



TC-1U30

1U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-1U30 power supply. Design to fit perfectly into your 1U rackmount chassis. Feature such as dual fan cooling system, triple circuit protections and PFC options. TC-1U30 is the most compact and versatile 1U power supply.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification	
Form Factor	EPS 12V
Unit Size	1U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating	
Total Watts	300 watts
+5V	30A
+12V	16A
+3.3V	20A
+5V & +3.3V	150 watts
+5V & +3.3V & +12V	278 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors	
Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	5
4 pin Floppy	1

Dimension	
D x W x H	200 x 100 x 40.5 mm / 7.9 x 4 x 1.6 inch
Net Weight	4 lb
Safety/EMI/RFI	FCC En55022
	CISPR22
	UI60950
	CAN/CSA22.2
	TUV(IEC60950)
EN-61000-3-2	

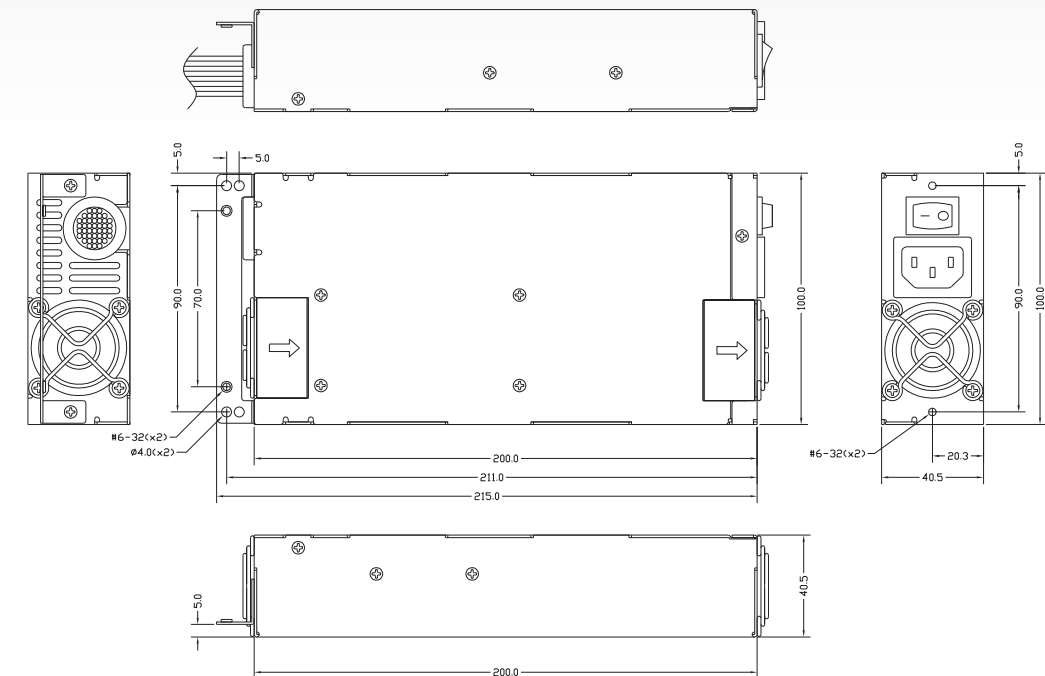
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-1U30

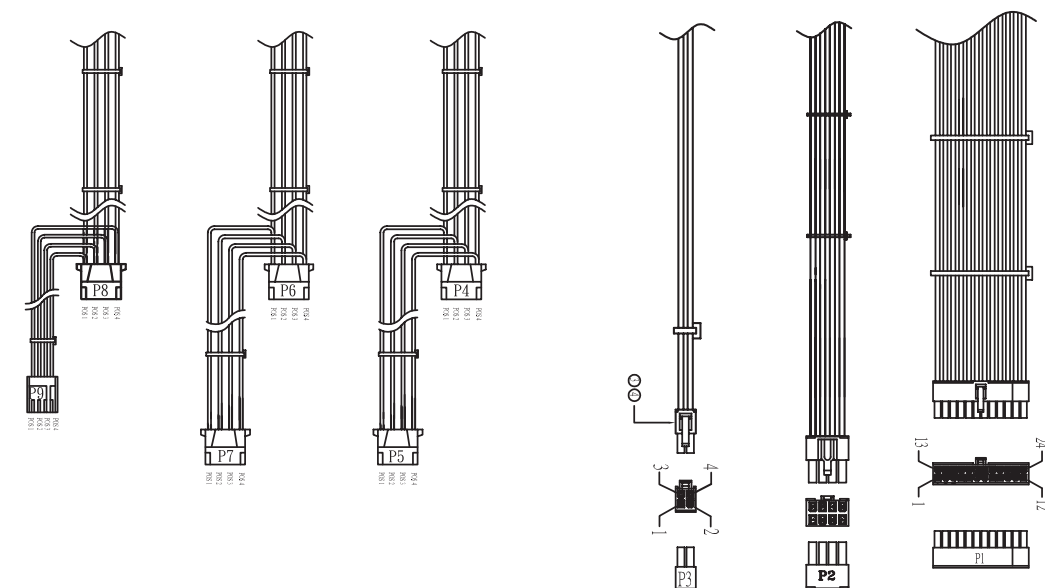
1U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-1U35

1U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-1U35 power supply. Design to fit perfectly into your 1U rackmount chassis. Feature such as dual fan cooling system, triple circuit protections and PFC options. TC-1U35 is the most compact and versatile 1U power supply.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification	
Form Factor	EPS 12V
Unit Size	1U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating	
Total Watts	350 watts
+5V	35A
+12V	16A
+3.3V	20A
+5V & +3.3V	175 watts
+5V & +3.3V & +12V	328 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors	
Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	5
4 pin Floppy	1

Dimension	
D x W x H	200 x 100 x 40.5 mm / 7.9 x 4 x 1.6 inch
Net Weight	4 lb
Safety/EMI/RFI	FCC En55022
	CISPR22
	UI60950
	CAN/CSA22.2
	TUV(IEC60950)
EN-61000-3-2	

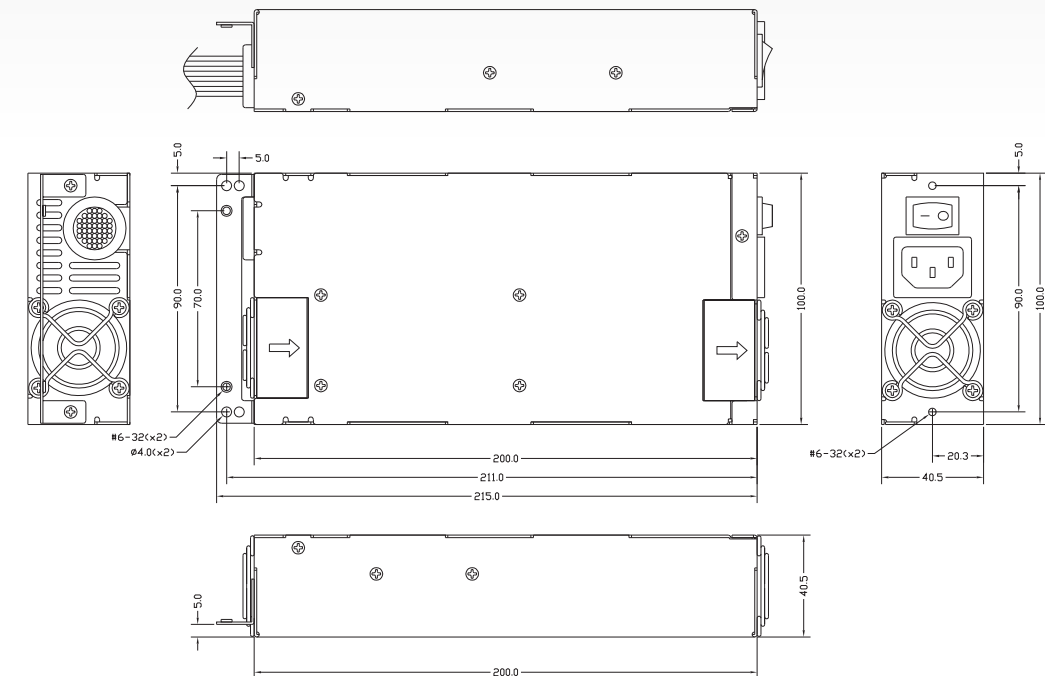
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-1U35

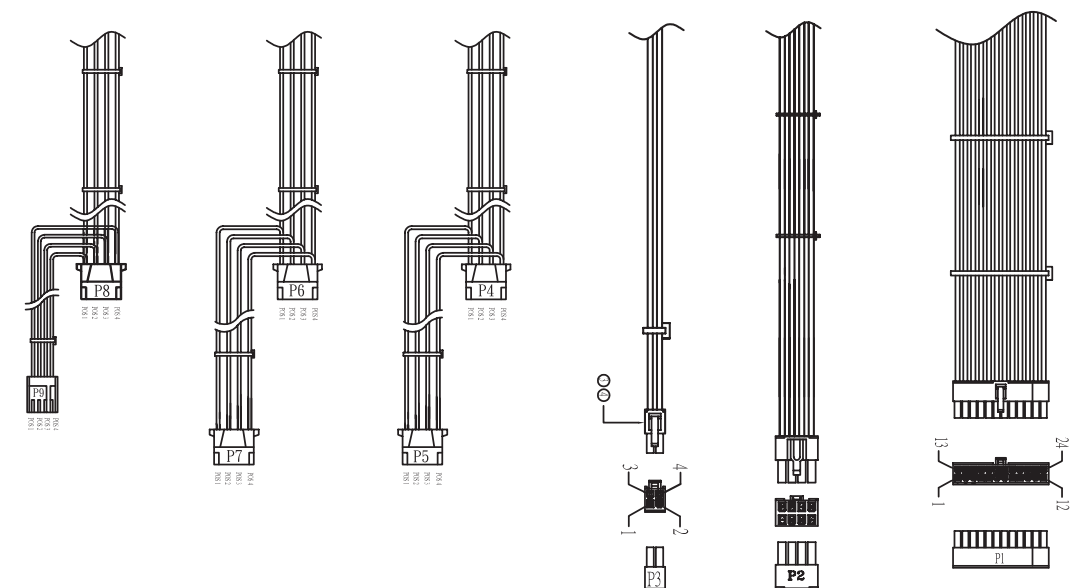
1U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-1U40

1U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-1U40 power supply. Design to fit perfectly into your 1U rackmount chassis. Feature such as dual fan cooling system, triple circuit protections and PFC options. TC-1U40 is the most compact and versatile 1U power supply.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification	
Form Factor	EPS 12V
Unit Size	1U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating	
Total Watts	400 watts
+5V	40A
+12V	20A
+3.3V	20A
+5V & +3.3V	200 watts
+5V & +3.3V & +12V	378 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors	
Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	6
4 pin Floppy	2

Dimension	
D x W x H	200 x 100 x 40.5 mm / 7.9 x 4 x 1.6 inch
Net Weight	4 lb
Safety/EMI/RFI	FCC En55022
	CISPR22
	UI60950
	CAN/CSA22.2
	TUV(IEC60950)
EN-61000-3-2	

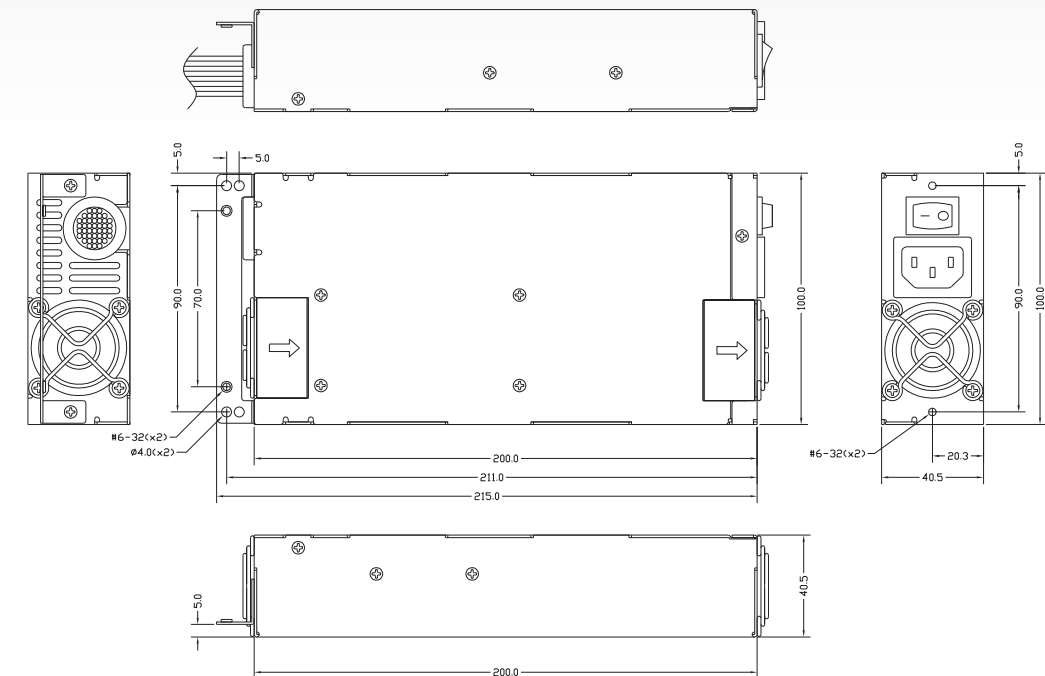
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-1U40

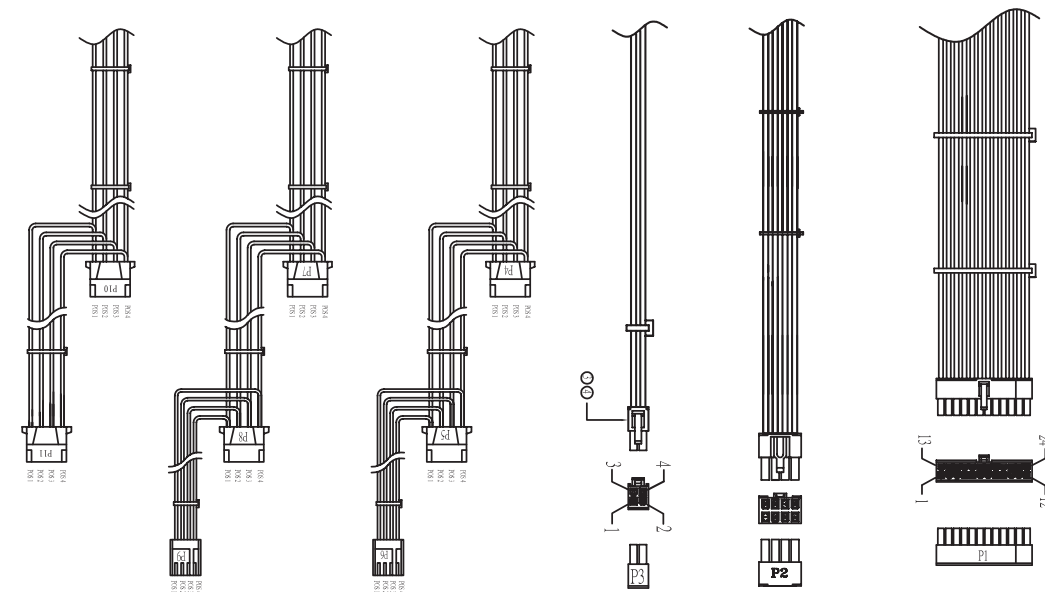
1U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



SS-1U40ES

1U Single High Efficiency Power Supply



- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	8A For 115VAC, 4A For 230VAC
Input Frequency	47Hz ~ 63Hz
Power Factor	0.98 115VAC/60Hz and 0.95 230VAC/50Hz

Output Ratings

Output Voltage	Output Current		Regulation		Output Ripple & Noise Max.(p-p)
	Min.	Max.	LOAD	LINE	
+5V	0.5A	25A	5%	1%	60mV
+3.3V	0.5A	25A	5%	1%	60mV
+12V	2A	32A	5%	1%	120mV
-12V	0A	0.8A	5%	1%	120mV
+5VSB	0.1A	3.5A	5%	1%	60mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 160W
2.Power module Total output power not exceed 400W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	110% ~ 160% rated output power
Over Voltage	+5V→5.7V~6.5V, +3.3V→3.7V~4.1V, +12V→13.1V~14.5V
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL, cUL, TUV
EMI/RFI Standards	FCC Class A, CIPR22 Class A
Harmonic	EN61000-3-2

Others

MTBF	>100,000 hours
Coolings	40x40mm DC FANS x 1
Dimension(D x W x H)	200 x 100 x 40.5 mm / 7.9 x 4 x 1.6 inch



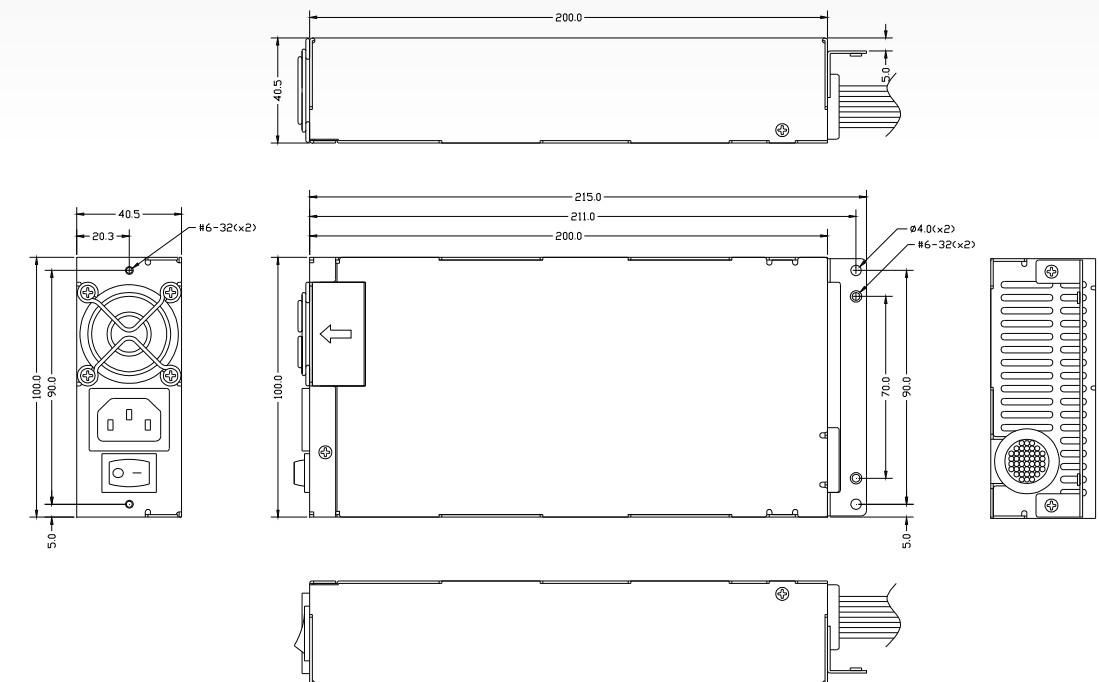
- FEATURES -

- Universal AC input/Full range
- High Efficiency >80%
- Active Power Factor Correction
- Protections: Over Power/Over Voltage/Short Circuits
- Short Depth
- 100% burn-in test

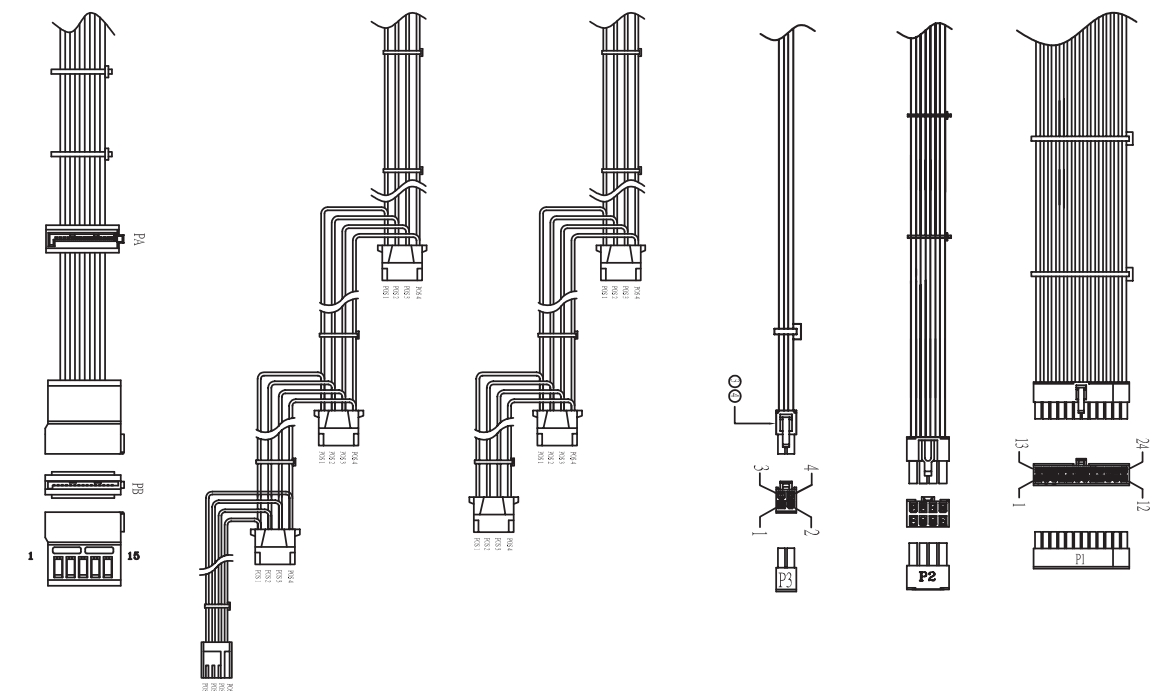
SS-1U40ES

1U Single High Efficiency Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



SS-1U46ES

1U Single High Efficiency Power Supply



- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	8A For 115VAC, 4A For 230VAC
Input Frequency	47Hz ~ 63Hz
Power Factor	0.98 115VAC/60Hz and 0.95 230VAC/50Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	0.5A	25A	5%	1%	60mV
+3.3V	0.5A	25A	5%	1%	60mV
+12V	2A	34A	5%	1%	120mV
-12V	0A	0.8A	5%	1%	120mV
+5VSB	0.1A	3.5A	5%	1%	60mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 160W
2.Power module Total output power not exceed 460W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	110% ~ 160% rated output power
Over Voltage	+5V→5.7V~6.5V, +3.3V→3.7V~4.1V, +12V→13.1V~14.5V
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec., TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%, non-condensing

Safety & EMI/RFI

Safety Standards	UL, cUL, TUV
EMI/RFI Standards	FCC Class A, CIPR22 Class A
Harmonic	EN61000-3-2

Others

MTBF	>100,000 hours
Coolings	40x40mm DC FANS x 1
Dimension(D x W x H)	200 x 100 x 40.5 mm / 7.9 x 4 x 1.6 inch



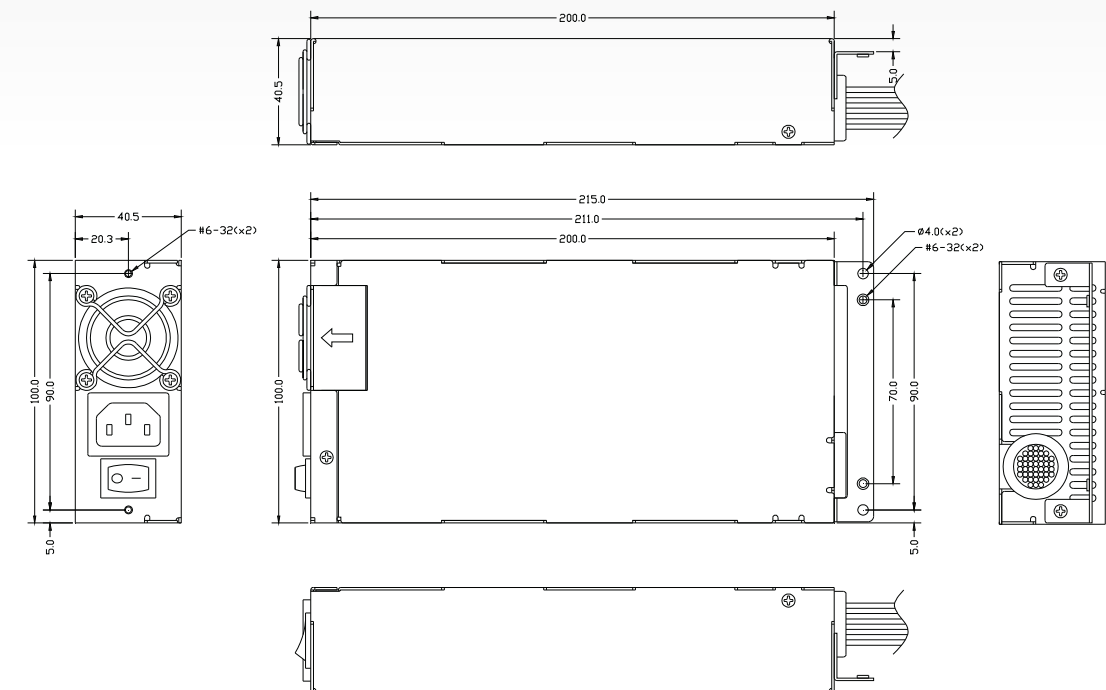
- FEATURES -

- Universal AC input/Full range
- High Efficiency >80%
- Active Power Factor Correction
- Protections: Over Power/Over Voltage/Short Circuits
- Short Depth
- 100% burn-in test

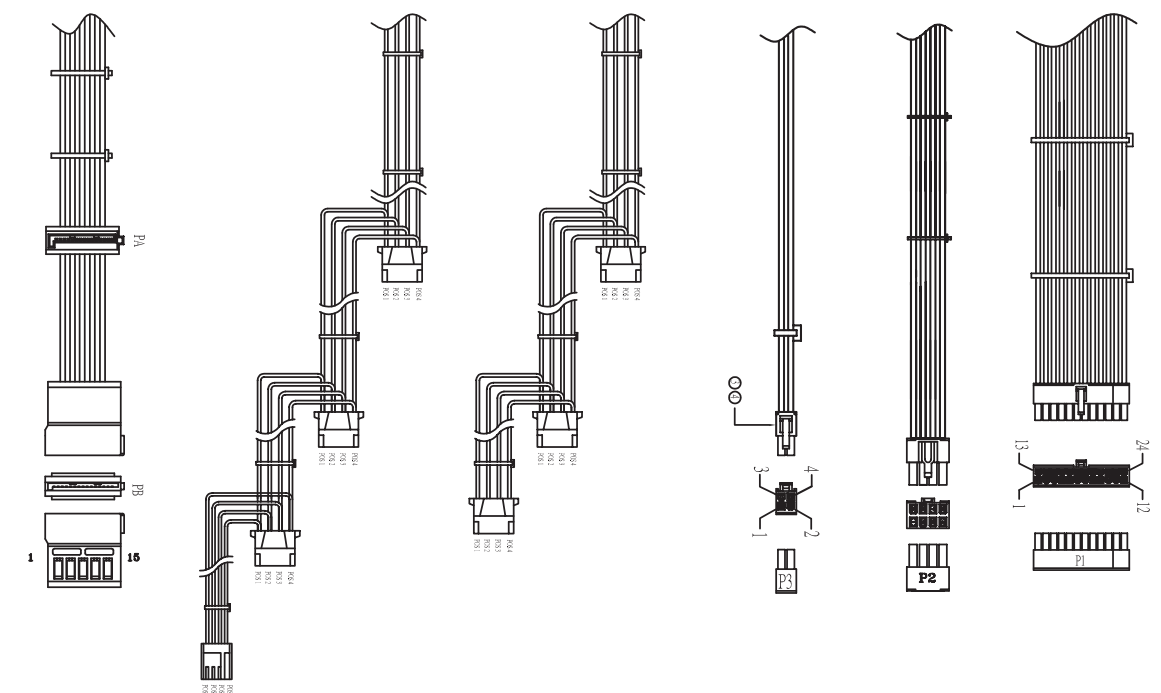
SS-1U46ES

1U Single High Efficiency Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



SS-1U52ES

1U Single High Efficiency Power Supply



- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	8A For 115VAC, 4A For 230VAC
Input Frequency	47Hz ~ 63Hz
Power Factor	0.98 115VAC/60Hz and 0.95 230VAC/50Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	0.5A	25A	5%	1%	60mV
+3.3V	0.5A	25A	5%	1%	60mV
+12V	2A	40A	5%	1%	120mV
-12V	0A	0.8A	5%	1%	120mV
+5VSB	0.1A	3.5A	5%	1%	60mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 170W
2.Power module Total output power not exceed 520W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	110% ~ 160% rated output power
Over Voltage	+5V→5.7V~6.5V,+3.3V→3.7V~4.1V, +12V→13.1V~14.5V
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL, cUL, TUV
EMI/RFI Standards	FCC Class A, CIPR22 Class A
Harmonic	EN61000-3-2

Others

MTBF	>100,000 hours
Coolings	40x40mm DC FANS x 1
Dimension(D x W x H)	200 x 100 x 40.5 mm / 7.9 x 4 x 1.6 inch



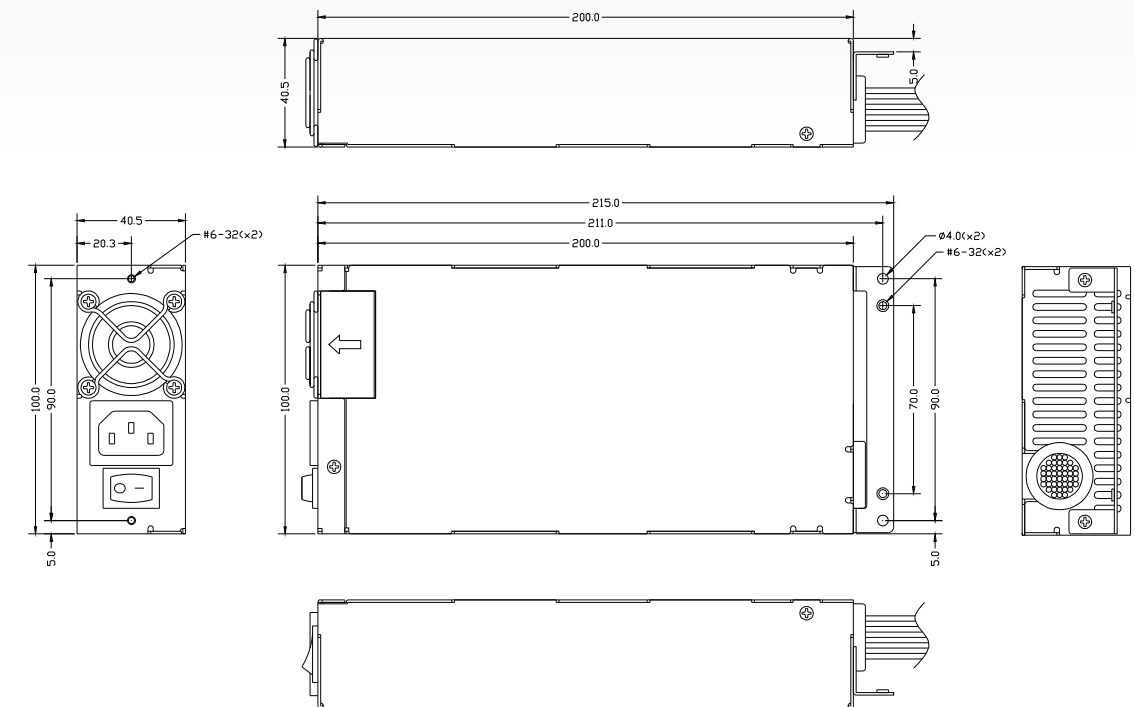
- FEATURES -

- Universal AC input/Full range
- High Efficiency >80%
- Active Power Factor Correction
- Protections: Over Power/Over Voltage/Short Circuits
- Short Depth
- 100% burn-in test

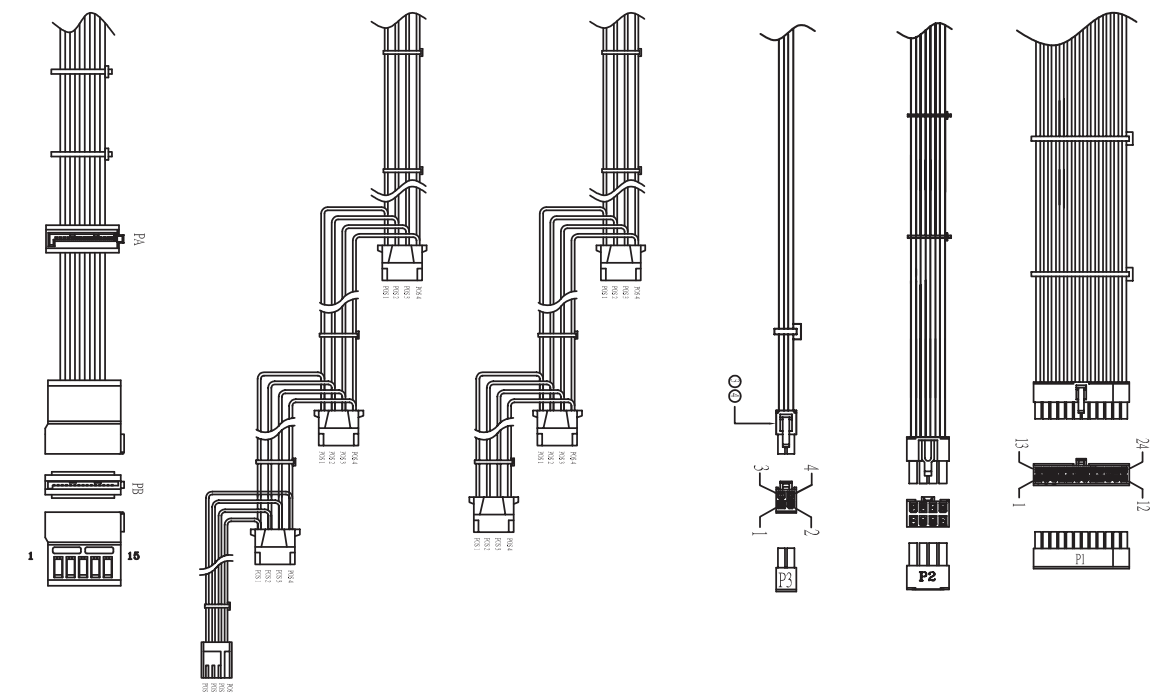
SS-1U52ES

1U Single High Efficiency Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



SS-1U60EL

1U Single High Efficiency Power Supply



- ELECTRICAL SPECIFICATIONS -

Input Ratings					
Input Voltage	100~240VAC, +/-10%				
Input Current	10A For 115VAC, 5A For 230VAC				
Input Frequency	47Hz ~ 63Hz				
Power Factor	0.98 115VAC/60Hz and 0.95 230VAC/50Hz				

Output Ratings					
Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	0.5A	25A	5%	1%	60mV
+3.3V	0.5A	25A	5%	1%	60mV
+12V	2A	48A	5%	1%	120mV
-12V	0A	0.8A	5%	1%	120mV
+5VSB	0.1A	3.5A	5%	1%	60mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 180W
2.Power module Total output power not exceed 600W
3.Noise bandwidth is from DC to 20MHz.

Protections	
Over Power	110% ~ 160% rated output power
Over Voltage	+5V→5.7V~6.5V,+3.3V→3.7V~4.1V, +12V→13.1V~14.5V
Short Circuit	Shut down o/p voltage, re-power on to recover

Function	
Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental	
Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI	
Safety Standards	UL, cUL, TUV
EMI/RFI Standards	FCC Class A, CIPR22 Class A
Harmonic	EN61000-3-2

Others	
MTBF	>100,000 hours
Coolings	40x40mm DC FANS x 1
Dimension(D x W x H)	225 x 100 x 40.5 mm / 8.9 x 4 x 1.6 inch



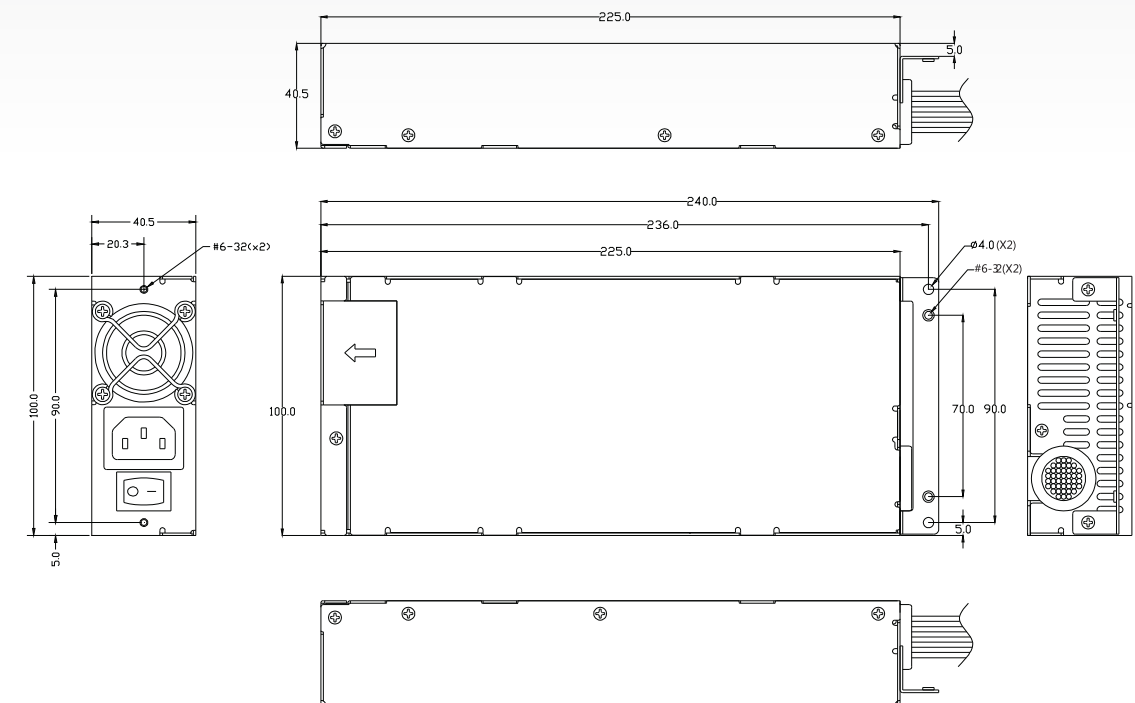
- FEATURES -

- Universal AC input/Full range
- High Efficiency >80%
- Active Power Factor Correction
- Protections: Over Power/Over Voltage/Short Circuits
- Short Depth
- 100% burn-in test

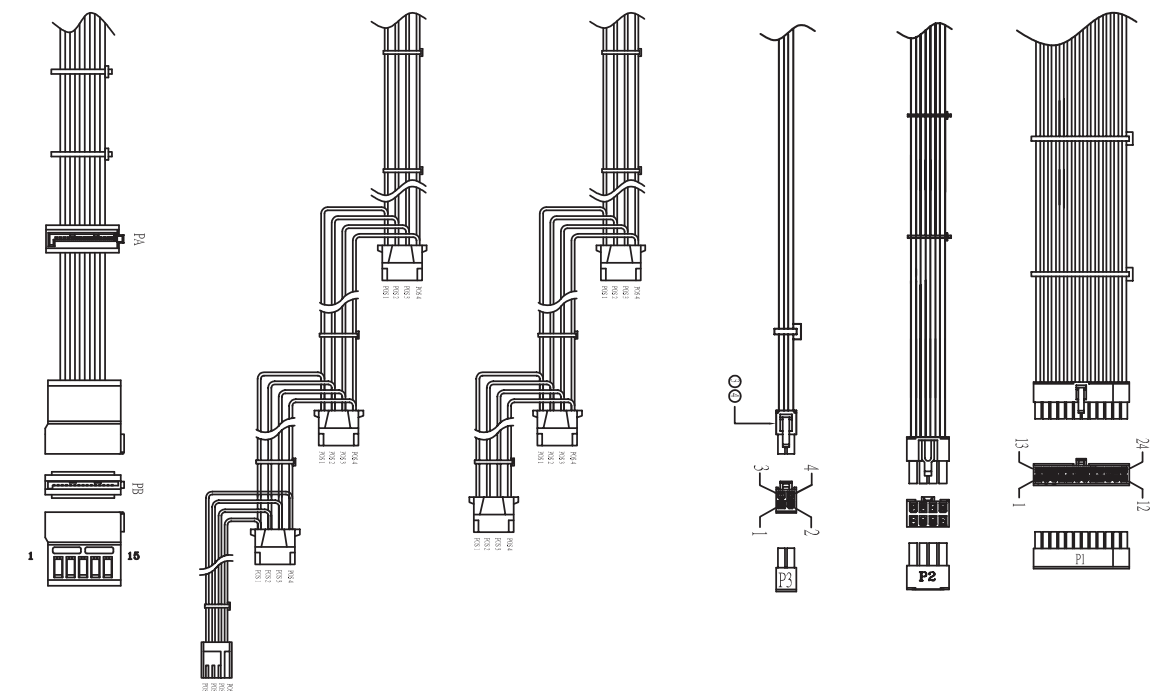
SS-1U60EL

1U Single High Efficiency Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-2U30

2U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-2U30 power supply. Design to fit perfectly into your 2U rackmount chassis. Dual fan cooling system, triple circuit protections and PFC options. TC-2U30 offer unswerving performance for your 2U chassis.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification	
Form Factor	EPS 12V
Unit Size	2U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating	
Total Watts	300 watts
+5V	30A
+12V	16A
+3.3V	20A
+5V & +3.3V	150 watts
+5V & +3.3V & +12V	278 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥68%

Connectors	
Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	5
4 pin Floppy	1

Dimension	
D x W x H	200x100x70 mm / 7.9 x 4 x 2.8 inch
Net Weight	4.1 lb
Safety/EMI/RFI	FCC En55022
	CISPR22
	UI60950
	CAN/CSA22.2
	TUV(IEC60950)
EN-61000-3-2	

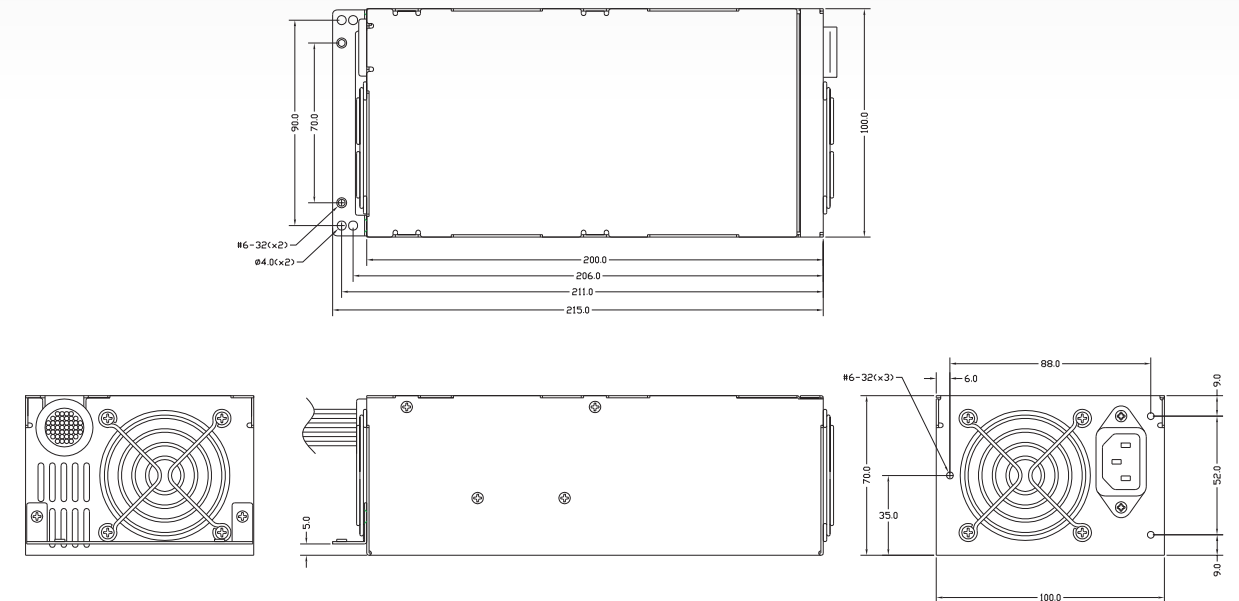
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-2U30

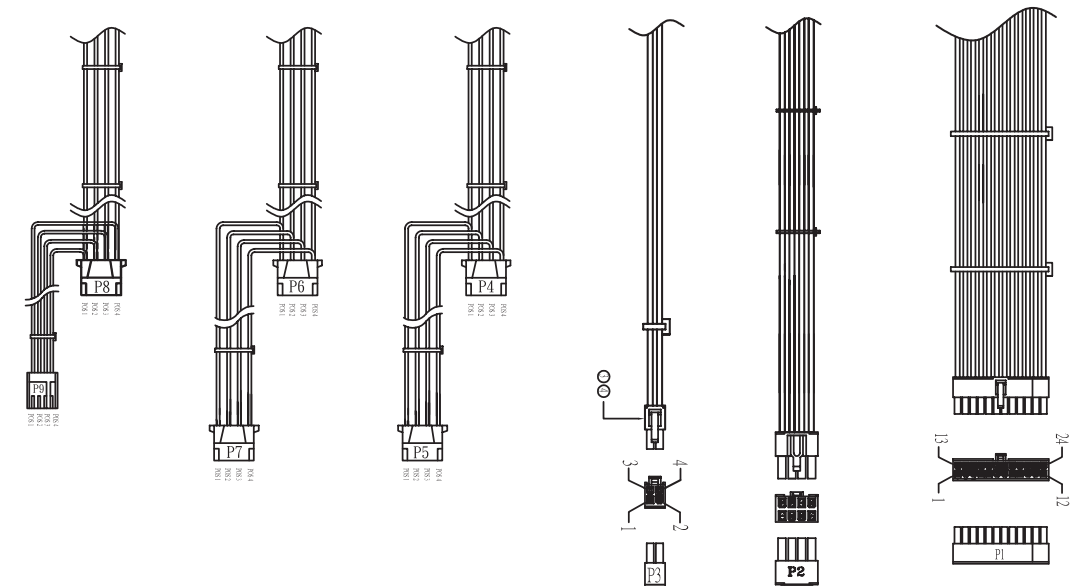
2U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-2U35

2U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-2U35 power supply. Design to fit perfectly into your 2U rackmount chassis. Dual fan cooling system, triple circuit protections and PFC options. TC-2U35 offer unswerving performance for your 2U chassis.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Unit Size	2U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	350 watts
+5V	35A
+12V	18A
+3.3V	20A
+5V & +3.3V	175 watts
+5V & +3.3V & +12V	328 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥ 70%

Connectors

Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	5
4 pin Floppy	1

Dimension

D x W x H	200x100x70 mm / 7.9 x 4 x 2.8 inch
Net Weight	4.1 lb
	FCC En55022
	CISPR22
Safety/EMI/RFI	UI60950
	CAN/CSA22.2
	TUV(IEC60950)
	EN-61000-3-2

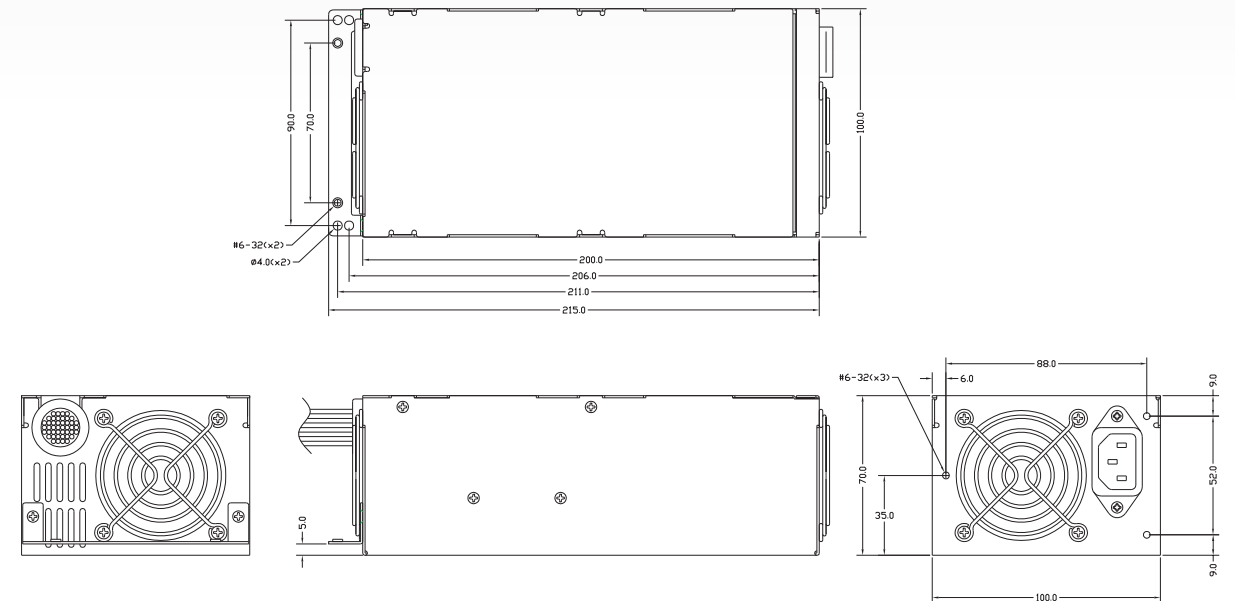
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-2U35

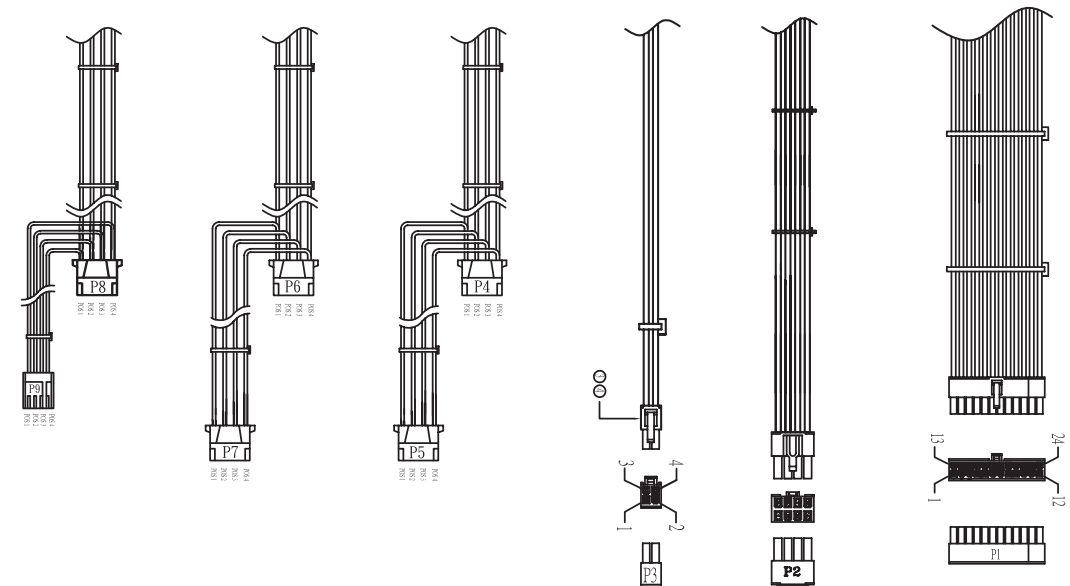
2U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-2U40

2U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-2U40 power supply. Design to fit perfectly into your 2U rackmount chassis. Dual fan cooling system, triple circuit protections and PFC options. TC-2U40 offer unswerving performance for your 2U chassis.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Unit Size	2U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	400 watts
+5V	40A
+12V	20A
+3.3V	20A
+5V & +3.3V	200 watts
+5V & +3.3V & +12V	378 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors

Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	6
4 pin Floppy	2

Dimension

D x W x H	200x100x70 mm / 7.9 x 4 x 2.8 inch
Net Weight	4.5 lb
	FCC En55022
	CISPR22
Safety/EMI/RFI	UI60950
	CAN/CSA22.2
	TUV(IEC60950)
	EN-61000-3-2

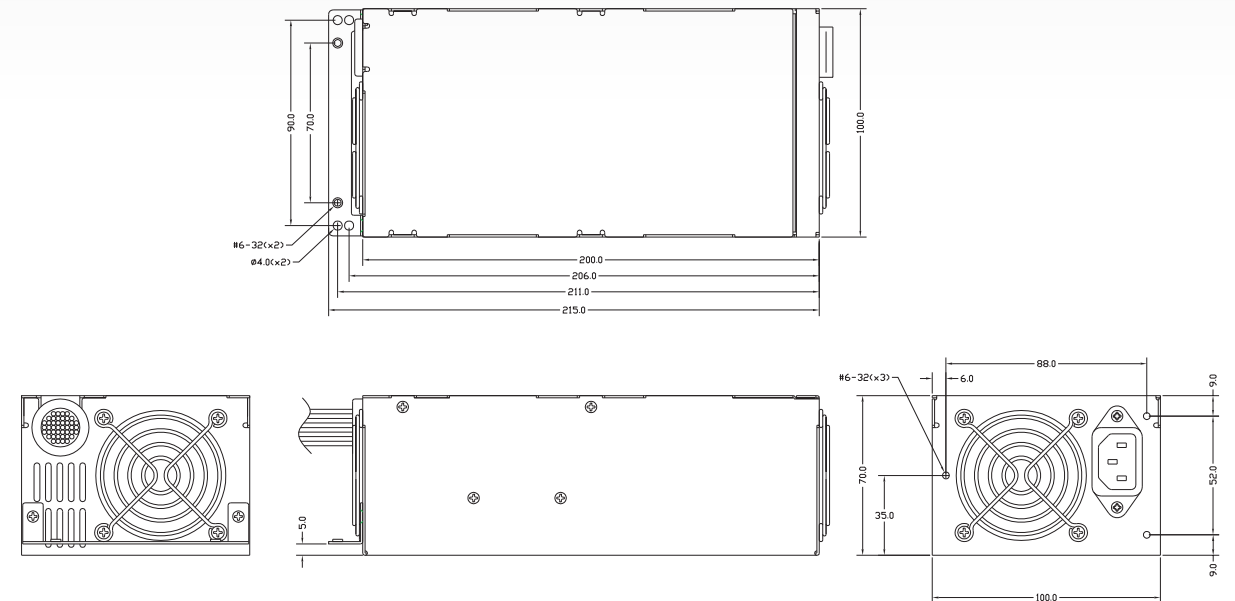
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-2U40

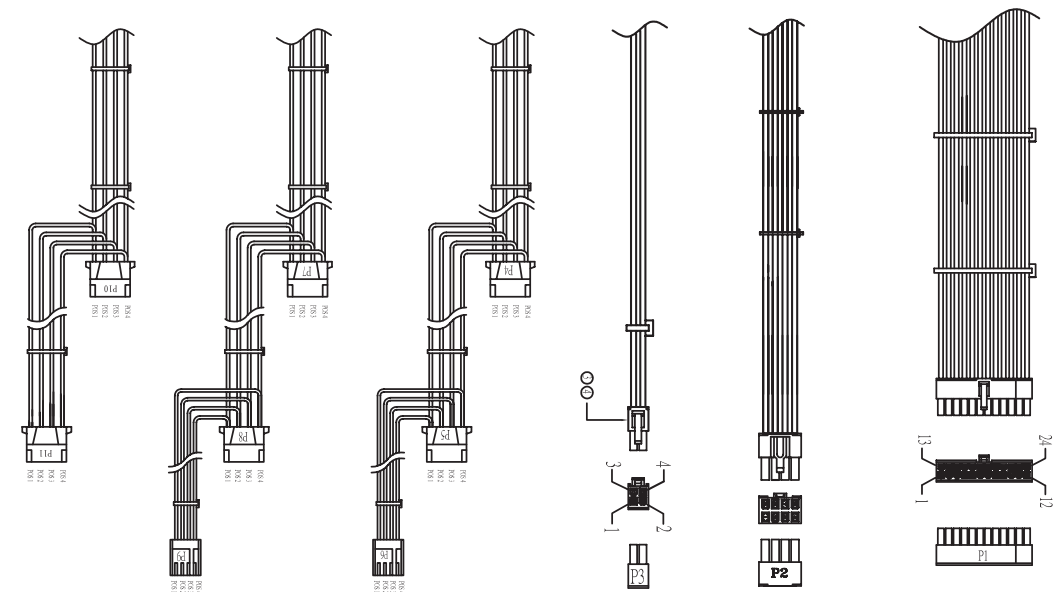
2U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-2U46

2U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-2U46 power supply. Design to fit perfectly into your 2U rackmount chassis. Dual fan cooling system, triple circuit protections and PFC options. TC-2U46 offer unswerving performance for your 2U chassis.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Unit Size	2U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	460 watts
+5V	40A
+12V	24A
+3.3V	20A
+5V & +3.3V	200 watts
+5V & +3.3V & +12V	438 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors

Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	6
4 pin Floppy	2

Dimension

D x W x H	200x100x70 mm / 7.9 x 4 x 2.8 inch
Net Weight	4.5 lb
	FCC En55022
	CISPR22
Safety/EMI/RFI	UI60950
	CAN/CSA22.2
	TUV(IEC60950)
	EN-61000-3-2

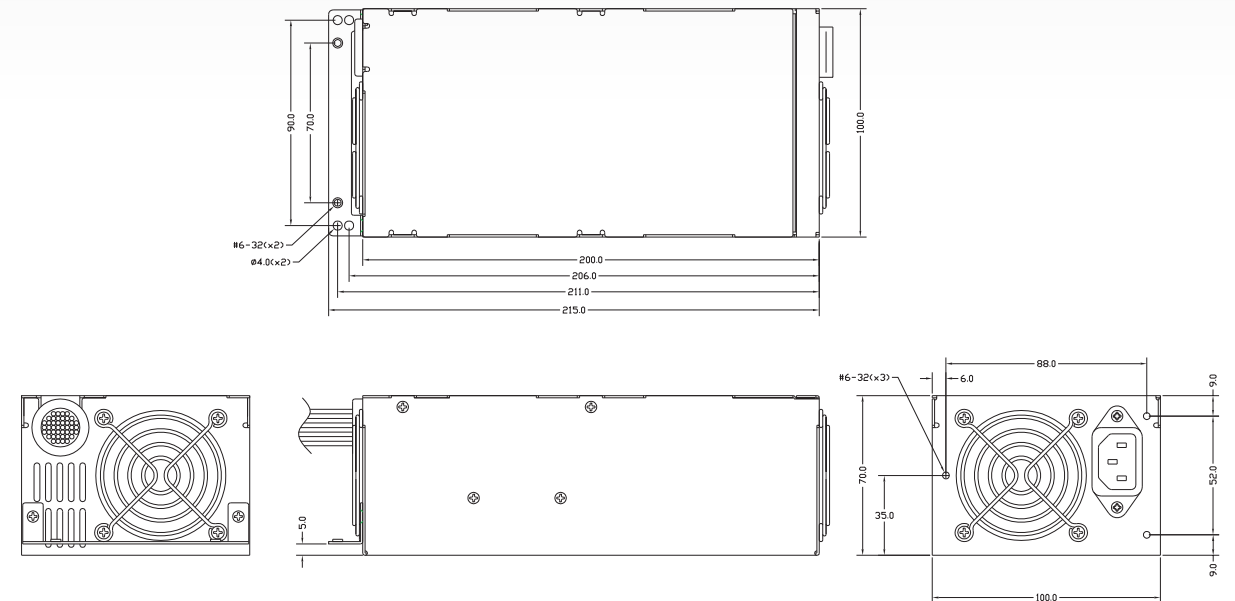
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-2U46

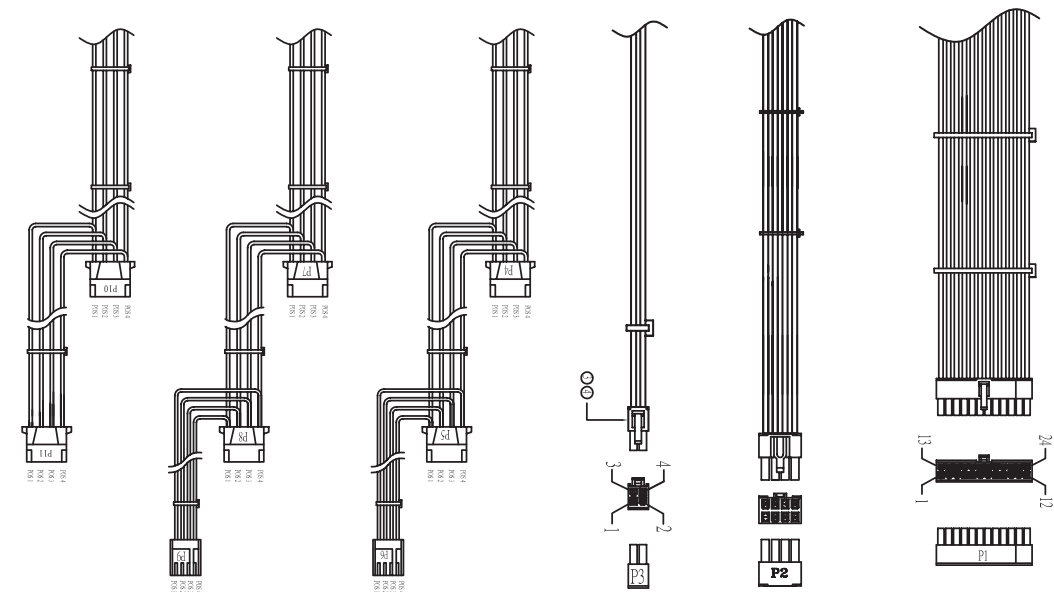
2U Single Power Supply



- MECHANICAL DRAWING -

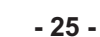


- PINOUTS OF CONNECTORS -





SS-2U40ES



SS-2U50ES

2U Single High Efficiency Power Supply



- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	8A For 115VAC, 4A For 230VAC
Input Frequency	47Hz ~ 63Hz
Power Factor	0.98 115VAC/60Hz and 0.95 230VAC/50Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
+5V	0.5A	25A	5% 1%	60mV
+3.3V	0.5A	25A	5% 1%	60mV
+12V	2A	40A	5% 1%	120mV
-12V	0A	0.8A	5% 1%	120mV
+5VSB	0.1A	3.5A	5% 1%	60mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 170W
2.Power module Total output power not exceed 500W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	110% ~ 160% rated output power
Over Voltage	+5V→5.7V~6.5V,+3.3V→3.7V~4.1V, +12V→13.1V~14.5V
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL, cUL, TUV
EMI/RFI Standards	FCC Class A, CIPR22 Class A
Harmonic	EN61000-3-2

Others

MTBF	>100,000 hours
Coolings	60x60mm DC FANS x 1
Dimension(D x W x H)	200 x 100 x 70 mm / 7.9 x 4 x 2.8 inch



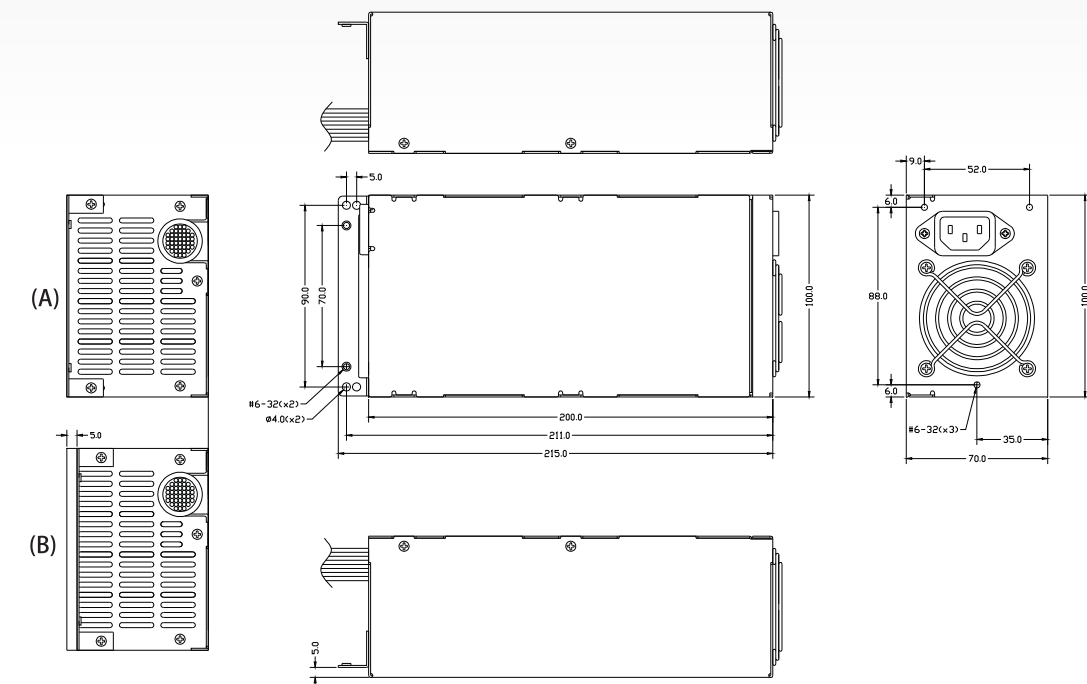
- FEATURES -

- Universal AC input/Full range
- High Efficiency >80%
- Active Power Factor Correction
- Protections: Over Power/Over Voltage/Short Circuits
- Short Depth
- 100% burn-in test

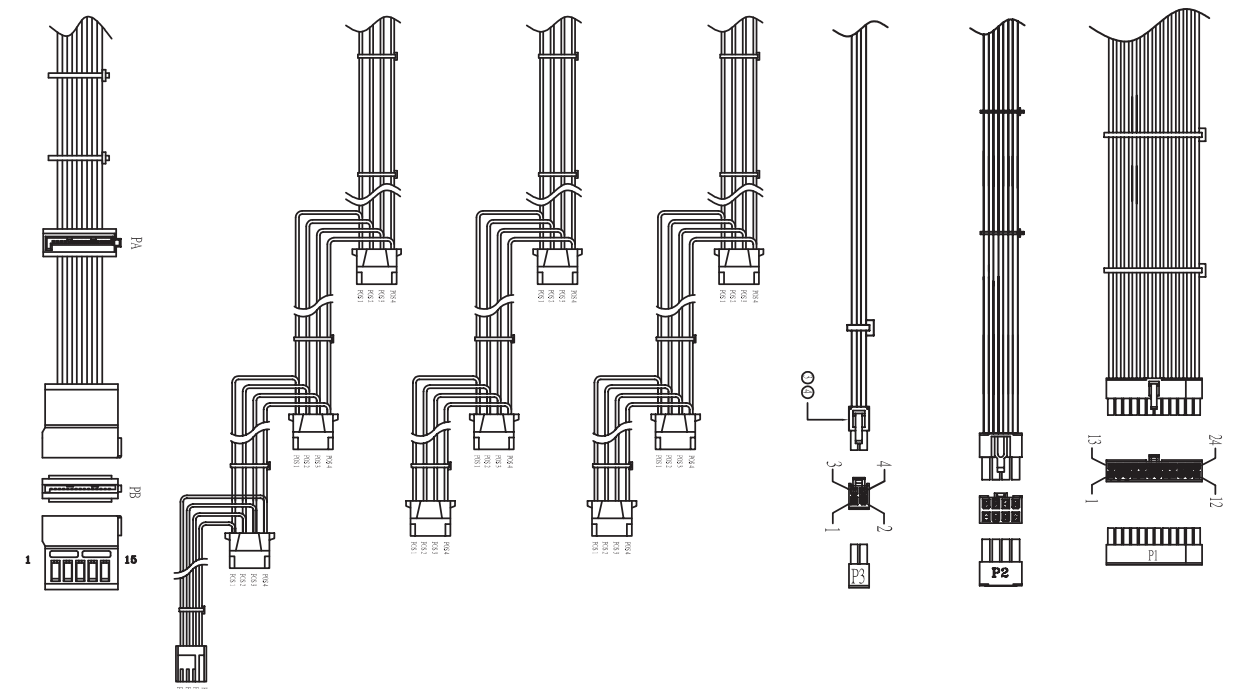
SS-2U50ES

2U Single High Efficiency Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



SS-2U60EL

2U Single High Efficiency Power Supply



- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	10A For 115VAC, 5A For 230VAC
Input Frequency	47Hz ~ 63Hz
Power Factor	0.98 115VAC/60Hz and 0.95 230VAC/50Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	0.5A	25A	5%	1%	60mV
+3.3V	0.5A	25A	5%	1%	60mV
+12V	2A	48A	5%	1%	120mV
-12V	0A	0.8A	5%	1%	120mV
+5VSB	0.1A	3.5A	5%	1%	60mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 180W
2.Power module Total output power not exceed 600W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	110% ~ 160% rated output power
Over Voltage	+5V→5.7V~6.5V,+3.3V→3.7V~4.1V, +12V→13.1V~14.5V
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL, cUL, TUV
EMI/RFI Standards	FCC Class A, CIPR22 Class A
Harmonic	EN61000-3-2

Others

MTBF	>100,000 hours
Coolings	60x60mm DC FANS x 1
Dimension(D x W x H)	225 x 100 x 70 mm / 8.9 x 4 x 2.8 inch



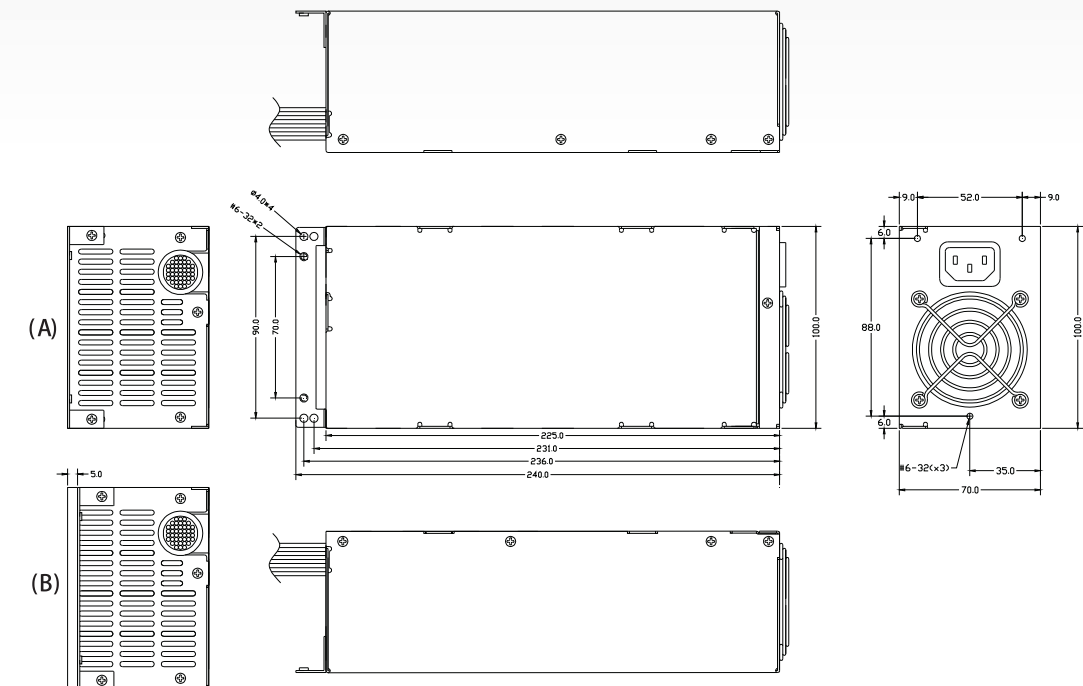
- FEATURES -

- Universal AC input/Full range
- High Efficiency >80%
- Active Power Factor Correction
- Protections: Over Power/Over Voltage/Short Circuits
- Short Depth
- 100% burn-in test

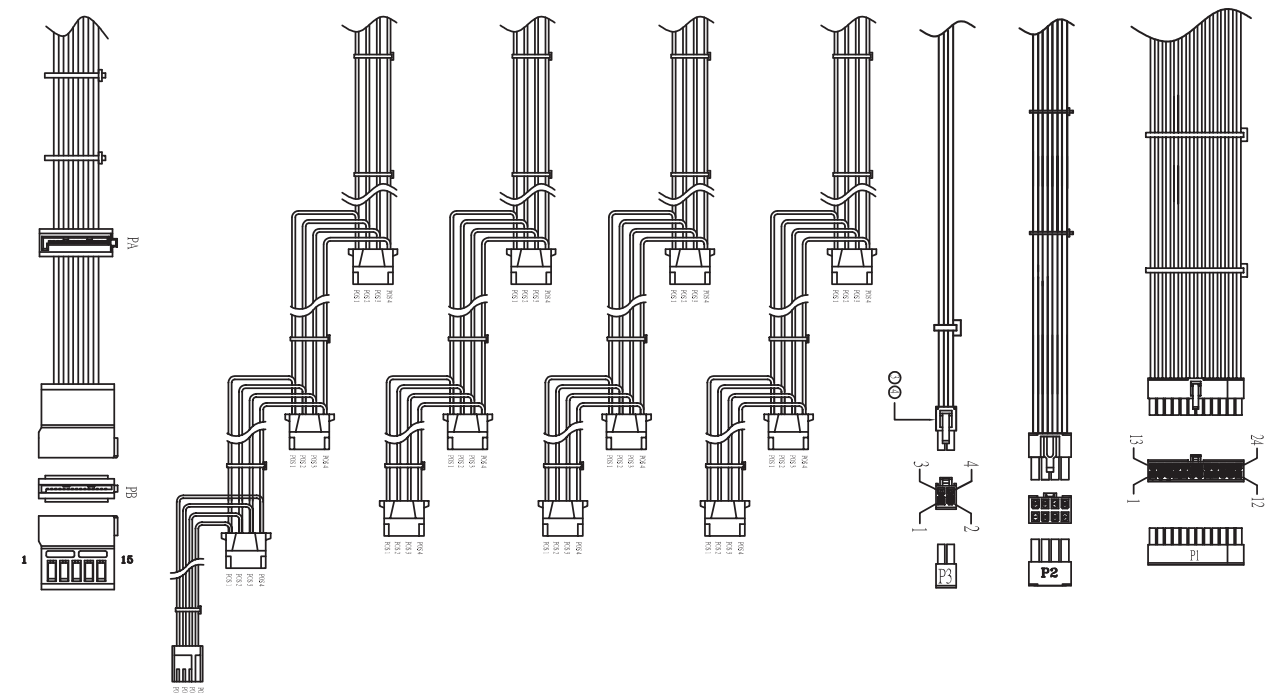
SS-2U60EL

2U Single High Efficiency Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



SS-2U70EL

2U Single High Efficiency Power Supply



- FEATURES -

- Universal AC input/Full range
- High Efficiency >80%
- Active Power Factor Correction
- Protections: Over Power/Over Voltage/Short Circuits
- Short Depth
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	10A For 115VAC, 5A For 230VAC
Input Frequency	47Hz ~ 63Hz
Power Factor	0.98 115VAC/60Hz and 0.95 230VAC/50Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
+5V	0.5A	25A	5% 1%	60mV
+3.3V	0.5A	25A	5% 1%	60mV
+12V	2A	56A	5% 1%	120mV
-12V	0A	0.8A	5% 1%	120mV
+5VSB	0.1A	3.5A	5% 1%	60mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 180W
2.Power module Total output power not exceed 700W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	110% ~ 160% rated output power
Over Voltage	+5V→5.7V~6.5V,+3.3V→3.7V~4.1V, +12V→13.1V~14.5V
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL, cUL, TUV
EMI/RFI Standards	FCC Class A, CIPR22 Class A
Harmonic	EN61000-3-2

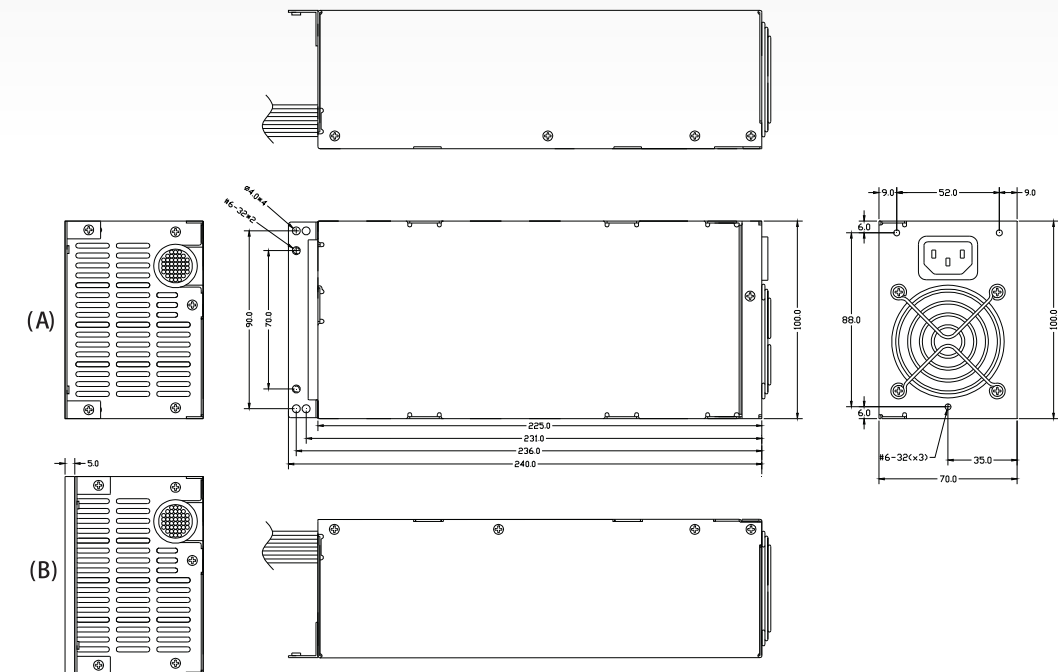
Others

MTBF	>100,000 hours
Coolings	60x60mm DC FANS x 1
Dimension(D x W x H)	225 x 100 x 70 mm / 8.9 x 4 x 2.8 inch

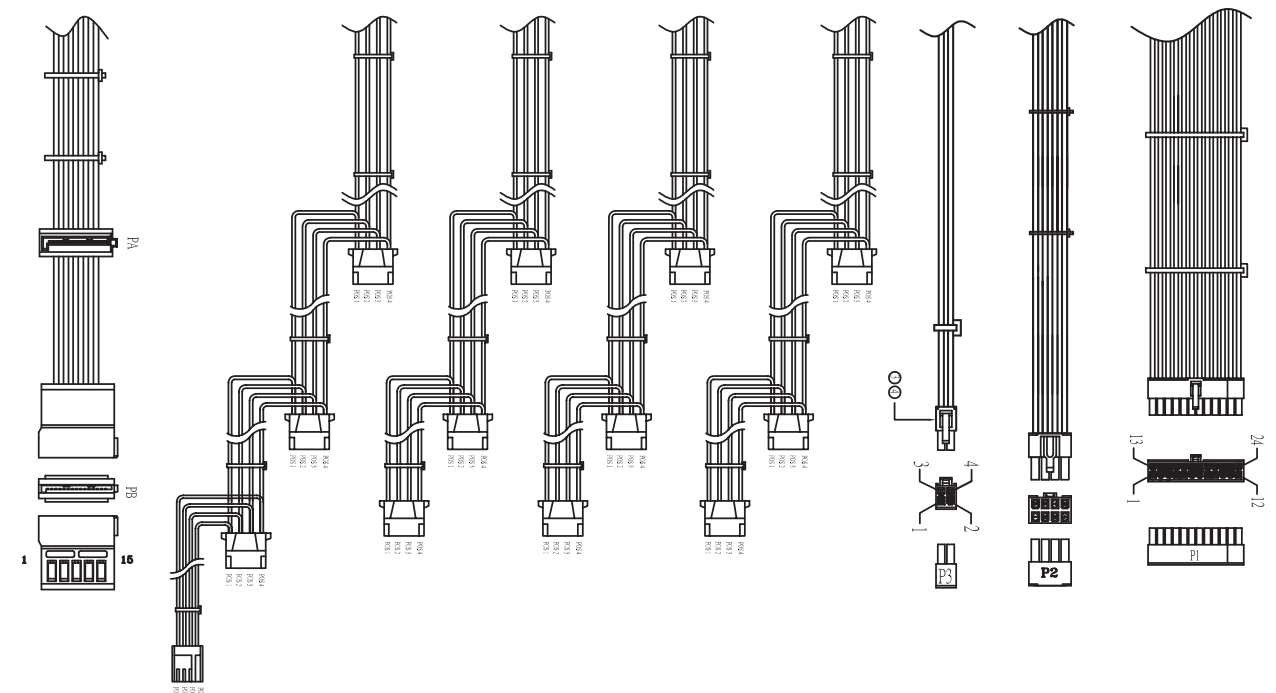
SS-2U70EL

2U Single High Efficiency Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-3U30

3U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-3U30 power supply. Design to fit perfectly into your 3U rackmount chassis. Triple circuits protections and PFC to provide best performance and protection. TC-3U30 combined reliability and performance for your 3U chassis.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Unit Size	3U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	300 watts
+5V	30A
+12V	24A
+3.3V	20A
+5V & +3.3V	150 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥68%

Connectors

Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
4 pin Peripheral	4
4 pin Floppy	1
SATA	2

Dimension

D x W x H	180x117x86 mm / 7.1 x 4.6 x 3.4 inch
Net Weight	4.3 lb
Safety/EMI/RFI	FCC En55022
	CISPR22
	UI60950
	CAN/CSA22.2
	UL 1950
	EN-61000-3-2

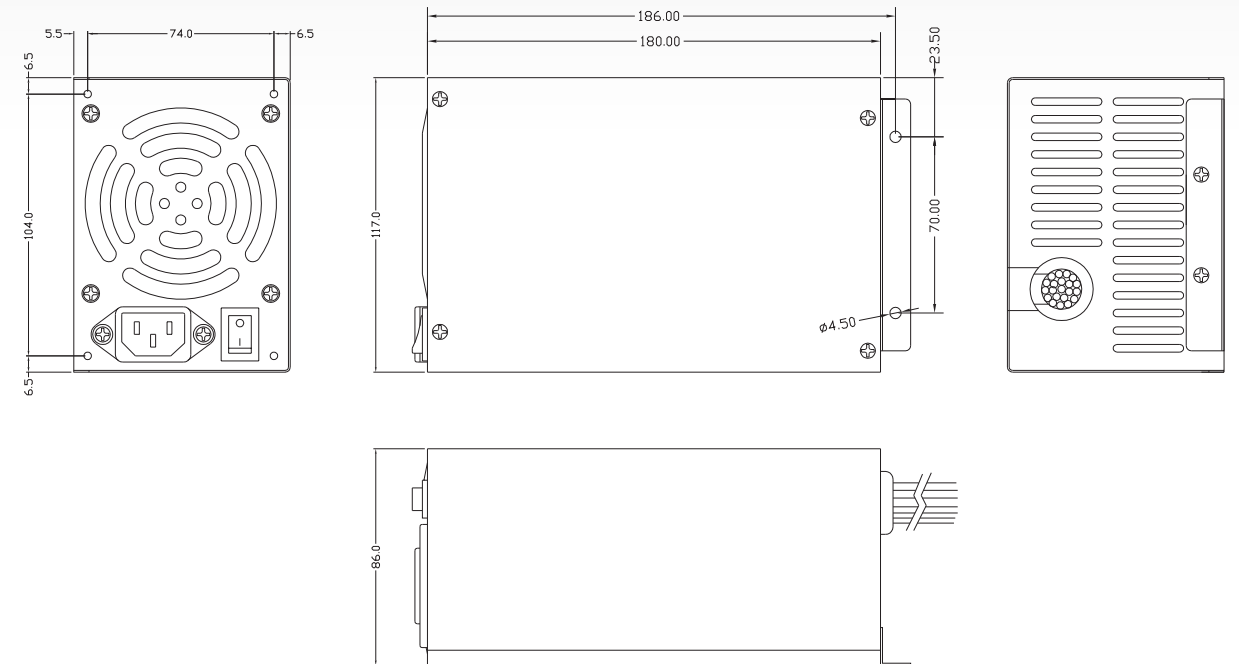
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-3U30

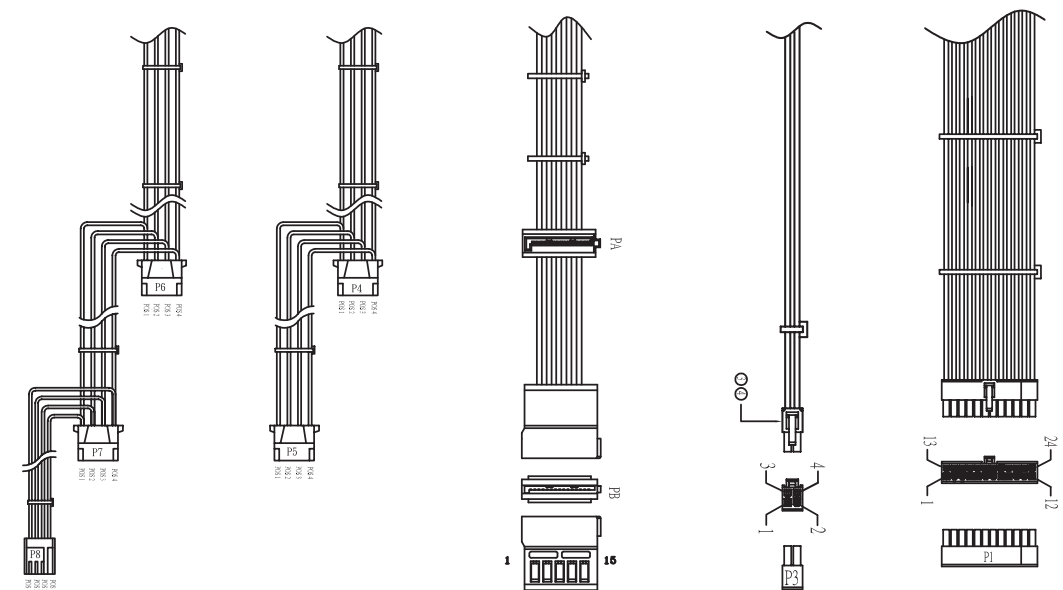
3U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-3U40

3U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-3U40 power supply. Design to fit perfectly into your 3U rackmount chassis. Triple circuits protections and PFC to provide best performance and protection. TC-3U40 combined reliability and performance for your 3U chassis.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Unit Size	3U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	400 watts
+5V	40A
+12V	24A
+3.3V	20A
+5V & +3.3V	200 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥68%

Connectors

Cable Length	21 in
Main connector	20+4 Pins
4 pin 12V	1
4 pin Peripheral	5
4 pin Floppy	1
SATA	2

Dimension

D x W x H	180x117x86 mm / 7.1 x 4.6 x 3.4 inch
Net Weight	4.3 lb
Safety/EMI/RFI	FCC En55022
	CISPR22
	UI60950
	CAN/CSA22.2
	UL 1950
	EN-61000-3-2

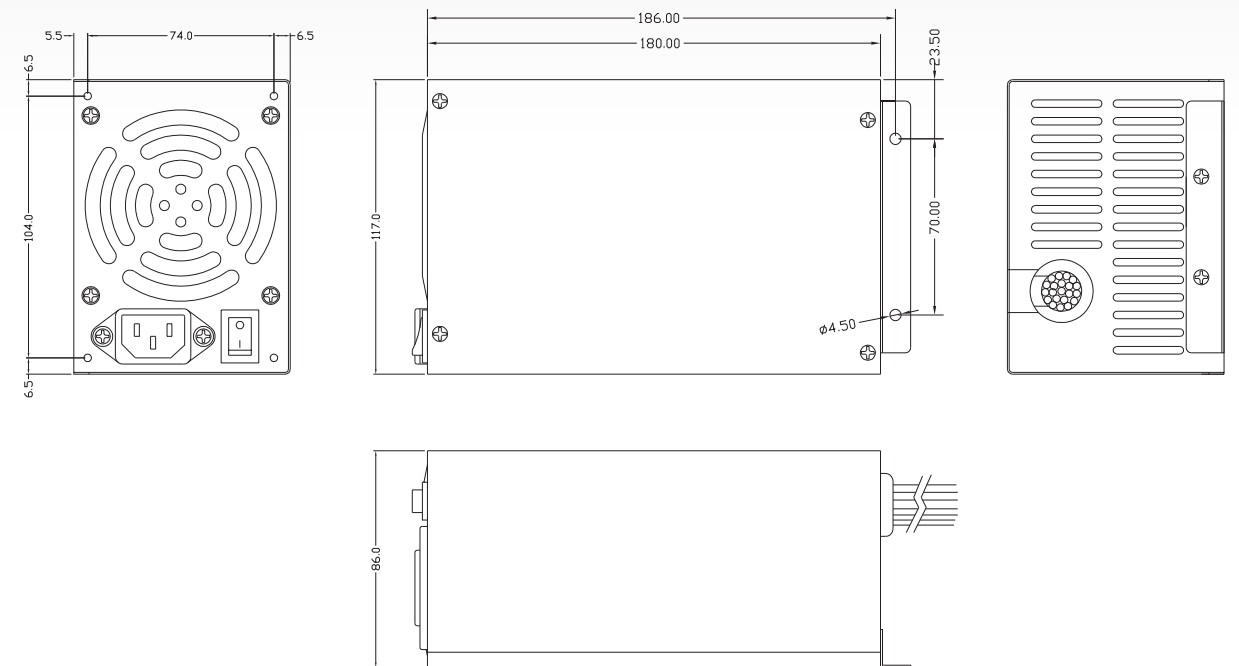
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-3U40

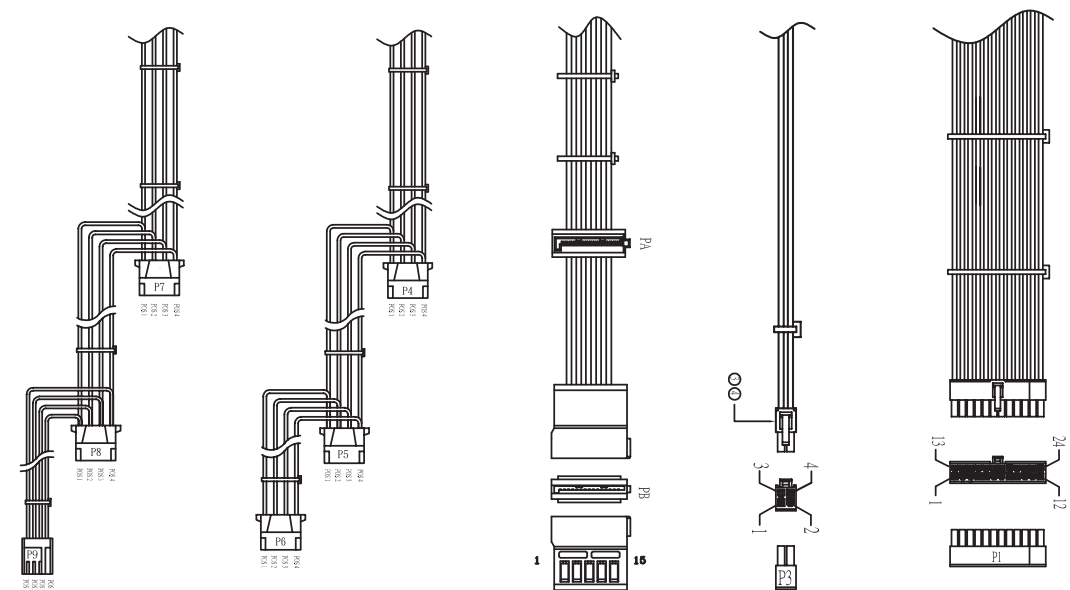
3U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-3U46

3U Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the industrial graded TC-3U46 power supply. Design to fit perfectly into your 3U rackmount chassis. Triple circuits protections and PFC to provide best performance and protection. TC-3U46 combined reliability and performance for your 3U chassis.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Passive PFC for cost effective performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Unit Size	3U
Input Voltage	90~132V/180~264V
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	460 watts
+5V	40A
+12V	24A
+3.3V	20A
+5V & +3.3V	200 watts
+5V & +3.3V & +12V	460 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥68%

Connectors

Cable Length	21 in
Main connector	24 Pins
8 pin connector	1
4 pin Peripheral	7
4 pin Floppy	1

Dimension

D x W x H	180x117x86 mm / 7.1 x 4.6 x 3.4 inch
Net Weight	4.3 lb
	FCC En55022
	CISPR22
Safety/EMI/RFI	UI60950
	CAN/CSA22.2
	UL 1950
	EN-61000-3-2

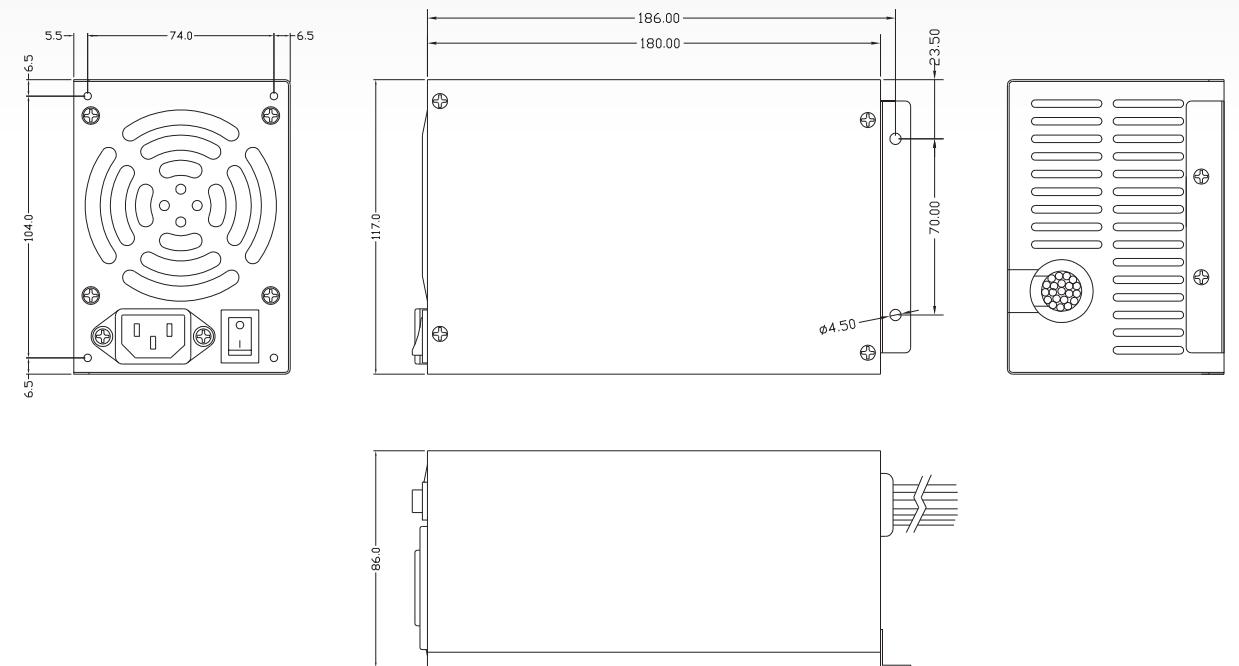
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-3U46

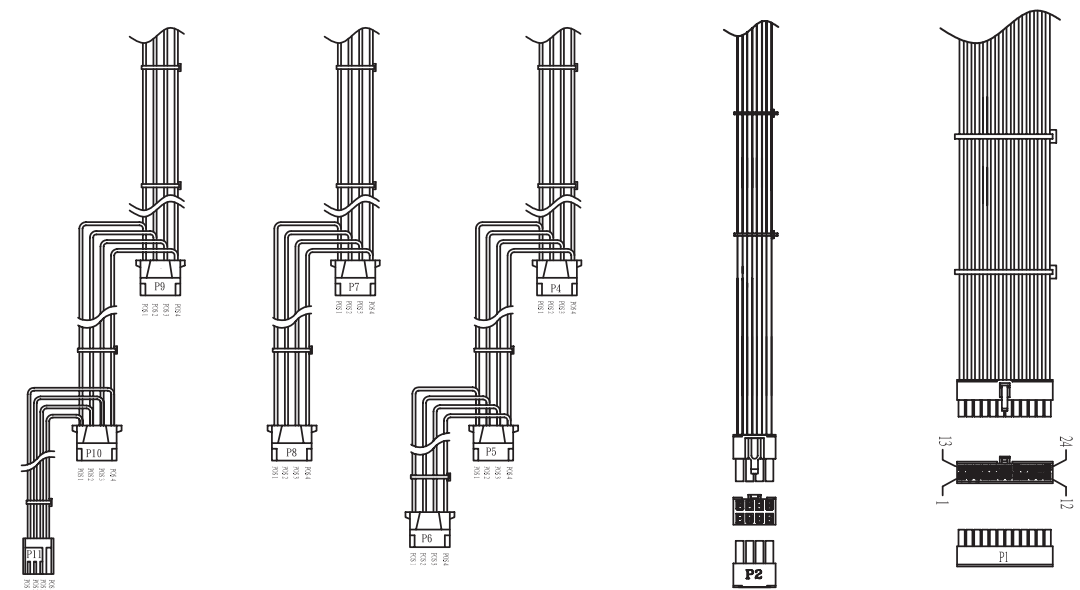
3U Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-800PL

PS2 Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Industrial EPS 12V and ATX 12V TC-XXXPL Series switching power supply. Deliver precision power from 350 watts to 1000watts for all your application needs. Standard feature include triple circuit protection, nickel plated enclosure, and PFC. Performance PC need a powerful power supply.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Active PFC for energy saving and high performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification	
Form Factor	EPS 12V
Input Voltage	100~240V Full Range
Input Frequency	47Hz~63Hz

Output Rating	
Total Watts	800 watts
+5V	30A
+12V1,12V2,12V3,12V4	15A/15A/15A/15A
+3.3V	30A
+5V & +3.3V	45A
PFC	Active
Efficiency	≥ 76%
Regulation	+/-5%

Connectors	
Cable Length	23 in
Main connector	24 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	9
4 pin Floppy	1
SATA connector	2

Dimension	
D x W x H	220x150x86 mm / 8.7 x 5.9 x 3.4 inch
Net Weight	6.5 lb
Safety Standards	UL60950
MTBF	100,000 hours at full load and 25°C ambient temperature

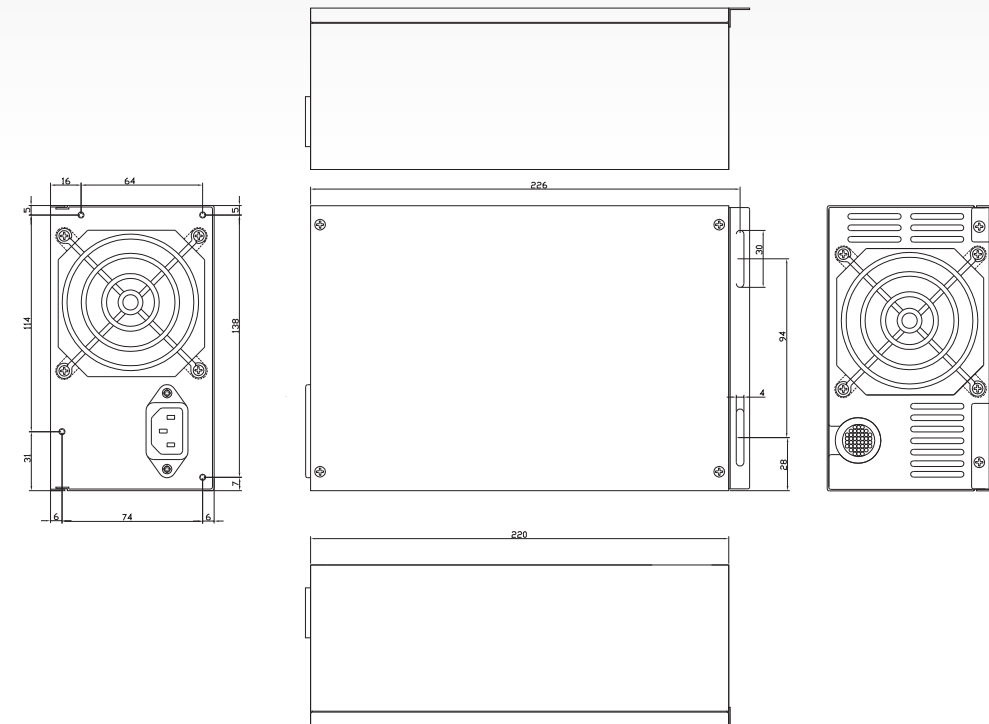
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-800PL

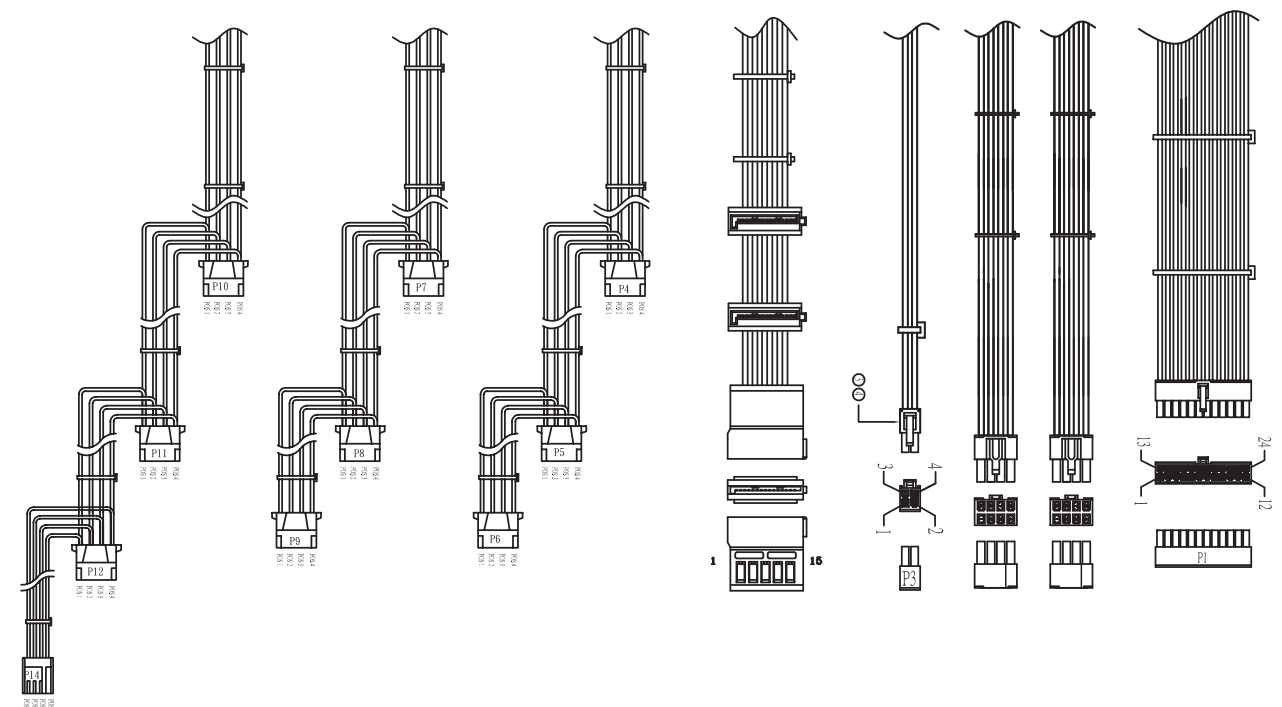
PS2 Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-900PL

PS2 Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Industrial EPS 12V and ATX 12V TC-XXXPL Series switching power supply. Deliver precision power from 350 watts to 1000watts for all your application needs. Standard feature include triple circuit protection, nickel plated enclosure, and PFC. Performance PC need a powerful power supply.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Active PFC for energy saving and high performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification	
Form Factor	EPS 12V
Input Voltage	100~240V Full Range
Input Frequency	47Hz~63Hz

Output Rating	
Total Watts	900 watts
+5V	30A
+12V1,12V2,12V3,12V4	16A/16A/16A/16A
+3.3V	30A
+5V & +3.3V	45A
+5V & +3.3V & 12V	880 watts
PFC	Active
Efficiency	≥ 78%
Regulation	+/-5%

Connectors	
Cable Length	23 in
Main connector	24 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	10
4 pin Floppy	2
SATA connector	2

Dimension	
D x W x H	220x150x86 mm / 8.7 x 5.9 x 3.4 inch
Net Weight	5.5 lb
Safety Standards	UL60950
MTBF	100,000 hours at full load and 25°C ambient temperature

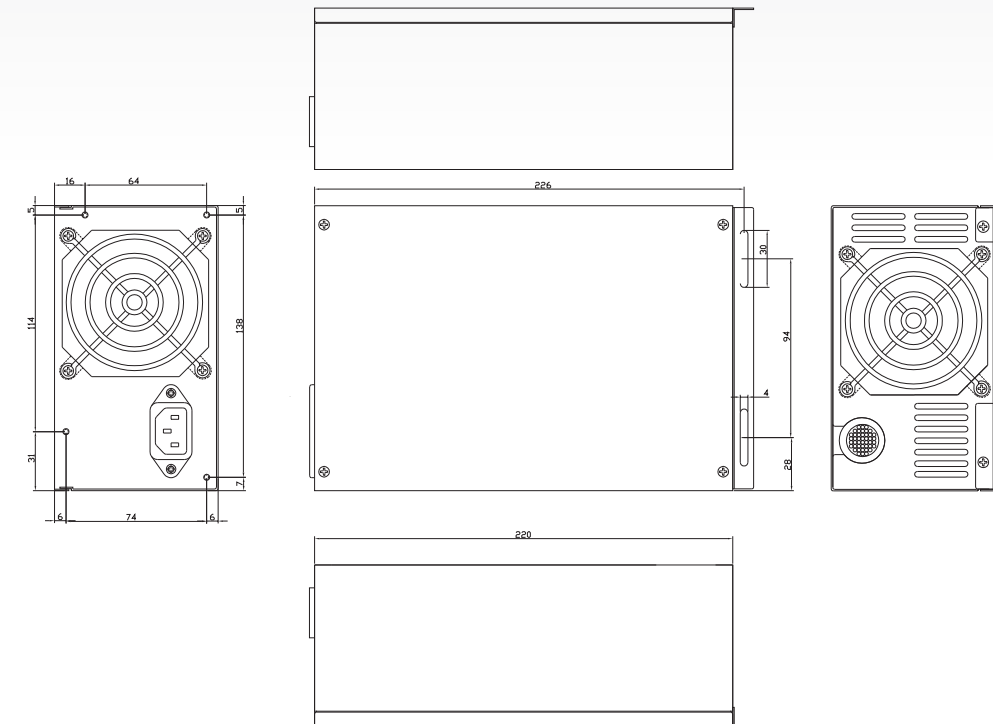
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-900PL

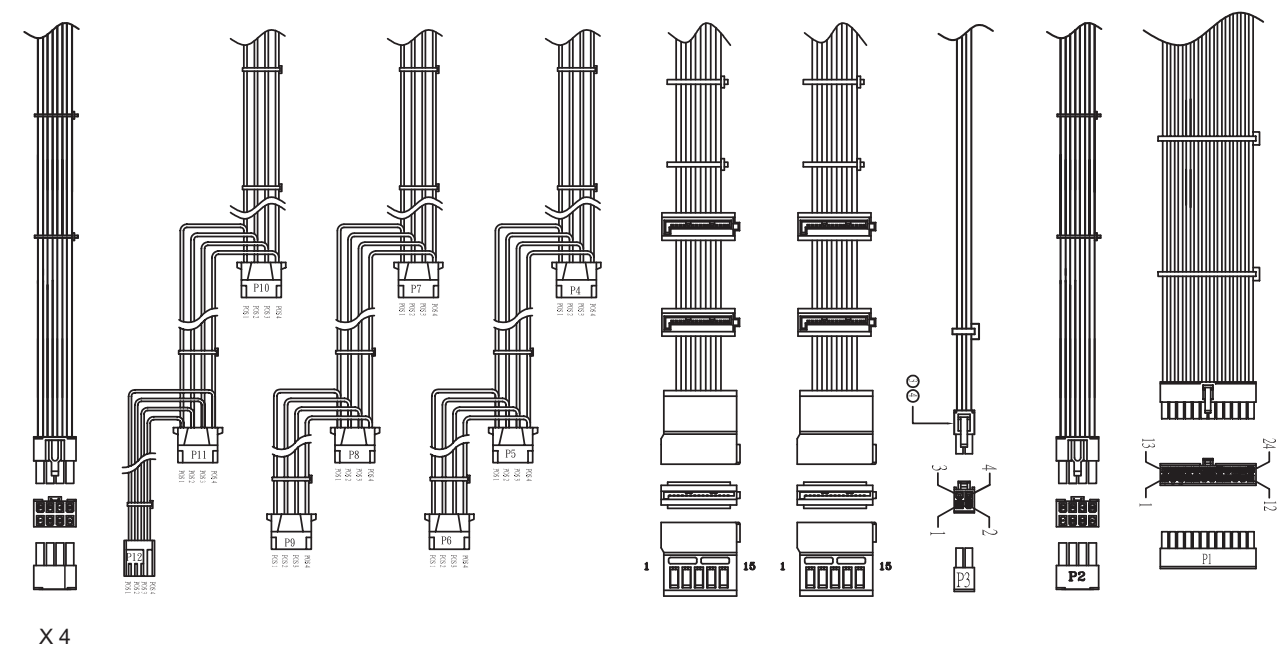
PS2 Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-1000PL

PS2 Single Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Industrial EPS 12V and ATX 12V TC-XXXPL Series switching power supply. Deliver precision power from 350 watts to 1000watts for all your application needs. Standard feature include triple circuit protection, nickel plated enclosure, and PFC. Performance PC need a powerful power supply.

- FEATURES -

- Power range auto select
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- 16ms Hold Up Time
- Active PFC for energy saving and high performance
- Nickel Plated enclosure to provide Corrosion Resistance

- ELECTRICAL SPECIFICATIONS -

Specification	
Form Factor	EPS 12V
Input Voltage	100~240V Full Range
Input Frequency	47Hz~63Hz

Output Rating	
Total Watts	1000 watts
+5V	35A
+12V1,12V2,12V3,12V4	16A/16A/16A/16A
+3.3V	30A
+5V & +3.3V	48A
+5V & +3.3V & 12V	980 watts
PFC	Active
Efficiency	≥ 76%
Regulation	+/-5%

Connectors	
Cable Length	23 in
Main connector	24 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	10
4 pin Floppy	2
SATA connector	2
6 pin PCI-E	2

Dimension	
D x W x H	220x150x86 mm / 8.7 x 5.9 x 3.4 inch
Net Weight	5.5 lb
Safety Standards	UI60950
MTBF	100,000 hours at full load and 25°C ambient temperature

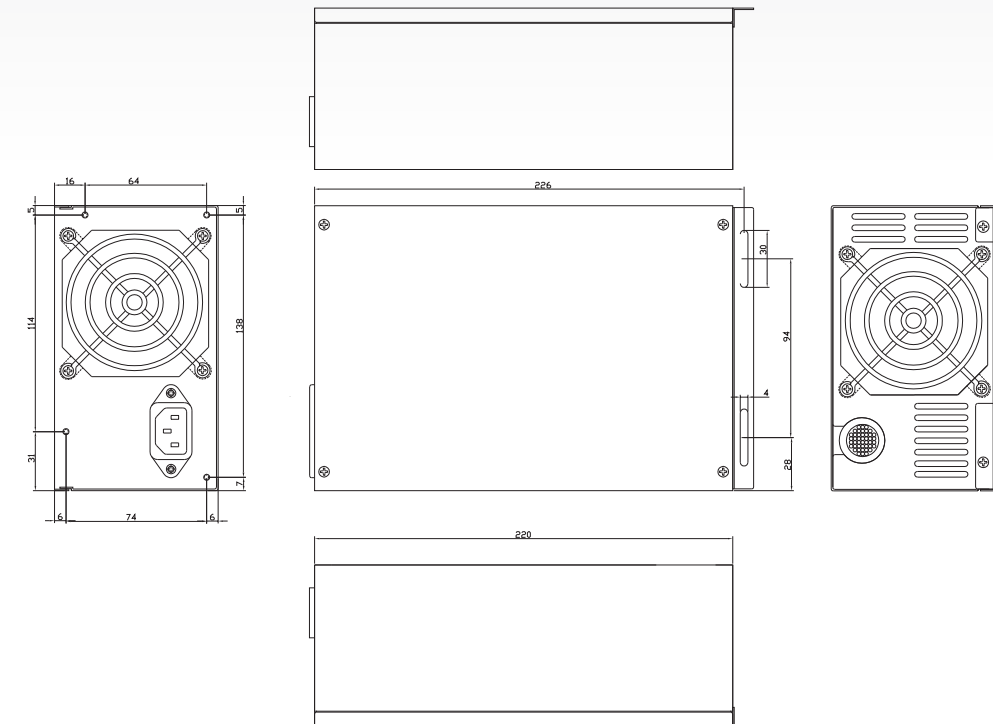
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-1000PL

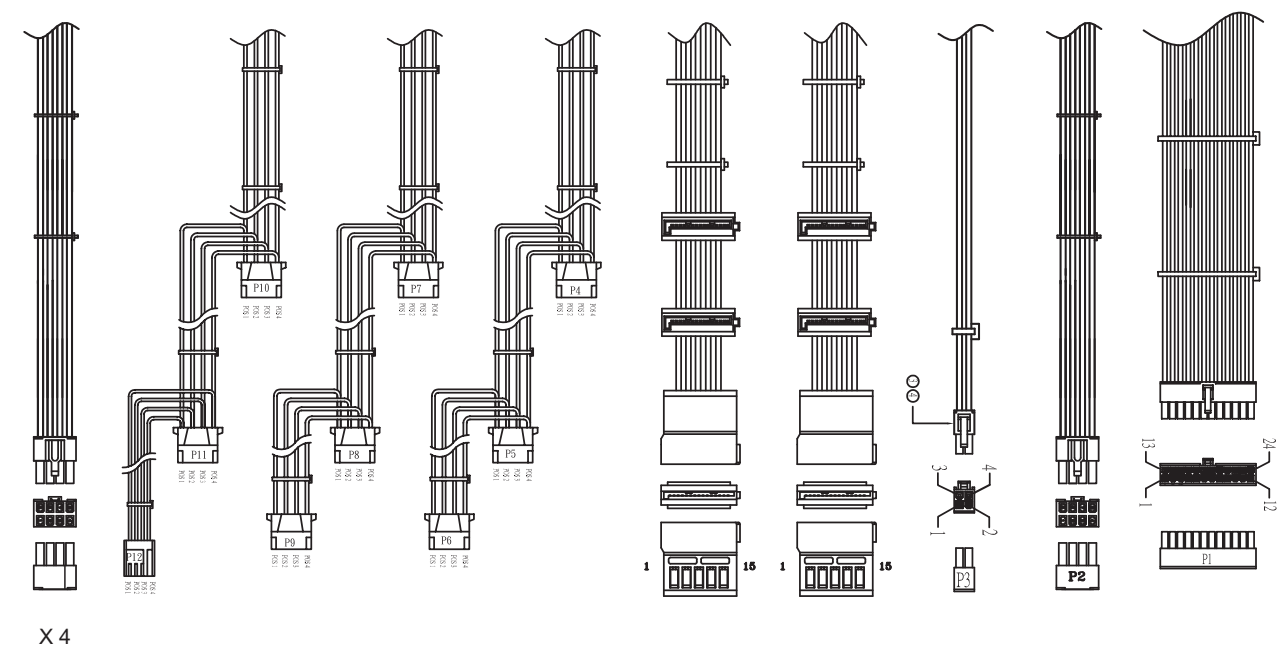
PS2 Single Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



TC-300R2U-H

1U Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The R2U-H Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R2U-H series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- 1U Size design
- Hot-Swappable & Power Sharing capability
- Full Range AC input
- Active PFC meet
- Short Depth
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	8A For 115VAC, 4A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
+5V	3A	25A	5% 1%	50mV
+3.3V	0.3A	25A	5% 1%	50mV
+12V	2A	16A	5% 1%	120mV
-12V	0.1A	0.8A	10% 1%	120mV
-5V	0.1A	0.5A	10% 1%	100mV
+5VSB	0.1A	2A	5% 1%	50mV

Efficiency: 73% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 40A
2.Power module Total output power not exceed 300W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	130% ~ 160% rated output power
Over Voltage	Standard on +5.0V output, set at 6.25VDC $\pm$ 0.75VDC
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL CAN/CSA TUV CB Certification
EMI/RFI Standards	FCC part 15, Subpart B, Class B EN55022 CISPR22 Class B EN61000-3-2 (ACTIVE PFC) EN61000-4-2, -3, -4, -5, -6, -8, -11

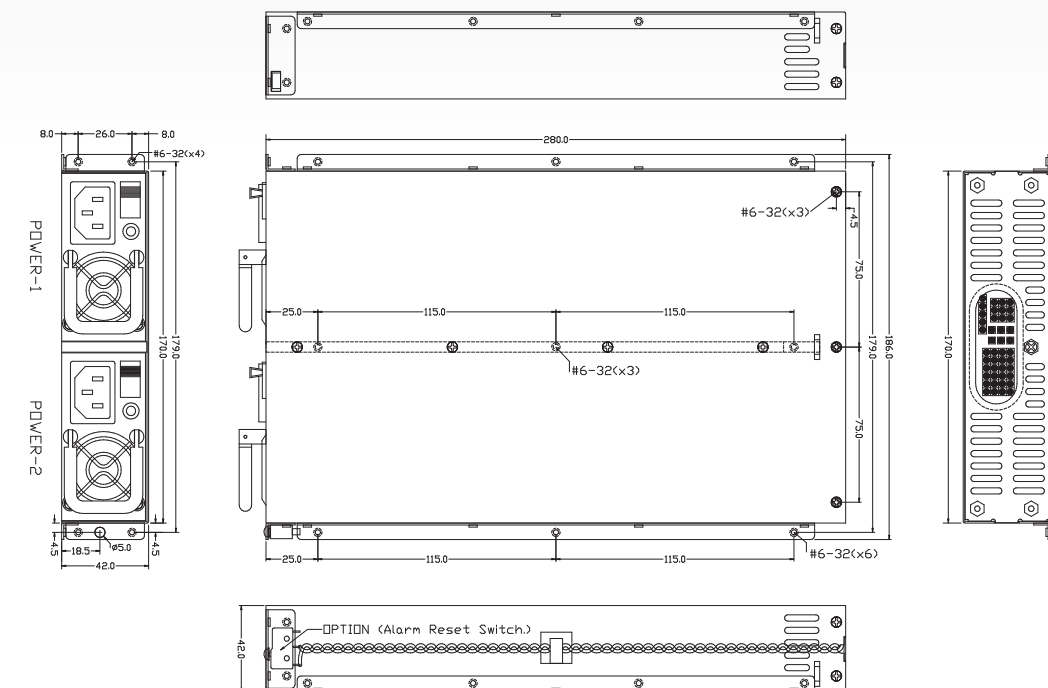
Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	280 x 170 x 42 mm / 11 x 6.69 x 1.65 inch

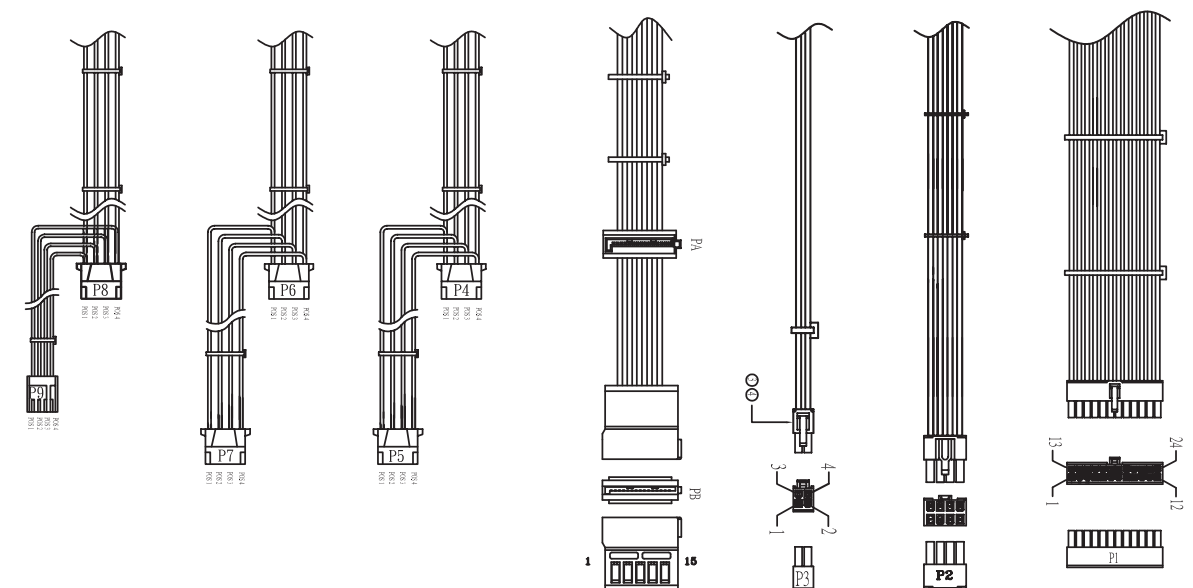
TC-300R2U-H

1U Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



TC-350R2U-H

1U Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The R2U-H Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R2U-H series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- 1U Size design
- Hot-Swappable & Power Sharing capability
- Full Range AC input
- Active PFC meet
- Short Depth
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	8A For 115VAC, 4A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	3A	25A	5%	1%	50mV
+3.3V	0.3A	25A	5%	1%	50mV
+12V	2A	22A	5%	1%	120mV
-12V	0.1A	0.8A	10%	1%	120mV
-5V	0.1A	0.5A	10%	1%	100mV
+5VSB	0.1A	2A	5%	1%	50mV

Efficiency: 73% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 40A
2.Power module Total output power not exceed 350W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	130% ~ 160% rated output power
Over Voltage	Standard on +5.0V output, set at 6.25VDC $\pm$ 0.75VDC
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL CAN/CSA TUV CB Certification
EMI/RFI Standards	FCC part 15, Subpart B, Class B EN55022 CISPR22 Class B EN61000-3-2 (ACTIVE PFC) EN61000-4-2, -3, -4, -5, -6, -8, -11

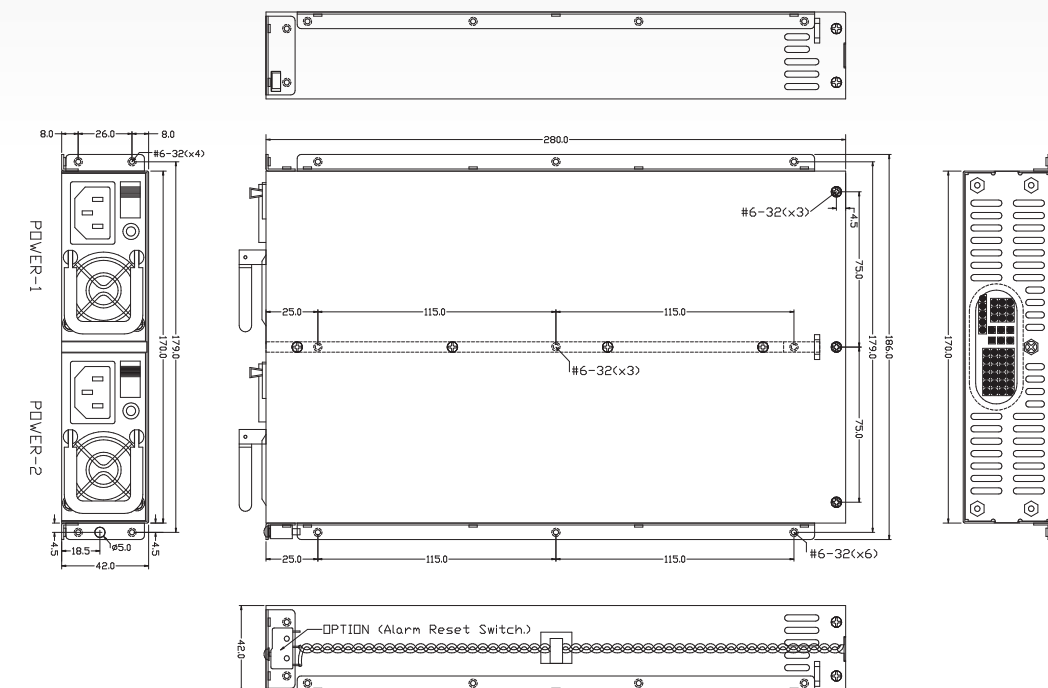
Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	280 x 170 x 42 mm / 11 x 6.69 x 1.65 inch

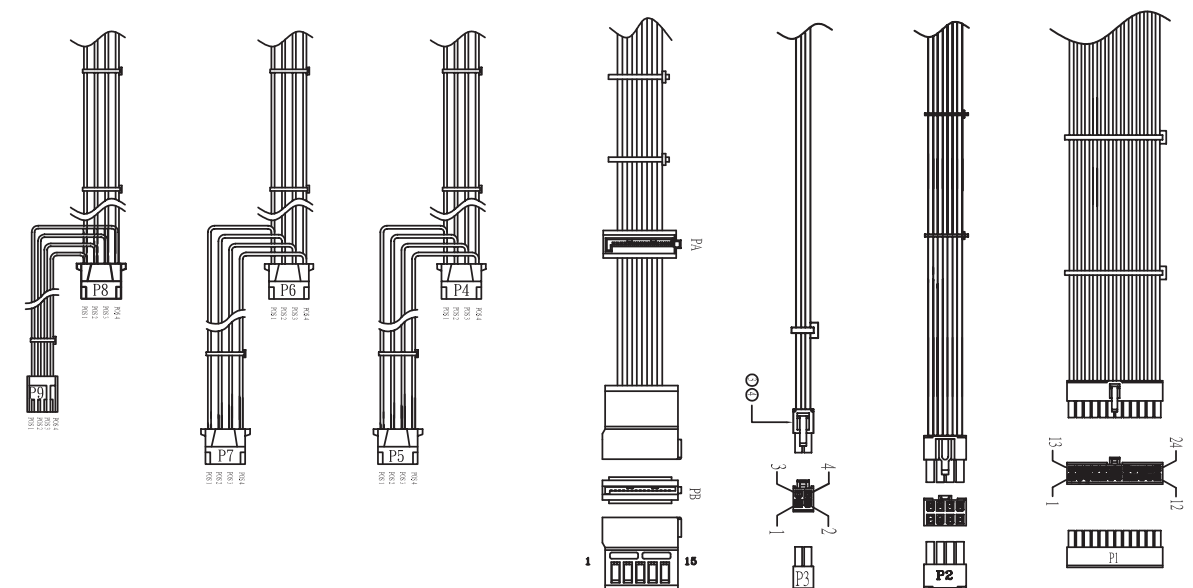
TC-350R2U-H

1U Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



TC-400R2U-H

1U Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The R2U-H Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R2U-H series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- 1U Size design
- Hot-Swappable & Power Sharing capability
- Full Range AC input
- Active PFC meet
- Short Depth
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	8A For 115VAC, 4A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
+5V	3A	25A	5% 1%	50mV
+3.3V	0.3A	25A	5% 1%	50mV
+12V	2A	28A	5% 1%	120mV
-12V	0.1A	0.8A	10% 1%	120mV
-5V	0.1A	0.5A	10% 1%	100mV
+5VSB	0.1A	2A	5% 1%	50mV

Efficiency: 73% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 40A
2.Power module Total output power not exceed 400W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Power	130% ~ 160% rated output power
Over Voltage	Standard on +5.0V output, set at 6.25VDC $\pm$ 0.75VDC
Short Circuit	Shut down o/p voltage, re-power on to recover

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
PS-ON	Remote ON/OFF Control

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL CAN/CSA TUV CB Certification
EMI/RFI Standards	FCC part 15, Subpart B, Class B EN55022 CISPR22 Class B EN61000-3-2 (ACTIVE PFC) EN61000-4-2, -3, -4, -5, -6, -8, -11

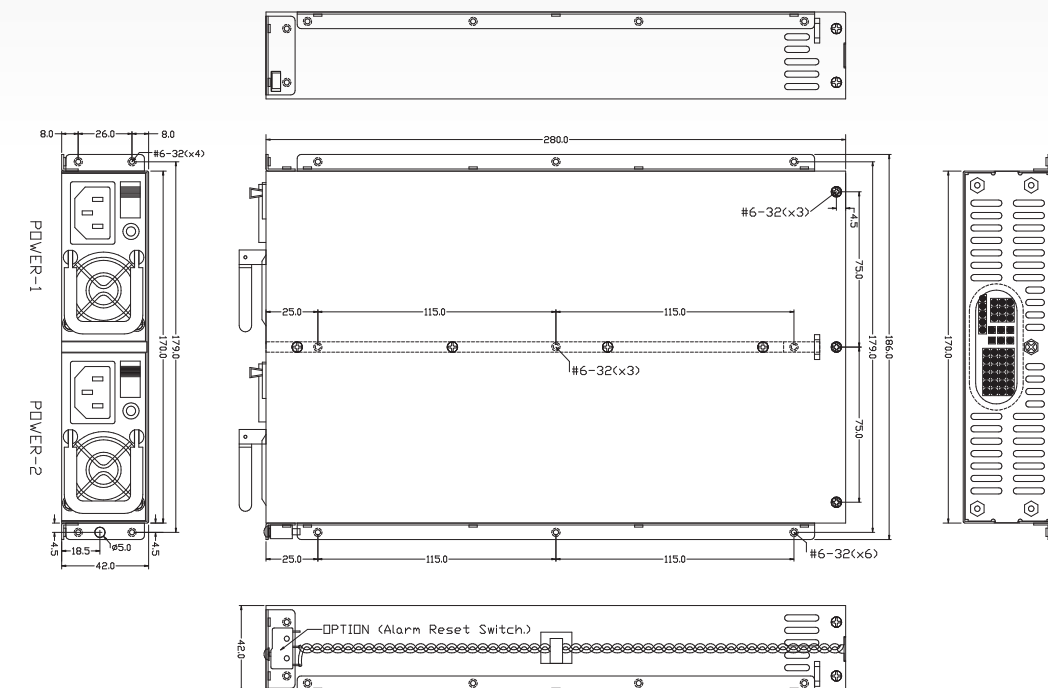
Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	280 x 170 x 42 mm / 11 x 6.69 x 1.65 inch

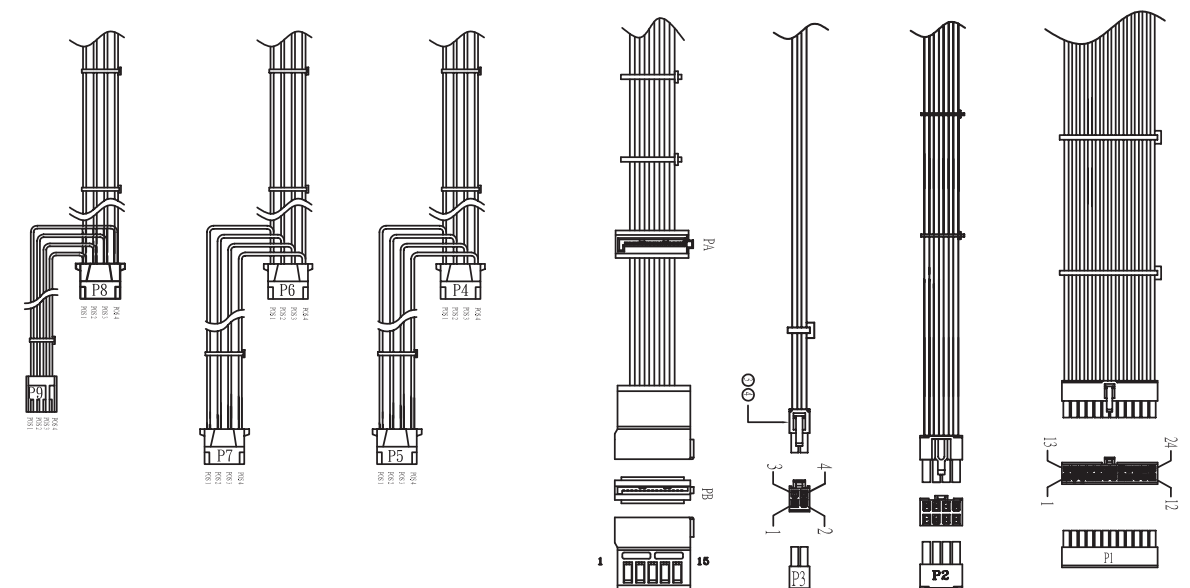
TC-400R2U-H

1U Redundant Power Supply

- MECHANICAL DRAWING -

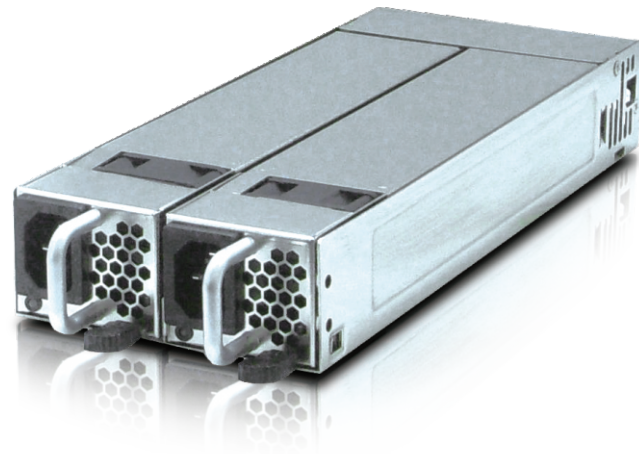


- PINOUTS OF CONNECTORS -



R1J-250I1H2A0

1U Micro Redundant Power Supply



EPS
12V

ATX
12V

- THERMAL PROTECTION -

The power supply shall go into thermal protection as the case temperature exceeds 86°C(±5°C)limit. The output shall recover only when the temperature becomes normal and AC power is turned on again

- FEATURES -

- 1U Size Design
- Hot-Swappable & Power Sharing capability
- Full Range AC input
- Low Ripple Noise
- High Power Density
- High Performance industrial Fan
- High Reliability

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC +/-10% / 47 ~ 63Hz
Input Current	4.0A(RMS) for 115VAC, 2.0A(RMS) for 230VAC.
Inrush Current	35A Max. for 115VAC Per Module, 70A Max. for 230VAC Per Module

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	1A	20A	5%	1%	60mV
+3.3V	1A	20A	5%	1%	60mV
+12V	2A	20A	5%	1%	120mV
-12V	0A	0.5A	5%	1%	120mV
+5VSB	0.5A	2A	5%	1%	60mV

Efficiency: 75% Typical at full load.

Hold up Time: 1m sec Min. AT Full Load.

Rated Power: 1. +5V&+3.3V TOTAL OUTPUT MAX.:145W ;
2.Power module Total output power not exceed 250W

Protections

Over Power	110% ~ 150% MAX.
Over Voltage	+3.3V→3.7V~4.1V ,+5V→5.7V~6.5V,+12V→13.2V~14.4V
Short Circuit	Shutdown And Latch Re-power ON

Function

Power Good Signal	Delay 200ms~500ms, TTL compatible signal
Power Fail Delay	>1msec. ,TTL compatible signal
PS-ON	Power off: PS-ON = 2V min.; Power on: PS-ON = 0.8V max.
TTL Signal	Normal(Power Supply On): Output Condition =3V Min. , 5.25VMax. Failure(Power Supply Off): Output Condition =0V Min. ,1VMax.
Current Sharing	ON +3.3V,+5V,+12V

Environmental

Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to +80°C
Operating Humidity	20% to 90%,non-condensing
Storage Humidity	5% to 95%,non-condensing

Safety & EMI/RFI

Safety Standards	TO MEET CUL UL, TUV
Withstand Voltage	I/P-O/P:1.5KVAC FOR 1 minute. I/P-FG:1.5KVAC For 1 minute
Isolation Resistance	I/P-O/P,I/P-FG,O/P-FG: 500VDC , 50M ohms min.

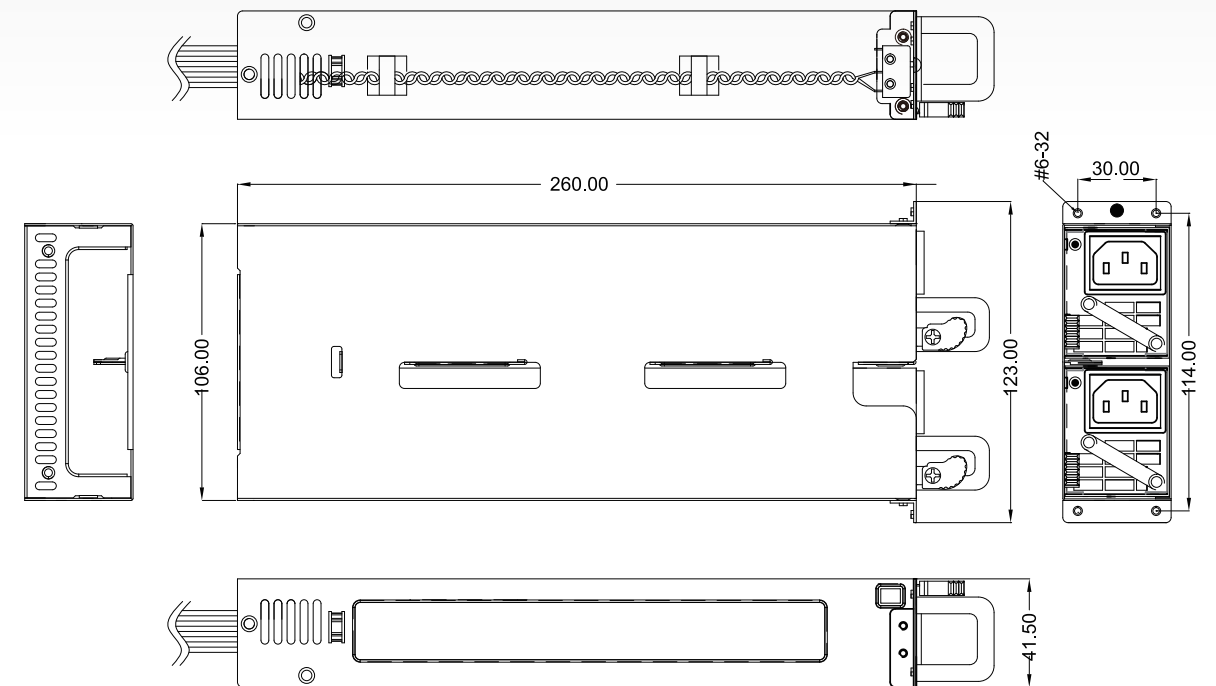
Others

MTBF	Using MIL - HDBK -217F the calculated MTBF >100,000 hours at 25°C
Coolings	40x40x20mm x 2pcs DC fans
Dimension(D x W x H)	260(D)x106(W)x41.5(H)mm

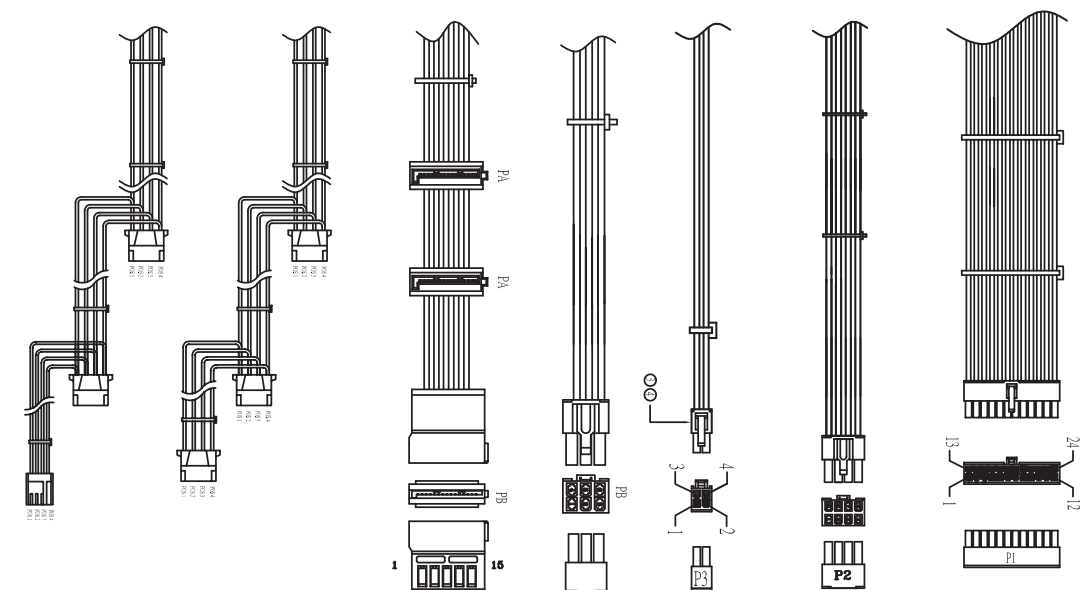
R1J-250I1H2A0

1U Micro Redundant Power Supply

- MECHANICAL DRAWING -

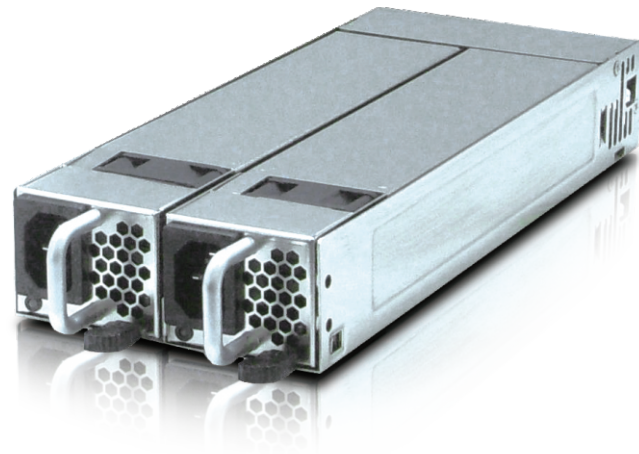


- PINOUTS OF CONNECTORS -



R1J-300I1H2A0

1U Micro Redundant Power Supply



EPS
12V

ATX
12V

- THERMAL PROTECTION -

The power supply shall go into thermal protection as the case temperature exceeds 86°C(±5°C)limit. The output shall recover only when the temperature becomes normal and AC power is turned on again

- FEATURES -

- 1U Size Design
- Hot-Swappable & Power Sharing capability
- Full Range AC input
- Low Ripple Noise
- High Power Density
- High Performance industrial Fan
- High Reliability

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC +/-10% / 47 ~ 63Hz
Input Current	4.0A(RMS) for 115VAC, 2.0A(RMS) for 230VAC.
Inrush Current	35A Max. for 115VAC Per Module, 70A Max. for 230VAC Per Module

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	1A	20A	5%	1%	60mV
+3.3V	1A	20A	5%	1%	60mV
+12V	2A	24A	5%	1%	120mV
-12V	0A	0.5A	5%	1%	120mV
+5VSB	0.5A	2A	5%	1%	60mV

Efficiency: 75% Typical at full load.

Hold up Time: 1m sec Min. AT Full Load.

Rated Power: 1. +5V&+3.3V TOTAL OUTPUT MAX.:150W ;
2.Power module Total output power not exceed 300W

Protections

Over Power	110% ~ 150% MAX.
Over Voltage	+3.3V→3.7V~4.1V ,+5V→5.7V~6.5V,+12V→13.2V~14.4V
Short Circuit	Shutdown And Latch Re-power ON

Function

Power Good Signal	Delay 200ms~500ms, TTL compatible signal
Power Fail Delay	>1msec. ,TTL compatible signal
PS-ON	Power off: PS-ON = 2V min.; Power on: PS-ON = 0.8V max.
TTL Signal	Normal(Power Supply On): Output Condition =3V Min. , 5.25VMax. Failure(Power Supply Off): Output Condition =0V Min. ,1VMax.
Current Sharing	ON +3.3V,+5V,+12V

Environmental

Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to +80°C
Operating Humidity	20% to 90%,non-condensing
Storage Humidity	5% to 95%,non-condensing

Safety & EMI/RFI

Safety Standards	TO MEET CUL UL, TUV
Withstand Voltage	I/P-O/P:1.5KVAC FOR 1 minute. I/P-FG:1.5KVAC For 1 minute
Isolation Resistance	I/P-O/P,I/P-FG,O/P-FG: 500VDC , 50M ohms min.

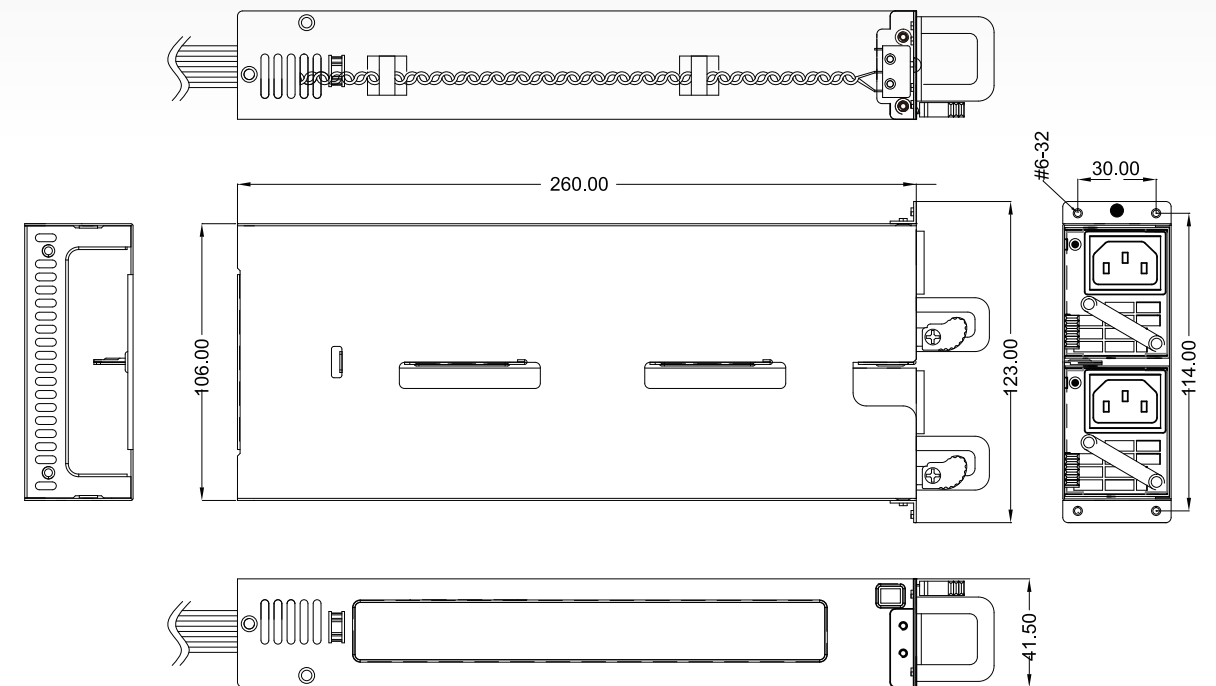
Others

MTBF	Using MIL - HDBK -217F the calculated MTBF >100,000 hours at 25°C
Coolings	40x40x20mm x 2pcs DC fans
Dimension(D x W x H)	260(D)x106(W)x41.5(H)mm

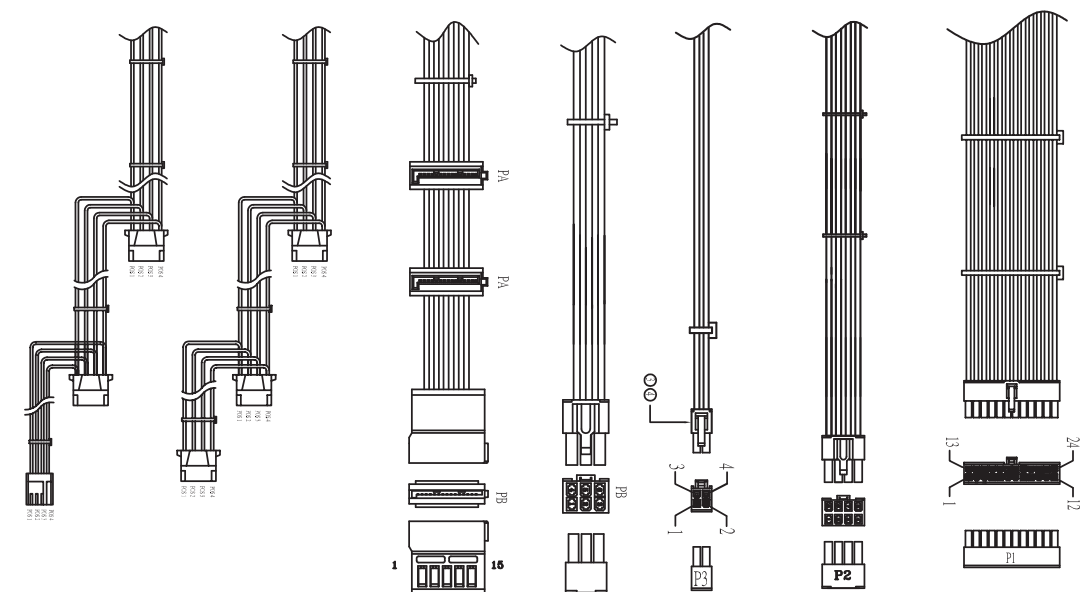
R1J-300I1H2A0

1U Micro Redundant Power Supply

- MECHANICAL DRAWING -

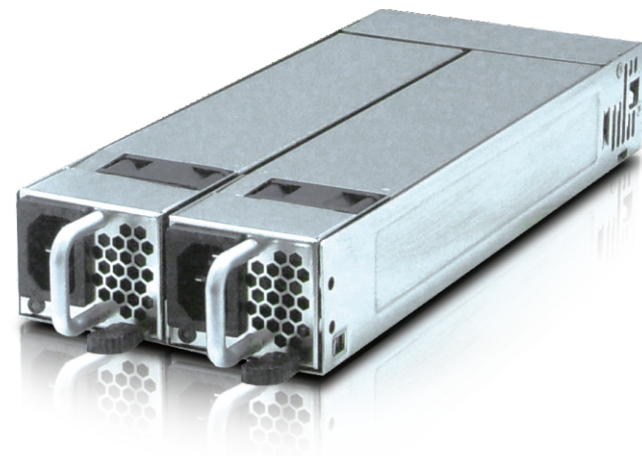


- PINOUTS OF CONNECTORS -



R1J-350I1H2A0

1U Micro Redundant Power Supply



EPS
12V

ATX
12V

- THERMAL PROTECTION -

The power supply shall go into thermal protection as the case temperature exceeds 86°C(±5°C)limit. The output shall recover only when the temperature becomes normal and AC power is turned on again

- FEATURES -

- 1U Size Design
- Hot-Swappable & Power Sharing capability
- Full Range AC input
- Low Ripple Noise
- High Power Density
- High Performance industrial Fan
- High Reliability

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC +/-10% / 47 ~ 63Hz
Input Current	4.0A(RMS) for 115VAC, 2.0A(RMS) for 230VAC.
Inrush Current	35A Max. for 115VAC Per Module, 70A Max. for 230VAC Per Module

Output Ratings

Output Voltage	Output Current		Regulation		Output Ripple & Noise Max.(p-p)
	Min.	Max.	LOAD	LINE	
+5V	1A	20A	5%	1%	60mV
+3.3V	1A	20A	5%	1%	60mV
+12V	2A	28A	5%	1%	120mV
-12V	0A	0.5A	5%	1%	120mV
+5VSB	0.5A	3A	5%	1%	60mV

Efficiency: 75% Typical at full load.

Hold up Time: 1m sec Min. AT Full Load.

Rated Power: 1. +5V&+3.3V TOTAL OUTPUT MAX.:155W ;
2.Power module Total output power not exceed 350W

Protections

Over Power	110% ~ 150% MAX.
Over Voltage	+3.3V→3.7V~4.1V ,+5V→5.7V~6.5V,+12V→13.2V~14.4V
Short Circuit	Shutdown And Latch Re-power ON

Function

Power Good Signal	Delay 200ms~500ms, TTL compatible signal
Power Fail Delay	>1msec. ,TTL compatible signal
PS-ON	Power off: PS-ON = 2V min.; Power on: PS-ON = 0.8V max.
TTL Signal	Normal(Power Supply On): Output Condition =3V Min. , 5.25VMax. Failure(Power Supply Off): Output Condition =0V Min. ,1VMax.
Current Sharing	ON +3.3V,+5V,+12V

Environmental

Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to +80°C
Operating Humidity	20% to 90%,non-condensing
Storage Humidity	5% to 95%,non-condensing

Safety & EMI/RFI

Safety Standards	TO MEET CUL UL, TUV
Withstand Voltage	I/P-O/P:1.5KVAC FOR 1 minute. I/P-FG:1.5KVAC For 1 minute
Isolation Resistance	I/P-O/P,I/P-FG,O/P-FG: 500VDC , 50M ohms min.

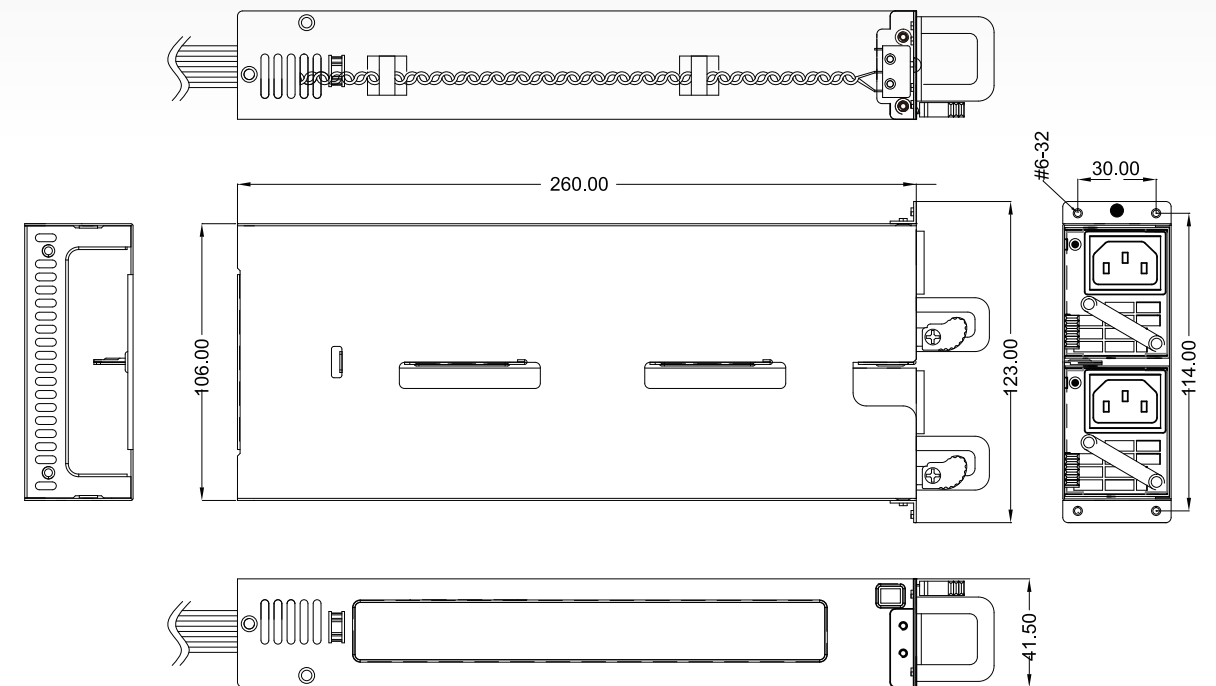
Others

MTBF	Using MIL - HDBK -217F the calculated MTBF >100,000 hours at 25°C
Coolings	40x40x20mm x 2pcs DC fans
Dimension(D x W x H)	260(D)x106(W)x41.5(H)mm

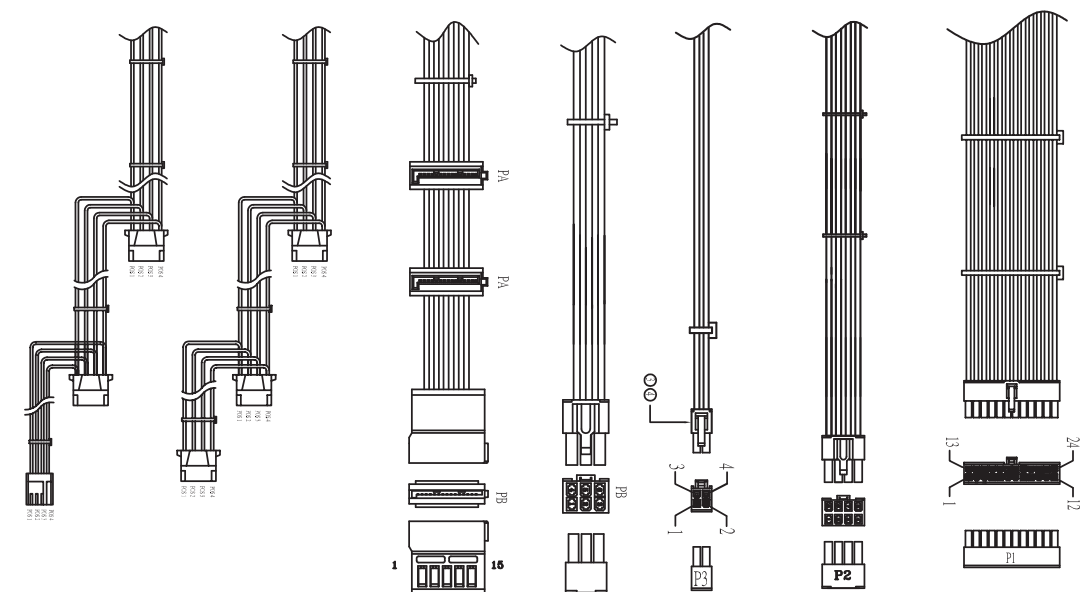
R1J-350I1H2A0

1U Micro Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



TC-300R2U

2U Redundant Power Supply



**EPS
12V**

**ATX
12V**

- INTRODUCTION -

The TC-300R2U redundant power supply comes with dual AC inputs, triple circuit protections, and aluminum module housing. Active PFC ensures high efficiency and energy saving benefit. TC-300R2U provides the reliability and performance for your server and missing critical application.

- FEATURES -

- 300+300 watts total output power
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- Hot-Swappable PSU Zero down time
- Load Sharing design for smart stress and heat distribution Patent no. 136053
- 16ms Hold Up Time

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Input Voltage	100~240V Full Range
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	300 watts
+5V	25A
+12V	16A
+3.3V	25A
+5V & +3.3V	40A
+5V & +3.3V & 12V	278 watts
PFC	Active
Efficiency	≥ 73%
Regulation	+/-5%

Connectors

Cable Length	19 in
Main connector	24 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	5
4 pin Floppy	1
SATA connector	2

Dimension

D x W x H	280x101x84 mm / 11 x 3.98 x 3.3 inch
Net Weight	9.5 lb

Safety/EMI/RFI	FCC-B,UL1950/6950
UL,cUL,TUV,	CB,TUV EN
CB,CE,FCC	60950 IEC950/1000

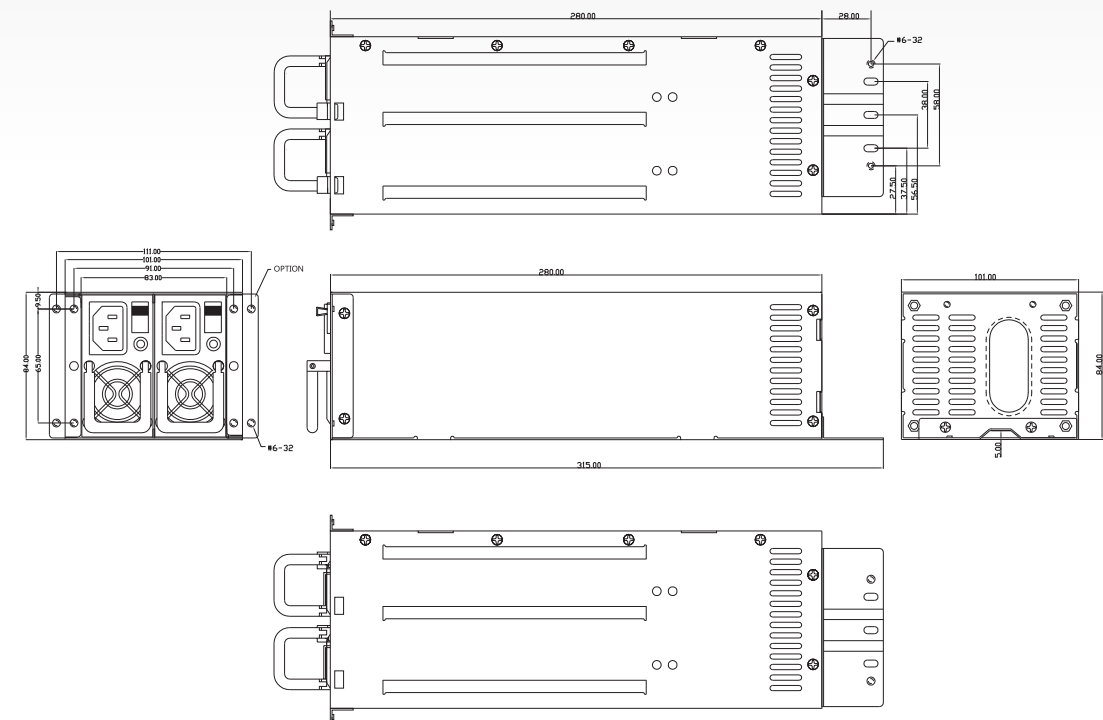
EN55022	CISPR22
EN61000 ISO9001	100,000 hours at full
MTBF	load and 25°C
	ambient temperature

- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

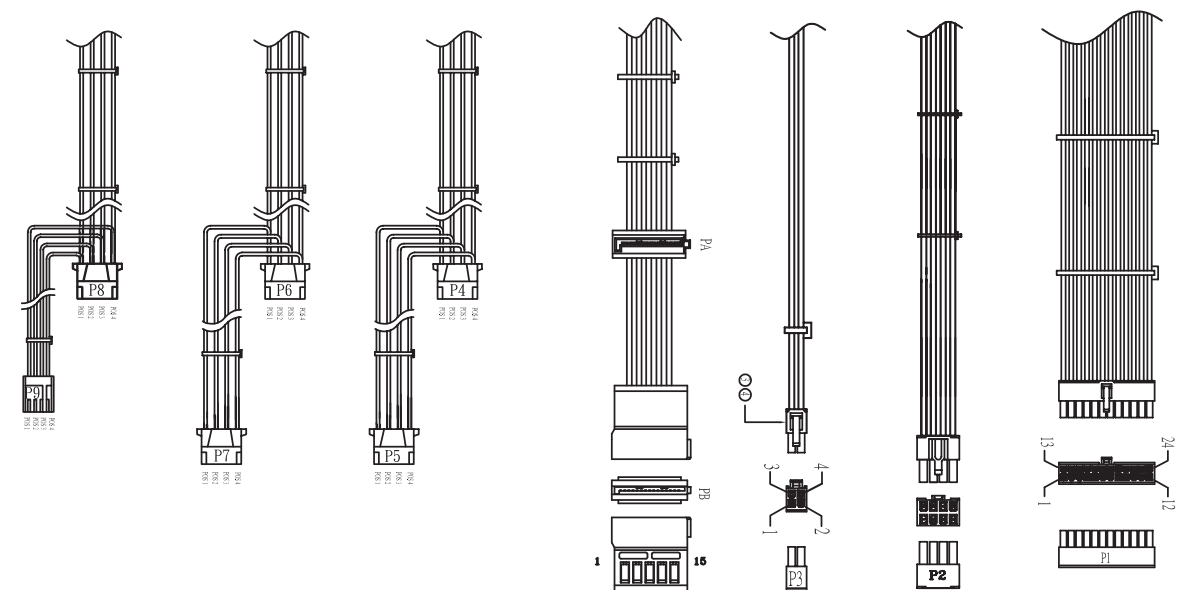
TC-300R2U

2U Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-350R2U

2U Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The TC-350R2U redundant power supply comes with dual AC inputs, triple circuit protections, and aluminum module housing. Active PFC ensures high efficiency and energy saving benefit. TC-350R2U provides the reliability and performance for your server and missing critical application.

- FEATURES -

- 350+350 watts total output power
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- Hot-Swappable PSU Zero down time
- Load Sharing design for smart stress and heat distribution Patent no. 136053
- 16ms Hold Up Time

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Input Voltage	100~240V Full Range
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	350 watts
+5V	25A
+12V	22A
+3.3V	25A
+5V & +3.3V	40A
+5V & +3.3V & 12V	328 watts
PFC	Active
Efficiency	≥ 73%
Regulation	+/-5%

Connectors

Cable Length	19 in
Main connector	24 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	5
4 pin Floppy	1
SATA connector	2

Dimension

D x W x H	280x101x84 mm / 11 x 3.98 x 3.3 inch
Net Weight	9.5 lb

Safety/EMI/RFI
UL,cUL,TUV,
CB,CE,FCC

FCC-B,UL1950/6950
CB, TUV EN
60950 IEC950/1000
EN55022
CISPR22
EN61000 ISO9001
100,000 hours at full
load and 25°C
ambient temperature

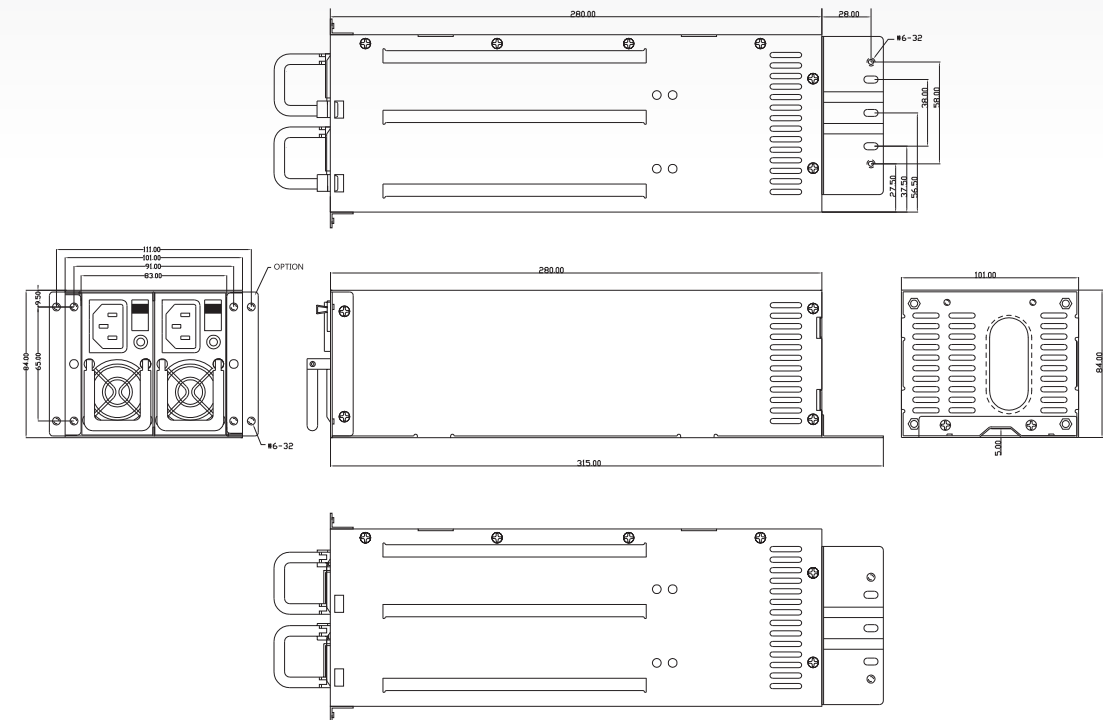
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-350R2U

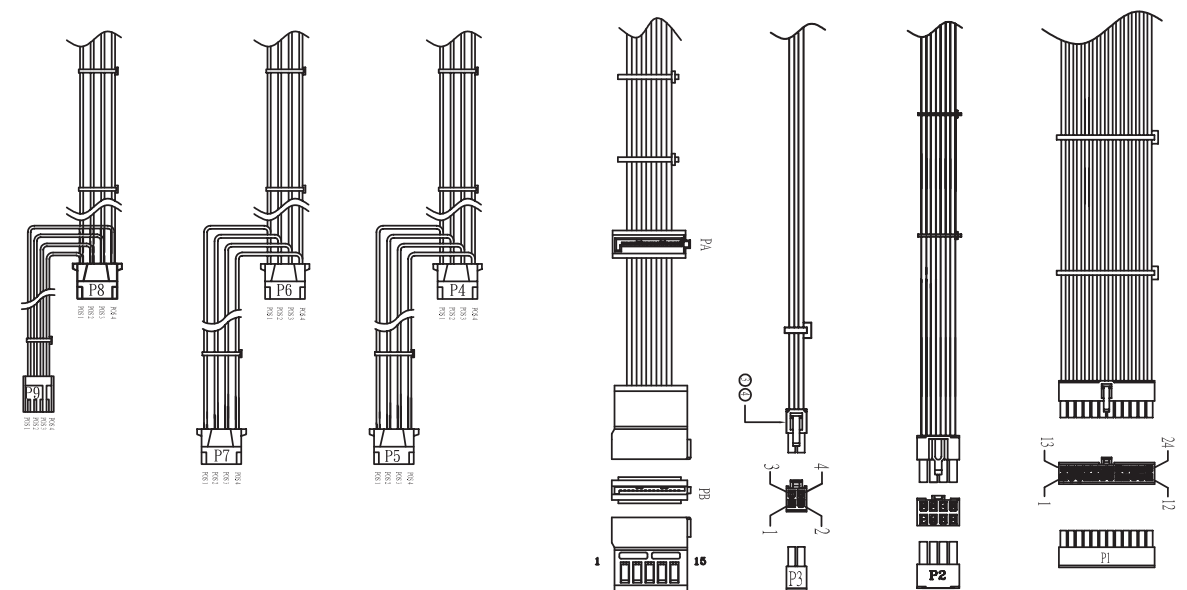
2U Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-400R2U

2U Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The TC-400R2U redundant power supply comes with dual AC inputs, triple circuit protections, and aluminum module housing. Active PFC ensures high efficiency and energy saving benefit. TC-400R2U provides the reliability and performance for your server and missing critical application.

- FEATURES -

- 400+400 watts total output power
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- Hot-Swappable PSU Zero down time
- Load Sharing design for smart stress and heat distribution Patent no. 136053
- 16ms Hold Up Time

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Input Voltage	100~240V Full Range
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	400 watts
+5V	25A
+12V	28A
+3.3V	25A
+5V & +3.3V	40A
+5V & +3.3V & 12V	378 watts
PFC	Active
Efficiency	≥ 73%
Regulation	+/-5%

Connectors

Cable Length	19 in
Main connector	24 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	5
4 pin Floppy	1
SATA connector	2

Dimension

D x W x H	280x101x84 mm / 11 x 3.98 x 3.3 inch
Net Weight	9.5 lb

Safety/EMI/RFI
UL,cUL,TUV,
CB,CE,FCC

FCC-B,UL1950/6950
CB, TUV EN
60950 IEC950/1000
EN55022
CISPR22
EN61000 ISO9001
100,000 hours at full
load and 25°C
ambient temperature

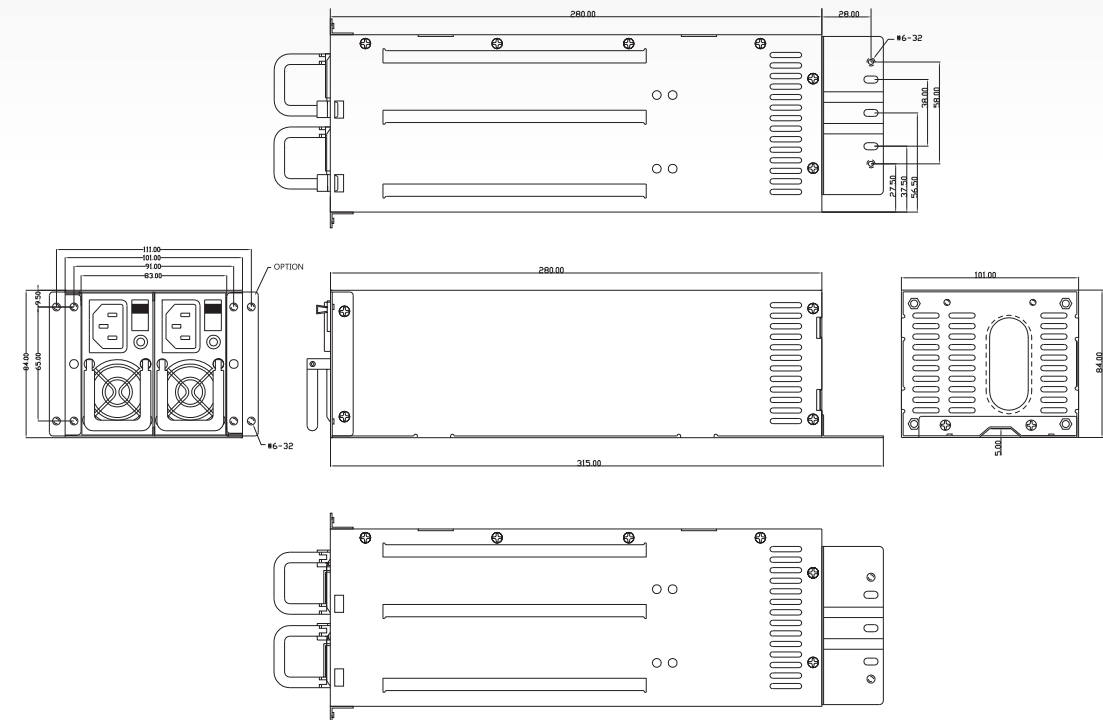
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-400R2U

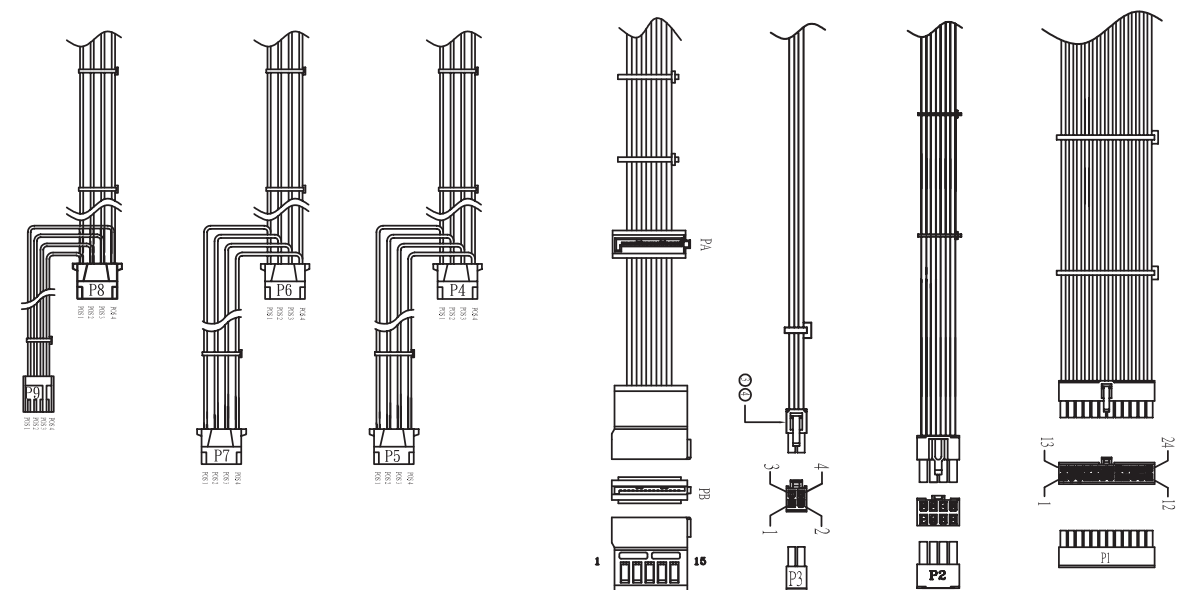
2U Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

TC-550RVN2

2/3U Type N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RVN2 Series of hot swappable high-density redundant power supply offer a maximum 550~700watts of output power. The RVN2 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 2/3U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	10A For 115VAC, 5A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	1A	32A	5%	1%	50mV
+3.3V	1A	25A	5%	1%	50mV
+12V	3A	38A	5%	1%	70mV
-12V	0A	1.0A	10%	1%	70mV
+5VSB	0.1A	3.0A	5%	1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 200W
2.Power module Total output power not exceed 550W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Over power protection / Short circuit protection
Over temperature protection / Load sharing / Hot-swap procedures / TTL Signal
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A. CISPR22 (EN55022)class A

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 84 mm / 11.8 x 4 x 3.3 inch

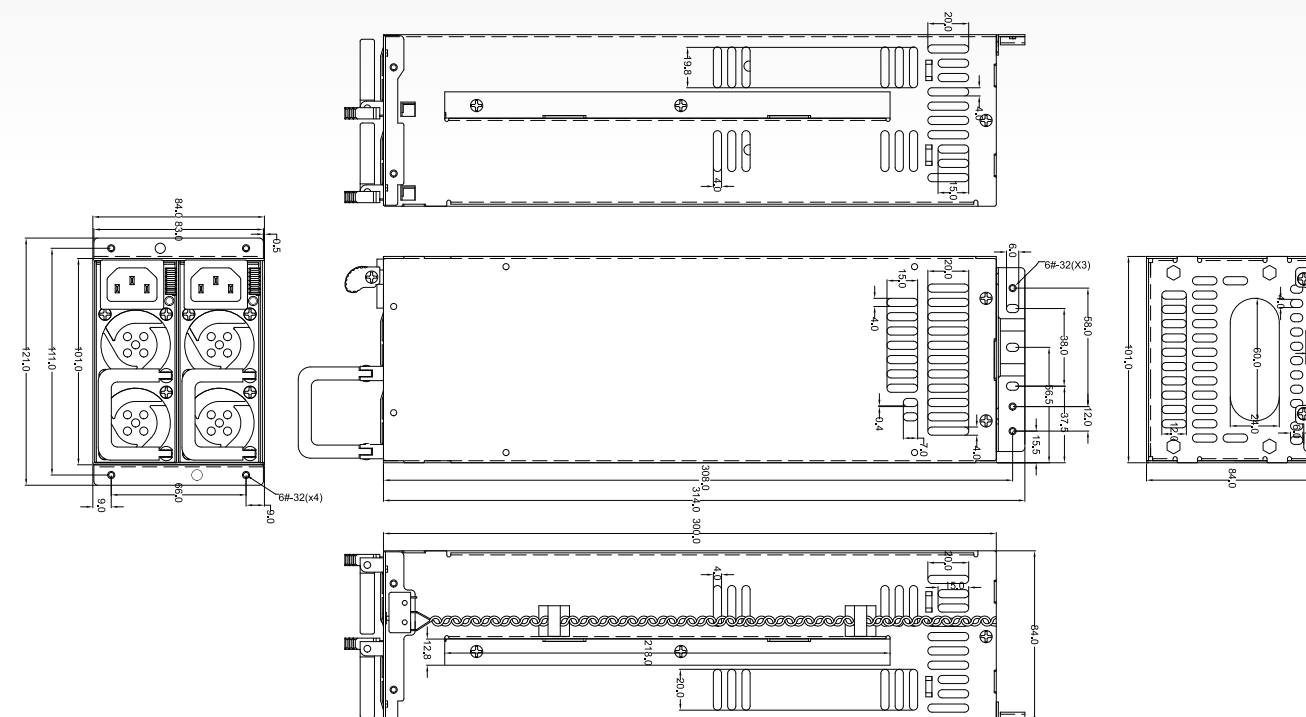
TC-550RVN2

2/3U Type N+1 Redundant Power Supply

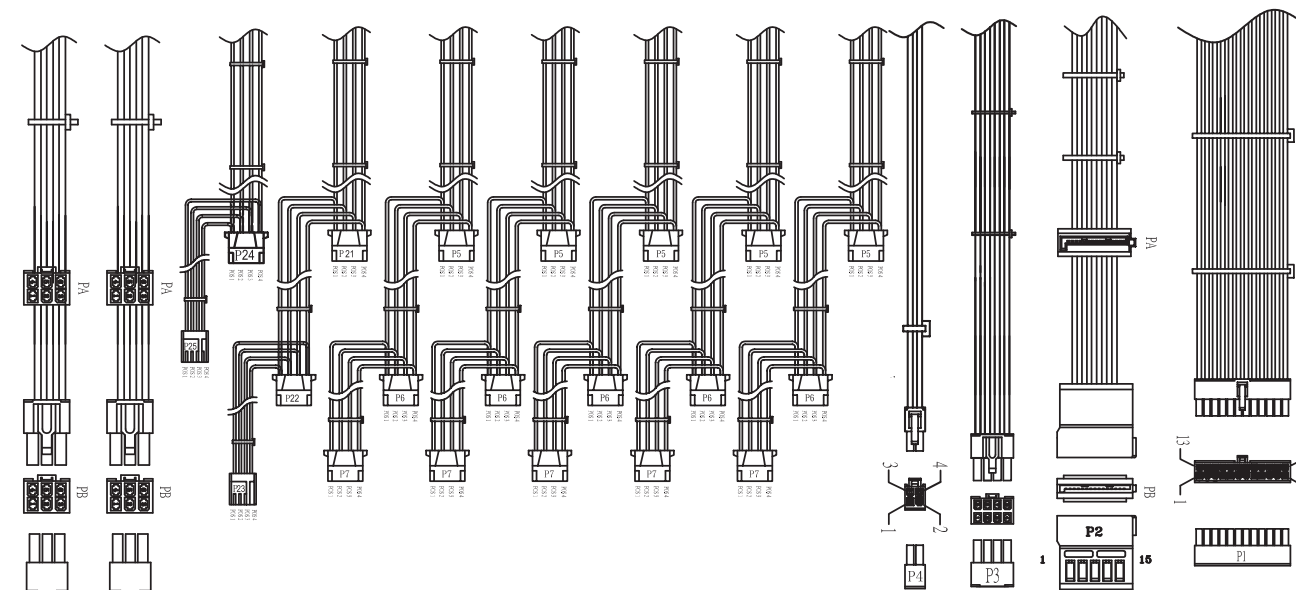


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

TC-600RVN2

2/3U Type N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RVN2 Series of hot swappable high-density redundant power supply offer a maximum 550~700watts of output power. The RVN2 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 2/3U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	12A For 115VAC, 6A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
+5V	1A	32A	5% 1%	50mV
+3.3V	1A	25A	5% 1%	50mV
+12V	3A	42A	5% 1%	70mV
-12V	0A	1.0A	10% 1%	70mV
+5VSB	0.1A	3.0A	5% 1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 200W
2.Power module Total output power not exceed 600W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Over power protection / Short circuit protection
Over temperature protection / Load sharing / Hot-swap procedures / TTL Signal
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A. CISPR22 (EN55022)class A

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 84 mm / 11.8 x 4 x 3.3 inch

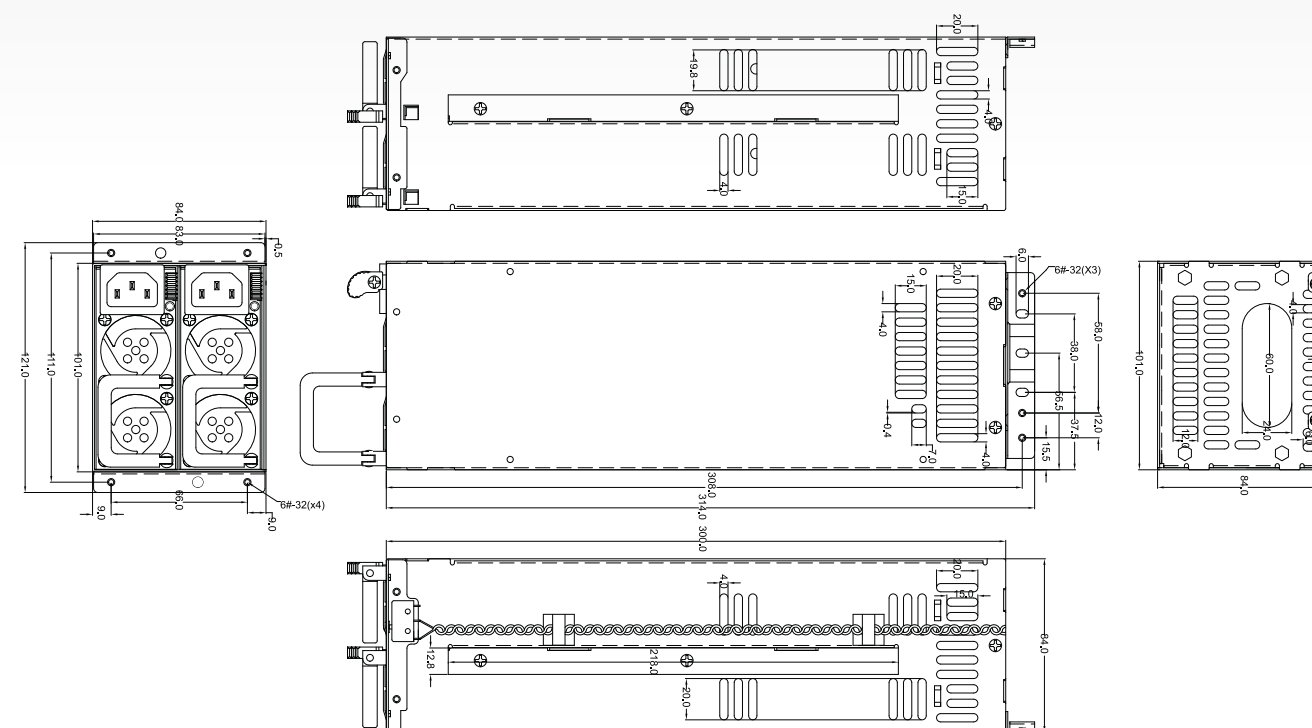
TC-600RVN2

2/3U Type N+1 Redundant Power Supply

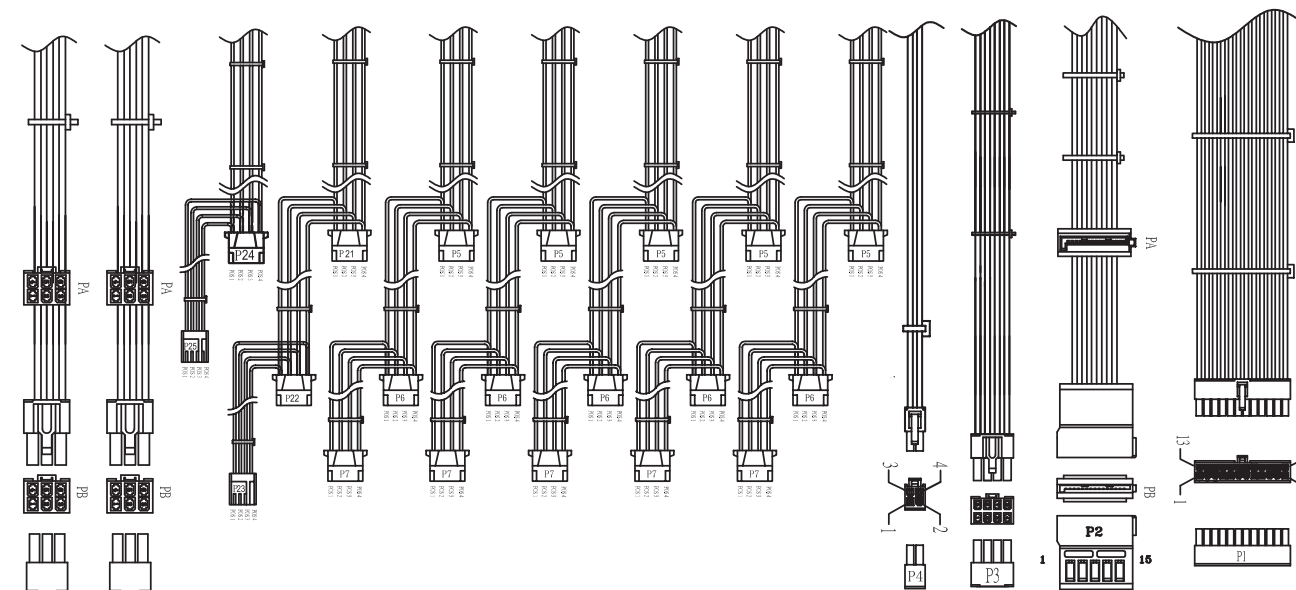


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

TC-650RVN2

2/3U Type N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RVN2 Series of hot swappable high-density redundant power supply offer a maximum 550~700watts of output power. The RVN2 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 2/3U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	12A For 115VAC, 6A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation		Output Ripple & Noise Max.(p-p)
	Min.	Max.	LOAD LINE		
+5V	1A	32A	5%	1%	50mV
+3.3V	1A	25A	5%	1%	50mV
+12V	3A	46A	5%	1%	70mV
-12V	0A	1.0A	10%	1%	70mV
+5VSB	0.1A	3.0A	5%	1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 200W
2.Power module Total output power not exceed 650W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Over power protection / Short circuit protection
Over temperature protection / Load sharing / Hot-swap procedures / TTL Signal
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A. CISPR22 (EN55022)class A

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 84 mm / 11.8 x 4 x 3.3 inch

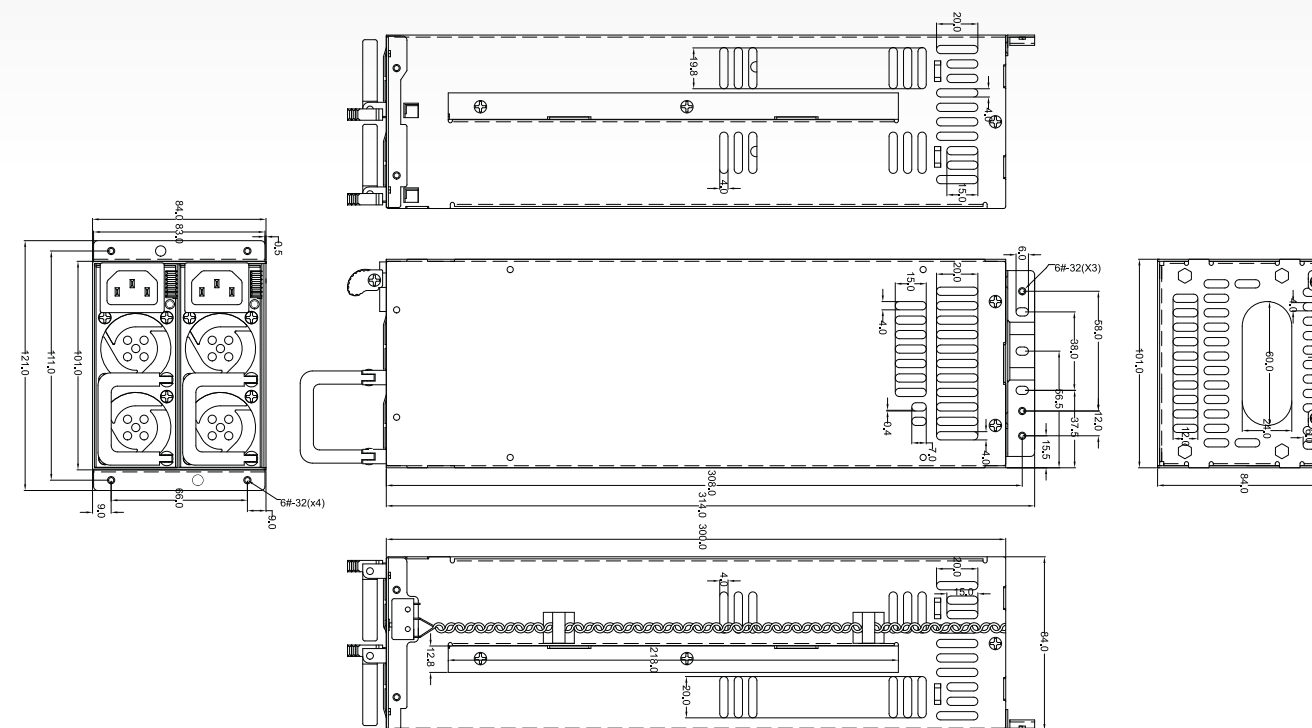
TC-650RVN2

2/3U Type N+1 Redundant Power Supply

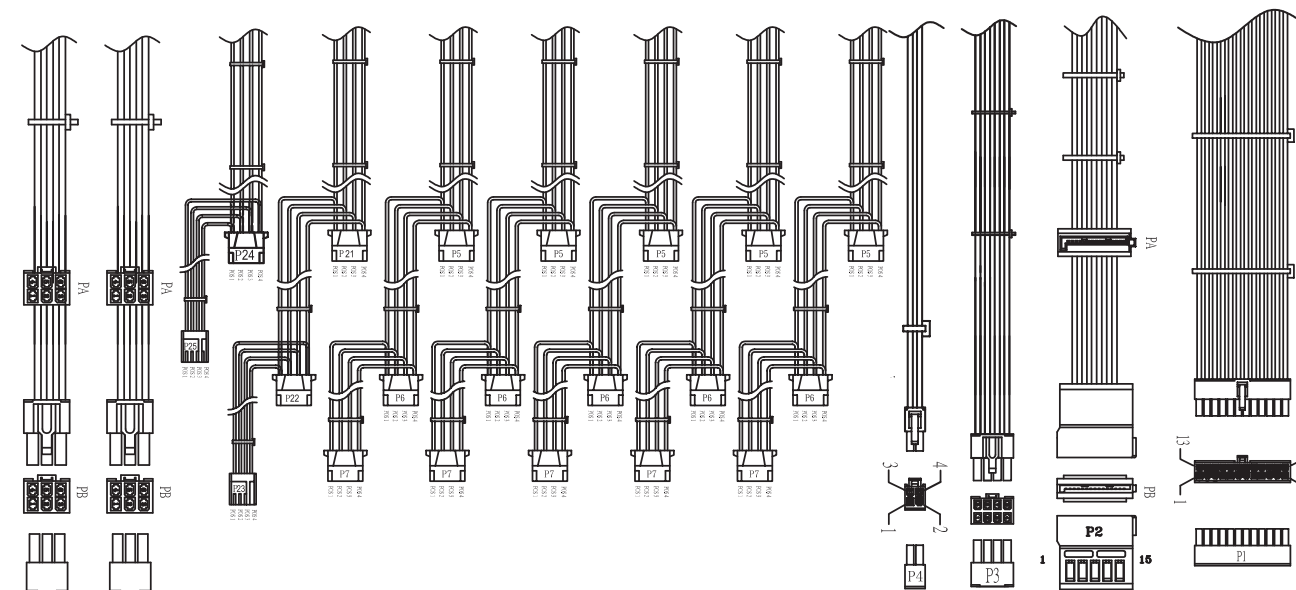


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

TC-700RVN2

2/3U Type N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RVN2 Series of hot swappable high-density redundant power supply offer a maximum 550~700watts of output power. The RVN2 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 2/3U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	12A For 115VAC, 6A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	1A	32A	5%	1%	50mV
+3.3V	1A	25A	5%	1%	50mV
+12V	3A	52A	5%	1%	70mV
-12V	0A	1.0A	10%	1%	70mV
+5VSB	0.1A	3.0A	5%	1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 200W
2.Power module Total output power not exceed 700W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Over power protection / Short circuit protection
Over temperature protection / Load sharing / Hot-swap procedures / TTL Signal
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A. CISPR22 (EN55022)class A

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 84 mm / 11.8 x 4 x 3.3 inch

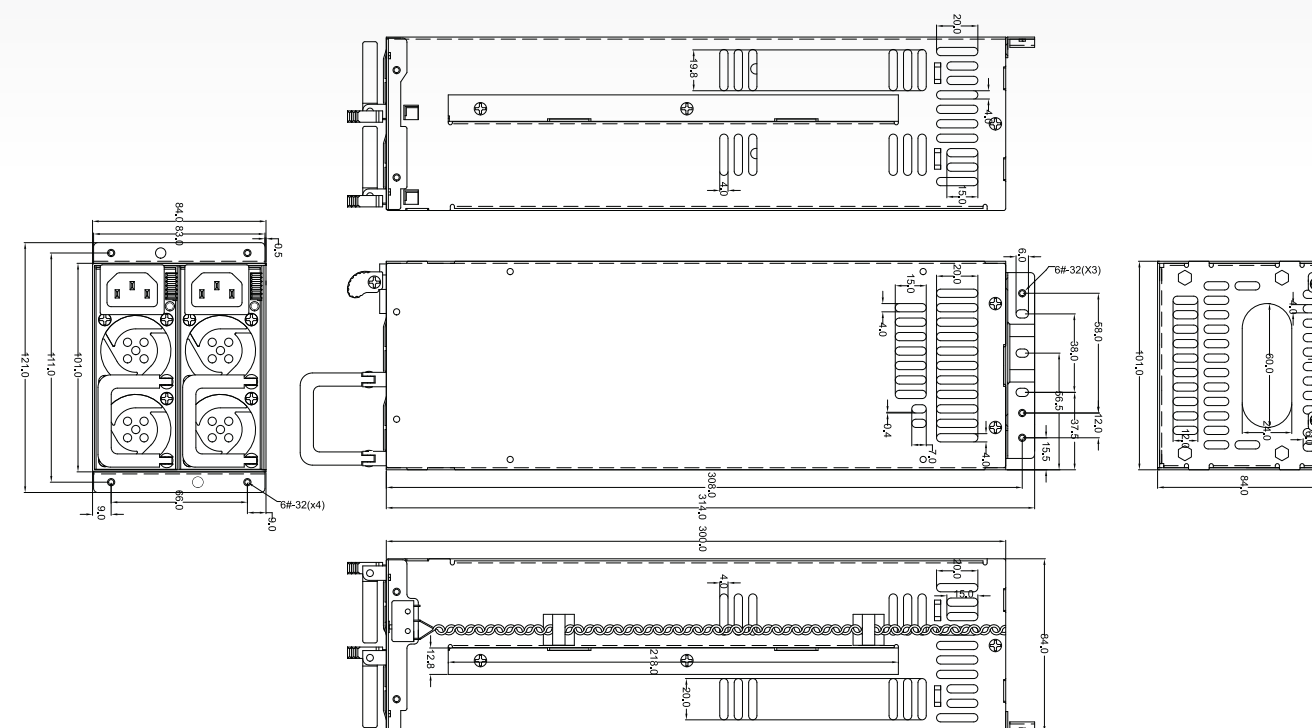
TC-700RVN2

2/3U Type N+1 Redundant Power Supply

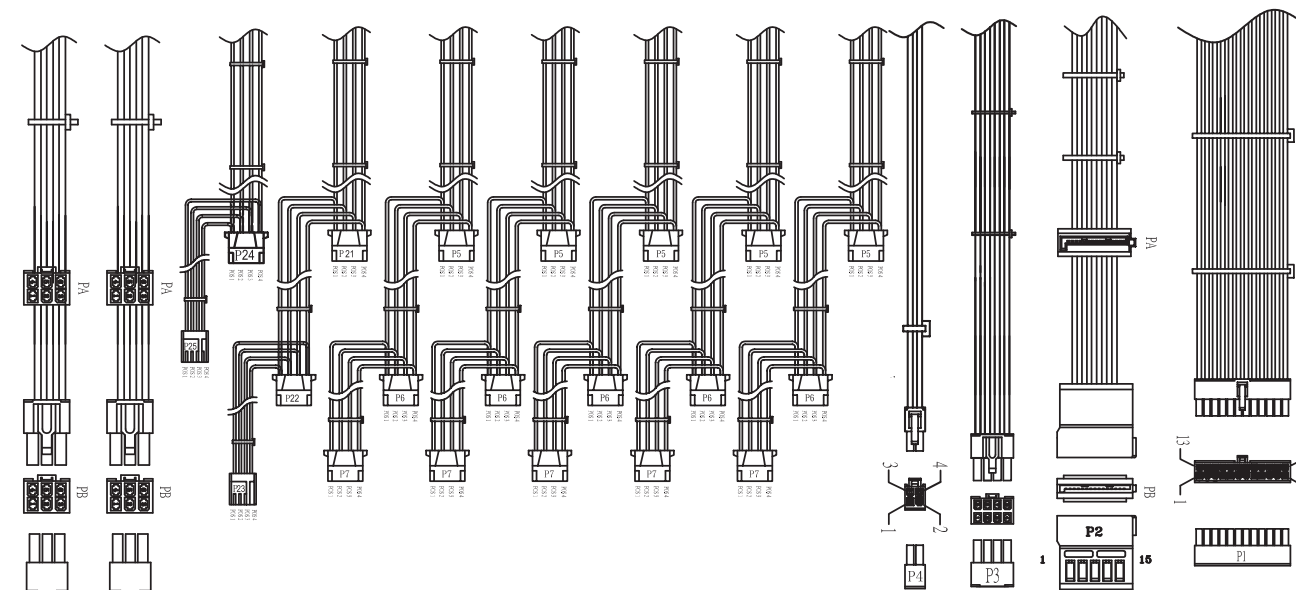


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

R2A-460D1V2

2U High Efficiency Redundant Power Supply



Power Module

- INTRODUCTION -

This specification describes the performance characteristics of a 460 watts hot swappable, 1+1 power system with +3.3V, +5V, +12V, -12V main DC outputs, and 5V standby outputs. The system is configured to hold two identical 460W power supply modules

- FEATURES -

- 2U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- High Efficiency
- Short Depth

- ELECTRICAL SPECIFICATIONS -

Input Ratings				
Input Voltage	100~240VAC, +/-10%			
Input Current	10A For 115VAC, 5A For 230VAC			
Input Frequency	47Hz ~ 63Hz			

Output Ratings				
Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	+/-5%	60mV
+3.3V	1A	25A	+/-5%	60mV
+12V	1A	36A	+/-5%	120mV
-12V	0A	1.0A	+/-5%	120mV
+5VSB	0.5A	3.0A	+/-5%	50mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 170W
2.Power module Total output power not exceed 460W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Under-voltage protection / Over current protection
Short circuit protection / Thermal Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	200ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 95%,non-condensing
Altitude	Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards	- IEC 60950-1
	- TUV EN 60950-1
	- UL or cUL BSMI CCC

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	265 x 101 x 84 mm / 10.4 x 4 x 3.3 inch

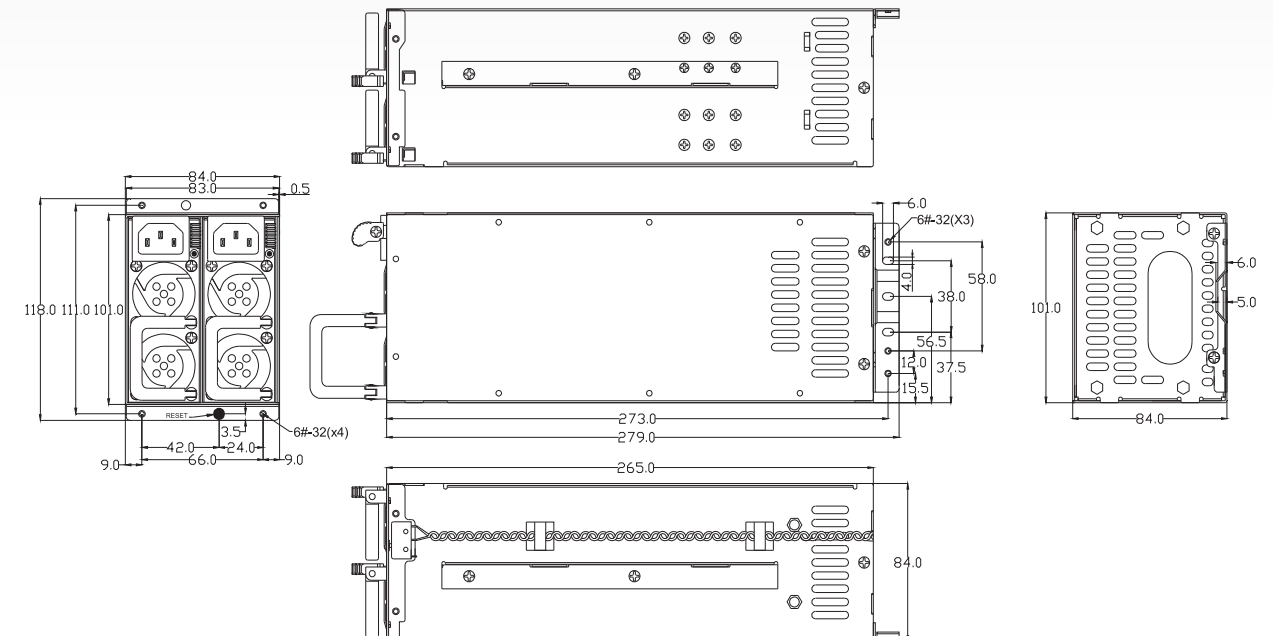
R2A-460D1V2

2U High Efficiency Redundant Power Supply

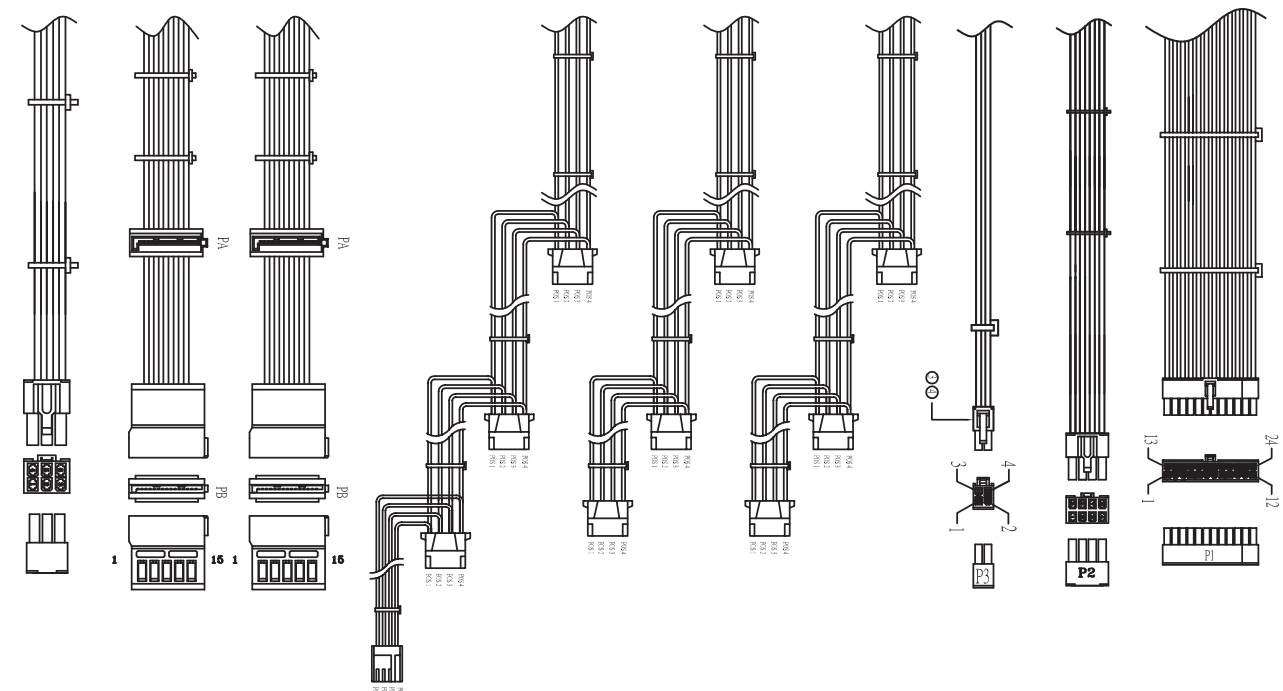


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





R2A-500D1V2

2U High Efficiency Redundant Power Supply



- INTRODUCTION -

This specification describes the performance characteristics of a 500 watts hot swappable, 1+1 power system with +3.3V,+5V,+12V, -12V main DC outputs, and 5V standby outputs. The system is configured to hold two identical 500W power supply modules

- FEATURES -

- 2U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- High Efficiency
- Short Depth

- ELECTRICAL SPECIFICATIONS -

Input Ratings				
Input Voltage	100~240VAC,+/-10%			
Input Current	10A For 115VAC, 5A For 230VAC			
Input Frequency	47Hz ~ 63Hz			

Output Ratings				
Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	+/-5%	60mV
+3.3V	1A	25A	+/-5%	60mV
+12V	1A	40A	+/-5%	120mV
-12V	0A	1.0A	+/-5%	120mV
+5VSB	0.5A	3.5A	+/-5%	50mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 170W
2.Power module Total output power not exceed 500W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Under-voltage protection / Over current protection
Short circuit protection / Thermal Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	200ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 95%,non-condensing
Altitude	Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards	- IEC 60950-1
	- TUV EN 60950-1
	- UL or cUL BSMI CCC

Others

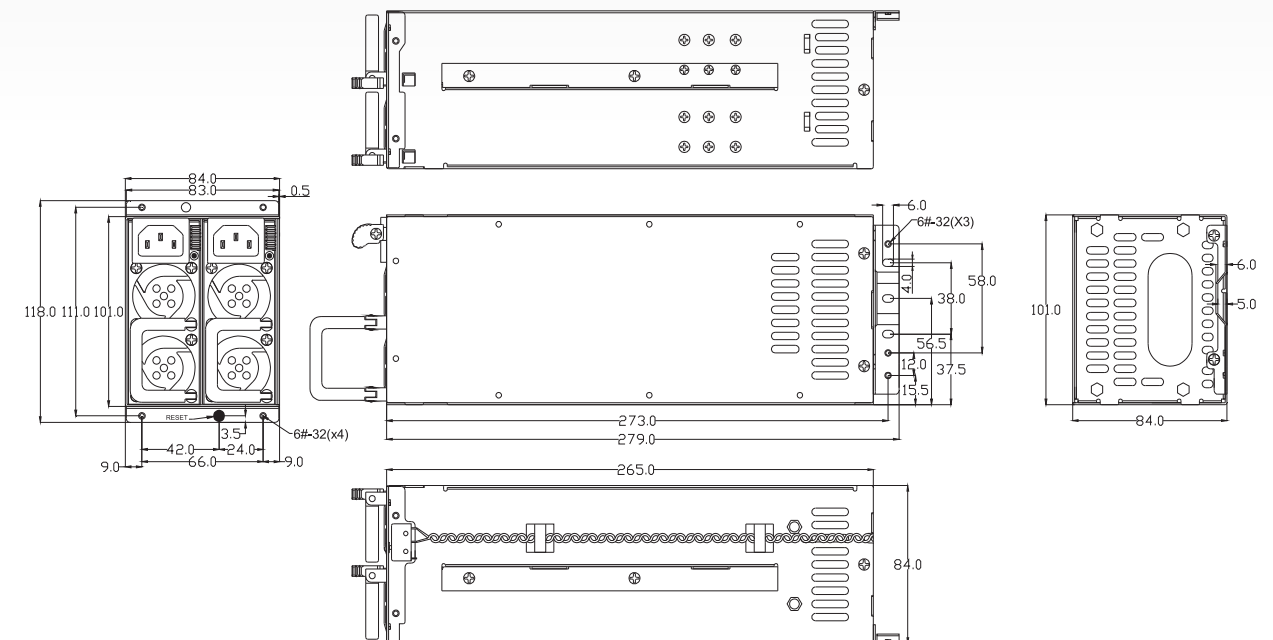
MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	265 x 101 x 84 mm / 10.4 x 4 x 3.3 inch

R2A-500D1V2

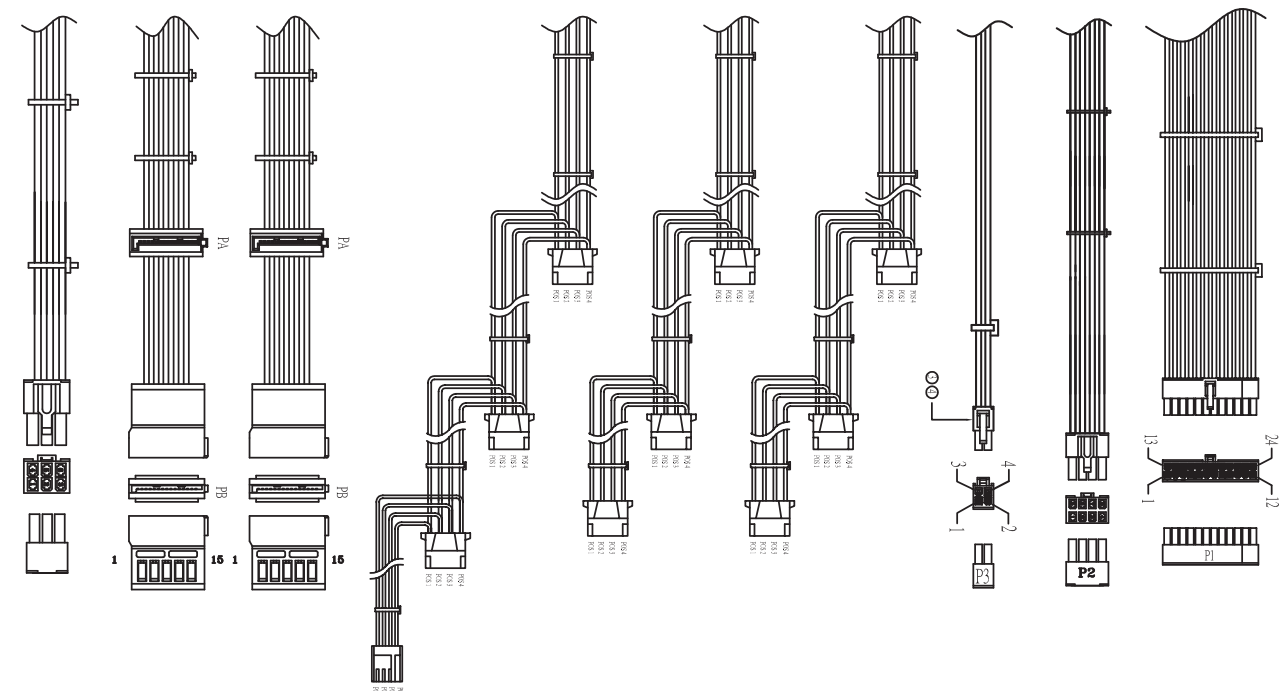
2U High Efficiency Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

R2A-550D1V2

2U High Efficiency Redundant Power Supply



Power Module

- INTRODUCTION -

This specification describes the performance characteristics of a 550 watts hot swappable, 1+1 power system with +3.3V,+5V,+12V, -12V main DC outputs, and 5V standby outputs. The system is configured to hold two identical 550W power supply modules

- FEATURES -

- 2U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- High Efficiency
- Short Depth

- ELECTRICAL SPECIFICATIONS -

Input Ratings				
Input Voltage	100~240VAC,+/-10%			
Input Current	10A For 115VAC, 5A For 230VAC			
Input Frequency	47Hz ~ 63Hz			

Output Ratings				
Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	+/-5%	60mV
+3.3V	1A	25A	+/-5%	60mV
+12V	1A	45A	+/-5%	120mV
-12V	0A	1.0A	+/-5%	120mV
+5VSB	0.5A	3.5A	+/-5%	50mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 180W

2.Power module Total output power not exceed 550W

3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Under-voltage protection / Over current protection

Short circuit protection / Thermal Protection

Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal 200ms~500ms, TTL compatible signal

Power Fail Delay >1msec.,TTL compatible signal

Remote ON/OFF Control when input signal*PSON is active

Environmental

Operating Temperature 0°C to 40°C

Storage Temperature -20°C to +70°C

Humidity Operating: 5% to 95%,non-condensing

Altitude Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards - IEC 60950-1

- TUV EN 60950-1

- UL or cUL BSMI CCC

Others

MTBF >100,000 hours

Coolings DC FANS on Each Module

Dimension(D x W x H) 265 x 101 x 84 mm / 10.4 x 4 x 3.3 inch

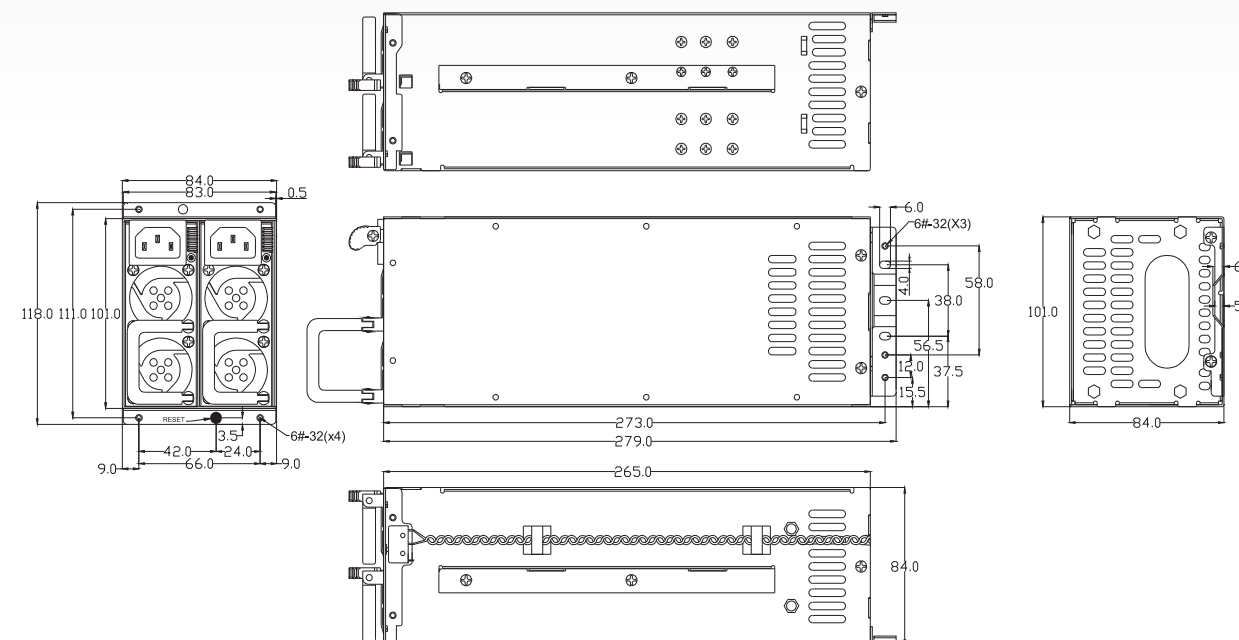
R2A-550D1V2

2U High Efficiency Redundant Power Supply

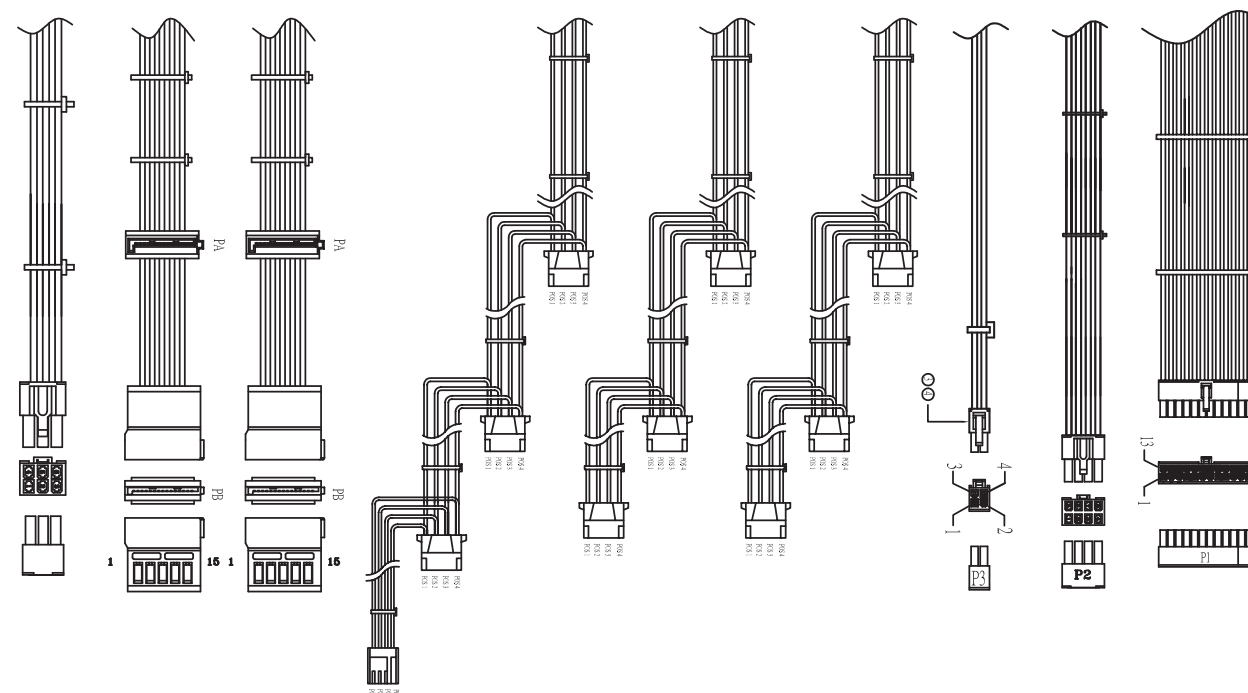


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

R2A-600D1V2

2U High Efficiency Redundant Power Supply



Power Module

- INTRODUCTION -

This specification describes the performance characteristics of a 600 watts hot swappable, 1+1 power system with +3.3V, +5V, +12V, -12V main DC outputs, and 5V standby outputs. The system is configured to hold two identical 600W power supply modules

- FEATURES -

- 2U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- High Efficiency
- Short Depth

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	10A For 115VAC, 5A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation	Output Ripple & Noise Max.(p-p)
+5V	1A	25A	+/-5%	60mV
+3.3V	1A	25A	+/-5%	60mV
+12V	1A	49A	+/-5%	120mV
-12V	0A	1.0A	+/-5%	120mV
+5VSB	0.5A	3.5A	+/-5%	50mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 180W
2.Power module Total output power not exceed 550W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Under-voltage protection / Over current protection
Short circuit protection / Thermal Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	200ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 95%,non-condensing
Altitude	Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards	- IEC 60950-1
	- TUV EN 60950-1
	- UL or cUL BSMI CCC

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	265 x 101 x 84 mm / 10.4 x 4 x 3.3 inch

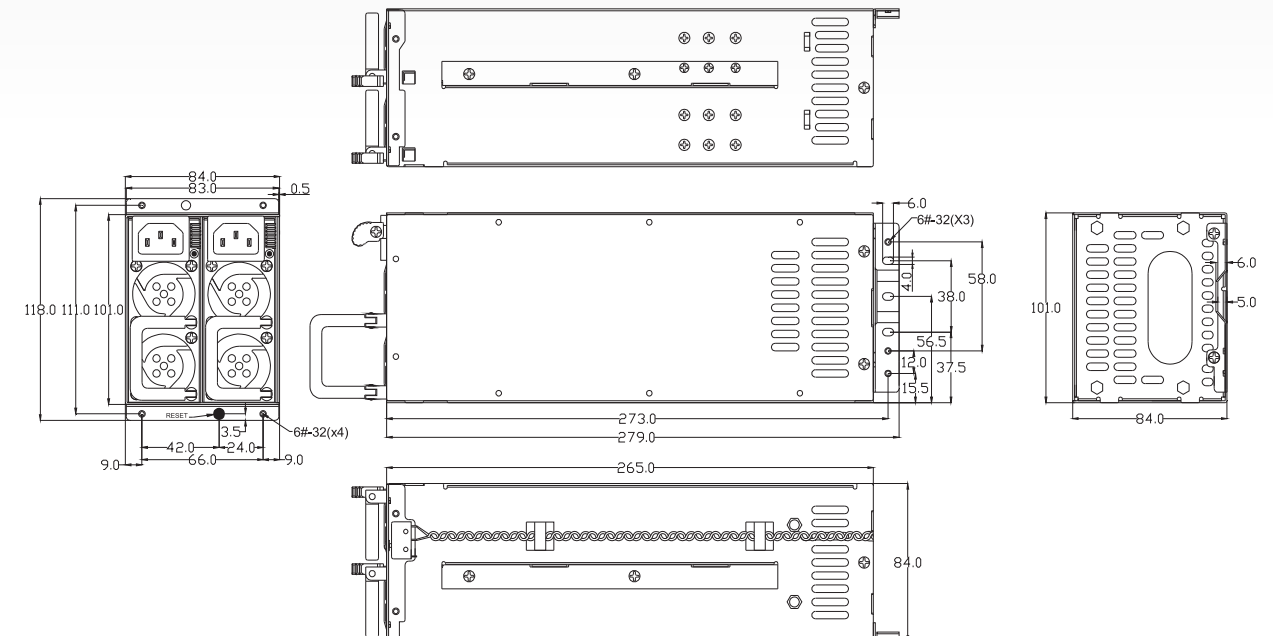
R2A-600D1V2

2U High Efficiency Redundant Power Supply

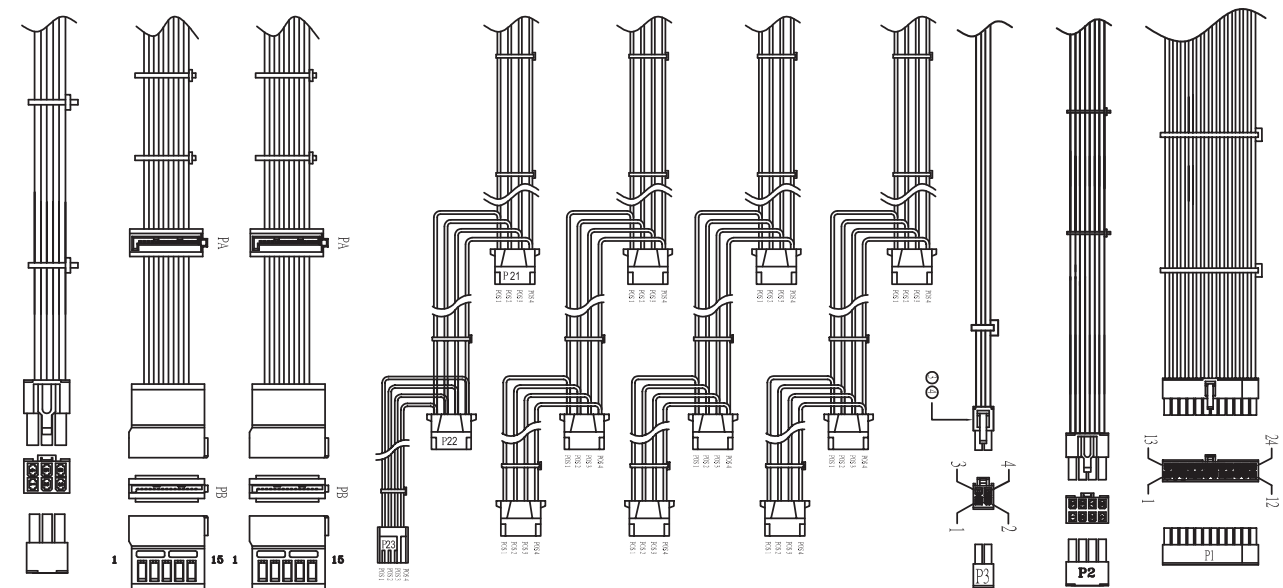


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

R2A-650D1V2

2U High Efficiency Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

This specification describes the performance characteristics of a 650 watts hot swappable, 1+1 power system with +3.3V, +5V, +12V, -12V main DC outputs, and 5V standby outputs. The system is configured to hold two identical 650W power supply modules

- FEATURES -

- 2U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- High Efficiency
- Short Depth

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%		
Input Current	10A For 115VAC, 5A For 230VAC		
Input Frequency	47Hz ~ 63Hz		

Output Ratings

Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	+/-5%	60mV
+3.3V	1A	25A	+/-5%	60mV
+12V	1A	53A	+/-5%	120mV
-12V	0A	1.0A	+/-5%	120mV
+5VSB	0.5A	3.5A	+/-5%	50mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 180W
2.Power module Total output power not exceed 650W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Under-voltage protection / Over current protection
Short circuit protection / Thermal Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	200ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 95%,non-condensing
Altitude	Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards	- IEC 60950-1
	- TUV EN 60950-1
	- UL or cUL BSMI CCC

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	265 x 101 x 84 mm / 10.4 x 4 x 3.3 inch

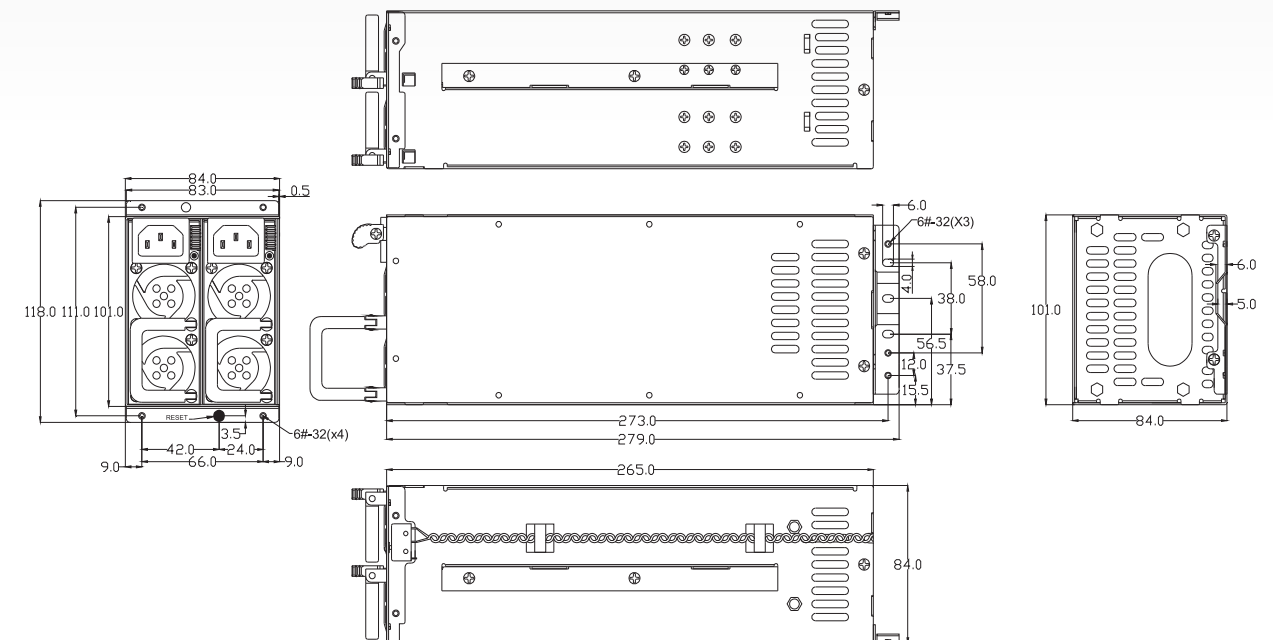
R2A-650D1V2

2U High Efficiency Redundant Power Supply

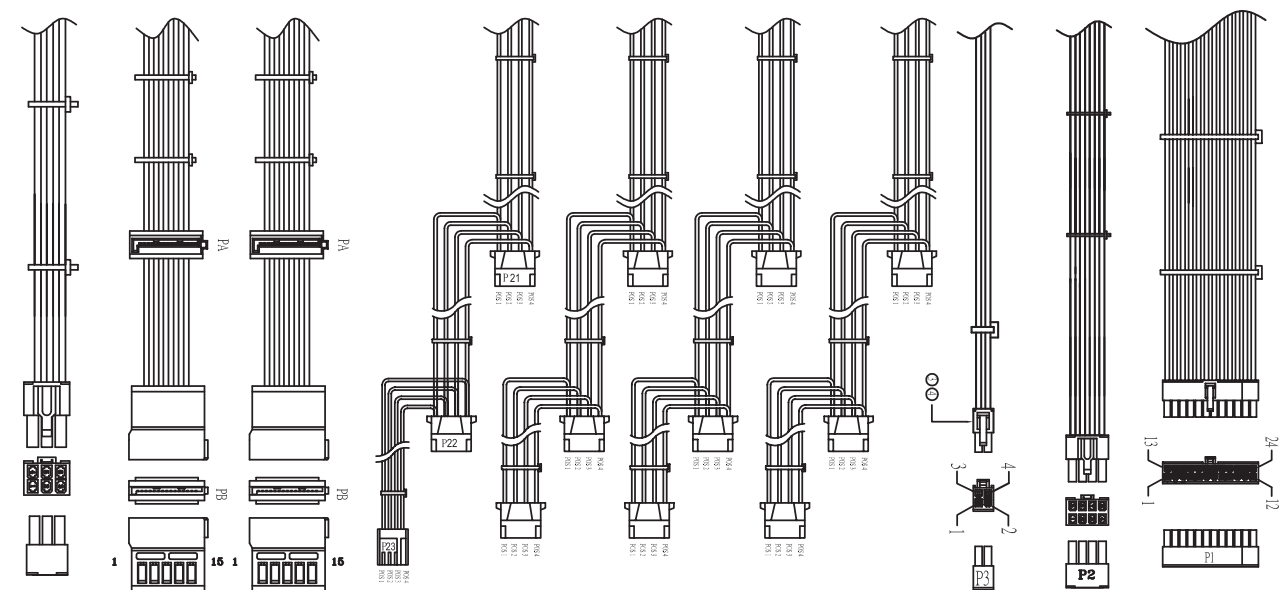


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





R2A-700D1V2

2U High Efficiency Redundant Power Supply



High Efficiency
SERIES

EPS
12V

ATX
12V

- INTRODUCTION -

This specification describes the performance characteristics of a 700 watts hot swappable, 1+1 power system with +3.3V, +5V, +12V, -12V main DC outputs, and 5V standby outputs. The system is configured to hold two identical 700W power supply modules

- FEATURES -

- 2U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- High Efficiency
- Short Depth

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%		
Input Current	10A For 115VAC, 5A For 230VAC		
Input Frequency	47Hz ~ 63Hz		

Output Ratings

Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	+/-5%	60mV
+3.3V	1A	25A	+/-5%	60mV
+12V	1A	57A	+/-5%	120mV
-12V	0A	1.0A	+/-5%	120mV
+5VSB	0.5A	3.5A	+/-5%	50mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 190W
2.Power module Total output power not exceed 700W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over voltage protection / Under-voltage protection / Over current protection
Short circuit protection / Thermal Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	200ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 95%,non-condensing
Altitude	Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards	- IEC 60950-1
	- TUV EN 60950-1
	- UL or cUL BSMI CCC

Others

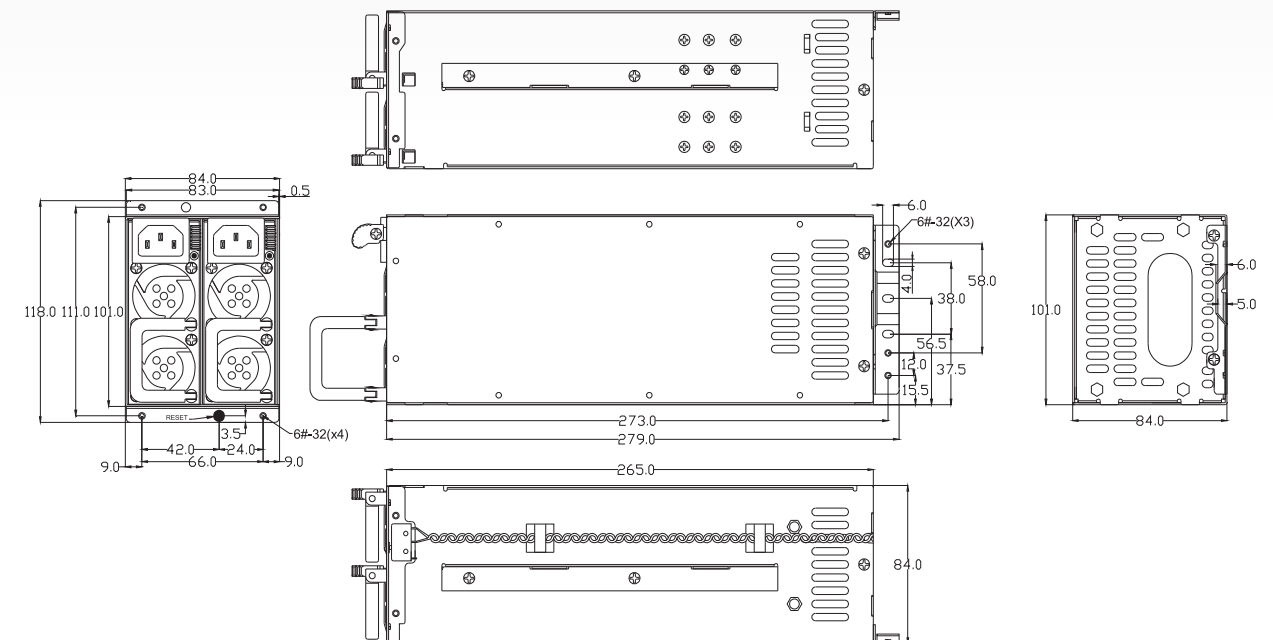
MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	265 x 101 x 84 mm / 10.4 x 4 x 3.3 inch

R2A-700D1V2

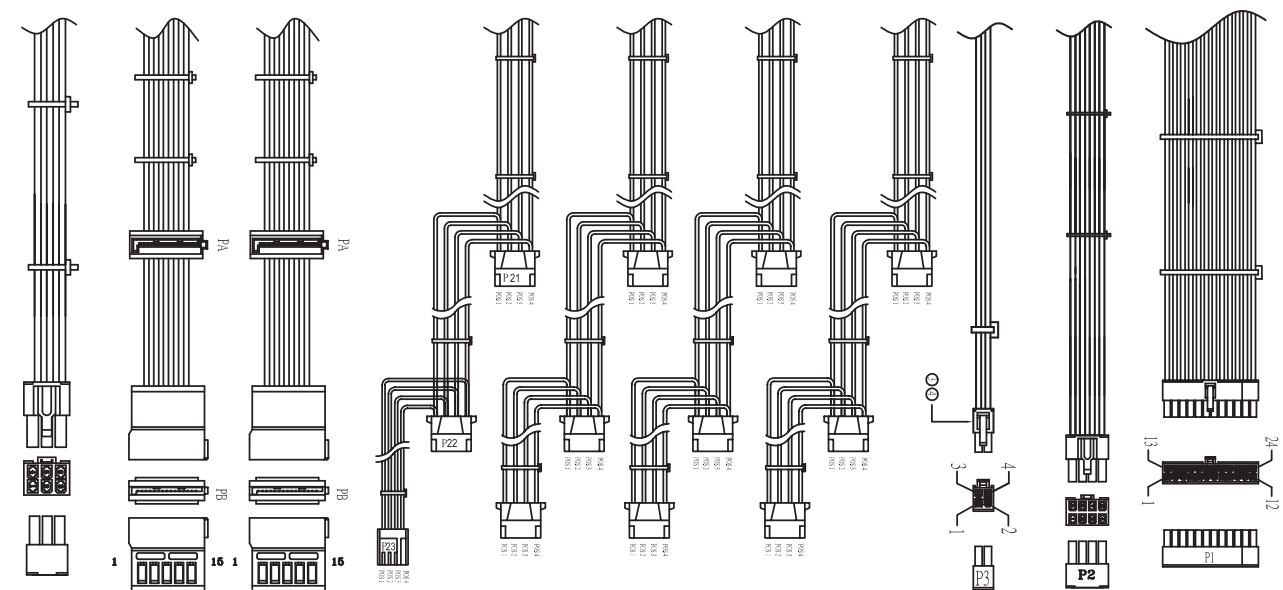
2U High Efficiency Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

R2A-600D1V2D

DC-DC 2U High Efficiency Redundant Power Supply



High Efficiency
SERIES

EPS
12V

ATX
12V

- INTRODUCTION -

This specification describes the performance characteristics of a 600 watts hot swappable, 1+1 power system with +3.3V,+5V,+12V, -12V main DC outputs, and 5V standby outputs. The system is configured to hold two identical 600W power supply modules

- FEATURES -

- 2U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 1+1 Power Modules
- Backplane Board
- High Efficiency
- Short Depth

- ELECTRICAL SPECIFICATIONS -

Input Ratings				
Input Voltage	-32VDC~72VDC			
Input Current	16A(RMS) For -48VDC			
Input Frequency	30A at -48VDC(at 25°C AMBIEND COLD START)			

Output Ratings				
Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	32A	+/-5%	60mV
+3.3V	1A	25A	+/-5%	60mV
+12V	1A	49A	+/-5%	120mV
-12V	0A	1.0A	+/-5%	120mV
+5VSB	0.1A	3.5A	+/-5%	50mV

Efficiency: 80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 180W
2.Power module Total output power not exceed 600W

Protections

Over voltage protection / Over Load protection

Short Circuit protection

Thermal Protection

Function

Power Good Signal 200ms~500ms, TTL compatible signal

Power Fail Delay >1msec.,TTL compatible signal

Remote ON/OFF Control when input signal*PSON is active

Environmental

Operating Temperature 0°C to 50°C

Storage Temperature -20°C to +80°C

Humidity Operating : 20% to 90%, non-condensing
Storage: 5% to 95%, non-condensing

Safety & EMI/RFI

Safety Standards - TO MEET CUL UL, TUV

EMI CONDUCTION - Compliance CISPR22 Class A, FCC Class A

Others

MTBF >100,000 hours

Coolings DC FANS on Each Module

Dimension(D x W x H) 265 x 101 x 84 mm / 10.4 x 4.0 x 3.3 inch

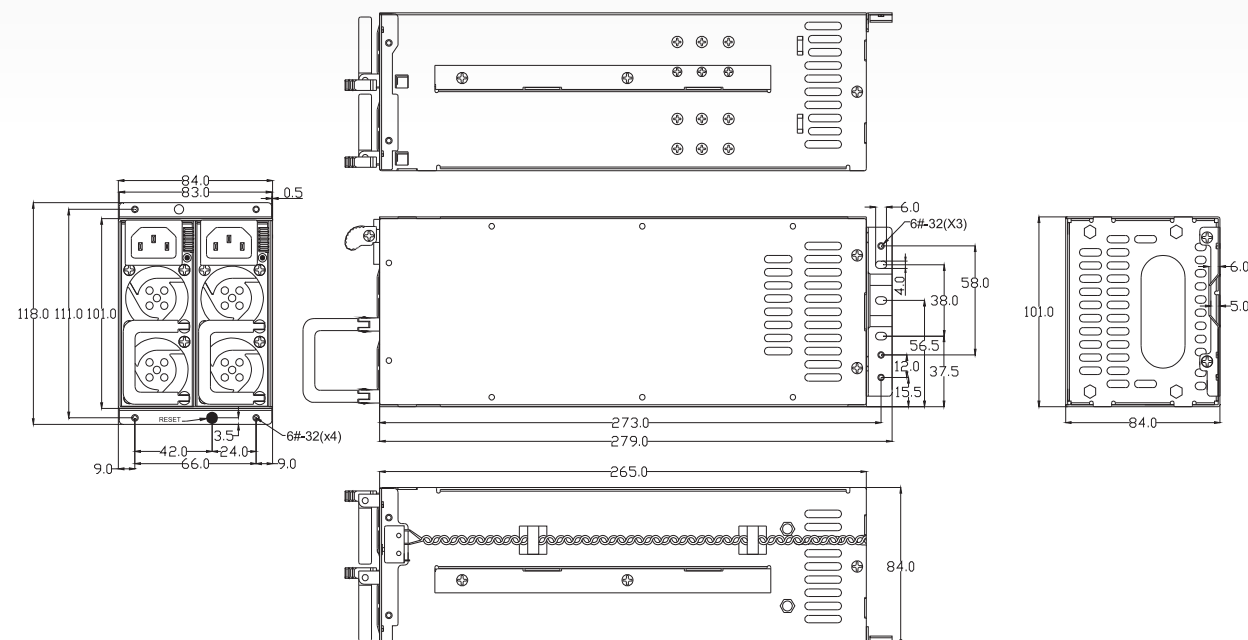
R2A-600D1V2D

DC-DC 2U High Efficiency Redundant Power Supply

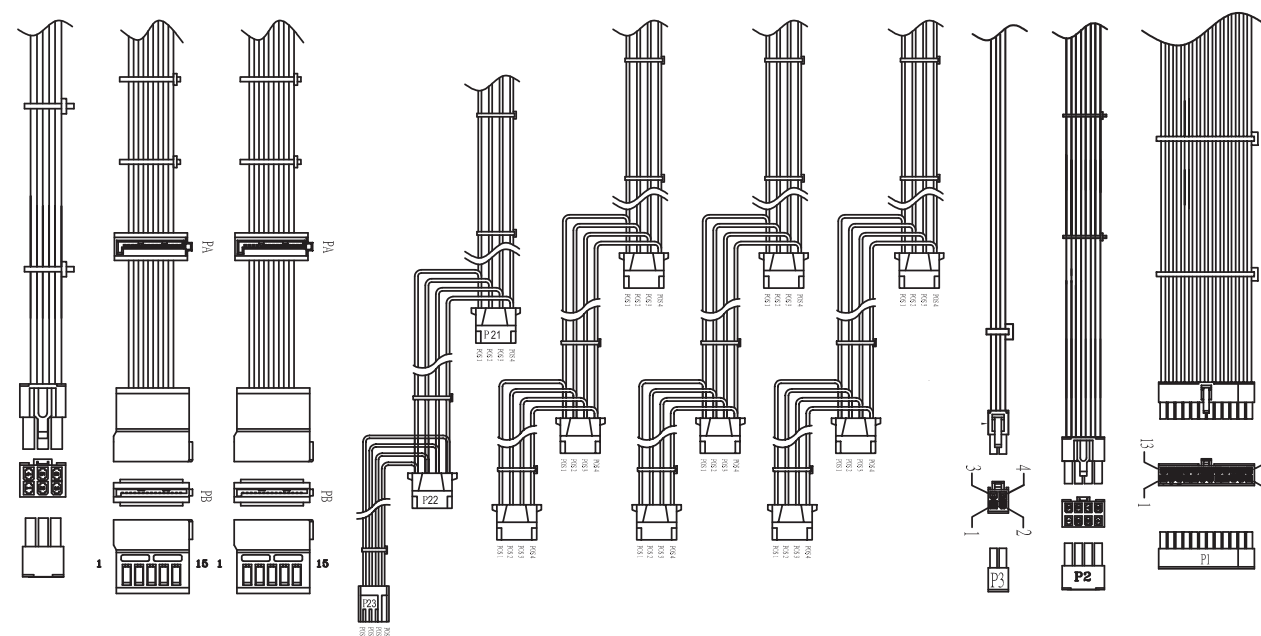


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-300R8

PS2 Mini Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The industrial graded TC-300R8 Mini Redundant Power Supply offers your server and workstation zero faults tolerant operation with hot swappable, status monitoring, and load sharing capability. The standard PS2 size also fits most of ATX chassis makes it an ideal choice for telecommunication, mail/web/data server, automation, embedded applications, and uninterruptible systems. Passive PFC design provides cost effective yet reliable performance.

- FEATURES -

- 300+300 watts total output power
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- Hot-Swappable PSU Zero down time Patent no. Germany
- Load Sharing design for smart stress and heat distribution Patent no. 136053
- 16ms Hold Up Time

- ELECTRICAL SPECIFICATIONS -

Specification	
Form Factor	EPS 12V
Input Voltage	90~132V/180~264V Auto Select
Input Frequency	47Hz~63Hz

Output Rating	
Total Watts	300 watts
+5V	30A
+12V	15A
+3.3V	24A
+5V & +3.3V	150 watts
+5V & +3.3V & +12V	275 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors	
Cable Length	19 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	7
4 pin Floppy	1

Dimension	
D x W x H	174x150x86 mm / 6.9 x 5.9 x 3.4 inch
Net Weight	9 lb
Safety/EMI/RFI	FCC-B,UL1950/6950
UL,cUL,TUV,	CB,TUV EN
CB,CE,FCC	60950 IEC950/1000
	EN55022
	CISPR22
	EN61000 ISO9001
MTBF	100,000 hours at full load and 25°C ambient temperature

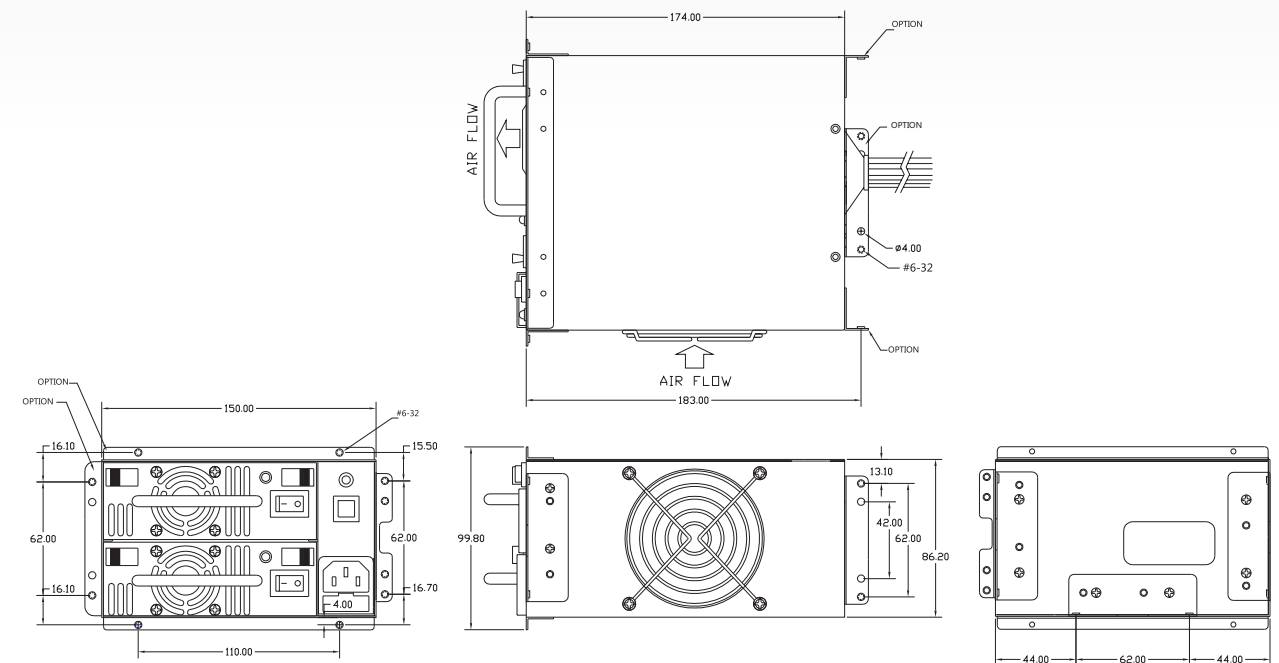
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-300R8

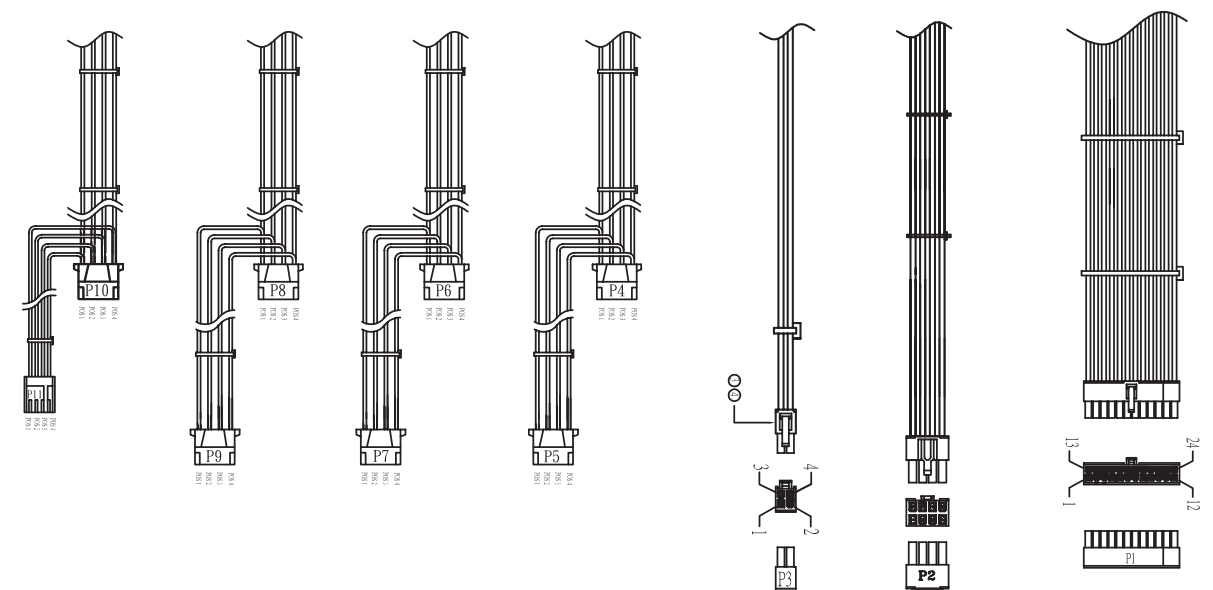
PS2 Mini Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-400R8

PS2 Mini Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The industrial graded TC-400R8 Mini Redundant Power Supply offers your server and workstation zero faults tolerant operation with hot swappable, status monitoring, and load sharing capability. The standard PS2 size also fits most of ATX chassis makes it an ideal choice for telecommunication, mail/web/data server, automation, embedded applications, and uninterruptible systems. Passive PFC design provides cost effective yet reliable performance.

- FEATURES -

- 300+300 watts total output power
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- Hot-Swappable PSU Zero down time Patent no. Germany
- Load Sharing design for smart stress and heat distribution Patent no. 136053
- 16ms Hold Up Time

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Input Voltage	90~132V/180~264V Auto Select
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	400 watts
+5V	35A
+12V	18A
+3.3V	24A
+5V & +3.3V	170 watts
+5V & +3.3V & +12V	375 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors

Cable Length	19 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	7
4 pin Floppy	1

Dimension

D x W x H	174x150x86 mm / 6.9 x 5.9 x 3.4 inch
Net Weight	9 lb

Safety/EMI/RFI	FCC-B,UL1950/6950
UL,cUL,TUV,	CB,TUV EN
CB,CE,FCC	60950 IEC950/1000
	EN55022
	CISPR22
	EN61000 ISO9001

MTBF	100,000 hours at full load and 25°C ambient temperature
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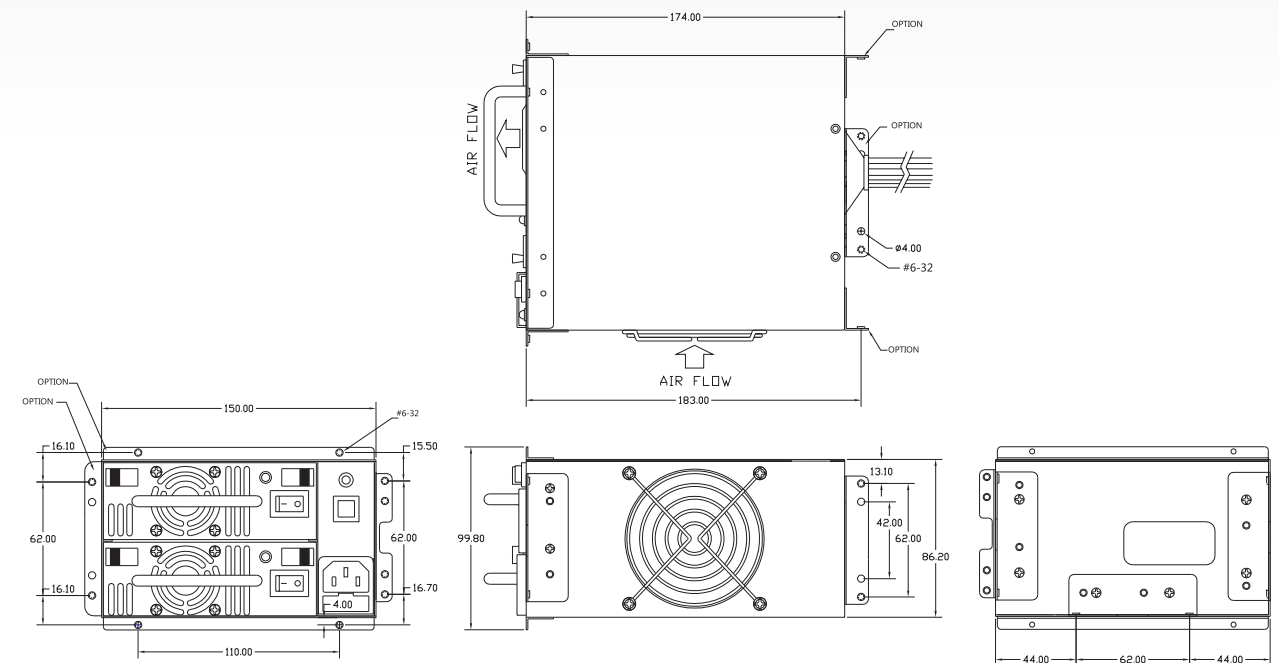
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-400R8

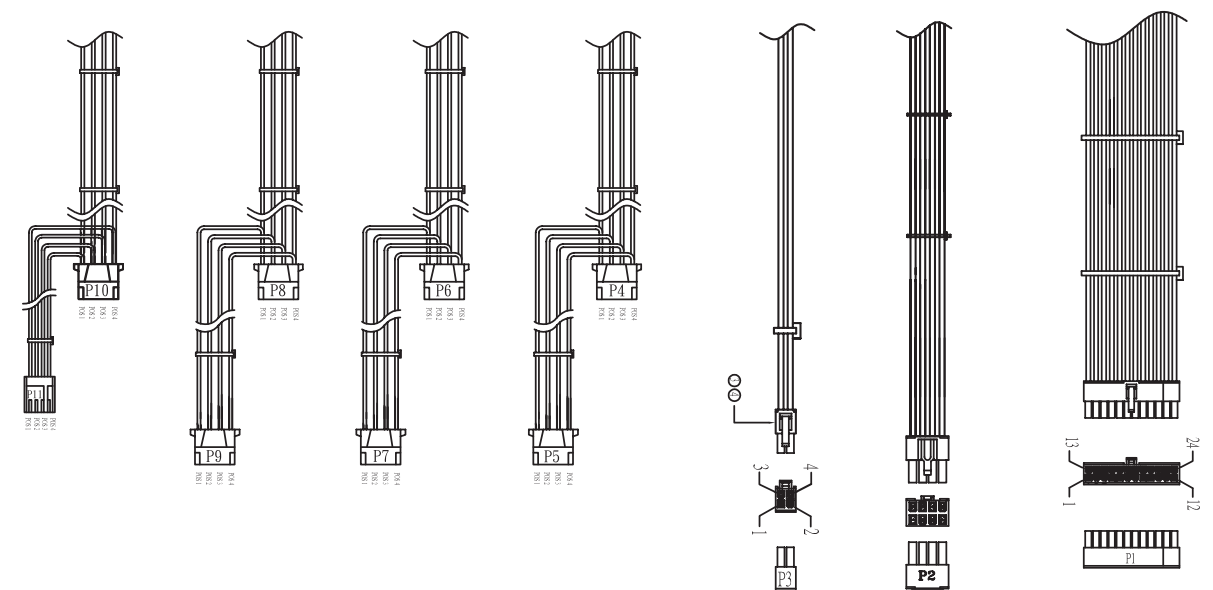
PS2 Mini Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-300R8A

PS2 Mini Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the true dual AC input Mini Redundant Power Supply. The TC-300R8A has full redundancy function even with only one AC source. It has standard PFC, hot swappable power modules and load sharing capability. High performance cooling system with 4 fans and air cell vent.

- FEATURES -

- 300+300 watts total output power
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- Hot-Swappable PSU Zero down time
- Load Sharing design for smart stress and heat distribution Patent no. 136053
- 16ms Hold Up Time

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Input Voltage	90~132V/180~264V Auto Select
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	3000 watts
+5V	30A
+12V	15A
+3.3V	24A
+5V & +3.3V	150 watts
+5V & +3.3V & +12V	275 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors

Cable Length	19 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	7
4 pin Floppy	1

Dimension

D x W x H	200x150x86 mm / 7.8 x 5.9 x 3.4 inch
Net Weight	8.4 lb

Safety/EMI/RFI
UL,cUL,TUV,
CB,CE,FCC

100,000 hours at full
load and 25°C
ambient temperature

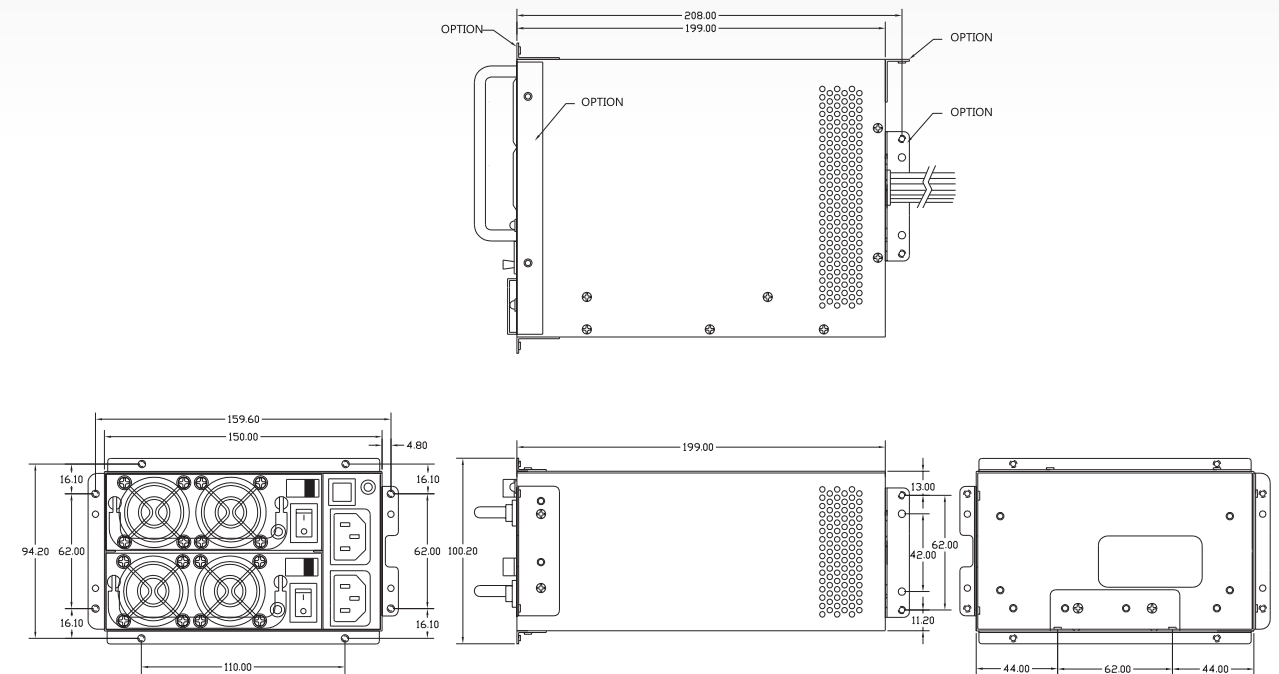
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-300R8A

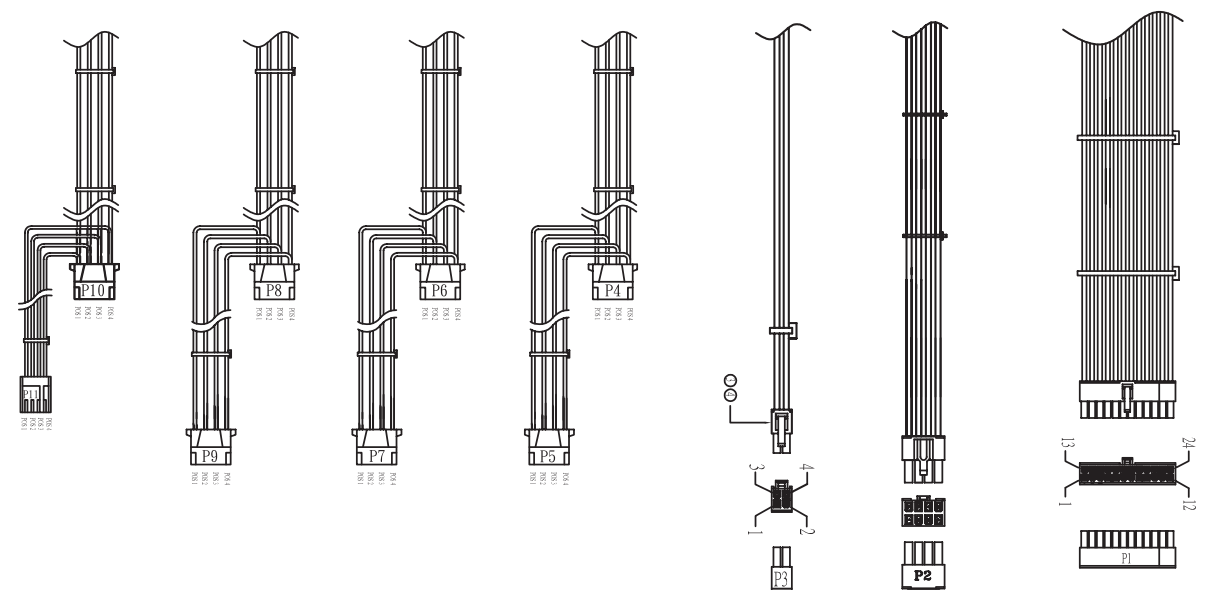
PS2 Mini Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-400R8A

PS2 Mini Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the true dual AC input Mini Redundant Power Supply. The TC-400R8A has full redundancy function even with only one AC source. It has standard PFC, hot swappable power modules and load sharing capability. High performance cooling system with 4 fans and air cell vent.

- FEATURES -

- 400+400 watts total output power
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- Hot-Swappable PSU Zero down time
- Load Sharing design for smart stress and heat distribution Patent no. 136053
- 16ms Hold Up Time

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Input Voltage	90~132V/180~264V Auto Select
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	400 watts
+5V	35A
+12V	18A
+3.3V	24A
+5V & +3.3V	170 watts
+5V & +3.3V & +12V	375 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors

Cable Length	19 in
Main connector	20+4 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	7
4 pin Floppy	1

Dimension

D x W x H	200x150x86 mm / 7.8 x 5.9 x 3.4 inch
Net Weight	9.6 lb

Safety/EMI/RFI
UL,cUL,TUV,
CB,CE,FCC

MTBF	100,000 hours at full load and 25°C ambient temperature
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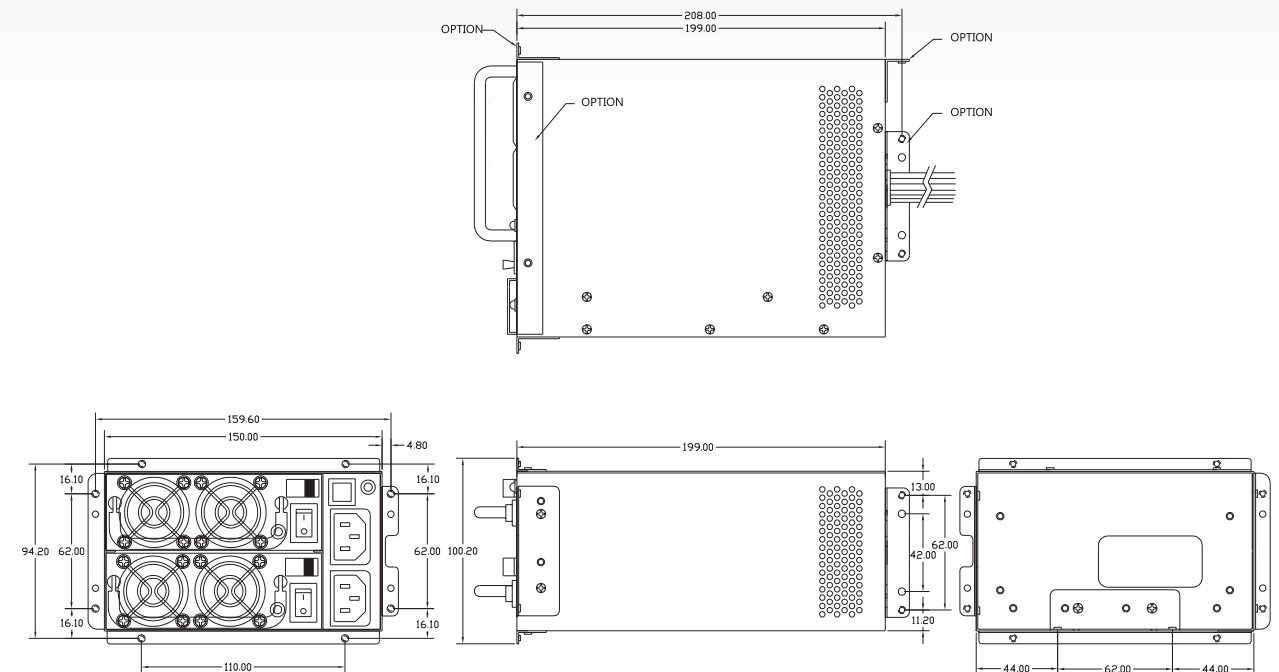
- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

TC-400R8A

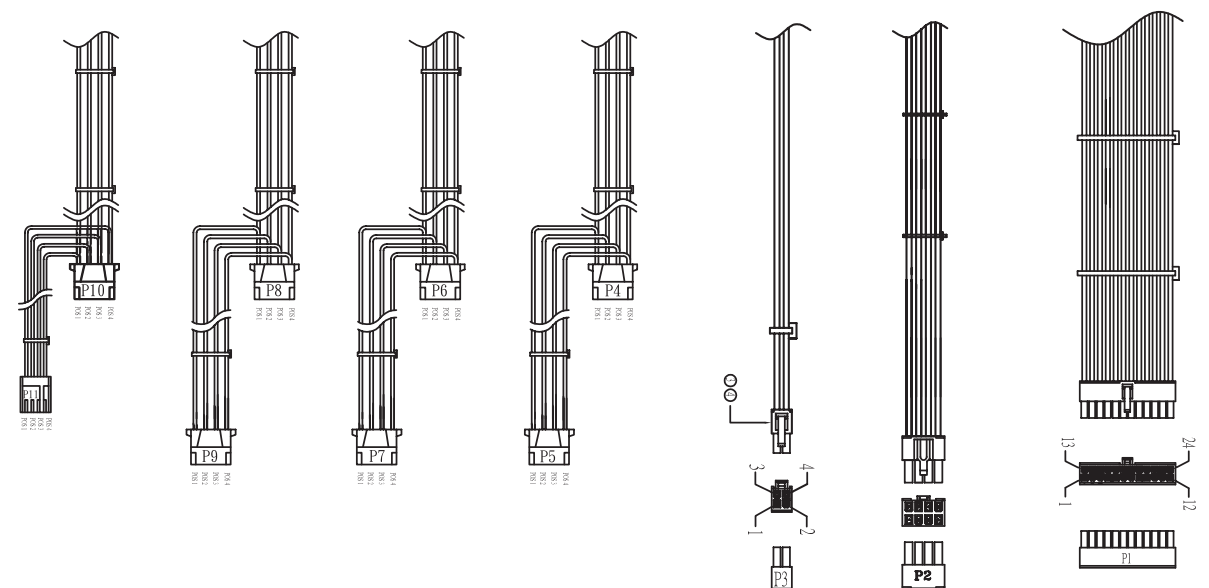
PS2 Mini Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



TC-500R8A

PS2 Mini Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

Introduce the true dual AC input Mini Redundant Power Supply. The TC-500R8A has full redundancy function even with only one AC source. It has standard PFC, hot swappable power modules and load sharing capability. High performance cooling system with 4 fans and air cell vent.

- FEATURES -

- 500+500 watts total output power
- Over Power Protection
- Over Voltage Protection
- Short Circuits Protection
- Hot-Swappable PSU Zero down time
- Load Sharing design for smart stress and heat distribution Patent no. 136053
- 16ms Hold Up Time

- ELECTRICAL SPECIFICATIONS -

Specification

Form Factor	EPS 12V
Input Voltage	90~132V/180~264V Auto Select
Input Frequency	47Hz~63Hz

Output Rating

Total Watts	500 watts
+5V	42A
+12V	28A
+3.3V	24A
+5V & +3.3V	210 watts
+5V & +3.3V & +12V	475 watts
Voltage Regulation	+/-5%
PFC	Passive
Efficiency	≥70%

Connectors

Cable Length	19 in
Main connector	24 Pins
4 pin 12V	1
8 pin connector	1
4 pin Peripheral	11
4 pin Floppy	1

Dimension

D x W x H	200x150x86 mm / 7.8 x 5.9 x 3.4 inch
Net Weight	10.1 lb

Safety/EMI/RFI
UL,cUL,TUV,
CB,CE,FCC

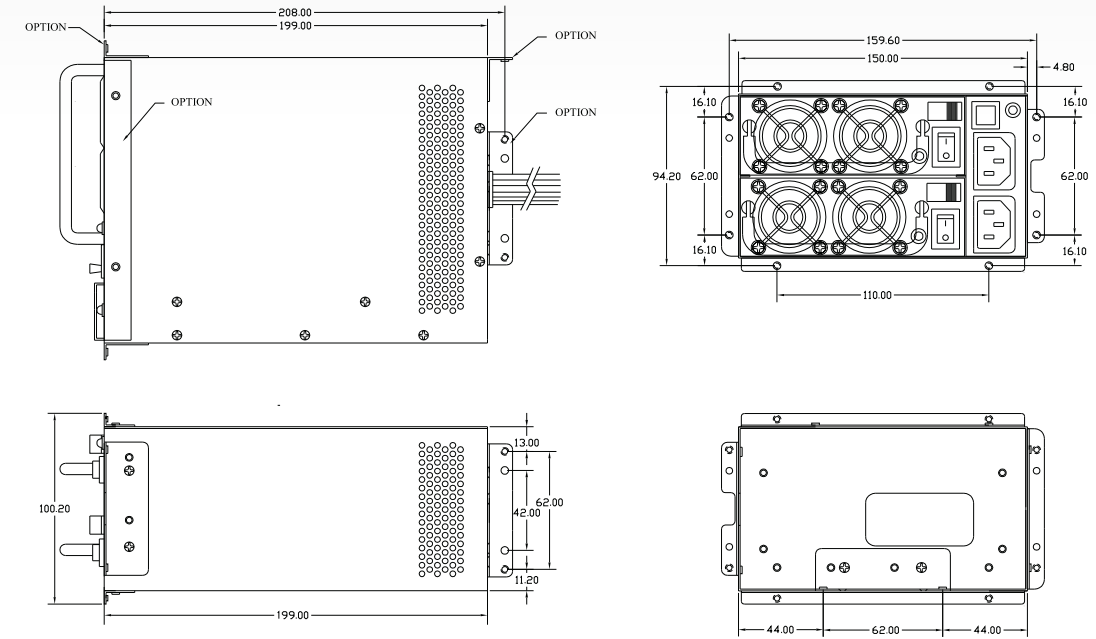
MTBF	100,000 hours at full load and 25°C ambient temperature
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- Operation Temperature: 0°C to 50°C
- Humidity: 5 to 90% non-condensing.
- Specification and wiring diagram subject to change without notice.

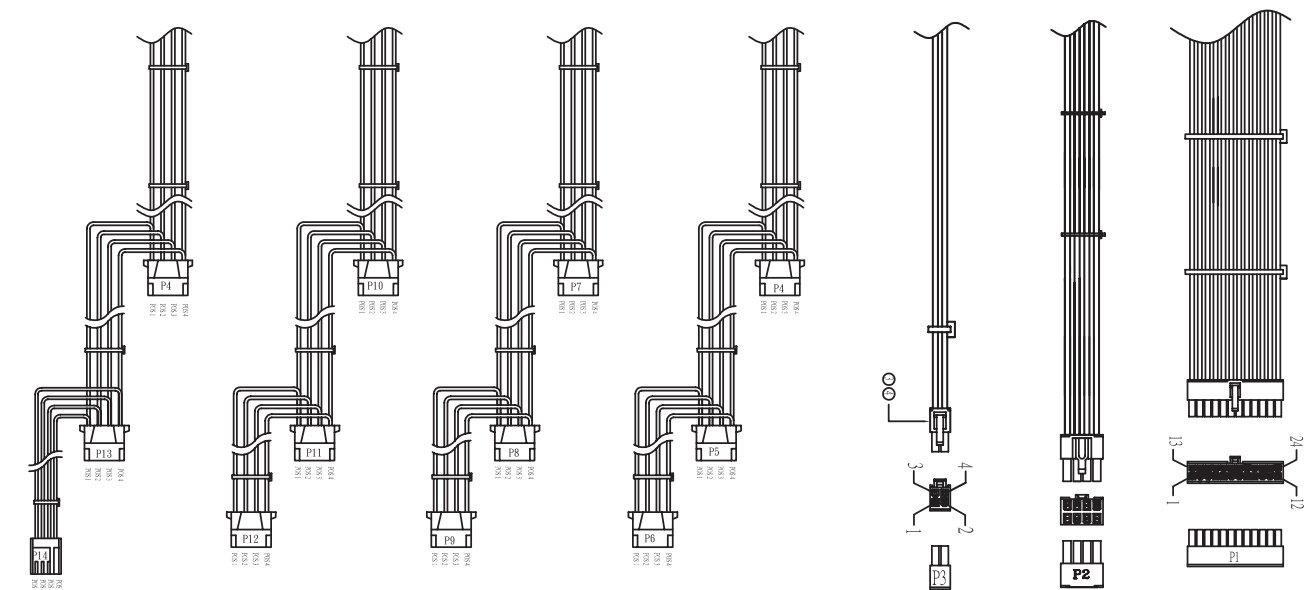
TC-500R8A

PS2 Mini Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



TC-300R8P

4U Mini Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The R8P Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R8P series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- PS2 Size Design
- Hot-Swappable
- Power Sharing Capability
- Auto Select AC Input

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	3A	20A	5%	50mV
+3.3V	0.3A	20A	5%	50mV
+12V	2A	22A	5%	120mV
-12V	0.1A	0.8A	10%	120mV
+5VSB	0.1A	2A	5%	50mV

Efficiency: >73% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 120w
2.Power module Total output power not exceed 300W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / No Load Operation
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating : 5% to 90%, non-condensing

Safety & EMI/RFI

Safety Standards	UL 1950 QQQQ2/QQQQ8
	TUV Rheinland (EN60950, IEC950 mod)
	CB Certification
EMI/RFI	FCC part 15, Subpart B, Class B
	EN55022 CISPR22 Class B, CE Make
	EN61000-3-3;1995 EN61000-4-2, -3, -4, -5, -6, -11

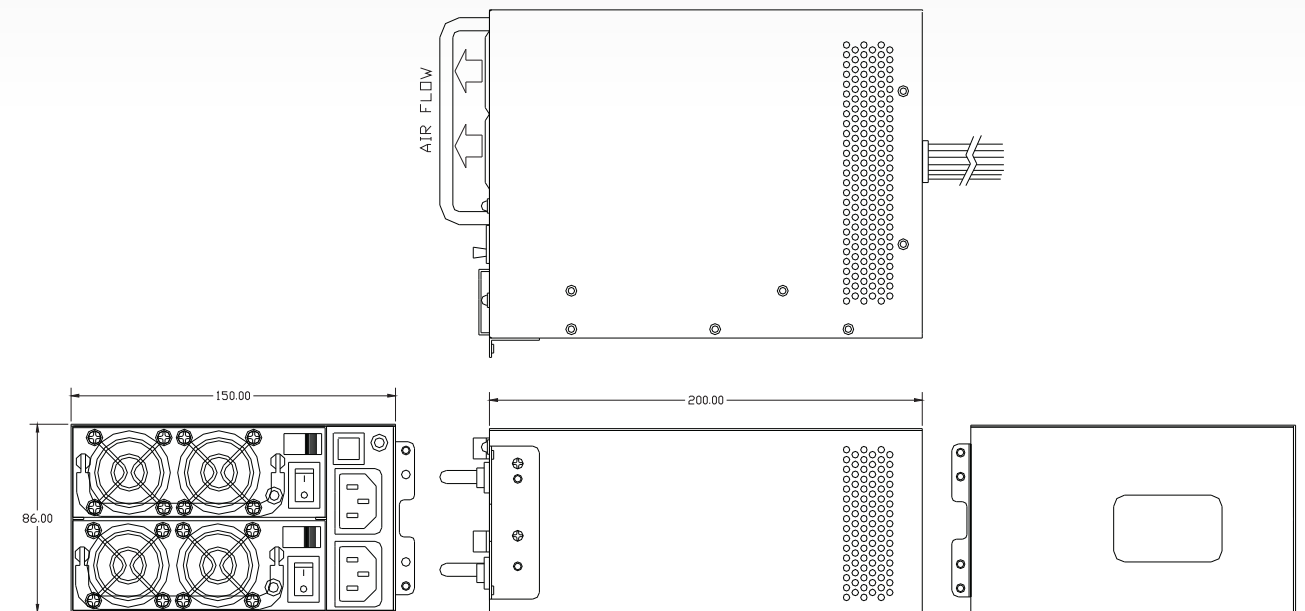
Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	199 x 150 x 86 mm / 7.8 x 5.9 x 3.4 inch

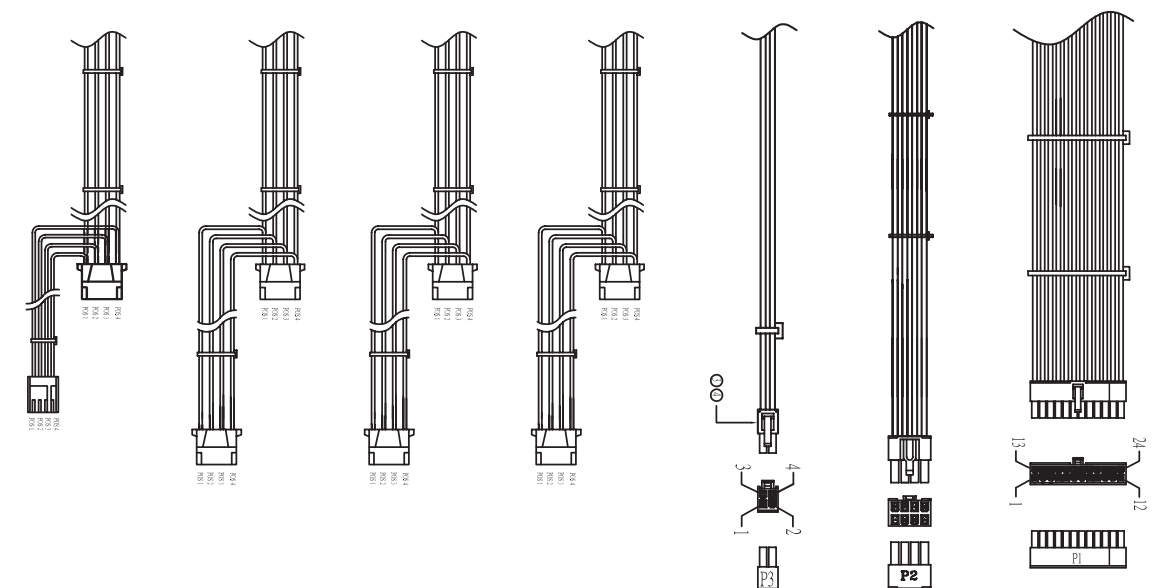
TC-300R8P

4U Mini Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



TC-400R8P

4U Mini Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The R8P Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R8P series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- PS2 Size Design
- Hot-Swappable
- Power Sharing Capability
- Auto Select AC Input

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	3A	25A	5%	50mV
+3.3V	0.3A	25A	5%	50mV
+12V	2A	28A	5%	120mV
-12V	0.1A	0.8A	10%	120mV
+5VSB	0.1A	2A	5%	50mV

Efficiency: >73% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 150w
2.Power module Total output power not exceed 400W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / No Load Operation
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating : 5% to 90%, non-condensing

Safety & EMI/RFI

Safety Standards	UL 1950 QQQQ2/QQQQ8
	TUV Rheinland (EN60950, IEC950 mod)
	CB Certification
EMI/RFI	FCC part 15, Subpart B, Class B
	EN55022 CISPR22 Class B, CE Make
	EN61000-3-3;1995 EN61000-4-2, -3, -4, -5, -6, -11

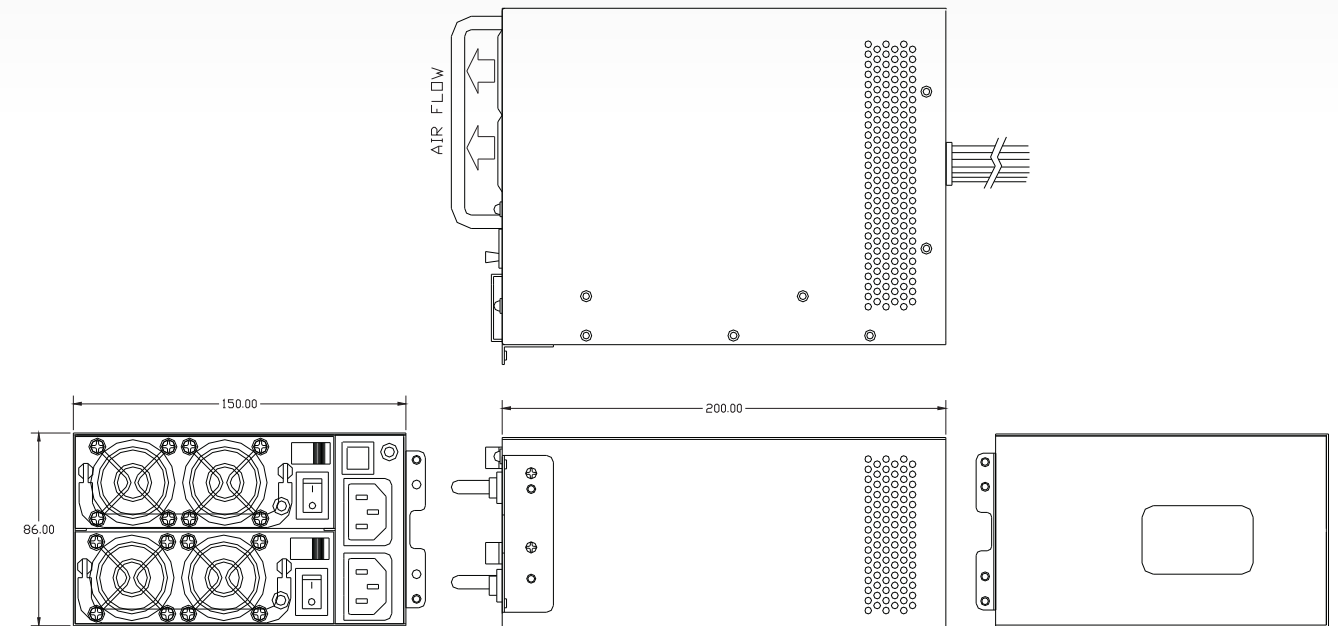
Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	199 x 150 x 86 mm / 7.8 x 5.9 x 3.4 inch

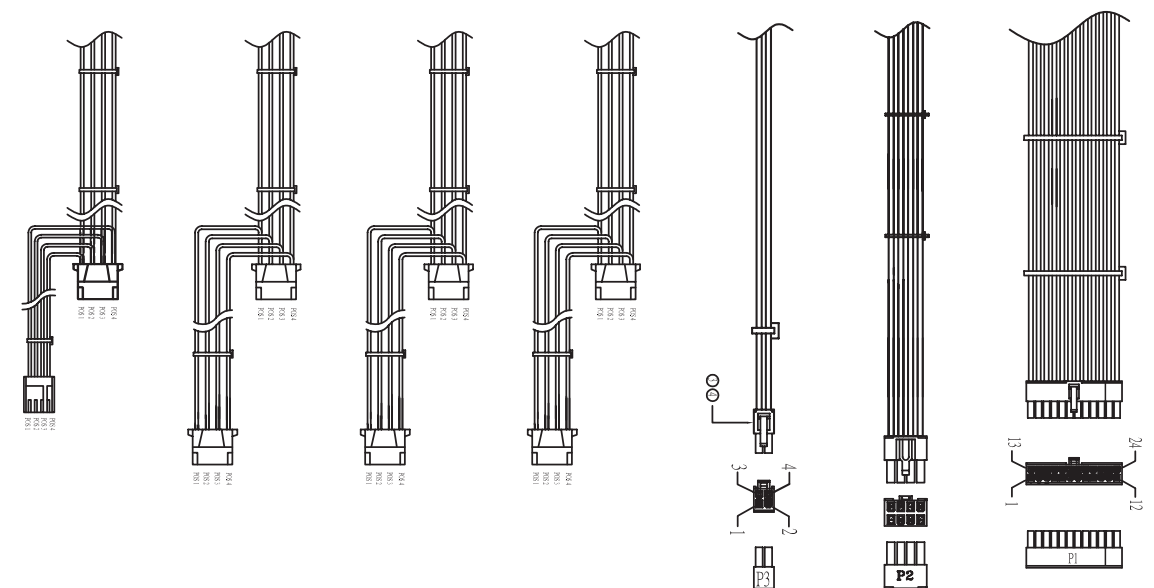
TC-400R8P

4U Mini Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



R4B-500G1V2

4U Mini Redundant Power Supply



- INTRODUCTION -

The R4B Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R4B series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- PS2 Size Design
- Hot-Swappable
- Power Sharing Capability
- MEET EN61000-3-2 CLASS D (ACTIVE PFC).
- High Efficiency

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	5%	50mV
+3.3V	1A	25A	5%	50mV
+12V	3A	41A	5%	120mV
-12V	0A	0.8A	10%	150mV
+5VSB	0.1A	3.5A	5%	50mV

Efficiency: >80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 170W
2.Power module Total output power not exceed 500W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / No Load Operation
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL / CUL
	TUV Rheinland
EMI/RFI	CB Certification
	FCC part 15, Subpart B, Class B
	EN55022 CISPR22 Class B, CE Make
	EN61000-3-2 EN61000-3-3;1995
	EN61000-4-2, -3, -4, -5, -6, -8, -11

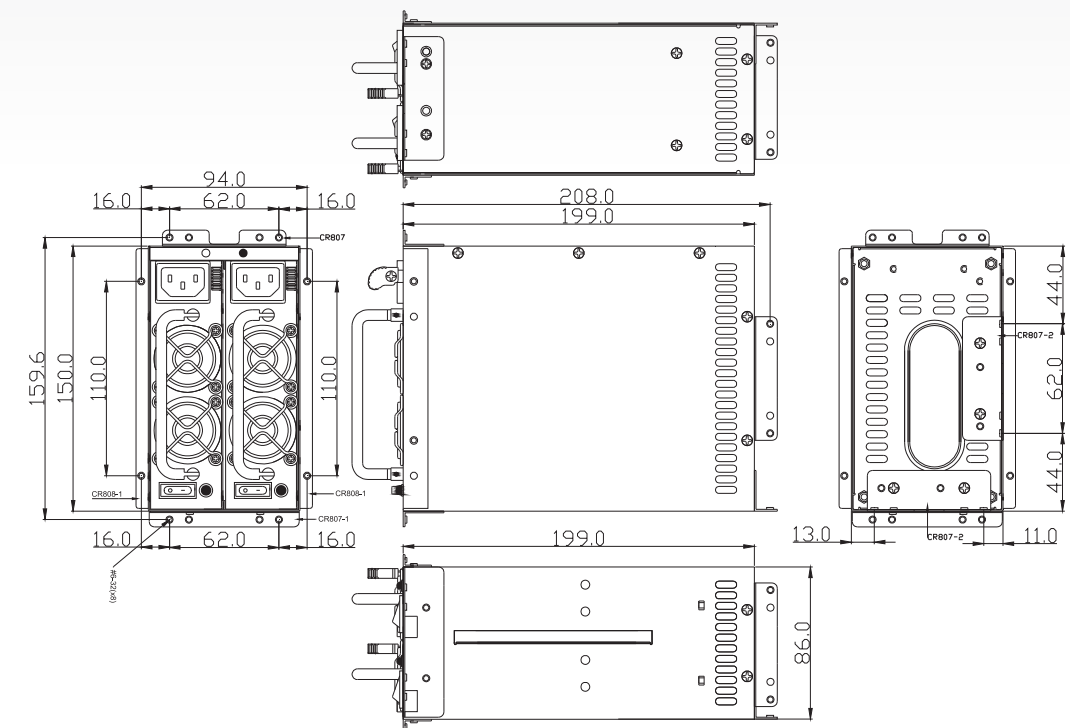
Others

MTBF	>80,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	200 x 150 x 86 mm / 7.8 x 5.9 x 3.4 inch

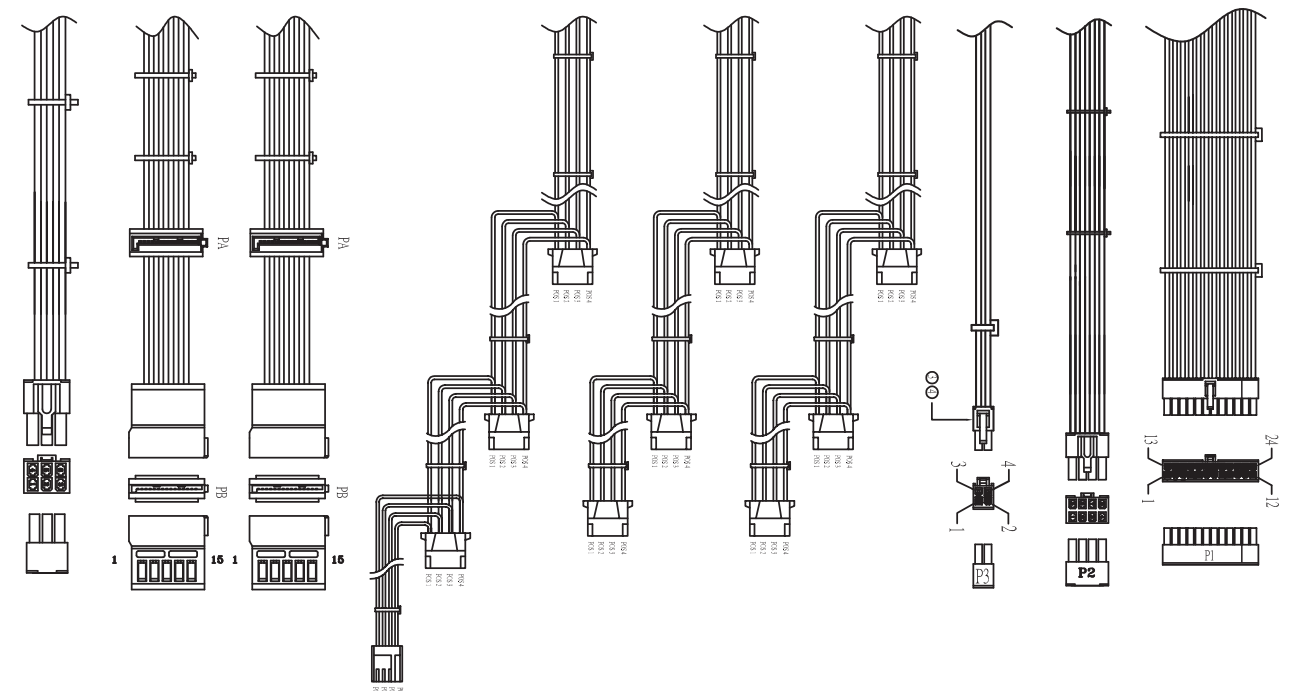
R4B-500G1V2

4U Mini Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



R4B-600G1V2

4U Mini Redundant Power Supply



- INTRODUCTION -

The R4B Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R4B series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- PS2 Size Design
- Hot-Swappable
- Power Sharing Capability
- MEET EN61000-3-2 CLASS D (ACTIVE PFC).
- High Efficiency

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	5%	50mV
+3.3V	1A	25A	5%	50mV
+12V	3A	49A	5%	120mV
-12V	0A	0.8A	10%	150mV
+5VSB	0.1A	3.5A	5%	50mV

Efficiency: >80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 180W
2.Power module Total output power not exceed 600W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / No Load Operation
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL / CUL
	TUV Rheinland
EMI/RFI	CB Certification
	FCC part 15, Subpart B, Class B
	EN55022 CISPR22 Class B, CE Make
	EN61000-3-2 EN61000-3-3;1995
	EN61000-4-2, -3, -4, -5, -6, -8, -11

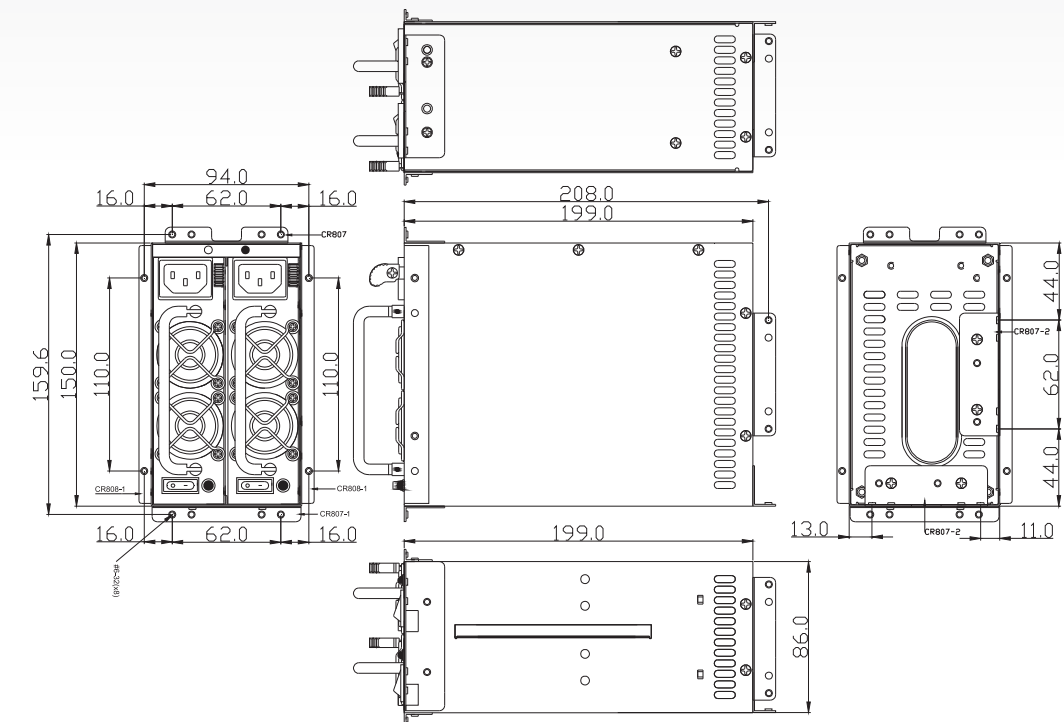
Others

MTBF	>80,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	200 x 150 x 86 mm / 7.8 x 5.9 x 3.4 inch

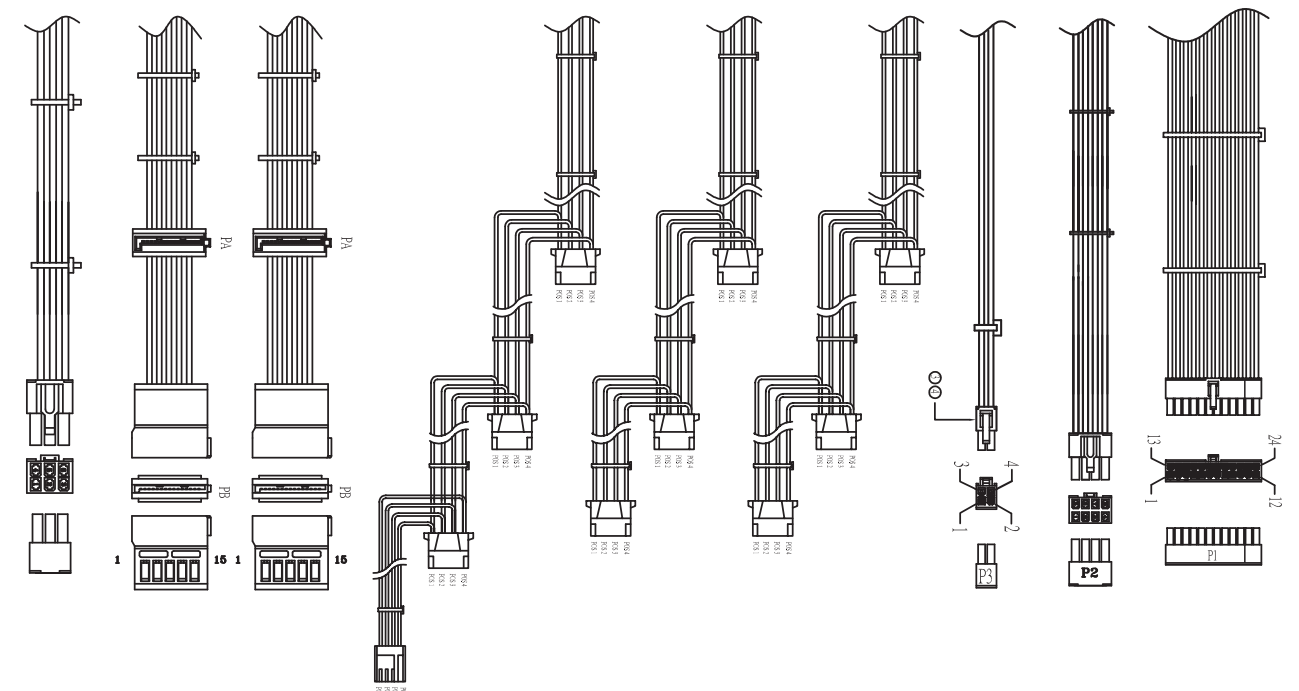
R4B-600G1V2

4U Mini Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



R4B-700G1V2

4U Mini Redundant Power Supply



High Efficiency
SERIES

EPS
12V

ATX
12V

- INTRODUCTION -

The R4B Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R4B series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- PS2 Size Design
- Hot-Swappable
- Power Sharing Capability
- MEET EN61000-3-2 CLASS D (ACTIVE PFC).
- High Efficiency

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	5%	50mV
+3.3V	1A	32A	5%	50mV
+12V	3A	57A	5%	120mV
-12V	0A	0.8A	10%	150mV
+5VSB	0.1A	3.5A	5%	50mV

Efficiency: >80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 190W
2.Power module Total output power not exceed 700W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / No Load Operation
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL / CUL
	TUV Rheinland CB Certification
EMI/RFI	FCC part 15, Subpart B, Class B
	EN55022 CISPR22 Class B, CE Make
	EN61000-3-2 EN61000-3-3;1995
	EN61000-4-2, -3, -4, -5, -6, -8, -11

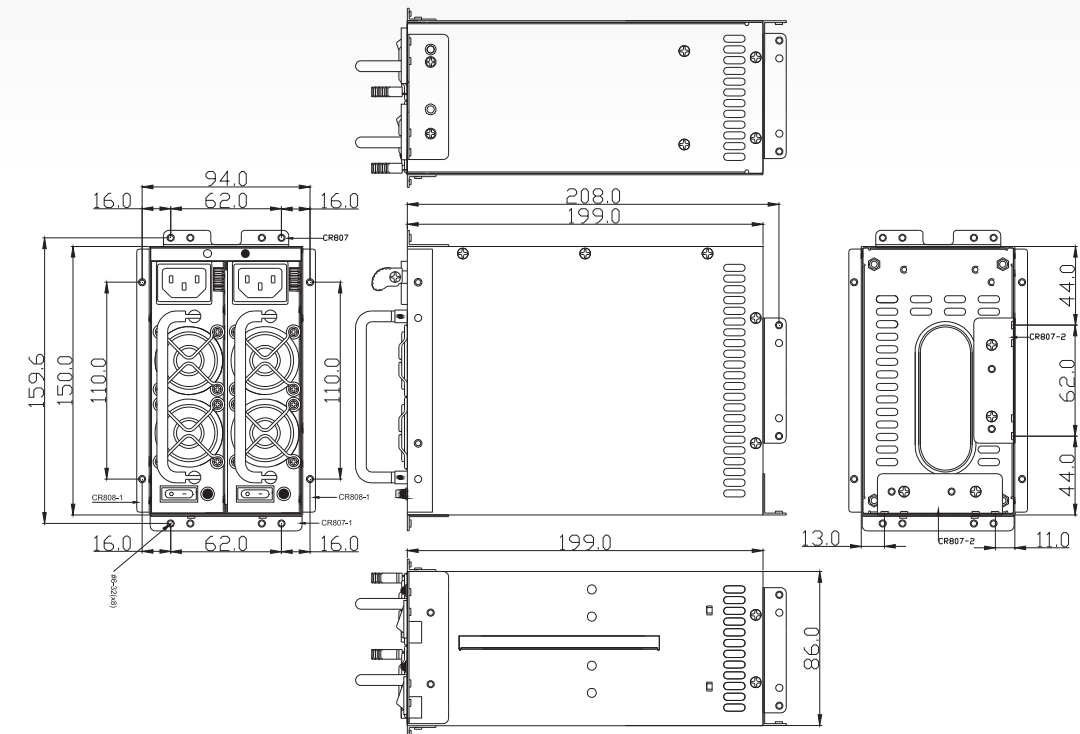
Others

MTBF	>80,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	200 x 150 x 86 mm / 7.8 x 5.9 x 3.4 inch

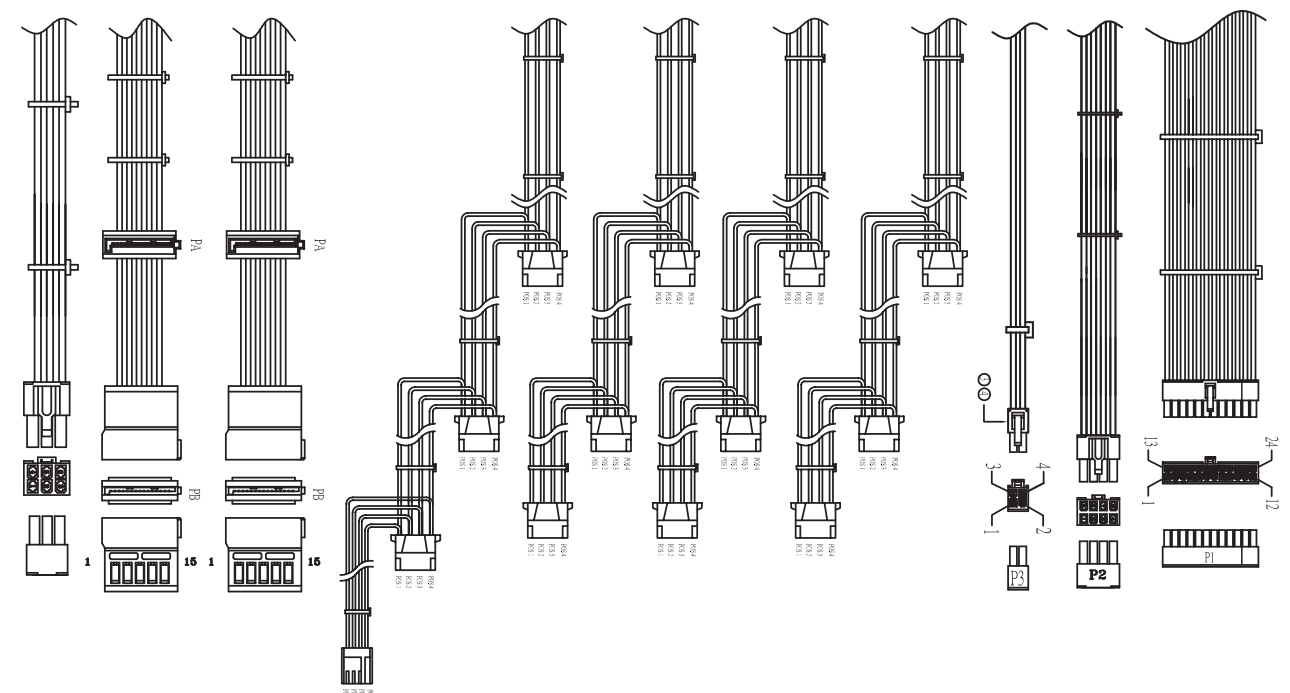
R4B-700G1V2

4U Mini Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



R4B-800G1V2

4U Mini Redundant Power Supply



High Efficiency
SERIES

EPS
12V

ATX
12V

- INTRODUCTION -

The R4B Series products of Hot-Swap & Power Sharing redundant Power supply provides increased reliability when integrated a variety of Systems. The R4B series is ideally suited to telecommunications and Industrial system, as well as a variety of other applications where system Never shut down.

- FEATURES -

- PS2 Size Design
- Hot-Swappable
- Power Sharing Capability
- MEET EN61000-3-2 CLASS D (ACTIVE PFC).
- High Efficiency

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation	Output Ripple & Noise Max.(p-p)
	Min.	Max.		
+5V	1A	25A	5%	50mV
+3.3V	1A	32A	5%	50mV
+12V	3A	65A	5%	120mV
-12V	0A	0.8A	10%	150mV
+5VSB	0.1A	3.5A	5%	50mV

Efficiency: >80% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 190W
2.Power module Total output power not exceed 800W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / No Load Operation
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating: 5% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL / CUL
	TUV Rheinland CB Certification
EMI/RFI	FCC part 15, Subpart B, Class B
	EN55022 CISPR22 Class B, CE Make
	EN61000-3-2 EN61000-3-3;1995
	EN61000-4-2, -3, -4, -5, -6, -8, -11

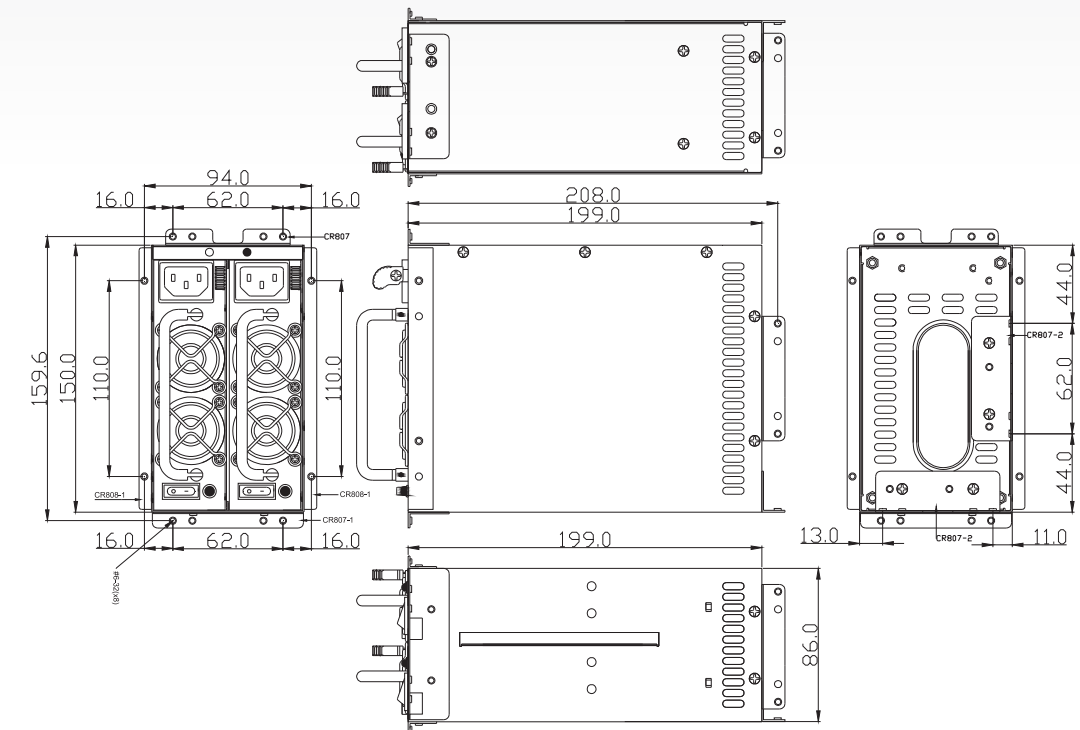
Others

MTBF	>80,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	200 x 150 x 86 mm / 7.8 x 5.9 x 3.4 inch

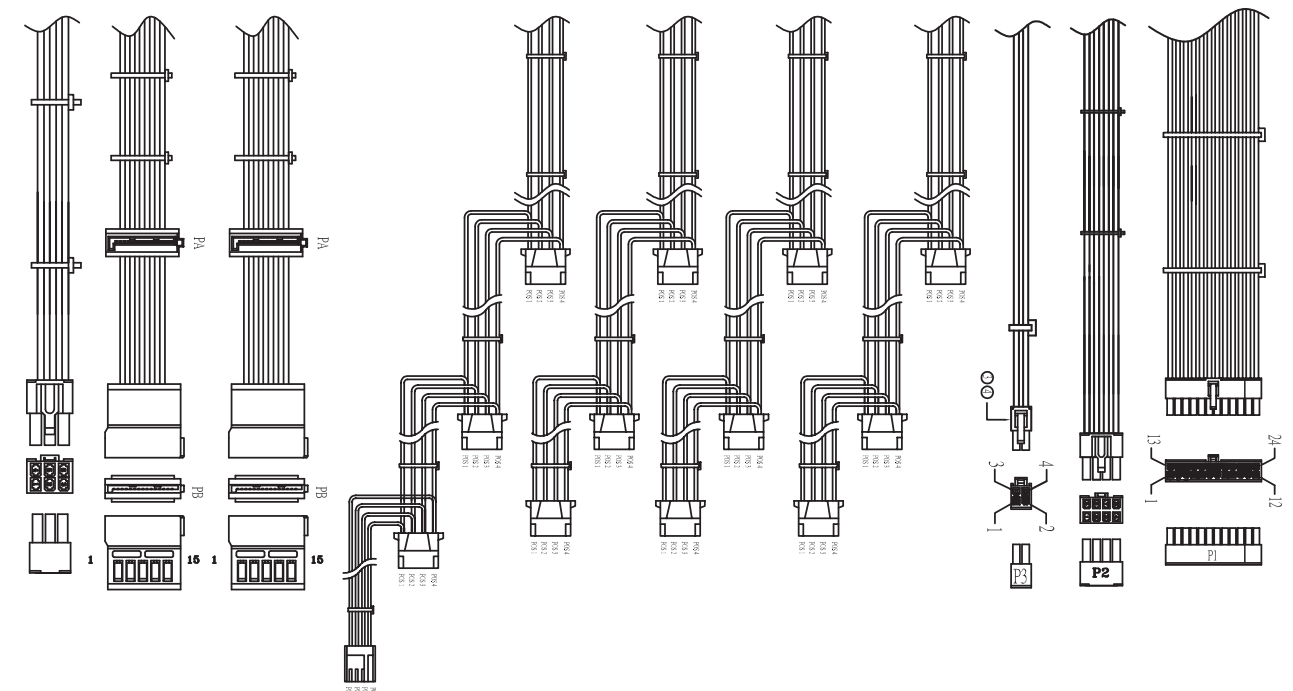
R4B-800G1V2

4U Mini Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

TC-950RVN3

3U N+1 Redundant Power Supply



- INTRODUCTION -

The RVN3 Series of hot swappable high-density redundant power supply offer a maximum 950watts of output power. The RVN3 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 3U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 2+1 Power Modules
- Backplane Board

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%	
Input Current	12A For 115VAC, 6A For 230VAC	
Input Frequency	47Hz ~ 63Hz	

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	3A	60A	5%	1%	50mV
+3.3V	3A	47A	5%	1%	50mV
+12V	4.5A	78A	5%	1%	70mV
-12V	0A	1.5A	5%	1%	70mV
+5VSB	0.3A	3.0A	5%	1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 400W
2.Total output power not exceed 950W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / Over Temperature Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating : 5% to 95%, non-condensing
Altitude	Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards	A. UL/cUL60950-1
	B. TUV EN60950-1
	C. CB D. CCC

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 125 mm / 11.8 x 4 x 4.9 inch

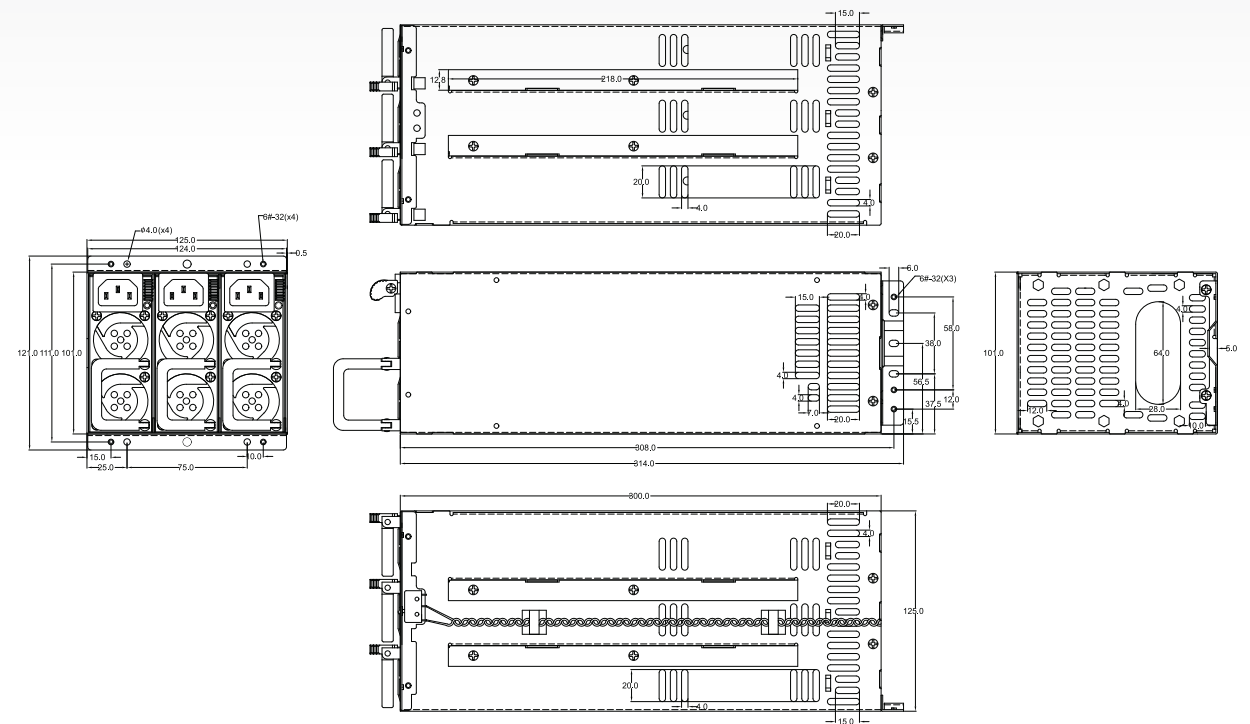
TC-950RVN3

3U N+1 Redundant Power Supply

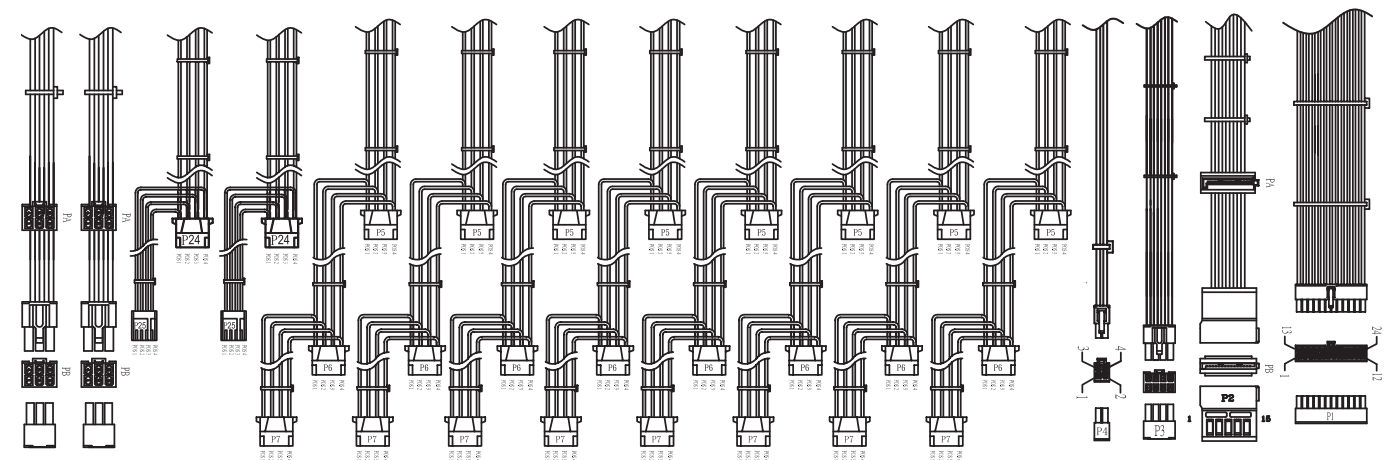


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

TC-1100RVN3

3U N+1 Redundant Power Supply



- INTRODUCTION -

The RVN3 Series of hot swappable high-density redundant power supply offer a maximum 1100watts of output power. The RVN3 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 3U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 2+1 Power Modules
- Backplane Board

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	12A For 115VAC, 6A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
+5V	3A	60A	5% 1%	50mV
+3.3V	3A	47A	5% 1%	50mV
+12V	4.5A	88A	5% 1%	70mV
-12V	0A	1.5A	5% 1%	70mV
+5VSB	0.3A	3.0A	5% 1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 400W
2.Total output power not exceed 1100W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / Over Temperature Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec., TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating : 5% to 95%, non-condensing
Altitude	Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards	A. UL/cUL60950-1
	B. TUV EN60950-1
	C. CB D. CCC

Others

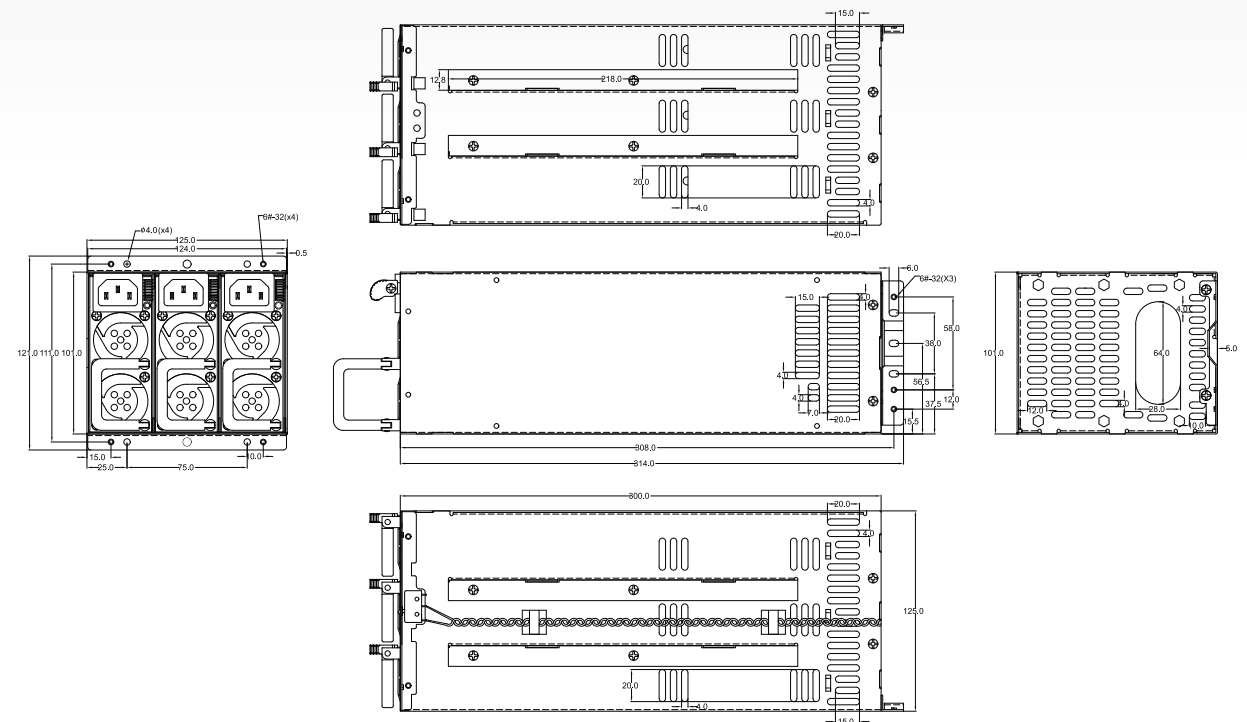
MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 125 mm / 11.8 x 4 x 4.9 inch

TC-1100RVN3

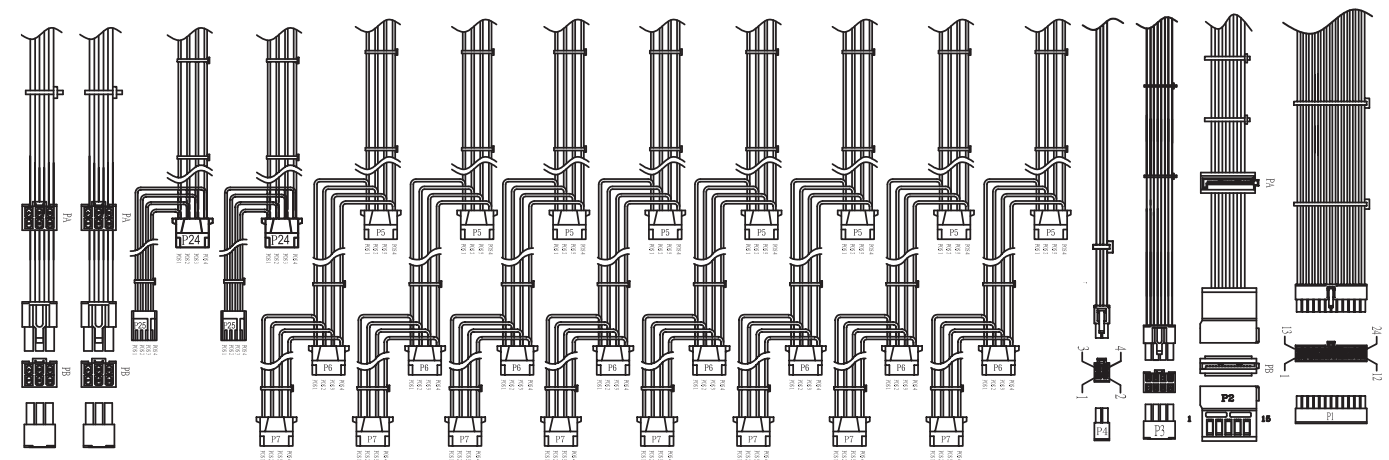
3U N+1 Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

TC-1350RVN3

3U N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RVN3 Series of hot swappable high-density redundant power supply offer a maximum 1350watts of output power. The RVN3 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 3U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 2+1 Power Modules
- Backplane Board

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	12A For 115VAC, 6A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
+5V	3A	60A	5% 1%	50mV
+3.3V	3A	47A	5% 1%	50mV
+12V	4.5A	98A	5% 1%	70mV
-12V	0A	1.5A	5% 1%	70mV
+5VSB	0.3A	3.0A	5% 1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 400W
2.Total output power not exceed 1350W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / Over Temperature Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	Operating : 5% to 95%, non-condensing
Altitude	Operating: sea level to 7,000 feet

Safety & EMI/RFI

Safety Standards	A. UL/cUL60950-1 B. TUV EN60950-1 C. CB D. CCC
------------------	--

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 125 mm / 11.8 x 4 x 4.9 inch

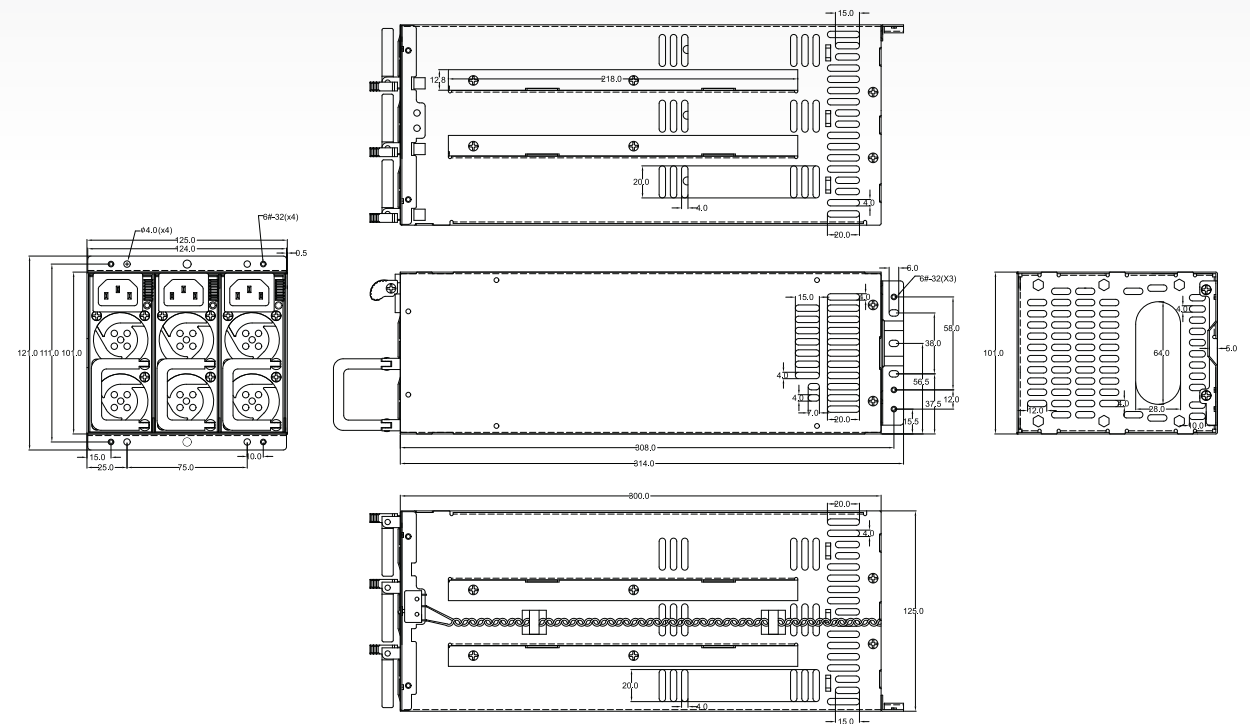
TC-1350RVN3

3U N+1 Redundant Power Supply

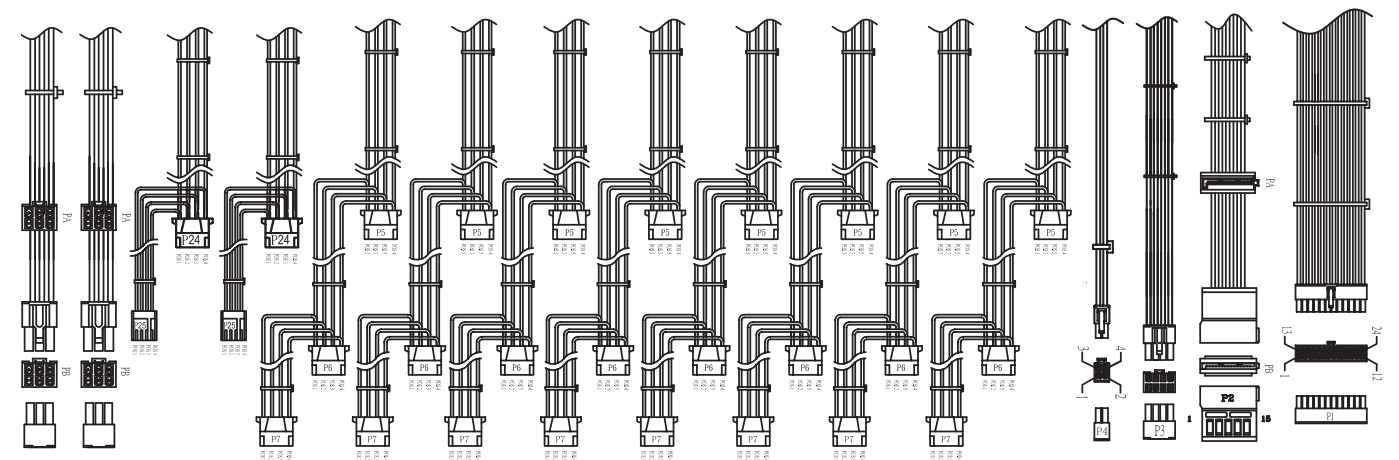


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





SURE STAR

TC-1400RVN4

4U N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RVN4 Series of hot swappable high-density redundant power supply offer a maximum 1400~2000watts of output power. The RVN4 series provide Active Power Factor Correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 4U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 3+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	12A For 115VAC, 6A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	4A	91A	5%	1%	50mV
+3.3V	4A	70A	5%	1%	50mV
+12V	6A	115A	5%	1%	70mV
-12V	0A	2.0A	10%	1%	70mV
+5VSB	0.4A	3.5A	5%	1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 580W

2.Total output power not exceed 1400W

3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection

Short Circuit Protection / Over Temperature Protection

Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A. CISPR22 (EN55022)class A

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 166 mm / 11.8 x 4 x 6.5 inch

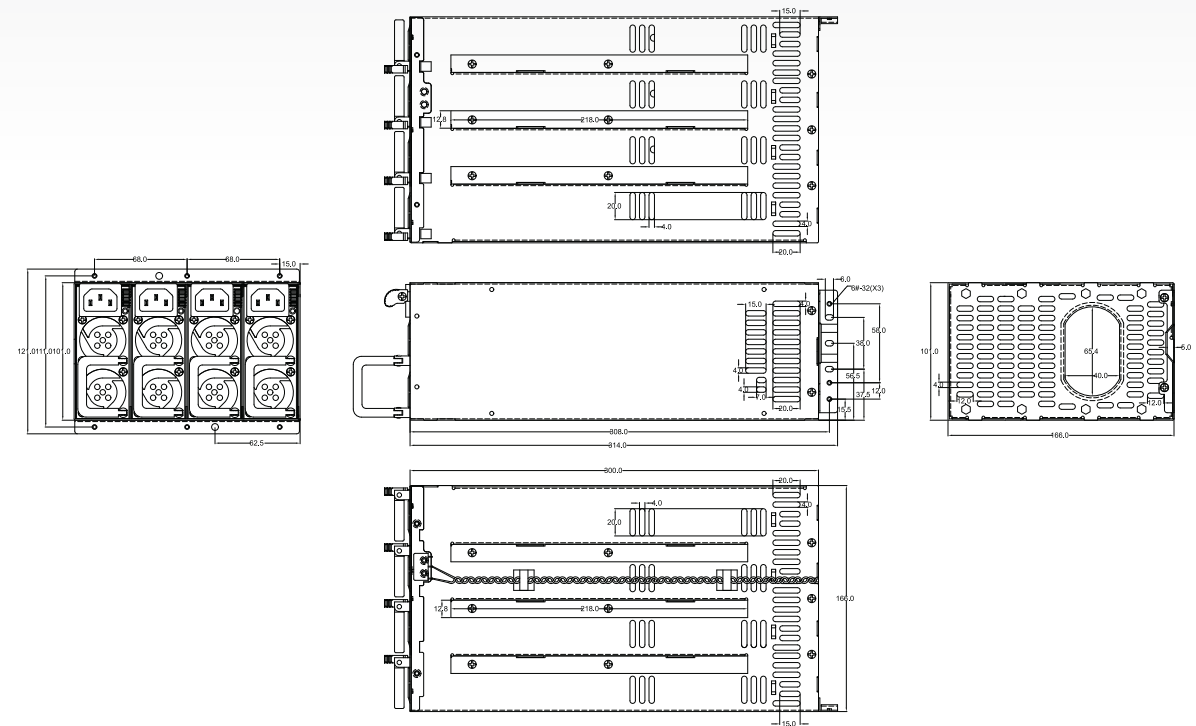
TC-1400RVN4

4U N+1 Redundant Power Supply

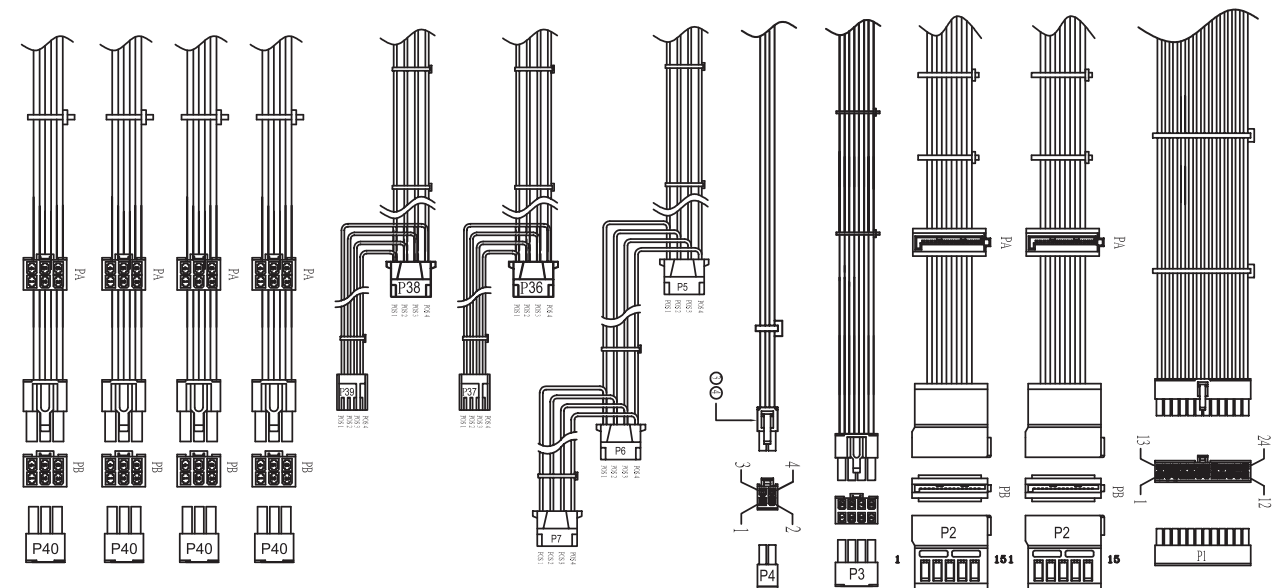


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



X 10



SURE STAR

TC-1700RVN4

4U N+1 Redundant Power Supply



EPS 12V
ATX 12V

- INTRODUCTION -

The RVN4 Series of hot swappable high-density redundant power supply offer a maximum 1400~2000watts of output power. The RVN4 series provide Active Power Factor Correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 4U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 3+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings					
Input Voltage	100~240VAC, +/-10%				
Input Current	12A For 115VAC, 6A For 230VAC				
Input Frequency	47Hz ~ 63Hz				

Output Ratings					
Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	4A	91A	5%	1%	50mV
+3.3V	4A	70A	5%	1%	50mV
+12V	6A	130A	5%	1%	70mV
-12V	0A	2.0A	10%	1%	70mV
+5VSB	0.4A	3.5A	5%	1%	50mV
Efficiency: 76% Typical at 110V AC full load					
Hold up Time: 16m sec. minimum, at full load					
REMARKS: 1.Total Max output of +5V and +3.3V not exceed 580W					
2.Total output power not exceed 1700W					
3.Noise bandwidth is from DC to 20MHz.					

Protections	
Over Voltage Protection / Over Power Protection	
Short Circuit Protection / Over Temperature Protection	
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)	

Function	
Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental	
Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI	
Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A.
	CISPR22 (EN55022)class A

Others	
MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 166 mm / 11.8 x 4 x 6.5 inch

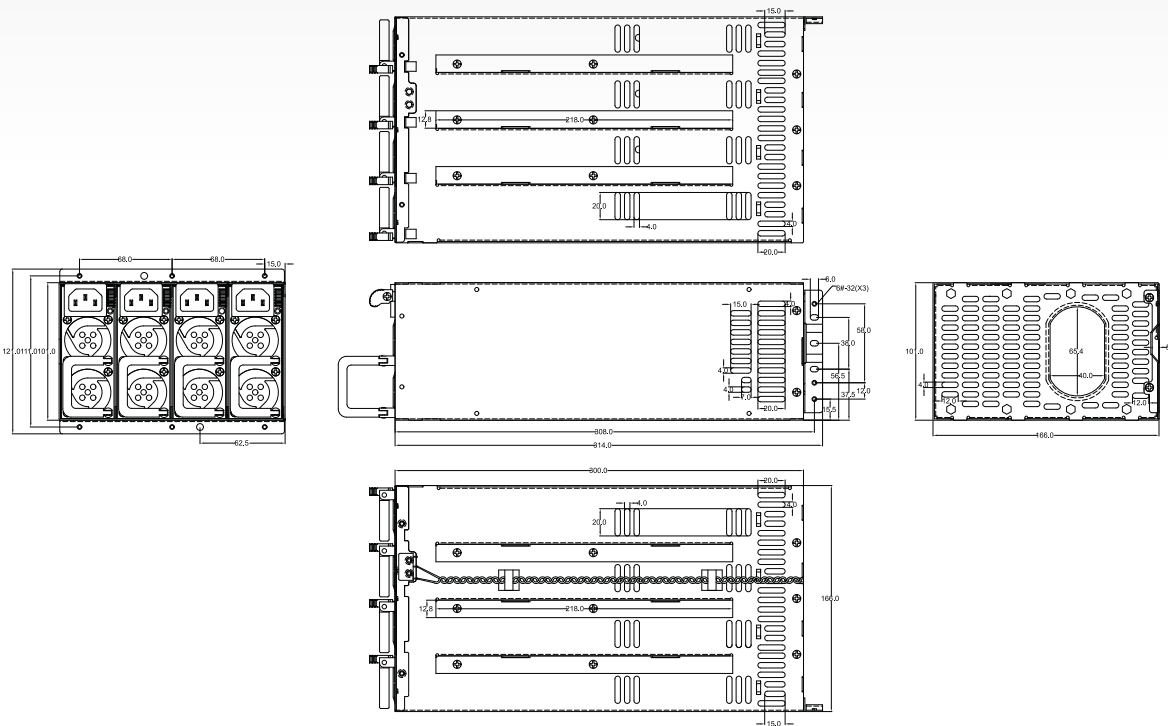
TC-1700RVN4

4U N+1 Redundant Power Supply

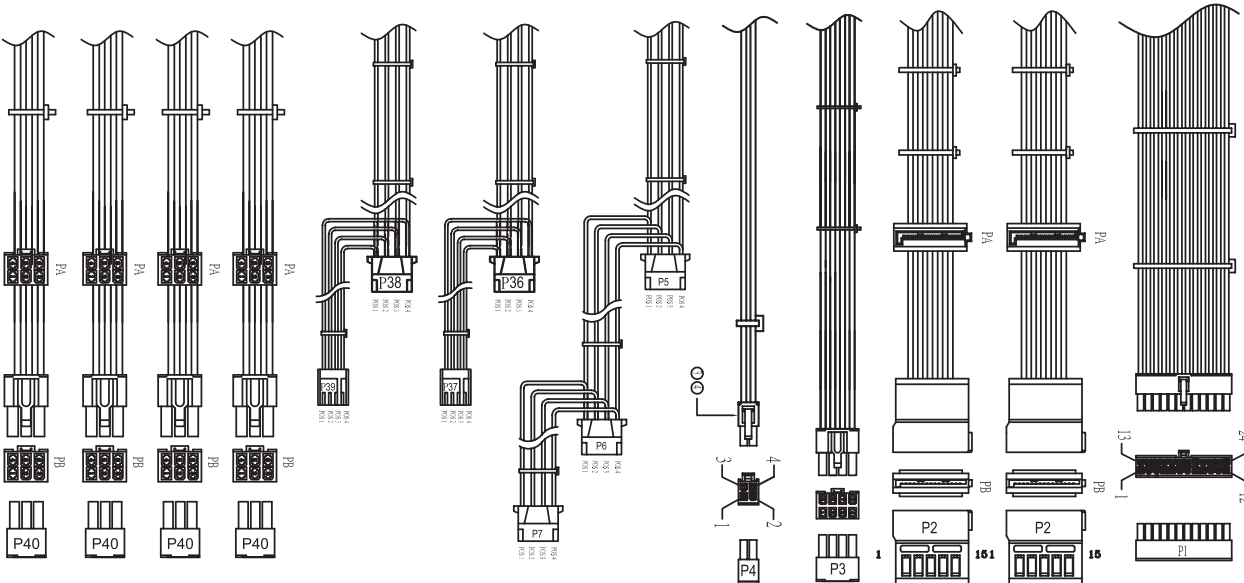


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



X 10



SURE STAR

TC-2000RVN4

4U N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RVN4 Series of hot swappable high-density redundant power supply offer a maximum 1400~2000watts of output power. The RVN4 series provide Active Power Factor Correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 4U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 3+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%
Input Current	12A For 115VAC, 6A For 230VAC
Input Frequency	47Hz ~ 63Hz

Output Ratings

Output Voltage	Output Current Min.	Output Current Max.	Regulation LOAD LINE	Output Ripple & Noise Max.(p-p)
+5V	4A	91A	5% 1%	50mV
+3.3V	4A	70A	5% 1%	50mV
+12V	6A	145A	5% 1%	70mV
-12V	0A	2.0A	10% 1%	70mV
+5VSB	0.4A	3.5A	5% 1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 580W

2.Total output power not exceed 2000W

3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection

Short Circuit Protection / Over Temperature Protection

Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A. CISPR22 (EN55022)class A

Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	300 x 101 x 166 mm / 11.8 x 4 x 6.5 inch

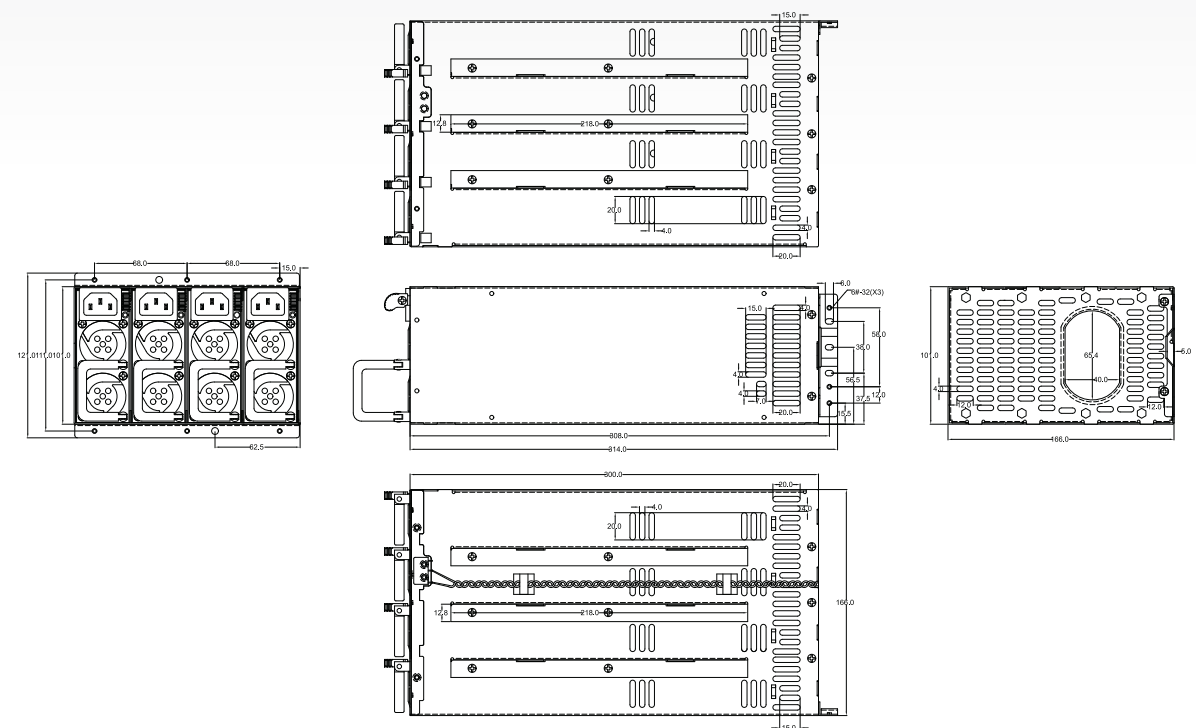
TC-2000RVN4

4U N+1 Redundant Power Supply

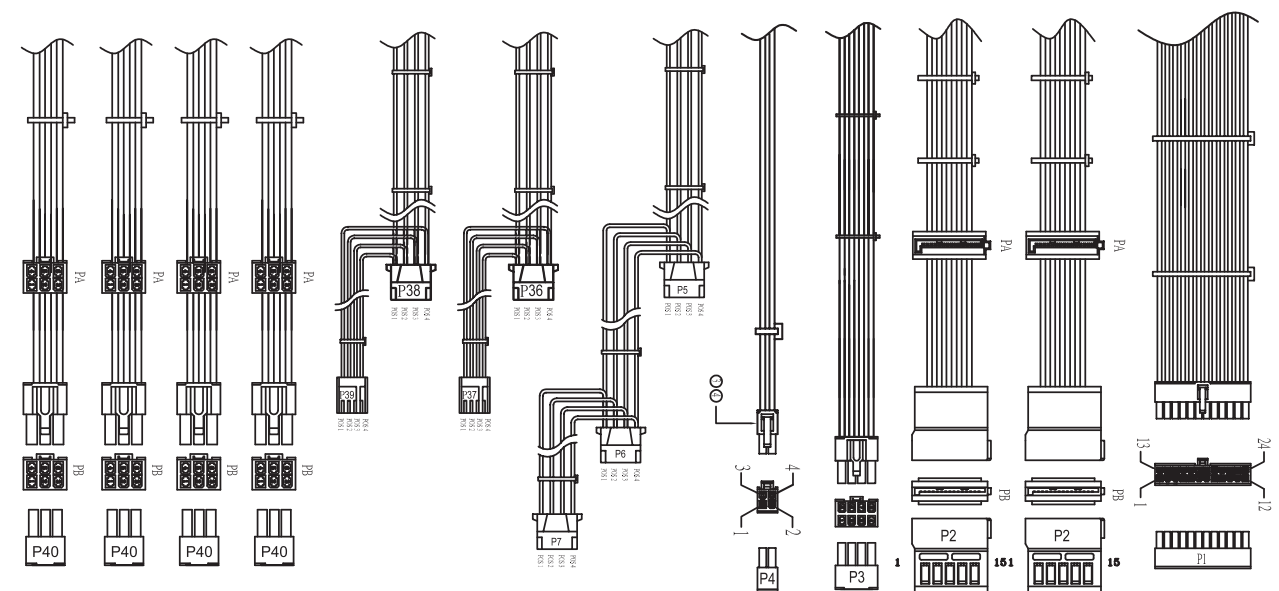


SURE STAR

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



X 10

TC-1400RHN4

N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RHN4 Series of hot swappable high-density redundant power supply offer a maximum 1400~2000watts of output power. The RHN4 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 1U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 3+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%	
Input Current	12A For 115VAC, 6A For 230VAC	
Input Frequency	47Hz ~ 63Hz	

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	4A	91A	5%	1%	50mV
+3.3V	4A	70A	5%	1%	50mV
+12V	6A	115A	5%	1%	70mV
-12V	0A	2.0A	10%	1%	70mV
+5VSB	0.4A	3.5A	5%	1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 580W
2.Total output power not exceed 1400W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / Over Temperature Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A. CISPR22 (EN55022)class A

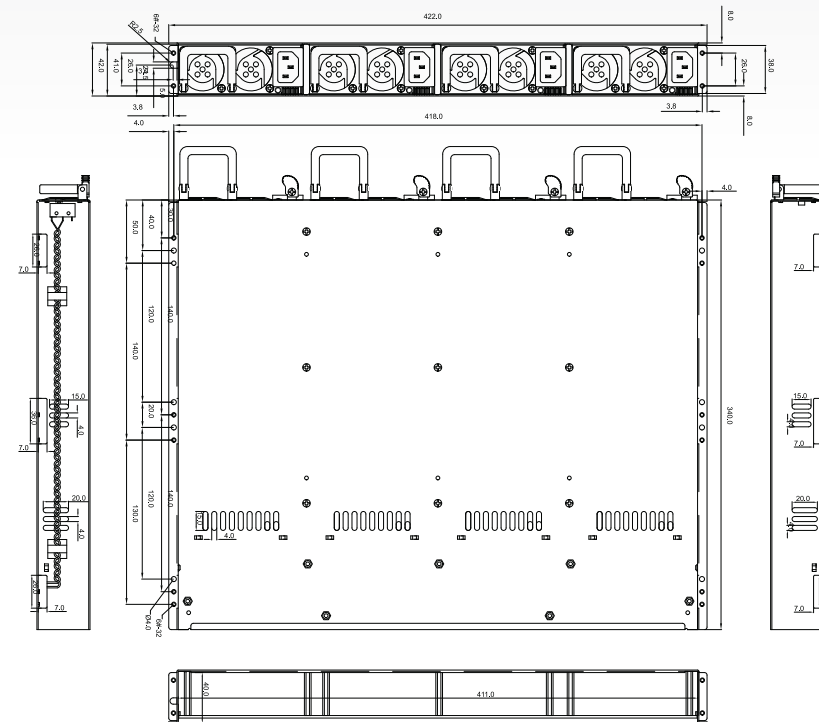
Others

MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	340 x 422 x 42 mm / 13.4 x 16.8 x 1.7 inch

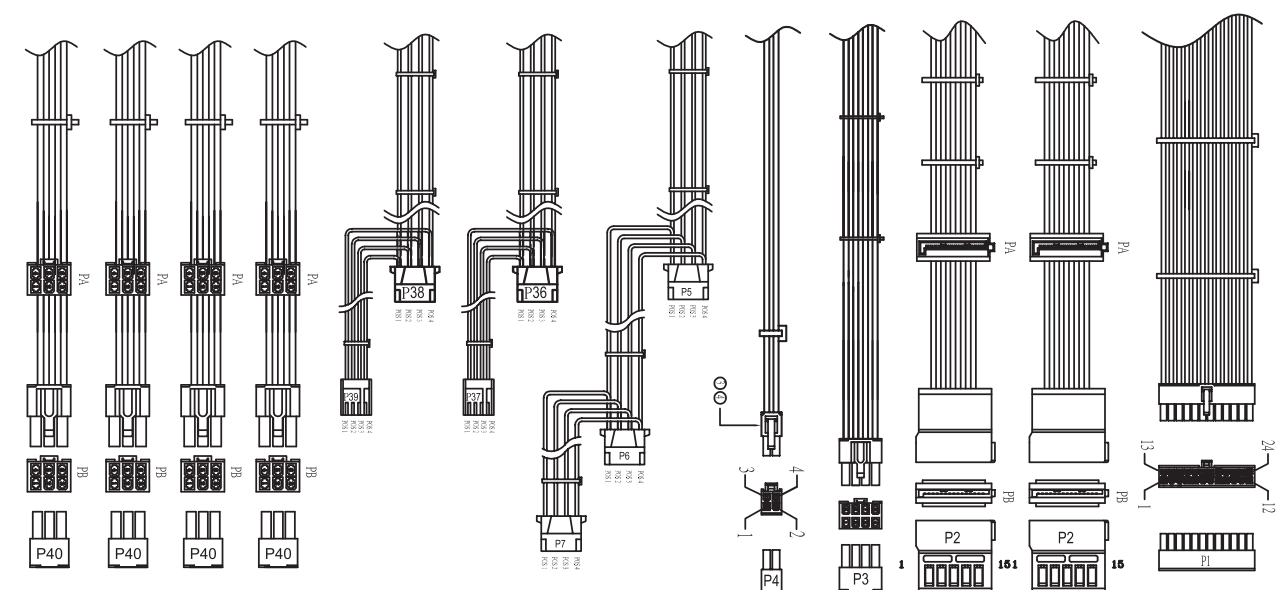
TC-1400RHN4

N+1 Redundant Power Supply

- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -



X 10



TC-1700RHN4

N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RHN4 Series of hot swappable high-density redundant power supply offer a maximum 1400~2000watts of output power. The RHN4 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 1U Height Size Design
- Hot-Swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 3+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings

Input Voltage	100~240VAC, +/-10%	
Input Current	12A For 115VAC, 6A For 230VAC	
Input Frequency	47Hz ~ 63Hz	

Output Ratings

Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	4A	91A	5%	1%	50mV
+3.3V	4A	70A	5%	1%	50mV
+12V	6A	130A	5%	1%	70mV
-12V	0A	2.0A	10%	1%	70mV
+5VSB	0.4A	3.5A	5%	1%	50mV

Efficiency: 76% Typical at 110V AC full load

Hold up Time: 16m sec. minimum, at full load

REMARKS: 1.Total Max output of +5V and +3.3V not exceed 580W
2.Total output power not exceed 1700W
3.Noise bandwidth is from DC to 20MHz.

Protections

Over Voltage Protection / Over Power Protection
Short Circuit Protection / Over Temperature Protection
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)

Function

Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental

Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI

Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A. CISPR22 (EN55022)class A

Others

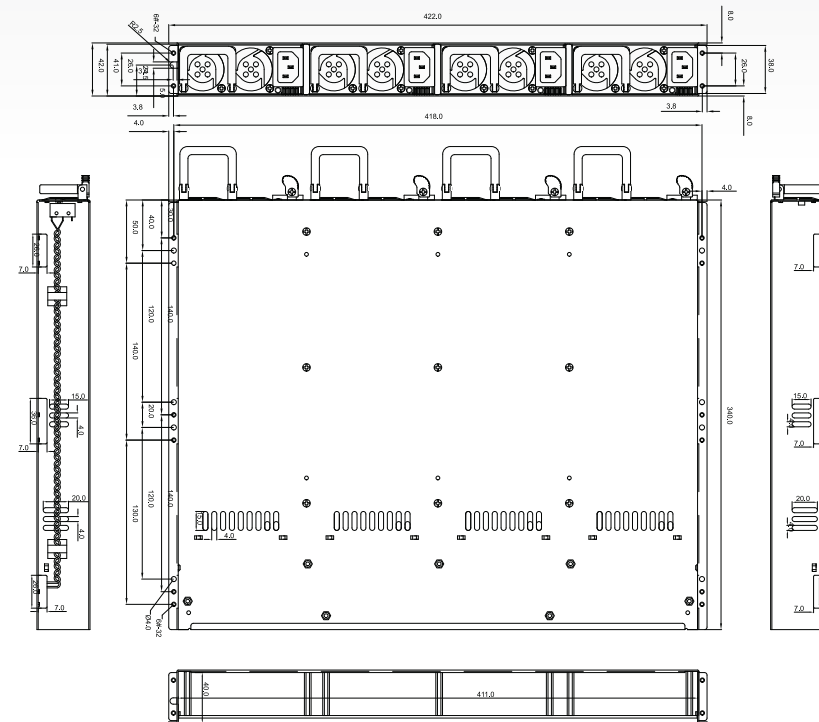
MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	340 x 422 x 42 mm / 13.4 x 16.8 x 1.7 inch

TC-1700RHN4

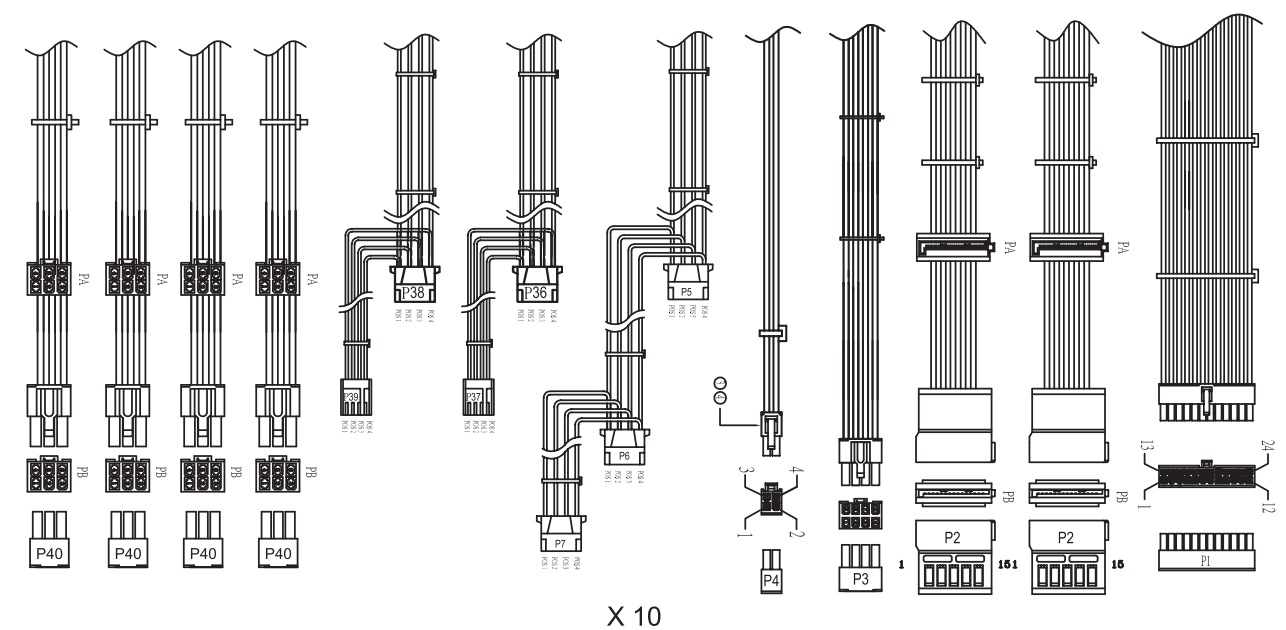
N+1 Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -





TC-2000RHN4

N+1 Redundant Power Supply



EPS
12V

ATX
12V

- INTRODUCTION -

The RHN4 Series of hot swappable high-density redundant power supply offer a maximum 1400~2000watts of output power. The RHN4 series provide Active Power Factor correction (PFC) at full range AC Input complies with EN 61000-3-2/3 for critical applications.

- FEATURES -

- 1U Height Size Design
- Hot-swappable/Hot-pluggable/High-Density
- Complete Metal Frame (Nickel-Plated)
- Compact Size 3+1 Power Modules
- Backplane Board
- 100% burn-in test

- ELECTRICAL SPECIFICATIONS -

Input Ratings					
Input Voltage	100~240VAC, +/-10%				
Input Current	12A For 115VAC, 6A For 230VAC				
Input Frequency	47Hz ~ 63Hz				

Output Ratings					
Output Voltage	Output Current		Regulation LOAD LINE		Output Ripple & Noise Max.(p-p)
	Min.	Max.			
+5V	4A	91A	5%	1%	50mV
+3.3V	4A	70A	5%	1%	50mV
+12V	6A	145A	5%	1%	70mV
-12V	0A	2.0A	10%	1%	70mV
+5VSB	0.4A	3.5A	5%	1%	50mV
Efficiency: 76% Typical at 110V AC full load					
Hold up Time: 16m sec. minimum, at full load					
REMARKS: 1.Total Max output of +5V and +3.3V not exceed 580W					
2.Total output power not exceed 2000W					
3.Noise bandwidth is from DC to 20MHz.					

Protections	
Over Voltage Protection / Over Power Protection	
Short Circuit Protection / Over Temperature Protection	
Power system fault signal(Audible buzzer/Buzzer status/LED indicator status)	

Function	
Power Good Signal	100ms~500ms, TTL compatible signal
Power Fail Delay	>1msec.,TTL compatible signal
Remote ON/OFF Control	when input signal*PSON is active

Environmental	
Operating Temperature	0°C to 45°C
Storage Temperature	-20°C to +70°C
Humidity	20% to 90%,non-condensing

Safety & EMI/RFI	
Safety Standards	UL cUL60950-1 TUV EN60950-1 CB CCC
EMI/RFI Standards	FCC Part 15, class A.
	CISPR22 (EN55022)class A

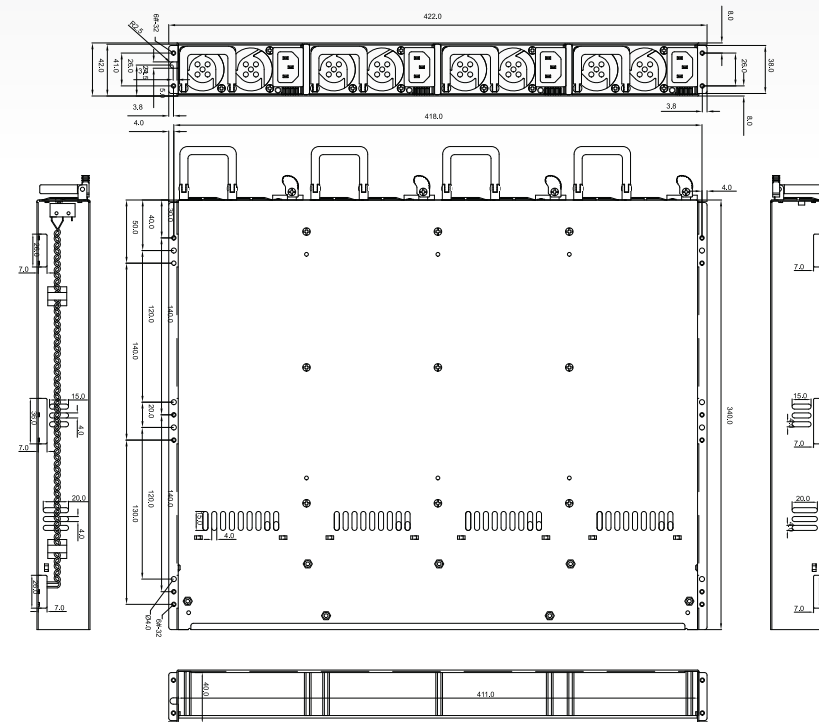
Others	
MTBF	>100,000 hours
Coolings	DC FANS on Each Module
Dimension(D x W x H)	340 x 422 x 42 mm / 13.4 x 16.8 x 1.7 inch

TC-2000RHN4

N+1 Redundant Power Supply



- MECHANICAL DRAWING -



- PINOUTS OF CONNECTORS -

