


Automate Industrial Security Network Telecom

## Features

- DIP 2"x1" package with industry standard pinout
- 8:1(9~75Vdc) ultra-wide input range
- Operating temperature range -40 ~ +90℃
- 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℃ , 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

**S KA 15 W8 – 12**

- 12 → Output voltage (3.3/5/9/12/15/24Vdc，±5/±12/±15Vdc)
- W8 → 8:1(9~75Vdc) Wide input voltage
- 15 → Rated wattage
- S KA → Series name { S:Single output / D:Dual output



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## 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



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## 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℃ (Refer to "Derating Curve") | | |
| **CASE TEMPERATURE** | +110℃ max. | | |
| **WORKING HUMIDITY** | 5% ~ 95% RH non-condensing | | |
| **STORAGE TEMP., HUMIDITY** | -55 ~ +125℃, 10 ~ 95% RH non-condensing | | |
| **TEMP. COEFFICIENT** | ±0.03% / ℃ (0 ~ 80℃) | | |
| **SOLDERING TEMPERATURE** | 1.5mm from case of 3 ~ 5 sec./265℃ 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℃/ 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<br>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℃) | | |
| **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 | | |

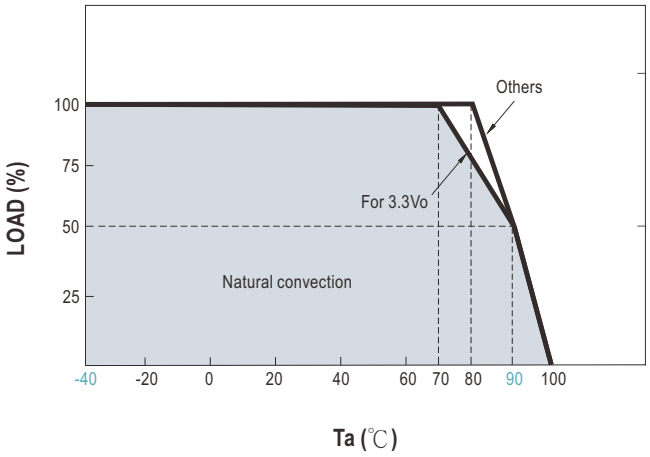
**NOTE**

1.All parameters are specified at normal input (24Vdc), rated load, 25℃ 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



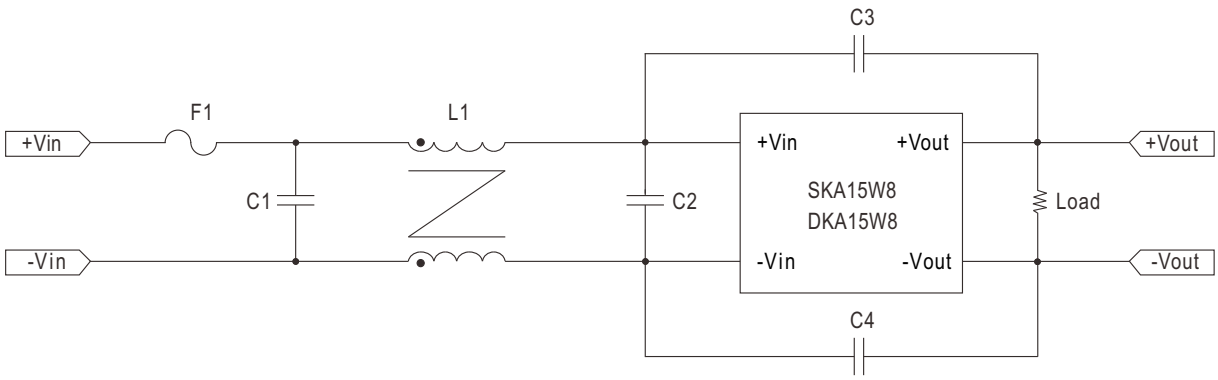
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## ■ Derating Curve




## ■ EMC Suggestion Circuit

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



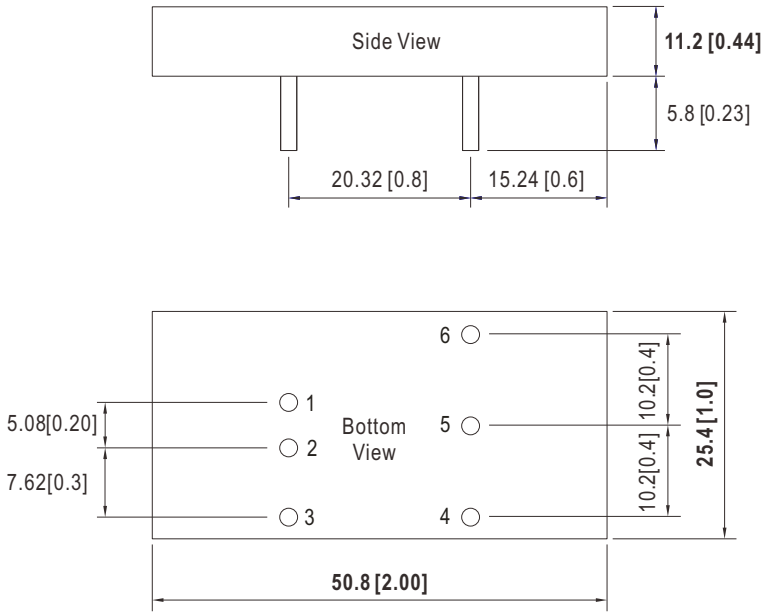

| Model No. | BS EN/EN55032 radiated Class B | | | | | |
|---|---|---|---|---|---|---|
| | F1 | C1 | C2 | C3 | C4 | L1 |
| SKA15W8<br>DKA15W8 | Suggest 5A<br>Slow-Blow Type | 47μF/100V | 2.2μF/100V<br>1210 MLCC | 1000pF/5KV<br>MLCC | 1000pF/5KV<br>MLCC | 325μH<br>Common Choke |



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## ■ Mechanical Specification

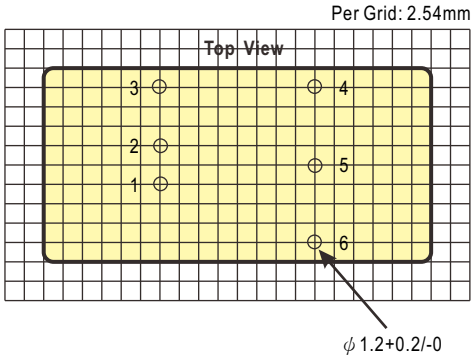
- All dimensions in mm(inch)
- Tolerance:x.x±0.5mm(x.xx±0.02")
  x.xx±0.25mm(x.xxx±0.010")
- Pin tolerance: $\phi$ 1±0.1mm




## ■ 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 |

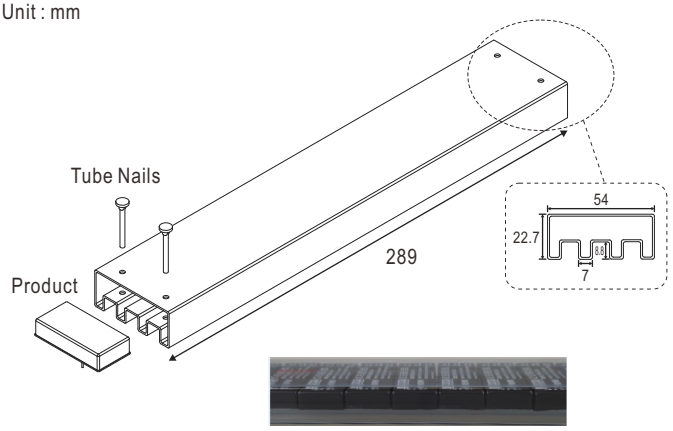
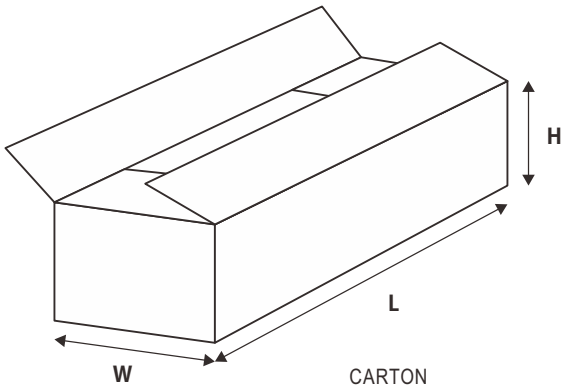
*N.P.: No pin






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## ■ Packing

| Standard Tube Packing | MPQ Per Tube (PCS) | One Tube G.W. | Max. Q'TY/ Carton(PCS) | One Carton G.W. |
|---|---|---|---|---|
| Unit : mm<br><br><br><br>Tube pattern<br><br><br>CARTON<br>L620 x W230 x H230 | 10 | 378g | 400 | 15.92Kg |

## ■ Installation Manual

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



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