

■ Features

- DIP 2"x1" package with industry standard pinout
- 8:1(9~75Vdc) ultra-wide input range
- Operating temperature range -40 ~ +90°C
- No minimum load required
- Comply to BS EN/EN55032 radiated Class A without additional components
- High efficiency up to 86%
- Protections: Short circuit (Continuous) / Overload / Over voltage / UVLO
- 3KVdc I/O isolation
- Remote ON/OFF control (By request)
- 3 years warranty

■ Applications

- Telecom/datacom system
- Wireless network
- Industrial control facility
- Instrument
- Analyzer
- Detector
- Data switch

■ GTIN CODE

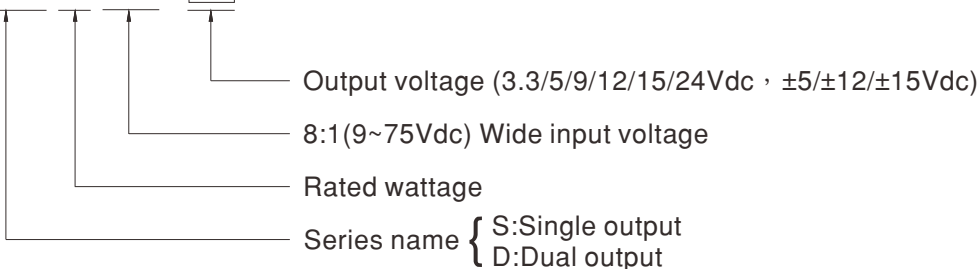
MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

■ Description

SKA15W8 and DKA15W8 series are 15W isolated and regulated module type DC-DC converter with DIP 2"x1" package. It features international standard pins, a high efficiency up to 86%, wide working temperature range -40~+90°C , 3KVdc I/P-O/P isolation voltage, compliance to BS EN/EN55032 radiated Class A without additional components, continuous-mode short circuit, overload, over voltage, input under voltage protection etc. The models account for 9~75Vdc 8:1 ultra-wide input range, and various output voltage, 3.3V/5V/9V/12V/15V/24V for single output and ±5V/±12V/±15V for dual outputs, which are suitable for all kinds of systems, Such as industrial control, telecommunication field, distributed power architecture, and so on.

■ Model Encoding

SKA15W8-12





15W 2"x1" Package 8:1 Ultra-Wide Input DC-DC Regulated Converter

SKA15W8 & DKA15W8 series

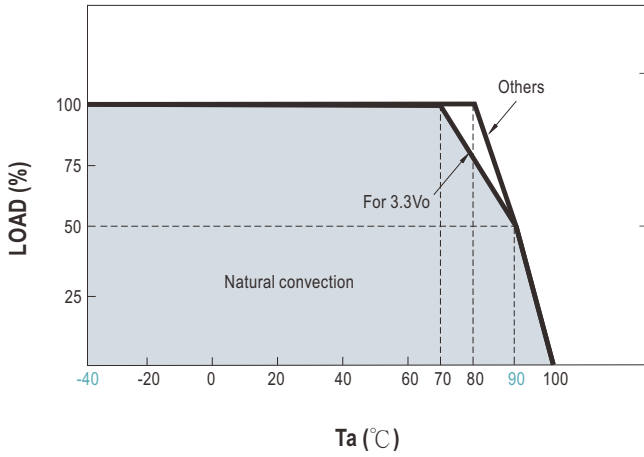
MODEL SELECTION TABLE

| ORDER NO. | INPUT | | | OUTPUT | | EFFICIENCY (TYP.) | CAPACITOR LOAD (MAX.) |
|------------|---|---------------|-----------|----------------|----------------|-------------------|-----------------------|
| | INPUT VOLTAGE (RANGE) | INPUT CURRENT | | OUTPUT VOLTAGE | OUTPUT CURRENT | | |
| | | NO LOAD | FULL LOAD | | | | |
| SKA15W8-03 | Nominal 12V, 24V, 36V, 48V, 72V (9 ~ 75V) | 10mA | 679mA | 3.3V | 0~4000mA | 81% | 680μF |
| SKA15W8-05 | | 10mA | 744mA | 5V | 0~3000mA | 84% | 680μF |
| SKA15W8-09 | | 10mA | 727mA | 9V | 0~1666mA | 86% | 470μF |
| SKA15W8-12 | | 15mA | 727mA | 12V | 0~1250mA | 86% | 330μF |
| SKA15W8-15 | | 15mA | 727mA | 15V | 0~1000mA | 86% | 220μF |
| SKA15W8-24 | | 15mA | 727mA | 24V | 0~625mA | 86% | 100μF |
| DKA15W8-05 | | 10mA | 744mA | ±5V | ±0~1500mA | 84% | *330μF |
| DKA15W8-12 | | 15mA | 727mA | ±12V | ±0~625mA | 86% | *150μF |
| DKA15W8-15 | | 15mA | 727mA | ±15V | ±0~500mA | 86% | *100μF |

* For each output

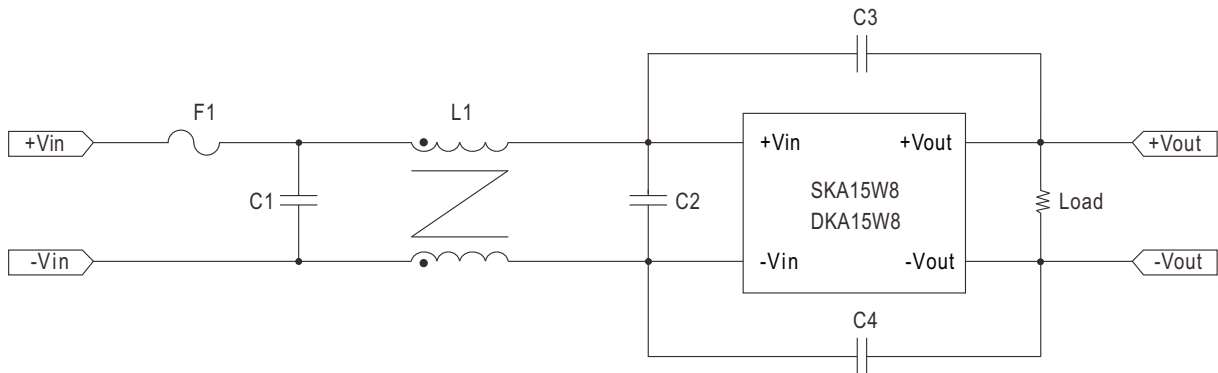
| SPECIFICATION | | | |
|---|--|---|---|
| INPUT | | | |
| VOLTAGE RANGE | 9~75Vdc | | |
| SURGE VOLTAGE (100ms max.) | 100Vdc | | |
| FILTER | Pi network | | |
| PROTECTION | Fuse recommended 5A Slow-Blow | | |
| OUTPUT | | | |
| VOLTAGE ACCURACY | ±2% | | |
| RATED POWER | 15W | | |
| RIPPLE & NOISE | Note.2 | 150mVp-p max. | |
| LINE REGULATION | Note.3 | ±0.5% | |
| LOAD REGULATION | Note.4 | ±1% for 3.3Vdc output, ±0.5% for other output | |
| CROSS REGULATION | ±5% @ 25% ~ 100% load only dual output | | |
| SWITCHING FREQUENCY (Typ.) | 300KHz (PWM) | | |
| PROTECTION | | | |
| SHORT CIRCUIT | Protection type : Continuous, automatic recovery | | |
| OVERLOAD | 110 ~ 230% | | |
| | Protection type : Recovers automatically after fault condition is removed | | |
| OVER VOLTAGE | Clamp by TVS diodes | | |
| UNDER VOLTAGE LOCKOUT (Typ.) | Start-up voltage: 8.8Vdc | | |
| | Shutdown voltage: 8Vdc | | |
| FUNCTION | | | |
| REMOTE CONTROL (By request) | Power ON: R.C. ~ -Vin >2.5~30Vdc or open circuit ; Power OFF: R.C. ~ -Vin <1Vdc or short | | |
| ENVIRONMENT | | | |
| COOLING | Free-air convection | | |
| WORKING TEMP. | -40 ~ +90°C (Refer to "Derating Curve") | | |
| CASE TEMPERATURE | +110°C max. | | |
| WORKING HUMIDITY | 5% ~ 95% RH non-condensing | | |
| STORAGE TEMP., HUMIDITY | -55 ~ +125°C, 10 ~ 95% RH non-condensing | | |
| TEMP. COEFFICIENT | ±0.03% / °C (0 ~ 80°C) | | |
| SOLDERING TEMPERATURE | 1.5mm from case of 3 ~ 5 sec./265°C max. | | |
| VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | |
| SAFETY & EMC (Note.5) | | | |
| SAFETY STANDARDS | EAC TP TC 020/2011 approved | | |
| WITHSTAND VOLTAGE | I/P-O/P:3KVdc | | |
| ISOLATION RESISTANCE | I/P-O/P:1000M Ohms / 500Vdc / 25°C / 70% RH | | |
| ISOLATION CAPACITANCE (Typ.) | 1000pF | | |
| EMC EMISSION | Parameter | Standard | Test Level / Note |
| | Conducted | BS EN/EN55032(CISPR32) | N/A |
| | Radiated | BS EN/EN55032(CISPR32) | Class A without additional components Class B with additional components |
| EMC IMMUNITY | Parameter | Standard | Test Level / Note |
| | ESD | BS EN/EN61000-4-2 | Level 3, ±8KV air, Level 2, ±4KV contact |
| | Radiated Susceptibility | BS EN/EN61000-4-3 | Level 2, 3V/m |
| | EFT/Bursts | BS EN/EN61000-4-4 | Level 1, 0.5KV |
| | Surge | BS EN/EN61000-4-5 | Level 2, Line-Line ±0.5KV |
| | Conducted | BS EN/EN61000-4-6 | Level 2, 3V(e.m.f.) |
| | Magnetic Field | BS EN/EN61000-4-8 | Level 1, 1A/m |
| OTHERS | | | |
| MTBF | >860Khrs MIL-HDBK-217F(25°C) | | |
| DIMENSION (L*W*H) | 50.8*25.4*11.2mm (2*1*0.44 inch) | | |
| CASE MATERIAL | Six-side shielded case | | |
| PACKING | 29g ; 10pcs/per tube, 400pcs/40 tube/per carton | | |
| NOTE | | | |
| 1. All parameters are specified at normal input (24Vdc), rated load, 25°C 70% RH ambient. 2. Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf & 47µf capacitor. 3. Line regulation is measured from low line to high line at rated load. 4. Load regulation is measured from 0% to 100% rated load. 5. The final equipment must be re-confirm that it still meet EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies."(as available on http://www.meanwell.com) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx | | | |

Derating Curve



EMC Suggestion Circuit

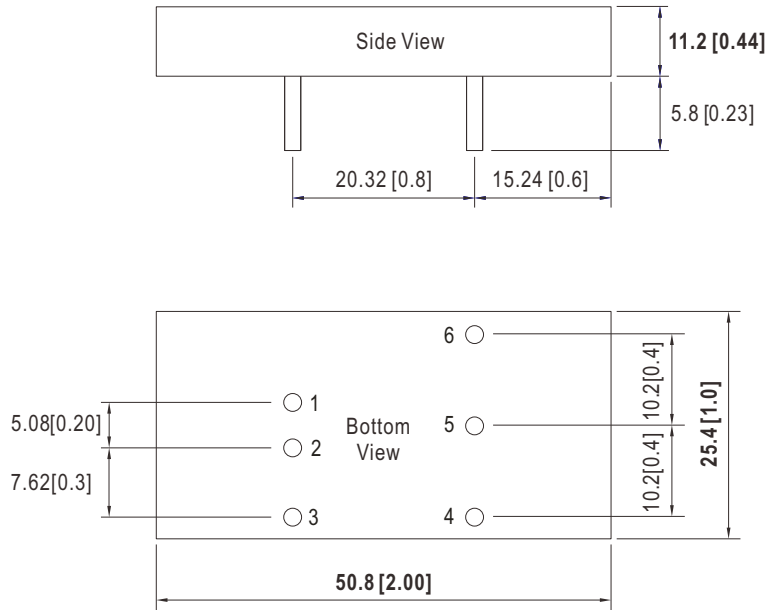
※ Required external componets to meet BS EN/EN55032 radiated Class B emission as below:



| Model No. | BS EN/EN55032 radiated Class B | | | | | |
|--------------------|--------------------------------|-----------|-------------------------|--------------------|--------------------|-----------------------|
| | F1 | C1 | C2 | C3 | C4 | L1 |
| SKA15W8 DKA15W8 | Suggest 5A Slow-Blow Type | 47μF/100V | 2.2μF/100V 1210 MLCC | 1000pF/5KV MLCC | 1000pF/5KV MLCC | 325μH Common Choke |

Mechanical Specification

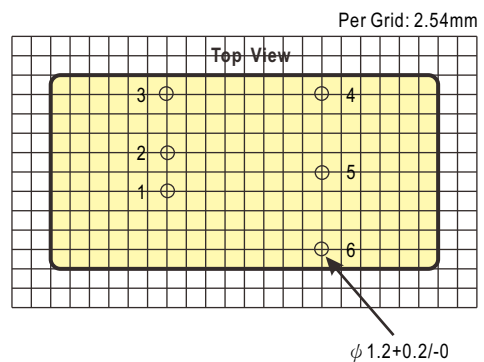
- All dimensions in mm (inch)
- Tolerance: $x.xx \pm 0.5mm$ ($x.xx \pm 0.02"$)
 $x.xx \pm 0.25mm$ ($x.xxx \pm 0.010"$)
- Pin tolerance: $\phi 1 \pm 0.1mm$



Pin Assignment

| Pin-Out | | |
|---------|-------------------------|-----------------------|
| Pin No. | SKA15W8 (Single output) | DKA15W8 (Dual output) |
| 1 | +Vin | +Vin |
| 2 | -Vin | -Vin |
| 3 | R.C. (By request) | |
| 4 | -Vout | -Vout |
| 5 | N.P. | Common |
| 6 | +Vout | +Vout |

*N.P.: No pin



Packing

| Standard Tube Packing | MPQ Per Tube (PCS) | One Tube G.W. | Max. Q'TY/ Carton(PCS) | One Carton G.W. |
|--|--------------------|---------------|------------------------|-----------------|
| <p>Unit : mm</p> <p>Product</p> <p>Tube Nails</p> <p>289</p> <p>54</p> <p>22.7</p> <p>7</p> <p>Tube pattern</p> <p>CARTON L620 x W230 x H230</p> | 10 | 378g | 400 | 16.72Kg |

Installation Manual

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