



6W DIP Package DC-DC Regulated Converter

SCWN06 & DCWN06 series

■ 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

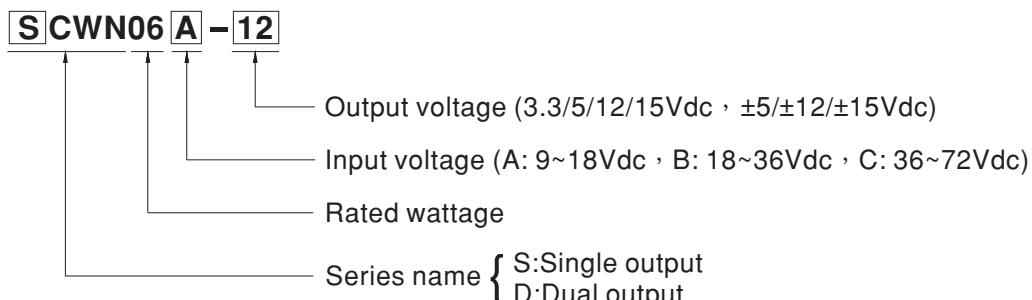
■ Applications

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

■ 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





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SCWN06 & DCWN06 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						
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



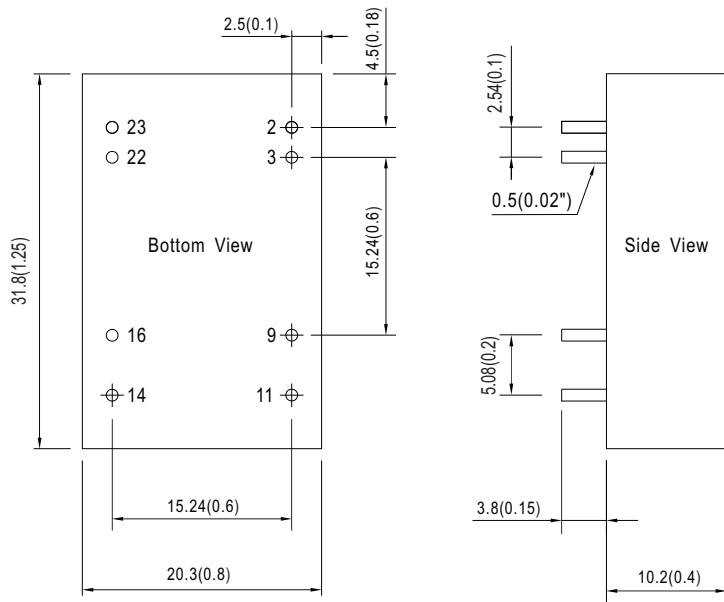
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SPECIFICATION			
INPUT	VOLTAGE RANGE	A: 9~18Vdc , B: 18~36Vdc , C: 36~72Vdc	
	SURGE VOLTAGE (100ms max.)	12Vin models : 25Vdc ; 24Vin models : 50Vdc ; 48Vin models : 100Vdc	
	FILTER	Pi type	
	PROTECTION (Typ.)	Fuse recommended. 12Vin models: 1.6A Fast-Acting 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%	
PROTECTION	SWITCHING FREQUENCY (Min.)	100KHz	
	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.	
SAFETY & EMC (Note.5)	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes	
	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
		Conducted	BS EN/EN55032(CISPR32)
	EMC IMMUNITY	Radiated	BS EN/EN55032(CISPR32)
		Parameter	Standard
		ESD	BS EN/EN61000-4-2
		Radiated Susceptibility	BS EN/EN61000-4-3
		EFT/Burst	BS EN/EN61000-4-4
		Surge	BS EN/EN61000-4-5
		Conducted	BS EN/EN61000-4-6
OTHERS	Magnetic Field	BS EN/EN61000-4-8	Level 2, 3A/m
	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)	
NOTE	PACKING	12.5g	
	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		

■ Mechanical Specification

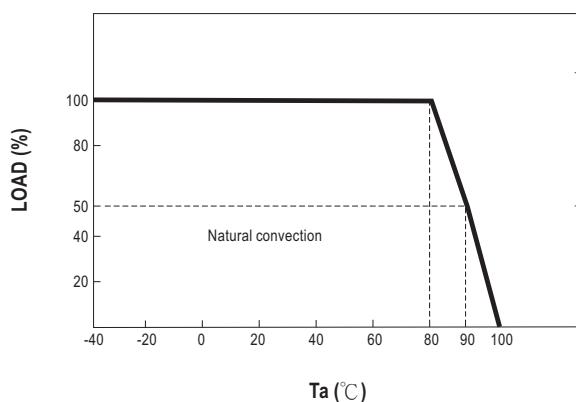
- All dimensions in mm(inch)
- Tolerance: $x.x \pm 0.5\text{mm}(x.xx \pm 0.02")$
 $x.xx \pm 0.25\text{mm}(x.xxx \pm 0.010")$
- Pin size is: $0.5 \pm 0.05\text{mm}$ ($0.02" \pm 0.002"$)



■ 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



■ Installation Manual

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