



#### FEATURES:

- Accurate Constant Current Output  $\pm 5\%$
- High Efficiency: Up to 86%
- Active Power Factor Correction
- Short Circuit / Open Circuit Protection
- Class 2 Power Unit
- Long Life, High reliability
- IP20, Suitable for Indoor LED Lighting
- 3 Years Limited Warranty

#### Models Single output



| Model         | Max Output Power (W) | Output Voltage Range (V) | Output Current (mA) | Input Voltage (VAC/Hz) | Efficiency (%) |
|---------------|----------------------|--------------------------|---------------------|------------------------|----------------|
| AMEPR10-2629Z | 8                    | 18-26                    | 290                 | 90-264/47-63           | 83             |
| AMEPR10-3329Z | 10                   | 23-33                    | 290                 | 90-264/47-63           | 83             |
| AMEPR10-4224Z | 10                   | 30-42                    | 240                 | 90-264/47-63           | 86             |

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity <75%, nominal input voltage and at rated output load unless otherwise specified.

#### Input Specifications

| Parameters          | Conditions          | Typical | Maximum | Units |
|---------------------|---------------------|---------|---------|-------|
| Input Current       | 90 VAC, full load   |         | 0.15    | Arms  |
| Inrush current <2ms | 115 VAC, cold start |         | 20      | A     |
|                     | 230 VAC, cold start |         | 40      |       |
| Leakage current     |                     |         | 0.75    | mA    |
| Input dissipation   | No Load             |         | 1       | W     |
|                     | Output Short        |         | 2       | W     |
| Power Factor        | 115 VAC, full load  |         | 0.90    |       |
|                     | 230 VAC, full load  |         | 0.90    |       |
| Input Fuse          | 1A/250V             |         |         |       |
| Start-up Time       | 115 VAC, full load  |         | 2.0     | Sec.  |
|                     | 230 VAC, full load  |         | 1.0     | Sec.  |

#### Output Specifications

| Parameters            | Conditions                                                   | Typical | Maximum | Units  |
|-----------------------|--------------------------------------------------------------|---------|---------|--------|
| Current accuracy      |                                                              | $\pm 5$ |         | %      |
| Line regulation       | LL to HL                                                     | $\pm 3$ |         | %      |
| Load regulation       | Full Output Voltage Range                                    | $\pm 3$ |         | %      |
| Ripple & Noise        |                                                              |         | 1150    | mV p-p |
| Output Current Ripple | Full load, 16.7-20ms duration                                |         | 550     | mA p-p |
| Current Overshoot     | LL to HL, full load at cold start, % of rated output current |         | 10      | %      |
| Hold-up time (min)    |                                                              |         | 0       | ms     |
| Minimum Load Voltage  | See Models Table Above                                       |         |         |        |

#### Isolation Specifications

| Parameters            | Conditions | Typical        | Rated | Units |
|-----------------------|------------|----------------|-------|-------|
| Tested I/O voltage    | IEC61347   |                | 3750  | VAC   |
| Isolation Resistance  | 500Vdc     | >100M $\Omega$ |       | VAC   |
| Isolation Capacitance |            | 100            |       | pF    |

#### General Specifications

| Parameters          | Conditions | Typical | Maximum | Units |
|---------------------|------------|---------|---------|-------|
| Switching frequency |            |         | 135     | KHz   |

|                          |                                       |                           |                       |
|--------------------------|---------------------------------------|---------------------------|-----------------------|
| Over voltage protection  | AMEPR10-2629Z                         | 30                        | V                     |
|                          | AMEPR10-3329Z                         | 36                        | V                     |
|                          | AMEPR10-4224Z                         | 50                        | V                     |
| Short circuit protection | Continuous, Hiccup Mode               |                           |                       |
| Short circuit restart    | Auto Recovery                         |                           |                       |
| Open circuit protection  | Continuous, Hiccup Mode               |                           |                       |
| Operating temperature    | Without derating                      | -20 to +50                | °C                    |
| Maximum case temperature |                                       | 80                        | °C                    |
| Storage temperature      |                                       | -30 to +90                | °C                    |
| Temperature coefficient  |                                       | 0.05                      | % / °C                |
| Cooling                  | Free Air Convection                   |                           |                       |
| Humidity                 |                                       | 90                        | % RH                  |
| Case material            | Plastic                               |                           |                       |
| Weight                   | AMEPR10-2629Z, AMEPR10-3329Z          | 60                        | g                     |
|                          | AMEPR10-4224Z                         | 70                        | g                     |
| Dimensions (L X W X H)   | AMEPR10-2629Z, AMEPR10-3329Z          | 3.46 x 1.54 x 0.91 inches | 88.0 x 39.2 x 23.1 mm |
| Dimensions (L X W X H)   | AMEPR10-4224Z                         | 3.68 x 1.76 x 1.08 inches | 93.5 x 44.7 x 27.5 mm |
| MTBF                     | >300,000 hrs (MIL-HDBK-217F at +25°C) |                           |                       |

## Safety Specifications

| Parameters |                                                                     |                                                        |
|------------|---------------------------------------------------------------------|--------------------------------------------------------|
| Standards  | Electromagnetic Interference                                        | EN55015 / FCC Part 15, Class B                         |
|            | Harmonic Current Emissions                                          | EN61000-3-2, Class B                                   |
|            | Voltage fluctuations and flicker                                    | EN61000-3-3                                            |
|            | Electrostatic Discharge Immunity                                    | EN61000-4-2, 8kV Air, 4kV Contact, Level 3, Criteria A |
|            | RF, Electromagnetic Field Immunity                                  | EN61000-4-3, Test-RS Level 3, Criteria A               |
|            | Electrical Fast Transient / Burst Immunity                          | EN61000-4-4, Burst EFT Level 3, Criteria A             |
|            | Surge Immunity                                                      | EN61000-4-5, Line to Neutral 2kV                       |
|            | RF, Conducted Disturbance Immunity                                  | EN61000-4-6, Test-CS Level 3, Criteria A               |
|            | Power frequency Magnetic Field Immunity                             | EN61000-4-8, Test 3A/m, Criteria A                     |
|            | Voltage dips, Short Interruptions Immunity                          | EN61000-4-11, Criteria B                               |
|            | Electromagnetic Immunity Requirements Applies to Lighting Equipment | EN61547                                                |

## Pin Definition

| Recommended Wire gauge | Connection |
|------------------------|------------|
| 20-24                  | AC L       |
| 20-24                  | AC N       |
| 14-26                  | LED+       |
| 14-26                  | LED-       |

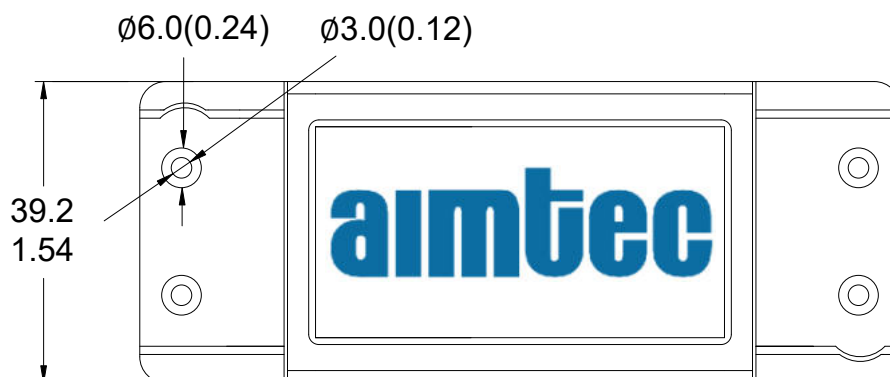
## Application Block diagram



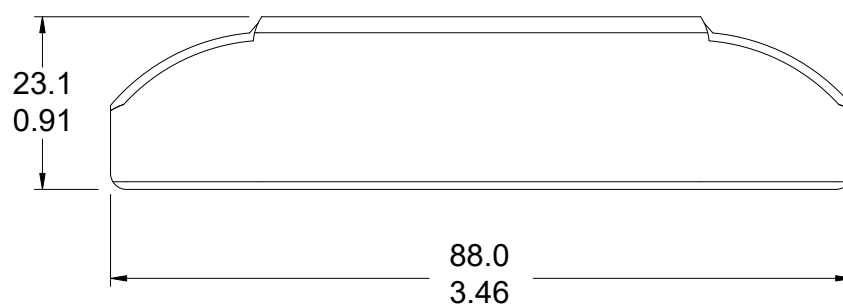
## Dimensions

AMEPR10-2629Z & AMEPR10-3329Z

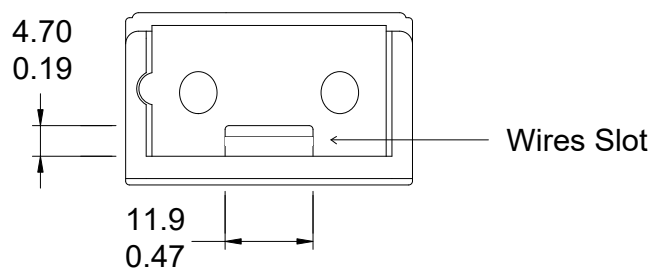
Top View



Side View1

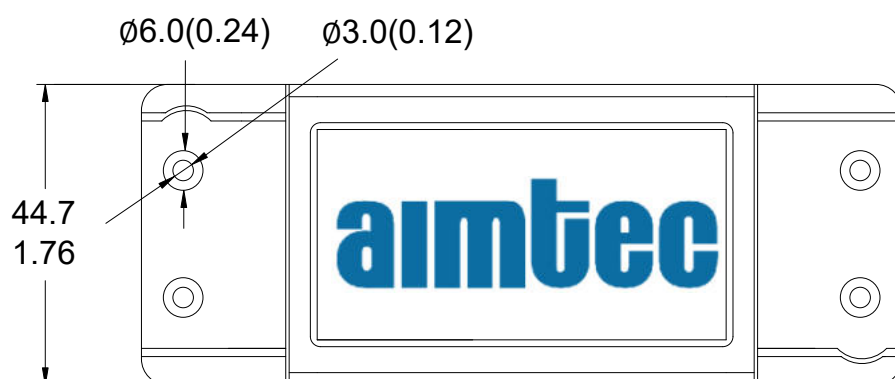


Side View2

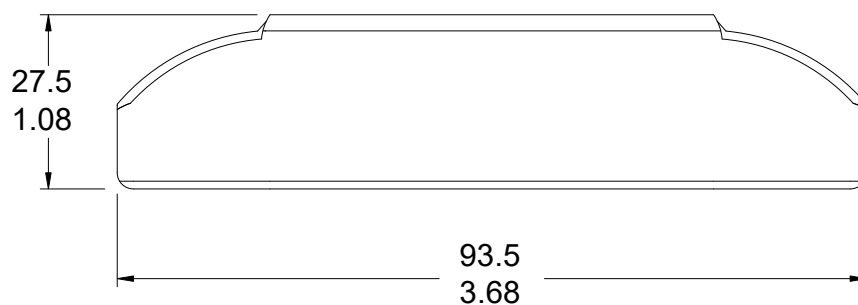


AMEPR10-4224Z

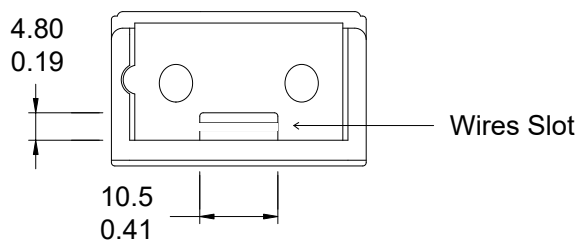
Top View



Side View1

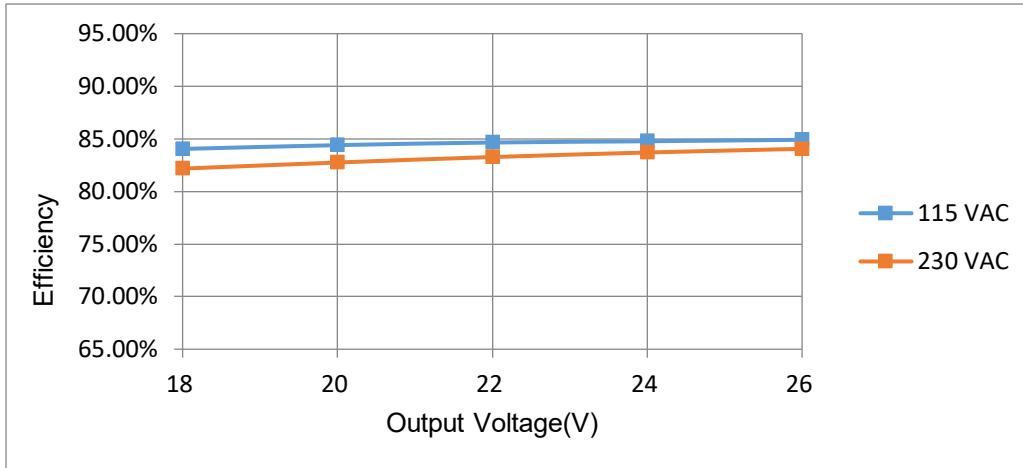


Side View2

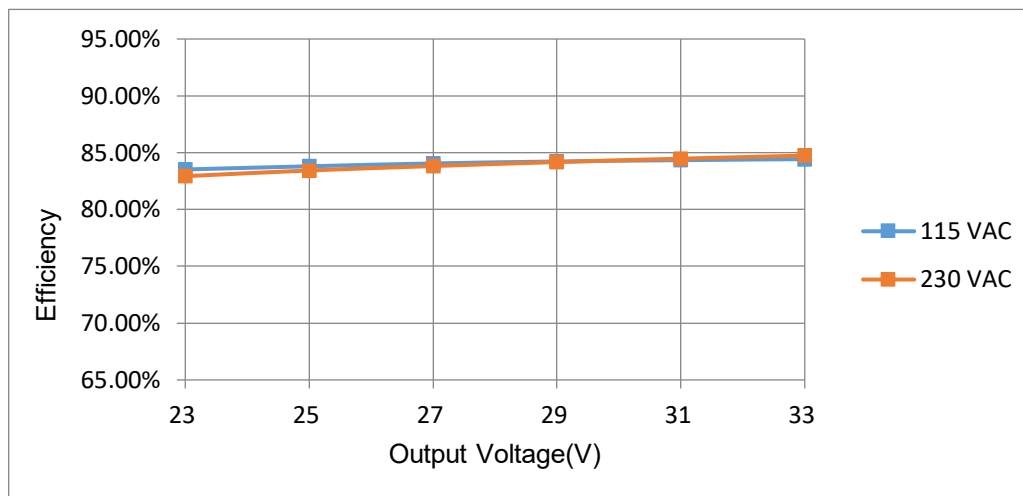


## Efficiency Vs. Input Voltage & Output Load Voltage

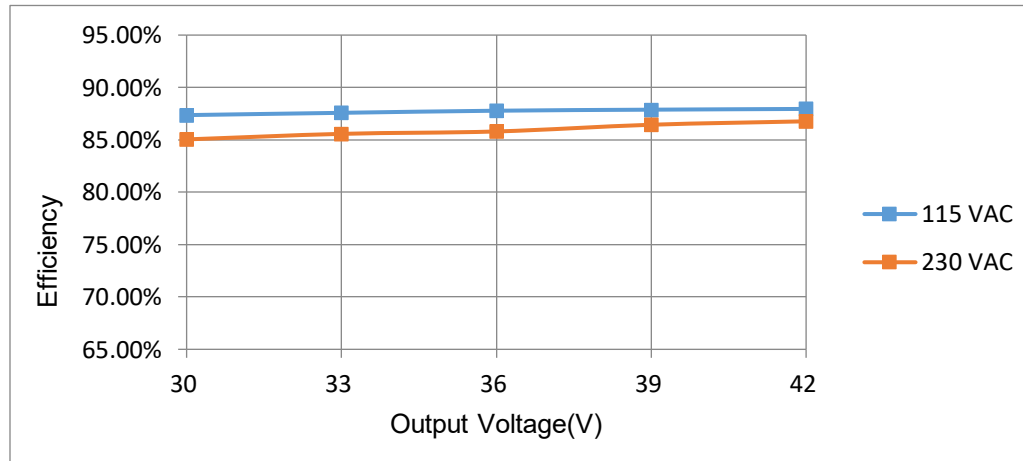
AMEPR10-2629Z



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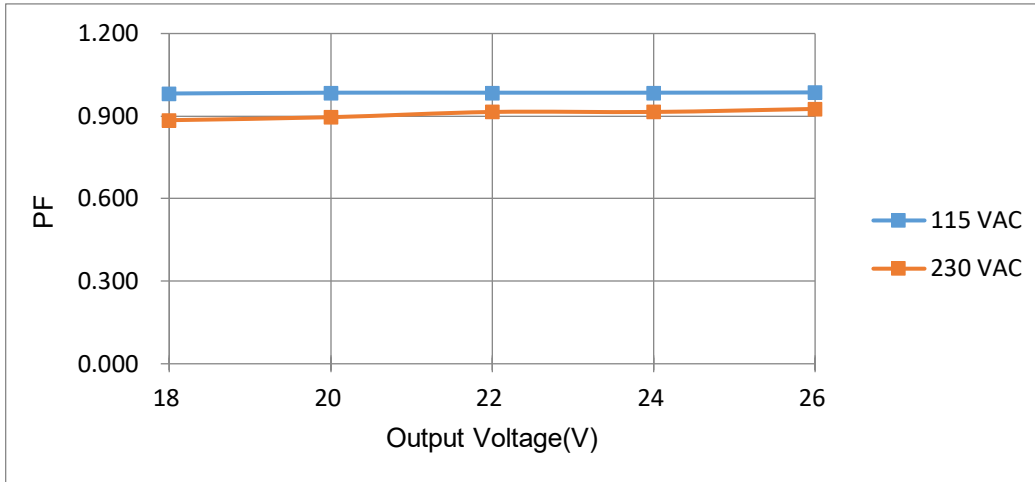


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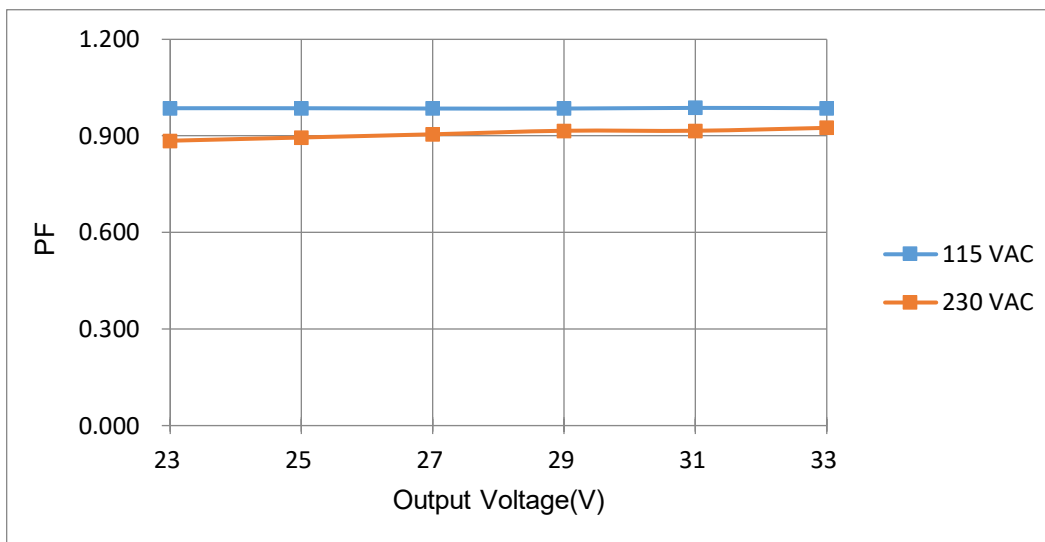


## PF vs. Input Voltage & Output Load Voltage

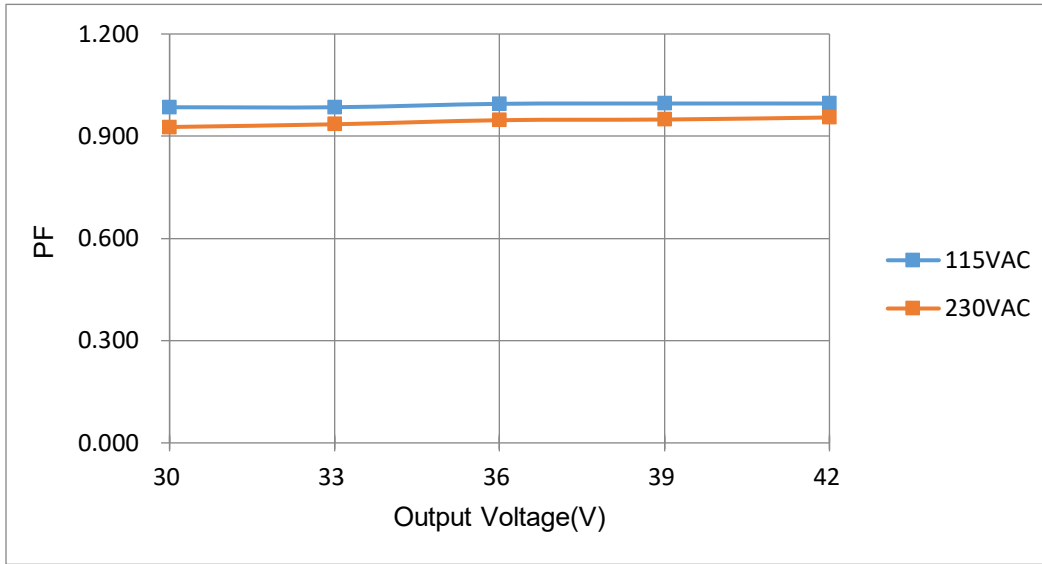
AMEPR10-2629Z



AMEPR10-3329Z



AMEPR10-4224Z



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