



- High Efficiency (Up to 89%)
- Active Power Factor Correction
- Constant Output Current
- Up to 305VAC Operation
- Waterproof to IP67
- Dimming Control (optional)
- Lightning Protection
- Comprehensive Protection Circuitry
- UL8750 & EN61347 Safety Approvals
- RoHS Compliant

Electrical Specifications

Input

Input Voltage	90-305VAC
Input Frequency	47-63 Hz
Input Current	0.7A @ 100VAC 0.35A @ 220VAC
Inrush Current	20A @ 230VAC/25°C/Cold Start
Power Factor	See table
No Load Power Dissipation	≤6W

General

Efficiency	See tables
Isolation	3kVAC input to output 1.5kVAC input to ground 0.5kVAC output to ground
MTBF (MIL-HDBK-217F)	487kHrs @110VAC, 4200mA model, 80% load, 25°C
Dimensions	6.72"L x 1.36"W x 1.67"H
Net Weight	1.05 lbs.

Output

Output Voltage	See table
Initial Set Accuracy	±10%
Dimming Control	Optional (specify suffix DT on model)
Start Up Delay	2 seconds maximum at 110VAC
Line Regulation	±2%
Load Regulation	±5%
Ripple & Noise	10% pk-pk, 20MHz bandwidth
Overvoltage Protection	Hiccup mode; auto restart when fault removed
Overload Protection	Hiccup mode; auto restart when fault removed
Short Circuit Protection	No damage to unit; auto recovery when fault removed

Note: All specifications typical at 25°C unless noted.

Environmental

Operating Temp.	-35°C to +70°C maximum (see derating curve)
Operating Humidity	10% to 100% RH, non-condensing
Storage Temperature	-40°C to +85°C

Safety & EMC

Safety Approvals

USA	UL8750 Approved Compliance to UL1310 Class 2, UL1012, UL935
Canada	Compliance to CAN/CSA-C22.2 No. 0 CSA-C22.2 No. 107.1, CSA-C22.2 No. 250.0
Europe	EN61347-1, EN61347-2-13 EN55015 (Radiated & Conducted)
EMI	EN61000-3-2
Harmonic Currents	EN61000-3-3
Voltage Flicker	EN61000-4-2; 8kV air; 4kV contact
ESD Immunity	EN61000-4-3
Radiated Immunity	EN61000-4-4
EFT/Burst	EN61000-4-6
Conducted Immunity	EN61000-4-6
Magnetic Field	EN61000-4-8
Dips / Interruptions	EN61000-4-11

Your Partners in Power.....

Power Partners, Inc. | 43 Broad Street | Hudson, MA 01749
Tel: (978)567-9600 | Fax: (978)567-9601
Website: www.powerpartners-inc.com

Specifications subject to change.
PIL50U-C: 02/04/2010



Models and Ratings Chart

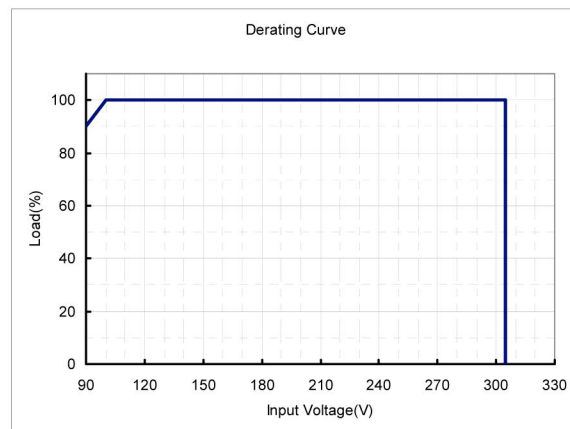
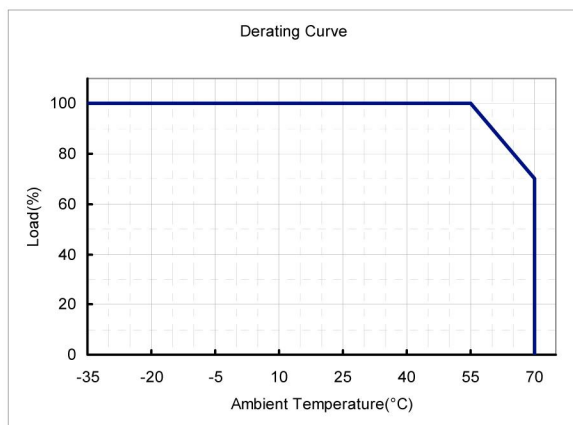
Nominal Output Current	Output Current Range (Note 3)	Max. Output Voltage	Max. Output Power	Typical Efficiency (Note 1)	Power Factor		Model Number With Dimming Control (Note 2)	Model Number (Note 2)
					110VAC	220VAC		
350mA	333mA - 368mA	142VDC	50W	89.0%	0.99	0.94	PIL50U-C350-DT	PIL50U-C350-ST
450mA	428mA - 473mA	110VDC	50W	88.0%	0.99	0.94	PIL50U-C450-DT	PIL50U-C450ST
700mA	665mA - 735mA	72VDC	50W	87.0%	0.99	0.94	PIL50U-C700-DT	PIL50U-C700ST
1100mA	998mA - 1155mA	48VDC	50W	87.0%	0.99	0.94	PIL50U-C1100-DT	PIL50U-C1100-ST
1400mA	1330mA - 1470mA	36VDC	50W	87.0%	0.99	0.94	PIL50U-C1400-DT	PIL50U-C1400-ST
1750mA	1663mA - 1838mA	29VDC	50W	87.0%	0.99	0.94	PIL50U-C1750-DT	PIL50U-C1750-ST
2100mA	1995mA - 2205mA	24VDC	50W	86.0%	0.99	0.94	PIL50U-C2100-DT	PIL50U-C2100-ST
2800mA	2660mA - 2940mA	18VDC	50W	84.0%	0.99	0.94	PIL50U-C2800-DT	PIL50U-C2800-ST
3330mA	3164mA - 3497mA	15VDC	50W	84.0%	0.99	0.94	PIL50U-C3330-DT	PIL50U-C3330-ST
4200mA	3990mA - 4410mA	12VDC	50W	83.0%	0.99	0.94	PIL50U-C4200-DT	PIL50U-C4200-ST

Note 1: Measured at 220VAC input and full load.

Note 2: Additional suffix may be included to denote variations or modifications to the base product.

Note 3: Current rating factory set to nominal, unless otherwise specified.

Derating Curve



Your Partners in Power.....

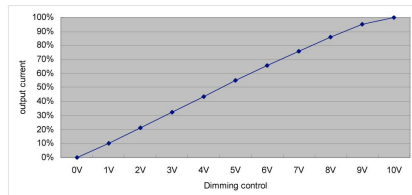
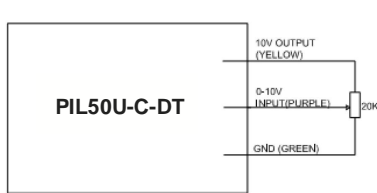
Power Partners, Inc. | 43 Broad Street | Hudson, MA 01749
 Tel: (978)567-9600 | Fax: (978)567-9601
 Website: www.powerpartners-inc.com

Specifications subject to change.
 PIL50U-C: 02/04/2010

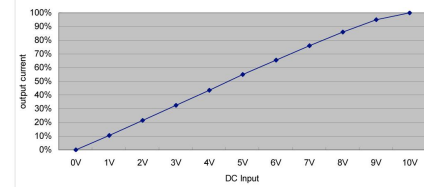
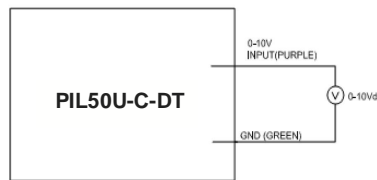


Optional Dimming Control (Secondary Side)

Parameter	Min.	Typ.	Max.
10V Output Voltage	9.8VDC	10VDC	10.2VDC
10V Output Source Current	-10mA	---	2mA
Maximum Voltage on 0-10V Input Pin	-2VDC	---	15VDC
Source Current on 0-10V Input Pin	0mA	---	1mA



Implementation 1: Potentiometer Control



Implementation 2: DC Input

Note 1: For proper operation, the load voltage must be maintained above the minimum voltage threshold (approximately 33% of the maximum output voltage for any given model)

Note 2: If the input voltage is between 90-175VAC, the input current can be varied from 100% to 10% (See Figure 1)

Note 3: If the input voltage is between 175-305VAC, the input current can be varied from 100% to 20% (See Figure 2)

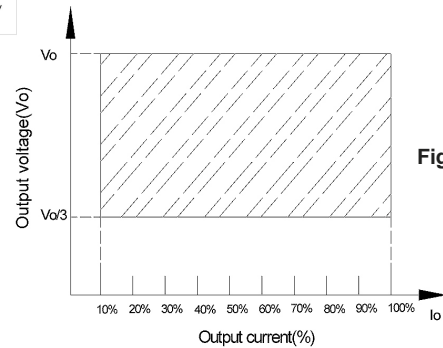


Figure 1

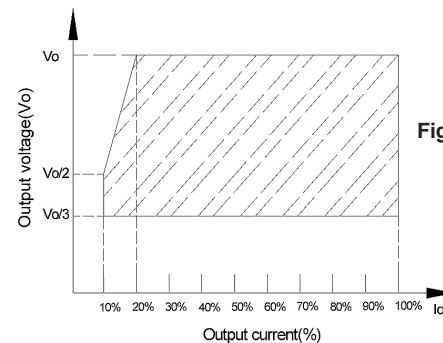


Figure 2

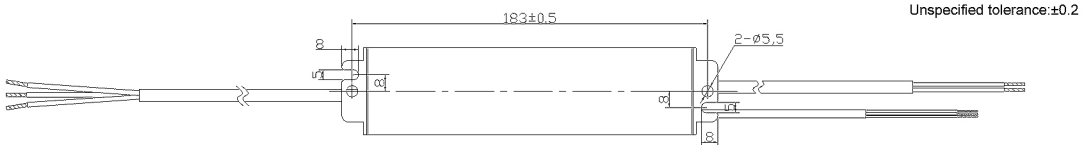
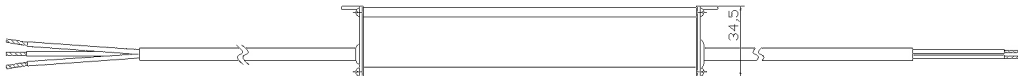
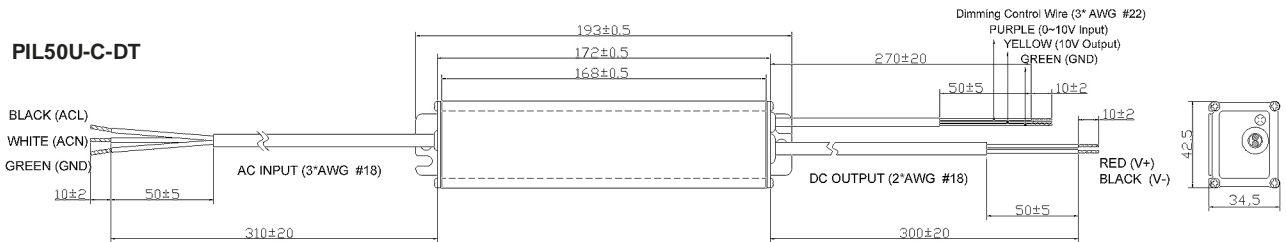
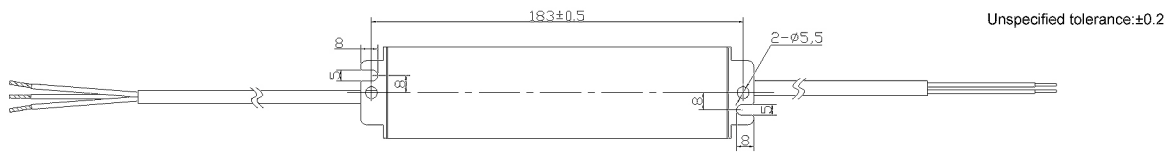
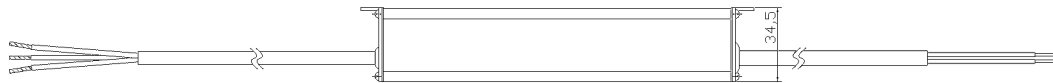
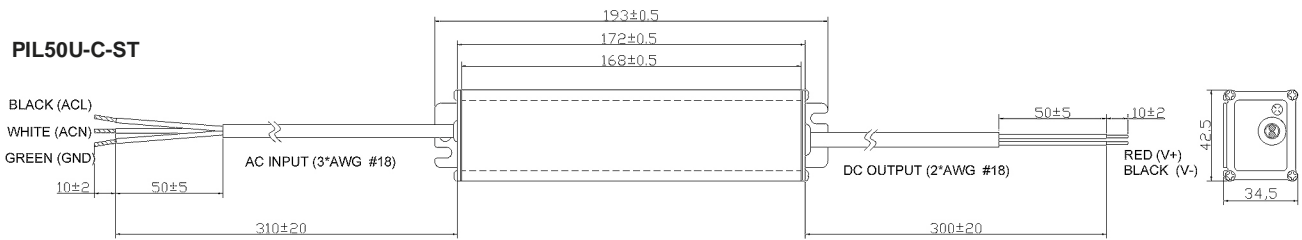
Your Partners in Power.....

Power Partners, Inc. | 43 Broad Street | Hudson, MA 01749
 Tel: (978)567-9600 | Fax: (978)567-9601
 Website: www.powerpartners-inc.com

Specifications subject to change.
 PIL50U-C: 02/04/2010



Mechanical Outline Drawings



Your Partners in Power.....

Power Partners, Inc. | 43 Broad Street | Hudson, MA 01749
 Tel: (978)567-9600 | Fax: (978)567-9601
 Website: www.powerpartners-inc.com

Specifications subject to change.
 PIL50U-C: 02/04/2010