Living Industrial Partnerships

WERNER

Inventing Innovation...

PRODUCT SPECIFICATION

65 Series SMPS

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65 Series Power Supplies

WERNER

Power Supplies

WERNER'S 65 series power supply module is an innovative module with half the size of the other manufacturers. This is a flagship general purpose unit type power supplies with harmonic attenuator, high efficiency, compact body, rich functions and variations. Werner's power supply modules are the highest quality in the market and offer the ultimate in performance and reliability.

Features Overview

- Sleek modules for space constraints
- Universal input voltage 90 V to 300V AC
- Mountable on 35 mm DIN rail or direct mounting
- Available range of out-puts 5V, 12V, 24V, 48V DC
- Wide out-put wattage range from 10 watts to 1500 watts

Highlights

- Power supply modules have rich functions and variations
- Built in over-load and short circuit protections available in modules
- These modules are with high efficiency, performance and reliability

Short circuit protection and over load protection make the power supply very safe to use. Available in Din rail or direct mounting and have universal voltage inputs 90 Volts to 300 Volts AC. Derating not required in the modules, hence cost, space and time effective.

65 series power supply modules are available with different output voltages such as 5V, 12V, 24V, 48V DC and rated power between 10 Watts to 1500 Watts.

65 Series Power Supplies

WERNER

Power Supplies

Features:

Over current protection

Overload protections

Efficient in saving money, space and time

Rated power between 10W to 1500W

Power Supplies are available with different output voltages such as :

- 5V DC
- 12V DC
- 24V DC
- 48V DC

Approvals

Approbations and Declaration of conformity

CE CE

Overvoltage category

III, as per EN IEC 60947-5-1

Model Number Selection

Style	Output Wattage	Output Voltage	Output Current	Max.Output Wattage	Model No.
	10 W	5 V	2 A	10 W	65.10.00.05
		12 V	0.9 A	10.8 W	65.10.00.12
		24 V	0.5 A	12 W	65.10.00.24
	15 W	3.3 V	3 A	9.9 W	65.15.00.03
		5 V	3 A	15 W	65.15.00.05
		9 V	1.7 A	15.3 W	65.15.00.09
		12 V	1.3 A	15.6 W	65.15.00.12
		15 V	1 A	15 W	65.15.00.15
		24 V	0.7 A	16.8 W	65.15.00.24
		48 V	0.35 A	16.8 W	65.15.00.48
	30 W	3.3 V	6 A	19.8 W	65.30.00.03
		5 V	6 A	30 W	65.30.00.05
		9 V	3.4 A	30.6 W	65.30.00.09
		12 V	2.5 A	30 W	65.30.00.12
		15 V	2 A	30 W	65.30.00.15
		24 V	1.3 A	31.2 W	65.30.00.24
		48 V	0.65 A	31.2 W	65.30.00.48
	50 W	3.3 V	10 A	33 W	65.50.00.03
		5 V	10 A	50 W	65.50.00.05
		9 V	5.6 A	50.4 W	65.50.00.09
		12 V	4.3 A	51.6 W	65.50.00.12
		15 V	3.5 A	52.5 W	65.50.00.15
		24 V	2.2 A	52.8 W	65.50.00.24
		36 V	1.4 A	50.4 W	65.50.00.36
		48 V	1.1 A	52.8 W	65.50.00.48
	75 W	3.3 V	15 A	49.5 W	65.75.00.03
		5 V	15 A	75 W	65.75.00.05
		9 V	8.4 A	75.6 W	65.75.00.09
		12 V	6.3 A	75.6 W	65.75.00.12
		15 V	5 A	75 W	65.75.00.15
		24 V	3.2 A	76.8 W	65.75.00.24
		36 V	2.1 A	75.6 W	65.75.00.36
		48 V	1.6 A	76.8 W	65.75.00.48
	100 W	3.3 V	20 A	66	65.75.00.03
		5 V	20 A	100	65.100.00.05
		9 V	10.5 A	94.5	65.100.00.09
		12 V	8.5 A	102	65.100.00.12
		15 V	7 A	105	65.100.00.15
		24 V	4.5 A	108	65.100.00.24
		36 V	2.8 A	100.8	65.100.00.36
		48 V	2.1 A	100.8	65.100.00.48

65 Series Power Supplies

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Model Number Selection

Style	Output Wattage	Output Voltage	Output Current	Max.Output Wattage	Model No.
	150 W	3.3 V	30 A	99 W	65.150.00.03
		5 V	30 A	150 W	65.150.00.05
		9 V	16.7 A	150.3 W	65.150.00.09
		12 V	13 A	156 W	65.150.00.12
		15 V	10 A	150 W	65.150.00.15
		24 V	6.5 A	156 W	65.150.00.24
		36 V	4.3 A	154.8 W	65.154.00.36
		48 V	3.3 A	158.4 W	65.150.00.48
	250 W	5V	45A	225 W	65.250.00.05
		12V	20A	240 W	65.250.00.12
		13.5V	18.6A	251.1 W	65.250.00.13.5
		15V	16.7A	250.5 W	65.250.00.15
		24V	10A	240 W	65.250.00.24
		27V	9A	243 W	65.250.00.27
		48V	5A	240 W	65.250.00.48
	300 W	3.3 V	60 A	198 W	65.300.00.03
		5 V	60 A	300 W	65.300.00.05
		7.5 V	40 A	300 W	65.300.00.07
		12 V	27 A	324 W	65.300.00.12
		15 V	22 A	330 W	65.300.00.15
		24 V	14 A	336 W	65.300.00.24
		36 V	9 A	324 W	65.300.00.36
		48 V	7 A	336 W	65.300.00.48
	600 W	3.3 V	120 A	396 W	65.600.00.03
		5 V	120 A	600 W	65.600.00.05
		7.5 V	80 A	600 W	65.600.00.07
		12 V	53 A	636 W	65.600.00.12
		15 V	43 A	645 W	65.600.00.15
		24 V	27 A	648 W	65.600.00.24
		36 V	18 A	648 W	65.600.00.36
		48 V	13 A	624 W	65.600.00.48
	1000 W	3.3 V	200 A	600 W	65.1000.00.03
		5 V	200 A	1000 W	65.1000.00.05
		9 V	134 A	1005 W	65.1000.00.07
		12 V	88 A	1056 W	65.1000.00.12
		15 V	70 A	1050 W	65.1000.00.15
		24 V	44 A	1056 W	65.1000.00.24
		36 V	29 A	1044 W	65.1000.00.36
		48 V	22 A	1056 W	65.1000.00.48
	1500 W	3.3 V	300 A	990 W	65.1500.00.03
		5 V	300 A	1500 W	65.1500.00.05
		9 V	200 A	1500 W	65.1500.00.07
		12 V	125 A	1500 W	65.1500.00.12
		15 V	100 A	1500 W	65.1500.00.15
		24 V	65 A	1680 W	65.1500.00.24
		36 V	42 A	1692 W	65.1500.00.36
		48 V	32 A	1680 W	65.1500.00.48
	1500 W*	5 V	300 A	1500 W	65.1500.03.05
		12 V	125 A	1500 W	65.1500.03.12
		24 V	70(105) A	1680 W	65.1500.03.24
		48 V	35 A	1680 W	65.1500.03.24

Model Number Structure - Power Supplies

65.75.00.24.01

Series
65 Series Power Supplies

Output Wattage	
10	10W
15	15W
30	30W
50	50W
75	75W
100	100W
150	150W
250	250W
300	300W
600	600W
1000	1000W
1500	1500W

Optional	
01	With Coating
02	Vertical Terminal Block
03	Connector type
04	with Din Rail
05	Remote On/Off Switch
06	DC Input

Output Voltage	
03	3.3 V
05	5 V
07	7.5 V - above 300 W
09	9 V - below 150 W
12	12 V
13.5	13.5 V - only 250 W
15	15 V
24	24 V
27	27V - only 250 W
48	48V - only 250 W
36	36 V

Input Phase	
00	Universal Input
01	110VAC / 230VAC Switch Selection
03	Tripal input phase*

* Suitable for 1500W only.

10 W

Model No.	Voltage	DC Output (100 V)
65.10.00.05	5 V	2 A
65.10.00.12	12 V	0.9 A
65.10.00.24	24 V	0.5 A

Specifications

Model no.			65.10.00.05	65.10.00.12	65.10.00.24
Output	Voltage		5V	12V	24V
	Current		2A	0.9A	0.5A
	Max Output Wattage		10	10.8	12
	Ripple max.	0 to +50°C	80 mV	120 mV	120 mV
		-10 to -0°C	140 mV	160 mV	160 mV
	Temperature Regulation	0 to +50°C	50 mV	120 mV	240 mV
		-10 to -0°C	60 mV	150 mV	290 mV
	Ripple Noise max.	0 to +50°C	120 mV	150mV	150 mV
		-10 to -0°C	160 mV	180 mV	180 mV
	Start-up Time		200typ(ACIN 100V, Io=100%)		
	Hold-up Time		20typ(ACIN 100V, Io=100%)		
	Line Regulation (max.)		20 mV	48 mV	96 mV
	Load Regulation (max.)		40 mV	100 mV	150 mV
	Drift (mV)		20 mV	48 mV	96 mV
	Output Voltage Setting		5.0V - 5.15V	12.0V - 12.48V	24.0V - 24.96V
	Output Voltage Adjustment Range		4.50 - 5.50	10.0 - 13.2	19.2 - 27.0
Input	Voltage		AC85 - 264 1 Ø or DC110 - 370 (AC50 or DC70*)		
	Frequency(Hz)		50/60 (47 - 440) or DC		
	Inrush Current	ACIN 100V	15typ (Io=100%)		
		ACIN 200V	30typ (Io=100%)		
	Current [A]	ACIN 100V	0.30typ (Io= 100%)		
		ACIN 200V	0.20typ (Io= 100%)		
	Efficiency	ACIN 100V	74typ	76typ	77typ
		ACIN 200V	74typ	76typ	77typ
	Leakage Current		0.15/0.30max (ACIN 100v/240V 60Hz,		
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)		
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)		
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)		
Safety	CE Marking		Low Voltage Directive, EMC Directive		
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B		
Protection Circuit	Remote On/Off		None		
	Overcurrent Protection		Works Over 150% of rated current & recovers automatically		
	Overvolatage Protection		5.75V - 7.00V	15.0V - 18.0V	30.0V - 37.0V
	Operating Indication		LED (Green)		
Environment	Operating Temp., Humid & Altitude		-10 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max		
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max		
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis		
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis		

Weight

Weight (approx.)	150g

15 W

Model No.	Voltage	DC Output (100 V)
65.15.00.03	3.3 V	3 A
65.15.00.05	5 V	3 A
65.15.00.09	9 V	1.7 A
65.15.00.12	12 V	1.3 A
65.15.00.15	15 V	1 A
65.15.00.24	24 V	0.7 A
65.15.00.48	48 V	0.35 A

Specifications

Model no.			65.15.00.03	65.15.00.05	65.15.00.09	65.15.00.12	65.15.00.15	65.15.00.24	65.15.00.48
Output	Voltage		3.3 V	5V	9V	12V	15V	24V	48V
	Current		3A	3A	1.7A	1.3A	1A	0.7A	0.35A
	Max Output Wattage		9.9	15	15.3	15.6	15	16.8	16.8
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	200 mV
	Temperature Regulation	0 to +50°C	50 mV	50 mV	90 mV	120 mV	150 mV	240 mV	480 mV
		-10 to -0°C	60 mV	60 mV	120 mV	150 mV	180 mV	290 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	250 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	300 mV
	Start-up Time		200typ(ACIN 100V, Io=100%)						
	Hold-up Time		20typ(ACIN 100V, Io=100%)						
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	100 mV	100 mV	120 mV	150 mV	240 mV
	Drift (mV)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	48.00 - 49.92
	Output Voltage Adjustment Range		2.85 - 3.60	4.50 - 5.50	7.50 - 10.0	10.00 - 13.2	13.2 - 18.00	19.2 - 27.00	39.00 - 53.00
Input	Voltage		AC85 - 264 1 Ø or DC110 - 370 (AC50 or DC70)						
	Frequency(Hz)		50/60 (47 - 440) or DC						
	Inrush Current	ACIN 100V	15typ (Io=100%)						
		ACIN 200V	30typ (Io=100%)						
	Current [A]	ACIN 100V	0.30typ (Io=100%)	0.04typ (Io=100%)					
		ACIN 200V	0.20typ (Io=100%)	0.02typ (Io=100%)					
	Efficiency	ACIN 100V	68typ	74typ	75typ	75typ	77typ	75typ	75typ
		ACIN 200V	68typ	75typ	77typ	78typ	80typ	78typ	78typ
	Leakage Current		0.15/0.30max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)						
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)						
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)						
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)						
Safety	CE Marking		Low Voltage Directive, EMC Directive						
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B						
Protection Circuit	Remote On/Off		None						
	Overcurrent Protection		Works Over 150% of rated current & recovers automatically						
	Overvolatage Protection		4.00 - 5.25	5.75 - 7.00	11.5 - 14.00	15.0 - 18.0	20.00 - 25.0	30.0 - 37.0	58.0 - 65.0
	Operating Indication		LED (Green)						
Environment	Operating Temp., Humid & Altitude		-10 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max						
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max						
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis						
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis						

Weight

Weight (approx.)	200g

30 W

Model No.	Voltage	DC Output (100 V)
65.30.00.03	3.3 V	6 A
65.30.00.05	5 V	6 A
65.30.00.09	9 V	3.4 A
65.30.00.12	12 V	2.5 A
65.30.00.15	15 V	2 A
65.30.00.24	24 V	1.3 A
65.30.00.48	48 V	0.65 A

Specifications

Model no.			65.30.00.03	65.30.00.05	65.30.00.09	65.30.00.12	65.30.00.15	65.30.00.24	65.30.00.48
Output	Voltage		3.3 V	5V	9V	12V	15V	24V	48V
	Current		6 A	6 A	3.4 A	2.5 A	2 A	1.3 A	0.65 A
	Max Output Wattage		19.8	30	30.6	30	30	31.2	31.2
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	200 mV
	Temperature Regulation	0 to +50°C	50 mV	50 mV	90 mV	120 mV	150 mV	240 mV	480 mV
		-10 to -0°C	60 mV	60 mV	120 mV	150 mV	180 mV	290 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	250 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	300 mV
	Start-up Time		200typ(ACIN 100V, Io=100%)						
	Hold-up Time		20typ(ACIN 100V, Io=100%)						
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	100 mV	100 mV	120 mV	150 mV	240 mV
	Drift (mV)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	48.00 - 49.92
	Output Voltage Adjustment Range		2.85 - 3.60	4.50 - 5.50	7.50 - 10.0	10.00 - 13.2	13.2 - 18.00	19.2 - 27.00	39.00 - 53.00
Input	Voltage		AC85 - 264 1 Ø or DC110 - 370 (AC50 or DC70)						
	Frequency(Hz)		50/60 (47 - 440) or DC						
	Inrush Current	ACIN 100V	15typ (Io=100%)						
		ACIN 200V	30typ (Io=100%)						
	Current [A]	ACIN 100V	0.30typ (Io=100%)	0.04typ (Io=100%)					
		ACIN 200V	0.20typ (Io=100%)	0.02typ (Io=100%)					
	Efficiency	ACIN 100V	68typ	74typ	75typ	76typ	78typ	78typ	79typ
		ACIN 200V	69typ	77typ	77typ	78typ	81typ	81typ	81typ
	Leakage Current		0.30/0.65max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)						
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)						
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)						
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)						
Safety	CE Marking		Low Voltage Directive, EMC Directive						
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B						
Protection Circuit	Remote On/Off		None						
	Overcurrent Protection		Works Over 150% of rated current & recovers automatically						
	Overvolatage Protection		4.00 - 5.25	5.75 - 7.00	11.5 - 14.00	15.0 - 18.0	20.00 - 25.0	30.0 - 37.0	58.0 - 65.0
	Operating Indication		LED (Green)						
Environment	Operating Temp., Humid & Altitude		-10 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max						
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max						
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis						
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis						

Weight

Weight (approx.)	270g

50 W

Model No.	Voltage	DC Output (100 V)
65.50.00.03	3.3 V	10 A
65.50.00.05	5 V	10 A
65.50.00.09	9 V	5.6 A
65.50.00.12	12 V	4.3 A
65.50.00.15	15 V	3.5 A
65.50.00.24	24 V	2.2 A
65.50.00.36	36 V	1.4 A
65.50.00.48	48 V	1.1 A

Specifications

Model no.			65.50.00.03	65.50.00.05	65.50.00.09	65.50.00.12	65.50.00.15	65.50.00.24	65.50.00.36	65.50.00.48
Output	Voltage		3.3 V	5V	9V	12V	15V	24V	36V	48V
	Current		10 A	10 A	5.6 A	4.3 A	3.5 A	2.2 A	1.4 A	1.1 A
	Max Output Wattage		33	50	50.4	51.6	52.5	52.8	50.4	52.8
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	200 mV	200 mV
	Temperature Regulation	0 to +50°C	50 mV	50 mV	90 mV	120 mV	150 mV	240 mV	360 mV	480 mV
		-10 to -0°C	60 mV	60 mV	120 mV	150 mV	180 mV	290 mV	450 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	250 mV	250 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	300 mV	300 mV
	Start-up Time		350typ(ACIN 100V, Io=100%)							
	Hold-up Time		20typ(ACIN 100V, Io=100%)							
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	100 mV	100 mV	120 mV	150 mV	240 mV	240 mV
	Drift (mV)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	35.00 - 37.44	48.00 - 49.92
	Output Voltage Adjustment Range		2.85 - 3.60	4.50 - 5.50	7.50 - 10.0	10.00 - 13.2	13.2 - 18.00	19.2 - 27.00	28.8 - 39.6	39.00 - 53.00
Input	Voltage		AC85 - 264 1 Ø or DC120 - 370 (AC50 or DC70)							
	Frequency(Hz)		50/60 (47 - 63) or DC							
	Inrush Current	ACIN 100V	15typ (Io=100%)							
		ACIN 200V	30typ (Io=100%)							
	Current [A]	ACIN 100V	0.5typ	0.7typ						
		ACIN 200V	0.3typ	0.4typ						
	Efficiency	ACIN 100V	75typ	80typ	79typ	80typ	81typ	82typ	83typ	83typ
		ACIN 200V	76typ	82typ	81typ	82typ	83typ	85typ	85typ	85typ
	Leakage Current		0.4/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)							
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
Safety	CE Marking		Low Voltage Directive, EMC Directive							
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B							
Protection Circuit	Remote On/Off		None							
	Overcurrent Protection		Works Over 105% of rated current & recovers automatically							
	Overvolatage Protection		4.00 - 5.25	5.75 - 7.00	11.5 - 14.00	15.0 - 18.0	20.00 - 25.0	30.0 - 37.0	43.0 - 50.0	58.0 - 65.0
	Operating Indication		LED (Green)							
Environment	Operating Temp., Humid & Altitude		-10 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max							
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max							
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis							
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis							

Weight

Weight (approx.)	280g

75 W

Model No.	Voltage	DC Output (100 V)
65.75.00.03	3.3 V	15 A
65.75.00.05	5 V	15 A
65.75.00.09	9 V	8.4 A
65.75.00.12	12 V	6.3 A
65.75.00.15	15 V	5 A
65.75.00.24	24 V	3.2 A
65.75.00.36	36 V	2.1 A
65.75.00.48	48 V	1.6 A

Specifications

Model no.			65.75.00.03	65.75.00.05	65.75.00.09	65.75.00.12	65.75.00.15	65.75.00.24	65.75.00.36	65.75.00.48
Output	Voltage		3.3 V	5V	9V	12V	15V	24V	36V	48V
	Current		15 A	15 A	8.4 A	6.3 A	5 A	3.2 A	2.1 A	1.6 A
	Max Output Wattage		49.5	75	75.6	75.6	75	76.8	75.6	76.8
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	200 mV	200 mV
	Temperature Regulation	0 to +50°C	50 mV	50 mV	90 mV	120 mV	150 mV	240 mV	360 mV	480 mV
		-10 to -0°C	60 mV	60 mV	120 mV	150 mV	180 mV	290 mV	450 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	250 mV	250 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	300 mV	300 mV
	Start-up Time		350typ (ACIN 100V, Io=100%)							
	Hold-up Time		20typ (ACIN 100V, Io=100%)							
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	100 mV	100 mV	120 mV	150 mV	240 mV	240 mV
	Drift (mV)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	35.00 - 37.44	48.00 - 49.92
	Output Voltage Adjustment Range		2.85 - 3.63	4.00 - 5.50	7.50 - 10.0	10.00 - 13.2	13.2 - 18.00	19.2 - 27.00	28.8 - 39.6	39.00 - 53.00
Input	Voltage		AC85 - 264 1 Ø or DC120 - 370 (AC50 or DC70)							
	Frequency(Hz)		50/60 (47 - 63) or DC							
	Inrush Current	ACIN 100V	15typ (Io=100%) at cold start							
		ACIN 200V	30typ (Io=100%) at cold start							
	Current [A]	ACIN 100V	0.7typ	1.0typ						
		ACIN 200V	0.4typ	0.5typ						
	Efficiency	ACIN 100V	77typ	81typ	80typ	81typ	82typ	83typ	84typ	84typ
		ACIN 200V	78typ	83typ	82typ	83typ	84typ	85typ	86typ	86typ
	Leakage Current		0.4/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)							
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
Safety	CE Marking		Low Voltage Directive, EMC Directive							
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B							
Protection Circuit	Remote On/Off		None							
	Overcurrent Protection		Works Over 105% of rated current & recovers automatically							
	Overvolatage Protection		4.00 - 5.25	5.75 - 7.00	11.5 - 14.00	15.0 - 18.0	20.00 - 25.0	30.0 - 37.0	43.0 - 50.0	58.0 - 65.0
	Operating Indication		LED (Green)							
Environment	Operating Temp., Humid & Altitude		-10 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max							
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max							
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis							
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis							

Weight

Weight (approx.)	350g

100 W

Model No.	Voltage	DC Output (100 V)
65.100.00.03	3.3 V	20 A
65.100.00.05	5 V	20 A
65.100.00.09	9 V	10.5 A
65.100.00.12	12 V	8.5 A
65.100.00.15	15 V	7 A
65.100.00.24	24 V	4.5 A
65.100.00.36	36 V	2.8 A
65.100.00.48	48 V	2.1 A

Specifications

Model no.			65.100.00.03	65.100.00.05	65.100.00.09	65.100.00.12	65.100.00.15	65.100.00.24	65.100.00.36	65.100.00.48
Output	Voltage		3.3 V	5V	9V	12V	15V	24V	36V	48V
	Current		20 A	20 A	10.5 A	8.5 A	7 A	4.5 A	2.8 A	2.1 A
	Max Output Wattage		66	100	94.5	102	105	108	100.8	100.8
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	200 mV	200 mV
	Temperature Regulation	0 to +50°C	50 mV	50 mV	90 mV	120 mV	150 mV	240 mV	360 mV	480 mV
		-10 to -0°C	60 mV	60 mV	120 mV	150 mV	180 mV	290 mV	450 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	250 mV	250 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	300 mV	300 mV
	Start-up Time		350typ (ACIN 100V, Io=100%)							
	Hold-up Time		20typ (ACIN 100V, Io=100%)							
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	100 mV	100 mV	120 mV	150 mV	240 mV	240 mV
	Drift (mV)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Output Voltage Setting		3.20 - 3.40	5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	35.00 - 37.44	48.00 - 49.92
	Output Voltage Adjustment Range		2.85 - 3.63	4.00 - 5.50	7.50 - 10.0	10.00 - 13.2	13.2 - 18.00	19.2 - 27.00	28.8 - 39.6	39.00 - 53.00
Input	Voltage		AC85 - 264 1 Ø or DC120 - 370 (AC50 or DC70)							
	Frequency(Hz)		50/60 (47 - 63) or DC							
	Inrush Current	ACIN 100V	20typ (Io=100%) at cold start							
		ACIN 200V	40typ (Io=100%) at cold start							
	Current [A]	ACIN 100V	0.9typ	1.3typ						
		ACIN 200V	0.5typ	0.7typ						
	Efficiency	ACIN 100V	77typ	82typ	80typ	81typ	83typ	84typ	84typ	84typ
		ACIN 200V	79typ	84typ	82typ	83typ	86typ	86typ	86typ	86typ
	Leakage Current		0.4/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)							
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
Safety	CE Marking		Low Voltage Directive, EMC Directive							
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B							
Protection Circuit	Remote On/Off		None							
	Overcurrent Protection		Works Over 105% of rated current & recovers automatically							
	Overvolatage Protection		4.00 - 5.25	5.75 - 7.00	11.5 - 14.00	15.0 - 18.0	20.00 - 25.0	30.0 - 37.0	43.0 - 50.0	58.0 - 65.0
	Operating Indication		LED (Green)							
Environment	Operating Temp., Humid & Altitude		-10 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max							
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max							
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis							
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis							

Weight

Weight (approx.)	440g

150 W

Model No.	Voltage	DC Output (100 V)
65.150.00.03	3.3 V	30 A
65.150.00.05	5 V	30 A
65.150.00.09	9 V	16.7 A
65.150.00.12	12 V	13 A
65.150.00.15	15 V	10 A
65.150.00.24	24 V	6.5 A
65.154.00.36	36 V	4.3 A
65.150.00.48	48 V	3.3 A

Specifications

Model no.			65.150.00.03	65.150.00.05	65.150.00.09	65.150.00.12	65.150.00.15	65.150.00.24	65.154.00.36	65.150.00.48
Output	Voltage		3.3 V	5V	9V	12V	15V	24V	36V	48V
	Current		30 A	30 A	16.7 A	13 A	10 A	6.5 A	4.3 A	3.3 A
	Max Output Wattage		99	150	150.3	156	150	156	154.8	158.4
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	200 mV	200 mV
	Temperature Regulation	0 to +50°C	50 mV	50 mV	90 mV	120 mV	150 mV	240 mV	360 mV	480 mV
		-10 to -0°C	60 mV	60 mV	120 mV	150 mV	180 mV	290 mV	450 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	250 mV	250 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	300 mV	300 mV
	Start-up Time		350typ (ACIN 100V, Io=100%)							
	Hold-up Time		20typ (ACIN 100V, Io=100%)							
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	100 mV	100 mV	120 mV	150 mV	240 mV	240 mV
	Drift (mV)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	9.00 - 9.36	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	35.00 - 37.44	48.00 - 49.92
	Output Voltage Adjustment Range		2.85 - 3.63	4.00 - 5.50	7.50 - 10.0	10.00 - 13.2	13.2 - 18.00	19.2 - 27.00	28.8 - 39.6	39.00 - 53.00
Input	Voltage		AC85 - 264 1 Ø or DC120 - 370 (AC50 or DC70)							
	Frequency(Hz)		50/60 (47 - 63)							
	Inrush Current	ACIN 100V	20typ (Io=100%) at cold start							
		ACIN 200V	40typ (Io=100%) at cold start							
	Current [A]	ACIN 100V	1.3typ	2.0typ						
		ACIN 200V	0.7typ	1.0typ						
	Efficiency	ACIN 100V	80typ	83typ	82typ	83typ	84typ	85typ	85typ	85typ
		ACIN 200V	82typ	86typ	85typ	86typ	87typ	88typ	88typ	88typ
	Leakage Current		0.4/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)							
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
Safety	CE Marking		Low Voltage Directive, EMC Directive							
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B							
Protection Circuit	Remote On/Off		None							
	Overcurrent Protection		Works Over 105% of rated current & recovers automatically							
	Overvolatage Protection		4.00 - 5.25	5.75 - 7.00	11.5 - 14.00	15.0 - 18.0	20.00 - 25.0	30.0 - 37.0	43.0 - 50.0	58.0 - 65.0
	Operating Indication		LED (Green)							
Environment	Operating Temp., Humid & Altitude		-10 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max							
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max							
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis							
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis							

Weight

Weight (approx.)	560g

65 Series Power Supplies

WERNER

250 W

Model No.	Voltage	Rated Output Current
65.250.00.05	5V	45A
65.250.00.12	12V	20A
65.250.00.13.5	13.5V	18.6A
65.250.00.15	15V	16.7A
65.250.00.24	24V	10A
65.250.00.27	27V	9A
65.250.00.48	48V	5A

Specifications

Model No.	65.250.00.05	65.250.00.12	65.250.00.13.5	65.250.00.15	65.250.00.24	65.250.00.27	65.250.00.48
DC Output Voltage	5V	12V	13.5V	15V	24V	27V	48V
Iutput Voltage Error	± 2%	± 2%	± 1%	± 1%	± 1%	± 1%	± 1%
Rated Output Current	45A	20A	18.6A	16.7A	10A	9A	5A
Output Current Range	0-45A	0-20A	0-18.6A	0-16.7A	0-10A	0-9A	0-5A
Tripple and Noise	200mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	150mVp-p	240mVp-p
Iniet Stability	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
Tolerance Voltage	± 1%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
DC Output Power	247.5W	240W	248W	250.5W	240W	243W	240W
Efficiency	75%	79%	79%	80%	81%	82%	84%
Adjustable Range for DC Voltage	6-9V	10-13.2V	12-15V	13.5-18V	20-26.4V	26-32V	41-56V
AC Input Voltage Range	88~132VAC/176~264VAC selected by switch 47~63Hz; 240~370VDC						
Input Current	5A/115V 2.5A/230V						
AC Inrush Current	Cold-Start Current: 30A/115V, 60A/230V						
Leakage Current	<3.5mA/240VAC						
Overload Protection	105%~150% Type: Cut Output, Reset: Auto Recovery						
Over Voltage Protection	.....						
High Temperature Protection	.....						
Temperature Coefficient	± 0.03% /ºC (0~50ºC)						
Start, Rise, Hold time	200ms, 100ms, 20ms						
Vibration	10~500Hz, 2G 10min,/1cycle, a total of 60 minutes, Each axes						
Withstand Voltage	Between Input and Output: 1.5KVAC, Input and Shell: 1.5KVAC, Output and Shell: 0.5KVAC						
Isolation Resistance	Input and Output Intermal: Input and Enclosute, Output and Enclosure: 500VDC/100M Ohms						
Working Temperature and Humidity	`-10ºC~+60ºC (Refer to Output Derating Cutve), 20%~90%RH						
Storage Temperature and Humidity	`20ºC~+85ºC, 10%~95%RH						
Overall Dimension	215X115X50 mm						
Weight	1.10 kgs						
Safety Standards	CE						
EMC Standards	Meet FCC Part 15J Conduction class B						

Weight

Weight (approx.)	1.10 kgs

300 W

Model No.	Voltage	DC Output (100 V)	DC Output (200 V)
65.300.00.03	3.3 V	60 A	60 A
65.300.00.05	5 V	60 A	60 A
65.300.00.07	7.5 V	40 A	40 A
65.300.00.12	12 V	27 A	27 A
65.300.00.15	15 V	22 A	22 A
65.300.00.24	24 V	14 A	14(16.5) A
65.300.00.36	36 V	9 A	9 A
65.300.00.48	48 V	7 A	7 A

Specifications

Model no.			65.300.00.03	65.300.00.05	65.300.00.07	65.300.00.12	65.300.00.15	65.300.00.24	65.300.00.36	65.300.00.48
Output	Voltage		3.3 V	5V	7.5V	12V	15V	24V	36V	48V
	Current	100 V	60 A	60 A	40 A	27 A	22 A	14 A	9 A	7 A
		200 V	60 A	60 A	40 A	27 A	22 A	14(16.5) A	9 A	7 A
	Max Output Wattage		198	300	300	324	330	336	324	336
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	160 mV	400 mV
	Temperature Regulation	0 to +50°C	40 mV	50 mV	75 mV	120 mV	150 mV	240 mV	360 mV	480 mV
		-10 to -0°C	60 mV	75 mV	120 mV	180 mV	180 mV	290 mV	440 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	200 mV	200 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	240 mV	500 mV
	Start-up Time		300typ (ACIN 100V/200V, Io=100%)							
	Hold-up Time		20typ (ACIN 100V/200V, Io=100%)							
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	60 mV	100 mV	120 mV	150 mV	250 mV	300 mV
	Drift (mV)		12 mV	20 mV	30 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	7.50 - 7.80	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	36.00 - 37.44	48.00 - 49.92
	Output Voltage Adjustment Range		2.64 - 3.96	3.96 - 6.00	5.25 - 8.25	8.25 - 13.2	10.50 - 16.50	16.50 - 26.40	25.20 - 39.60	38.40 - 56.00
Input	Voltage		AC85 - 264 1 Ø or DC120 - 370 (AC50 or DC70)							
	Frequency(Hz)		50/60 (47 - 63)							
	Inrush Current	ACIN 100V	20/40typ (Io=100%) (Primary inrush current/secondary inrush current) (More then 3 sec. to re-start)							
		ACIN 200V	40/40typ (Io=100%) (Primary inrush current/secondary inrush current) (More then 3 sec. to re-start)							
	Current [A]	ACIN 100V	3typ	4.1typ						
		ACIN 200V	1.6typ	2typ						
	Power Factor	ACIN 100V	0.98typ (Io=100%)							
		ACIN 200V	0.95typ (Io=100%)							
	Efficiency	ACIN 100V	68typ	74typ	76typ	78typ	78typ	79typ	81typ	79typ
		ACIN 200V	71typ	77typ	79typ	81typ	81typ	82typ	84typ	82typ
	Leakage Current		0.4/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)							
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
Safety	CE Marking		Low Voltage Directive, EMC Directive							
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B							
Protection Circuit	Remote On/Off		None							
	Overcurrent Protection		Works Over 105% of rated current & recovers automatically							
	Overvolatage Protection		4.3 - 6.3	6.5 - 8.00	9.0 - 11.6	14.4 - 18.6	18.00 - 23.3	28.8 - 37.2	43.2 - 54.0	57.6 - 80.0
	Operating Indication		LED (Green)							
Environment	Operating Temp., Humid & Altitude		-20 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max							
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max							
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis							
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis							

Weight

Weight (approx.)	560g

600 W

Model No.	Voltage	DC Output (100 V)	DC Output (200 V)
65.600.00.03	3.3 V	120 A	120 A
65.600.00.05	5 V	120 A	120 A
65.600.00.07	7.5 V	80 A	80 A
65.600.00.12	12 V	53 A	53 A
65.600.00.15	15 V	43 A	43 A
65.600.00.24	24 V	27 A	27(31)A
65.600.00.36	36 V	18 A	18 A
65.600.00.48	48 V	13 A	13 A

Specifications

Model no.			65.600.00.03	65.600.00.05	65.600.00.07	65.600.00.12	65.600.00.15	65.600.00.24	65.600.00.36	65.600.00.48
Output	Voltage		3.3 V	5V	7.5V	12V	15V	24V	36V	48V
	Current	100 V	120 A	120 A	80 A	53 A	43 A	27 A	18 A	13 A
		200 V	120 A	120 A	80 A	53 A	43 A	27(31)A	18 A	13 A
	Max Output Wattage		396	600	600	636	645	648	648	624
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	160 mV	400 mV
	Temperature Regulation	0 to +50°C	40 mV	50 mV	75 mV	120 mV	150 mV	240 mV	360 mV	480 mV
		-10 to -0°C	60 mV	75 mV	120 mV	180 mV	180 mV	290 mV	440 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	200 mV	200 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	240 mV	500 mV
	Start-up Time		400typ (ACIN 100V/200V, Io=100%)							
	Hold-up Time		20typ (ACIN 100V/200V, Io=100%)							
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	60 mV	100 mV	120 mV	150 mV	150 mV	300 mV
	Drift (mV)		12 mV	20 mV	30 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	7.50 - 7.80	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	36.00 - 37.44	48.00 - 49.92
	Output Voltage Adjustment Range		2.64 - 3.96	3.96 - 6.00	5.25 - 8.25	8.25 - 13.2	10.50 - 16.50	16.50 - 26.40	25.20 - 39.60	38.40 - 56.00
Input	Voltage		AC85 - 264 1 Ø or DC120 - 370 (AC50 or DC70)							
	Frequency(Hz)		50/60 (47 - 63)							
	Inrush Current	ACIN 100V	20/40typ (Io=100%) (Primary inrush current/secondary inrush current) (More then 3 sec. to re-start)							
		ACIN 200V	40/40typ (Io=100%) (Primary inrush current/secondary inrush current) (More then 3 sec. to re-start)							
	Current [A]	ACIN 100V	5.8typ	8.2typ						
		ACIN 200V	3typ	4.1typ						
	Power Factor	ACIN 100V	0.98typ (Io=100%)							
		ACIN 200V	0.95typ (Io=100%)							
	Efficiency	ACIN 100V	70typ	75typ	76typ	79typ	79typ	81typ	82typ	81typ
		ACIN 200V	72typ	77typ	79typ	82typ	82typ	84typ	84typ	83typ
	Leakage Current		0.4/0.75max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)							
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
Safety	CE Marking		Low Voltage Directive, EMC Directive							
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B							
Protection Circuit	Remote On/Off		None							
	Overcurrent Protection		Works Over 105% of rated current & recovers automatically							
	Overvolatage Protection		Vo+0.66 - 1.32	Vo+1.0 - 2.0	Vo+1.5 - 3.0	Vo+2.4 - 4.8	Vo+3.0 - 6.0	Vo+4.8 - 9.6	Vo+7.2 - 14.4	Vo+4.8 - 12
	Operating Indication		LED (Green)							
Environment	Operating Temp., Humid & Altitude		-20 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max							
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max							
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis							
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis							

Weight

Weight (approx.)	1,600g

1000 W

Model No.	Voltage	DC Output (100 V)	DC Output (200 V)
65.1000.00.03	3.3 V	200 A	200 A
65.1000.00.05	5 V	200 A	200 A
65.1000.00.07	7.5 V	134 A	134 A
65.1000.00.12	12 V	88 A	88 A
65.1000.00.15	15 V	70 A	70 A
65.1000.00.24	24 V	44 A	44(51) A
65.1000.00.36	36 V	29 A	29 A
65.1000.00.48	48 V	22 A	22 A

Specifications

Model no.			65.1000.00.03	65.1000.00.05	65.1000.00.07	65.1000.00.12	65.1000.00.15	65.1000.00.24	65.1000.00.36	65.1000.00.48
Output	Voltage		3.3 V	5V	7.5V	12V	15V	24V	36V	48V
	Current	100 V	200 A	200 A	134 A	88 A	70 A	44 A	29 A	22 A
		200 V	200 A	200 A	134 A	88 A	70 A	44 A	29 A	22 A
	Max Output Wattage		600	1000	1005	1056	1050	1056	1044	1056
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	160 mV	400 mV
	Temperature Regulation	0 to +50°C	40 mV	50 mV	75 mV	120 mV	150 mV	240 mV	360 mV	480 mV
		-10 to -0°C	60 mV	75 mV	120 mV	180 mV	180 mV	290 mV	440 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	200 mV	200 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	240 mV	500 mV
	Start-up Time		400typ (ACIN 100V/200V, Io=100%)							
	Hold-up Time		20typ (ACIN 100V/200V, Io=100%)							
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	60 mV	100 mV	120 mV	150 mV	150 mV	300 mV
	Drift (mV)		12 mV	20 mV	30 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	7.50 - 7.80	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	36.00 - 37.44	48.00 - 49.92
	Output Voltage Adjustment Range		2.64 - 3.96	3.96 - 6.00	5.25 - 8.25	8.25 - 13.2	10.50 - 16.50	16.50 - 26.40	25.20 - 39.60	38.40 - 56.00
Input	Voltage		AC85 - 264 1 Ø or DC120 - 370 (AC50 or DC70)							
	Frequency(Hz)		50/60 (47 - 63)							
	Inrush Current	ACIN 100V	20/40typ (Io=100%) (Primary inrush current/secondary inrush current) (More then 3 sec. to re-start)							
		ACIN 200V	40/40typ (Io=100%) (Primary inrush current/secondary inrush current) (More then 3 sec. to re-start)							
	Current [A]	ACIN 100V	9typ	13typ						
		ACIN 200V	5typ	7typ						
	Power Factor	ACIN 100V	0.98typ (Io=100%)							
		ACIN 200V	0.95typ (Io=100%)							
	Efficiency	ACIN 100V	74typ	79typ	80typ	82typ	84typ	84typ	84typ	84typ
		ACIN 200V	76typ	81typ	83typ	84typ	84typ	86typ	86typ	86typ
	Leakage Current		0.5/1.0max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)							
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
Safety	CE Marking		Low Voltage Directive, EMC Directive							
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B							
Protection Circuit	Remote On/Off		None							
	Overcurrent Protection		Works Over 105% of rated current & recovers automatically							
	Overvolatage Protection		Vo+0.66 - 1.32	Vo+1.0 - 2.0	Vo+1.5 - 3.0	Vo+2.4 - 4.8	Vo+3.0 - 6.0	Vo+4.8 - 9.6	Vo+7.2 - 14.4	Vo+4.8 - 12
	Operating Indication		LED (Green)							
Environment	Operating Temp., Humid & Altitude		-20 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max							
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max							
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis							
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis							

Weight

Weight (approx.)	2,200g

1500 W

Model No.	Voltage	DC Output (100 V)	DC Output (200 V)
65.1500.00.03	3.3 V	300 A	300 A
65.1500.00.05	5 V	300 A	300 A
65.1500.00.07	7.5 V	200 A	200 A
65.1500.00.12	12 V	125 A	125 A
65.1500.00.15	15 V	100 A	100 A
65.1500.00.24	24 V	65 A	70(105) A
65.1500.00.36	36 V	42 A	47(70) A
65.1500.00.48	48 V	32 A	32 A

Specifications

Model no.			65.1500.00.03	65.1500.00.05	65.1500.00.07	65.1500.00.12	65.1500.00.15	65.1500.00.24	65.1500.00.36	65.1500.00.48
Output	Voltage		3.3 V	5V	7.5V	12V	15V	24V	36V	48V
	Current	100 V	300 A	300 A	200 A	125 A	100 A	65 A	42 A	32 A
		200 V	300 A	300 A	200 A	125 A	100 A	70(105) A	47(70) A	32 A
	Max Output Wattage		990	1500	1500	1500	1500	1680	1692	1680
	Ripple max.	0 to +50°C	80 mV	80 mV	120 mV	120 mV	120 mV	120 mV	150 mV	150 mV
		-10 to -0°C	140 mV	140 mV	160 mV	160 mV	160 mV	160 mV	160 mV	400 mV
	Temperature Regulation	0 to +50°C	40 mV	50 mV	75 mV	120 mV	150 mV	240 mV	360 mV	480 mV
		-10 to -0°C	60 mV	75 mV	120 mV	180 mV	180 mV	290 mV	440 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	120 mV	150 mV	150mV	150 mV	150 mV	200 mV	200 mV
		-10 to -0°C	160 mV	160 mV	180 mV	180 mV	180 mV	180 mV	240 mV	500 mV
	Start-up Time		600typ (ACIN 100V/200V, Io=100%)							
	Hold-up Time		20typ (ACIN 100V/200V, Io=100%)							
	Line Regulation (max.)		20 mV	20 mV	36 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Load Regulation (max.)		40 mV	40 mV	60 mV	100 mV	120 mV	150 mV	150 mV	300 mV
	Drift (mV)		12 mV	20 mV	30 mV	48 mV	60 mV	96 mV	144 mV	192 mV
	Output Voltage Setting		3.30 - 3.40	5.00 - 5.15	7.50 - 7.80	12.00 - 12.48	15.00 - 15.60	24.00 - 24.96	36.00 - 37.44	48.00 - 49.92
	Output Voltage Adjustment Range		2.64 - 3.96	3.96 - 6.00	5.25 - 8.25	8.25 - 13.2	10.50 - 16.50	16.50 - 26.40	25.20 - 39.60	38.40 - 56.00
Input	Voltage		AC85 - 264 1 Ø or DC120 - 370 (AC50 or DC70)							
	Frequency(Hz)		50/60 (47 - 63)							
	Inrush Current	ACIN 100V	20/40typ (Io=100%) (Primary inrush current/secondary inrush current) (More then 3 sec. to re-start)							
		ACIN 200V	40/40typ (Io=100%) (Primary inrush current/secondary inrush current) (More then 3 sec. to re-start)							
	Current [A]	ACIN 100V	15typ	19typ						
		ACIN 200V	8typ	10typ						
	Power Factor	ACIN 100V	0.98typ (Io=100%)							
		ACIN 200V	0.95typ (Io=100%)							
	Efficiency	ACIN 100V	72typ	77typ	81typ	81typ	83typ	84typ	84typ	84typ
		ACIN 200V	75typ	81typ	83typ	84typ	86typ	87typ	87typ	87typ
	Leakage Current		0.9/1.5max (ACIN 100V/240V 60Hz, Io=100%, According to IEC60950-1,DENAN)							
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
	Output-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)							
Safety	CE Marking		Low Voltage Directive, EMC Directive							
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B							
Protection Circuit	Remote On/Off		None							
	Overcurrent Protection		Works Over 105% of rated current & recovers automatically							
	Overvolatage Protection		Vo+0.66 - 1.32	Vo+1.0 - 2.0	Vo+1.5 - 3.0	Vo+2.4 - 4.8	Vo+3.0 - 6.0	Vo+4.8 - 9.6	Vo+7.2 - 14.4	Vo+4.8 - 12
	Operating Indication		LED (Green)							
Environment	Operating Temp., Humid & Altitude		-20 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max							
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max							
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis							
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis							

Weight

Weight (approx.)	3,400g

1500 W - Triple Input Phase

Model No.	Voltage	DC Output (100 V)
65.1500.03.05	5 V	300 A
65.1500.03.12	12 V	125 A
65.1500.03.24	24 V	70(105) A
65.1500.03.24	48 V	35 A

Specifications

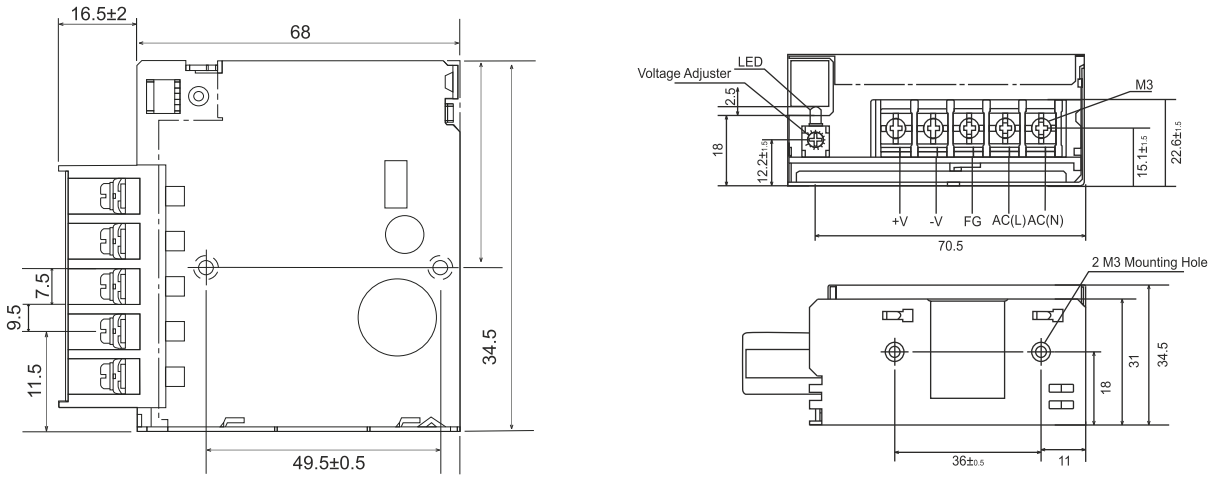
Model no.			65.1500.03.05	65.1500.03.12	65.1500.03.24	65.1500.03.24
Output	Voltage		5V	12V	24V	48V
	Current		300 A	125 A	70(105) A	35 A
	Max Output Wattage		1500	1500	1680	1680
	Ripple max.	0 to +50°C	80 mV	120 mV	120 mV	150 mV
		-10 to -0°C	140 mV	160 mV	160 mV	400 mV
	Temperature Regulation	0 to +50°C	50 mV	120 mV	240 mV	480 mV
		-10 to -0°C	75 mV	180 mV	290 mV	600 mV
	Ripple Noise max.	0 to +50°C	120 mV	150mV	150 mV	200 mV
		-10 to -0°C	160 mV	180 mV	180 mV	500 mV
	Start-up Time		300typ (ACIN 100V, Io=100%)			
	Hold-up Time		20typ (ACIN 100V, Io=100%)			
	Line Regulation (max.)		20 mV	48 mV	96 mV	192 mV
	Load Regulation (max.)		40 mV	100 mV	150 mV	300 mV
	Drift (mV)		20 mV	48 mV	96 mV	192 mV
	Output Voltage Setting		3.96 - 6.00	8.25 - 13.20	16.50 - 26.40	38.40 - 56.00
	Output Voltage Adjustment Range		5.00 - 5.15	12.00 - 12.48	24.00 - 24.96	48.00 - 49.92
Input	Voltage		AC170 - 264 3 Ø			
	Frequency(Hz)		50/60 (47 - 63)			
	Inrush Current	ACIN 200V	40/40typ (Io=100%) (Primary inrush current/Secondary inrush current) (More than 10 sec. to restart)			
	Current [A]	ACIN 200V	6typ			
	Power Factor	ACIN 200V	0.95typ (Io= 100%)			
	Efficiency	ACIN 200V	81typ	84typ	87typ	87typ
	Leakage Current		1.5max (ACIN 100v/240V 60Hz, Io=100%)			
Insolation	Input-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)			
	Input-Output		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩmin (At Room Temperature)			
	Output.RC. AUX-FG		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)			
	Output- Aux		AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩmin (At Room Temperature)			
Safety	CE Marking		Low Voltage Directive, EMC Directive			
	Conducted Noise		Complies with FCC Part15 classB, VCCI-B, CISPR22-B, EN55011-B, EN55022-B			
Protection Circuit	Remote On/Off		None			
	Overcurrent Protection		Works Over 150% of rated current & recovers automatically			
	Overvolatage Protection		Vo+1.0 - 2.00	Vo+2.4 - 4.8	Vo+4.8 - 9.6	Vo+2.0 - 12.0
	Operating Indication		LED (Green)			
Environment	Operating Temp., Humid & Altitude		-10 to +71C (Required Derating), 20 - 90%RH (Non condensing) 3,000m (10,000feet) max			
	Storage Temp., Humid. & Altitude		-20 to +75C, 20 - 90%RH (Non condensing) 9,000m (30,000feet) max			
	Impact		196.1m/s2 (20G), 11ms, once each X, Y and Z axis			
	Vibration		10 - 55Hz, 19.6m/s2 (2G), 3minutes period, 60minutes each along X, Y and Z axis			

Weight

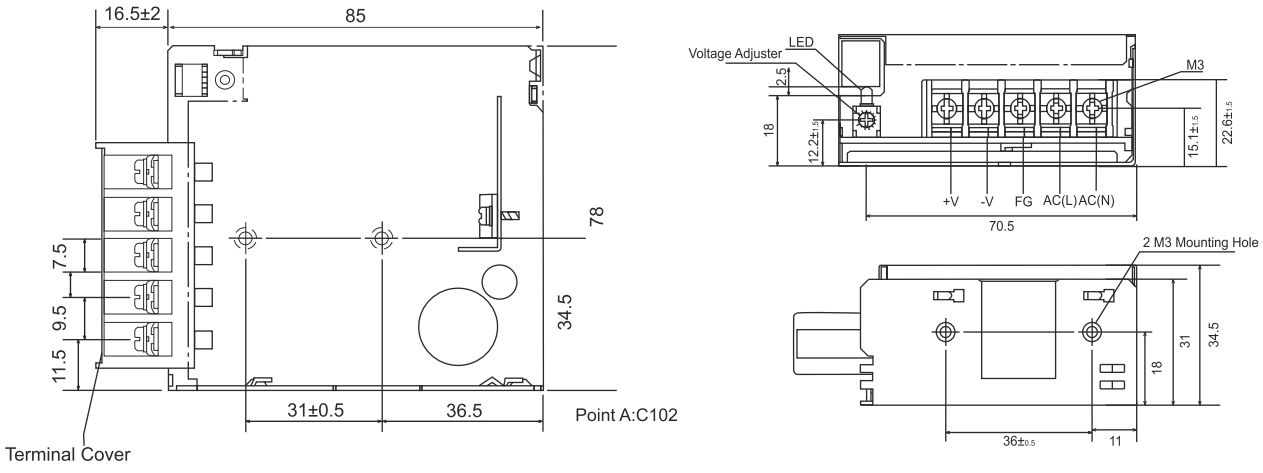
Weight (approx.)	150g

Dimensions

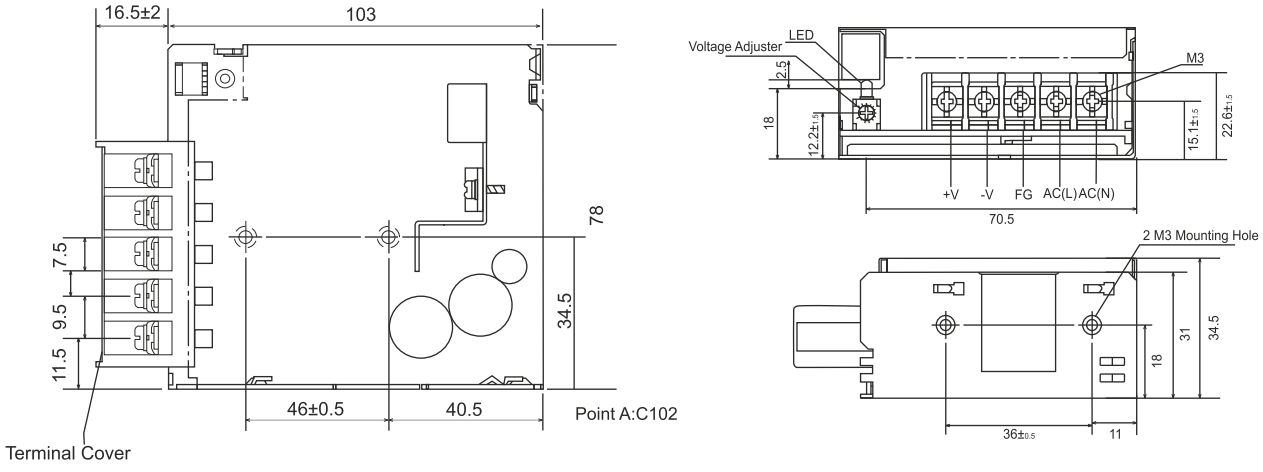
10 W



15 W



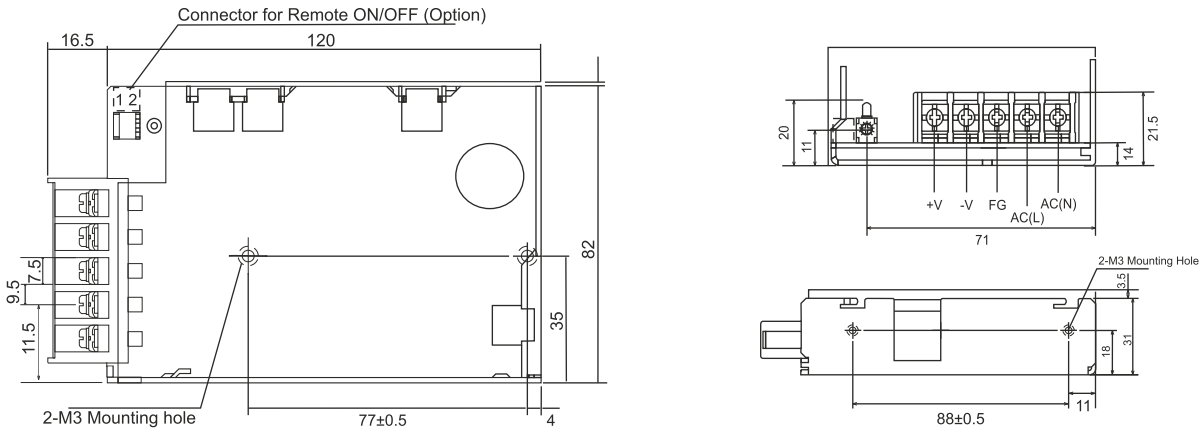
30 W



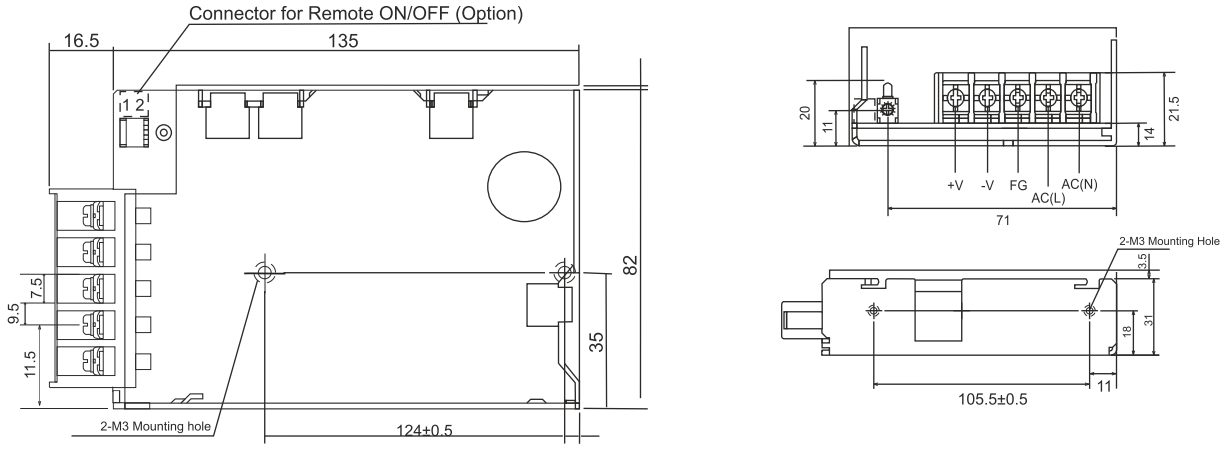
** Refers to Voltage types - Page no.4

Dimensions

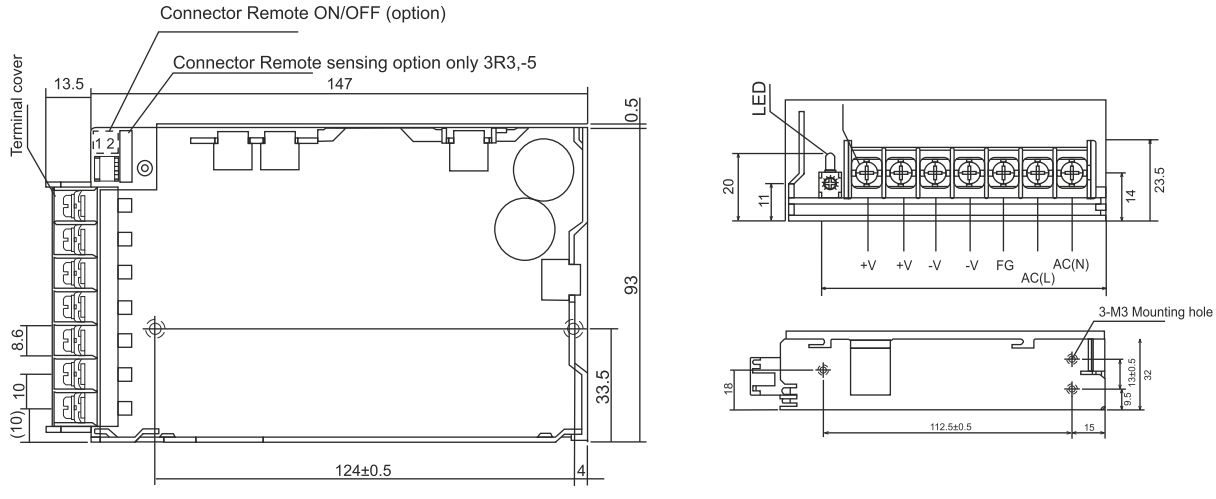
50 W



75 W



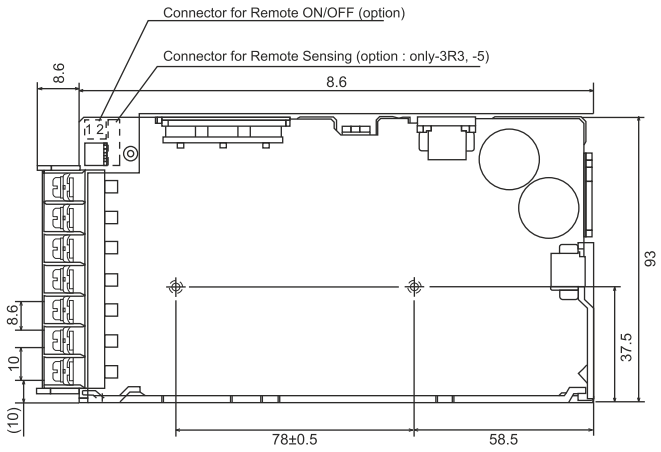
100 W

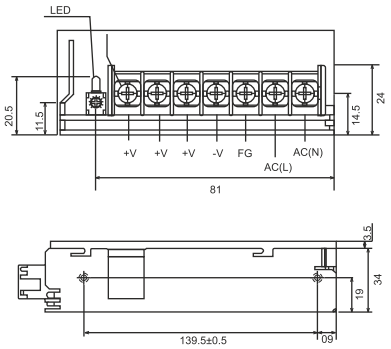


** Refers to Voltage types - Page no.4

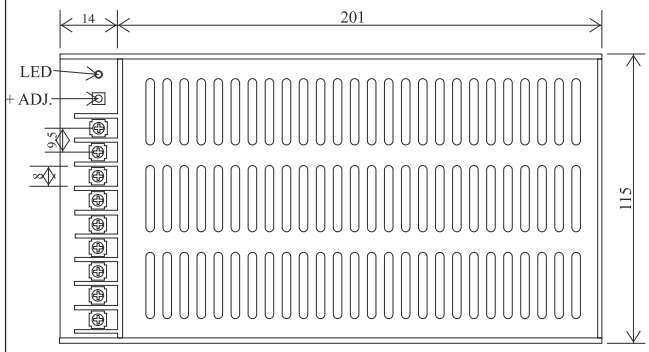
Dimensions

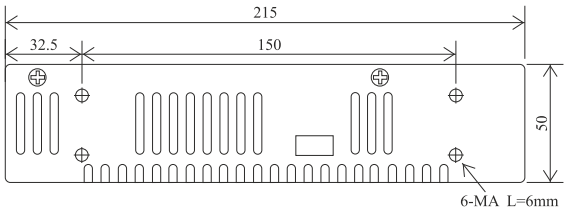
150 W



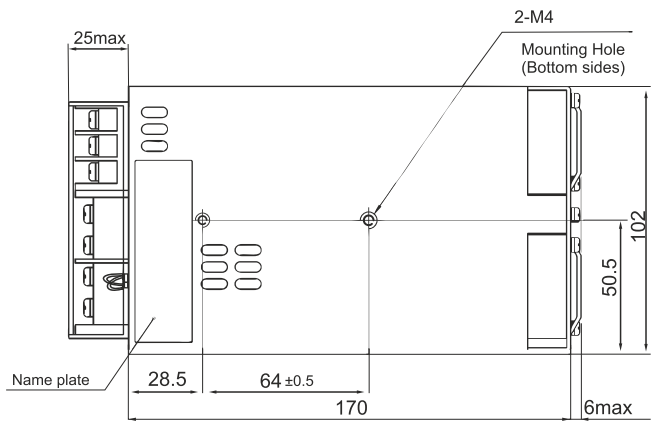


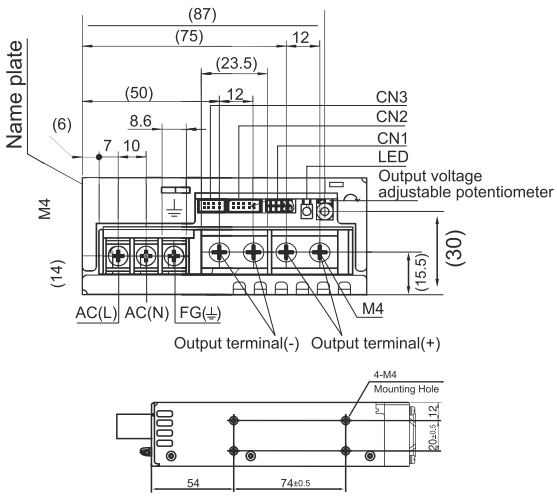
250 W





300 W

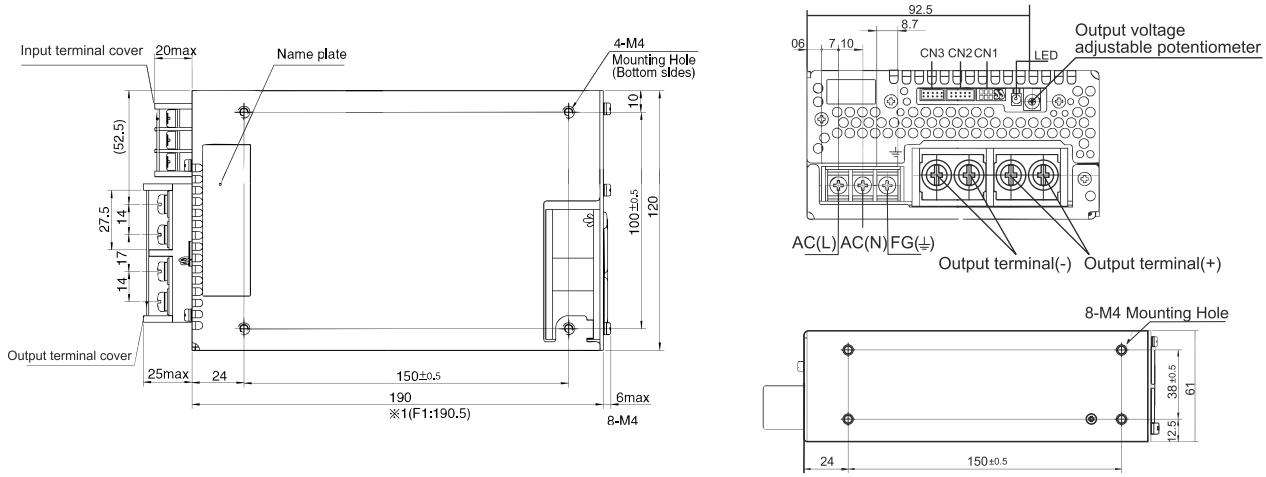




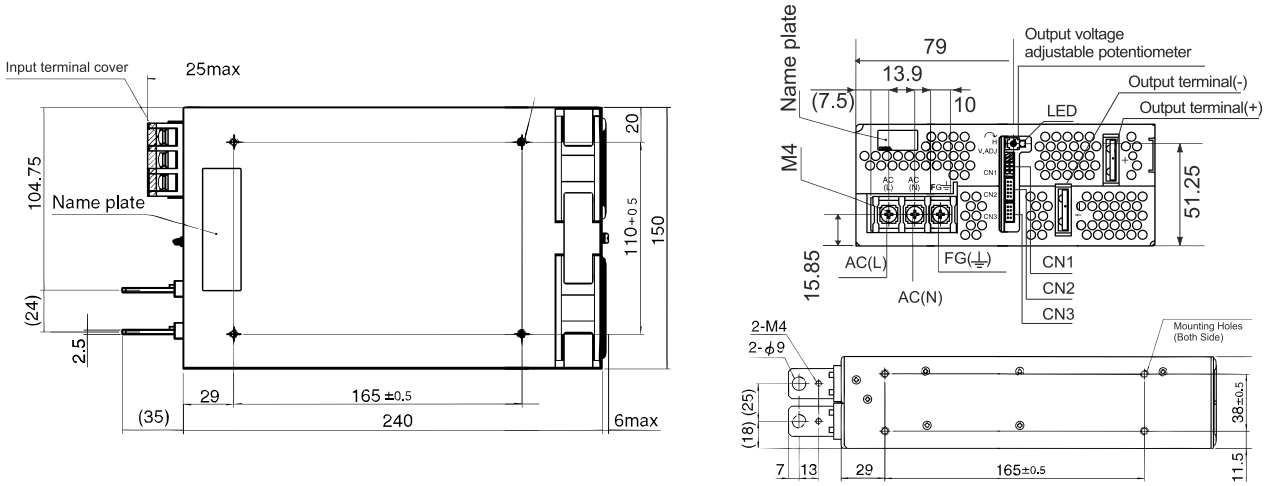
** Refers to Voltage types - Page no.4

Dimensions

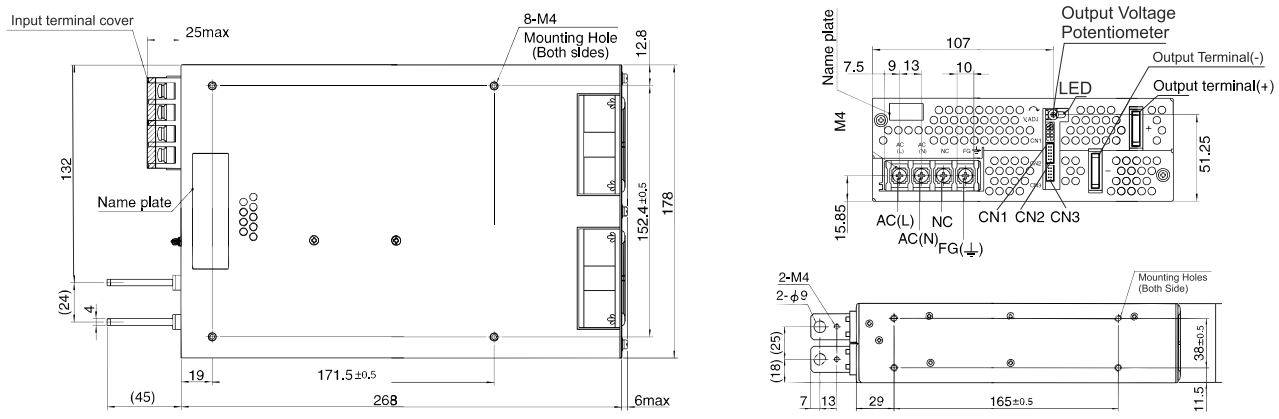
600 W



1000 W



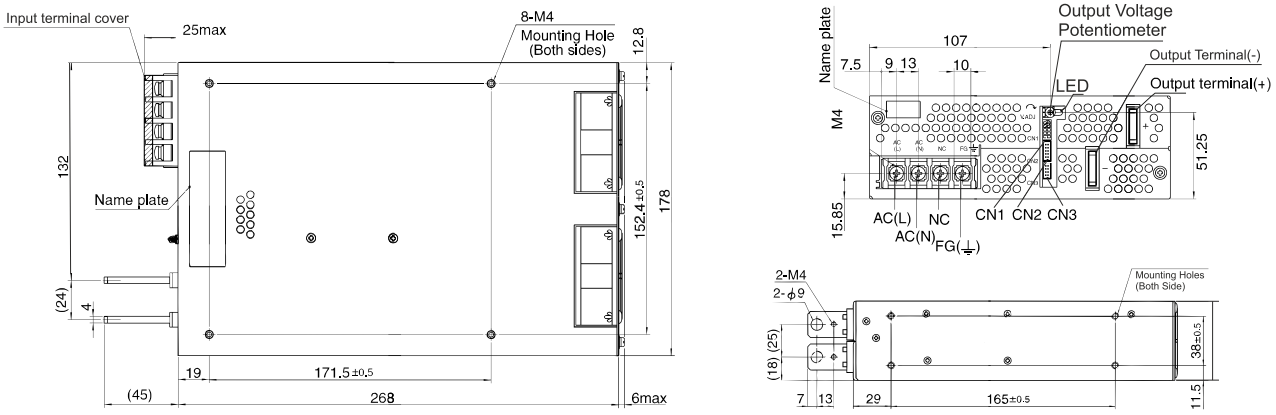
1500 W



** Refers to Voltage types - Page no.4

Dimensions

1500 W - Triple Input Phase



** Refers to Voltage types - Page no.4

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Prevent use the products for an application involving risk to life or property. Be sure that the *WERNER's* products are properly rated and installed for the overall system or equipment.

WERNER shall not be responsible for the user's programming of a programmable products.

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