APMZ150C135UD LED Drivers

Replacement BU Voltage driver for use on the following Appleton™ LED Luminaires: 13,500, and 17,500 Lumen Mercmaster™ Generation 3 Zone 1 LED; 14,000 and 18,500 Lumen Areamaster™ Generation 2 Zone 1 LED; 28,500 and 36,000 Lumen Areamaster Generation 2 Zone 1 HL LED; 14,000 and 18,500 Lumen Baymaster™ Zone 1 LED; 28,500 and 36,000 Lumen Baymaster Zone 1 HL LED

Features

- Input voltage: 120–277 Vac
- Built-in active PFC function: 0.98Typ.
- Built-in lightning protection
- High efficiency: 90% Typ.
- Waterproof (IP67)
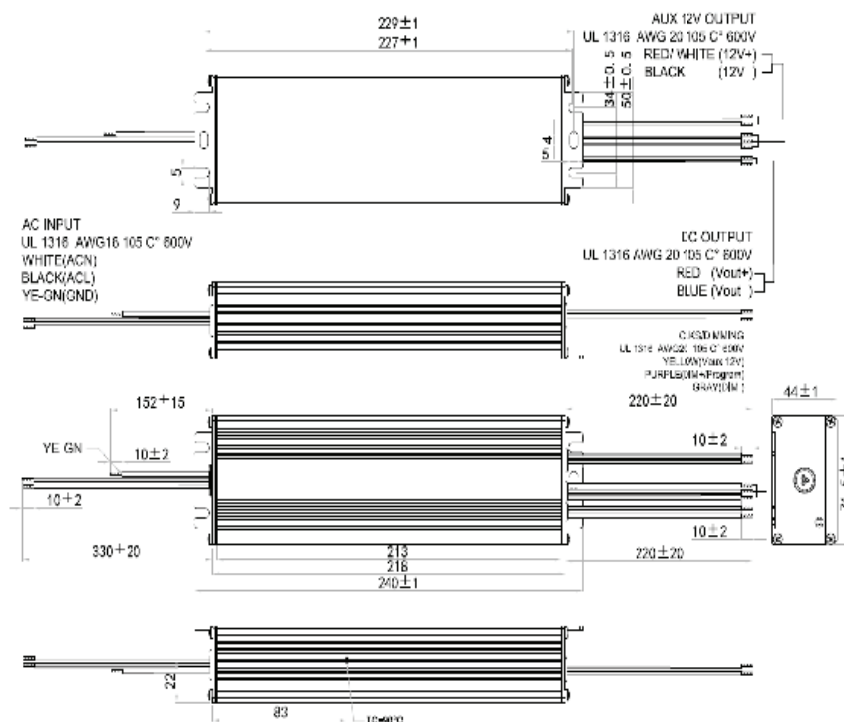- Constant Current / 0–10V Dimming
- Protection: OVP, SCP, OTP

NEC/CEC/IEC Compliances

- UL8750; UL1012; CAN/CSA-C22.2 No.107-01
- IEC/EN61347-1; IEC/EN61347-2-13; IEC60079-0; IEC60079-18

Output Current	Input Voltage	Max. Output Power	Typical Efficiency	Typical Power Factor	Used in BU Luminaire Models	Part Number
680 mA	120-277 Vac 170-300 Vdc	150 W	90%	0.95	AMLZL7, BLZL7, AMHZL2, BHZL2	APMZ150C135UD68
720 mA	120-277 Vac 170-300 Vdc	150 W	90%	0.95	MGZxH3xxxxBU	APMZ150C135UD72
900 mA	120-277 Vac 170-300 Vdc	150 W	90%	0.95	MGZxH6xxxxBU	APMZ150C135UD90
915 mA	120-277 Vac 170-300 Vdc	150 W	90%	0.95	AMHZL3, BHZL3	APMZ150C135UD91
930 mA	120-277 Vac 170-300 Vdc	150 W	90%	0.95	AMLZL8, BLZL8	APMZ150C135UD93

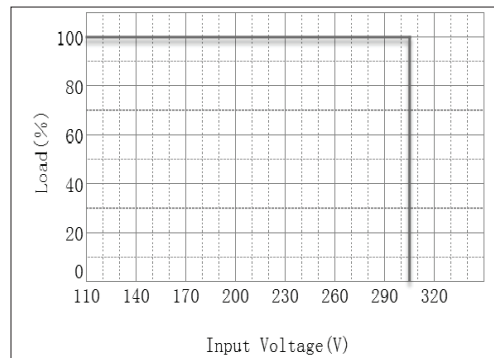### Dimensions in Millimeters (Inches)

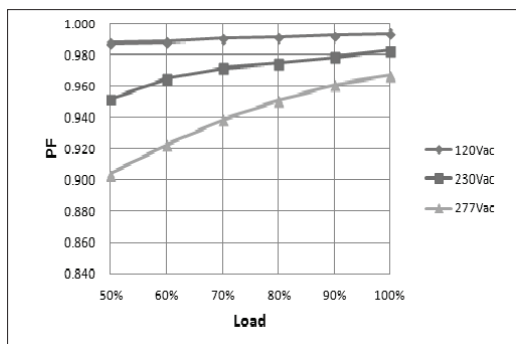**EMERSON**

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Diagrams

Derating Curve

Power Factor vs. Load Curve

THD Curve

Efficiency vs. Load Curve

Lifetime vs. Driver Tcase

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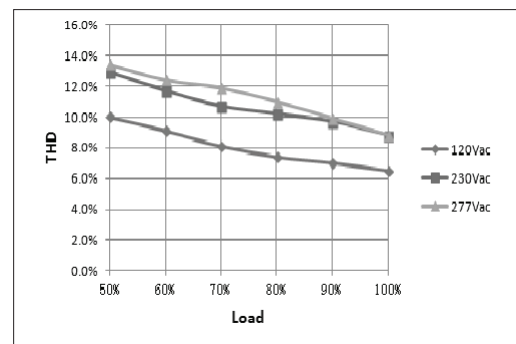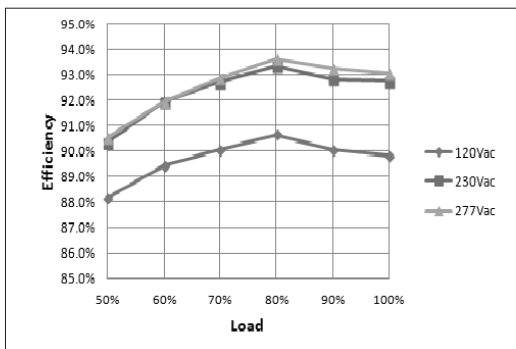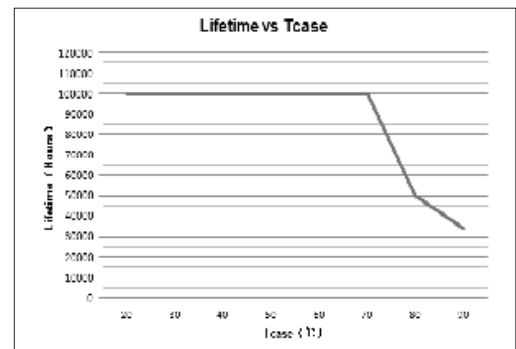
Specifications (at +25 °C ambient unless specified otherwise) ①

Input	Efficiency (120 Vac) ②	89% (Typical)
	Efficiency (230 Vac) ②	92% (Typical)
	Voltage Range (V)	108–305 Vac
	Voltage Rated (V)	120–277 Vac, or 170–300 Vdc (min.–max.)
	Frequency Range (Hz)	47 ~ 63
	Power Factor	>0.9 @120–277 Vac, 80–100% load
	THD	<15% with 80% ~ 100% load, at 100–277 Vac
		<20% with 50% ~ 100% load, at 100–277 Vac
	AC Current (Max.)	1.6A at 120 Vac input, 0.8 A at 230 Vac
	Inrush Current (Max.)	65 A at 230 Vac input +25 °C Cold Start (time wide=500 uS, measured at 50% Ipeak)
	Leakage Current (Max.)	0.75 mA at 277 Vac/60 Hz
Output	Output Voltage Range (V)	165–55
	Output Current Range (mA)	90–1350
	Rated Power (W)	150 (max.)
	Ripple Current	<10% [(PK-AV)/AV] full load
	Current Tolerance	5%
	Line Regulation	1%
	Load Regulation	3%
	Turn On Delay Time	0.5s (typ.)
Dimming Control	12 Vdc Output Voltage (Vdc)	10.8 V min. ~ 12 V typ. ~ 13.2 V max.
	12 Vdc Output Current (mA)	0 mA ~ 20 mA max.
	0 ~ 10V/DMI+ Voltage	Absolute maximum voltage - 10 V min. ~ 20 V max.
	0 ~ 10V/DMI+ Short Current	280 uA ~ 450 uA (DIM(+)=0)
	Dimming Function	0 ~ 10 V/10% Io ~ 100% Io ref.

① *All parameters NOT specially mentioned are measured at 230 Vac input, rated load and 25 °C of ambient temperature.*
② *Measured at full load and steady-state temperature in 25 °C ambient (Efficiency will be about 2% lower if measured immediately after startup)*

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Specifications (at +25 °C ambient unless specified otherwise) ①

Protection	Over Voltage (V)	<250
		Protection type: Voltage limiting output will not exceed the upper limit voltage, recovers automatically after fault condition is removed.
	Short Circuit	Protection type: Hiccup mode. Recovers automatically after short is removed.
	Over Temperature	Protection type: Decrease output current. When Tc reaches +100 °C +/- +10 °C, the output current decrease to approximate 50% of rated value. (See OTP plot.)
	Lightning Surge Protection	Per IEEE C62.41.2202 (6 kV, 1.2/50 ms, 8/20 ms combination wave with 2 ohms source impedance, L-N, L-PE, N-PE)
Environment	Maximum Case Temperature	+90 °C
	Minimum Case Temperature	-40 °C
	Operating Humidity	20 ~ 95% RH non-condensing
	Storage Temp., Humidity	-40 °C ~ +85 °C 10-95% RH
	Vibration	10–500 Hz,5G 12 min/cycle, period for 72 min. each along X, Y, Z axes
Safety & EMC	Agency Approbations	UL8750; UL1012; CAN/CSA-C22.2 No.107-01; IEC/EN61347-1; IEC/EN61347-2-13: IEC60079-0; IEC60079-18
	Withstand Voltage	I/P-O/P:3.75 K Vac I/P-FG:1.875 KV O/P-FG:1.5 KV
	Isolation Resistance	I/P-O/P:100 M Ohms (500 Vdc/25°C/70%RH)
	EMC Emission	FCC PART15 Class B, EN55015, EN61000-3-2 Class C, EN61000-3-3
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11, EN61000-4-5: Line to Neutral: ±6 kV ; Line to GND: ±6 kV ; Neutral to GND: ±6 kV. IEEE / ANSI C62.41.2 Transient Surge Requirements, combi wave 2 ohm source impedance.
Others	MTBF	300,000 hours, measured at full load, +25 °C ambient temperature, MIL-HDBK-217F (+25 °C)
	Lifetime	Refer to plot
	Dimension	240 x 71.5 x 44 (mm) (LxWxH); (9.45 x 2.81 x 1.73 inches)
	Weight (Typ.)	1.2 kg (2.65 lbs)

① All parameters NOT specially mentioned are measured at 230 Vac input, rated load and 25 °C of ambient temperature.

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