



Наличие и актуальные цены на

**CEN-100-42**

<https://www.mean-well.ru/store/CEN-100-42/>



## ■ Features :

- Universal AC input / Full range (up to 295VAC)
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Output voltage and constant current level adjustable
- Built-in active PFC function
- IP66 design for indoor or outdoor installations
- 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 dry / damp / wet locations
- 3 years warranty

IS 15885(Part 2/Sec13)

R-41027766

(for 48V,54V only) (except for 48V,54V) (for 36V,42V,48V,54V only)

## SPECIFICATION



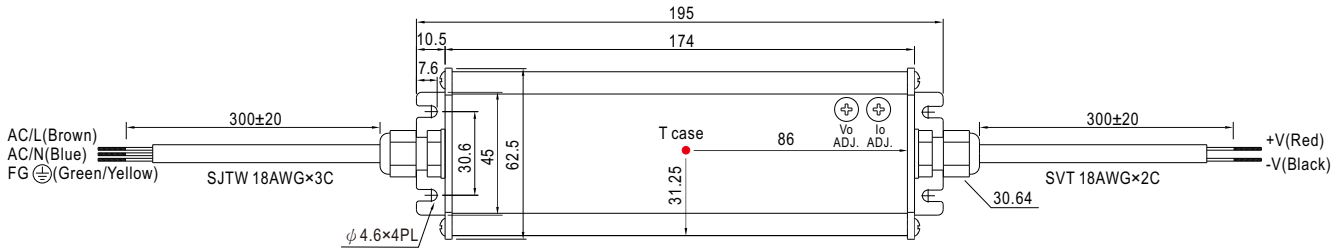
SELV IP66



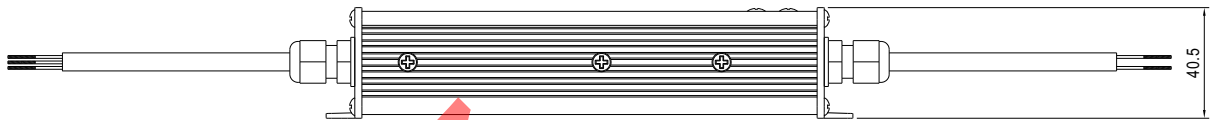
| MODEL           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 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 REGION <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      | 500ms / 230VAC    1200ms / 115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                    |             |              |              |              |            |              |
| INPUT           | VOLTAGE RANGE <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 90 ~ 295VAC                                                                                                                                                                                        |             | 127 ~ 417VDC |              |              |            |              |
|                 | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 47 ~ 63Hz                                                                                                                                                                                          |             |              |              |              |            |              |
|                 | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | PF>0.97/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load (Please refer to "Power Factor Characteristic" curve)                                                                                  |             |              |              |              |            |              |
|                 | TOTAL HARMONIC DISTORTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | THD< 20% when output loading≥75% at 115VAC/230VAC input and output loading≥80% at 277VAC input                                                                                                     |             |              |              |              |            |              |
|                 | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 88%                                                                                                                                                                                                | 89%         | 90%          | 90%          | 90%          | 91%        | 91%          |
|                 | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.4A/115VAC                                                                                                                                                                                        | 0.7A/230VAC | 0.5A/277VAC  |              |              |            |              |
|                 | INRUSH CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | COLD START 45A(twidth=85μs measured at 50% Ipeak) at 230VAC                                                                                                                                        |             |              |              |              |            |              |
|                 | MAX. No. of PSUs on 16A CIRCUIT BREAKER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 19 units (circuit breaker of type B) / 19 units (circuit breaker of type C) at 230VAC                                                                                                              |             |              |              |              |            |              |
| LEAKAGE CURRENT | <0.75mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                    |             |              |              |              |            |              |
| PROTECTION      | OVER CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 95 ~ 110%<br>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 ~ 68V     |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                    |             |              |              |              |            |              |
|                 | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Shut down o/p voltage, re-power on to recover                                                                                                                                                      |             |              |              |              |            |              |
| ENVIRONMENT     | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -30 ~ +70°C (Refer to "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 & EMC    | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | UL8750, CSA C22.2 No. 250.0-08(except for 48V, 54V), TUV EN61347-1, EN61347-2-13, IP66, J61347-1, J61347-2-13, BIS IS15885(for 36V,42V,48V,54V only), EAC TP TC 004, GB19510.1,GB19510.14 approved |             |              |              |              |            |              |
|                 | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I/P-O/P:3.75KVAC    I/P-FG:2KVAC    O/P-FG:0.5KVAC                                                                                                                                                 |             |              |              |              |            |              |
|                 | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | I/P-O/P, I/P-FG, O/P-FG: >100M Ohms / 500VDC / 25°C/ 70% RH                                                                                                                                        |             |              |              |              |            |              |
|                 | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compliance to EN55015, EN61000-3-2 Class C (≥65% load) ; EN61000-3-3, GB17743 and GB17625.1, EAC TP TC 020                                                                                         |             |              |              |              |            |              |
|                 | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN61547, light industry level (surge 4KV), criteria B, EAC TP TC 020                                                                              |             |              |              |              |            |              |
| OTHERS          | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 519.5Khrs min.    MIL-HDBK-217F (25°C)                                                                                                                                                             |             |              |              |              |            |              |
|                 | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 195*62.5*40.5mm (L*W*H)                                                                                                                                                                            |             |              |              |              |            |              |
|                 | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.6Kg;24pcs/15.4Kg/1.29CUFT                                                                                                                                                                        |             |              |              |              |            |              |
| NOTE            | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>4. Derating may be needed under low input voltage. Please check the static characteristics for more details.<br>5. Please refer to "DRIVING METHODS OF LED MODULE".<br>6. The power supply 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.<br>7. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers.<br>8. To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED power supply can only be used behind a switch without permanently connected to the mains.<br>9. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). |                                                                                                                                                                                                    |             |              |              |              |            |              |

## Mechanical Specification

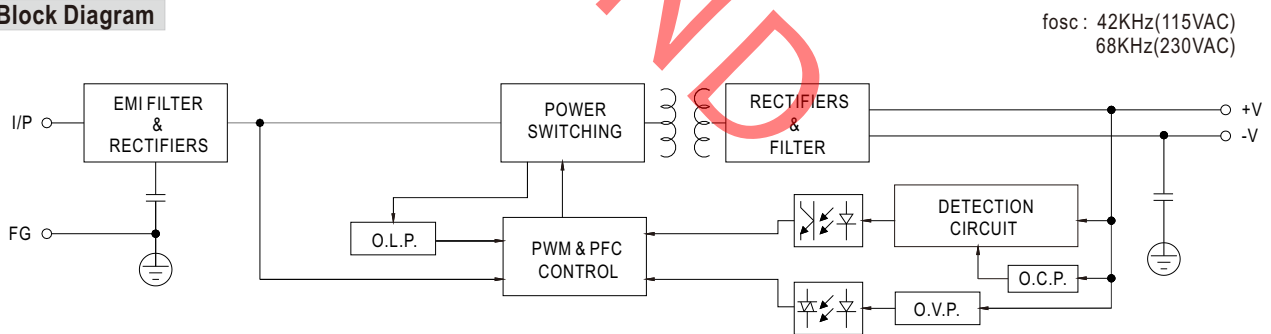
Case No. 993A Unit:mm



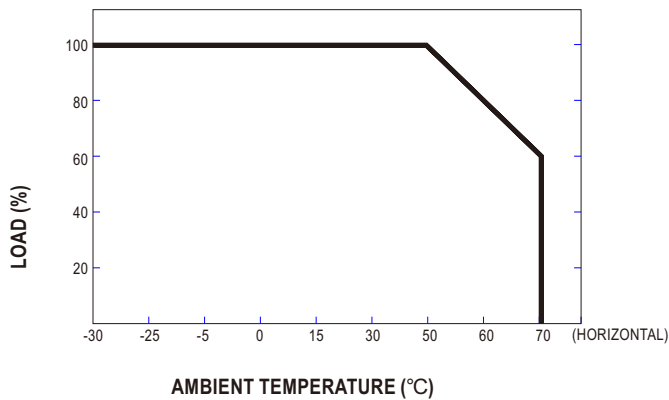
※ T case: Max. Case Temperature.



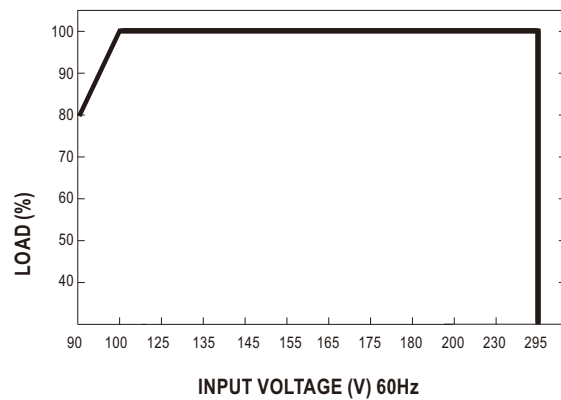
## Block Diagram



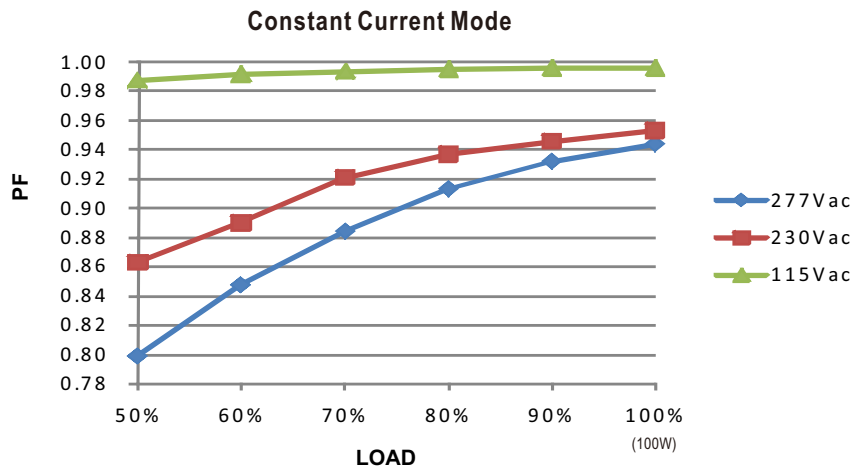
## Derating Curve



## Static Characteristics

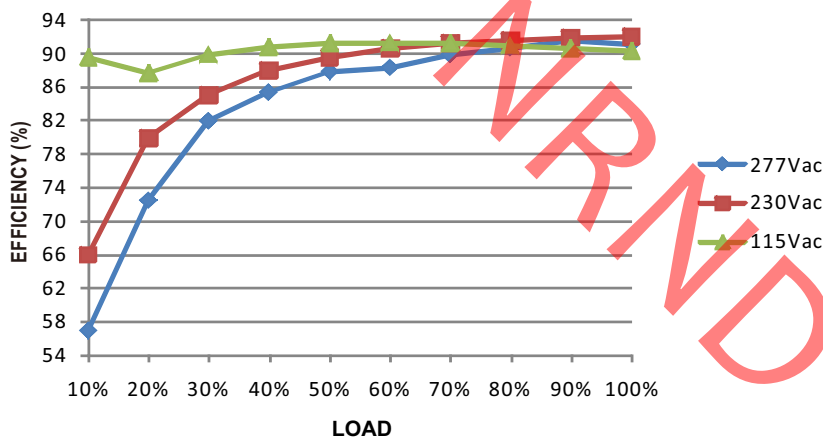


### Power Factor Characteristic



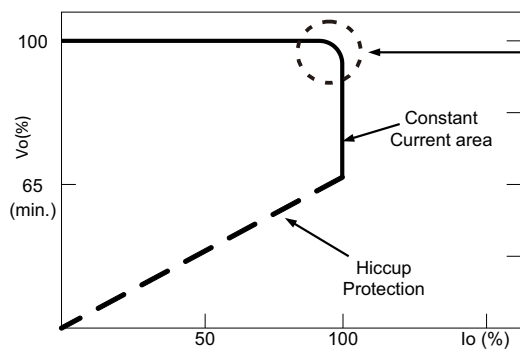
### EFFICIENCY vs LOAD (48V Model)

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



### DRIVING METHODS OF LED MODULE

This LED power supply is suggested to work in constant current mode area (CC) to drive the LEDs.



Typical LED power supply I-V curve

In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Should there be any compatibility issues, please contact MEAN WELL.