



## Features :

- Universal AC input / Full range (up to 295VAC)
- 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
- 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 dry / damp / wet locations
- 3 years warranty

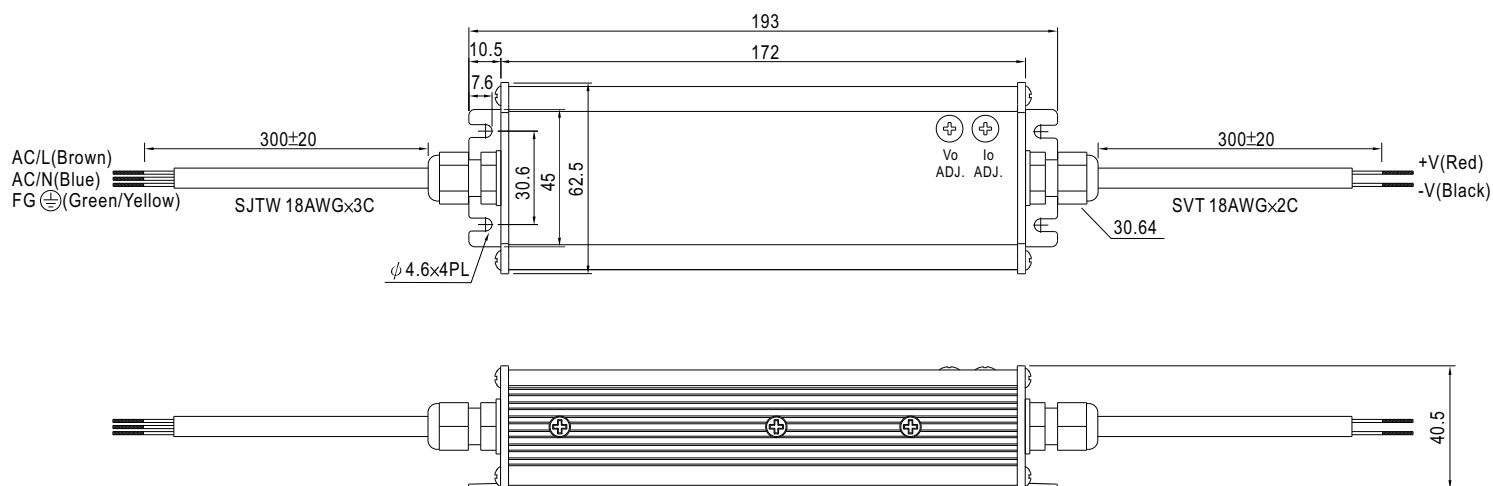


## SPECIFICATION

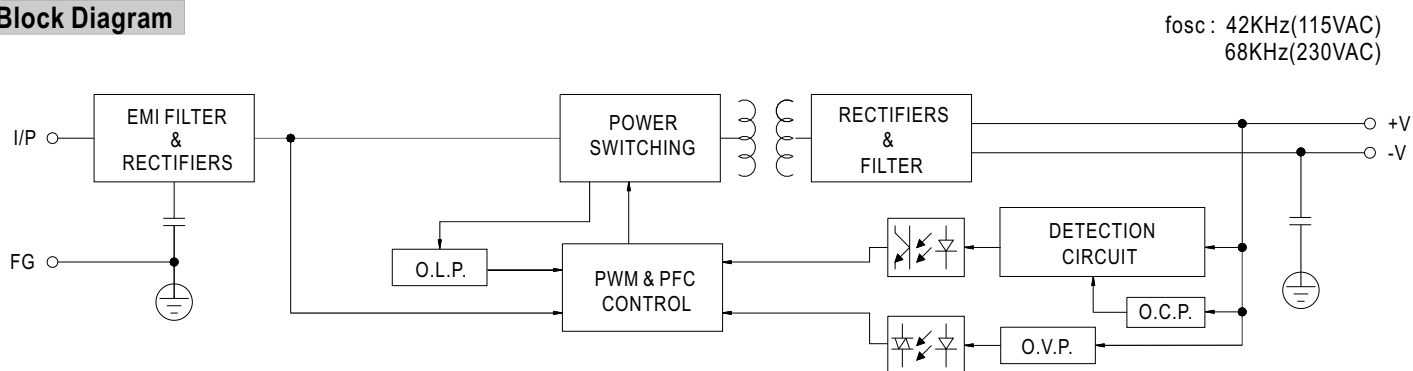
MODEL		CEN-100-20	CEN-100-24	CEN-100-30	CEN-100-36	CEN-100-42	CEN-100-48	CEN-100-54
OUTPUT	DC VOLTAGE	20V	24V	30V	36V	42V	48V	54V
	CONSTANT CURRENT OPERATION VOLTAGE <small>Note.5</small>	13 ~ 20V	15.6 ~ 24V	19.5 ~ 30V	23.4 ~ 36V	27.3 ~ 42V	31.2 ~ 48V	35.1 ~ 54V
	RATED CURRENT	4.8A	4A	3.2A	2.65A	2.28A	2A	1.77A
	CURRENT RANGE	0 ~ 4.8A	0 ~ 4A	0 ~ 3.2A	0 ~ 2.65A	0 ~ 2.28A	0 ~ 2A	0 ~ 1.77A
	RATED POWER	96W	96W	96W	95.4W	95.76W	96W	95.58W
	RIPPLE & NOISE (max.) <small>Note.2</small>	2.0Vp-p	2.7Vp-p	3Vp-p	3.6Vp-p	4Vp-p	4.6Vp-p	5Vp-p
	VOLTAGE ADJ. RANGE (SVR1)	17 ~ 22V	22 ~ 27V	27 ~ 33V	33 ~ 40V	37 ~ 46V	43 ~ 53V	49 ~ 58V
	CURRENT ADJ. RANGE(SVR2)	3.12 ~ 4.8A	2.6 ~ 4A	2.08 ~ 3.2A	1.72 ~ 2.65A	1.48 ~ 2.28A	1.3 ~ 2A	1.15 ~ 1.77A
	VOLTAGE TOLERANCE <small>Note.3</small>	±10%						
	LINE REGULATION	±3.0%						
	LOAD REGULATION	±5.0%						
SETUP TIME	3000ms / 230VAC    5000ms / 115VAC at full load							
INPUT	VOLTAGE RANGE <small>Note.4</small>	90 ~ 295VAC    127 ~ 417VDC						
	FREQUENCY RANGE	47 ~ 63Hz						
	POWER FACTOR	PF ≥ 0.9 at 65 ~ 100% load, 115VAC / 230VAC ; PF>0.97 / 115VAC    PF>0.95 / 230VAC at full load						
	EFFICIENCY(Typ.)	88%	89%	90%	90%	90%	91%	91%
	AC CURRENT	1.4A/115VAC    0.7A/230VAC						
	INRUSH CURRENT(Typ.)	60A/230VAC						
	LEAKAGE CURRENT	<0.75mA / 240VAC						
PROTECTION	OVER CURRENT	95 ~ 110% Protection type : Constant current limiting, recovers automatically after fault condition is removed						
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed						
	OVER VOLTAGE	22.8 ~ 26V	28 ~ 32V	34 ~ 38V	41 ~ 46V	47 ~ 52V	54 ~ 60V	59 ~ 65V
		Protection type : Shut down o/p voltage, re-power on to recover						
	OVER TEMPERATURE	85℃ ±10℃ (RTH1) Protection type : Shut down o/p voltage, re-power on to recover						
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to output load derating curve)						
	WORKING HUMIDITY	20 ~ 95% RH non-condensing						
	STORAGE TEMP., HUMIDITY	-40 ~ +80℃, 10 ~ 95% RH						
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)						
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes						
SAFETY & EMC	SAFETY STANDARDS	UL8750, TUV EN61347-1, EN61347-2-13, IP66 approved						
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC    I/P-FG:1.88KVAC    O/P-FG:0.5KVAC						
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500VDC / 25℃ / 70% RH						
	EMI CONDUCTION & RADIATION	Compliance to EN55015						
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C ( ≥ 65% 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	519.5Khrs min.    MIL-HDBK-217F (25℃)						
OTHERS	DIMENSION	193*62.5*40.5mm (L*W*H)						
	PACKING	0.6Kg: 24pcs/15.4Kg/1.11CUFT						

## Mechanical Specification

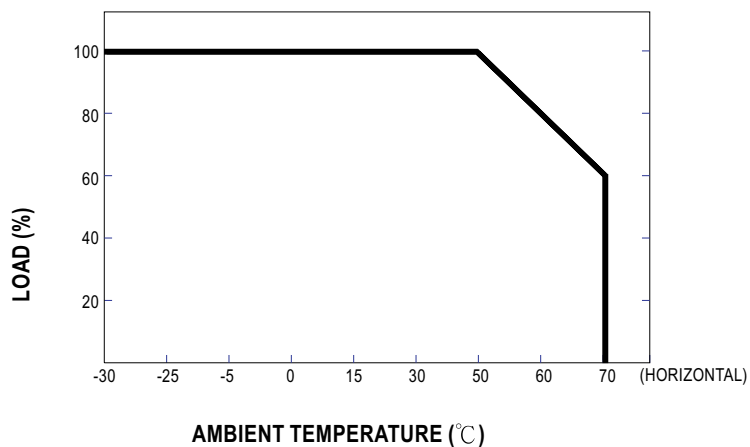
Case No. 993A Unit:mm



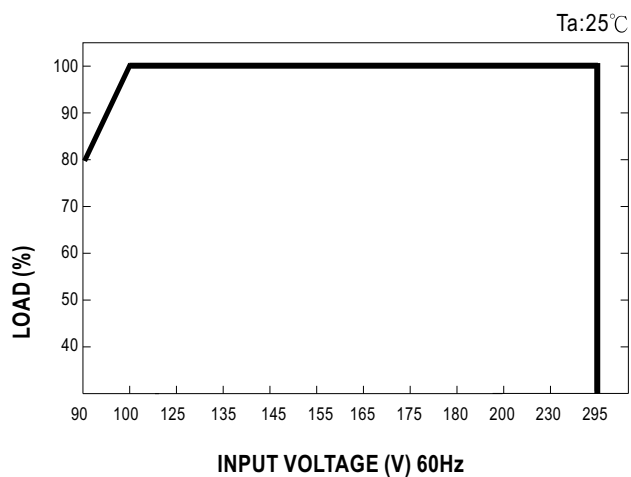
## Block Diagram



## Derating Curve



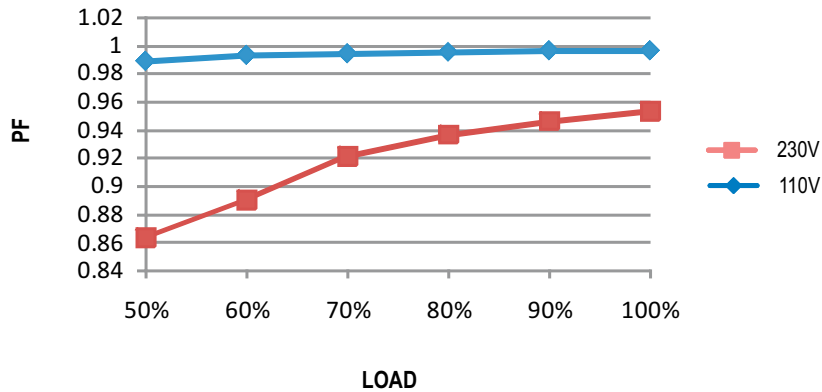
## Static Characteristics



## Power Factor Characteristic

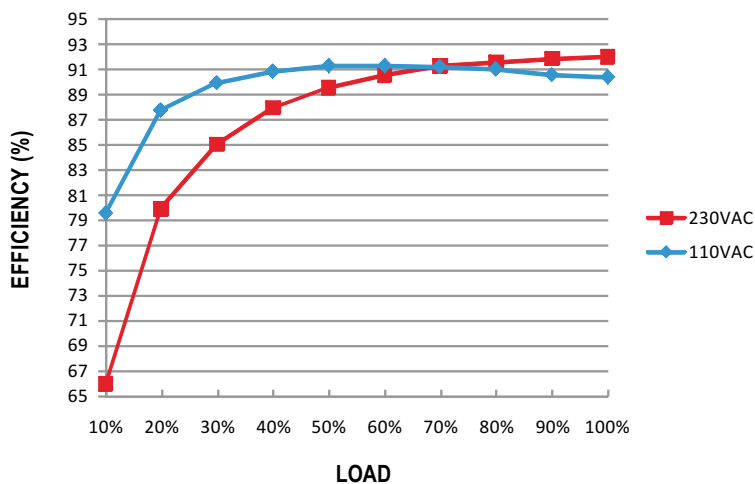
Power factor will be higher than 0.9 when output loading is 65% or higher.

### Constant Current Mode



## EFFICIENCY vs LOAD (48V Model)

CEN-100 series possess superior working efficiency that up to 91% can be reached in field applications.

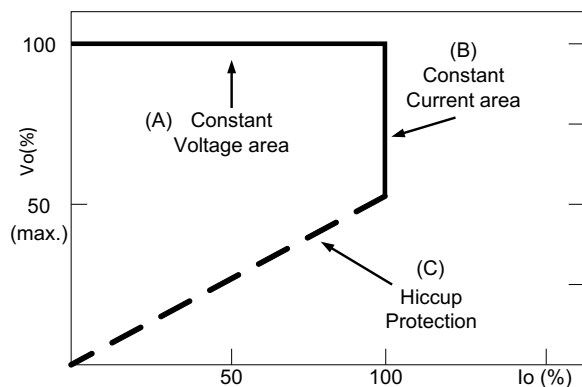


## DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode [with LED driver, at area (A)] and CC mode [direct drive, at area (B)].



Typical LED power supply I-V curve