



Наличие и актуальные цены на

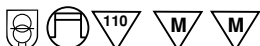
**CLG-60-15**

<https://www.mean-well.ru/store/CLG-60-15/>



#### ■ Features :

- Universal AC input / Full range (up to 295VAC)
- Built-in active PFC function
- High efficiency up to 89%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- IP67 design for indoor or outdoor installations
- Class 2 power unit
- Pass LPS
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications (Note.2)
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 3 years warranty



SELV LPS IP67

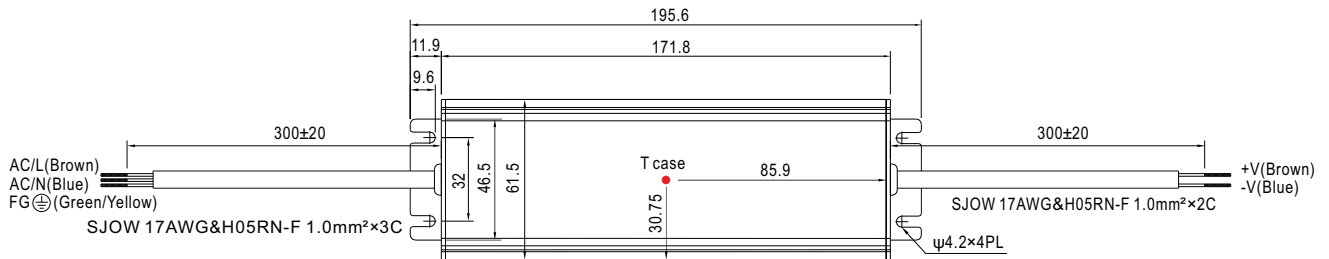


#### SPECIFICATION

| MODEL           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CLG-60-12                                                                                                                                                                                                                                                                      | CLG-60-15    | CLG-60-20  | CLG-60-24  | CLG-60-27  | CLG-60-36  | CLG-60-48    |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|------------|------------|------------|--------------|
| OUTPUT          | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 12V                                                                                                                                                                                                                                                                            | 15V          | 20V        | 24V        | 27V        | 36V        | 48V          |
|                 | CONSTANT CURRENT REGION <small>Note.5</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 8.4 ~ 12V                                                                                                                                                                                                                                                                      | 10.5 ~ 15V   | 14 ~ 20V   | 16.8 ~ 24V | 18.9 ~ 27V | 25.2 ~ 36V | 33.6 ~ 48V   |
|                 | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5A                                                                                                                                                                                                                                                                             | 4A           | 3A         | 2.5A       | 2.3A       | 1.7A       | 1.3A         |
|                 | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0 ~ 5A                                                                                                                                                                                                                                                                         | 0 ~ 4A       | 0 ~ 3A     | 0 ~ 2.5A   | 0 ~ 2.3A   | 0 ~ 1.7A   | 0 ~ 1.3A     |
|                 | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 60W                                                                                                                                                                                                                                                                            | 60W          | 60W        | 60W        | 62.1W      | 61.2W      | 62.4W        |
|                 | RIPPLE & NOISE (max.) <small>Note.2</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2Vp-p                                                                                                                                                                                                                                                                          | 2.4Vp-p      | 1.8Vp-p    | 2.7Vp-p    | 2.7Vp-p    | 3.6Vp-p    | 4.6Vp-p      |
|                 | VOLTAGE ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 11.5 ~ 13V                                                                                                                                                                                                                                                                     | 14.5 ~ 16.2V | 19.5 ~ 22V | 24 ~ 26V   | 25 ~ 30V   | 32.5 ~ 39V | 43.6 ~ 51.8V |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Fixed can be modified between the range above                                                                                                                                                                                                                                  |              |            |            |            |            |              |
|                 | CURRENT ADJ. RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Fixed. Can be modified between 3% ~ -25% rated output current                                                                                                                                                                                                                  |              |            |            |            |            |              |
|                 | VOLTAGE TOLERANCE <small>Note.3</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ±10%                                                                                                                                                                                                                                                                           |              |            |            |            |            |              |
|                 | LINE REGULATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±3.0%                                                                                                                                                                                                                                                                          |              |            |            |            |            |              |
| LOAD REGULATION | ±5.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                |              |            |            |            |            |              |
| SETUP TIME      | 500ms / 230VAC 3000ms / 115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                |              |            |            |            |            |              |
| INPUT           | VOLTAGE RANGE <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 90 ~ 295VAC 127 ~ 417VDC                                                                                                                                                                                                                                                       |              |            |            |            |            |              |
|                 | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 47 ~ 63Hz                                                                                                                                                                                                                                                                      |              |            |            |            |            |              |
|                 | POWER FACTOR (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | PF>0.94/115VAC, PF>0.9/230VAC, PF>0.9/277VAC at full load (Please refer to "Power Factor Characteristic" curve)                                                                                                                                                                |              |            |            |            |            |              |
|                 | TOTAL HARMONIC DISTORTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | THD< 20% when output loading≥70% at 115VAC/230VAC input and output loading≥75% at 277VAC input                                                                                                                                                                                 |              |            |            |            |            |              |
|                 | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 85%                                                                                                                                                                                                                                                                            | 86%          | 87.5%      | 87%        | 88%        | 89%        | 89%          |
|                 | AC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.8A/115VAC 0.4A/230VAC 0.3A/277VAC                                                                                                                                                                                                                                            |              |            |            |            |            |              |
|                 | INRUSH CURRENT(Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | COLD START 35A(twidth=45μs measured at 50% Ipeak) at 230VAC                                                                                                                                                                                                                    |              |            |            |            |            |              |
|                 | MAX. No. of PSUs on 16A CIRCUIT BREAKER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 32 units (circuit breaker of type B) / 32 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 13.8 ~ 16V                                                                                                                                                                                                                                                                     | 17.5 ~ 21V   | 23 ~ 28V   | 28 ~ 32V   | 31 ~ 35V   | 41 ~ 46V   | 54 ~ 60V     |
|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Protection type : Shut down o/p voltage, re-power on to recover                                                                                                                                                                                                                |              |            |            |            |            |              |
|                 | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Shut down o/p voltage, recovers automatically after temperature goes down                                                                                                                                                                                                      |              |            |            |            |            |              |
| ENVIRONMENT     | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -30 ~ +70℃ (Refer to "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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | UL879, UL8750, UL1310, EN/AS/NZS 61347-1, EN/AS/NZS 61347-2-13 independent, CAN/CSA C22.2 No. 223-M91(except for 48V), CSA C22.2 No. 250.0-08(except for 48V), CSA C22.2 No. 207-M89(except for 48V), GB19510.1,GB19510.14,J61347-1, J61347-2-13, EAC TP TC 004, IP67 approved |              |            |            |            |            |              |
|                 | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | I/P-O/P:3.75KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC                                                                                                                                                                                                                                   |              |            |            |            |            |              |
|                 | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH                                                                                                                                                                                                                                       |              |            |            |            |            |              |
|                 | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Compliance to EN55015, EN61000-3-2 Class C (≥ 75% 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), EAC TP TC 020                                                                                                                                                                      |              |            |            |            |            |              |
| OTHERS          | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 495.7Khrs min. MIL-HDBK-217F (25℃)                                                                                                                                                                                                                                             |              |            |            |            |            |              |
|                 | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 195.6*61.5*38.8mm (L*W*H)                                                                                                                                                                                                                                                      |              |            |            |            |            |              |
|                 | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.86Kg; 16pcs/14.8Kg/0.54CUFT                                                                                                                                                                                                                                                  |              |            |            |            |            |              |
| NOTE            | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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-quality 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. |                                                                                                                                                                                                                                                                                |              |            |            |            |            |              |

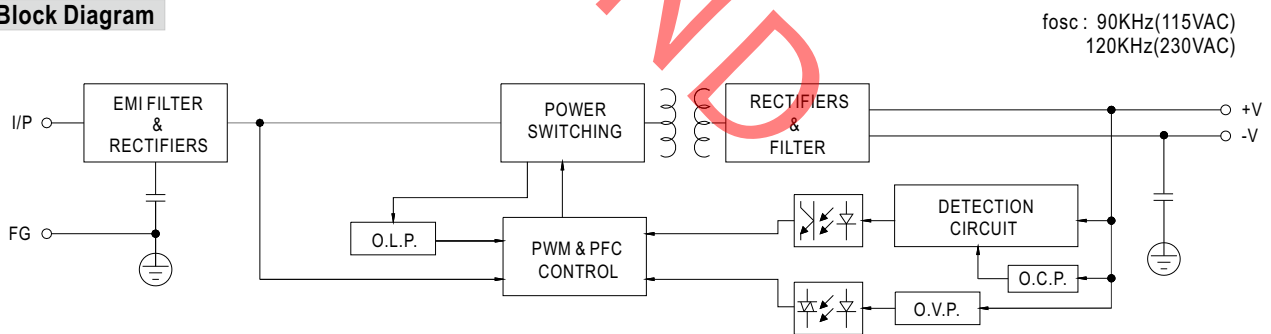
## Mechanical Specification

Case No. 957A Unit:mm

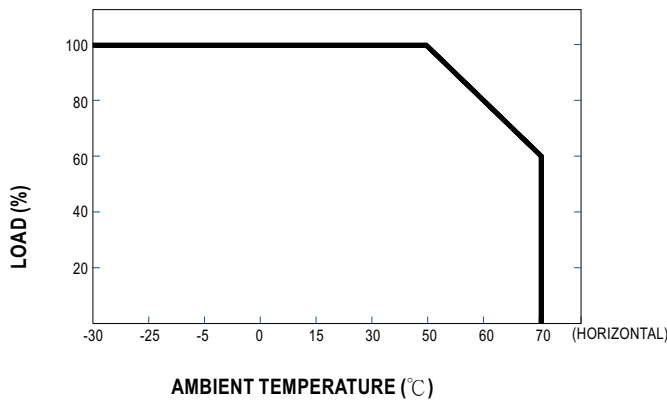


※ T case: Max. Case Temperature.

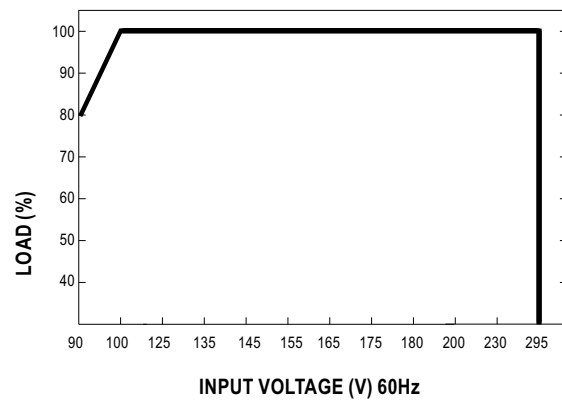
## Block Diagram



## Derating Curve

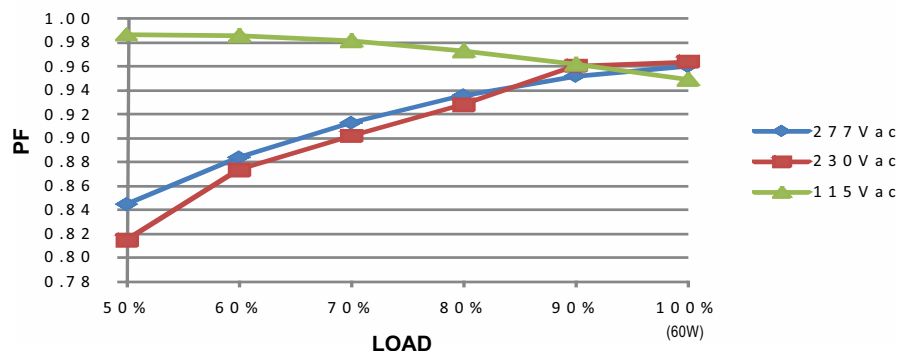


## Static Characteristics



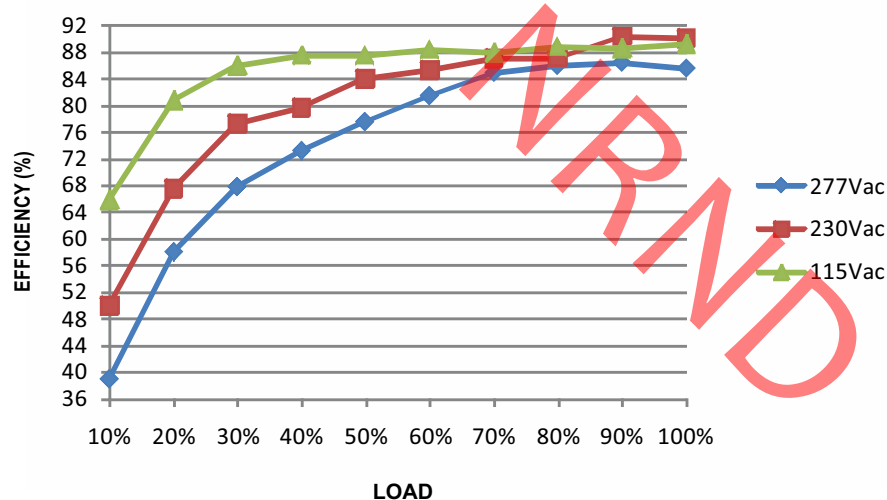
### Power Factor Characteristic

#### Constant Current Mode



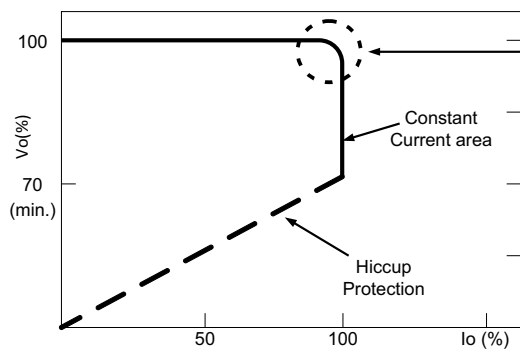
### EFFICIENCY vs LOAD (48V Model)

CLG-60 series possess superior working efficiency that up to 89% 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.