IS 15885(Part 2/Sec13)
R-41027766
(Please refer safety description)

Type HL

(for DA-Type only)

SELV IP65 IP67

■ Features

- Constant Voltage + Constant Current mode output
- Metal housing design with functional Ground
- Built-in active PFC function
- Class 2 power unit
- No load / Standby power consumption <0.5W
- IP67 / IP65 rating for indoor or outdoor installations
- Typical lifetime>50000 hours
- 5 years warranty

■ Applications

- LED street lighting
- LED architectural lighting
- LED bay lighting
- LED floodlighting
- Type “HL” for use in Class I, Division 2 hazardous (Classified) location.

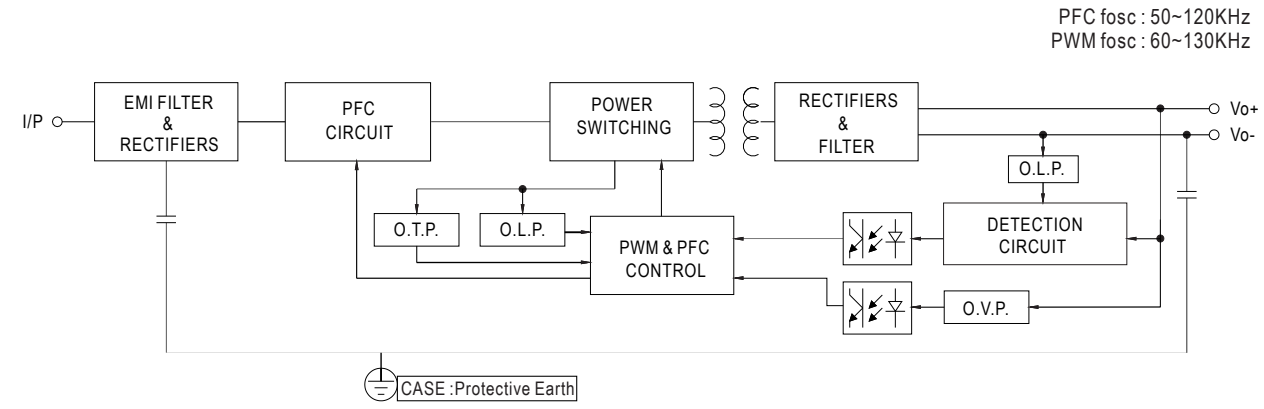
SPECIFICATION

MODEL		CEDMWC00204
OUTPUT	DC VOLTAGE	24V
	CONSTANT CURRENT REGION	12 ~ 24V
	RATED CURRENT	3.15A
	RATED POWER Note.4	200VAC ~ 305VAC
		75.6W
		100VAC ~ 180VAC
		60W
	RIPPLE & NOISE (max.) Note.2	200mVp-p
	VOLTAGE ADJ. RANGE	
		21.6 ~ 26.4V
	CURRENT ADJ. RANGE	
		1.57 ~ 3.15A
	VOLTAGE TOLERANCE Note.3	±3.0%
	LINE REGULATION	±0.5%
	LOAD REGULATION	±1.0%
	SETUP, RISE TIME Note.5	500ms, 100ms/115VAC, 230VAC
	HOLD UP TIME (Typ.)	10ms/ 230VAC 10ms/ 115VAC(at full load)
INPUT	VOLTAGE RANGE Note.4	100 ~ 305VAC 142 ~ 431VDC
	FREQUENCY RANGE	47 ~ 63Hz
	POWER FACTOR	PF≧0.97/115VAC, PF≧0.95/230VAC, PF≧0.92/277VAC@full load
	TOTAL HARMONIC DISTORTION	THD< 20%(@load≧50%/115VC,230VAC; @load≧75%/277VAC)
	EFFICIENCY (Typ.)	88%
	AC CURRENT	0.7A / 115VAC 0.45A / 230VAC 0.38A/277VAC
	INRUSH CURRENT(Typ.)	COLD START 50A(twidth=350μs measured at 50% Ipeak) at 230VAC; Per NEMA 410
	MAX. No. of PSUs on 16A CIRCUIT BREAKER	5 units (circuit breaker of type B) / 8 units (circuit breaker of type C) at 230VAC
	LEAKAGE CURRENT	<0.75mA / 277VAC
PROTECTION	OVER CURRENT	95 ~ 108%
		Constant current limiting, recovers automatically after fault condition is removed
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed
	OVER VOLTAGE	28 ~ 34V
		Shut down output voltage, re-power on to recover
	OVER TEMPERATURE	Shut down output voltage, re-power on to recover
ENVIRONMENT		
	MAX. CASE TEMP.	Tcase=+85℃
	WORKING HUMIDITY	20 ~ 95% RH non-condensing
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 60℃)
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes

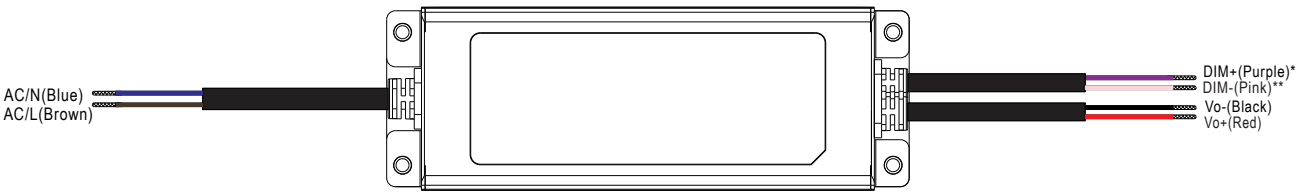
SPECIFICATION

SAFETY & EMC	SAFETY STANDARDS	UL8750(type"HL"), CSA C22.2 No. 250.13-12; IEC/BS EN/EN/AS/NZS 61347-1, IEC/BS EN/EN/AS/NZS 61347-2-13 independent, BS EN/EN62384;EAC TP TC 004;BIS IS15885(for 24DA); IP65 or IP67; GB19510.1, GB19510.14; KC61347-1,KC61347-2-13 approved
	DALI STANDARDS	Compliance to IEC62386-101,102,(207 by request) for DA Type
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:2.0KVAC O/P-FG:1.5KVAC
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH
	EMC EMISSION	Compliance to BS EN/EN55015,BS EN/EN61000-3-2 Class C (@load≧50%) ; BS EN/EN61000-3-3; GB/T 17743, GB17625.1; EAC TP TC 020; KC KN15,KN61547
	EMC IMMUNITY	Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11; BS EN/EN61547, light industry level (surge immunity Line-Earth 6KV, Line-Line 4KV);EAC TP TC 020; KC KN15 , KN61547
OTHERS	MTBF	3451.7K hrs min. Telcordia SR-332 (Bellcore) 331.3Khrs min. MIL-HDBK-217F (25℃)
	DIMENSION	180*63*35.5mm (L*W*H)
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated current and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. De-rating may be needed under low input voltages. 5. Length of set up time is measured at first cold start. Turning ON/OFF the driver may lead to increase of the set up time. 6. The driver is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again. 7. This series meets the typical life expectancy of >50,000 hours of operation when Tcase, particularly tc point (or TMP, per DLC), is about 70℃ or less. 8. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).	

■ Block Diagram



■ DIMMING OPERATION



*DIM for DA+ for DA Type

* *DIM for DA- for DA Type

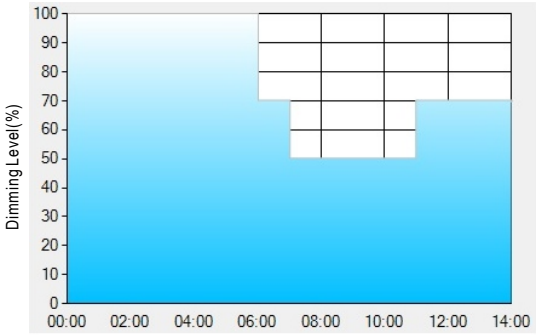
※ **DALI Interface (primary side; for DA-Type)**

- Apply DALI signal between DA+ and DA-.
- DALI protocol comprises 16 groups and 64 addresses.
- First step is fixed at 8% of output.

※ **Smart timer dimming function (for Dxx-Type by User definition)**

Smart timer dimming primarily provides the adaptive proportion dimming profile for the output constant current level to perform up to 14 consecutive hours. 3 dimming profiles hereunder are defined accounting for the most frequently seen applications.

Ex : ◎ D01-Type: the profile recommended for residential lighting



Set up for D01-Type in Smart timer dimming software program:

	T1	T2	T3	T4
TIME**	06:00	07:00	11:00	---
LEVEL**	100%	70%	50%	70%

**: TIME matches Operating Time in the diagram whereas LEVEL matches Dimming Level.

Example: If a residential lighting application adopts D01-Type, when turning on the power supply at 6:00pm, for instance:

[1] The power supply will switch to the constant current level at 100% starting from 6:00pm.

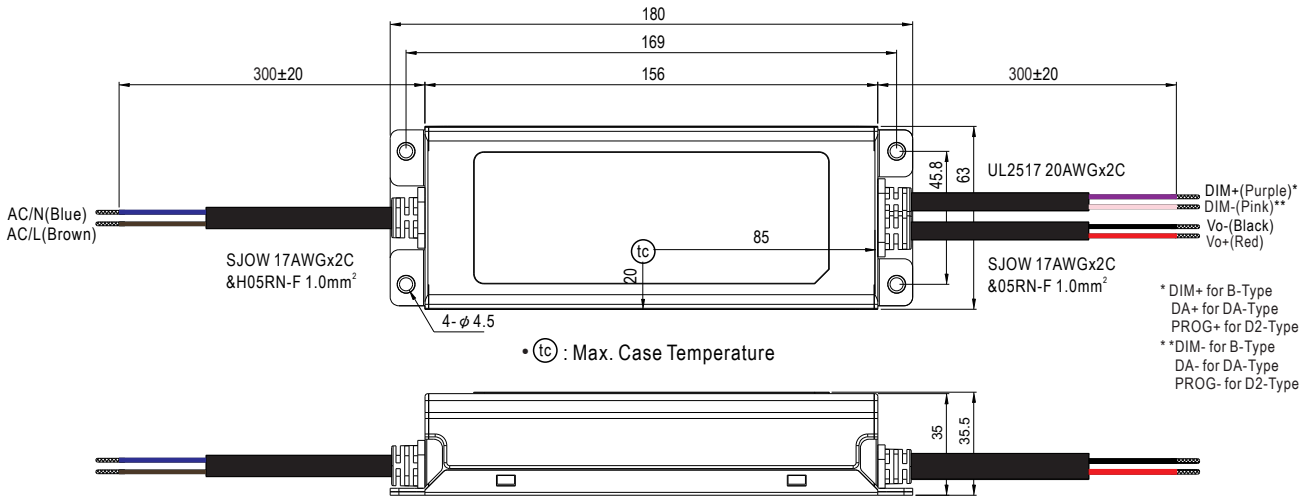
[2] The power supply will switch to the constant current level at 70% in turn, starting from 0:00am, which is 06:00 after the power supply turns on.

[3] The power supply will switch to the constant current level at 50% in turn, starting from 1:00am, which is 07:00 after the power supply turns on.

[4] The power supply will switch to the constant current level at 70% in turn, starting from 5:00am, which is 11:00 after the power supply turns on. The constant current level remains till 8:00am, which is 14:00 after the power supply turns on.

■ Mechanical Specification

※ **DA-Type**



■ Recommend Mounting Direction