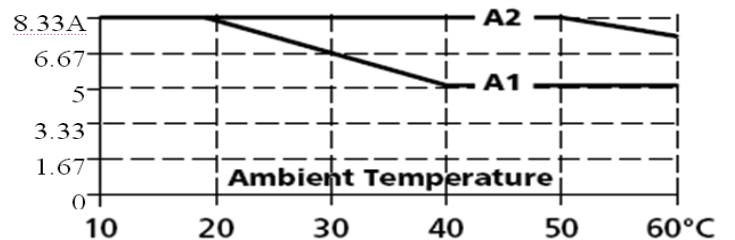
**Output Current**



**Mounting E**



**Output Current**

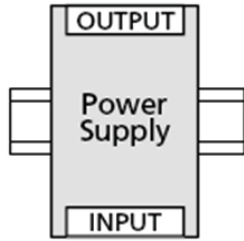


## Mounting method instruction PSC-12024

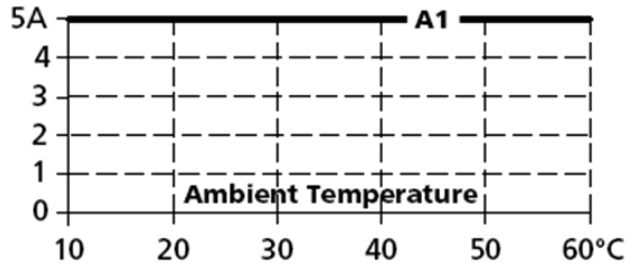
A1 is recommended output current.

A2 is the allowed max output current (PSU lifetime is around half of A1).

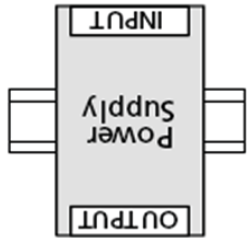
**Mounting A**



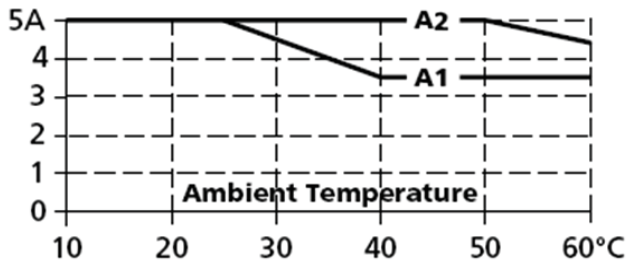
**Output Current**



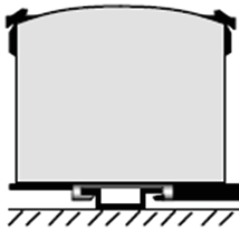
**Mounting B**



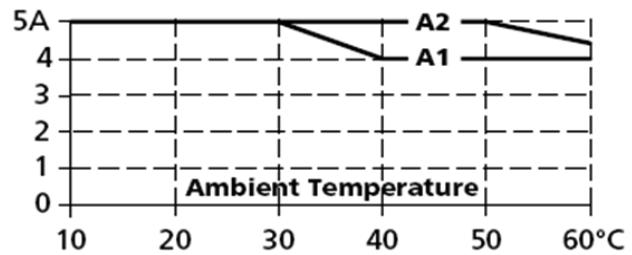
**Output Current**



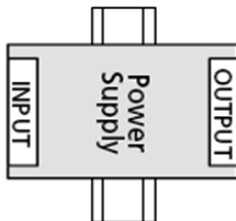
**Mounting C**



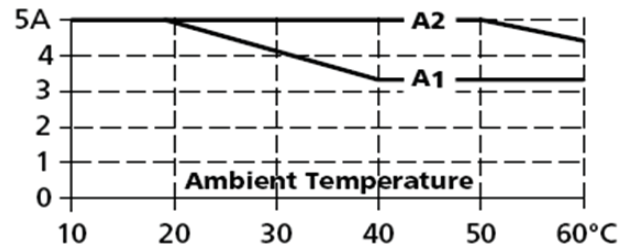
**Output Current**



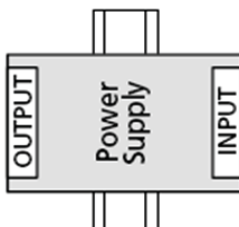
**Mounting D**



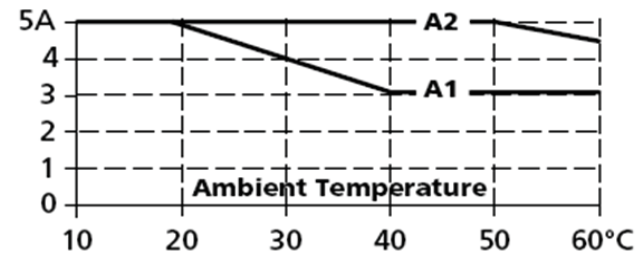
**Output Current**



**Mounting E**



**Output Current**

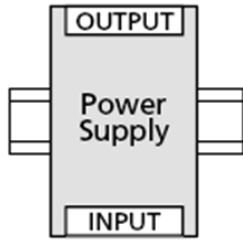


## Mounting method instruction PSC-12048

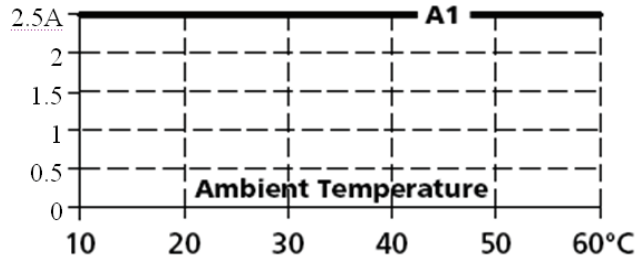
A1 is recommended output current.

A2 is the allowed max output current (PSU lifetime is around half of A1).

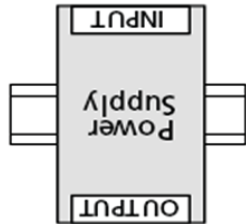
**Mounting A**



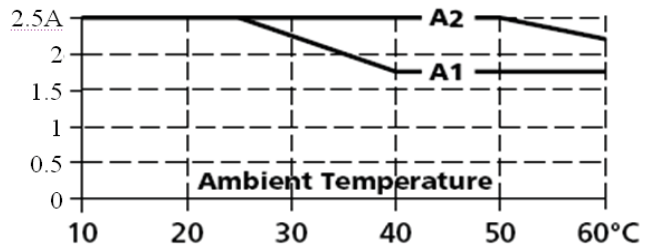
**Output Current**



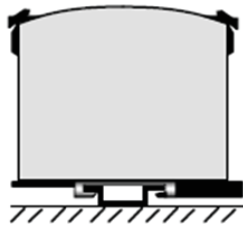
**Mounting B**



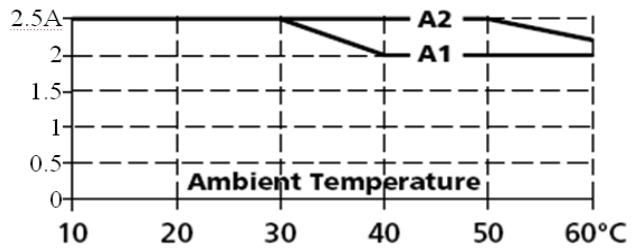
**Output Current**



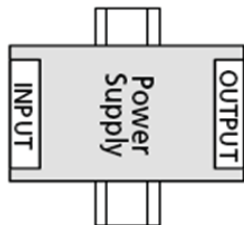
**Mounting C**



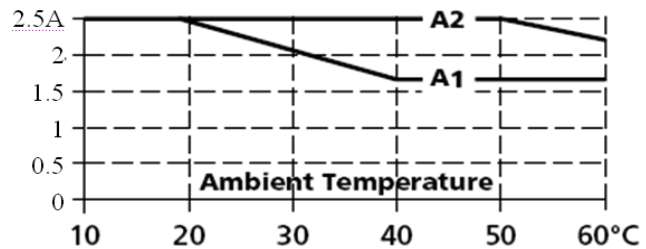
**Output Current**



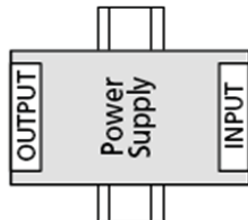
**Mounting D**



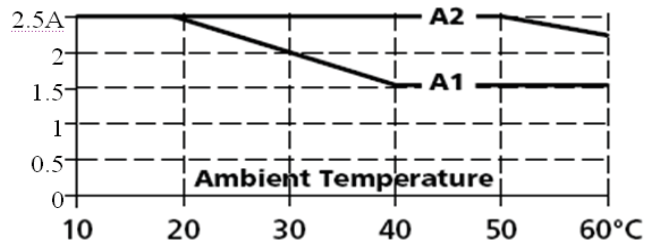
**Output Current**



**Mounting E**



**Output Current**



# PSC-U120 Series



Input: 85-264VAC 47/63Hz  
 Output Voltage: 12, 24 & 48 V DC  
 Rated Power: 120W max.



## FEATURES

- Universal AC input range (90~264Vac)
- High efficiency up to 89%
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-20°C~70°C)
- Built-in DC OK function (indication only)
- Can be installed on TS-35/7.5 or TS-35/15
- 100% full load burn-in test
- Suitable for critical applications
- Operating altitude up to 6000m
- PCB with conformal coating
- Ultra-slim, 45mm width
- 3 years warranty

## CATALOG NUMBER

### PSC-U12012

### PSC-U12024

### PSC-U12048

## INPUT

Voltage Range	90Vac~264Vac, 127Vdc-370Vdc		
Frequency Range	47Hz~63Hz		
AC Current (max.)	<2.7 A/115VAC ; <1.35A/230VAC		
Inrush Current (Typical)	20A/115Vac ; 35A/230Vac Cold start		
Leakage Current	Input—output: ≤0.25mA	Input—PG: ≤3.5mA	(264Vac input, 63Hz)
Efficiency ( Typical)	85%	88%	89%

## OUTPUT

DC Output	12V	24V	48V
Rated Current	10A	5A	2.5A
Current Range <i>Note 1</i>	0~10A	0~5A	0~2.5A
Ripple and Noise	0~70°C ≤120mV	≤120mV	≤240mV
<i>Note 2</i>	-20°C~0 ≤240mV	≤240mV	≤480mV
Voltage ADJ. Range	12~14V	24~28V	48~56V
Voltage Accuracy	±1.0%		
Line Regulation	±0.5%		
Load Regulation	±1.0%		
Set-up Time	<1.2S@230Vac ; <3.0mS@115Vac		
Hold up Time	≥10mS@115Vac; ≥20mS@230Vac Full load		
Temperature Coefficient	±0.03%/°C		
Overshoot	<5.0%		

## ENVIRONMENTAL

Operating amb. Temp. & Hum.	-20°C~70°C; 20%~90%RH No condensing (pls refer to derating curve)
Storage Temp. & Hum.	-40°C~85°C; 5%~95%RH No condensing

## PROTECTIONS

Over Load	10.5~13A Protection type: Constant current	5.25~6.5A	2.75~3.25A
Over voltage	15~18V Protection type: Shut down, re-power on.	29~33V	58~63V
Over temperature	100±5°C, detect on heat sink of power transistor; shut down O/P, re-power on.		
Short Circuit	Long-term mode, auto recovery		

## SAFETY & EMC

*Note 3*

Safety Standards	UL508, UL60950-1, EN62368-1
Withstand Voltage	Primary-Secondary: 3.0KVac/10mA .Primary-PG: 2KVac/10mA. Secondary-PG: 0.5KVac/10mA.
Isolation Resistance	10M ohms
EMC Emission	Compliance to EN55032 Class B
Harmonic Current	Compliance to EN61000-3-2, Class A
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,11;

## OTHER

MTBF (MIL-HDBK-217F)	More than 500,000Hrs (25°C Full load)
Dimension (L*W*H)	124*119*45mm
Packing	24pcs/CTN, 15.0Kg, 0.04cbm
Cooling method	Cooling by free air convection

## NOTES

1. All parameters NOT specially mentioned are measured at rated input, rated load and 25°C of ambient temperature.
2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.
3. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies".

## Mechanical Specification

### 1.AC Screw terminal information

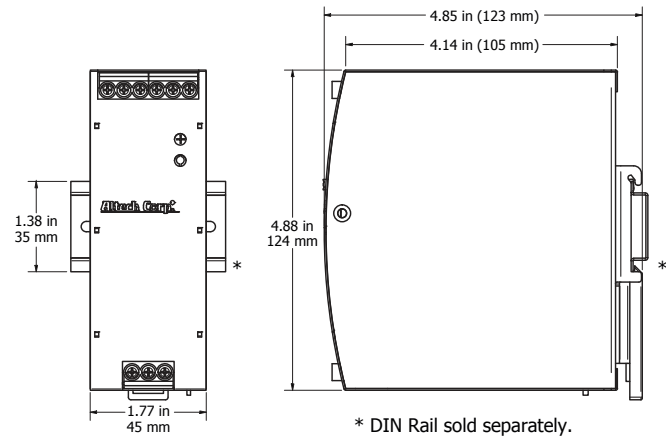
Terminal No.	Function	Wire Spec	Recommended Torque
1	PE	20~10AWG	5Nm
2	N		
3	L		

### 2.DC Screw terminal information

Terminal No.	Function	Wire Spec	Recommended Torque
4-6	V+	20~10AWG	5Nm
7-9	V-		

### AC/DC Terminal

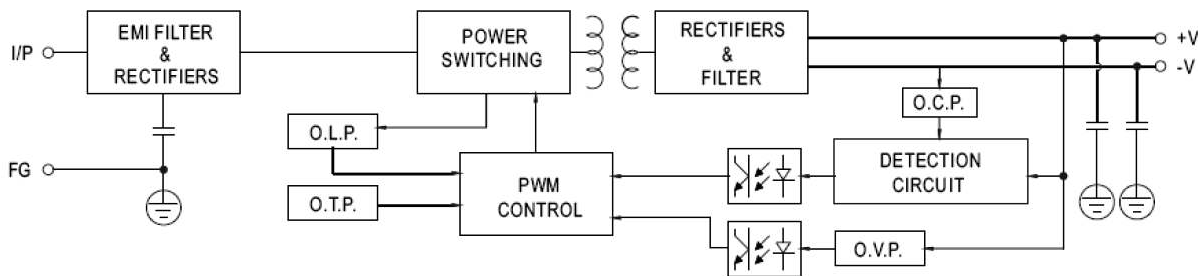
Type	Screw terminal blocks
Solid Wire	0.5-6mm <sup>2</sup>
Strand Wire	0.5-4mm <sup>2</sup>
Wire Spec	AWG20-10
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	0.5NM



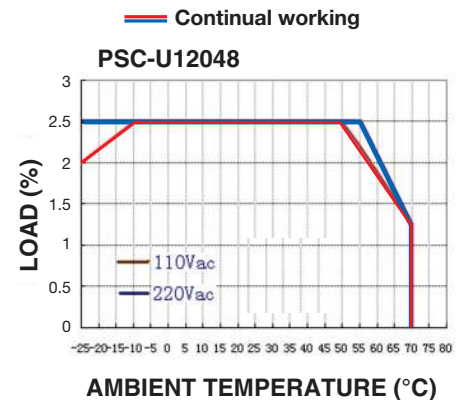
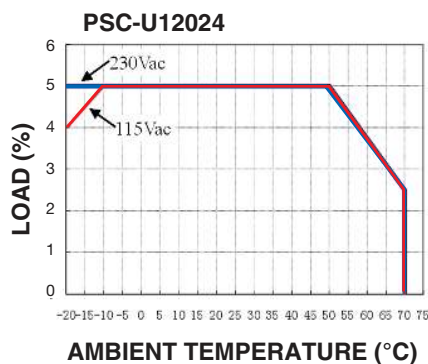
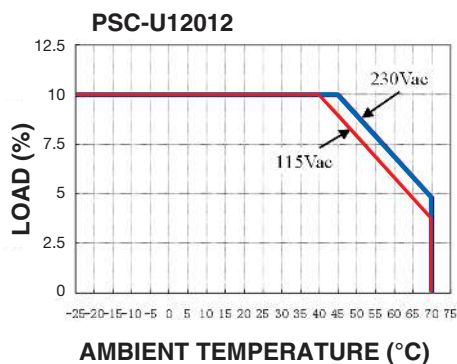
### Additional Functions

DC OK	LED V On: when output voltage is up to 90% of rated output voltage
	LED V Off: when output voltage is down to 80% of rated output voltage

## Block Diagram



## Derating Curve

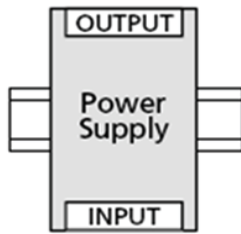


## Mounting method instruction PSC-U12012

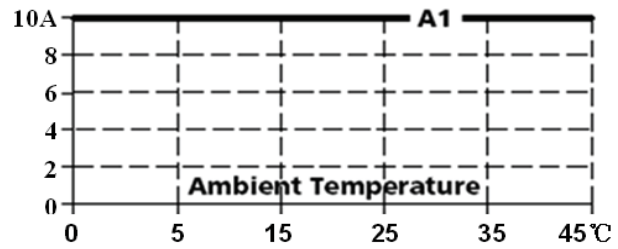
A1 is recommended output current.

A2 is the allowed max output current (PSU lifetime is around half of A1).

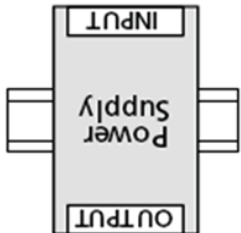
### Mounting A



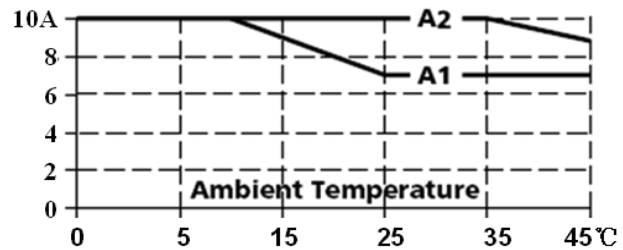
#### Output Current



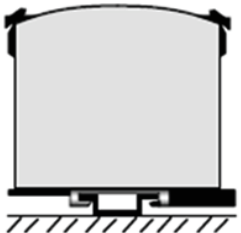
### Mounting B



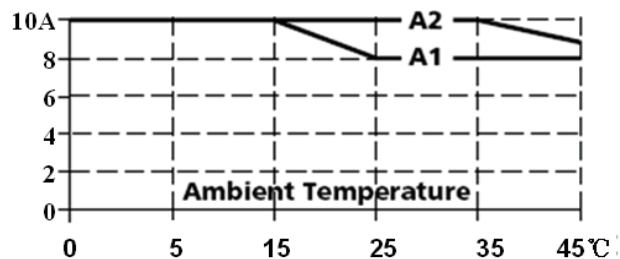
#### Output Current



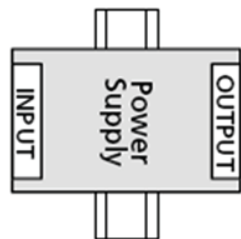
### Mounting C



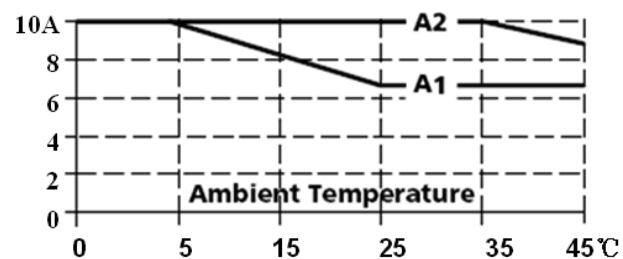
#### Output Current



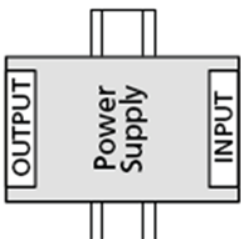
### Mounting D



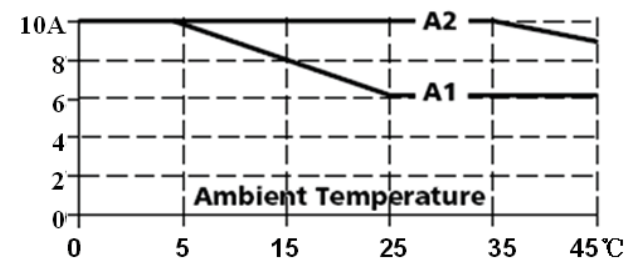
#### Output Current



### Mounting E



#### Output Current

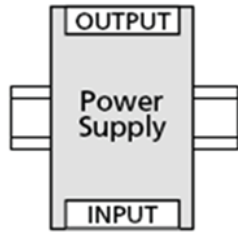


## Mounting method instruction PSC-U12024

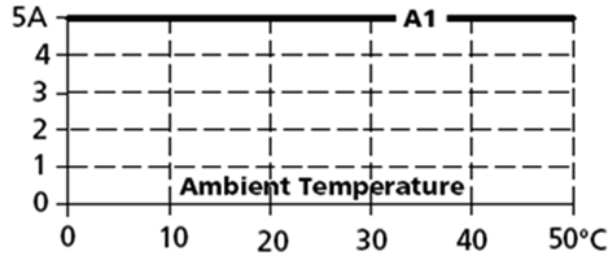
A1 is recommended output current.

A2 is the allowed max output current (PSU lifetime is around half of A1).

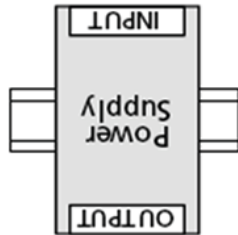
**Mounting A**



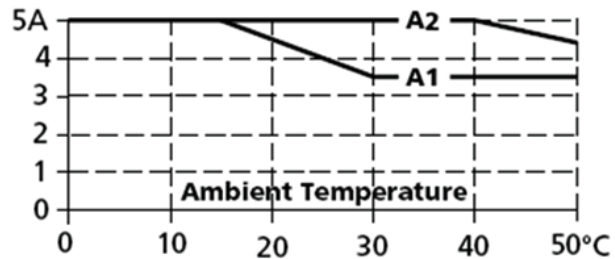
**Output Current**



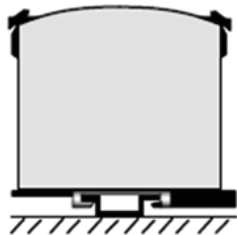
**Mounting B**



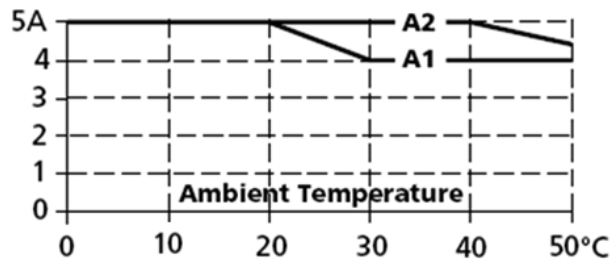
**Output Current**



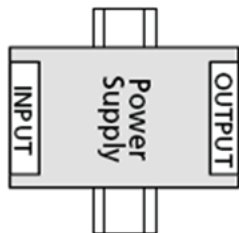
**Mounting C**



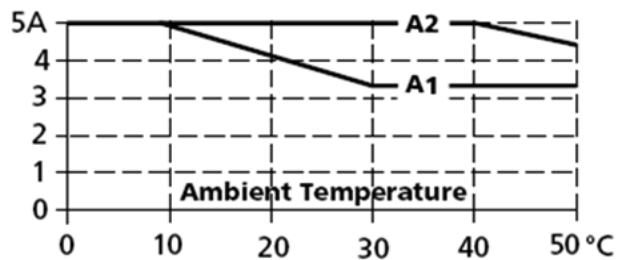
**Output Current**



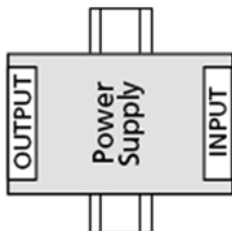
**Mounting D**



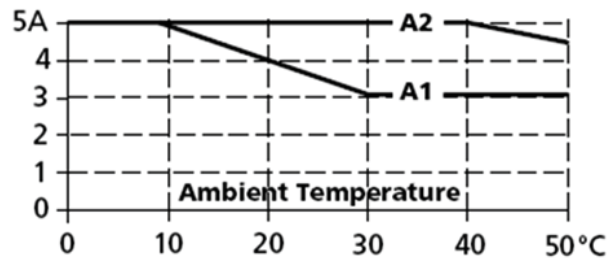
**Output Current**



**Mounting E**



**Output Current**

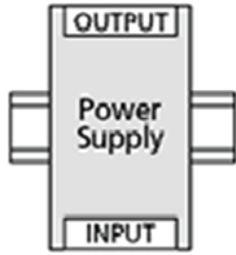


## Mounting method instruction PSC-U12048

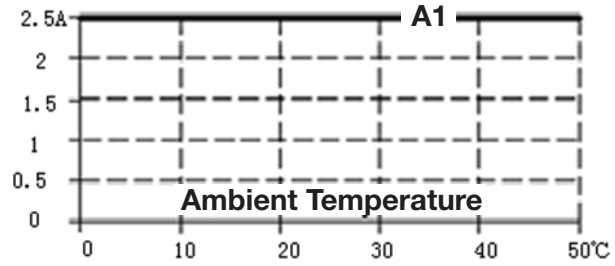
A1 is recommended output current.

A2 is the allowed max output current (PSU lifetime is around half of A1).

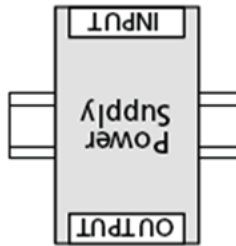
### Mounting A



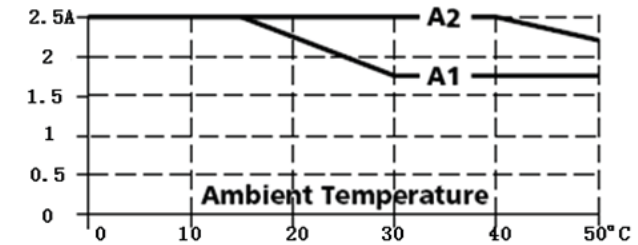
#### Output Current



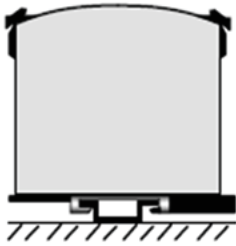
### Mounting B



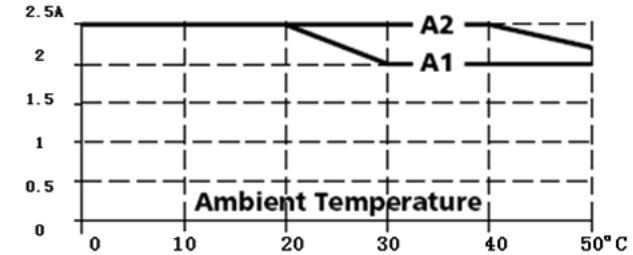
#### Output Current



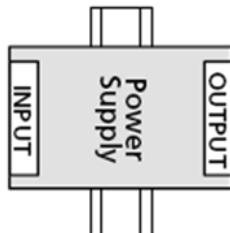
### Mounting C



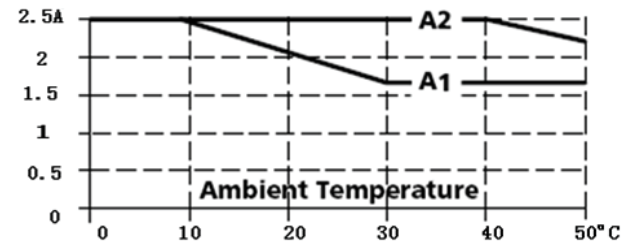
#### Output Current



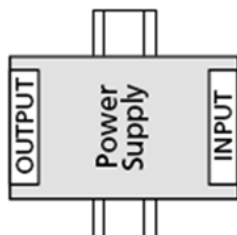
### Mounting D



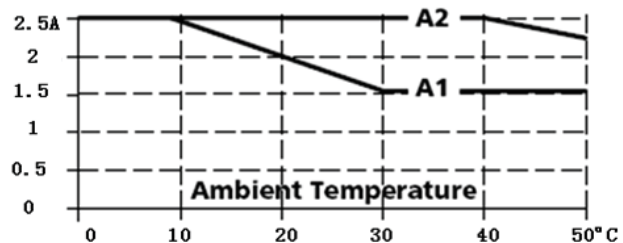
#### Output Current



### Mounting E



#### Output Current





# PSC-240 Series



Input: 85-264VAC 47/63Hz  
Output Voltage: 24 & 48 V DC  
Rated Power: 240W max.



## FEATURES

- Universal AC input range (85~264Vac)
- Support 1+1 or N+1 redundant system (suggest to use redundancy modules.)
- Built-in active PFC, PF>0.95
- High efficiency up to 94%
- Built-in current sharing function
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-25°C~70°C)
- 150% (360W) peak load capacity
- Easy Fuse Tripping due to High Overload Current
- Excellent Partial Load Efficiency
- Built-in DC OK relay contact
- Can be installed on 35 mm DIN rail
- 100% full load burn-in test
- PCB with conformal coating
- Suitable for critical applications
- Ultra-slim, 45mm width
- Three-year Warranty

## CATALOG NUMBER

### PSC-24024

### PSC-24048

## INPUT

Voltage Range	85Vac~264Vac, 120Vdc-375Vdc	
Frequency Range	47Hz~63Hz	
Power Factor (typical)	0.99/110Vac	0.95/230Vac
AC Current (max.)	<3.0 A/100Vac	<1.5A/230Vac
Inrush Current (Typical)	<20A/110Vac	<40A/230Vac Cold start
Leakage Current	Input—output: ≤0.25mA	Input—PG: ≤3.5mA
Efficiency (Typical) @230Vac	94%	93.8%

## OUTPUT

DC Output	24V	48V
Rated Current	10A	5A
Current Range <i>Note 1</i>	0~10A	0~5A
Ripple and Noise (0~70°C)	≤240mV	≤480mV
(-25°C) <i>Note 2</i>	≤480mV	≤480mV
Voltage ADJ. Range	24~28V	48~56V
Voltage Accuracy	±3.0%	
Line Regulation	±0.5%	
Load Regulation	±1.0%	
Set-up Time	<3S@230Vac	
Hold up Time	≥20mS(230Vac input, Full load)	
Temperature Coefficient	±0.03%/°C	
Overshoot	<5.0%	
Power boost	150% of rated current	
Parallel function	supported	

## ENVIRONMENTAL

Operating amb. Temp. & Hum.	-25°C~70°C; 20%~90%RH No condensing
Storage Temp. & Hum.	-40°C~85°C; 5%~95%RH No condensing

## PROTECTIONS

Overload Protection	>130%-200% Rated Output Power Protection type: Hiccup Mode- recovers automatically after fault condition is removed
Over Voltage Protection	110~145% Protection Type: Clamp by Zener diode
Short Circuit Protection	Protection to Zero Voltage
Over Current Protection	110%-180%

## SAFETY & EMC

*Note 3*

Safety Standards	UL508; UL62368-1; UL60950-1; IEC62368-1, EN62368-1
Withstand Voltage	Primary-Secondary:3.0kVac/10mA .Primary-PG:2.5kVac/10mA. Secondary-PG:0.5kVac/20mA.
Isolation Resistance	10M ohms
EMC Emission	Compliance to EN55032 Class B
Harmonic Current	Compliance to EN61000-3-2, Class A
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,11;

## OTHER

MTBF (MIL-HDBK-217F)	More than 300,000Hrs (25°, Full load)
Dimension (L*W*H)	45*124*119mm
Packing	24pcs/CTN, 21Kgs/CTN, 0.045cbm
Cooling method	Cooling by free air convection

## NOTES

1. All parameters NOT specially mentioned are measured at rated input, rated load and 25° of ambient temperature.
2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.
3. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies".

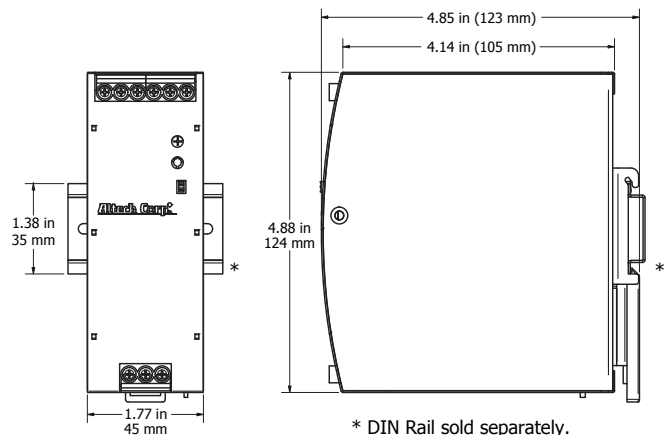
## Mechanical Specification

### 1.AC terminal blocks installation information

Terminal No.	Function	Wire Spec	Recommended Torque
1	PG	20~10AWG	5Nm
2	N		
3	L		

### 2.DC terminal blocks installation information

Terminal No.	Function	Wire Spec	Recommended Torque
4 & 5	DC OK Relay Contact	20~10AWG	5Nm
6 & 7	+V		
8 & 9	-V		



### AC/DC Terminal

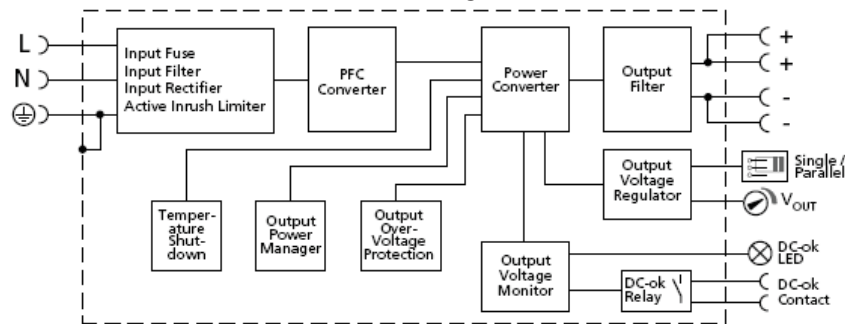
Type	Screw terminal blocks
Solid Wire	0.5-6mm <sup>2</sup>
Strand Wire	0.5-4mm <sup>2</sup>
Wire Spec	AWG20-10 (PG Wire>18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	5NM

### Additional Functions

DC-OK	V On: when output voltage is up to 90% of rated output voltage V Off: when output voltage is down to 80% of rated output voltage
DC-OK relay contact rating	Max 30V/1A or 60V/0.3A or 30Vac/0.3A Resistive load

## Block Diagram

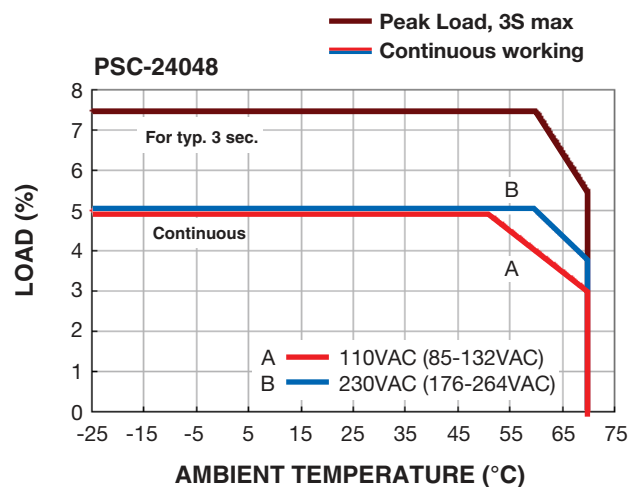
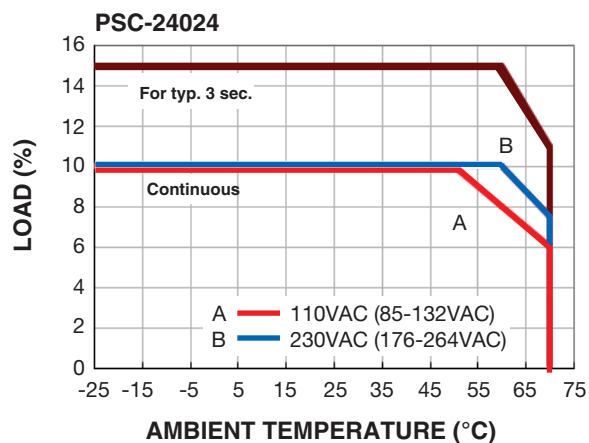
### Functional Diagram



## Peak Loading



## Derating Curve



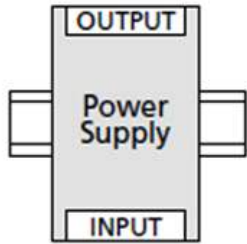
## Mounting method instruction PSC-24024

A1 is recommended output current.

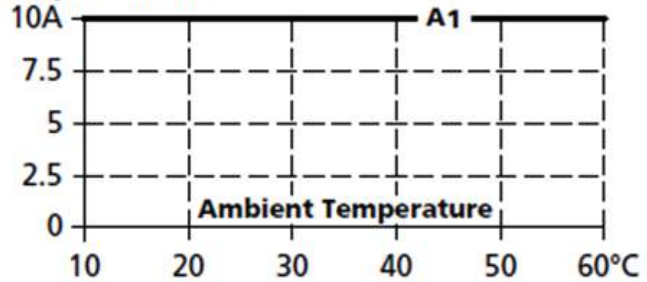
A2 is the allowed max output current (PSU lifetime is around half of A1).

Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10°C.

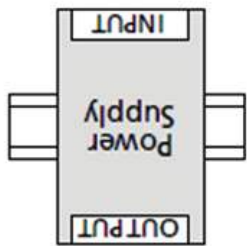
### Mounting A



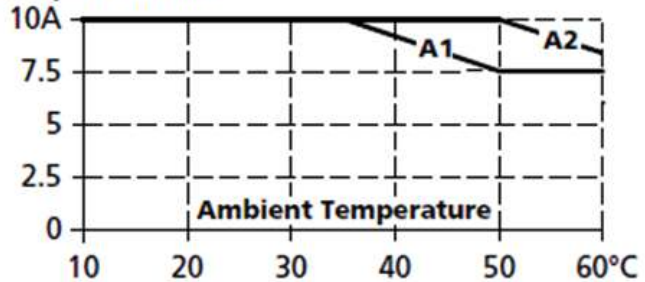
#### Output Current



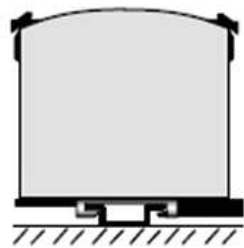
### Mounting F



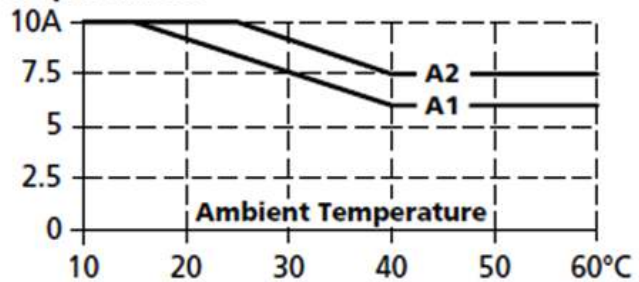
#### Output Current



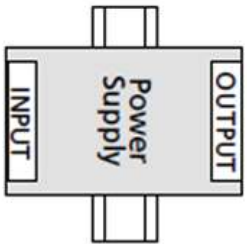
### Mounting C



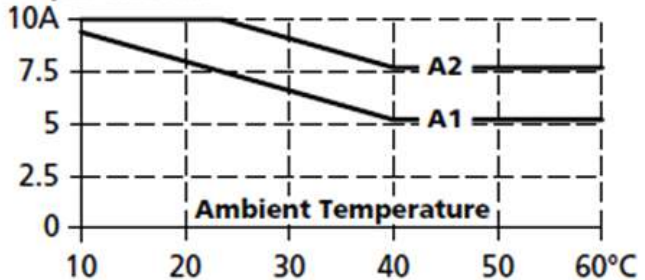
#### Output Current



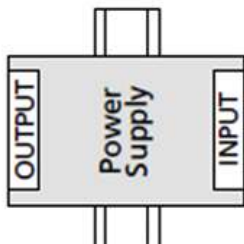
### Mounting I



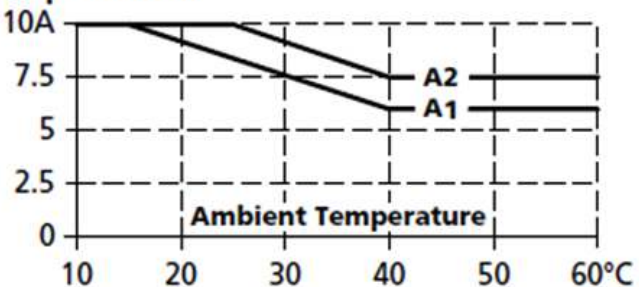
#### Output Current



### Mounting E



#### Output Current



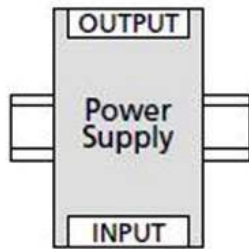
## Mounting method instruction PSC-24048

A1 is recommended output current.

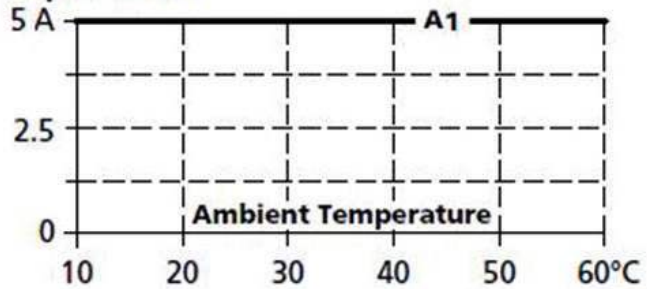
A2 is the allowed max output current (PSU lifetime is around half of A1).

Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10°C.

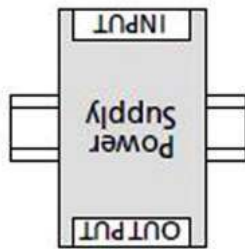
**Mounting A**



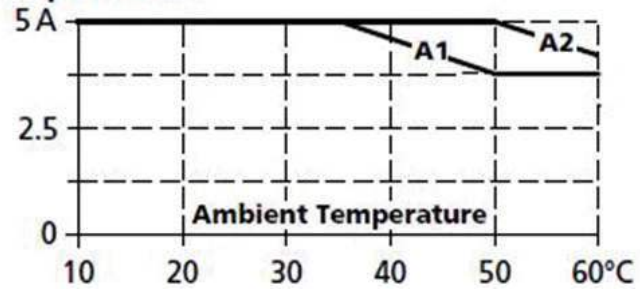
**Output Current**



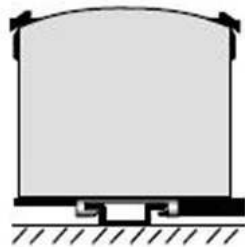
**Mounting B**



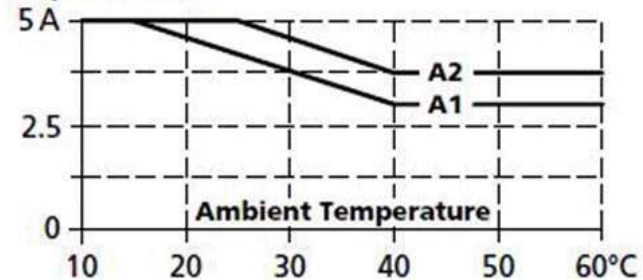
**Output Current**



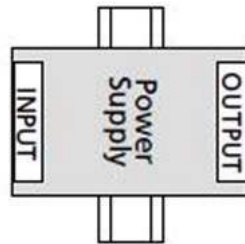
**Mounting C**



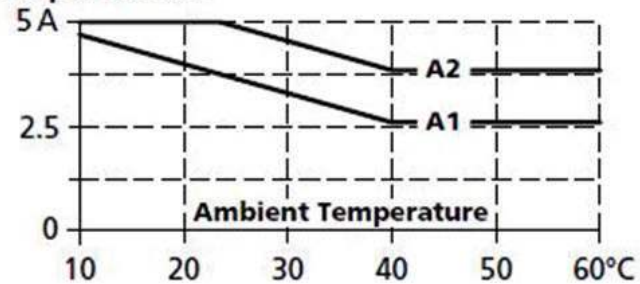
**Output Current**



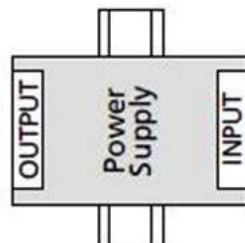
**Mounting D**



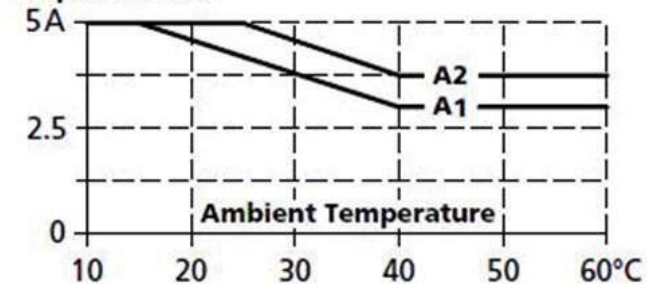
**Output Current**



**Mounting E**



**Output Current**



# PSC-480 Series



Input: 85-264VAC 47/63Hz  
Output Voltage: 24 & 48 V DC  
Rated Power: 480W max.



## FEATURES

- Universal AC input range (85~264Vac)
- Support 1+1 or N+1 redundant system suggest to use redundancy modules.
- Built-in active PFC, PF>0.95
- High efficiency up to 94%
- Built-in current sharing function
- Built-in current limiting circuit
- Output protections: OVP/OLP/SCP/OTP
- Wide operating ambient temp (-25°C~70°C)
- 150% (720W) peak load capacity
- Easy Fuse Tripping due to High Overload Current
- Built-in DC OK relay contact
- Can be installed on 35 mm DIN rail
- 100% full load burn-in test
- PCB with conformal coating
- Suitable for critical applications
- Ultra-slim, 70mm width
- Free air convection
- 3 years warranty

## CATALOG NUMBER

**PSC-48024**

**PSC-48048**

### INPUT

Voltage Range	85Vac~264Vac, 120Vdc-375Vdc	
Frequency Range	47Hz~63Hz	
Power Factor (typical)	0.99/110Vac	0.95/230Vac
AC Current (max.)	<7.0 A/100Vac	<3.5A/230Vac
Inrush Current (Typical)	<20A/110Vac	<40A/230Vac Cold start
Leakage Current	Input—output: ≤0.25mA	Input—PG: ≤3.5mA
Efficiency ( Typical)	93.8%	93.5%

### OUTPUT

DC Output	24V	8V
Rated Current	20A	10A
Current Range <i>Note 1</i>	0~20A	0~10A
Ripple and Noise	0~70°C ≤240mV	≤480mV
	-25°C~0 ≤480mV	≤480mV
Voltage ADJ. Range	24~28V	48~56V
Voltage Accuracy	±3.0%	
Line Regulation	±0.5%	
Load Regulation	±1.0%	
Set-up Time	<3S@230Vac	
Hold up Time	≥20mS(230Vac input, Full load)	
Temperature Coefficient	±0.03%/°C	
Overshoot	<5.0%	

### ENVIRONMENTAL

Operating amb. Temp. & Hum.	-25°C~70°C; 20%~90%RH No condensing
Storage Temp. & Hum.	-40°C~85°C; 5%~95%RH No condensing

### PROTECTIONS

Over voltage	28.8~33V, constant voltage, Auto recovery	58~63V, constant voltage, Auto recovery
Over Load	110%~150% of rated current, Constant current limiting for some time(150% of rated current, last 3S) then PS stop working for 7S, after 7S, if the load <=rated current, PS will work normally, auto recovery	
Over temperature	115±5°C, detect on temperature controller; shut down O/P, auto recovery after temperature goes down.	
Short Circuit	Long-term mode, auto recovery	

### SAFETY & EMC

*Note 3*

Safety Standards	UL508, UL60950-1, EN62368-1
Withstand Voltage	Primary-Secondary: 3.0KVac/10mA. Primary-PG: 2.5KVac/10mA. Secondary-PG: 0.5KVac/20mA.
Isolation Resistance	10M ohms
EMC Emission	Compliance to EN55032 Class B
Harmonic Current	Compliance to EN61000-3-2, CLASS A
EMC Immunity	Compliance to EN61000-4-2,3,4,5,6,11;

### OTHER

MTBF (MIL-HDBK-217F)	More than 300,000Hrs (25°C, Full load)
Dimension (L*W*H)	70 x 124 x 127mm
Packing	10pcs/CTN, 13Kgs/CTN, 0.04cbm
Cooling method	Cooling by free air convection

### NOTES

1. All parameters NOT specially mentioned are measured at rated input, rated load and 25°C of ambient temperature.
2. Measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 uF & 10uF parallel capacitor.
3. The power supply is considered as a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies".

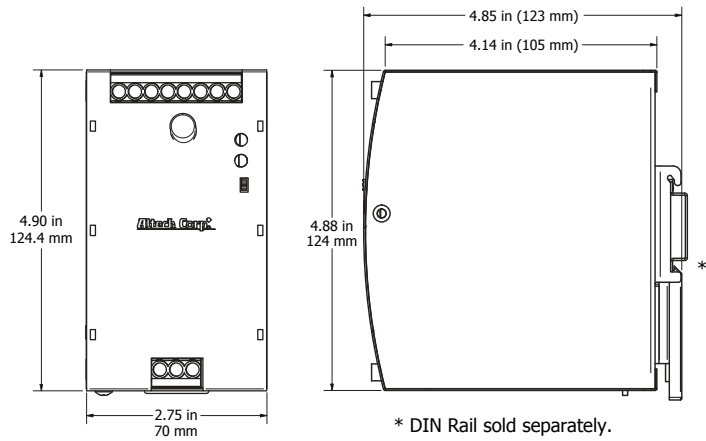
## Mechanical Specification

### 1.AC terminal blocks installation information

Terminal No.	Function	Specifications
1	PG	6.35mm, 3pin screw terminal blocks
2	N	
3	L	

### 2.DC terminal blocks installation information

Terminal No.	Function	Specifications
1	DC	6.35mm, 3pin screw terminal blocks
2	OK	
3-5	+V	
6-8	-V	



### AC/DC Terminal

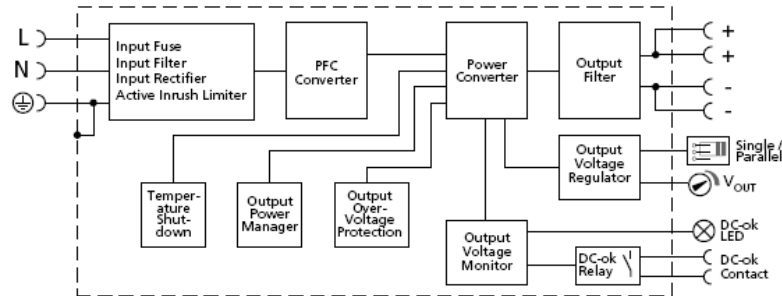
Type	Screw terminal blocks
Solid Wire	0.5-6 mm <sup>2</sup>
Strand Wire	0.5-4 mm <sup>2</sup>
Wire Spec	AWG20-10 (PG wire >18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	1NM

### Additional Functions

Power boost	150% of rated current
Parallel function	support
DC-OK	V On: when output voltage is up to 90% of rated output voltage
	V Off: when output voltage is down to 80% of rated output voltage
DC-OK relay contact rating	Max 30V/1A or 60V/0.3A or 30Vac/0.3A Resistive load

## Block Diagram

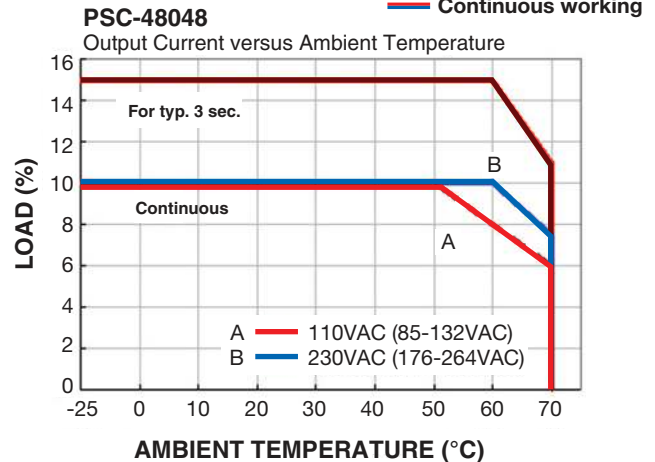
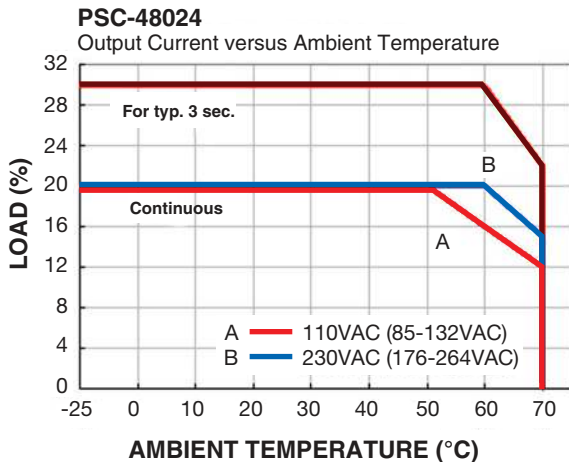
### Functional Diagram



## Peak Loading



## Derating Curve



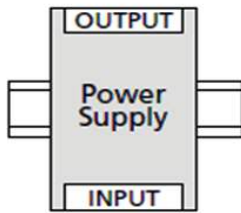
## Mounting method instruction PSC-48024

A1 is recommended output current.

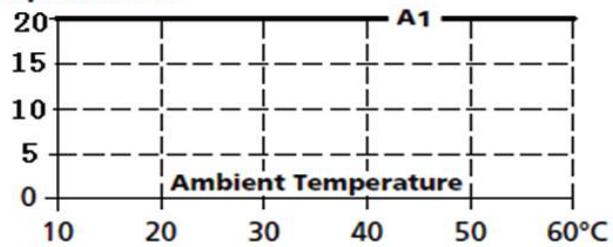
A2 is the allowed max output current (PSU lifetime is around half of A1).

Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10°C.

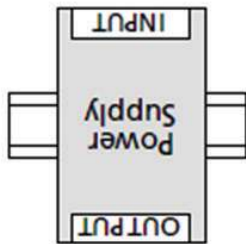
**Mounting A**



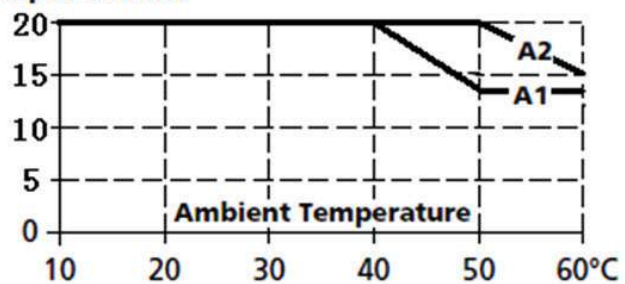
**Output Current**



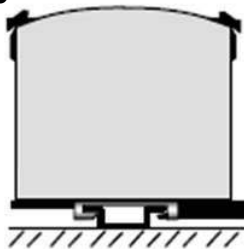
**Mounting B**



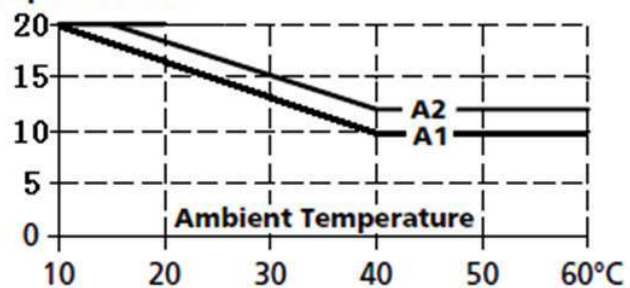
**Output Current**



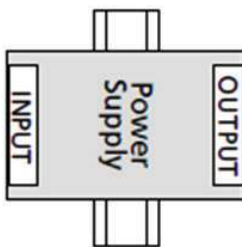
**Mounting C**



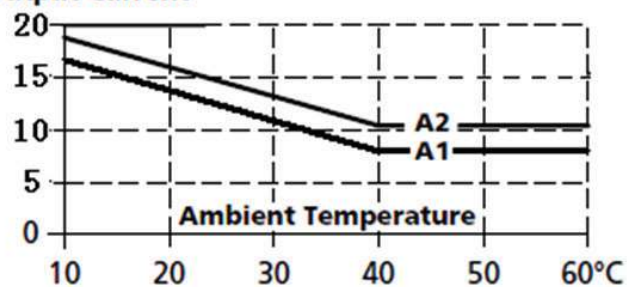
**Output Current**



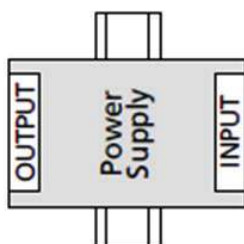
**Mounting D**



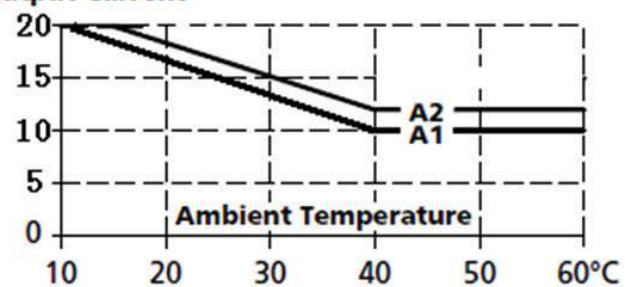
**Output Current**



**Mounting E**



**Output Current**



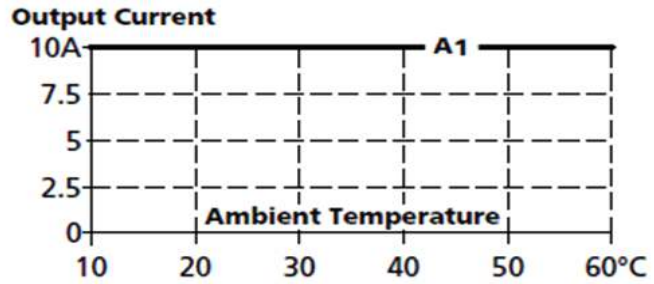
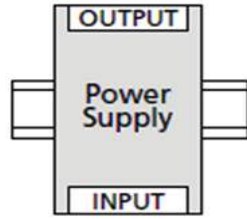
## Mounting method instruction PSC-48048

A1 is recommended output current.

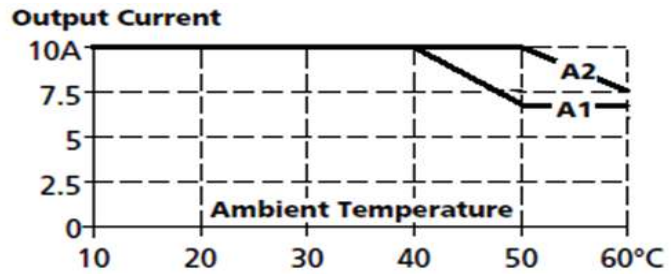
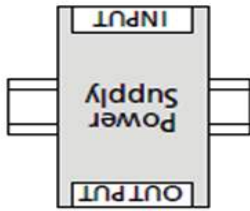
A2 is the allowed max output current (PSU lifetime is around half of A1).

Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10°C.

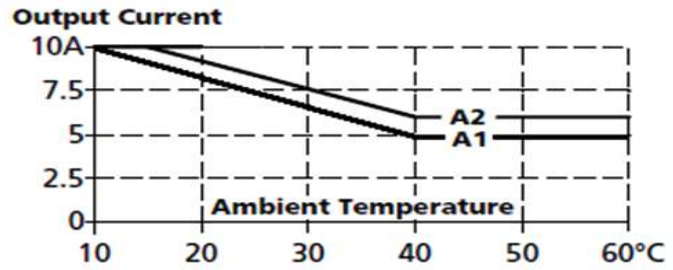
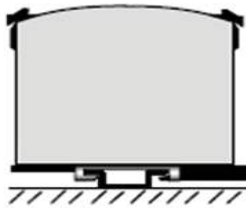
### Mounting A



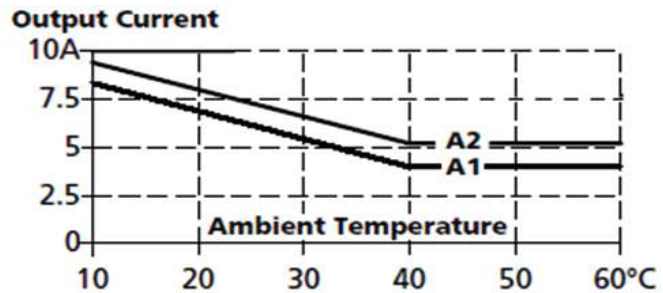
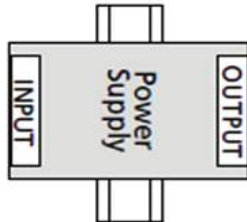
### Mounting B



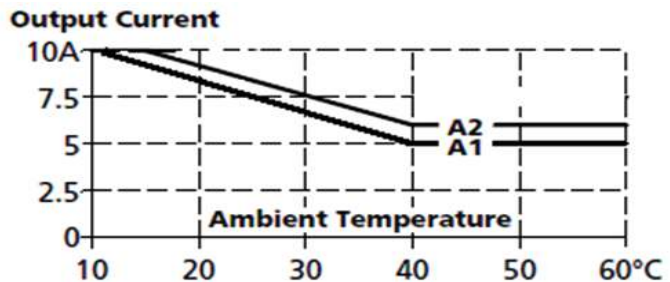
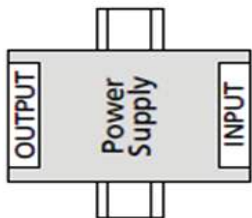
### Mounting C



### Mounting D



### Mounting E





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Switches



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Switches



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