

■ Features

- DIP24 package with industry standard pinout
- 2:1 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 87%
- Protections: Short circuit (Continuous) / Overload / Input under voltage
- 3KVDC I/O isolation
- 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

SCWN06 and DCWN06 series are 6W isolated and regulated module type DC-DC converter with DIP24 package. It features international standard pins, a high efficiency up to 87%, 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 protection, etc. The additional components, models account for different input voltage 9~18V, 18~36V and 36~72V 2:1 wide input range, and various output voltage, 3.3V/5V/12V/15V 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 **CWN06** **A** - **12**

Output voltage (3.3/5/12/15Vdc , ±5/±12/±15Vdc)

Input voltage (A: 9~18Vdc , B: 18~36Vdc , C: 36~72Vdc)

Rated wattage

Series name { S:Single output
D: Dual output



| 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 | | | | |
| SCWN06A-03 | Normal 12V (9 ~ 18V) | 5mA | 429mA | 3.3V | 1200mA | 77% | 4700μF |
| SCWN06A-05 | | 5mA | 514mA | 5V | 1000mA | 81% | 4700μF |
| SCWN06A-12 | | 10mA | 600mA | 12V | 500mA | 83% | 4700μF |
| SCWN06A-15 | | 15mA | 600mA | 15V | 400mA | 84% | 4700μF |
| DCWN06A-05 | | 10mA | 514mA | ±5V | ±0 ~ 500mA | 80% | *2200μF |
| DCWN06A-12 | | 12mA | 600mA | ±12V | ±0 ~ 250mA | 83% | *2200μF |
| DCWN06A-15 | | 18mA | 600mA | ±15V | ±0 ~ 200mA | 84% | *2200μF |
| SCWN06B-03 | Normal 24V (18 ~ 36V) | 4mA | 209mA | 3.3V | 1200mA | 79% | 4700μF |
| SCWN06B-05 | | 5mA | 251mA | 5V | 1000mA | 82% | 4700μF |
| SCWN06B-12 | | 7mA | 291mA | 12V | 500mA | 86% | 4700μF |
| SCWN06B-15 | | 8mA | 291mA | 15V | 400mA | 86% | 4700μF |
| DCWN06B-05 | | 8mA | 254mA | ±5V | ±0 ~ 500mA | 82% | *2200μF |
| DCWN06B-12 | | 10mA | 291mA | ±12V | ±0 ~ 250mA | 86% | *2200μF |
| DCWN06B-15 | | 10mA | 291mA | ±15V | ±0 ~ 200mA | 85% | *2200μF |
| SCWN06C-03 | Normal 48V (36 ~ 72V) | 2mA | 104mA | 3.3V | 1200mA | 79% | 4700μF |
| SCWN06C-05 | | 3mA | 126mA | 5V | 1000mA | 83% | 4700μF |
| SCWN06C-12 | | 6mA | 148mA | 12V | 500mA | 86% | 4700μF |
| SCWN06C-15 | | 5mA | 148mA | 15V | 400mA | 86% | 4700μF |
| DCWN06C-05 | | 8mA | 126mA | ±5V | ±0 ~ 500mA | 83% | *2200μF |
| DCWN06C-12 | | 8mA | 148mA | ±12V | ±0 ~ 250mA | 85% | *2200μF |
| DCWN06C-15 | | 10mA | 144mA | ±15V | ±0 ~ 200mA | 87% | *2200μF |

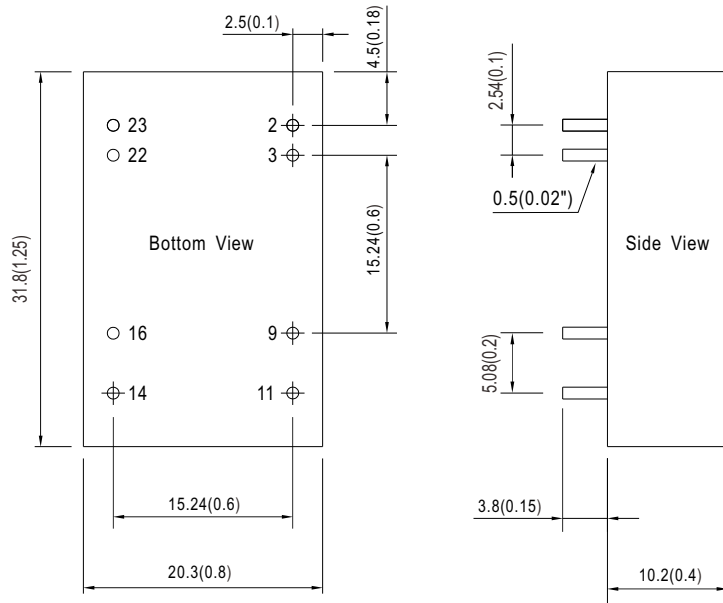
* For each output



| SPECIFICATION | | | | |
|-----------------------|--|---|---|---------------------------------|
| INPUT | VOLTAGE RANGE | A: 9~18Vdc , B: 18~36Vdc , C: 36~72Vdc | | |
| | SURGE VOLTAGE (100ms max.) | 12Vin models : 25Vdc ; 24Vin models : 50Vdc ; 48Vin models : 100Vdc | | |
| | FILTER | Pi type | | |
| | PROTECTION (Typ.) | Fuse recommended. 12Vin models: 1.6A Fast-Acting Type, 24Vin models: 1A Fast-Acting Type, 48Vin models: 0.5A Fast-Acting Type | | |
| | INTERNAL POWER DISSIPATION | 500mW | | |
| OUTPUT | VOLTAGE ACCURACY | ± 1.5% | | |
| | RATED POWER | 6W | | |
| | RIPPLE & NOISE Note.2 | 50mVp-p | | |
| | LINE REGULATION Note.3 | ± 0.5% | | |
| | LOAD REGULATION Note.4 | Single output models: ± 0.5%, Dual output models: ± 1% | | |
| | SWITCHING FREQUENCY (Min.) | 100KHz | | |
| PROTECTION | SHORT CIRCUIT | Protection type : Continuous, automatic recovery | | |
| | OVERLOAD | 120 ~ 250% rated output power Protection type : Recovers automatically after fault condition is removed | | |
| | UNDER VOLTAGE LOCKOUT | Start-up voltage | 12Vin: 8.8Vdc, 24Vin: 17Vdc, 48Vin: 34Vdc | |
| | | Shutdown voltage | 12Vin: 8Vdc, 24Vin: 16Vdc, 48Vin: 31Vdc | |
| ENVIRONMENT | COOLING | Free-air convection | | |
| | WORKING TEMP. | -40 ~ +90°C (Refer to "Derating Curve") | | |
| | CASE TEMPERATURE | +100°C max. | | |
| | WORKING HUMIDITY | 20% ~ 90% RH non-condensing | | |
| | STORAGE TEMP., HUMIDITY | -40 ~ +100°C, 10 ~ 95% RH non-condensing | | |
| | TEMP. COEFFICIENT | 0.03% / °C (0 ~ 90°C) | | |
| | SOLDERING TEMPERATURE | 1.5mm from case of 1 ~ 3sec./260°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:100M Ohms / 500VDC / 25°C / 70% RH | | |
| | ISOLATION CAPACITANCE (Typ.) | 250pF | | |
| | EMC EMISSION | Parameter | Standard | Test Level / Note |
| | | Conducted | BS EN/EN55032(CISPR32) | N/A |
| | | Radiated | BS EN/EN55032(CISPR32) | Class A |
| | EMC IMMUNITY | Parameter | Standard | Test Level / Note |
| | | ESD | BS EN/EN61000-4-2 | Level 2, ±8KV air, ±4KV contact |
| | | Radiated Susceptibility | BS EN/EN61000-4-3 | Level 2, 3V/m |
| EFT/Burest | | BS EN/EN61000-4-4 | Level 1, 0.5KV | |
| Surge | | BS EN/EN61000-4-5 | Level 1, 0.5KV Line-Line | |
| Conducted | | BS EN/EN61000-4-6 | Level 2, 3V(e.m.f.) | |
| Magnetic Field | | BS EN/EN61000-4-8 | Level 2, 3A/m | |
| OTHERS | MTBF (Typ.) | 1800Khrs MIL-HDBK-217F(25°C) | | |
| | DIMENSION (L*W*H) | 31.8*20.3*10.2mm (1.25*0.8*0.4 inch) | | |
| | CASE MATERIAL | Non-Conductive black plastic (UL 94V-0 rated) | | |
| | PACKING | 12.5g | | |
| NOTE | <p>1.All parameters are specified at normal input(A:12Vdc, B:24Vdc, C:48Vdc), 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 10% to 100% rated load for SCWN06, 25% to 100% rated load for DCWN06. 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</p> | | | |

Mechanical Specification

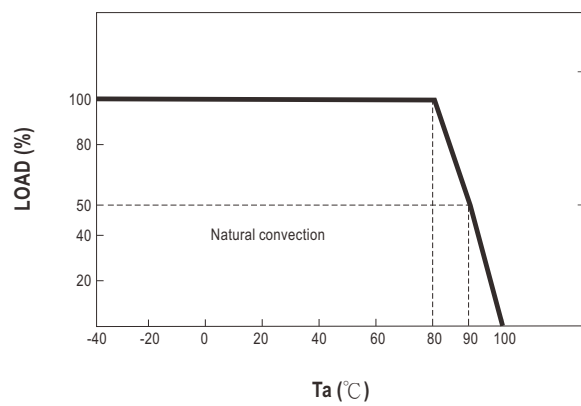
- All dimensions in mm (inch)
- Tolerance: $x.x \pm 0.5\text{mm}$ ($x.xx \pm 0.02''$)
 $x.xx \pm 0.25\text{mm}$ ($x.xxx \pm 0.010''$)
- Pin size is: $0.5 \pm 0.05\text{mm}$ ($0.02'' \pm 0.002''$)



Plug Assignment

| Pin-Out | | |
|---------|---------------------------|-------------------------|
| Pin No. | SCWN06 (Single output) | DCWN06 (Dual output) |
| 2,3 | -Vin | -Vin |
| 9 | N.C. | Common |
| 11 | N.C. | -Vout |
| 14 | +Vout | +Vout |
| 16 | -Vout | Common |
| 22,23 | +Vin | +Vin |

Derating Curve



Packing

| Standard Tube Packing | MPQ Per Tube (PCS) | One Box G.W. | Max. Q'TY/ Carton(PCS) | One Carton G.W. |
|---|--------------------|--------------|------------------------|-----------------|
| <p>Unit : mm</p> <p>CARTON L390.9 x W284.8 x H175.7</p> | 10 | 217g | 600 | 11Kg |

Installation Manual

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