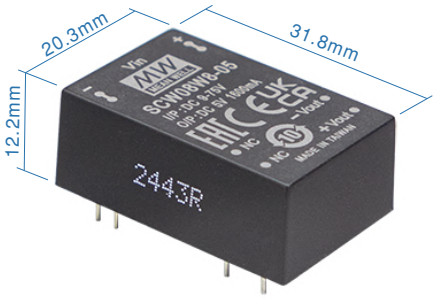
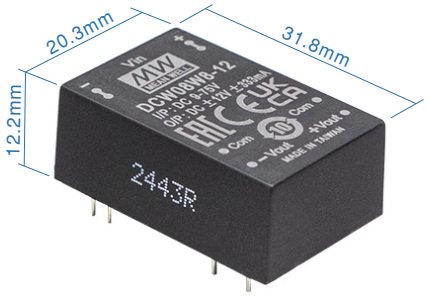
SCW08W8 & DCW08W8 series





TPTC020

Automate Industrial Security Network Telecom

Features

- DIP24 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
- Remote ON/OFF control (Optional)
- 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

SCW08W8 and DCW08W8 series are 8W isolated and regulated module type DC-DC converter with DIP24 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 protection, 8:1(9~75V) ultra-wide input range, and various output voltage, 3.3V/5V/9V/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 CW08 W8 – 12

- 12 → Output voltage (3.3/5/9/12/15Vdc，±5/±12/±15Vdc)
- W8 → Wide input voltage (9~75Vdc)
- 08 → Rated wattage
- S CW → 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				
SCW08W8-03	Nominal 12V, 24V,36V,48V,72V (9 ~ 75V)	10mA	400mA	3.3V	2400mA	82%	1000μF
SCW08W8-05		10mA	388mA	5V	1600mA	84%	680μF
SCW08W8-09		10mA	392mA	9V	889mA	85%	680μF
SCW08W8-12		10mA	388mA	12V	667mA	86%	470μF
SCW08W8-15		10mA	388mA	15V	533mA	85%	220μF
DCW08W8-05		10mA	397mA	±5V	±800mA	84%	*470μF
DCW08W8-12		10mA	383mA	±12V	±333mA	86%	*220μF
DCW08W8-15		10mA	392mA	±15V	±267mA	84%	*220μF

* For each output

SPECIFICATION

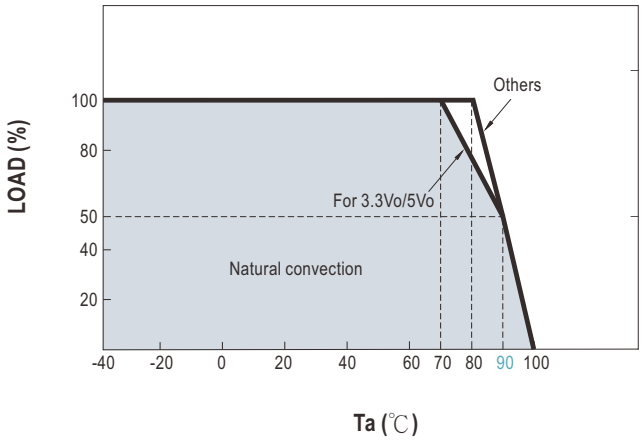
INPUT			
VOLTAGE RANGE	9~75Vdc		
SURGE VOLTAGE (100ms max.)	100Vdc		
FILTER	Pi type		
PROTECTION (Typ.)	Fuse recommended. 3A Slow-Blow Type		
OUTPUT			
VOLTAGE ACCURACY	±2%		
RATED POWER	8W		
RIPPLE & NOISE Note.2	100mVp-p		
LINE REGULATION Note.3	±0.5%		
LOAD REGULATION Note.4	±1% for 3.3Vo, ±0.5% for others		
CROSS DEGUIATION	±5% @ 25%~100% Load only for dual output		
SWITCHING FREQUENCY (Typ.)	300KHz		
PROTECTION			
SHORT CIRCUIT	Protection type : Continuous, automatic recovery		
OVERLOAD	200 ~ 300% rated output power		
	Protection type : Hiccup mode, recovers automatically after fault condition is removed		
OVER VOLTAGE	Protection type : Clamp by TVS diode		
UNDER VOLTAGE LOCKOUT (Typ.)	Start-up voltage	8.8Vdc	
	Shutdown voltage	8Vdc	
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	0.05% / ℃ (0 ~ 85℃)		
SOLDERING TEMPERATURE	1.5mm from case of 3 ~ 5sec./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	N/A
	Radiated	BS EN/EN55032	Class A without additional components Class B with additional components
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/Bursts	BS EN/EN61000-4-4	Level 1, 0.5KV
	Surge	BS EN/EN61000-4-5	Level 2, 0.5KV Line-Line
	Conducted	BS EN/EN61000-4-6	Level 2, 3V(e.m.f.)
	Magnetic field immunity	BS EN/EN61000-4-8	Level 1, 1A/m
OTHERS			
MTBF (Typ.)	>860Khrs MIL-HDBK-217F(25℃)		
DIMENSION (L*W*H)	**31.8*20.3*12.2mm (1.25*0.8*0.48 inch)**		
CASE MATERIAL	Non-Conductive black plastic (UL 94V-0 rated)		
PACKING	17.5g ; 15pcs/per tube, 750pcs/50 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)

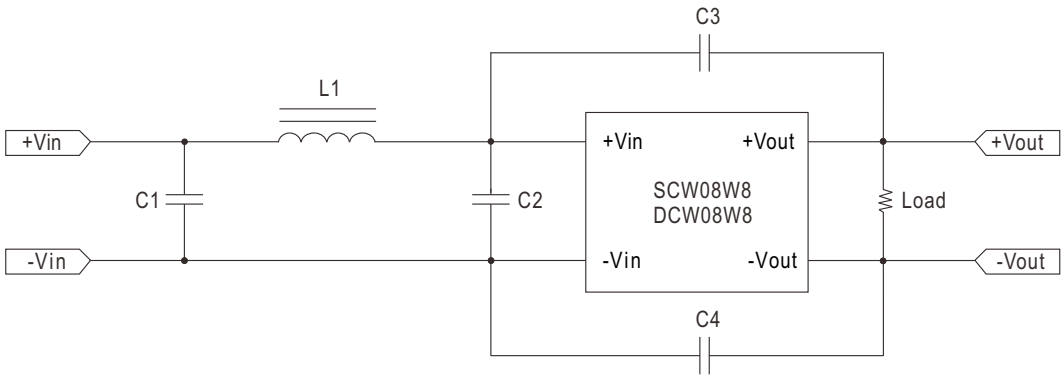
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

■ Derating Curve



■ EMC Suggestion Circuit

※ Required external components to meet BS EN/EN55032 radiated Class B are as below:

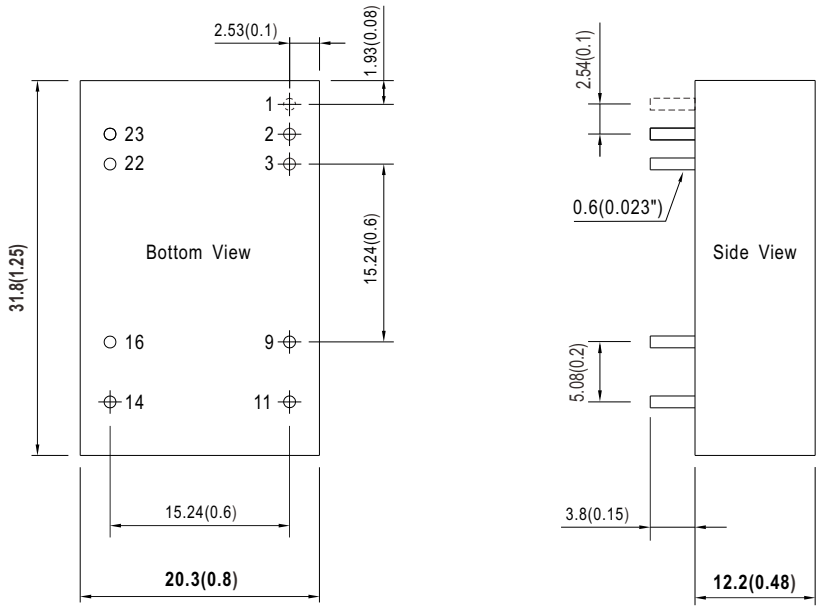


Model No.	BS EN/EN55032 radiated Class B				
	C1	C2	C3	C4	L1
SCW08W8 DCW08W8	2.2μF/100V	2.2μF/100V	152/5KV	152/5KV	10μH

Note : All of capacitors are ceramic capacitors.

■ Mechanical Specification

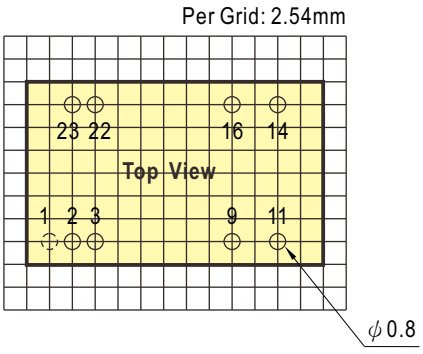
- All dimensions in mm(inch)
- Tolerance:x.x±0.5mm(x.xx±0.02")
  x.xx±0.5mm(x.xxx±0.02")
- Pin size is:0.6±0.1mm (0.023"±0.0039")



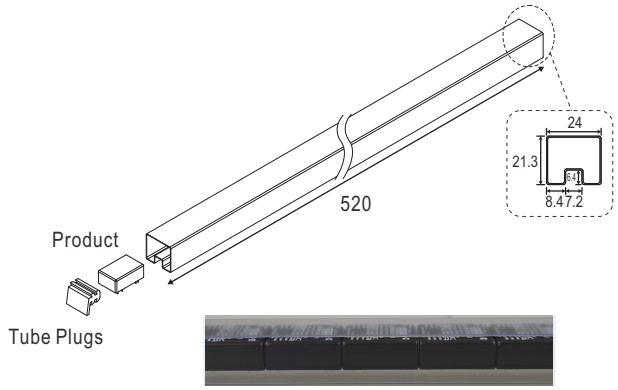
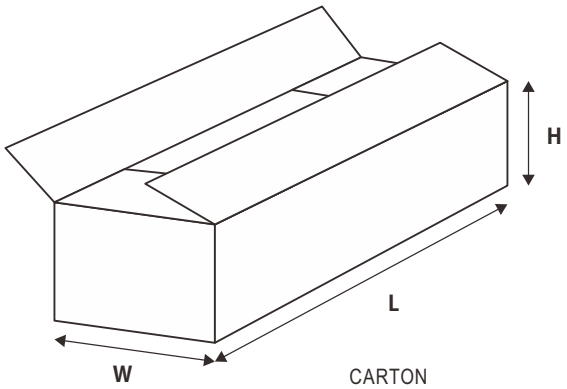
■ Pin Assignment

Pin-Out		
Pin No.	SCW08W8 (Single output)	DCW08W8 (Dual output)
1	N.P. (Remote ON/OFF by request)	N.P. (Remote ON/OFF by request)
2,3	-Vin	-Vin
9	N.C.	Common
11	N.C.	-Vout
14	+Vout	+Vout
16	-Vout	Common
22,23	+Vin	+Vin

* N.P. : No Pin for standard model, the pin available when R.C is selected



■ Packing

Standard Tube Packing	MPQ Per Tube (PCS)	One Tube G.W.	Max. Q'TY/ Carton(PCS)	One Carton G.W.
Unit : mm  Tube pattern	15	306g	750	16.1Kg
 CARTON L620 x W230 x H230				

■ Installation Manual

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