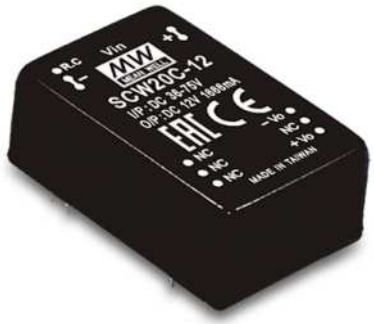
20W DIP Package DC-DC Regulated Converter

SCW20 series



Automate Industrial Security Network Telecom

Features

- DIP24 package with industry standard pinout
- 2:1 wide input range
- Operating temperature range -40 ~ +80℃
- No minimum load required
- Comply to BS EN/EN55032 radiated Class A with additional components
- High efficiency up to 89%
- Protections: Short circuit (Continuous) / Overload
- 1.5KVDC I/O isolation
- Remote ON/OFF control
- 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

SCW20 series is 20W isolated and regulated module type DC-DC converter with DIP24 package. It features international standard pins, a high efficiency up to 89%, wide working temperature range -40~+80℃, 1.5KVDC I/P-O/P isolation voltage, Compliance to BS EN/EN55032 radiated Class A with additional components, continuous-mode short circuit protection, etc. The additional components, models account for different input voltage 9~18V, 18~36V and 36~75V 2:1 wide input range, and various output voltage, 5V/12V/15V for single output, which are suitable for all kinds of systems, Such as industrial control, telecommunication field, distributed power architecture, and so on.

Model Encoding

SCW20 A – 12

- 12 — Output voltage (5/12/15Vdc)
- A — Input voltage (A: 9~18Vdc，B: 18~36Vdc，C: 36~75Vdc)
- SCW20 — Rated wattage
- SCW20 — Series name

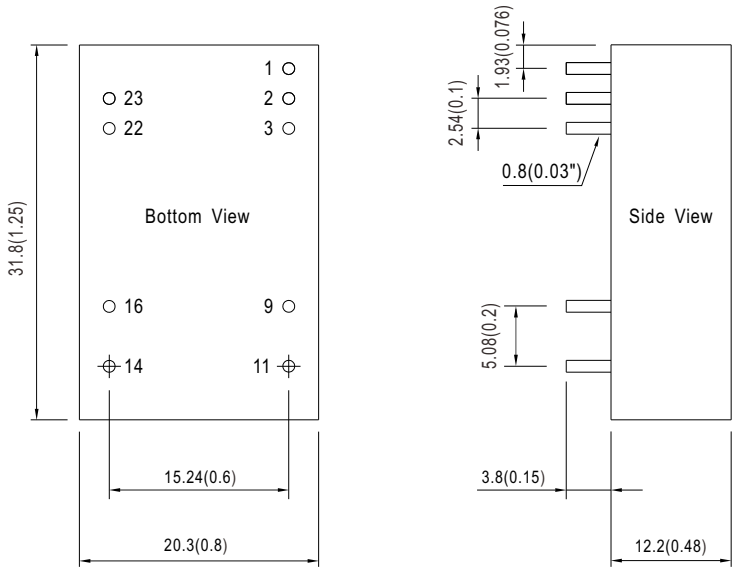
MODEL SELECTION TABLE

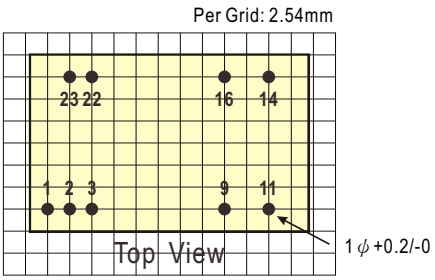
ORDER NO.	INPUT			OUTPUT		EFFICIENCY (TYP.)	CAPACITOR LOAD (MAX.)
	INPUT VOLTAGE (RANGE)	INPUT CURRENT		OUTPUT VOLTAGE	OUTPUT CURRENT		
		NO LOAD	FULL LOAD				
SCW20A-05	Normal 12V (9 ~ 18V)	110mA	1938mA	5V	4000mA	86%	1000μF
SCW20A-12		30mA	1938mA	12V	1666mA	86%	220μF
SCW20A-15		25mA	1915mA	15V	1333mA	87%	220μF
SCW20B-05	Normal 24V (18 ~ 36V)	60mA	969mA	5V	4000mA	86%	1000μF
SCW20B-12		25mA	957mA	12V	1666mA	87%	220μF
SCW20B-15		25mA	957mA	15V	1333mA	88%	220μF
SCW20C-05	Normal 48V (36 ~ 75V)	45mA	484mA	5V	4000mA	86%	1000μF
SCW20C-12		15mA	479mA	12V	1666mA	87%	220μF
SCW20C-15		15mA	479mA	15V	1333mA	89%	220μF

SPECIFICATION				
INPUT	VOLTAGE RANGE	A: 9~18Vdc , B: 18~36Vdc , C: 36~75Vdc		
	FILTER	Pi type		
	PROTECTION	Fuse recommended. 12Vin models: 4A Slow-Blow Type, 24Vin models: 2A Slow-Blow Type, 48Vin models: 1A Slow-Blow Type		
	INTERNAL POWER DISSIPATION	500mW		
OUTPUT	VOLTAGE ACCURACY	±2%		
	RATED POWER	20W		
	RIPPLE & NOISE Note.2	80mVp-p		
	LINE REGULATION Note.3	±0.5%		
	LOAD REGULATION Note.4	±0.5%		
	SWITCHING FREQUENCY (Min.)	400KHz		
PROTECTION	SHORT CIRCUIT	Protection type : Continuous, automatic recovery		
	OVERLOAD	120 ~ 190% rated output power		
		Protection type : Recovers automatically after fault condition is removed		
FUNCTION	REMOTE CONTROL	Power ON: R.C. ~ -Vin > 2.5VDC or open ; Power OFF: R.C. ~ -Vin < 0.8VDC or short		
ENVIRONMENT	COOLING	Free-air convection		
	WORKING TEMP.	-40 ~ +80℃ (Refer to "Derating Curve")		
	CASE TEMPERATURE	+110℃ max.		
	WORKING HUMIDITY	20% ~ 90% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +105℃, 10 ~ 95% RH non-condensing		
	TEMP. COEFFICIENT	0.03% / ℃ (0 ~ 85℃)		
	SOLDERING TEMPERATURE	1.5mm from case of 1 ~ 3sec./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 (EAC TP TC 004 for 48Vin type only) approved		
	WITHSTAND VOLTAGE	I/P-O/P:1.5KVDC		
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH		
	ISOLATION CAPACITANCE (Typ.)	1200pF		
	EMC EMISSION	**Parameter**	**Standard**	**Test Level / Note**
		Conducted	BS EN/EN55032(CISPR32)	N/A
		Radiated	BS EN/EN55032(CISPR32)	Class A 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 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	224Khrs MIL-HDBK-217F(25℃)		
	DIMENSION (L*W*H)	31.8*20.3*12.2mm (1.25*0.8*0.48 inch)		
	CASE MATERIAL	Five-sided shield metal case		
	PACKING	18.5g ; 15pcs/per tube, 750pcs/50 tube/per carton		
NOTE	1.All parameters are specified at normal input(A:12Vdc, B:24Vdc, C:48Vdc), 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 20% 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			

■ Mechanical Specification

- All dimensions in mm(inch)
- Tolerance:x.x±0.5mm(x.xx±0.02")
  x.xx±0.25mm(x.xxx±0.010")
- Pin size is:0.8±0.05mm (0.03"±0.002")

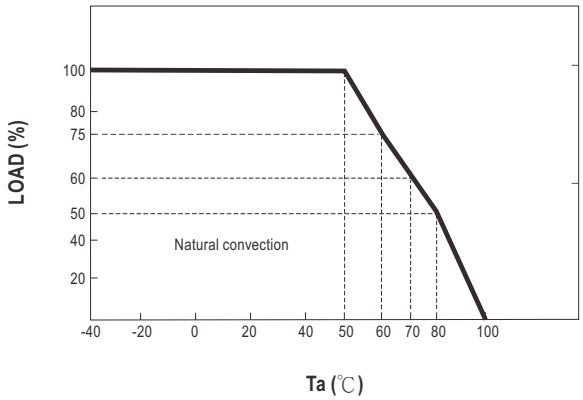




■ Pin Assignment

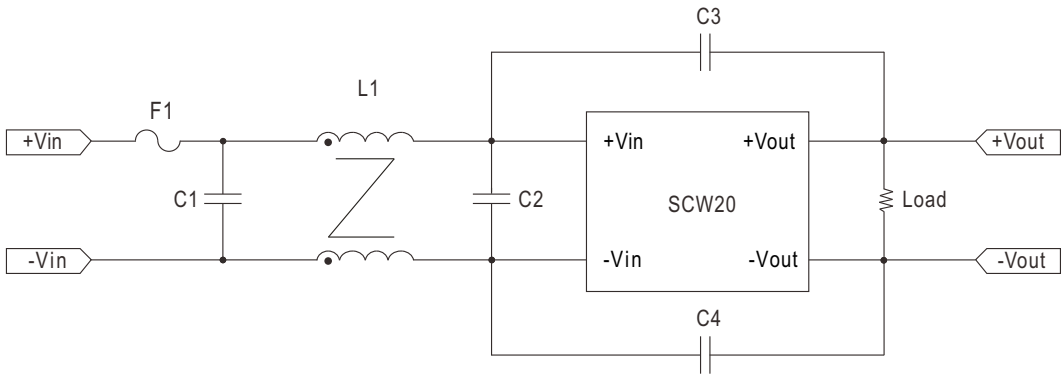
Pin No.	Output
1	Remote ON/OFF
2,3	-Vin
9	N.C.
11	N.C.
14	+Vout
16	-Vout
22,23	+Vin

■ Derating Curve



■ EMC Suggestion Circuit

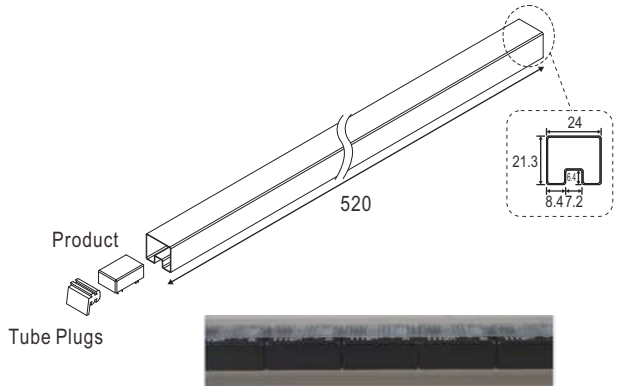
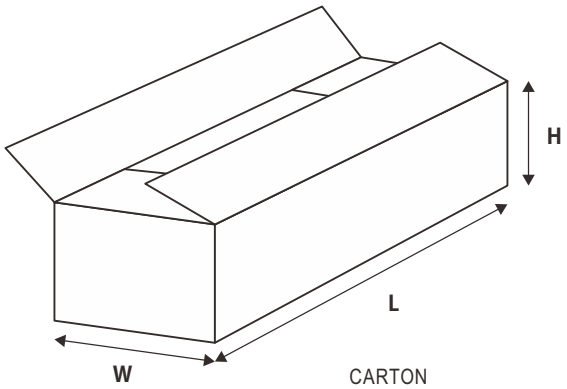
※ Required external components to meet BS EN/EN55032 radiated Class A and Class B are as below:



Model No.	BS EN/EN55032 radiated Class A				
	C1	C2	C3	C4	L1
SCW20	NC	NC	1000pF/2KV MLCC	NC	NC

Model No.	BS EN/EN55032 radiated Class B				
	C1	C2	C3	C4	L1
SCW20 12Vin	3.3μF/50V 1812 MLCC	NC	1000pF/2KV MLCC	1000pF/2KV MLCC	325μH Common Choke
SCW20 24Vin	4.7μF/50V 1812 MLCC	NC	1000pF/2KV MLCC	1000pF/2KV MLCC	325μH Common Choke
SCW20 48Vin	2.2μF/100V 1812 MLCC	2.2μF/100V 1812 MLCC	1000pF/2KV MLCC	1000pF/2KV MLCC	325μH Common Choke

■ 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	330g	750	17.3Kg
 CARTON L620 x W230 x H230				

■ Installation Manual

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