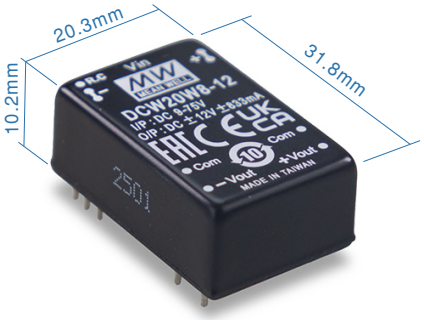




TPTC020

Automate Industrial Security Network Telecom

Features

- DIP24 package with industry standard pinout
- 8:1(9~75Vdc) ultra-wide input range
- Operating temperature range -40 ~ +95℃
- No minimum load required
- Comply to BS EN/EN55032 radiated Class A without additional components
- High efficiency up to 88%
- Protections: Short circuit (Continuous) / Overload / Over voltage / UVLO
- Remote ON/OFF control
- 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

SCW20W8 and DCW20W8 series are 20W isolated and regulated module type DC-DC converter with DIP24 package. It features international standard pins, a high efficiency up to 88%, wide working temperature range -40~+95℃, 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/12V/15V/24V for single output and ±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 CW20 W8 – 12

- 12 → Output voltage (3.3/5/12/15/24Vdc，±12/±15Vdc)
- W8 → Wide input voltage (9~75Vdc)
- 20 → Rated wattage
- S → 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				
SCW20W8-03	Nominal 12V, 24V,36V,48V,72V (9 ~ 75V)	10mA	655mA	3.3V	4000mA	83%	1000μF
SCW20W8-05		10mA	975mA	5V	4000mA	85%	1000μF
SCW20W8-12		10mA	958mA	12V	1666mA	86%	220μF
SCW20W8-15		10mA	958mA	15V	1333mA	87%	220μF
SCW20W8-24		10mA	947mA	24V	833mA	88%	220μF
DCW20W8-12		10mA	958mA	±12V	±833mA	87%	*100μF
DCW20W8-15		10mA	958mA	±15V	±666mA	87%	*100μF

* For each output

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SPECIFICATION

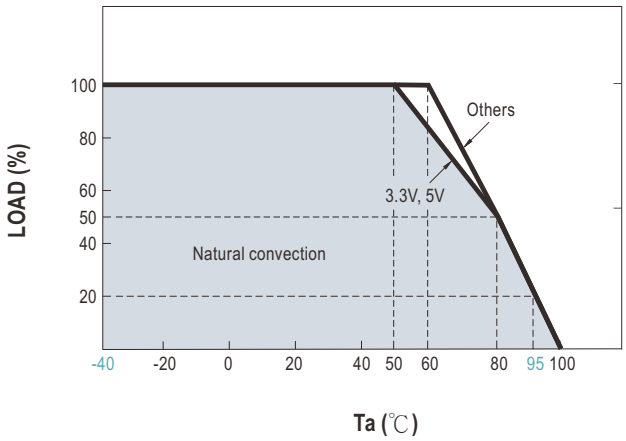
INPUT			
VOLTAGE RANGE	9~75Vdc		
SURGE VOLTAGE (100ms max.)	100Vdc		
FILTER	Pi type		
PROTECTION (Typ.)	6A Slow-Blow Type		
OUTPUT			
VOLTAGE ACCURACY	±2%		
RATED POWER	20W		
RIPPLE & NOISE Note.2	100mVp-p for 3.3~5V output ; 12~24V for 1% output Vp-p max.		
LINE REGULATION Note.3	±0.5% for other output, ±1% for 3.3Vo output		
LOAD REGULATION Note.4	±0.5%		
CROSS DEGUIATION	±5% @ 25%~100% Load only for dual output		
SWITCHING FREQUENCY (Typ.)	200KHz		
PROTECTION			
SHORT CIRCUIT	Protection type : Continuous, automatic recovery		
OVERLOAD	110 ~ 190% 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	
FUNCTION			
REMOTE CONTROL	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 ~ +95℃ (Refer to "Derating Curve")		
CASE TEMPERATURE	+110℃ max.		
WORKING HUMIDITY	20% ~ 90% RH non-condensing		
STORAGE TEMP., HUMIDITY	-40 ~ +125℃, 10 ~ 95% RH non-condensing		
TEMP. COEFFICIENT	±0.05% / ℃ max. (0 ~ 95℃)		
SOLDERING TEMPERATURE	1.5mm from case of 3 ~ 5sec./260℃ 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, ±4KV contact
	Radiated Susceptibility	BS EN/EN61000-4-3	Level 2, 3V/m
	EFT/Bursts	BS EN/EN61000-4-4	Level 2, 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 immunity	BS EN/EN61000-4-8	Level 1, 1A/m
OTHERS			
MTBF (Typ.)	>570Khrs MIL-HDBK-217F(25℃)		
DIMENSION (L*W*H)	**31.8*20.3*12.2mm (1.25*0.8*0.48 inch)**		
CASE MATERIAL	Five-side Metal shielded case		
PACKING	20g ; 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

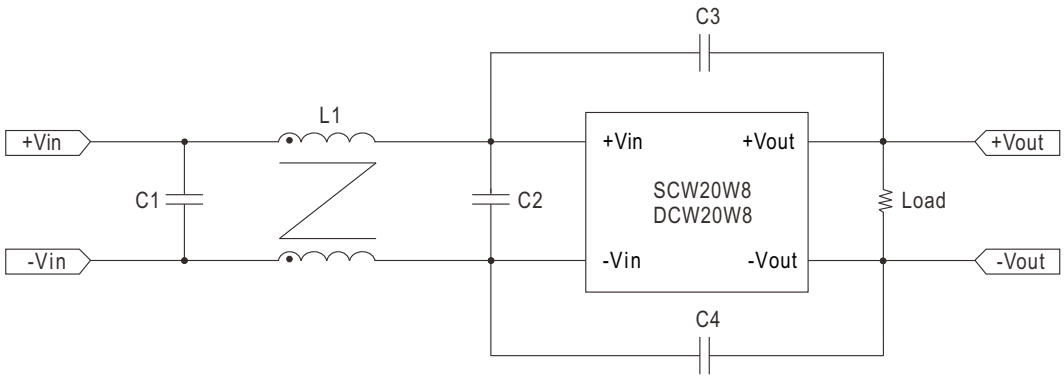
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■ Derating Curve



■ EMC Suggestion Circuit

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



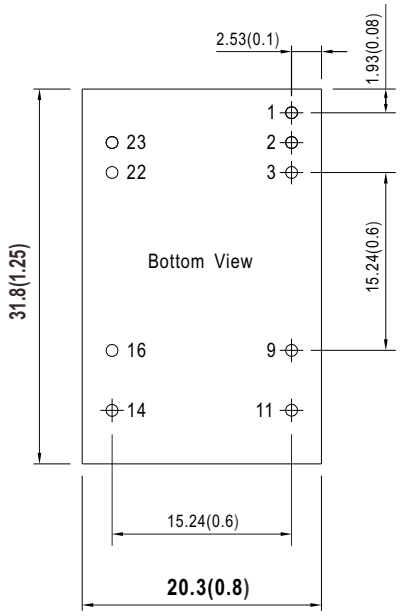
Model No.	BS EN/EN55032 radiated Class B				
	C1	C2	C3	C4	L1
SCW20W8 DCW20W8	2.2μF/100V	2.2μF/100V	102/5KV	102/5KV	325μH Common Choke

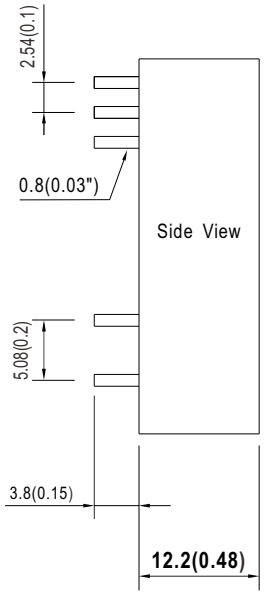
Note : All of capacitors are ceramic capacitors.

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■ Mechanical Specification

- All dimensions in mm(inch)
- Tolerance:x.x or x.xx ±0.5mm(x.x or x.xx±0.02")
- Pin size is:0.8±0.1mm (0.03"±0.004")

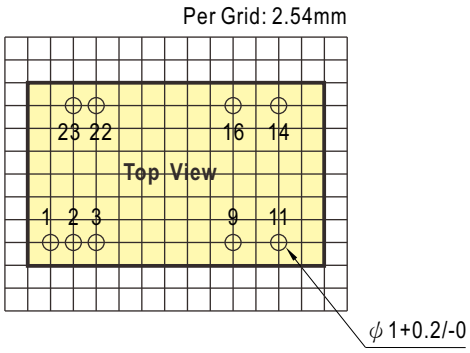




■ Pin Assignment

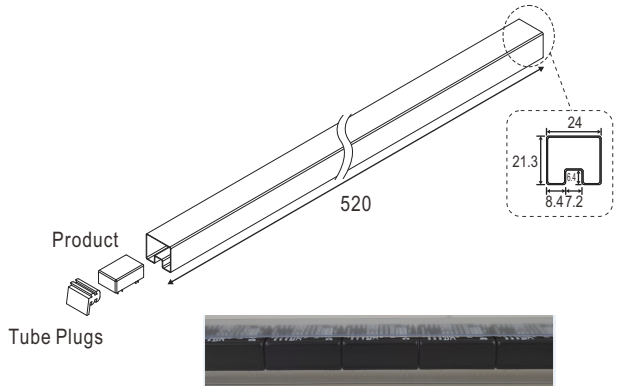
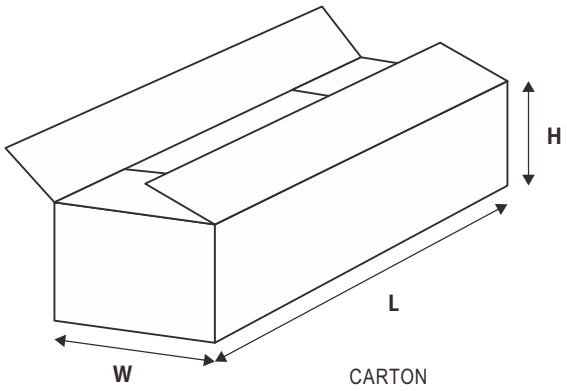
Pin-Out		
Pin No.	SCW20W8 (Single output)	DCW20W8 (Dual output)
1	Remote ON/OFF	Remote ON/OFF
2,3	-Vin	-Vin
9	N.C.	Common
11	N.C.	-Vout
14	+Vout	+Vout
16	-Vout	Common
22,23	+Vin	+Vin

* N.C. : No connected



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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  Tube pattern	15	350g	750	18.3Kg
 CARTON L620 x W230 x H230				

■ Installation Manual

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

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