

**APPLETON™**

## LED LUMIANIARE REPLACEMENT DRIVERS

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

### Dimensions in Millimeters (Inches)

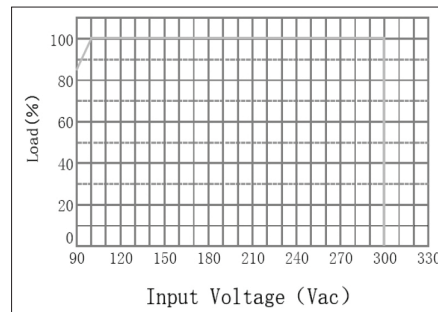


# APMS100C105UD LED Drivers

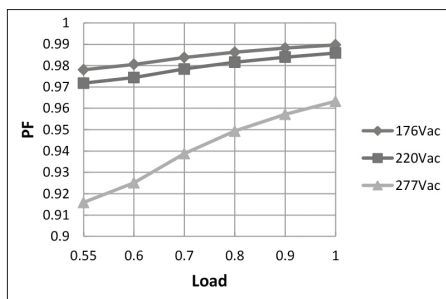
Replacement BU Voltage driver for use on the following Appleton™ LED Luminaires: 7500, 9,500, and 11,500 Lumen Mercmaster™ LED Generation 3 and Industrial Mercmaster LED Generation 3; 9500 Lumen Areamaster™ Generation 2 LED and Industrial Areamaster Generation 2 LED; 2400 Lumen Areamaster Generation 2 HL LED and Industrial Areamaster™ Generation 2 HL LED; 9500 Lumen Baymaster™ LED and Industrial Baymaster LED; 2400 Lumen Baymaster HL LED and Industrial Baymaster HL LED; 7900, 10,000, 11,600 Lumen Code•Master™ LED

## Diagrams

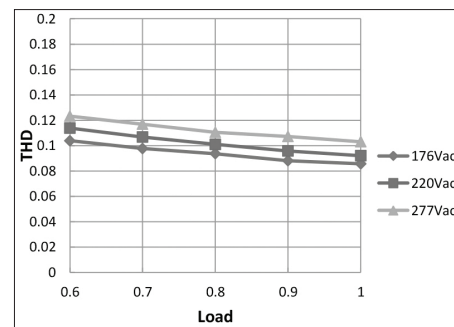
Derating Curve



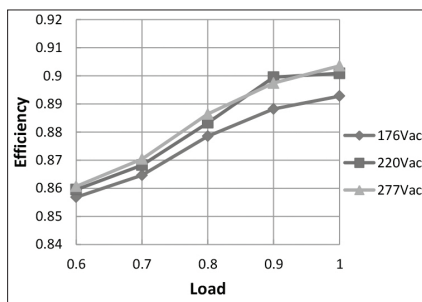
Power Factor vs. Load Curve



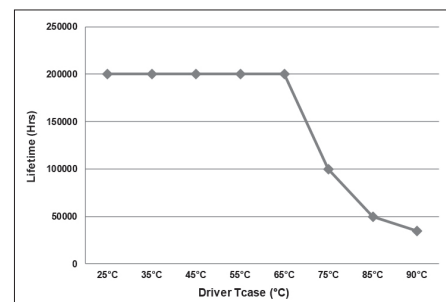
THD Curve



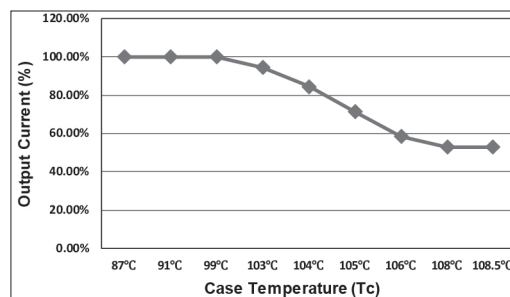
Efficiency vs. Load Curve



Lifetime vs. Driver Tcase



OTP



# APMS100C105UD LED Drivers

Replacement BU Voltage driver for use on the following Appleton™ LED Luminaires: 7500, 9,500, and 11,500 Lumen Mercmaster™ LED Generation 3 and Industrial Mercmaster LED Generation 3; 9500 Lumen Areamaster™ Generation 2 LED and Industrial Areamaster Generation 2 LED; 2400 Lumen Areamaster Generation 2 HL LED and Industrial Areamaster™ Generation 2 HL LED; 9500 Lumen Baymaster™ LED and Industrial Baymaster LED; 2400 Lumen Baymaster HL LED and Industrial Baymaster HL LED; 7900, 10,000, 11,600 Lumen Code•Master™ LED

Specifications (at +25 °C ambient unless specified otherwise) ①		
Input	Efficiency (120 Vac) ②	88% (Typical), >86% at full load
	Efficiency (230 Vac) ②	90% (Typical), >88% at full load
	Voltage Range (V)	90–305 Vac
	Voltage Rated (V)	100–277 Vac, or 125–300 Vdc (min.–max.)
	Frequency Range (Hz)	47 ~ 63
	Power Factor	0.98 (typical) at 220 Vac >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.)	1.35 A max. at 110 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)	150–57
	Output Current Range (mA)	70–1050
	Output Current Settable Range	0.45–1.05 A dc
	Rated Power (W)	100 (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/DIM+ Voltage	Absolute maximum voltage - 10 V min. ~ 20 V max.
	0 ~ 10V/DIM+ 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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Replacement BU Voltage driver for use on the following Appleton™ LED Luminaires: 7500, 9,500, and 11,500 Lumen Mercmaster™ LED Generation 3 and Industrial Mercmaster LED Generation 3; 9500 Lumen Areamaster™ Generation 2 LED and Industrial Areamaster Generation 2 LED; 2400 Lumen Areamaster Generation 2 HL LED and Industrial Areamaster™ Generation 2 HL LED; 9500 Lumen Baymaster™ LED and Industrial Baymaster LED; 2400 Lumen Baymaster HL LED and Industrial Baymaster HL LED; 7900, 10,000, 11,600 Lumen Code•Master™ LED

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

Protection	Over Voltage (V)	<200
		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
	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 (500VDC/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: ±6kV ; Line to GND: ±6kV ; Neutral to GND: ±6kV. 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	183 x 67.5 x 37 mm (L x W x H); (7.20 x 2.66 x 1.46 inches)
	Weight (Typ.)	820 g (1.8 lbs)

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)