



## 15W DC-DC Regulated Single Output Converter

**SKE15** series

## ■ Features :

- 2:1 wide input range
- 4:1 wide input range(option)
- 1000VDC I/O isolation
- 3000VDC I/O isolation(option)
- Built-in EMI filter
- Protections: Short circuit / Overload
- Cooling by free air convection
- Six-sided shield metal case
- 100% burn-in test
- Low cost / High reliability
- Approvals: FCC / CE
- 2 years warranty

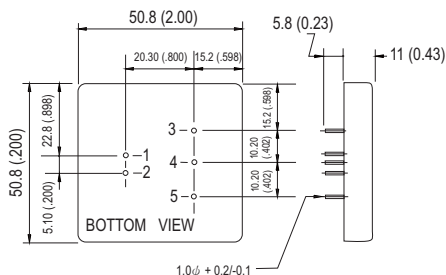


## SPECIFICATION

| ORDER NO.                              |                                             | SKE15A-05                                                                                                                        | SKE15B-05                         | SKE15C-05 | SKE15A-12    | SKE15B-12 | SKE15C-12 | SKE15A-15    | SKE15B-15 | SKE15C-15 | SKE15A-24    | SKE15B-24 | SKE15C-24 |
|----------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|--------------|-----------|-----------|
| OUTPUT                                 | DC VOLTAGE                                  | 5V                                                                                                                               |                                   |           | 12V          |           |           | 15V          |           |           | 24V          |           |           |
|                                        | CURRENT RANGE                               | 300 ~ 3000mA                                                                                                                     |                                   |           | 125 ~ 1250mA |           |           | 100 ~ 1000mA |           |           | 62.5 ~ 625mA |           |           |
|                                        | RATED POWER                                 | 15W                                                                                                                              |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | RIPPLE & NOISE (max.) <small>Note.2</small> | 50mVp-p                                                                                                                          |                                   |           | 60mVp-p      |           |           | 60mVp-p      |           |           | 80mVp-p      |           |           |
|                                        | LINE REGULATION <small>Note.3</small>       | ±0.3%                                                                                                                            |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | LOAD REGULATION <small>Note.4</small>       | ±0.5%                                                                                                                            |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | VOLTAGE ACCURACY                            | ±2.0%                                                                                                                            |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | SWITCHING FREQUENCY                         | 150KHz min.                                                                                                                      |                                   |           |              |           |           |              |           |           |              |           |           |
| INPUT                                  | VOLTAGE RANGE                               | A: 9 ~ 18VDC    B: 18 ~ 36VDC    C: 36 ~ 72VDC                                                                                   |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | EFFICIENCY (Typ.)                           | 79%                                                                                                                              | 79%                               | 80%       | 80%          | 82%       | 82%       | 80%          | 83%       | 83%       | 82%          | 83%       | 84%       |
|                                        | DC CURRENT                                  | Full load                                                                                                                        | A: 1700mA    B: 800mA    C: 400mA |           |              |           |           |              |           |           |              |           |           |
|                                        |                                             | No load                                                                                                                          | A: 40mA    B: 20mA    C: 10mA     |           |              |           |           |              |           |           |              |           |           |
|                                        | FILTER                                      | Pi network                                                                                                                       |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | PROTECTION                                  | Fuse recommended                                                                                                                 |                                   |           |              |           |           |              |           |           |              |           |           |
| PROTECTION<br><small>(Note. 5)</small> | OVER CURRENT                                | 160% ~ 250% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed         |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | SHORT CIRCUIT                               | All output equipped with short circuit<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        |                                             |                                                                                                                                  |                                   |           |              |           |           |              |           |           |              |           |           |
| ENVIRONMENT                            | WORKING TEMP.                               | -25 ~ +71℃ (Refer to "Derating Curve")                                                                                           |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | WORKING HUMIDITY                            | 20% ~ 90% RH non-condensing                                                                                                      |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | STORAGE TEMP., HUMIDITY                     | -25 ~ +105℃, 10 ~ 95% RH                                                                                                         |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | TEMP. COEFFICIENT                           | ±0.03% / ℃ (0 ~ 50℃)                                                                                                             |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | VIBRATION                                   | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                                                          |                                   |           |              |           |           |              |           |           |              |           |           |
| SAFETY & EMC                           | SAFETY STANDARDS                            | EAC TP TC 004 approved                                                                                                           |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | WITHSTAND VOLTAGE                           | I/P-O/P:1KVDC                                                                                                                    |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | ISOLATION RESISTANCE                        | I/P-O/P: 100M Ohms / 500VDC / 25℃ / 70% RH                                                                                       |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | EMC EMISSION                                | Compliance to EN55032 Class A, FCC part 15 Class A, EAC TP TC 020                                                                |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | EMC IMMUNITY                                | Compliance to EN61000-4-2,3,4,5,6,8, light industry level, criteria A, EAC TP TC 020                                             |                                   |           |              |           |           |              |           |           |              |           |           |
| OTHERS                                 | MTBF                                        | 300Khrs min. MIL-HDBK-217F(25℃)                                                                                                  |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | DIMENSION                                   | 50.8*50.8*11.0 mm or 2**2**0.43" inch (L*W*H)                                                                                    |                                   |           |              |           |           |              |           |           |              |           |           |
|                                        | WEIGHT                                      | 65g                                                                                                                              |                                   |           |              |           |           |              |           |           |              |           |           |

## ■ Mechanical Specification

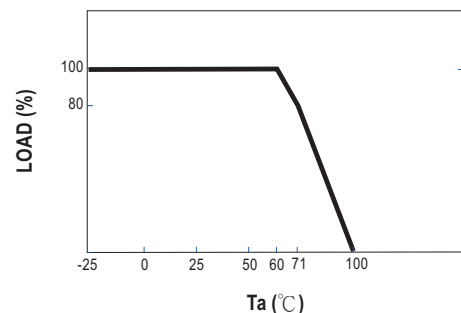
Unit:mm(inch)



## ■ Pin Configuration

| Pin No. | Output |
|---------|--------|
| 1       | +Vin   |
| 2       | -Vin   |
| 3       | +Vout  |
| 4       | No Pin |
| 5       | -Vout  |

## ■ Derating Curve



## NOTE

1. All parameters are specified at normal input, rated load, 25°C 70% RH ambient.
2. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uF & 47uF capacitor.
3. Line regulation is measured from low line to high line at rated load.
4. Load regulation is measured from 10% to 100% rated load.
5. Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.