



#### FEATURES:

- Constant Current LED Driver
- High Efficiency: Up to 89%
- 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 (%) |
|---------------|----------------------|--------------------------|---------------------|------------------------|----------------|
| AMEPR30-4250Z | 21.0                 | 30-42                    | 500                 | 90-264/47-63           | 88             |
| AMEPR30-4260Z | 25.2                 | 28-42                    | 600                 | 90-264/47-63           | 89             |
| AMEPR30-4270Z | 29.4                 | 28-42                    | 700                 | 90-264/47-63           | 89             |

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   |         | 0.4     | 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  |         | 0.98    |       |
|                     | 230 VAC, full load  |         | 0.95    |       |
| Input Fuse          | 2A / 250V           |         |         |       |
| Start-up Time       | 115 VAC, full load  |         | 2.5     | Sec.  |
|                     | 230 VAC, full load  |         | 1.2     | Sec.  |

## Output Specifications

| Parameters            | Conditions                        | Typical | Maximum | Units  |
|-----------------------|-----------------------------------|---------|---------|--------|
| Current accuracy      |                                   | ±5      |         | %      |
| Line regulation       | LL to HL                          | ±5      |         | %      |
| Load regulation       | Full Output Voltage Range         | ±5      |         | %      |
| Ripple & Noise        |                                   |         | 1.9     | V p-p  |
| Output Current Ripple | Full load, 16.7-20ms duration     |         | 1.1     | A p-p  |
| Current Overshoot     | LL to HL, full load at cold start |         | 10      | % Iout |
| Hold-up time (min)    |                                   |         | 0       | ms     |
| Minimum Load Voltage  | See Models Table Above            |         |         |        |

## Isolation Specifications

| Parameters            | Conditions | Typical | Rated | Units |
|-----------------------|------------|---------|-------|-------|
| Tested I/O voltage    |            |         | 3750  | VAC   |
| Isolation Resistance  | 500Vdc     | >100MΩ  |       | VAC   |
| Isolation Capacitance |            | 100     |       | pF    |

## General Specifications

| Parameters               | Conditions                                                | Typical | Maximum | Units |
|--------------------------|-----------------------------------------------------------|---------|---------|-------|
| Switching frequency      |                                                           | 135     |         | KHz   |
| Over voltage protection  |                                                           |         | 50      | VDC   |
| Over current protection  | Refer to Constant Current vs. Constant Voltage Mode curve |         |         |       |
| Short circuit protection | Continuous, Hiccup Mode                                   |         |         |       |
| Short circuit restart    | Auto Recovery                                             |         |         |       |

|                          |                                            |            |        |
|--------------------------|--------------------------------------------|------------|--------|
| Open circuit protection  | Continuous                                 |            |        |
| Operating temperature    |                                            | -20 to +50 | °C     |
| Maximum case temperature |                                            | 80         | °C     |
| Storage temperature      |                                            | -30 to +85 | °C     |
| Temperature coefficient  |                                            | 0.03       | % / °C |
| Cooling                  | Free Air Convection                        |            |        |
| Humidity                 |                                            | 20 - 90    | % RH   |
| Case material            | Plastic                                    |            |        |
| IP Rating                | IP20                                       |            |        |
| Weight                   |                                            | 60         | g      |
| Dimensions (L X W+ X H)  | 4.33 x 1.65 x 0.98 inches 110 x 42 x 25 mm |            |        |
| MTBF                     | 300,000 hrs (MIL-HDBK-217F at +25°C)       |            |        |

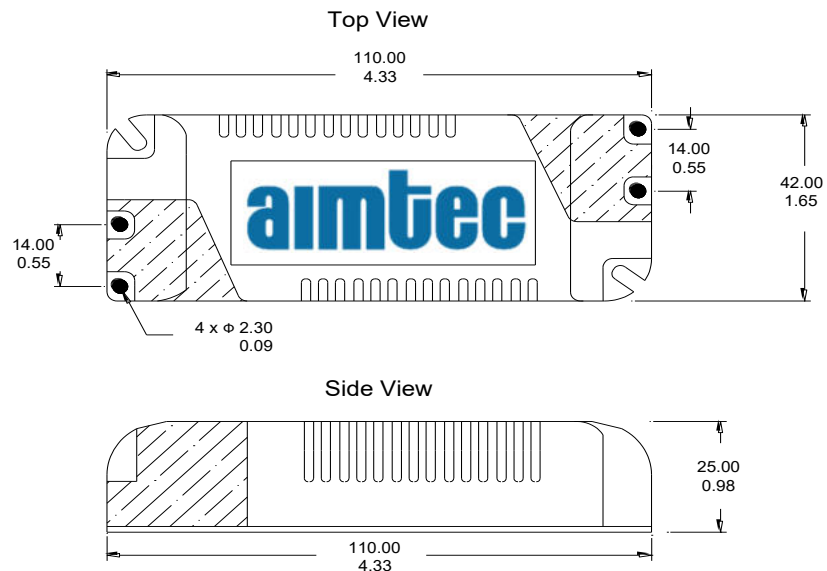
## Safety Specifications

| Parameters       |                                                                     |                                                        |
|------------------|---------------------------------------------------------------------|--------------------------------------------------------|
| Designed to meet | IEC61346, UL8750, UL1310,                                           |                                                        |
| 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

| Wire  | Connection |
|-------|------------|
| Brown | AC L       |
| Blue  | AC N       |
| Red   | +V Output  |
| Black | -V Output  |

## Dimensions

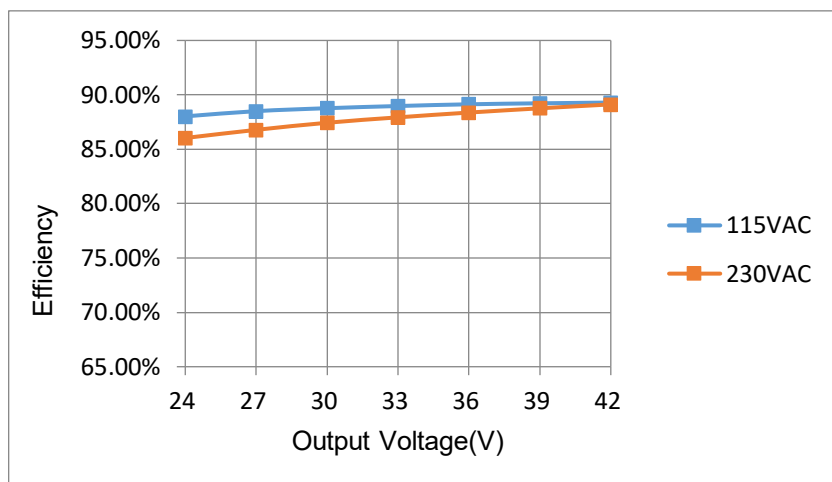


## Application Block diagram

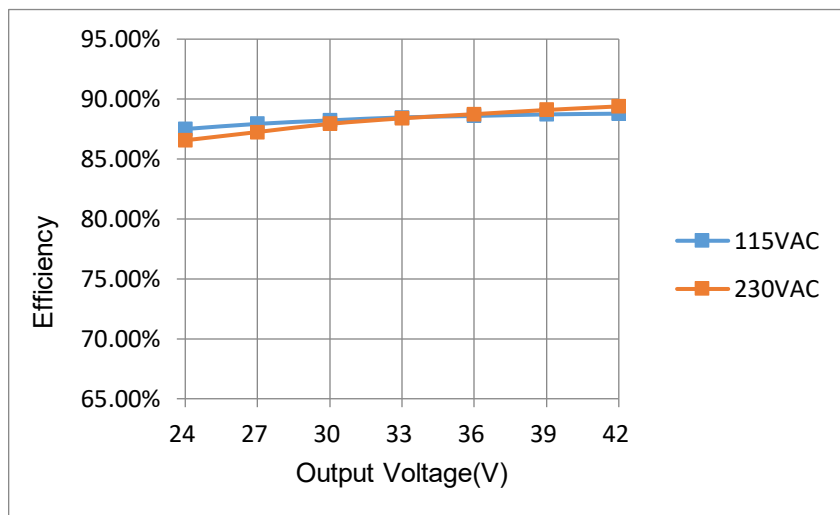


## Efficiency Vs. Input Voltage & Output Load Voltage

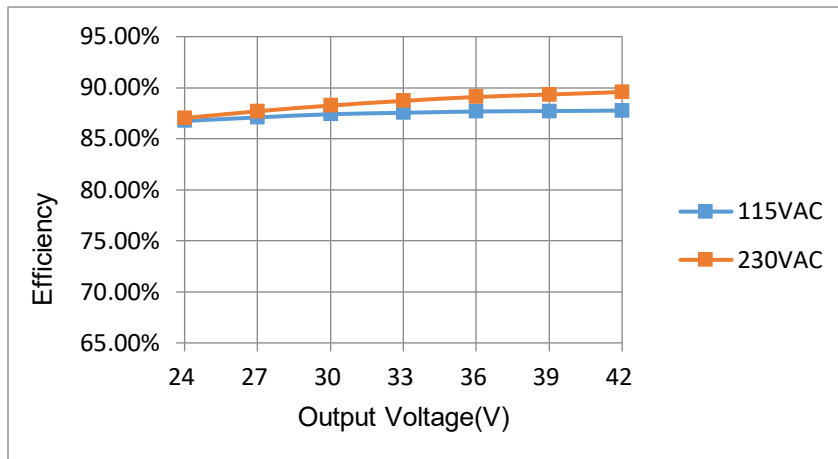
### AMEPR30-4250Z



### AMEPR30-4260Z

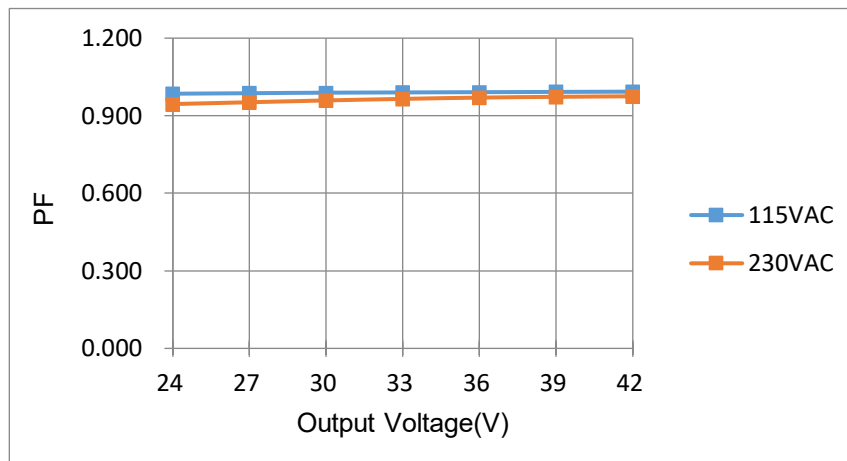


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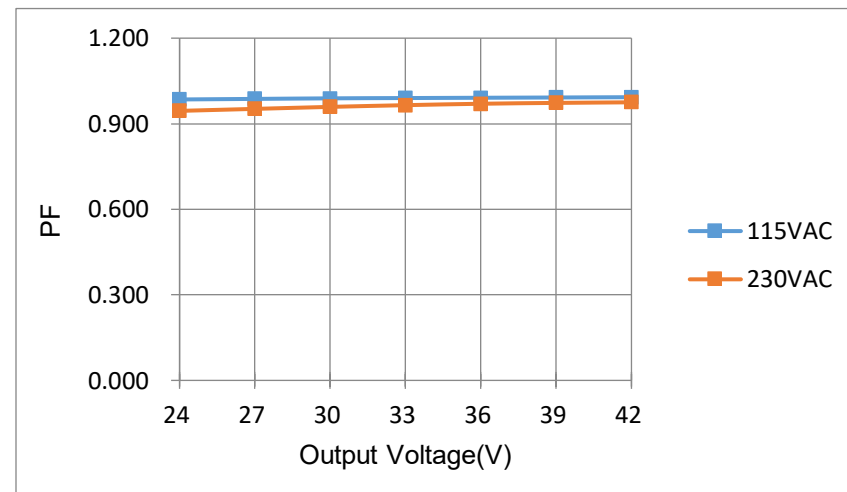


### PF vs. Input Voltage & Output Load Voltage

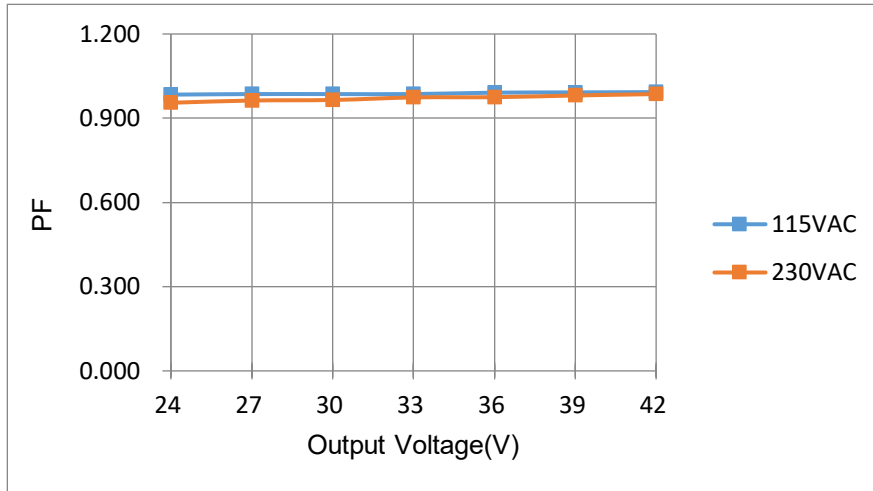
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#### AMEPR30-4260Z



AMEPR30-4270Z



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