Altech Corp.®

Quality System™
Quality Endorsed Company

Features

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

c UL us LISTED
IND. CONT. EQ.
UL 508
E205412

c US
UL 60950-1
E521519

UK CA CE

CB RoHS Parallel PFC ENERGY SAVER

Compact Power Supplies

PSC-75 Series

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

c UL us LISTED
IND. CONT. EQ.
UL 508
E205412

c US
UL 60950-1
E521519

UK CA CE

CB RoHS Parallel PFC ENERGY SAVER

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		PSC-7512	PSC-7524	PSC-7548
INPUT				
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	*Note 1*	0~6.3A	0~3.2A	0~1.6A
Ripple and Noise	0~70°C	≤100mV	≤120mV	≤120mV
	Note 2 -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"

PSC-75 Series

Altech Corp.®

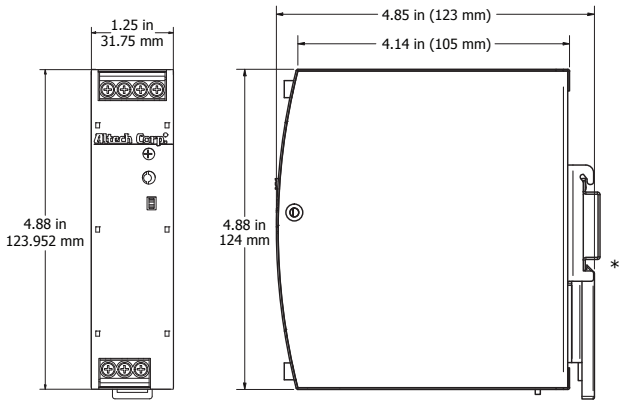
Mechanical Specification

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.

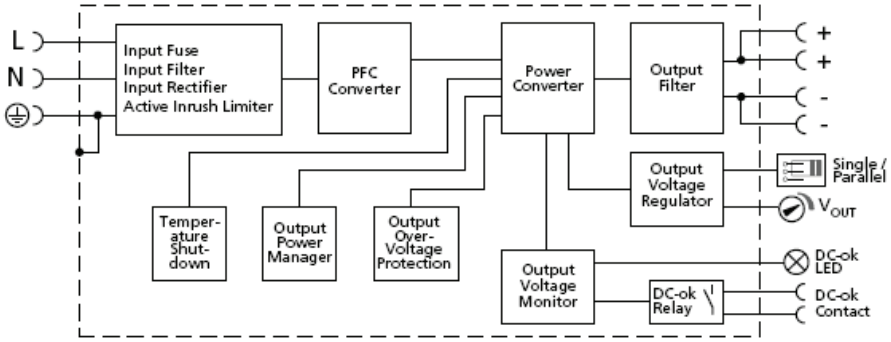
AC/DC Terminal

Type	Screw terminal blocks
Solid Wire	0.5-6mm2
Strand Wire	0.5-4mm2
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

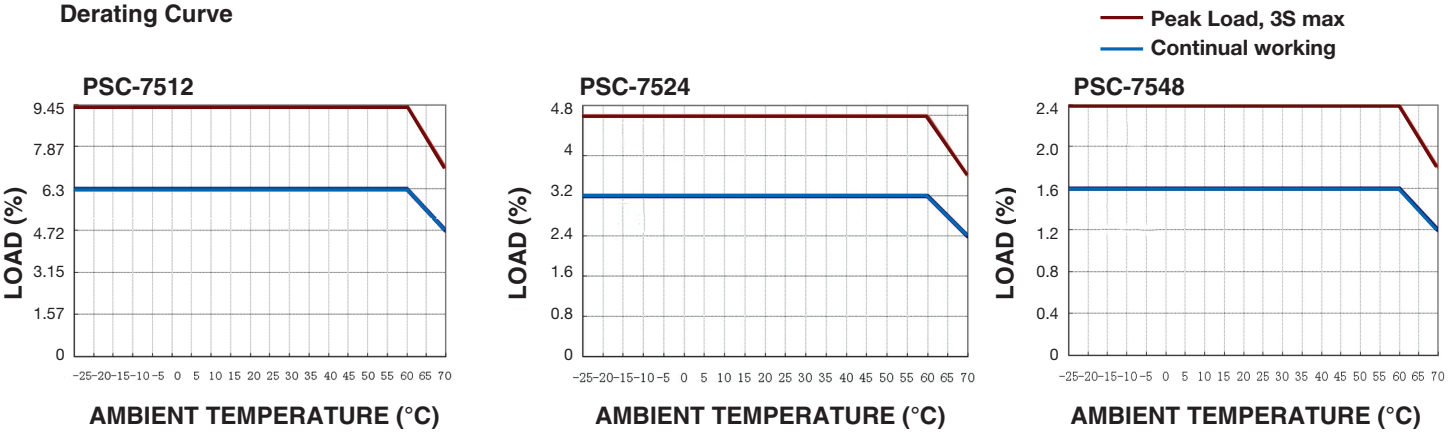
Block Diagram

Functional Diagram



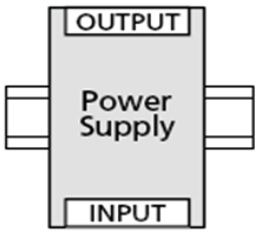
Peak Loading

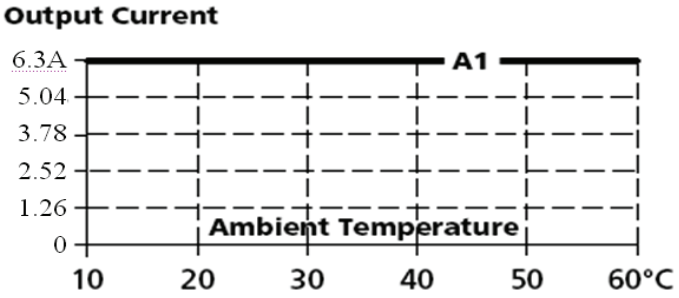
Derating Curve

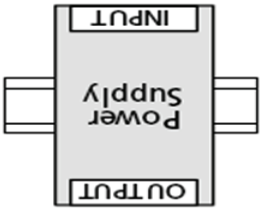


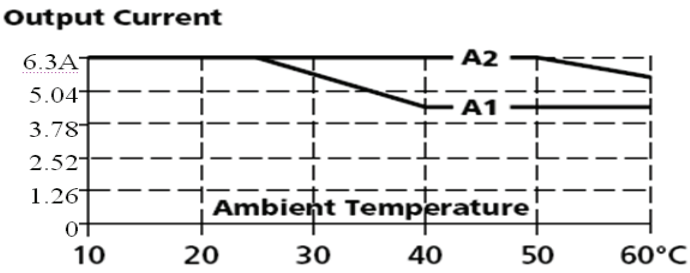
Mounting method instruction PSC-7512

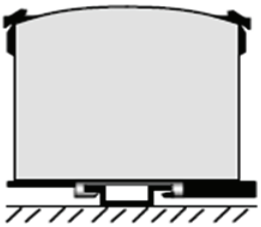
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

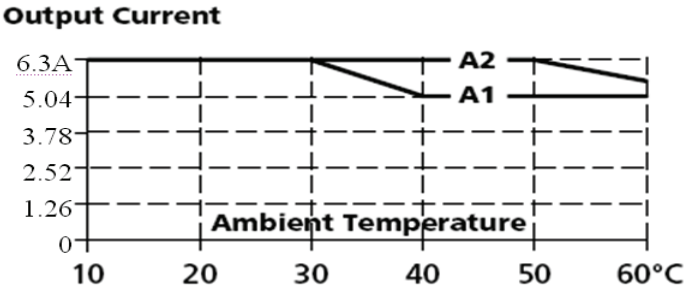


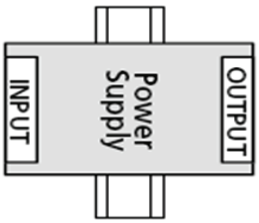


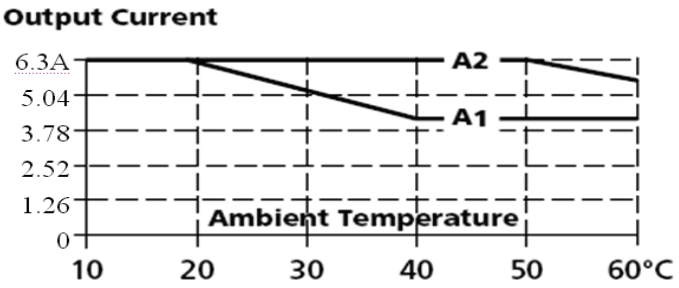


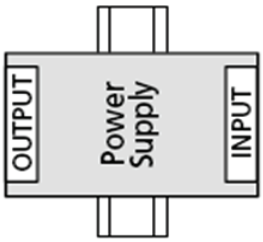


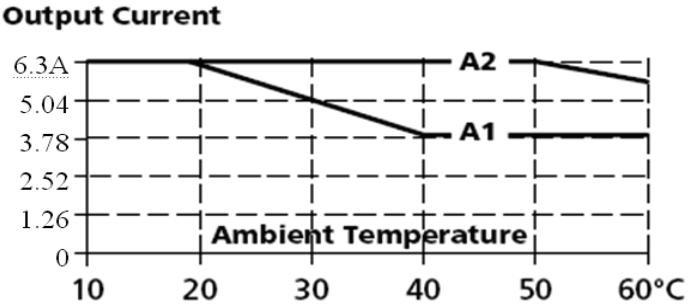








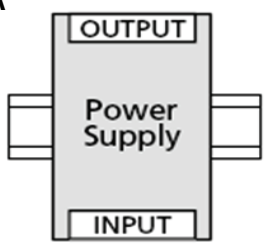


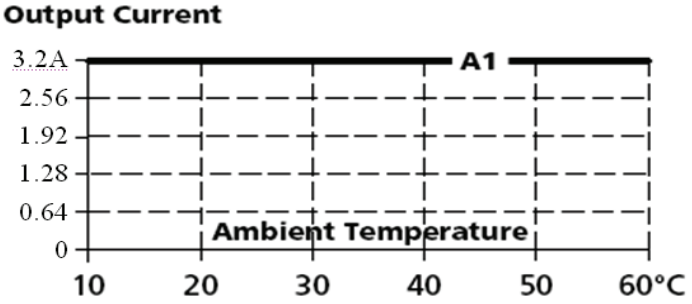


Mounting method instruction PSC-7524

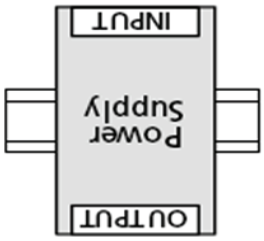
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

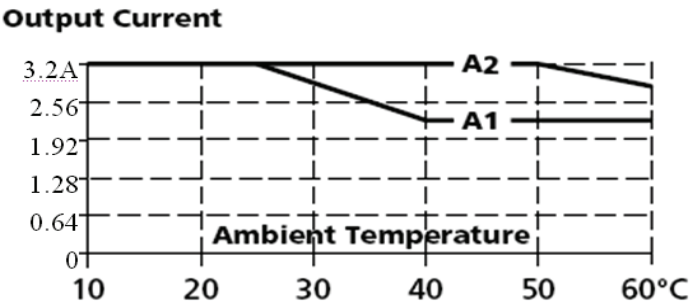
Mounting A



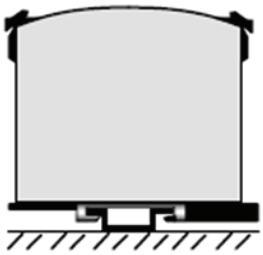


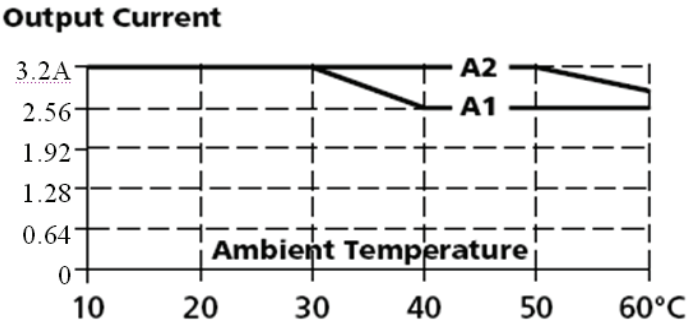
Mounting B



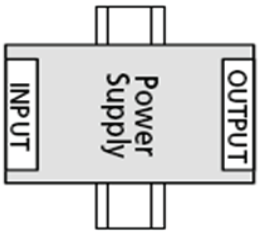


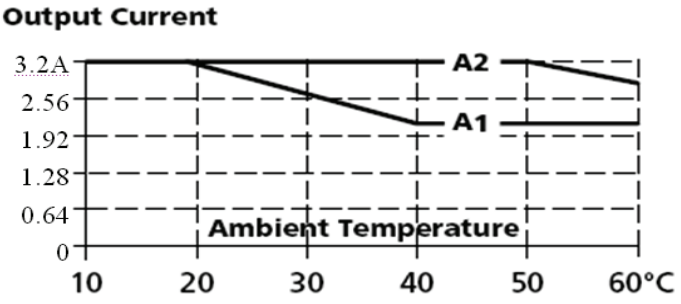
Mounting C



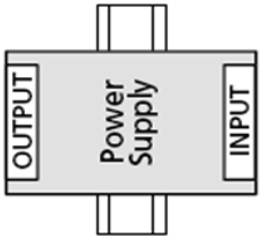


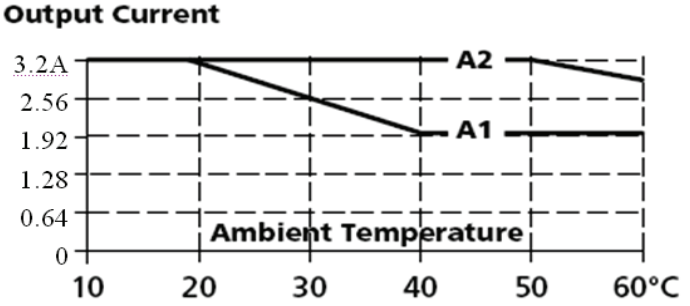
Mounting D





Mounting E





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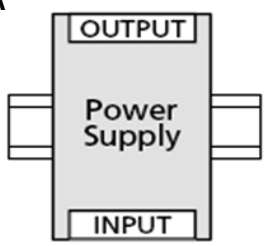
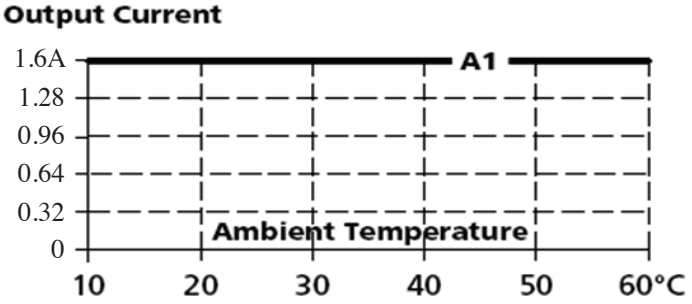
Mounting method instruction PSC-7548

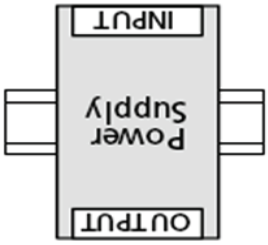
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

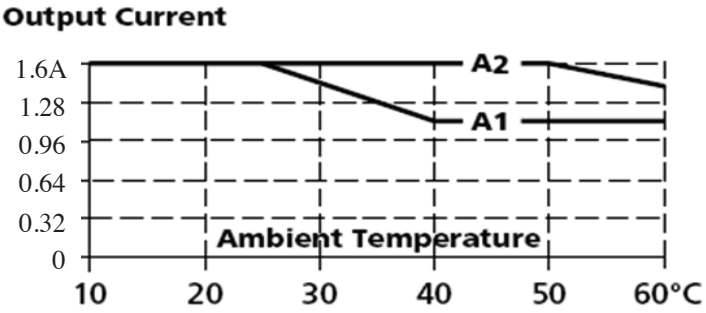
Mounting A



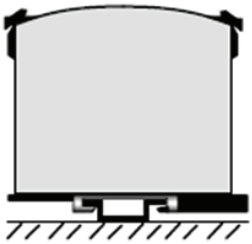


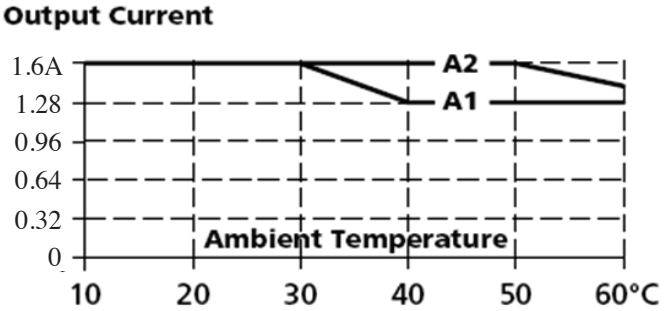
Mounting B



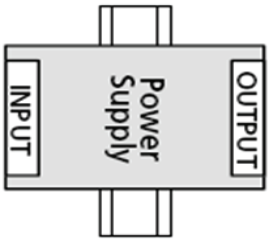


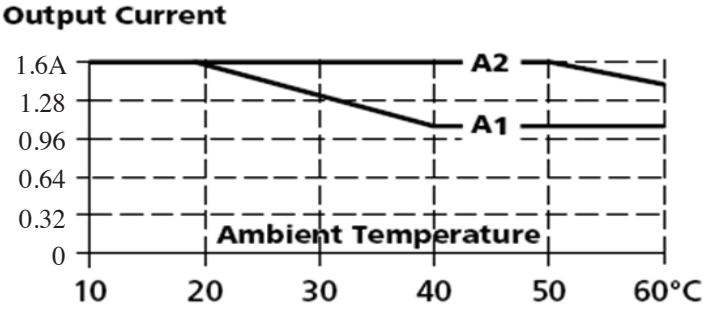
Mounting C



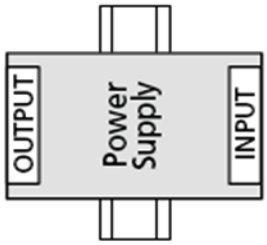


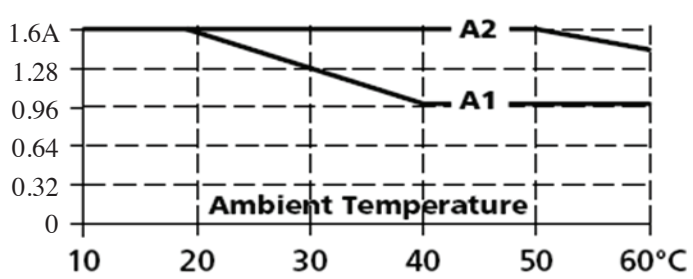
Mounting D





Mounting E





PSC-120 Series

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

c UL us LISTED
IND. CONT. EQ.
UL 508
E205412

c US
UL 60950-1
E521519

UK CA CE

CB RoHS Parallel PFC ENERGY SAVER

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	*Note 1*	0~8.33A	0~5A	0~2.5
Ripple and Noise	0~70°C	≤100mV	≤120mV	≤240mV
	Note 2 -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

Altech Corp.®

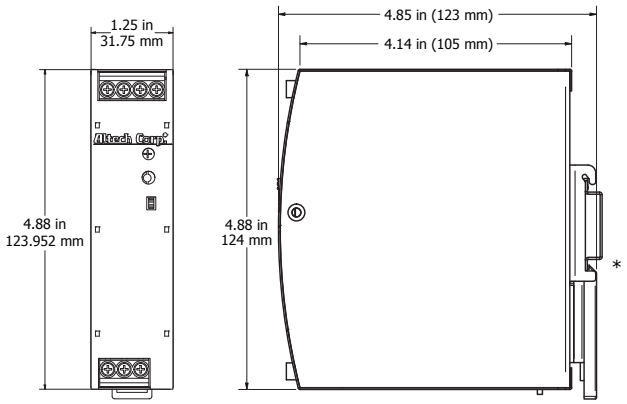
Mechanical Specification

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

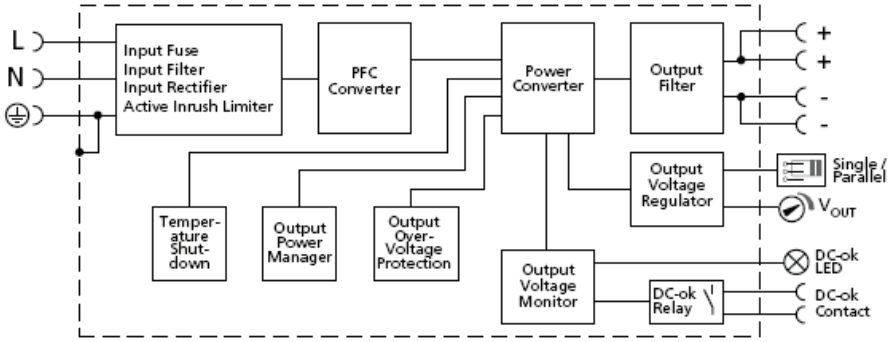
Type	Screw terminal blocks
Solid Wire	0.5-6mm2
Strand Wire	0.5-4mm2
Wire Spec	AWG20-10 (PG wire >18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	1NM

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

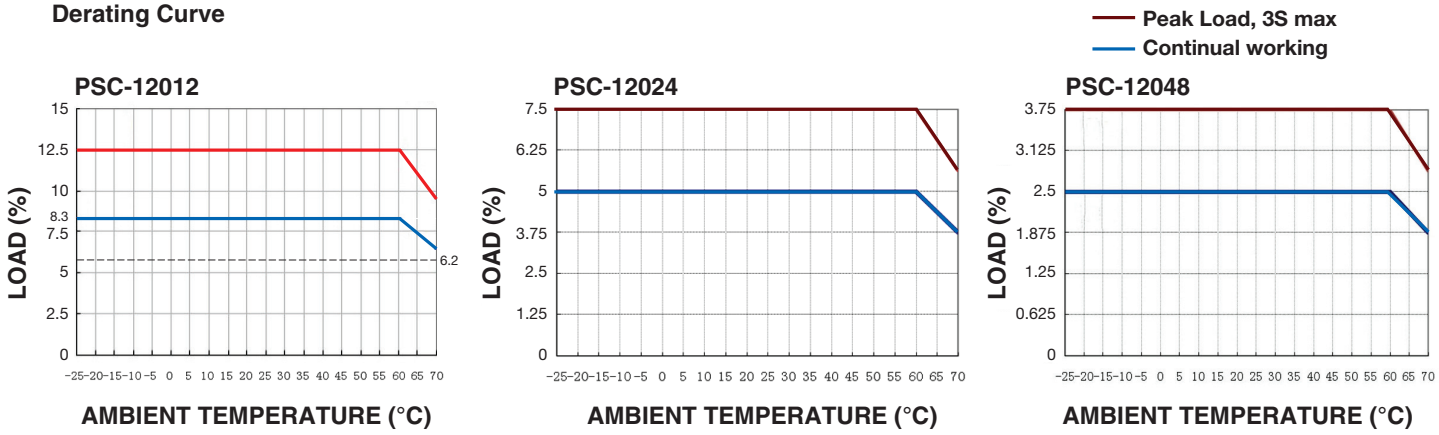
Block Diagram

Functional Diagram



Peak Loading

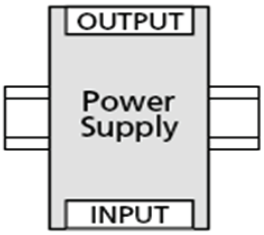
Derating Curve

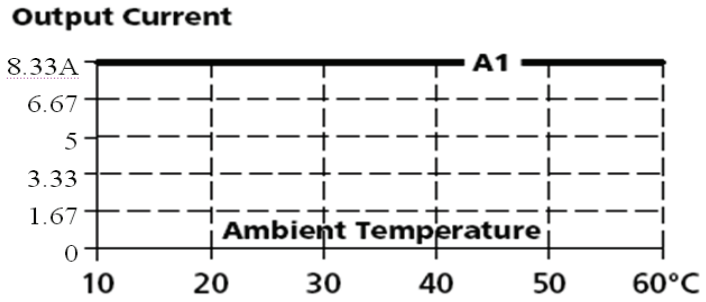


Mounting method instruction PSC-12012

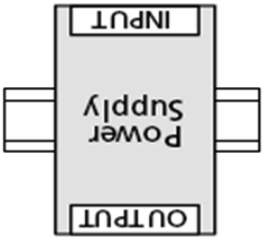
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

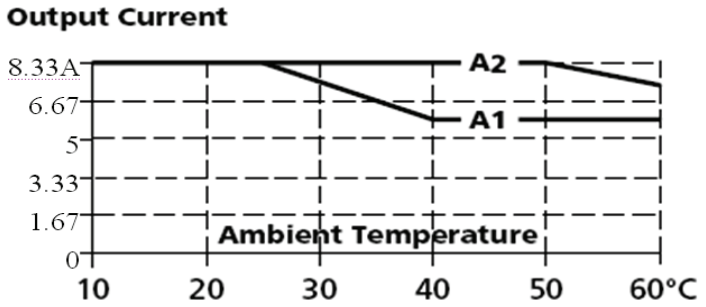
Mounting A



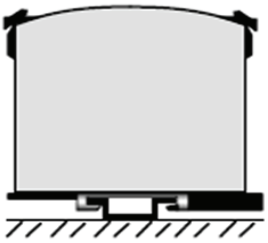


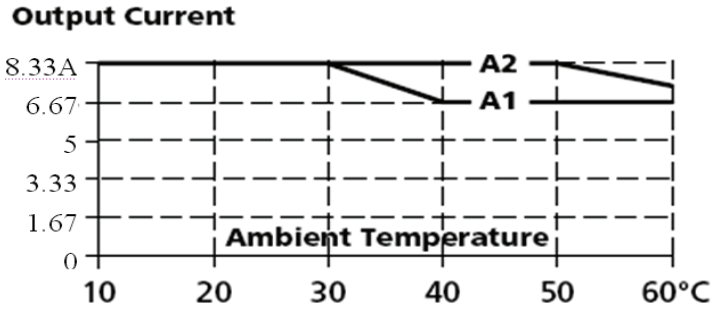
Mounting B



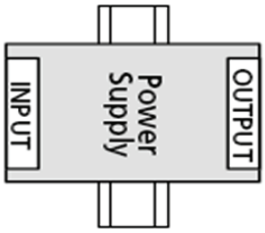


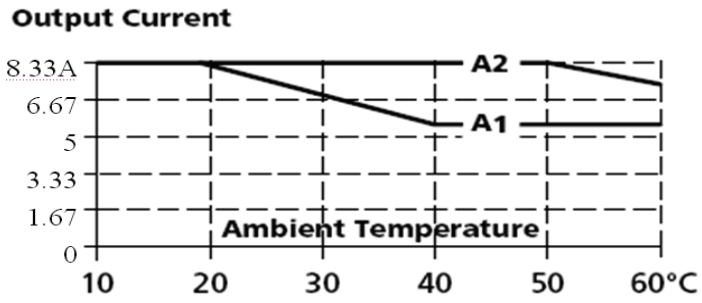
Mounting C



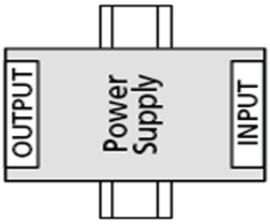


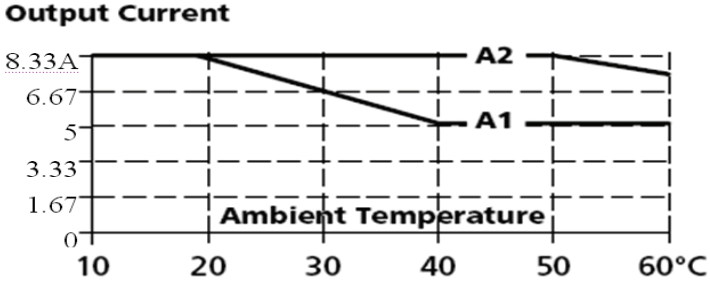
Mounting D





Mounting E

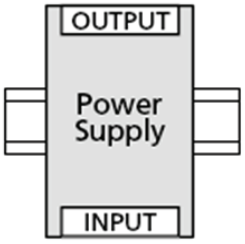


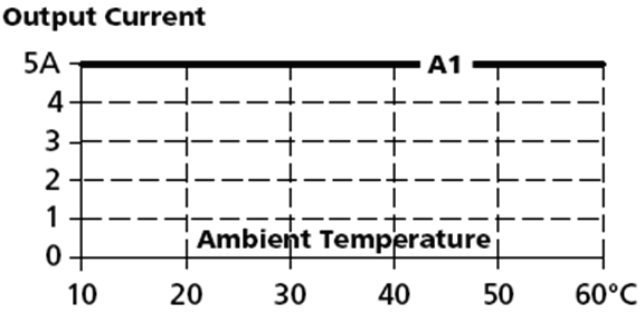


Mounting method instruction PSC-12024

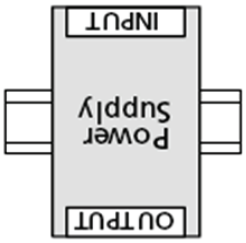
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

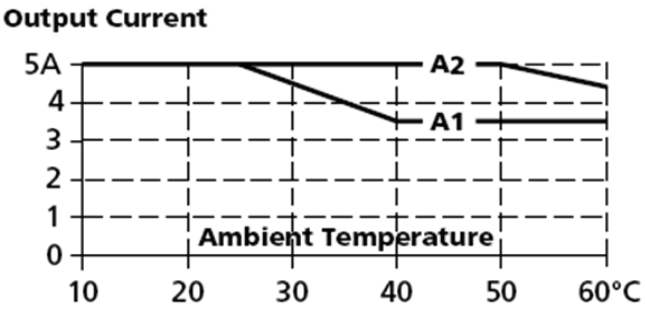
Mounting A



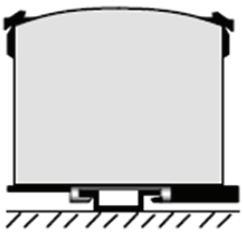


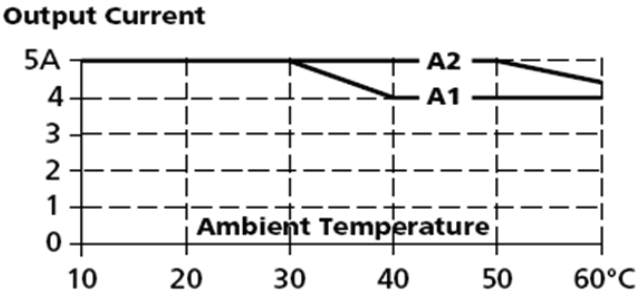
Mounting B



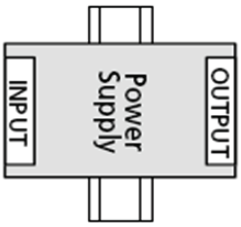


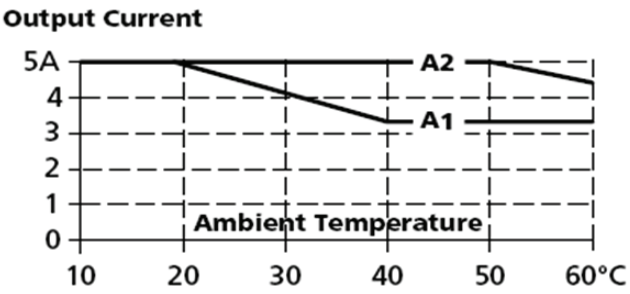
Mounting C



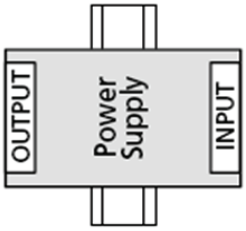


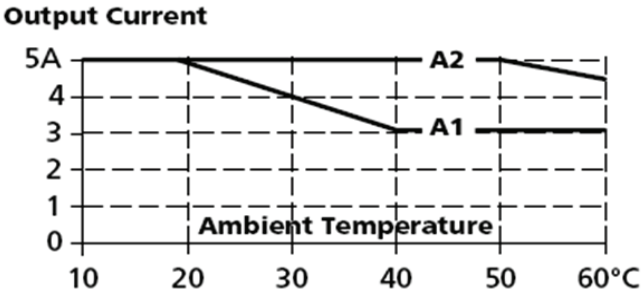
Mounting D





Mounting E

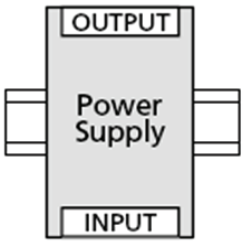


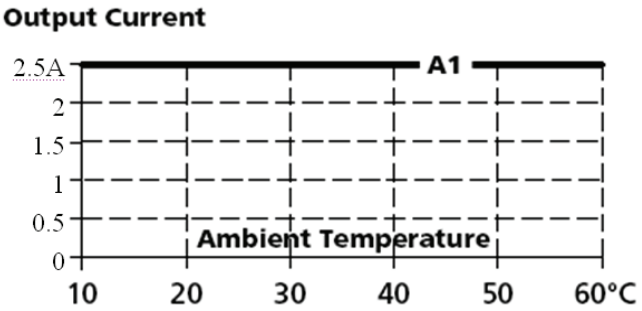


Mounting method instruction PSC-12048

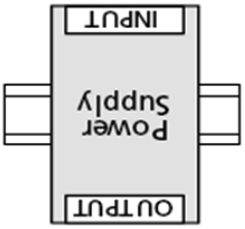
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

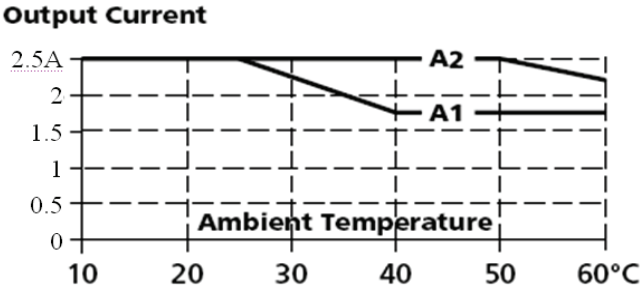
Mounting A



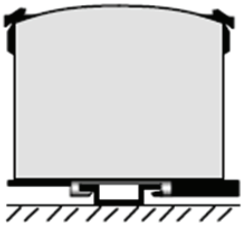


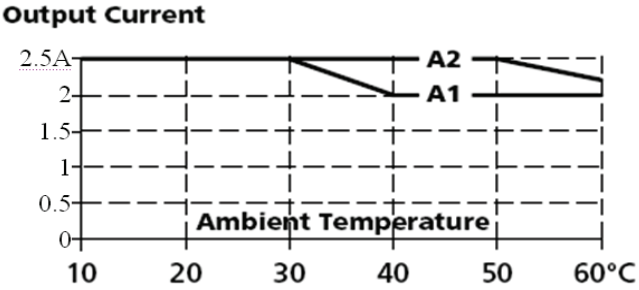
Mounting B



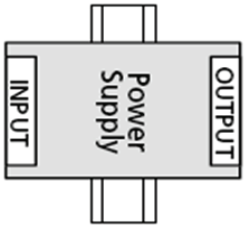


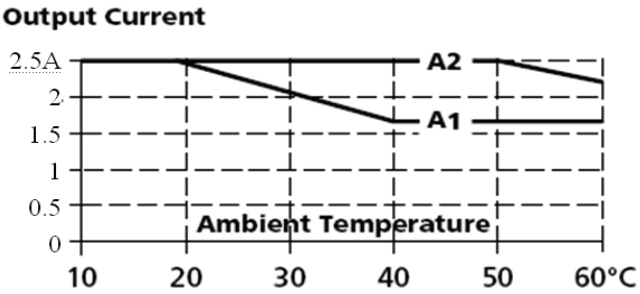
Mounting C



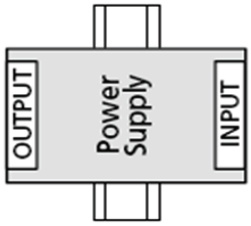


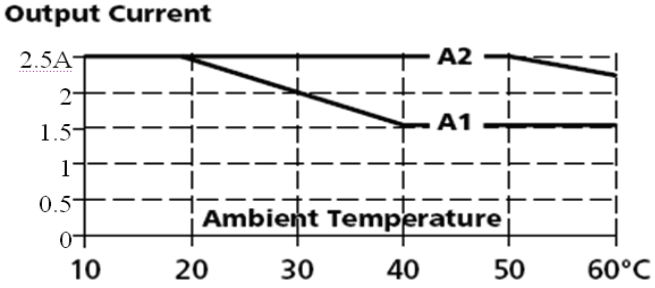
Mounting D





Mounting E





PSC-U120 Series

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

c UL us LISTED
IND. CONT. EQ.
UL 508
E205412

c US
UL 60950-1
E521519

UK CA CE

CB RoHS Parallel PFC ENERGY SAVER

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	*Note 1*	0~10A	0~5A	0~2.5A
Ripple and Noise	0~70°C	≤120mV	≤120mV	≤240mV
	Note 2 -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	5.25~6.5A	2.75~3.25A
		Protection type: Constant current		
Over voltage		15~18V	29~33V	58~63V
		Protection type: Shut down, re-power on.		
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".

PSC-120 Series

Altech Corp.®

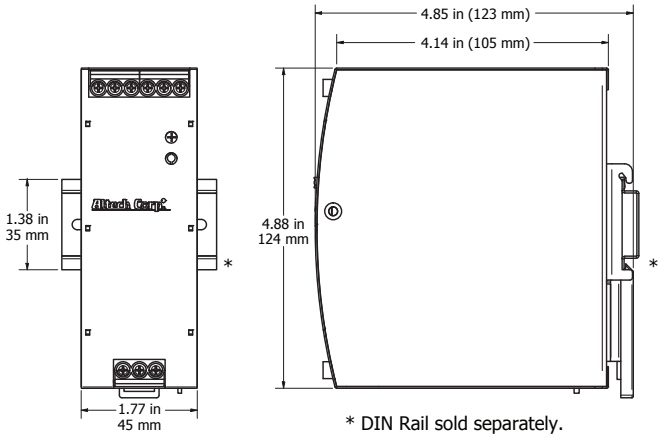
Mechanical Specification

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–		



* DIN Rail sold separately.

AC/DC Terminal

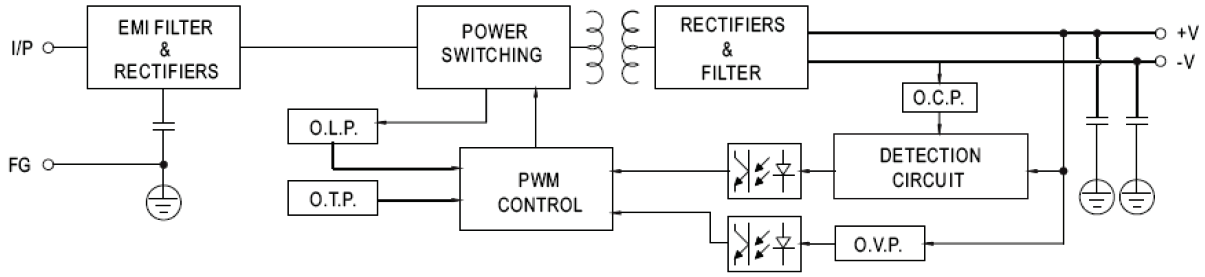
Type	Screw terminal blocks
Solid Wire	0.5-6mm2
Strand Wire	0.5-4mm2
Wire Spec	AWG20-10
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	0.5NM

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

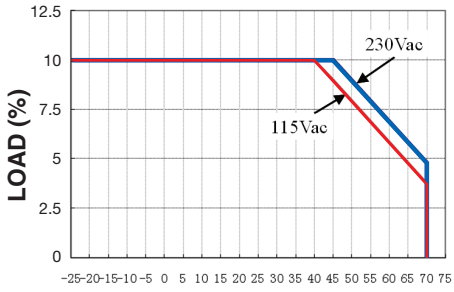
Functional Diagram



Derating Curve

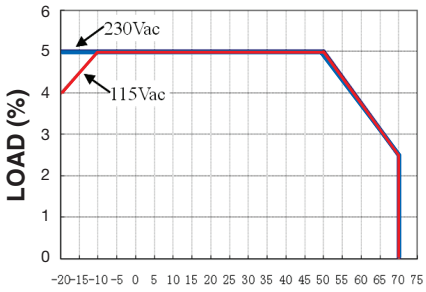
Continual working

PSC-U12012



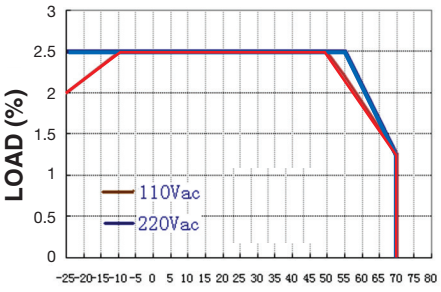
AMBIENT TEMPERATURE (°C)

PSC-U12024



AMBIENT TEMPERATURE (°C)

PSC-U12048

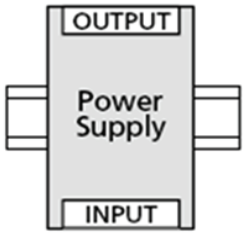


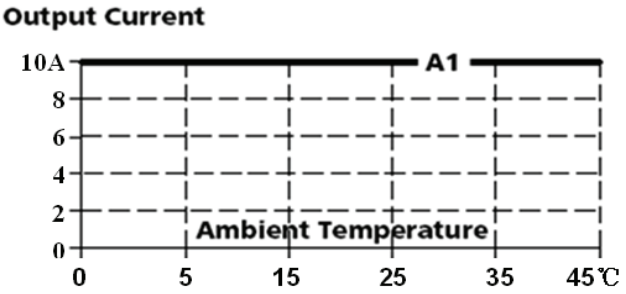
AMBIENT TEMPERATURE (°C)

Mounting method instruction PSC-U12012

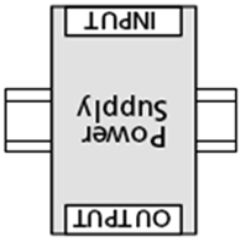
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

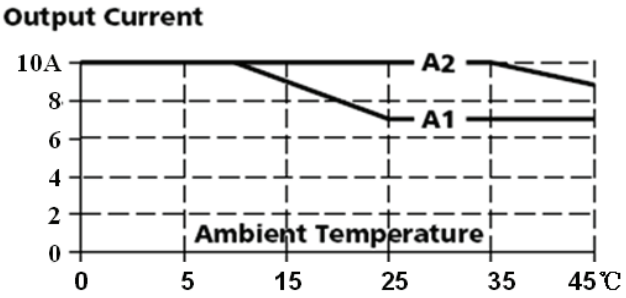
Mounting A



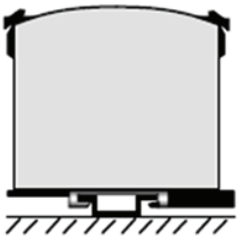


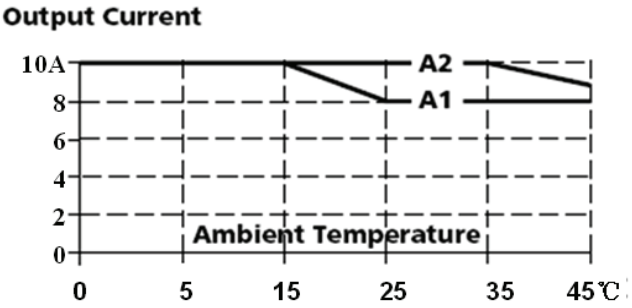
Mounting B



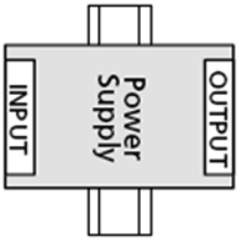


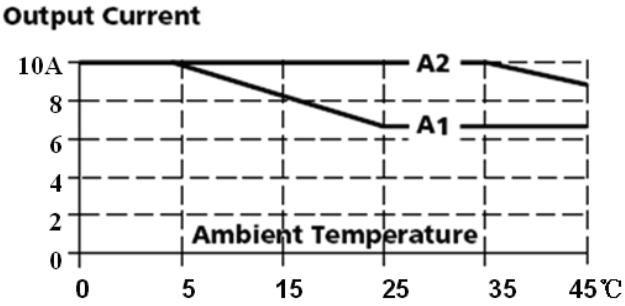
Mounting C



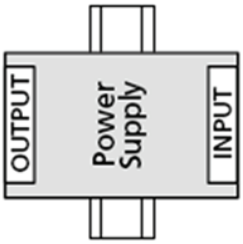


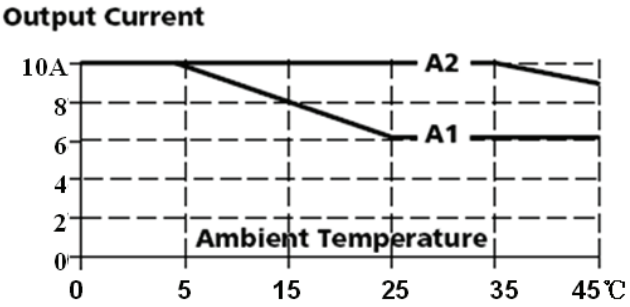
Mounting D





Mounting E

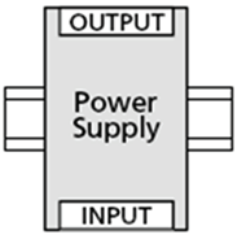


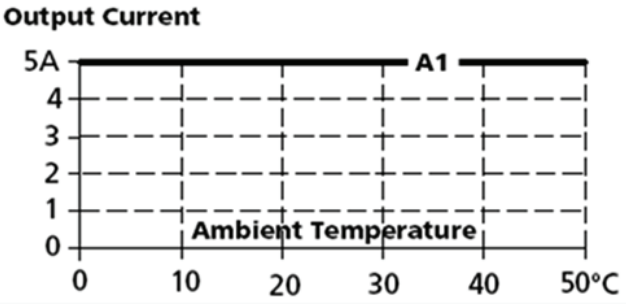


Mounting method instruction PSC-U12024

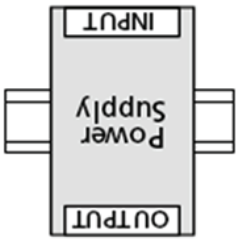
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

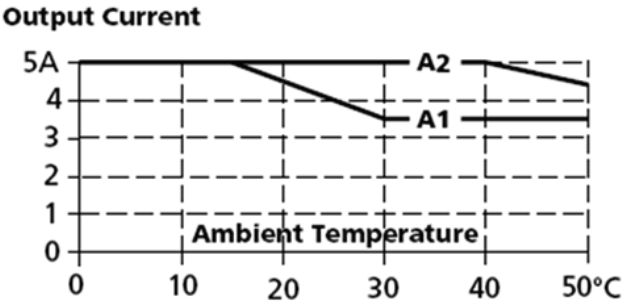
Mounting A



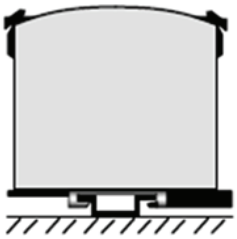


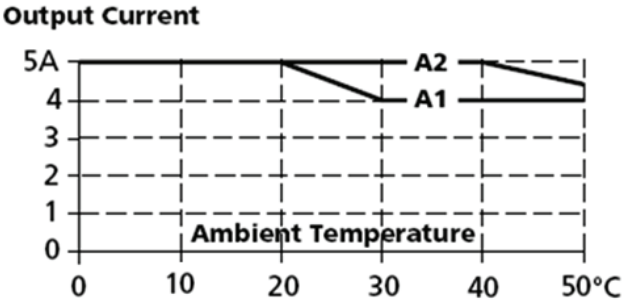
Mounting B



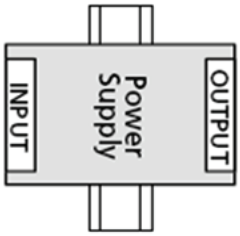


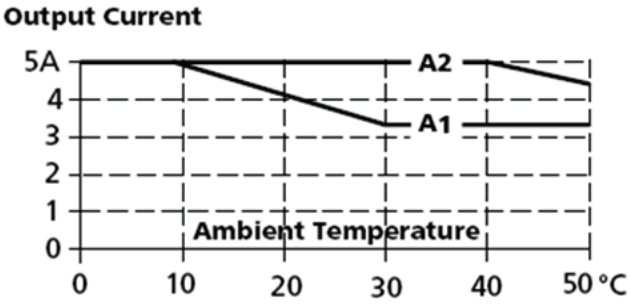
Mounting C



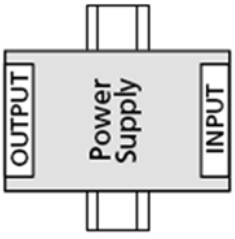


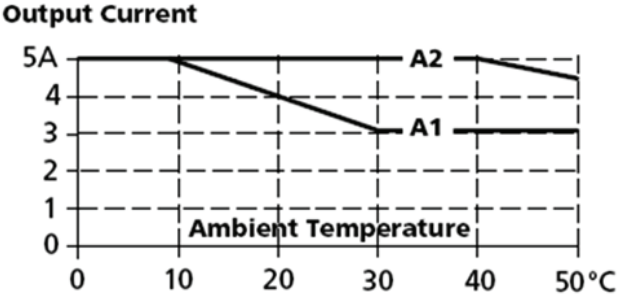
Mounting D





Mounting E

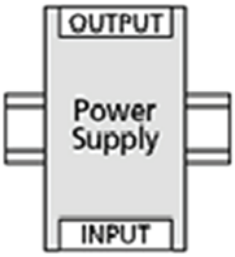


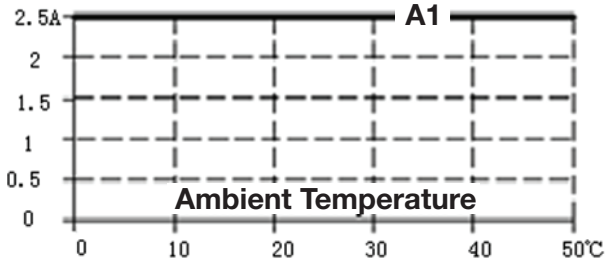


Mounting method instruction PSC-U12048

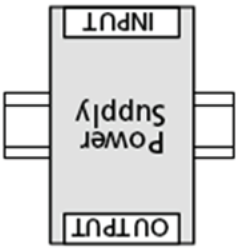
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).

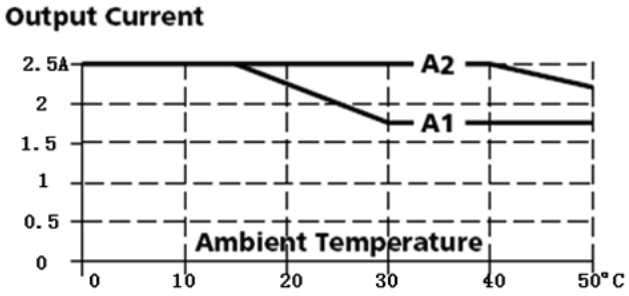
Mounting A



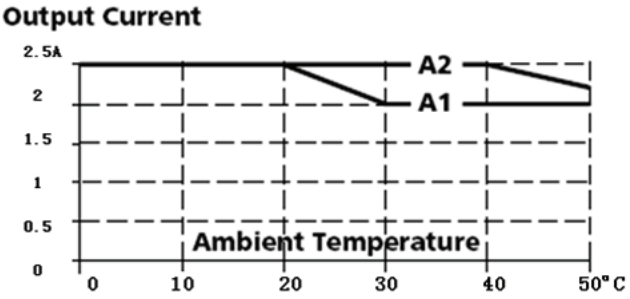


Mounting B

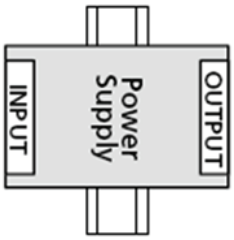


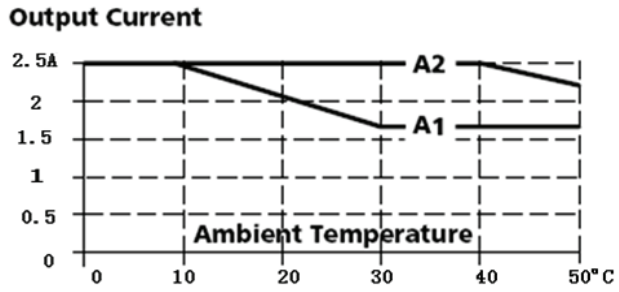


Mounting C

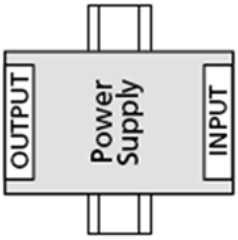


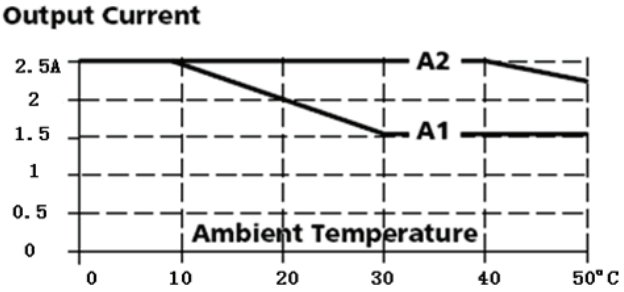
Mounting D





Mounting E





PSC-240 Series

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

c UL us LISTED
IND. CONT. EQ.
UL 508
E205412

c US
UL 60950-1
UL 62368-1
E521519

UK CA | CE

CB | RoHS | Parallel | PFC | ENERGY SAVER

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 *Note 1*	0~10A	0~5A
	Ripple and Noise (0~70°C)	≤240mV	≤480mV
	Note 2 (-25°C)	≤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".

PSC-240 Series

Altech Corp.®

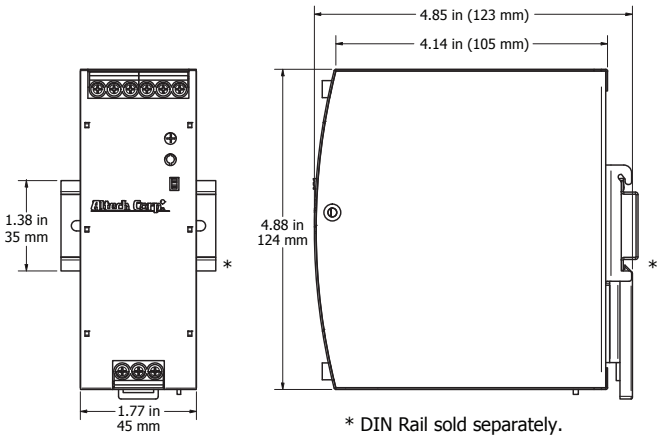
Mechanical Specification

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		



* DIN Rail sold separately.

AC/DC Terminal

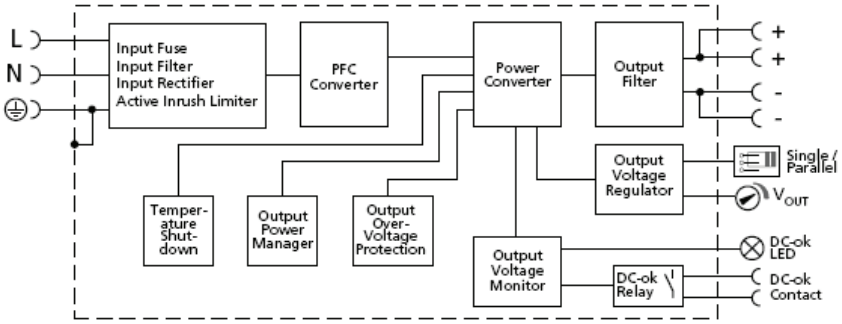
Type	Screw terminal blocks
Solid Wire	0.5-6mm2
Strand Wire	0.5-4mm2
Wire Spec	AWG20-10 (PG Wire>18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	5NM

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

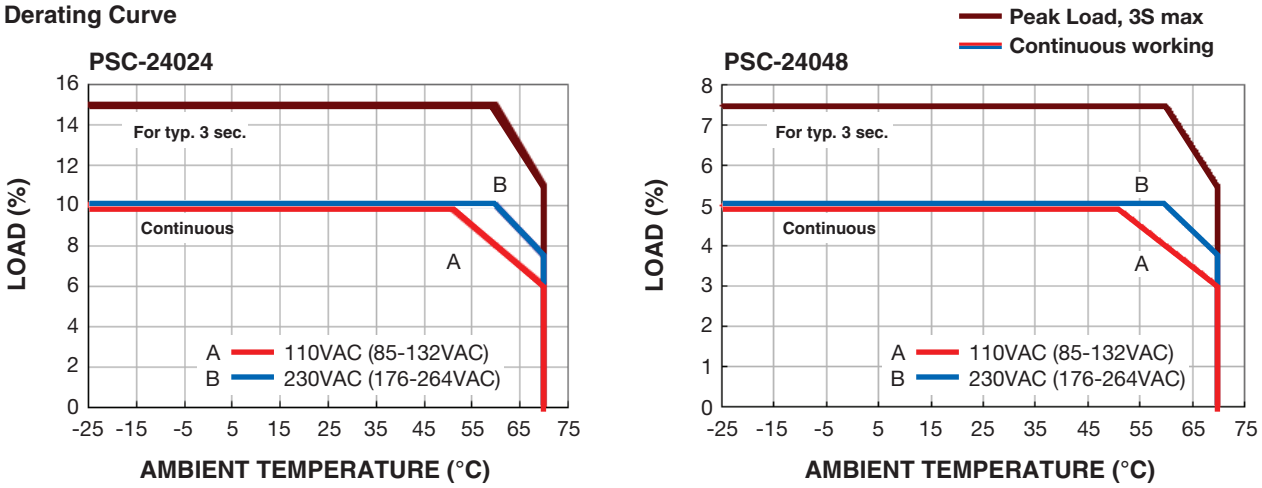
Block Diagram

Functional Diagram



Peak Loading

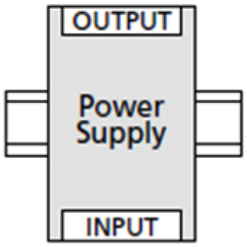
Derating Curve

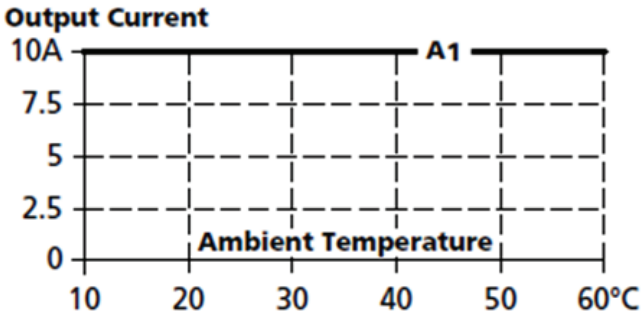


Mounting method instruction PSC-24024

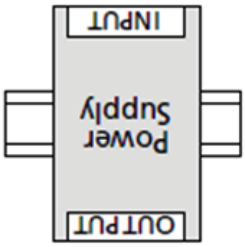
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).
Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10℃.

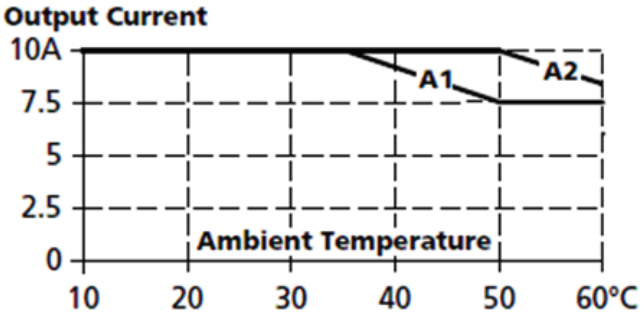
Mounting A



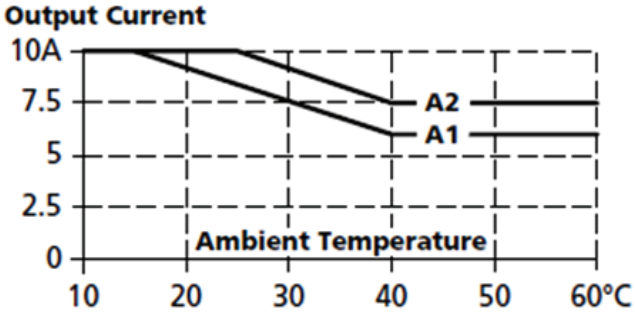


Mounting P

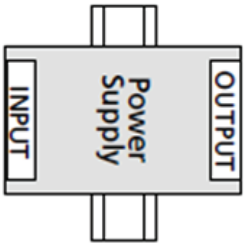


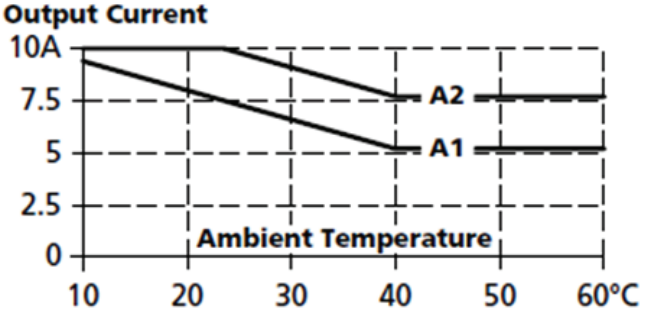


Mounting C

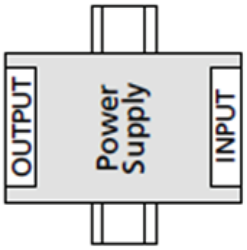


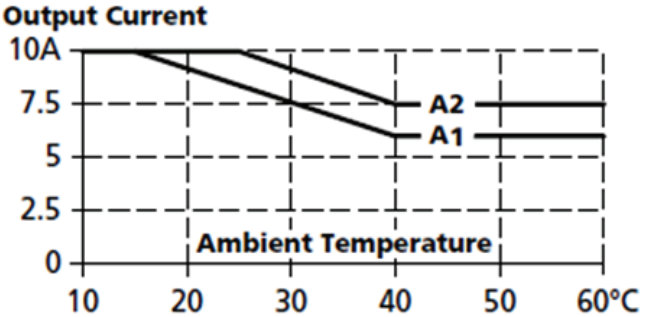
Mounting I





Mounting E

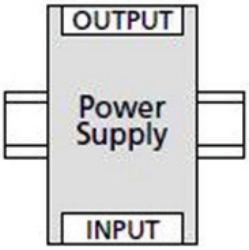


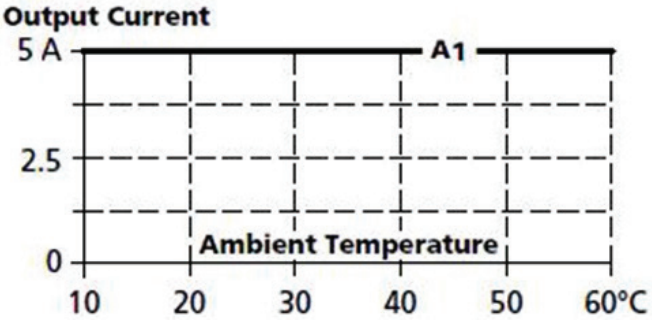


Mounting method instruction PSC-24048

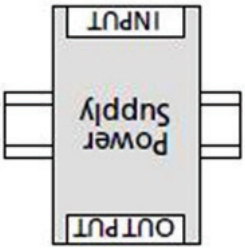
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).
Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10℃.

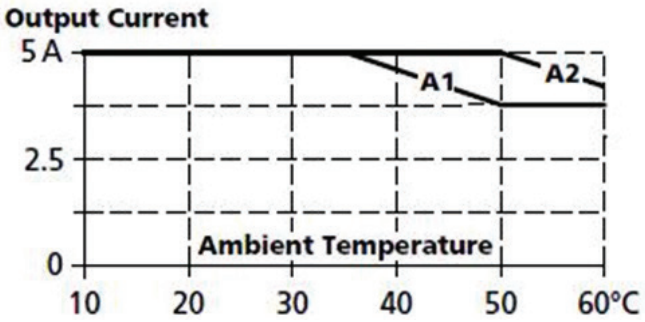
Mounting A



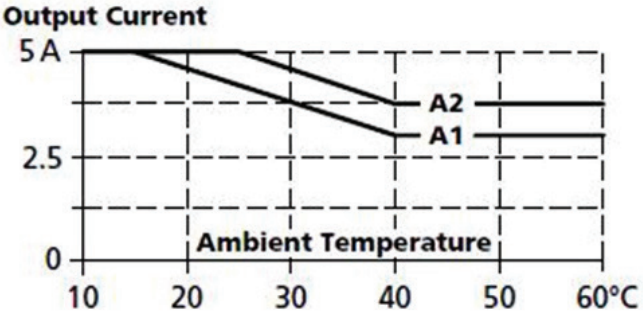


Mounting B

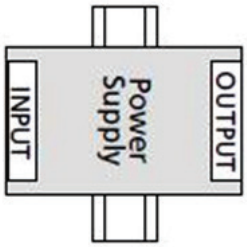


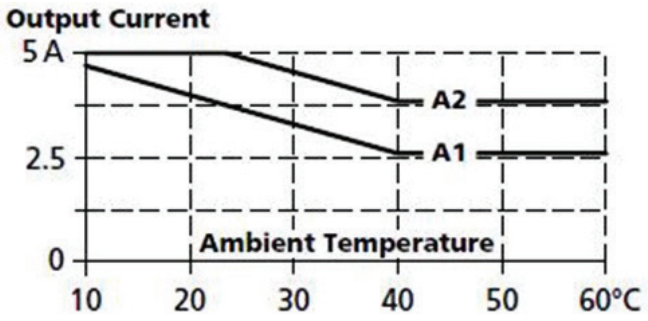


Mounting C

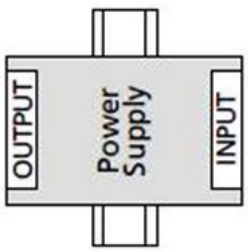


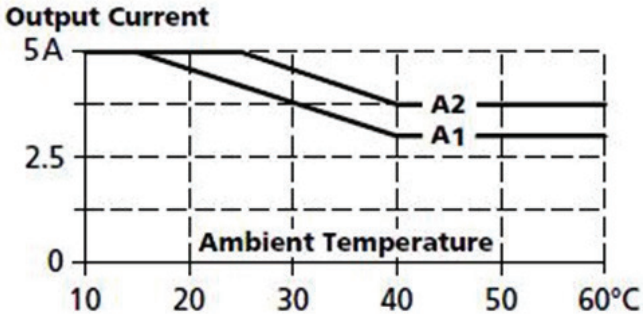
Mounting D





Mounting E





PSC-480 Series

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

c UL us LISTED
IND. CONT. EQ.
UL 508
E205412

c US
UL 60950-1
E521519

UK CA CE

CB RoHS Parallel PFC ENERGY SAVER

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 *Note 1*		0~20A	0~10A
Ripple and Noise	0~70°C	≤240mV	≤480mV
Note 2	-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".

PSC-480 Series

Altech Corp.®

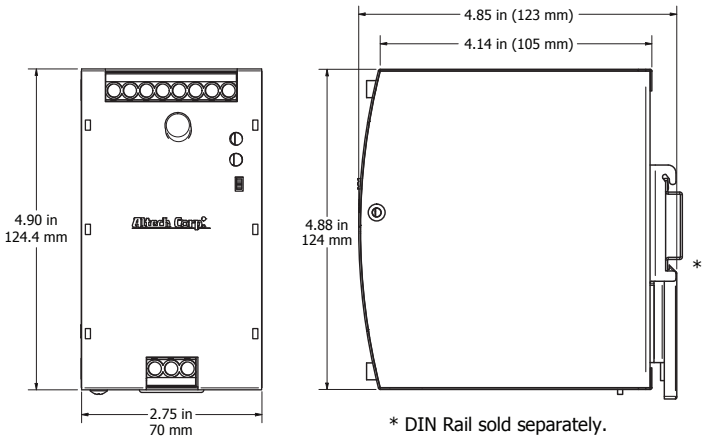
Mechanical Specification

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	



* DIN Rail sold separately.

AC/DC Terminal

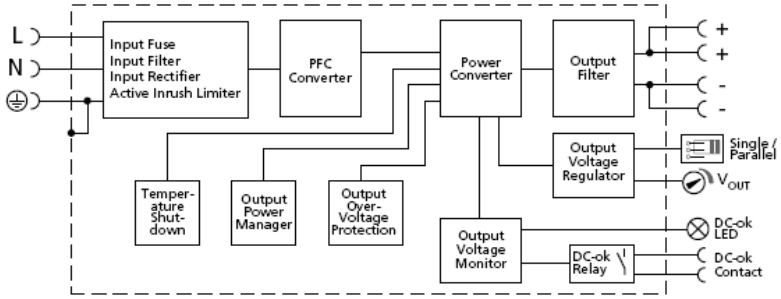
Type	Screw terminal blocks
Solid Wire	0.5-6 mm^2
Strand Wire	0.5-4 mm^2
Wire Spec	AWG20-10 (PG wire >18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	1NM

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

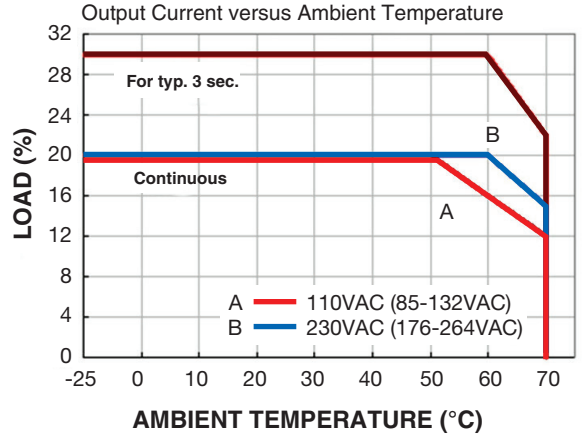


Peak Loading

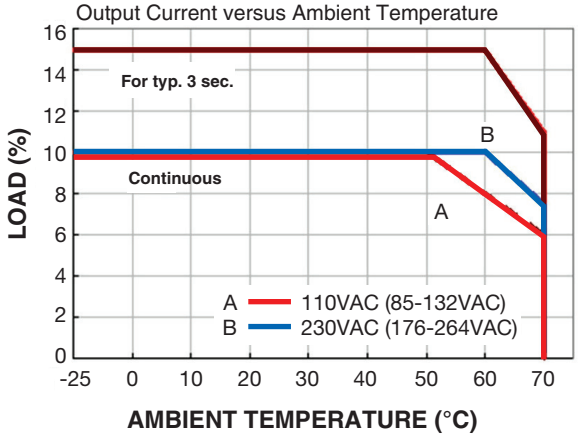
Derating Curve

Peak Load, 3S max
Continuous working

PSC-48024
Output Current versus Ambient Temperature



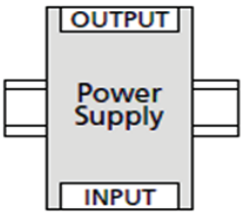
PSC-48048
Output Current versus Ambient Temperature

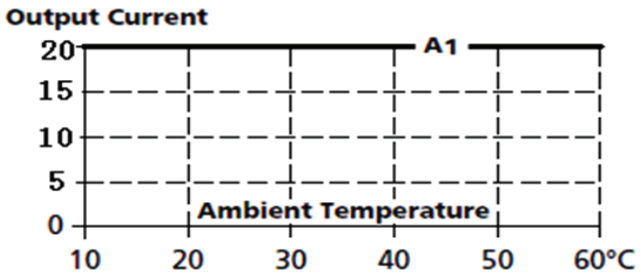


Mounting method instruction PSC-48024

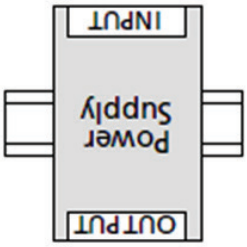
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).
Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10℃.

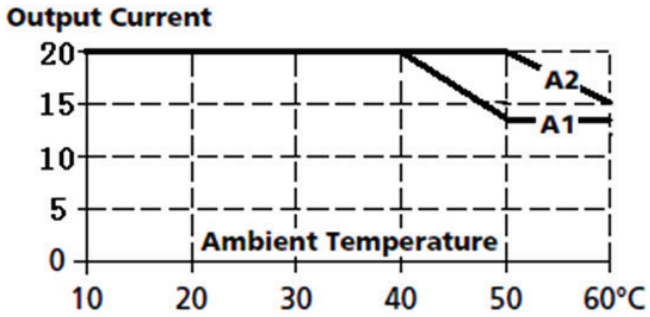
Mounting A



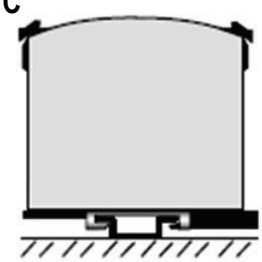


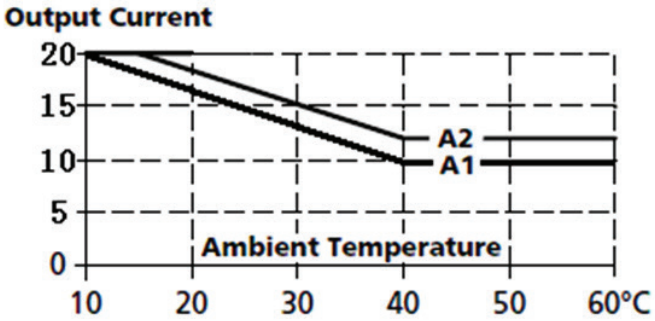
Mounting B



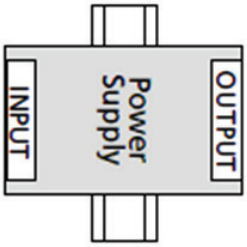


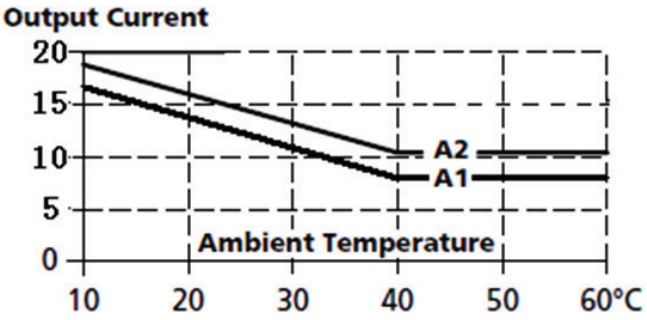
Mounting C



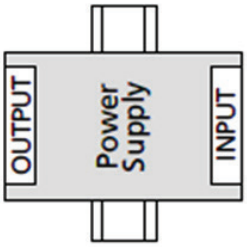


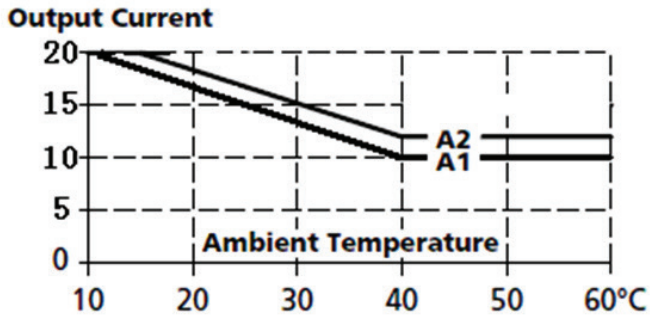
Mounting D





Mounting E

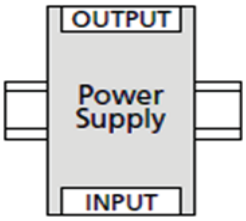


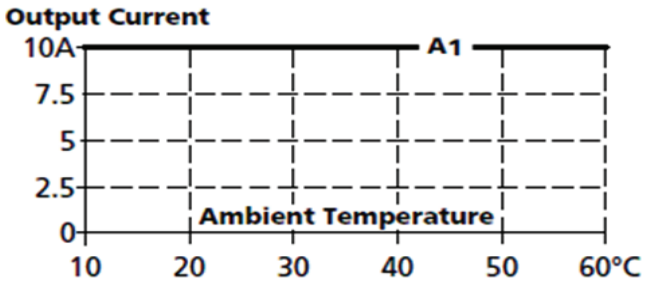


Mounting method instruction PSC-48048

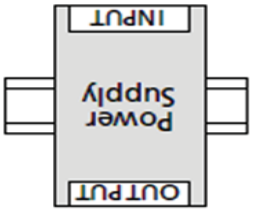
A1 is recommended output current.
A2 is the allowed max output current (PSU lifetime is around half of A1).
Below curves are tested under 230Vac(179~264Vac), when 110Vac input(85~175Vac), all derating points drops 10℃.

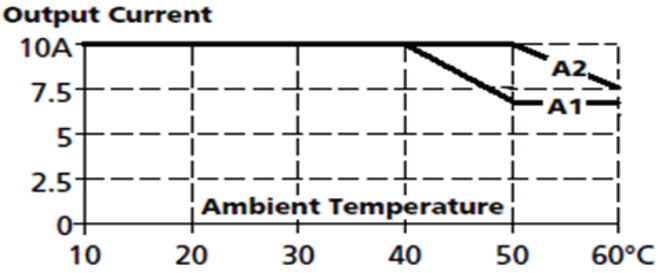
Mounting A



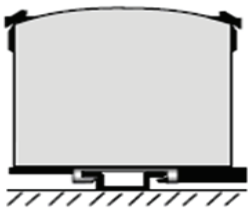


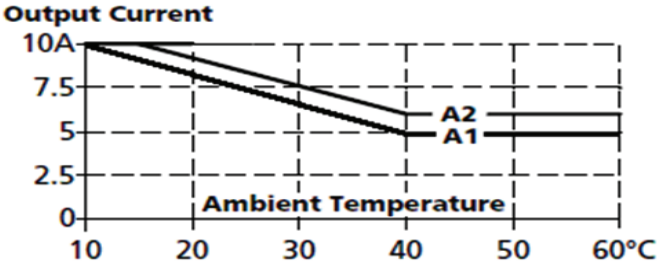
Mounting B



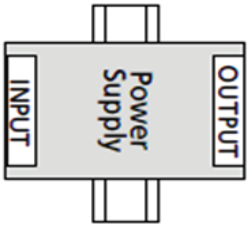


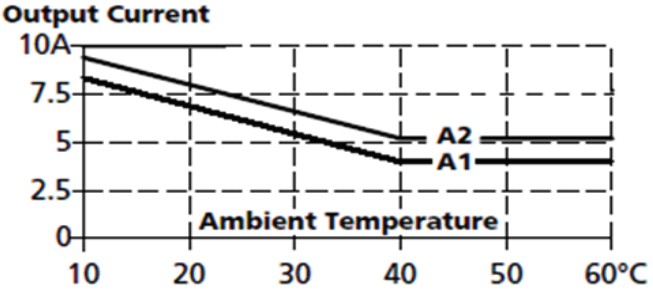
Mounting C



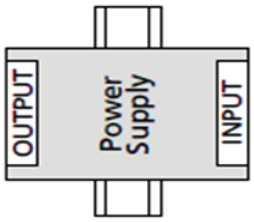


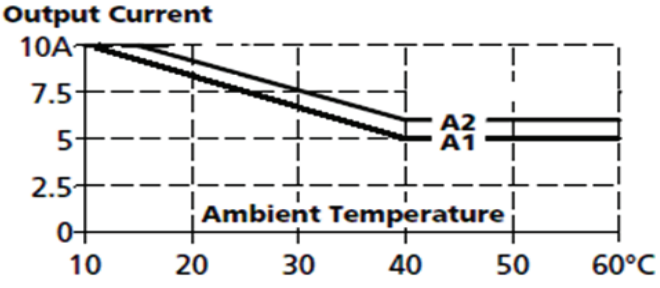
Mounting D





Mounting E





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