

Altech Corp.®



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 <i>Note 2</i>	0~70°C -25°C~0	≤100mV ≤120mV	≤120mV ≤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"

For the latest on Altech Power Supply specifications please visit www.altechcorp.com/power.

PSC-75 Series

Altech Corp.

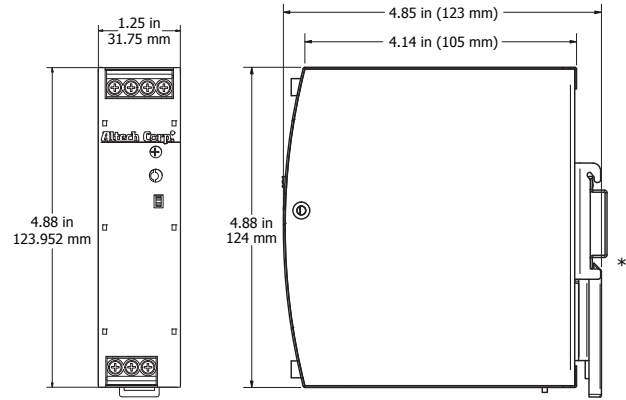
Mechanical Specification

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.

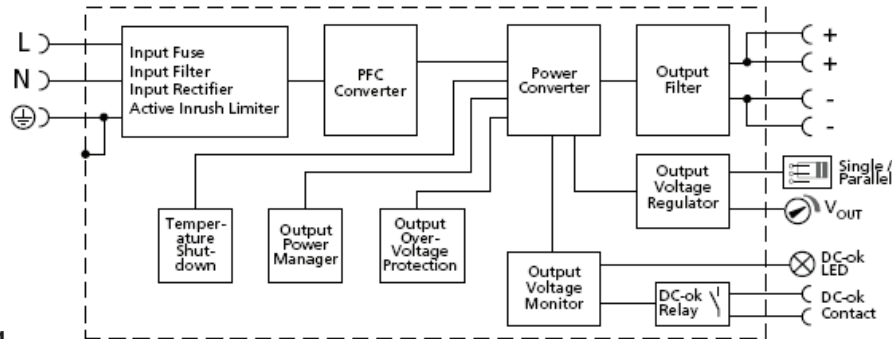
AC/DC Terminal

Type	Screw terminal blocks
Solid Wire	0.5-6mm ²
Strand Wire	0.5-4mm 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

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

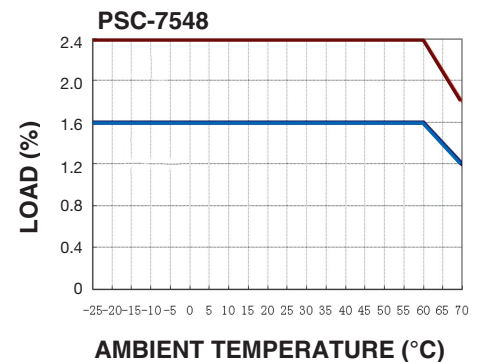
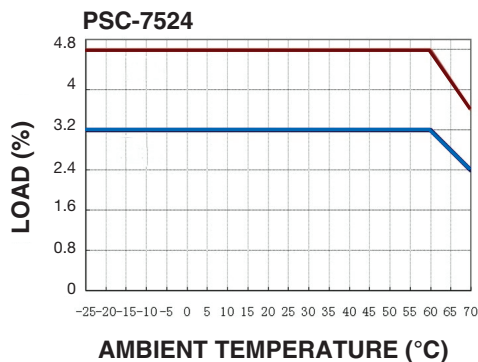
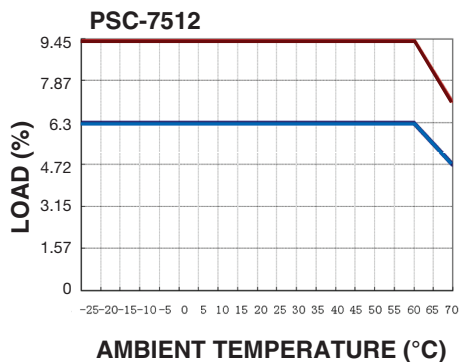
Functional Diagram



Peak Loading



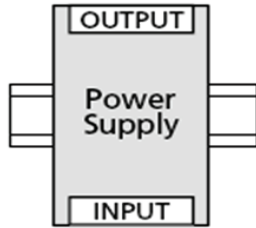
Derating Curve



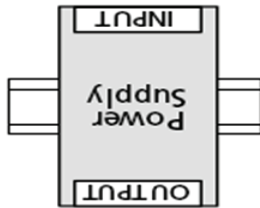
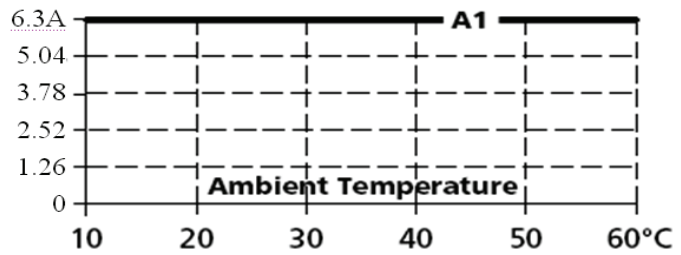
Mounting method instruction PSC-7512

A1 is recommended output current.

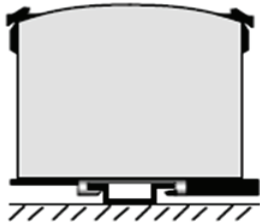
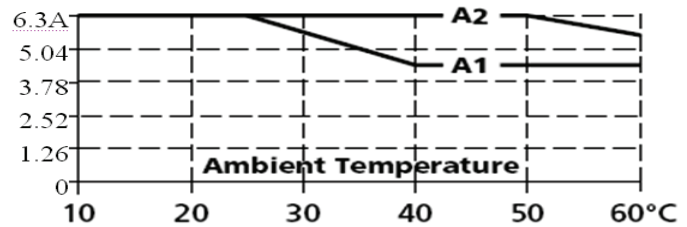
A2 is the allowed max output current (PSU lifetime is around half of A1).



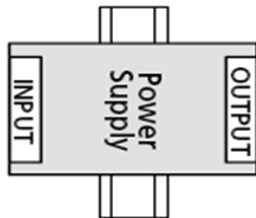
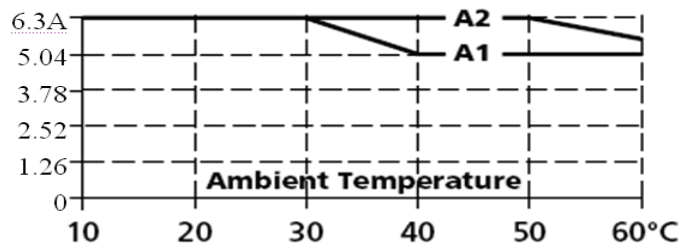
Output Current



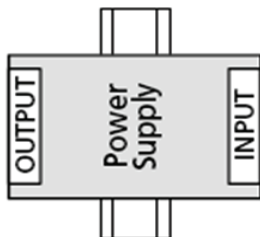
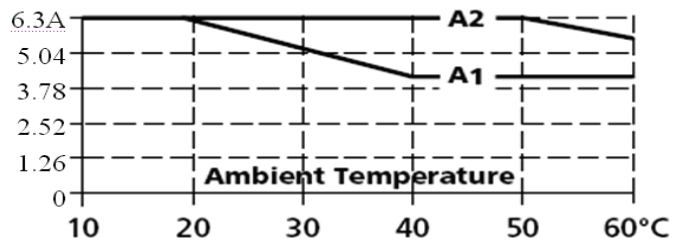
Output Current



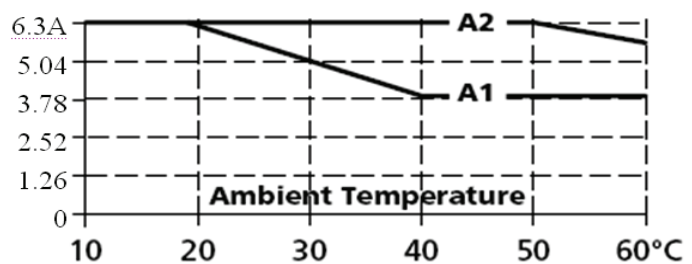
Output Current



Output Current



Output Current

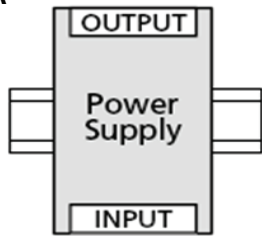


Mounting method instruction PSC-7524

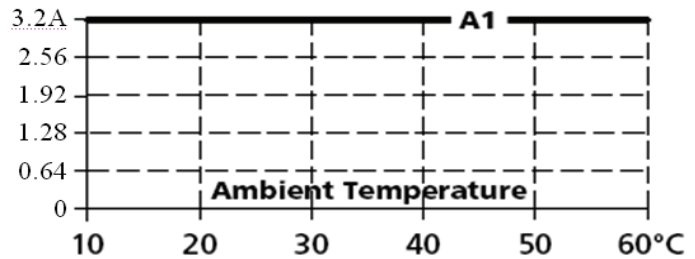
A1 is recommended output current.

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

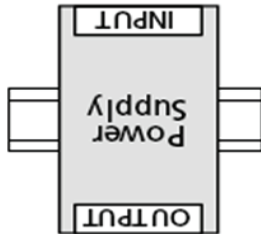
Mounting A



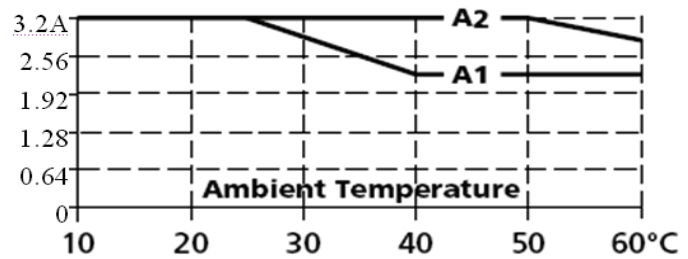
Output Current



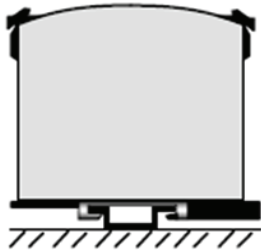
Mounting B



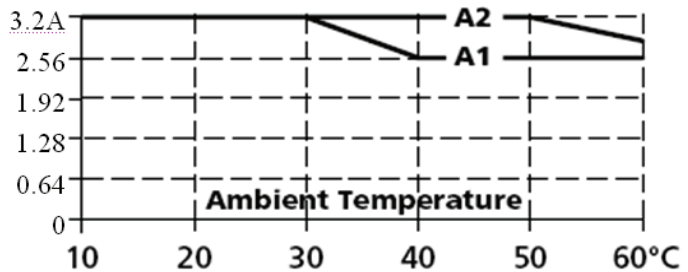
Output Current



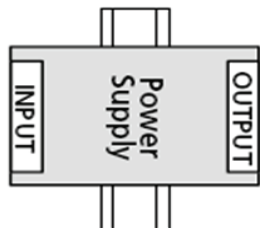
Mounting C



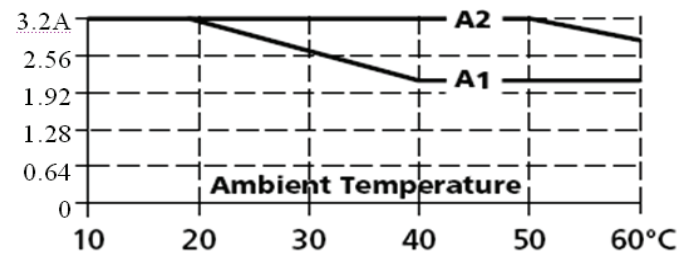
Output Current



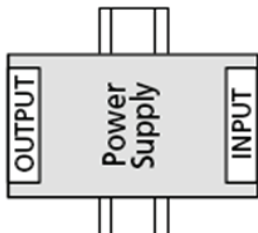
Mounting D



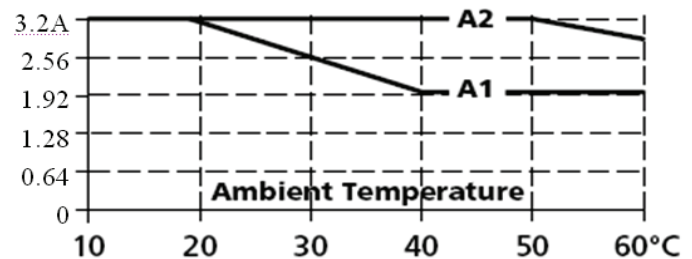
Output Current



Mounting E



Output Current

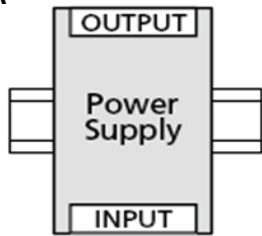


Mounting method instruction PSC-7548

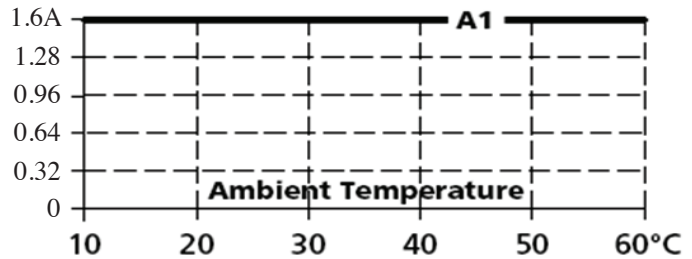
A1 is recommended output current.

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

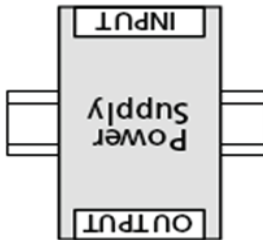
Mounting A



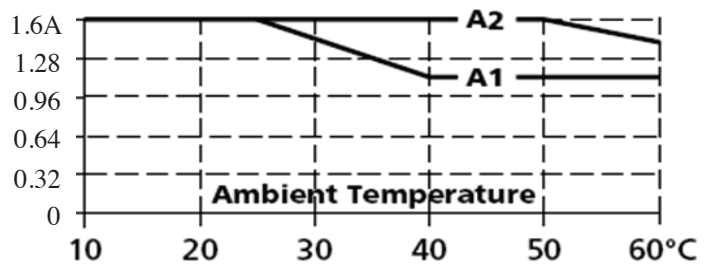
Output Current



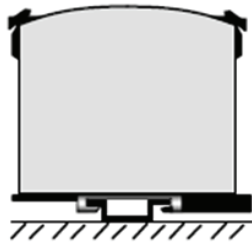
Mounting B



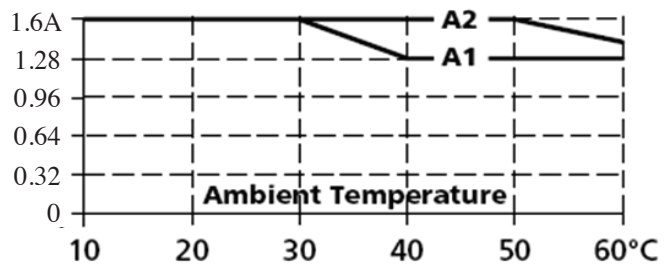
Output Current



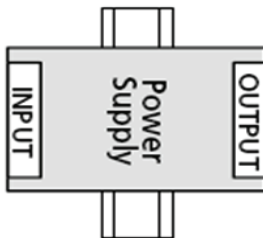
Mounting C



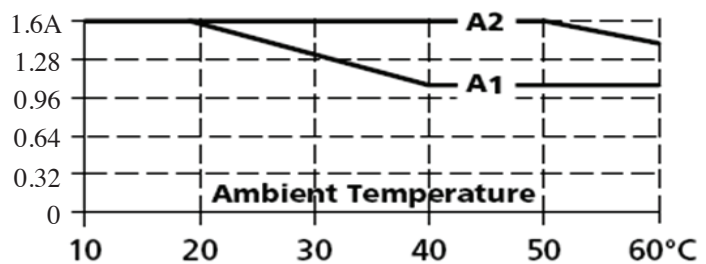
Output Current



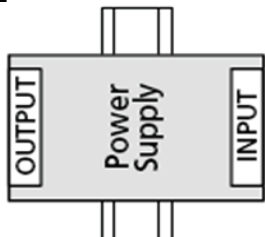
Mounting D



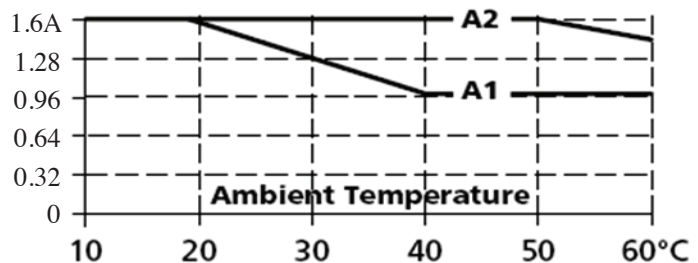
Output Current



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

INPUT

PSC-12012

PSC-12024

PSC-12048

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

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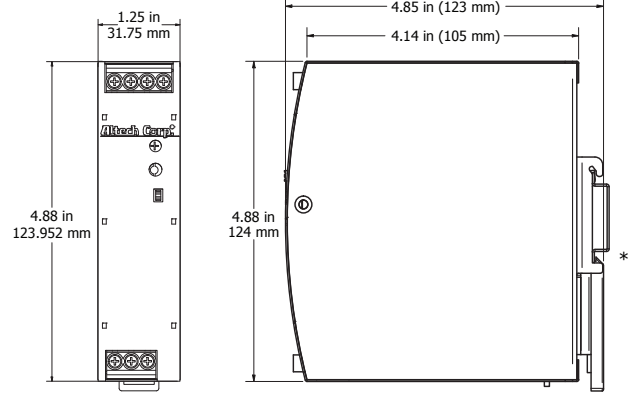
Mechanical Specification

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

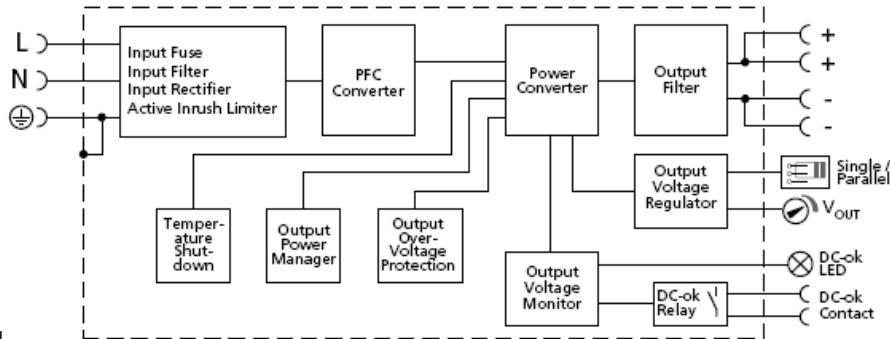
Type	Screw terminal blocks
Solid Wire	0.5-6mm ²
Strand Wire	0.5-4mm ²
Wire Spec	AWG20-10 (PG wire >18AWG)
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	1NM

Additional Functions

Power boost	150% of rated current
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

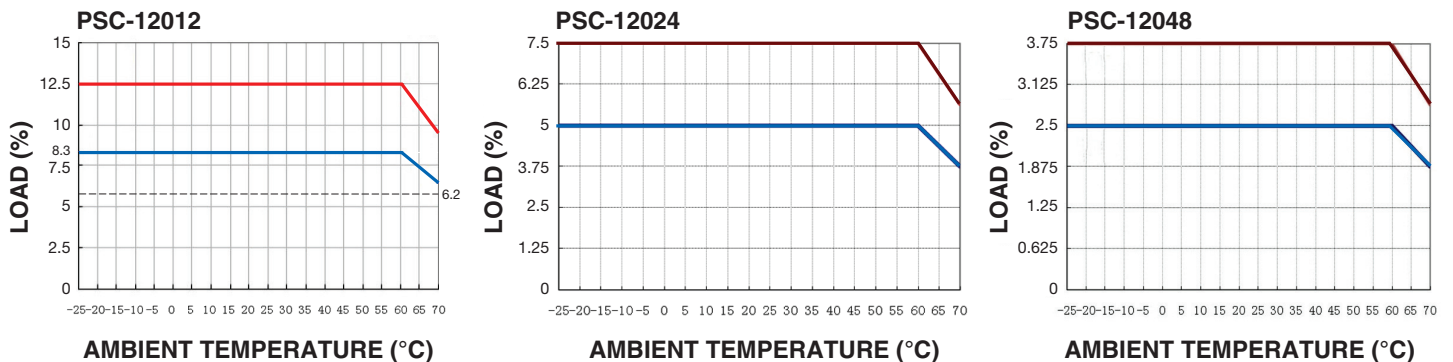
Functional Diagram



Peak Loading



Derating Curve

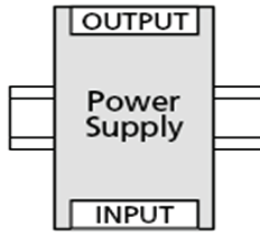


Mounting method instruction PSC-12012

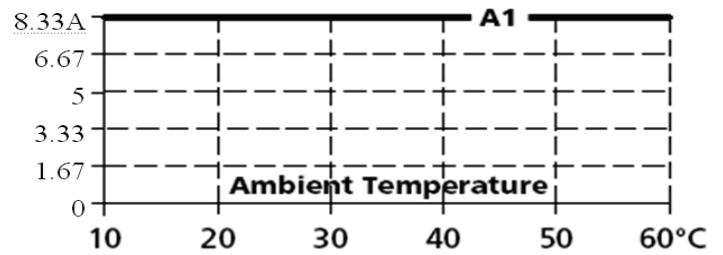
A1 is recommended output current.

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

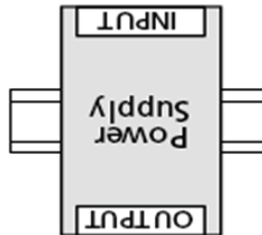
Mounting A



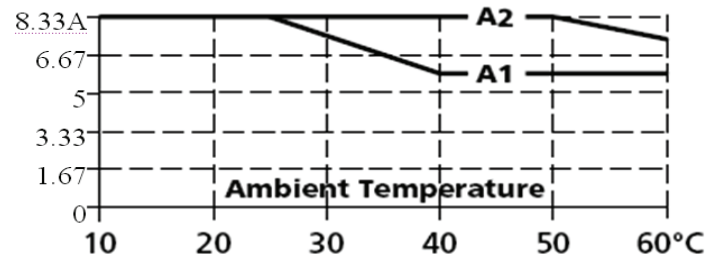
Output Current



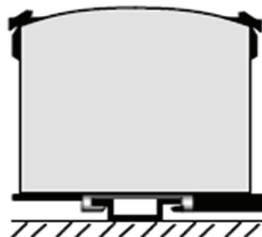
Mounting B



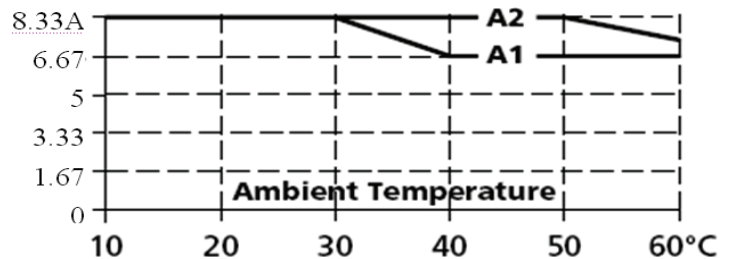
Output Current



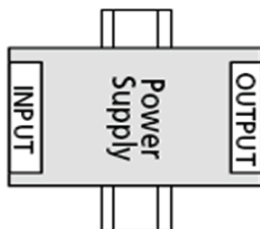
Mounting C



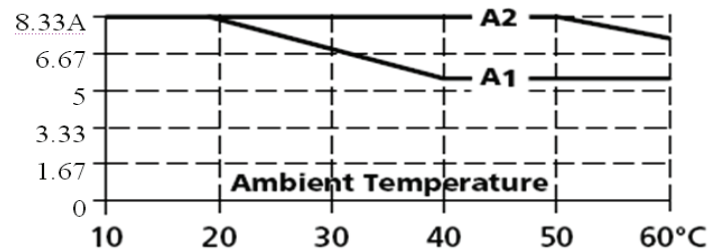
Output Current



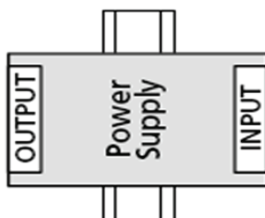
Mounting D



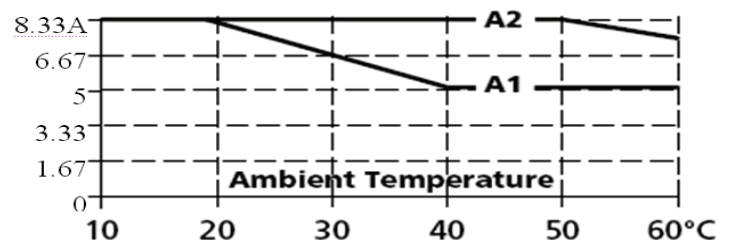
Output Current



Mounting E



Output Current

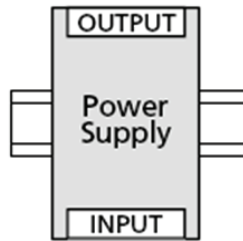


Mounting method instruction PSC-12024

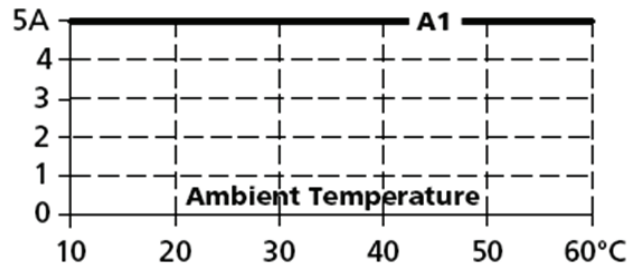
A1 is recommended output current.

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

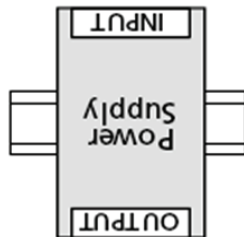
Mounting A



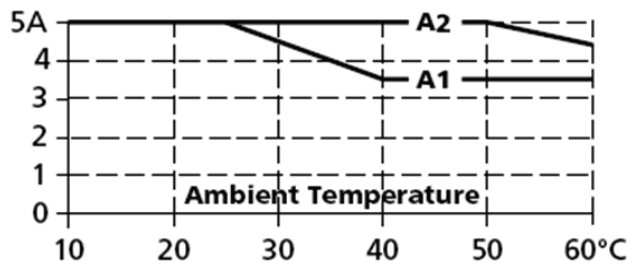
Output Current



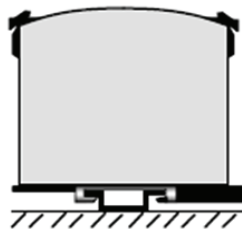
Mounting B



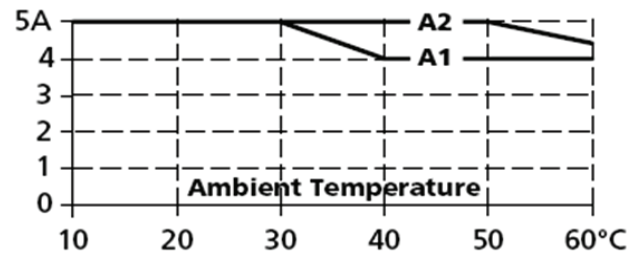
Output Current



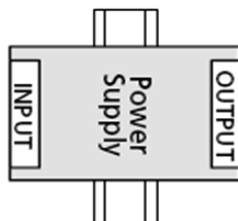
Mounting C



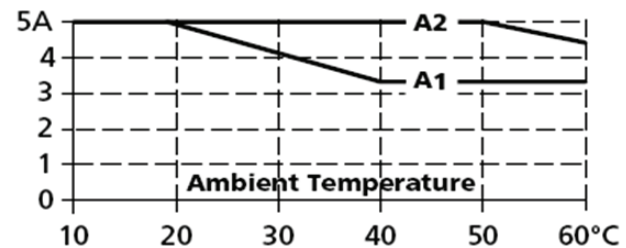
Output Current



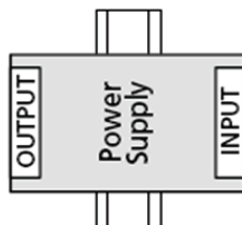
Mounting D



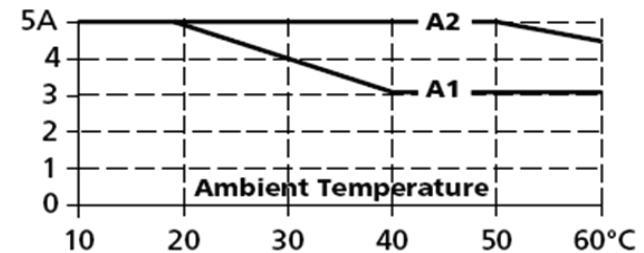
Output Current



Mounting E



Output Current

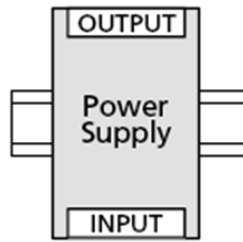


Mounting method instruction PSC-12048

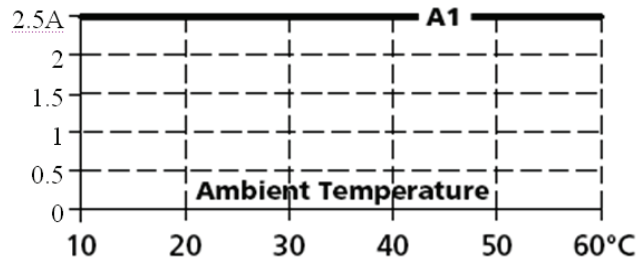
A1 is recommended output current.

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

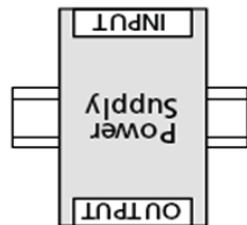
Mounting A



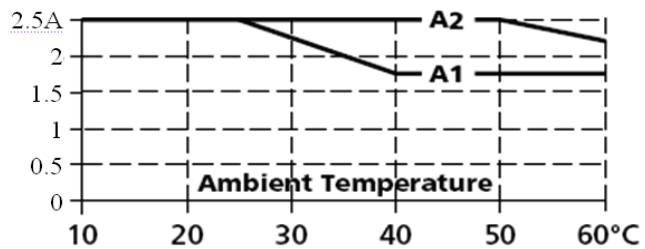
Output Current



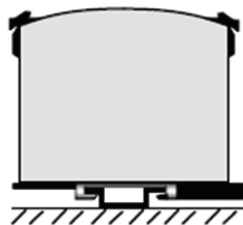
Mounting B



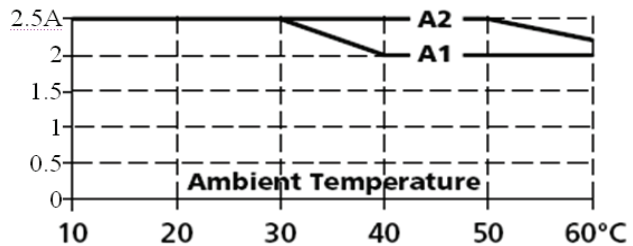
Output Current



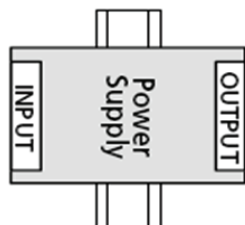
Mounting C



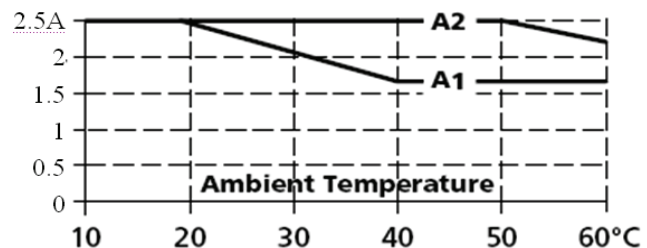
Output Current



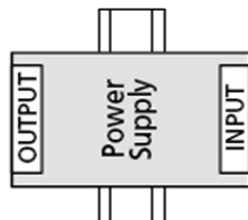
Mounting D



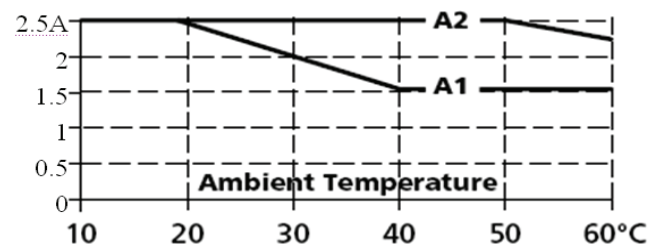
Output Current



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

INPUT

PSC-U12012

PSC-U12024

PSC-U12048

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 <i>Note 2</i>	≤120mV	≤120mV	≤240mV
	≤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
Over voltage	15~18V	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

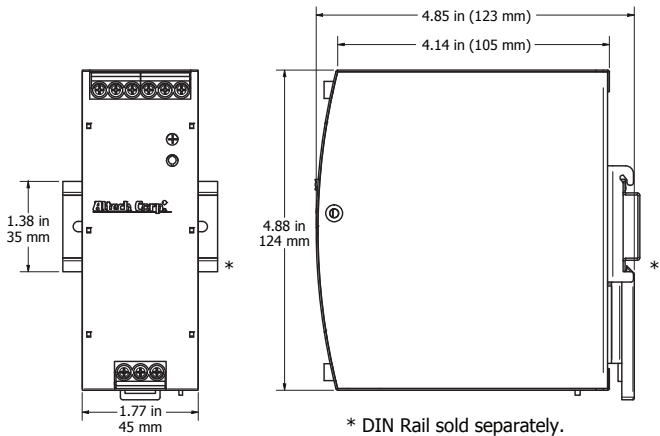
Terminal No.	Function	Wire Spec	Recommended Torque
1	PE	20~10AWG	5Nm
2	N		
3	L		

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 ²
Strand Wire	0.5-4mm ²
Wire Spec	AWG20-10
Max Wire Diameter	2.8mm
Recommended stripping length	7mm
Screwdriver	3.5mm Straight or Cross Screwdriver
Recommended Torque	0.5NM

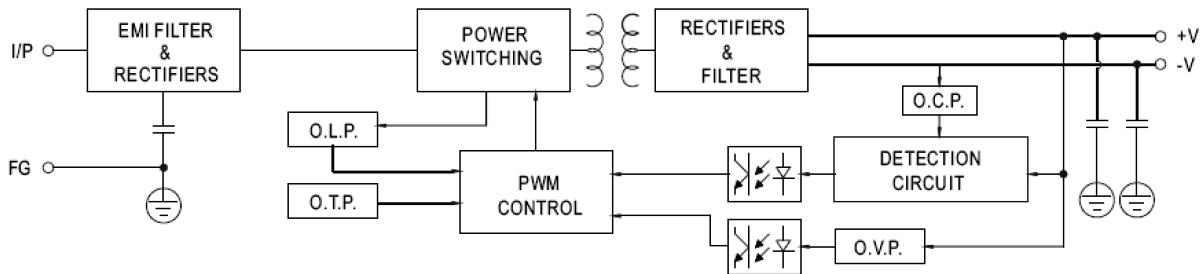


* DIN Rail sold separately.

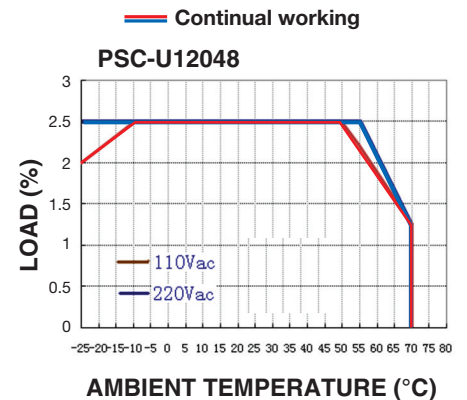
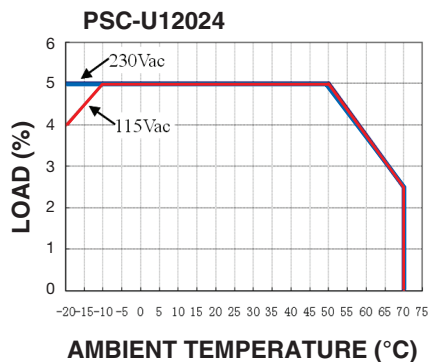
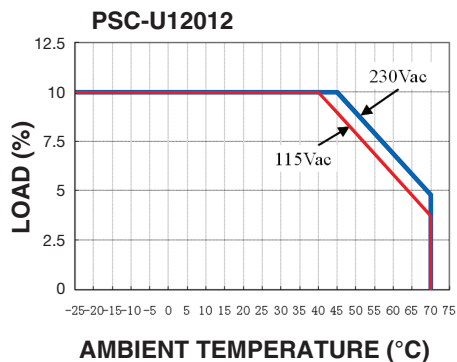
Additional Functions

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

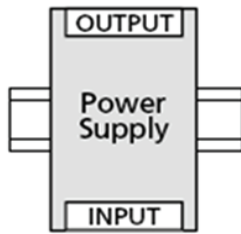


Mounting method instruction PSC-U12012

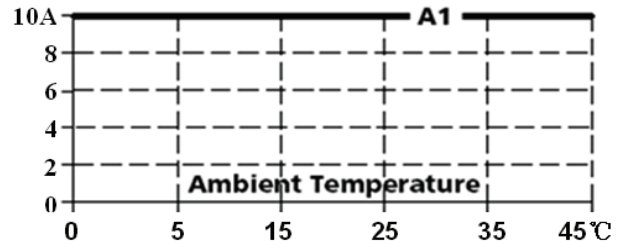
A1 is recommended output current.

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

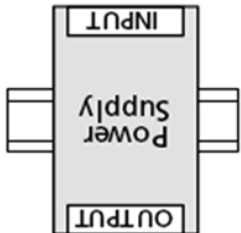
Mounting A



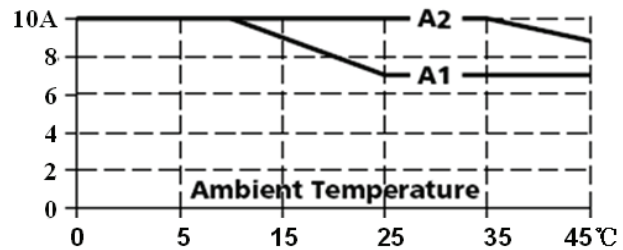
Output Current



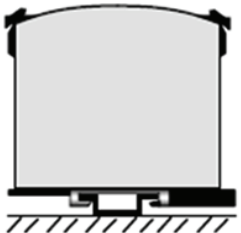
Mounting B



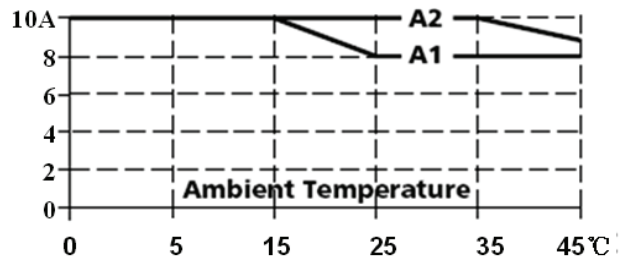
Output Current



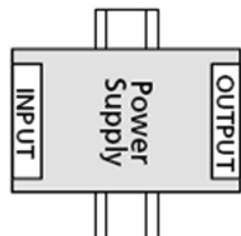
Mounting C



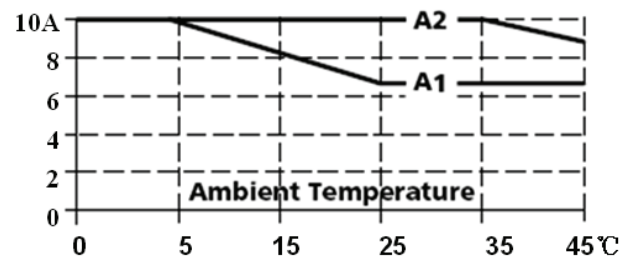
Output Current



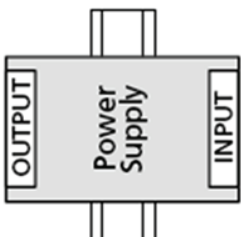
Mounting D



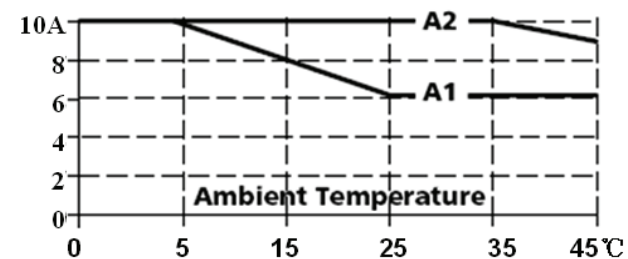
Output Current



Mounting E



Output Current

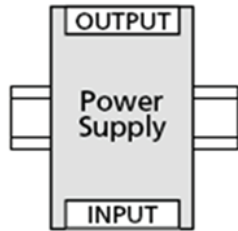


Mounting method instruction PSC-U12024

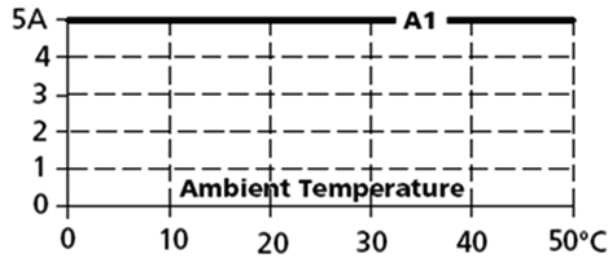
A1 is recommended output current.

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

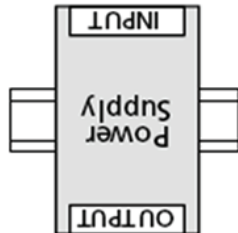
Mounting A



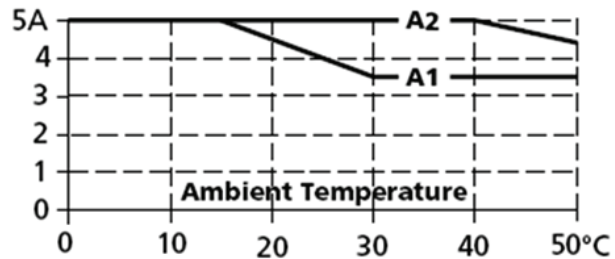
Output Current



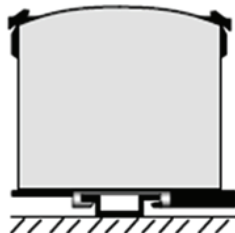
Mounting B



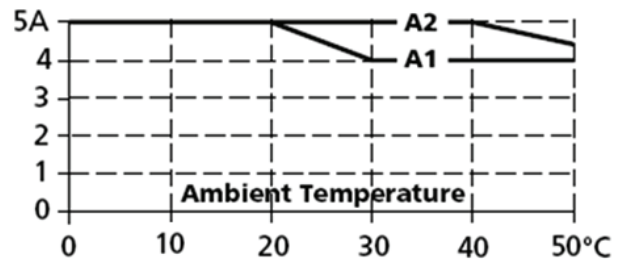
Output Current



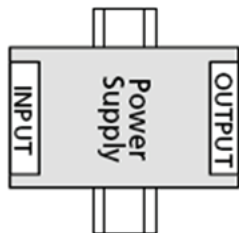
Mounting C



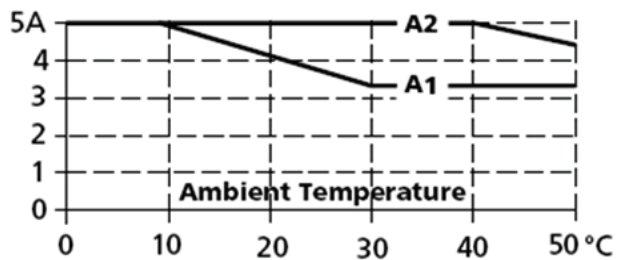
Output Current



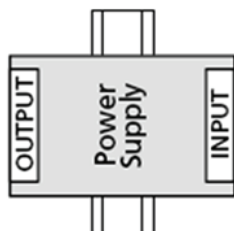
Mounting D



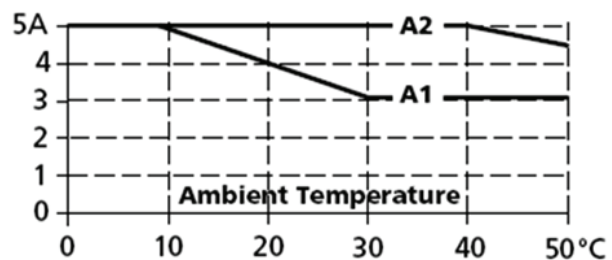
Output Current



Mounting E



Output Current

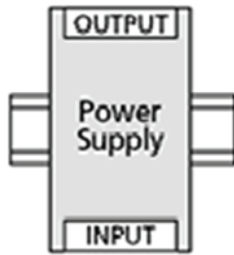


Mounting method instruction PSC-U12048

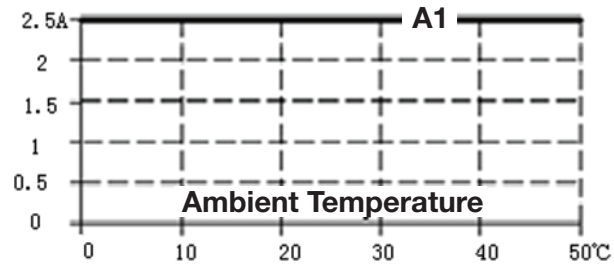
A1 is recommended output current.

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

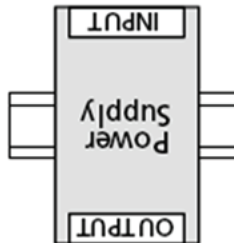
Mounting A



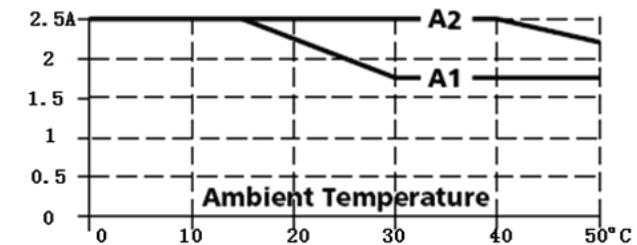
Output Current



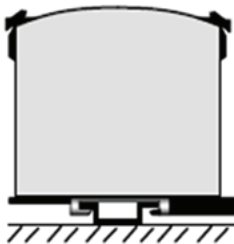
Mounting B



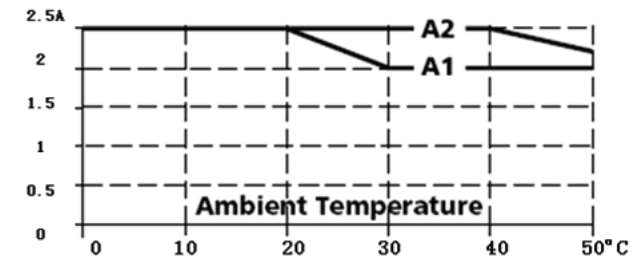
Output Current



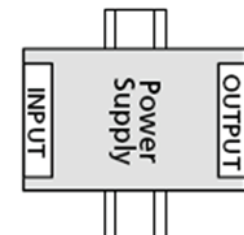
Mounting C



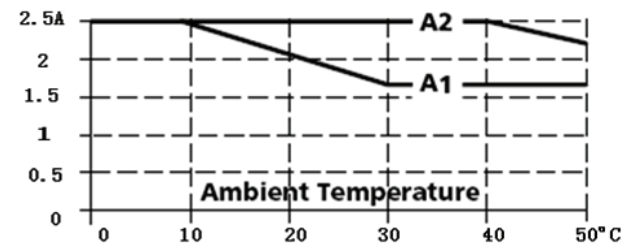
Output Current



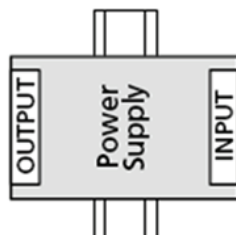
Mounting D



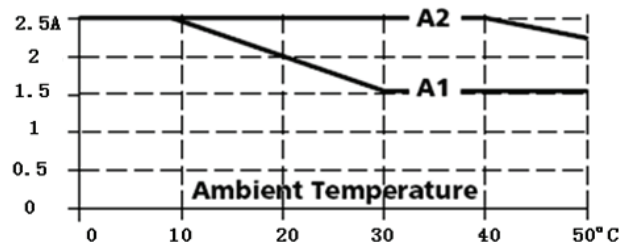
Output Current



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
Over Voltage Protection	Protection type: Hiccup Mode- recovers automatically after fault condition is removed
Short Circuit Protection	110~145%
Over Current Protection	Protection Type: Clamp by Zener diode
	Protection to Zero Voltage
	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

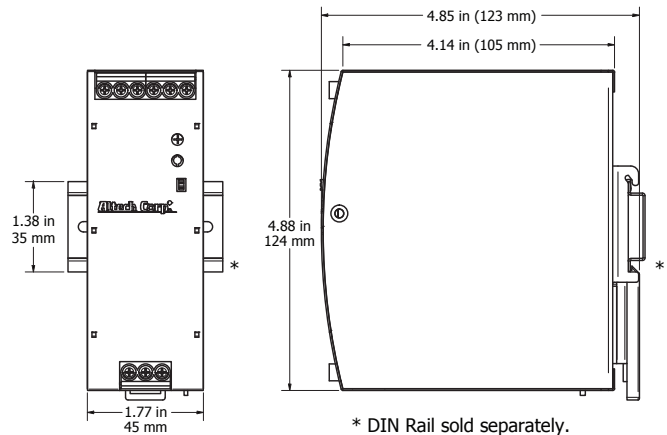
Terminal No.	Function	Wire Spec	Recommended Torque
1	PG	20~10AWG	5Nm
2	N		
3	L		

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 ²
Strand Wire	0.5-4mm 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	5NM

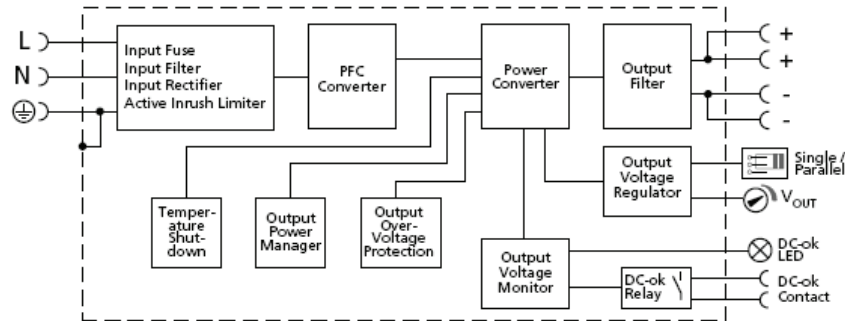


Additional Functions

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

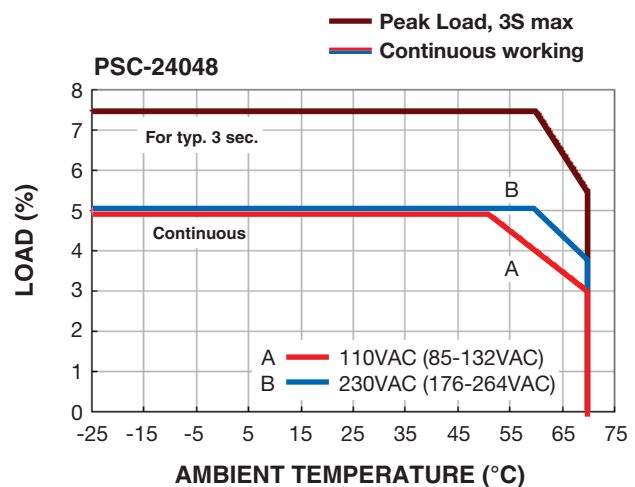
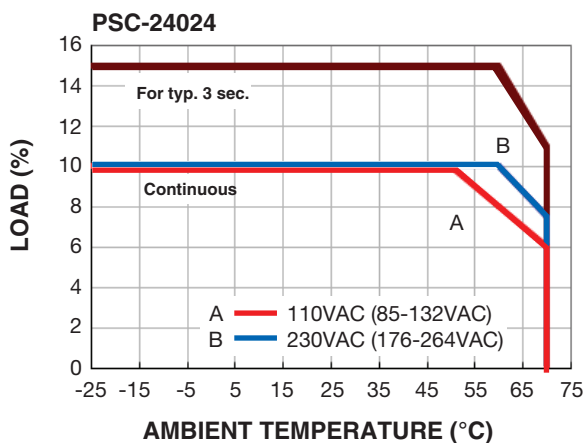
Functional Diagram



Peak Loading



Derating Curve



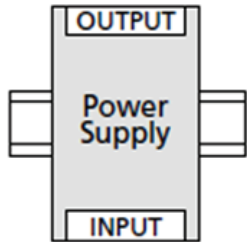
Mounting method instruction PSC-24024

A1 is recommended output current.

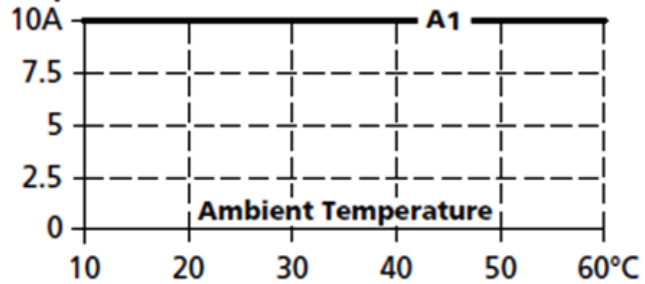
A2 is the allowed max output current (PSU lifetime is around half of A1).

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

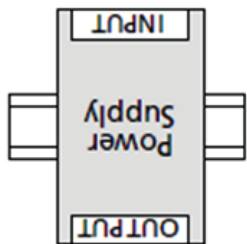
Mounting A



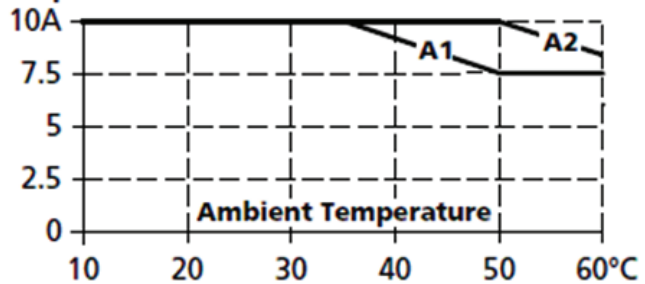
Output Current



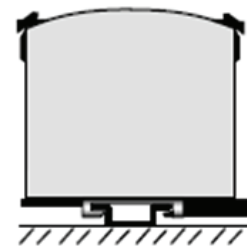
Mounting F



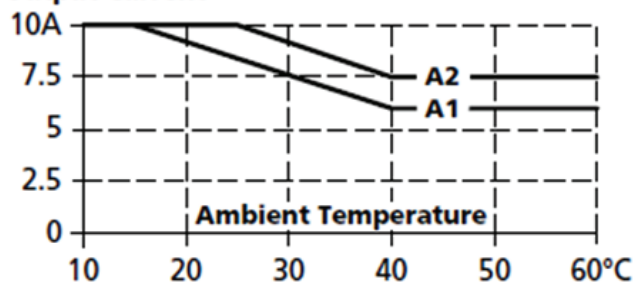
Output Current



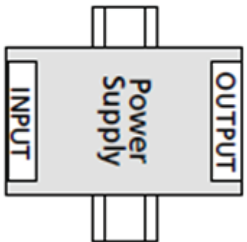
Mounting C



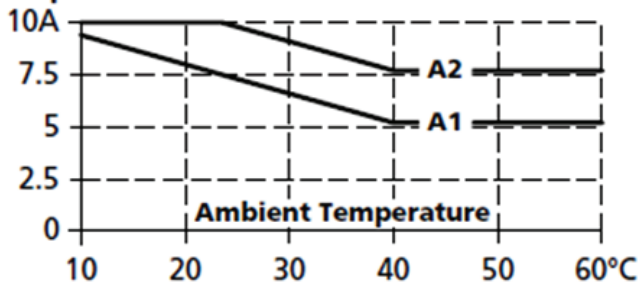
Output Current



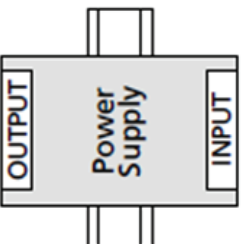
Mounting I



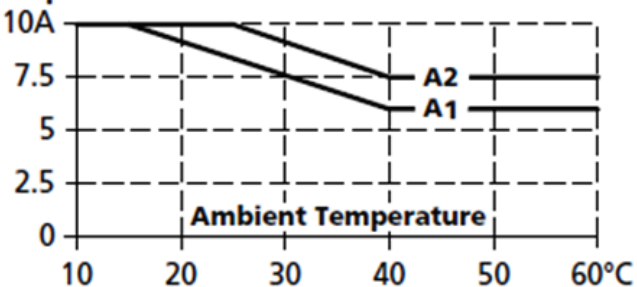
Output Current



Mounting E



Output Current



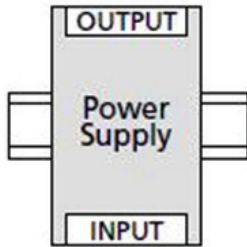
Mounting method instruction PSC-24048

A1 is recommended output current.

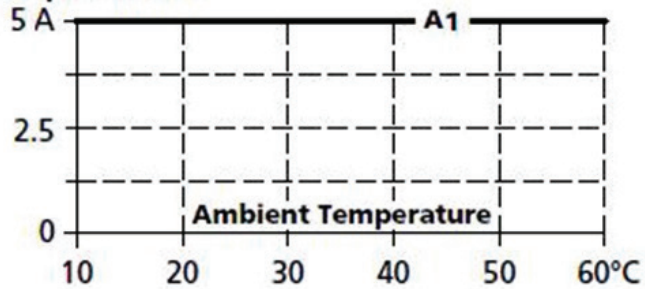
A2 is the allowed max output current (PSU lifetime is around half of A1).

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

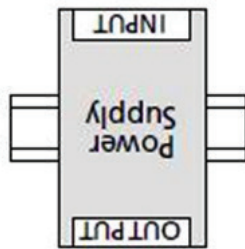
Mounting A



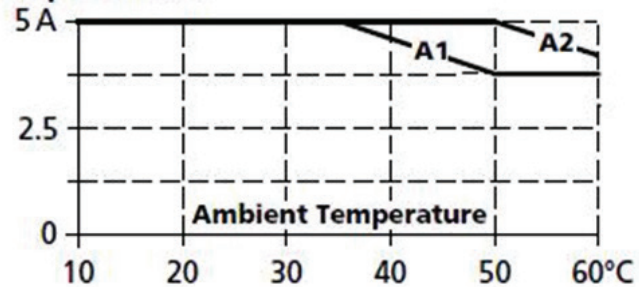
Output Current



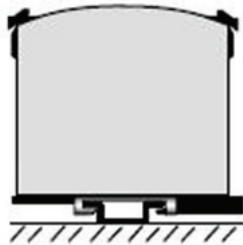
Mounting B



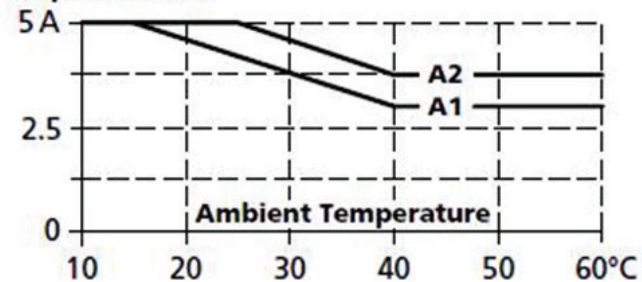
Output Current



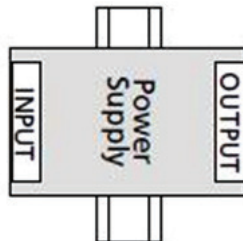
Mounting C



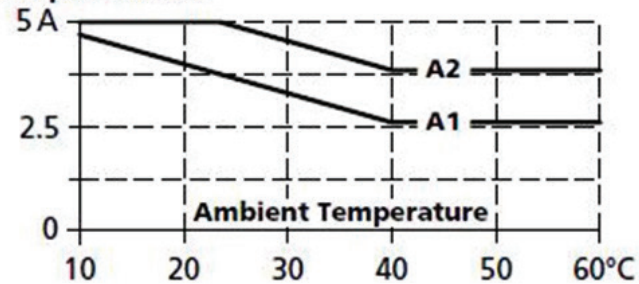
Output Current



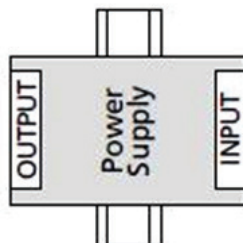
Mounting D



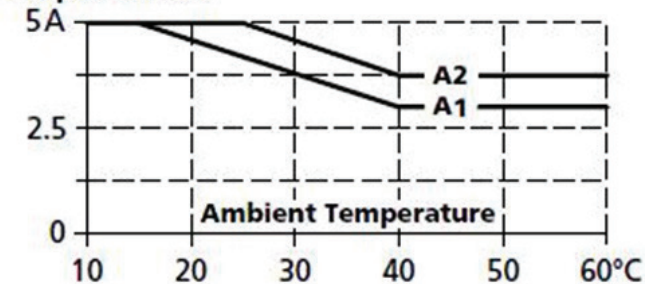
Output Current



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	≤240mV	≤480mV
	0~70°C	≤480mV
	-25°C~0	48~56V
Voltage ADJ. Range	24~28V	
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

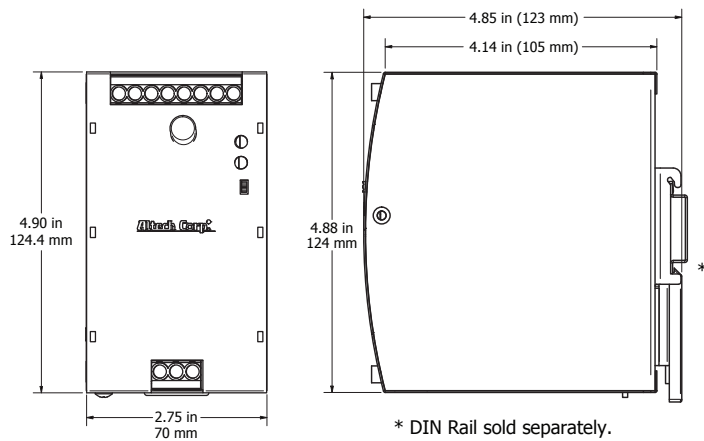
Terminal No.	Function	Specifications
1	PG	6.35mm, 3pin screw terminal blocks
2	N	
3	L	

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 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

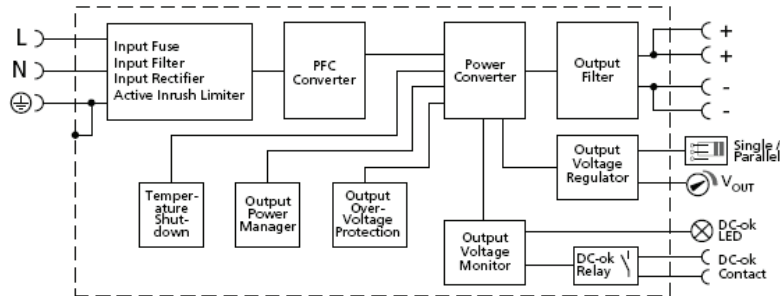


Additional Functions

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

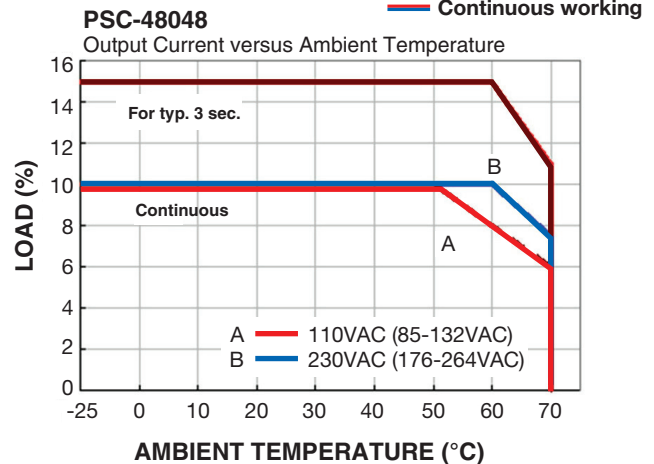
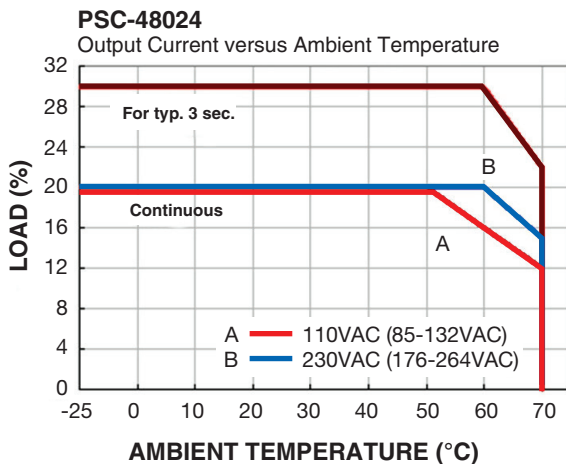
Functional Diagram



Peak Loading



Derating Curve



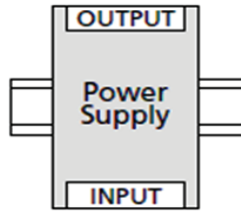
Mounting method instruction PSC-48024

A1 is recommended output current.

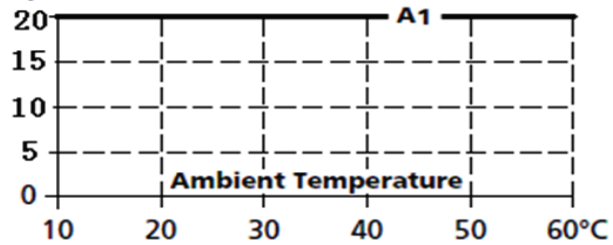
A2 is the allowed max output current (PSU lifetime is around half of A1).

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

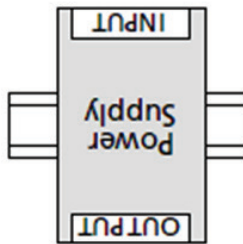
Mounting A



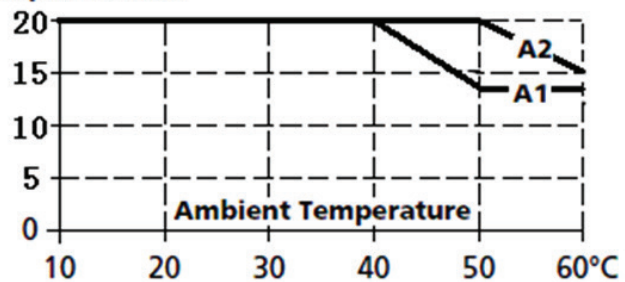
Output Current



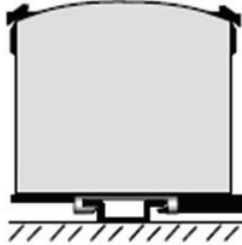
Mounting B



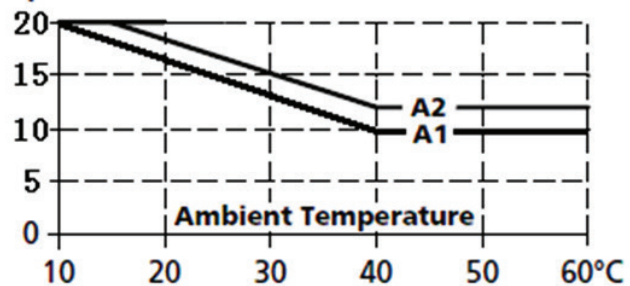
Output Current



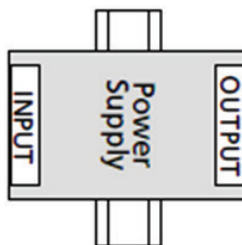
Mounting C



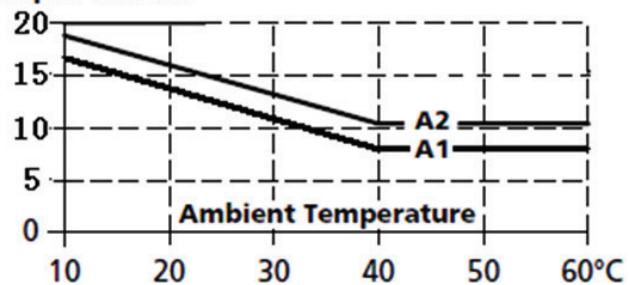
Output Current



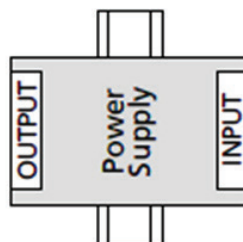
Mounting D



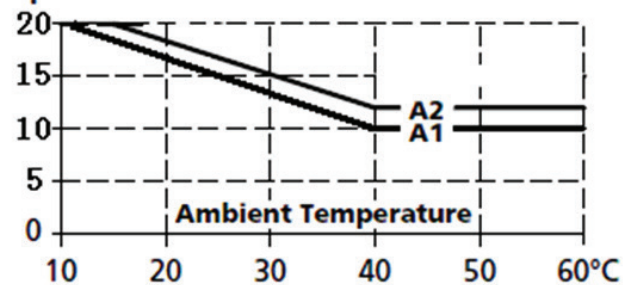
Output Current



Mounting E



Output Current



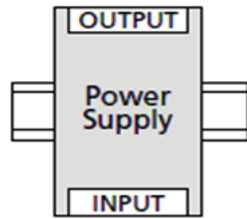
Mounting method instruction PSC-48048

A1 is recommended output current.

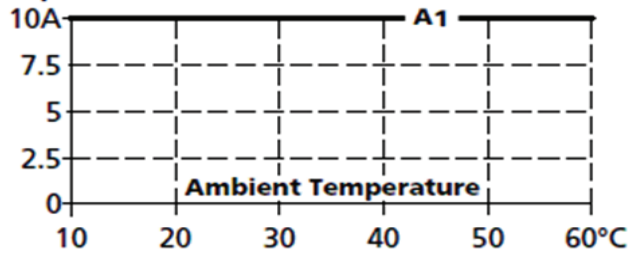
A2 is the allowed max output current (PSU lifetime is around half of A1).

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

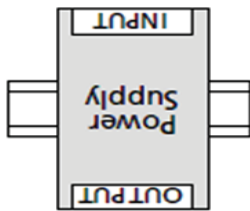
Mounting A



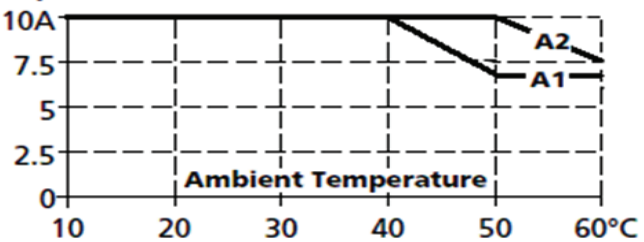
Output Current



Mounting B



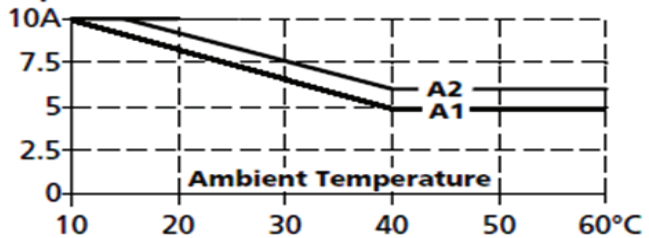
Output Current



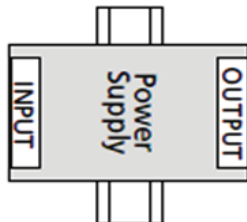
Mounting C



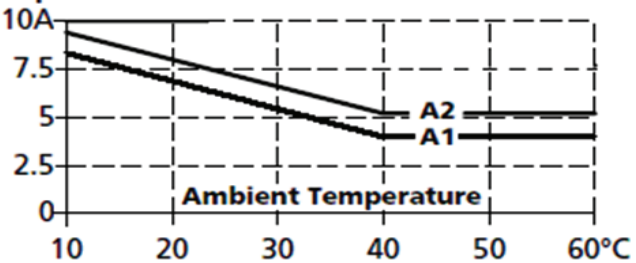
Output Current



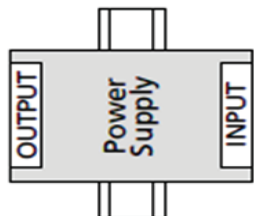
Mounting D



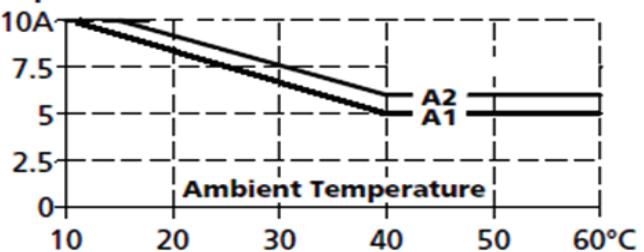
Output Current



Mounting E



Output Current



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