



## Features

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14, Class I power unit
- No load power consumption < 0.3W
- **Energy efficiency level VI**
- Comply with EISA 2007/DoE
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- -20 ~ +70°C working temperature
- LED indicator for power on
- Dual output available (optional)
- 3 years warranty

## Applications

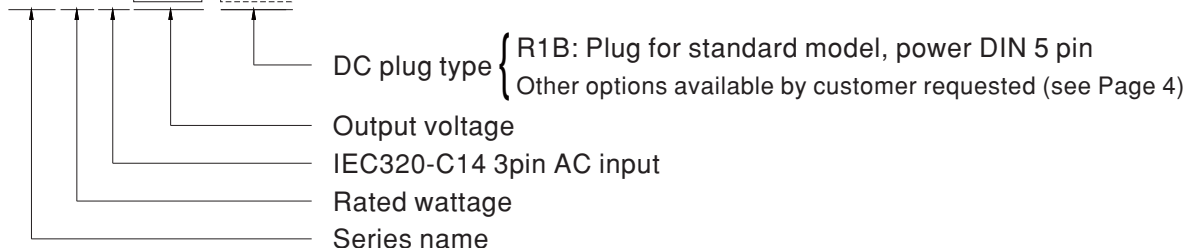
- Consumer electronic devices
- Telecommunication devices
- Office facilities
- Industrial equipments

## Description

GP25A is a 25W triple-output desktop type green adaptor series, complying with the mandatory energy saving standard USA EISA 2007/DoE (Level VI). Adopting Class I design and utilizing the standard inlet IEC320-C14, it is designed with FG and uses the 94V-0 flame retardant plastic enclosure, which can effectively prevent electric shock hazards. This series operates from 90~264VAC and offers three models with the output voltage sets +5V/+12V/-5V, +5V/+12V/-12V and +5V/+15V/-15V. Its supreme advantages includes the less-than-0.3W no load power consumption, the capability of working under -20~+70°C ambient temperature, complete protection functions and three-year warranty and the compliance to the international safety certification such as CB, TUV, UL, CE and FCC. GP25A is a multiple-output green adaptor with high safety, high reliability and high quality.

## Model Encoding

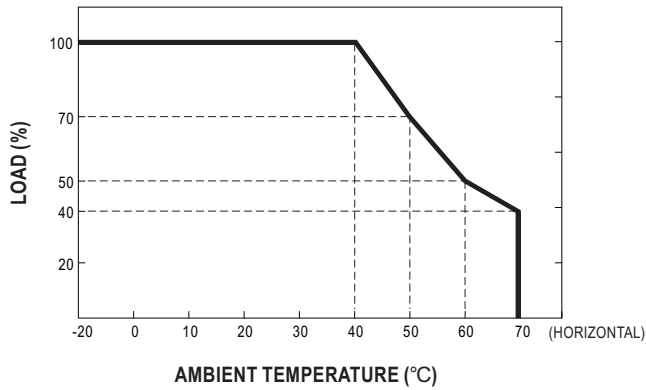
**GP25 A 13A -R1B**



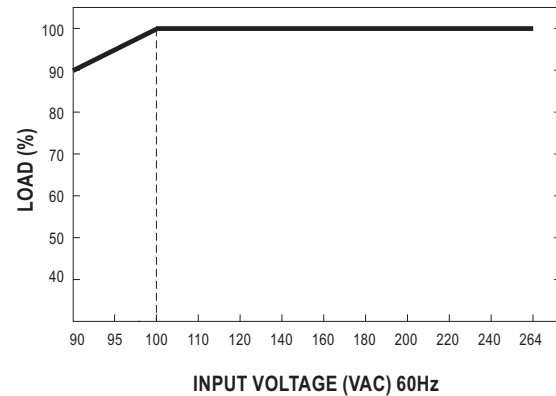
# SPECIFICATION

| ORDER NO.                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | GP25A13A-R1B                                                                                                            |                                                                |            | GP25A13D-R1B                             |                                                                              |                                        | GP25A14E-R1B |             |            |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------|------------------------------------------|------------------------------------------------------------------------------|----------------------------------------|--------------|-------------|------------|
| OUTPUT                      | SAFETY MODEL NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | GP25A13A                                                                                                                |                                                                |            | GP25A13D                                 |                                                                              |                                        | GP25A14E     |             |            |
|                             | DC VOLTAGE      Note.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5V                                                                                                                      | 12V                                                            | -5V        | 5V                                       | 12V                                                                          | -12V                                   | 5V           | 15V         | -15V       |
|                             | RATED SET CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.5A                                                                                                                    | 1.2A                                                           | 0.3A       | 2.5A                                     | 1A                                                                           | 0.3A                                   | 2.5A         | 0.8A        | 0.3A       |
|                             | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.5 ~ 2.5A                                                                                                              | 0.2 ~ 1.2A                                                     | 0.1 ~ 0.3A | 0.5 ~ 2.5A                               | 0.2 ~ 1A                                                                     | 0.1 ~0.3A                              | 0.5 ~ 2.5A   | 0.1 ~ 0.8A  | 0.1 ~ 0.3A |
|                             | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 28.5W                                                                                                                   |                                                                |            | 28W                                      |                                                                              |                                        | 29W          |             |            |
|                             | RIPPLE & NOISE (max.) Note.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 50mVp-p                                                                                                                 | 100mVp-p                                                       | 50mVp-p    | 60mVp-p                                  | 120mVp-p                                                                     | 50mVp-p                                | 100mVp-p     | 150mVp-p    | 50mVp-p    |
|                             | VOLTAGE TOLERANCE Note.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ±5.0%                                                                                                                   | -5.0 ~ +10%                                                    | ±3.0%      | ±5.0%                                    | -5.0 ~ +5.0%                                                                 | ±3.0%                                  | ±5.0%        | -5.0 ~ +15% | ±3.0%      |
|                             | LINE REGULATION      Note.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ±1.0%                                                                                                                   | ±1.0%                                                          | ±1.0%      | ±1.0%                                    | ±1.0%                                                                        | ±1.0%                                  | ±1.0%        | ±1.0%       | ±1.0%      |
|                             | LOAD REGULATION      Note.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ±5.0%                                                                                                                   | ±5.0%                                                          | ±3.0%      | ±5.0%                                    | ±5.0%                                                                        | ±3.0%                                  | ±5.0%        | ±5.0%       | ±3.0%      |
| SETUP, RISE, HOLD UP TIME   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 800ms, 50ms, 20ms / 230VAC                                                                                              |                                                                |            | 1200ms, 50ms, 16ms / 115VAC at full load |                                                                              |                                        |              |             |            |
| INPUT                       | VOLTAGE RANGE      Note.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 90 ~ 264VAC    135~ 370VDC                                                                                              |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | FREQUENCY RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 47 ~ 63Hz                                                                                                               |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 80%                                                                                                                     |                                                                |            | 80%                                      |                                                                              |                                        | 80.5%        |             |            |
|                             | AC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0.8A / 100VAC      0.4A / 230VAC                                                                                        |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | INRUSH CURRENT (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Cold start    30A / 115VAC      60A / 230VAC                                                                            |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | LEAKAGE CURRENT (max.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.75mA / 240VAC                                                                                                         |                                                                |            |                                          |                                                                              |                                        |              |             |            |
| PROTECTION                  | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 110 ~ 160% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | OVER VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Protection type : Clamp by zener diode(5V only), output short                                                           |                                                                |            |                                          |                                                                              |                                        |              |             |            |
| ENVIRONMENT                 | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | -20 ~ +70℃ (Refer to "Derating Curve")                                                                                  |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 20% ~ 90% RH non-condensing                                                                                             |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -20 ~ +85℃, 10 ~ 95% RH non-condensing                                                                                  |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | TEMP. COEFFICIENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ±0.03% / °C (-20 ~ 40℃)                                                                                                 |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | VIBRATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                 |                                                                |            |                                          |                                                                              |                                        |              |             |            |
| SAFETY & EMC<br>(Note. 8)   | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | IEC60950-1, UL60950-1, CSA22.2, EN60950-1 approved                                                                      |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | I/P-O/P:4242VDC , I/P-FG:2121VDC                                                                                        |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | I/P-O/P,I/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                                                                        |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Parameter                                                                                                               | Standard                                                       |            |                                          |                                                                              | Test Level / Note                      |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Conducted emission                                                                                                      | EN55032(CISPR32),FCC PART 15 / CISPR22, CAN ICES-3(B)/NMB-3(B) |            |                                          |                                                                              | Class B                                |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Radiated emission                                                                                                       | EN55032(CISPR32),FCC PART 15 / CISPR22, CAN ICES-3(B)/NMB-3(B) |            |                                          |                                                                              | Class B                                |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Harmonic current                                                                                                        | EN61000-3-2                                                    |            |                                          |                                                                              | Class A                                |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Voltage flicker                                                                                                         | EN61000-3-3                                                    |            |                                          |                                                                              | -----                                  |              |             |            |
|                             | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Parameter                                                                                                               | Standard                                                       |            |                                          |                                                                              | Test Level /Note                       |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ESD                                                                                                                     | EN61000-4-2                                                    |            |                                          |                                                                              | Level 3, 8KV air; Level 2, 4KV contact |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RF field susceptibility                                                                                                 | EN61000-4-3                                                    |            |                                          |                                                                              | Level 2, 3V/m                          |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EFT bursts                                                                                                              | EN61000-4-4                                                    |            |                                          |                                                                              | Level 2, 1KV                           |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Surge susceptibility                                                                                                    | EN61000-4-5                                                    |            |                                          |                                                                              | Level 3, 1KV/L-N, 2KV/L,N-PE           |              |             |            |
|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Conducted susceptibility                                                                                                | EN61000-4-6                                                    |            |                                          |                                                                              | Level 2, 3V                            |              |             |            |
| Voltage dips , interruption |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EN61000-4-11                                                                                                            |                                                                |            |                                          | >95% dip 0. 5 periods, 30% dip 25 periods,<br>>95% interruptions 250 periods |                                        |              |             |            |
| OTHERS                      | LIFE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 3 years : 100% load 40℃, 8hours / day                                                                                   |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 620K hrs min.    MIL-HDBK-217F (25℃)                                                                                    |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 107.5*67*36mm (L*W*H)                                                                                                   |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.3kg; 54pcs / 20kg / CARTON                                                                                            |                                                                |            |                                          |                                                                              |                                        |              |             |            |
| CONNECTOR                   | PLUG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | See page 4                                                                                                              |                                                                |            |                                          |                                                                              |                                        |              |             |            |
|                             | CABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | See page 4                                                                                                              |                                                                |            |                                          |                                                                              |                                        |              |             |            |
| NOTE                        | 1.All parameters are specified at 230VAC input, rated load, 25℃ 70% RH ambient.<br>2.DC voltage: The output voltage set at point measure by plug terminal & 50% load.<br>3.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf & 47μf capacitor.<br>4.Tolerance: includes set up tolerance, line regulation, load regulation.<br>5.Line regulation is measured from low line to high line at rated load.<br>6.When measured between the light load (20% of rated load) and full load, the load regulation is within ±5% whereas the cross regulation is within ±15%.<br>7.Derating may be needed under low input voltages. Please check the static characteristics for more details.<br>8.The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.”<br>(as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a> ) |                                                                                                                         |                                                                |            |                                          |                                                                              |                                        |              |             |            |

### Derating Curve

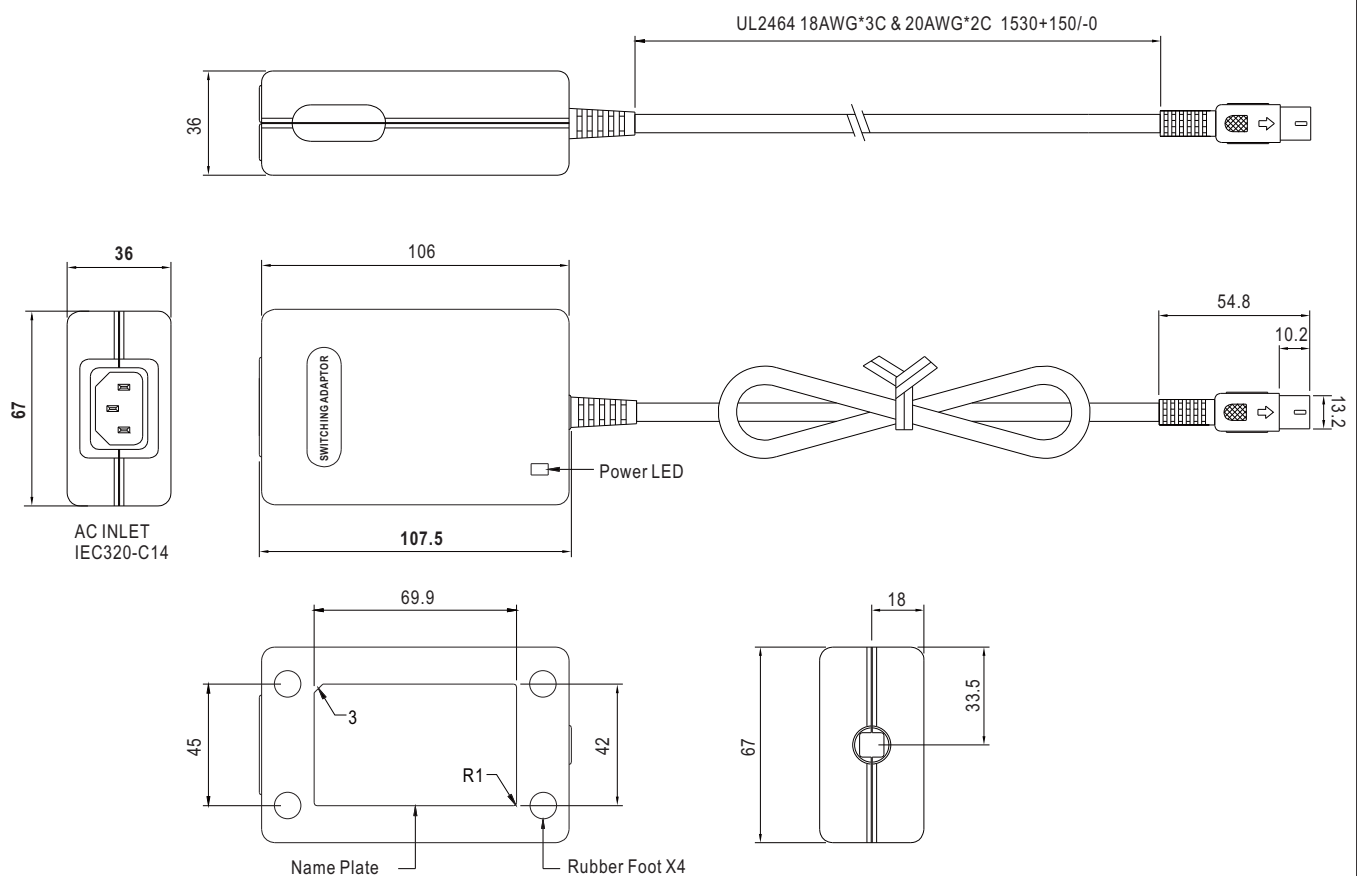


### Static Characteristics



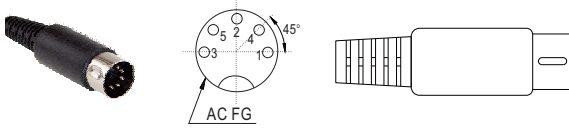
### Mechanical Specification

Unit:mm

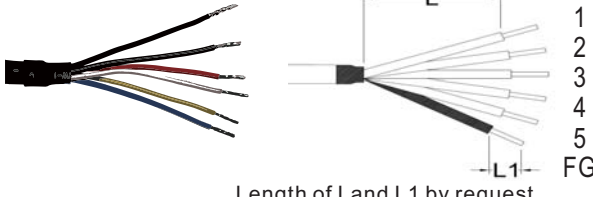


### ■ DC output plug

☉ Standard plug: R1B

| DIN 5 Pin (male)                                                                  | Type No. | Pin Assignment |        |
|-----------------------------------------------------------------------------------|----------|----------------|--------|
|                                                                                   |          | PIN No.        | Output |
|  | R1B      | 1              | COM    |
|                                                                                   |          | 2              | COM    |
|                                                                                   |          | 3              | +5VDC  |
|                                                                                   |          | 4              | -Vout  |
|                                                                                   |          | 5              | +Vout  |

☉ Optional DC plug:

| Stripped and tinned leads                                                                                                                                                             | Type No.    | Pin Assignment |        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------|--------|
|                                                                                                                                                                                       |             | PIN No.        | Output |
|  <p>Length of Land L1 by request<br/>(MW's standard length, L: <u>70</u> mm, L1: <u>10</u> mm)</p> | by customer | 1              | COM    |
|                                                                                                                                                                                       |             | 2              | COM    |
|                                                                                                                                                                                       |             | 3              | +5VDC  |
|                                                                                                                                                                                       |             | 4              | -Vout  |
|                                                                                                                                                                                       |             | 5              | +Vout  |
|                                                                                                                                                                                       |             | FG             | FG     |

### ■ Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>