

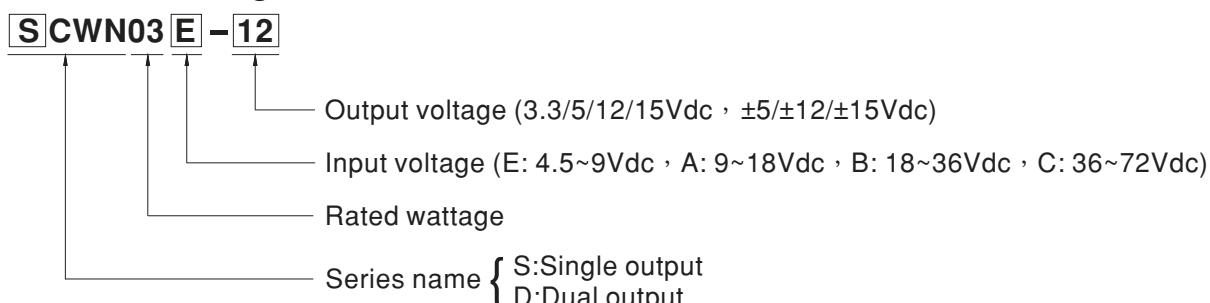
## ■ Features

- 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

## ■ Description

SCWN03 and DCWN03 series are 3W 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 4.5~9V, 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  $\pm 5V/\pm 12V/\pm 15V$  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





3W DIP Package DC-DC Regulated Converter

**SCWN03 & DCWN03 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						
SCWN03E-03	5V (4.5 ~ 9V)	15mA	550mA	3.3V	600mA	73%	2200µF		
SCWN03E-05		15mA	779mA	5V	600mA	78%	2200µF		
SCWN03E-12		18mA	750mA	12V	250mA	80%	2200µF		
SCWN03E-15		18mA	750mA	15V	200mA	81%	2200µF		
DCWN03E-05		25mA	779mA	±5V	±0 ~ 300mA	77%	*1000µF		
DCWN03E-12		25mA	750mA	±12V	±0 ~ 125mA	80%	*1000µF		
DCWN03E-15		25mA	750mA	±15V	±0 ~ 100mA	80%	*1000µF		
SCWN03A-03	12V (9 ~ 18V)	5mA	212mA	3.3V	600mA	78%	2200µF		
SCWN03A-05		5mA	309mA	5V	600mA	82%	2200µF		
SCWN03A-12		10mA	298mA	12V	250mA	84%	2200µF		
SCWN03A-15		10mA	294mA	15V	200mA	85%	2200µF		
DCWN03A-05		10mA	305mA	±5V	±0 ~ 300mA	82%	*1000µF		
DCWN03A-12		12mA	298mA	±12V	±0 ~ 125mA	84%	*1000µF		
DCWN03A-15		15mA	294mA	±15V	±0 ~ 100mA	85%	*1000µF		
SCWN03B-03	24V (18 ~ 36V)	5mA	106mA	3.3V	600mA	78%	2200µF		
SCWN03B-05		5mA	152mA	5V	600mA	82%	2200µF		
SCWN03B-12		7.5mA	145mA	12V	250mA	86%	2200µF		
SCWN03B-15		7.5mA	145mA	15V	200mA	86%	2200µF		
DCWN03B-05		7.5mA	152mA	±5V	±0 ~ 300mA	82%	*1000µF		
DCWN03B-12		10mA	147mA	±12V	±0 ~ 125mA	87%	*1000µF		
DCWN03B-15		10mA	145mA	±15V	±0 ~ 100mA	87%	*1000µF		
SCWN03C-03	48V (36 ~ 72V)	3mA	52mA	3.3V	600mA	80%	2200µF		
SCWN03C-05		3mA	74mA	5V	600mA	84%	2200µF		
SCWN03C-12		3mA	73mA	12V	250mA	86%	2200µF		
SCWN03C-15		5mA	73mA	15V	200mA	87%	2200µF		
DCWN03C-05		5mA	73mA	±5V	±0 ~ 300mA	85%	*1000µF		
DCWN03C-12		5mA	73mA	±12V	±0 ~ 125mA	87%	*1000µF		
DCWN03C-15		5mA	74mA	±15V	±0 ~ 100mA	87%	*1000µF		

\* For each output



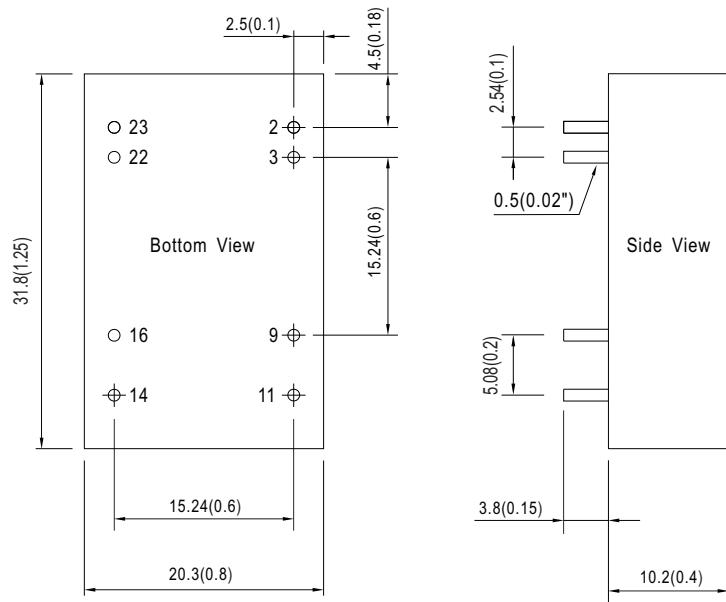
3W DIP Package DC-DC Regulated Converter

SCWN03 &amp; DCWN03 series

SPECIFICATION			
INPUT	VOLTAGE RANGE	E: 4.5~9Vdc , A: 9~18Vdc , B: 18~36Vdc , C: 36~72Vdc	
	SURGE VOLTAGE (100ms max.)	5Vin models : 10Vdc ; 12Vin models : 25Vdc ; 24Vin models : 50Vdc ; 48Vin models : 100Vdc	
	FILTER	Pi type	
	PROTECTION	Fuse recommended. 5Vin models: 1.5A Fast-Acting Type, 12Vin models: 0.8A Fast-Acting Type, 24Vin models: 0.5A Fast-Acting Type, 48Vin models: 250mA Fast-Acting Type	
	INTERNAL POWER DISSIPATION	500mW	
OUTPUT	VOLTAGE ACCURACY	± 1.5%	
	RATED POWER	3W	
	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	5Vin: 4.4Vdc, 12Vin: 8.8Vdc, 24Vin: 17Vdc, 48Vin: 34Vdc
		Shutdown voltage	5Vin: 4.2Vdc, 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 ~ +105°C, 10 ~ 95% RH non-condensing	
	TEMP. COEFFICIENT	0.03% / °C (0 ~ 85°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/Bursts	BS EN/EN61000-4-4
		Surge	BS EN/EN61000-4-5
		Conducted	BS EN/EN61000-4-6
		Magnetic Field	BS EN/EN61000-4-8
OTHERS	MTBF	2500Khrs 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	12.3g ; 10pcs/per tube, 600pcs/60 tube/per carton	
NOTE	<ol style="list-style-type: none"><li>All parameters are specified at normal input(E:5Vdc, A:12Vdc, B:24Vdc, C:48Vdc), rated load, 25°C 70% RH ambient.</li><li>Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf &amp; 47μf capacitor.</li><li>Line regulation is measured from low line to high line at rated load.</li><li>Load regulation is measured from 10% to 100% rated load for SCWN03, 25% to 100% rated load for DCWN03.</li><li>The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li></ol> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p>		

### ■ Mechanical Specification

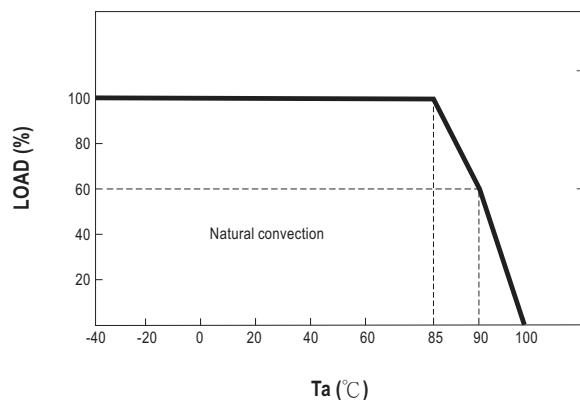
- All dimensions in mm(inch)
- Tolerance:  $x.x \pm 0.5\text{mm}(x.xx \pm 0.02")$   
 $x.xx \pm 0.25\text{mm}(x.xxx \pm 0.010")$
- Pin size is:  $0.5 \pm 0.05\text{mm}$  ( $0.02" \pm 0.002"$ )



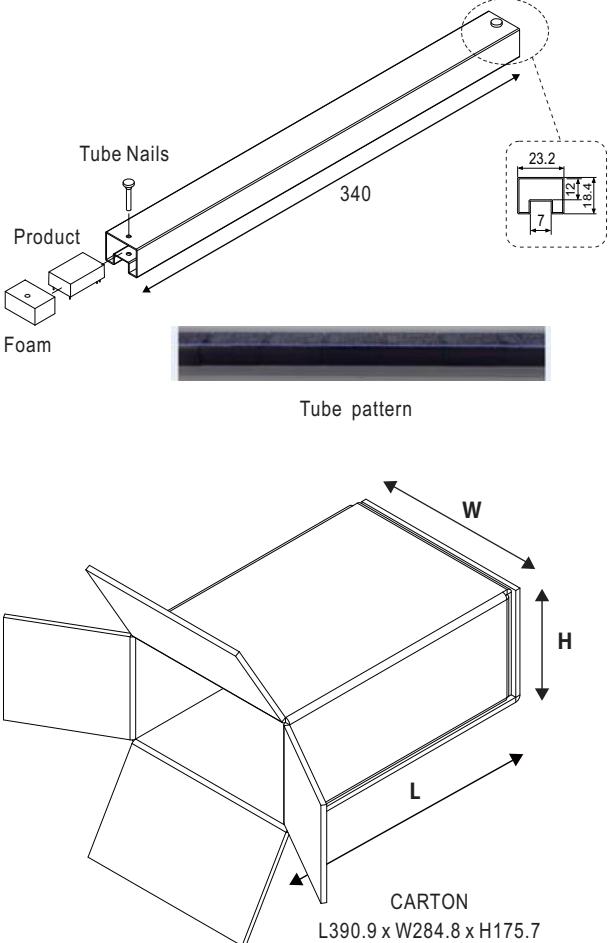
### ■ Plug Assignment

Pin-Out		
Pin No.	SCWN03 (Single output)	DCWN03 (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 Tube G.W.	Max. Q'TY/ Carton(PCS)	One Carton G.W.
<p>Unit : mm</p>  <p>Product</p> <p>Foam</p> <p>Tube Nails</p> <p>340</p> <p>23.2</p> <p>12.4</p> <p>1.6</p> <p>7</p> <p>Tube pattern</p> <p>W</p> <p>H</p> <p>L</p> <p>CARTON L390.9 x W284.8 x H175.7</p>	10	147g	600	10.82Kg

## ■ Installation Manual

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