



■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Output voltage and constant current level adjustable
- Built-in active PFC function
- IP66 design for indoor or outdoor installations
- UL1310 Class 2 power unit
- Cooling by free air convection
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting
- Suitable for damp / wet location and outdoor application
- 3 years warranty

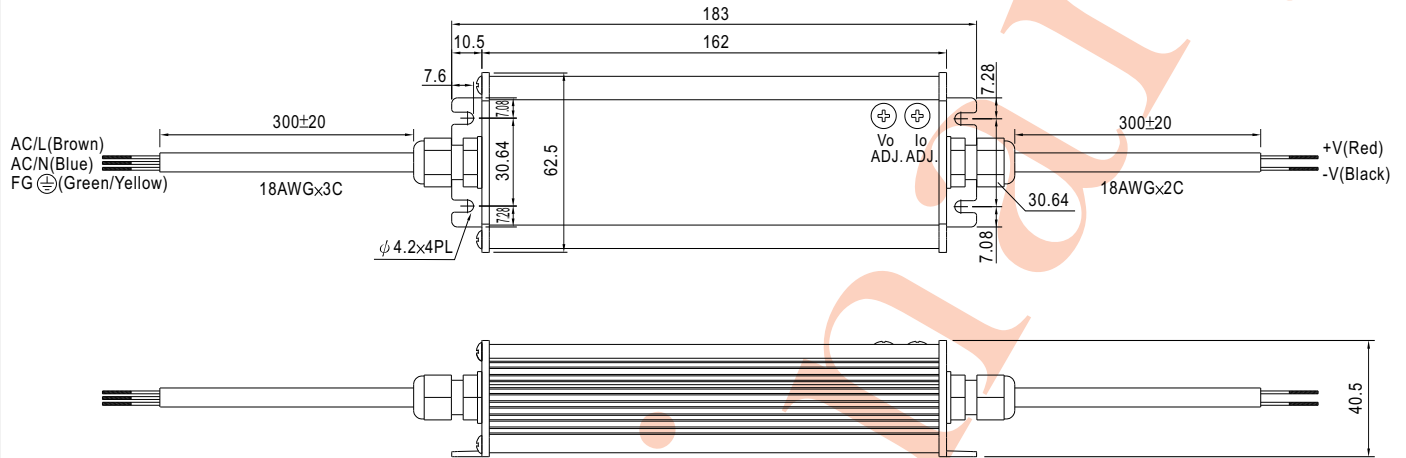


SPECIFICATION

MODEL	CEN-60-12	CEN-60-15	CEN-60-20	CEN-60-24	CEN-60-30	CEN-60-36	CEN-60-42	CEN-60-48	CEN-60-54	
OUTPUT	DC VOLTAGE	12V	15V	20V	24V	30V	36V	42V	48V	54V
	CONSTANT CURRENT OPERATION VOLTAGE Note.6	7.2 ~ 12V	9 ~ 15V	12 ~ 20V	14.4 ~ 24V	18 ~ 30V	21.6 ~ 36V	25.2 ~ 42V	28.8 ~ 48V	32.4 ~ 54V
	RATED CURRENT	5A	4A	3A	2.5A	2A	1.7A	1.45A	1.3A	1.15A
	CURRENT RANGE	0 ~ 5A	0 ~ 4A	0 ~ 3A	0 ~ 2.5A	0 ~ 2A	0 ~ 1.7A	0 ~ 1.45A	0 ~ 1.3A	0 ~ 1.15A
	RATED POWER	60W	60W	60W	60W	60W	61.2W	60.9W	62.5W	62.1W
	RIPPLE & NOISE (max.) Note.2	2Vp-p	2.4Vp-p	1.8Vp-p	2.7Vp-p	3Vp-p	3.6Vp-p	4Vp-p	4.6Vp-p	5Vp-p
	VOLTAGE ADJ. RANGE (SVR1)	10.8 ~ 13.5V	13.5 ~ 17V	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	37 ~ 46V	43 ~ 53V	49 ~ 58V
	CURRENT ADJ. RANGE(SVR2)	3.75 ~ 5A	3 ~ 4A	2.2 ~ 3A	1.8 ~ 2.5A	1.5 ~ 2A	1.2 ~ 1.7A	1 ~ 1.45A	0.9 ~ 1.3A	0.8 ~ 1.15A
	VOLTAGE TOLERANCE Note.3	±10%								
	LINE REGULATION	±3.0%								
LOAD REGULATION	±5.0%									
SETUP TIME	3000ms / 230VAC 5000ms / 115VAC at full load									
INPUT	VOLTAGE RANGE Note.5	90 ~ 295VAC 127 ~ 417VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	POWER FACTOR	PF≥0.9 at 60 ~ 100% load, 115VAC / 230VAC ; PF>0.99 / 115VAC PF>0.95 / 230VAC at full load								
	EFFICIENCY(Typ.)	86%	87%	90%	90%	90%	90%	90%	91%	91%
	AC CURRENT	0.8A/115VAC		0.4A/230VAC						
	INRUSH CURRENT(max.)	40A/230VAC								
LEAKAGE CURRENT	<0.75mA / 240VAC									
PROTECTION	OVER CURRENT	95 ~ 110%		110% (max)						
	SHORT CIRCUIT Note.4	Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	13.8 ~ 16V	17.5 ~ 21V	22.8 ~ 25V	28 ~ 32V	34 ~ 38V	41 ~ 46V	47 ~ 52V	54 ~ 60V	59 ~ 65V
	OVER TEMPERATURE	85°C±10°C (TSW1) detect on heatsink of power transistor								
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to output load derating curve)								
	WORKING HUMIDITY	20 ~ 95% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)								
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes								
	SAFETY STANDARDS	UL1310 Class 2, UL8750, SAM list UL879, TUV EN61347-1, EN61347-2-13, CAN/CSA C22.2 No. 223-M91(except for 48V&54V), IP66 approved								
SAFETY & EMC	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC		I/P-FG:1.88KVAC		O/P-FG:0.5KVAC				
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C/ 70% RH								
	EMI CONDUCTION & RADIATION	Compliance to EN55015								
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C (≥60% load) ; EN61000-3-3								
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN61547, light industry level (surge 4KV), criteria A								
	MTBF	Khrs min. MIL-HDBK-217F (25°C)								
OTHERS	DIMENSION	183*62.5*40.5mm (L*W*H)								
	PACKING	Kg								
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Direct connecting to LEDs is not suggested for models with "RIPPLE & NOISE" >±10% and using additional drivers is highly recommended.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Please refer to OLP characteristics.</p> <p>5. Derating may be needed under low input voltage. Please check the derating curve for more details.</p> <p>6. Constant current operation region is within 60% ~100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.</p>									

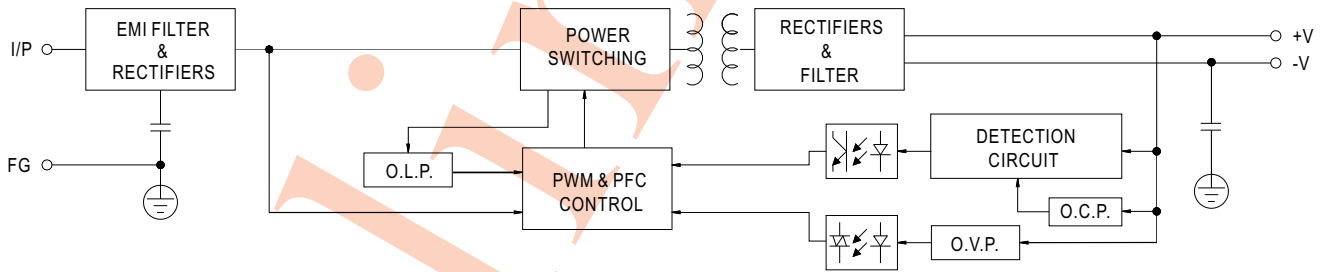
Mechanical Specification

Case No. Unit:mm

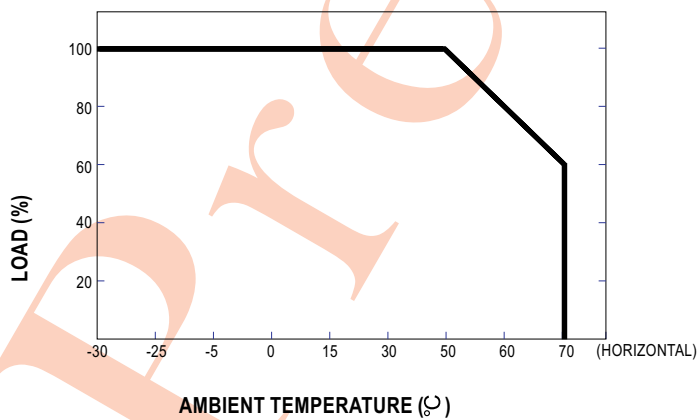


Block Diagram

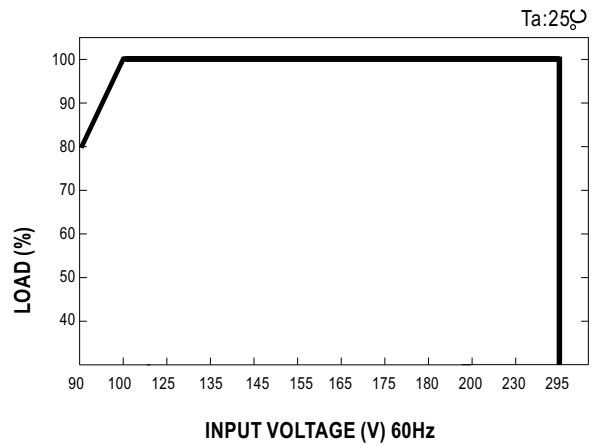
fosc : 90KHz(115VAC)
120KHz(230VAC)



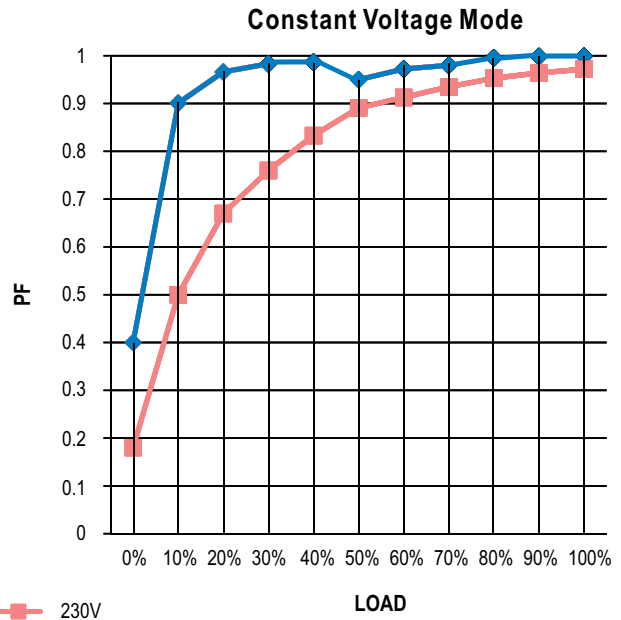
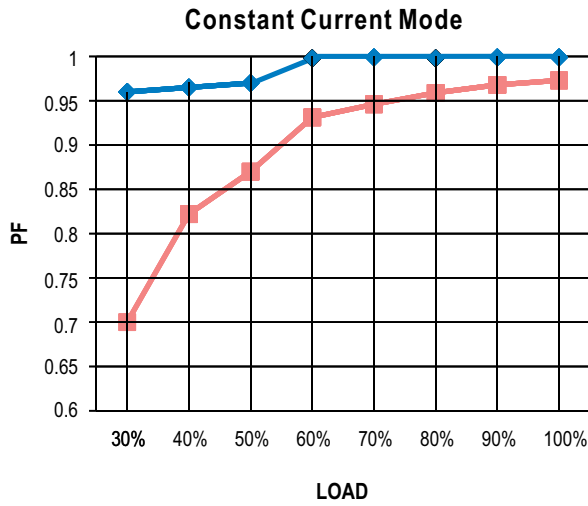
Derating Curve



Static Characteristics



Power Factor Characteristic



◆ 110V ■ 230V

OUTPUT VOLTAGE / OUTPUT CURRENT OPERATING RANGE

