



### Features :

- Interchangeable AC plugs (plug kit sold separately)
- Universal AC input / Full range
- No load power consumption < 0.3W
- ErP step2 compliant
- Meet EISA 2007 (Energy Independence and Security Act) for 5~48V
- Class II power (without earth pin)
- Protections: Short circuit / Overload / Over voltage
- Fully enclosed plastic case
- LED indicator for power on
- Pass LPS
- Approvals: UL / CUL / TUV / RCM / CCC / CB / FCC / CE
- 2 years warranty



### AC INLET PLUG

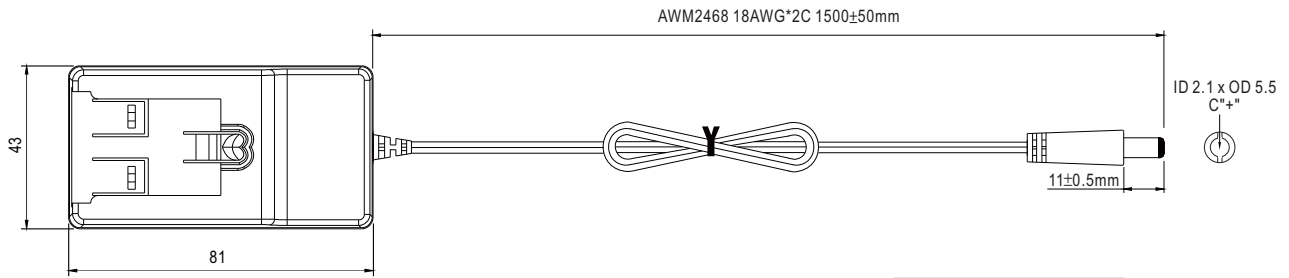
| TYPE      |  |  |  |  |  |
|-----------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|           | Australian type                                                                   | U.K type                                                                          | European type                                                                     | US type                                                                             | Mix four type                                                                       |
| ORDER NO. | AC plug-AU                                                                        | AC plug-UK                                                                        | AC plug-EU                                                                        | AC plug-US                                                                          | AC plug-MIX                                                                         |

### SPECIFICATION

| POWER SUPPLY MAIN BODY ORDER NO. |                                             | GE24I05-P1J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | GE24I07-P1J  | GE24I09-P1J  | GE24I12-P1J  | GE24I15-P1J  | GE24I18-P1J  | GE24I24-P1J  | GE24I48-P1J  |
|----------------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| OUTPUT                           | SAFETY MODEL NO.                            | FRA024-S05-I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FRA024-S07-I | FRA024-S09-I | FRA024-S12-I | FRA024-S15-I | FRA024-S18-I | FRA024-S24-I | FRA024-S48-I |
|                                  | DC VOLTAGE <small>Note.2</small>            | 5V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 7.5V         | 9V           | 12V          | 15V          | 18V          | 24V          | 48V          |
|                                  | RATED CURRENT                               | 3.0A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.0A         | 2.22A        | 2.0A         | 1.6A         | 1.33A        | 1.0A         | 0.5A         |
|                                  | CURRENT RANGE                               | 0 ~ 3.0A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 ~ 2.0A     | 0 ~ 2.22A    | 0 ~ 2.0A     | 0 ~ 1.6A     | 0 ~ 1.33A    | 0 ~ 1.0A     | 0 ~ 0.5A     |
|                                  | RATED POWER (max.)                          | 15W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 15W          | 20W          | 24W          | 24W          | 24W          | 24W          | 24W          |
|                                  | RIPPLE & NOISE (max.) <small>Note.3</small> | 50mVp-p                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 75mVp-p      | 100mVp-p     | 120mVp-p     | 150mVp-p     | 180mVp-p     | 240mVp-p     | 300mVp-p     |
|                                  | VOLTAGE TOLERANCE <small>Note.4</small>     | ±5.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ±5.0%        | ±5.0%        | ±3.0%        | ±3.0%        | ±3.0%        | ±3.0%        | ±3.0%        |
|                                  | LINE REGULATION <small>Note.5</small>       | ±1.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ±1.0%        | ±1.0%        | ±1.0%        | ±1.0%        | ±1.0%        | ±1.0%        | ±1.0%        |
| INPUT                            | LOAD REGULATION <small>Note.6</small>       | ±5.0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ±5.0%        | ±5.0%        | ±3.0%        | ±3.0%        | ±3.0%        | ±3.0%        | ±3.0%        |
|                                  | SETUP, RISE, HOLD UP TIME                   | 4000ms, 100ms, 30ms / 230VAC      4000ms, 100ms, 10ms / 115VAC at full load                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |              |              |              |              |              |              |
|                                  | VOLTAGE RANGE                               | 90 ~ 264VAC      135 ~ 370VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |              |              |              |              |              |              |
|                                  | FREQUENCY RANGE                             | 47 ~ 63Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |              |              |              |              |              |              |              |
|                                  | EFFICIENCY (Typ.)                           | 76.5%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 79.5%        | 81.5%        | 82.5%        | 84%          | 84%          | 85%          | 85%          |
|                                  | AC CURRENT                                  | 0.7A / 100VAC      0.4A / 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |              |              |              |              |              |
|                                  | INRUSH CURRENT (max.)                       | COLD START 40A / 100VAC      80A / 230VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |              |              |              |              |              |              |              |
|                                  | LEAKAGE CURRENT (max.)                      | 0.25mA / 240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |              |              |              |              |              |              |
| PROTECTION                       | OVERLOAD                                    | 110% ~ 200% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |              |              |              |              |              |              |
|                                  | OVER VOLTAGE                                | 115% ~ 135%<br>Protection type : Clamp by zener diode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |              |              |              |              |              |              |
| ENVIRONMENT                      | WORKING TEMP.                               | -10 ~ +50°C (Refer to "Derating Curve")                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |              |              |              |              |              |              |
|                                  | WORKING HUMIDITY                            | 20% ~ 90% RH non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |              |              |              |              |              |              |              |
|                                  | STORAGE TEMP., HUMIDITY                     | -20 ~ +85°C, 10 ~ 95% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |              |              |              |              |              |              |
|                                  | TEMP. COEFFICIENT                           | ±0.03% / °C (0 ~ 50°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |              |              |              |              |              |              |
|                                  | VIBRATION                                   | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |              |              |              |              |              |              |
| SAFETY & EMC                     | SAFETY STANDARDS                            | UL60950-1, CSA C22.2, TUV EN60950-1, AS/NZS 60950.1, CCC GB4943 approved                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |              |              |              |              |              |              |
|                                  | WITHSTAND VOLTAGE                           | I/P-O/P:4242VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |              |              |              |              |              |              |
|                                  | ISOLATION RESISTANCE                        | I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |              |              |              |              |              |              |
|                                  | EMC EMISSION                                | Compliance to EN55022, EN61000-3-2,3, FCC part15, GB9254 class B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |              |              |              |              |              |              |
|                                  | EMC IMMUNITY                                | Compliance to EN61000-4-2,3,4,5,6,8,11, light industry level, criteria A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |              |              |              |              |              |              |              |
| OTHERS                           | LIFE                                        | 2 years : 100% load 30°C, 8 hours / day                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |              |              |              |              |              |              |
|                                  | MTBF                                        | 100Khrs min.      MIL-HDBK-217F (25°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |              |              |              |              |              |              |              |
|                                  | DIMENSION                                   | 81*43*40.5mm (L*W*H)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |              |              |              |              |              |              |
|                                  | PACKING                                     | 134g ; 50pcs / 8.4kg / CARTON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |              |              |              |              |              |              |
| DC OUTPUT CONNECTOR              | PLUG                                        | Standard type P1J: 2.1φ * 5.5φ * 11mm turning fork type, center positive for stock ; Other type available by customer requested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |              |              |              |              |              |              |
|                                  | CABLE                                       | See page2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |              |              |              |              |              |              |              |
| NOTE                             |                                             | 1.All parameters are specified at 230VAC input, rated load, 25°C 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 0.1uf & 47uf 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.Load regulation is measured from 10% to 100% rated load<br>7.Main body unit and AC inlet plug should be ordered separately ; it needs to be used along with any of the AC inlet plug. |              |              |              |              |              |              |              |

### Mechanical Specification

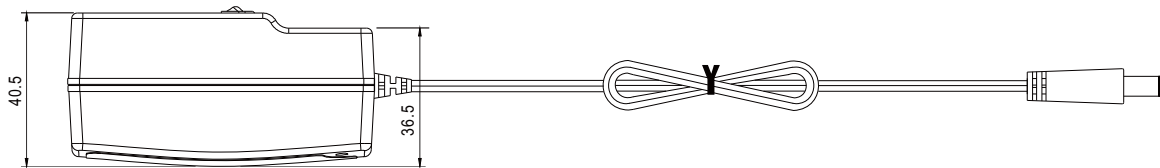
Unit:mm



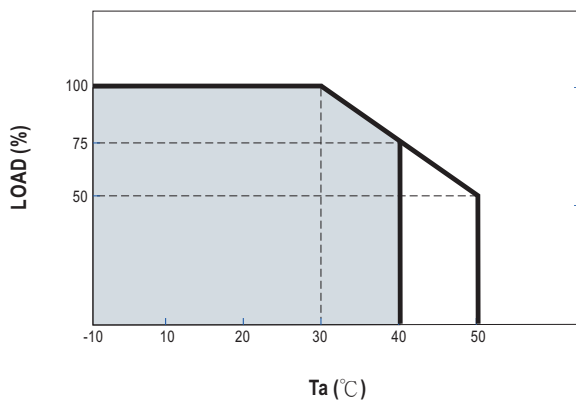
### Plug Assignment

Standard plug: P1J

| P1J    |        |
|--------|--------|
| P/N    | OUTPUT |
| CENTER | +      |



### Derating Curve



### Static Characteristics

