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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

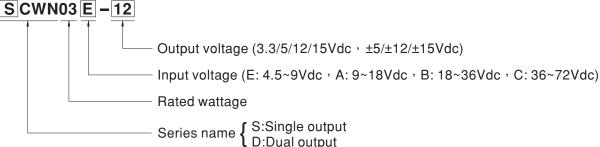
■ GTIN CODE

MW Search: https://www.meanwell.com/serviceGTIN.aspx

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 $4.5\sim9V$, $9\sim18V$, $18\sim36V$ and $36\sim72V$ 2:1 wide input range, and various output voltage, 3.3V/5V/12V/15V for single output and $\pm5V/\pm12V/\pm15V$ 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



SCWN03 & DCWN03 series

MODEL SELECTION TABLE								
ORDER NO.	INPUT			OUTPUT				
	INPUT VOLTAGE (RANGE)	INPUT CURRENT		OUTPUT	OUTPUT	EFFICIENCY (TYP.)	CAPACITOR LOAD (MAX.)	
		NO LOAD	FULL LOAD	VOLTAGE	CURRENT	((IVIAA.)	
SCWN03E-03		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	5V (4.5 ~ 9V)	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		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	12V (9 ~ 18V)	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		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	24V (18 ~ 36V)	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		3mA	52mA	3.3V	600mA	80%	2200µF	
SCWN03C-05	48V (36 ~ 72V)	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

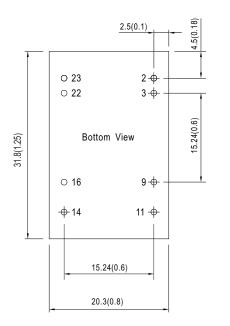
SCWN03 & DCWN03 series

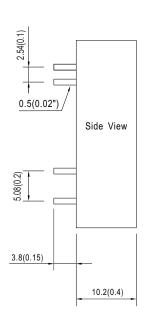
NOLTAGE RANDE 5-4, 6-9-1/26, A; 9-181/46, B; 19-369/46, C; 36-7-12/46 SUBGEVOLTAGE (FROm madels: 100/46; 120/46) Turbridge (100/46) SUBGEVOLTAGE (FROm models: 100/46) SUBGEVOLTAGE (FRO	SPECIFICAT	TION								
FILTER		VOLTAGE RANGE	E: 4.5~9Vdc , A: 9~18Vdc , B: 18~36Vdc , C: 36~72Vdc							
PROTECTION	1	SURGE VOLTAGE (100ms max.)	5Vin models : 10Vdc ; 12Vin models : 25Vdc ; 24Vin models : 50Vdc ; 48Vin models : 100Vdc							
NITERNAL POWER DISSIPATION SOOMW VOLTAGE ACCURACY £1.5% \$1.		FILTER	Pi type							
VOLTAGE ACCURACY 21.5% RATED POWER		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							
Name		INTERNAL POWER DISSIPATION	500mW							
Note Color		VOLTAGE ACCURACY	±1.5%							
LINE REGULATION Note.4 5 migle output models:±0.5%, Dual output models:±1%	ОИТРИТ	RATED POWER	3W							
LINE REGULATION Notes		RIPPLE & NOISE Note.2	50mVp-p	i0mVp-p						
SWITCHING FREQUENCY (Min.) 100KHz		LINE REGULATION Note.3	±0.5%	$\pm 0.5\%$						
SHORT CIRCUIT Protection type: Continuous, automatic recovery 120 - 250% rated output power		LOAD REGULATION Note.4								
NOTECTION 120 - 250% rated output power Protection type : Recovers automatically after fault condition is removed Start-up voltage SVin : 4.4Vdc, 12Vin : 8.4Vdc, 24Vin : 17Vdc, 48Vin : 34Vdc SVin : 34Vdc SVin : 4.4Vdc, 12Vin : 8.4Vdc, 24Vin : 17Vdc, 48Vin : 31Vdc SVin : 34Vdc SVin : 4.4Vdc, 12Vin : 8.4Vdc, 24Vin : 16Vdc, 48Vin : 31Vdc SVin : 34Vdc SVin : 34		SWITCHING FREQUENCY (Min.)	100KHz							
Protection VorR.OAD		SHORT CIRCUIT	Protection type : Continuous, automatic recovery							
Protection Protection Protection Start-up voltage Start-up		OVERLOAD	120 ~ 250% rated output	t power						
UNDER VOLTAGE LOCKOUT Shutdown voltage 5Vin: 4.2Vdc, 12Vin: 8Vdc, 24Vin: 16Vdc, 48Vin: 31Vdc	PROTECTION	OVERLOAD	Protection type : Recovers automatically after fault condition is removed							
Shutdown voltage SVin: 4.2Vdc, 12Vin: 8Vdc, 24Vin: 16Vdc, 48Vin: 31Vdc		LINDER VOLTAGE I OCKOLIT	Start-up voltage	5Vin: 4.4Vdc,	12Vin: 8.8Vdc	24Vin: 17Vdc,	48Vin: 34Vdc			
WORKING TEMP.		ONDER VOLINGE ECONOCT		5Vin: 4.2Vdc,	12Vin: 8Vdc,	24Vin: 16Vdc,	48Vin: 31Vdc			
CASE TEMPERATURE 4100°C max.										
NOTE SENVIRONMENT STORAGE TEMP., 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)	ENVIRONMENT		-							
SOLDERING TEMPERATURE 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 ISOLATION RESISTANCE ISOLATION RESISTANCE ISOLATION CAPACITANCE (Typ.) Parameter Conducted BS EN/EN55032(CISPR32) EMC EMISSION EMC EMISSION Parameter Conducted BS EN/EN55032(CISPR32) Class A Parameter Standard Test Level / Note ESD BS EN/EN55032(CISPR32) Class A Parameter ESD BS EN/EN61000-4-2 Level 2, ±8KV air, ±4KV contact Radiated Susceptibility BS EN/EN61000-4-3 Level 2, 3V/m EFT/Burest 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(m.nf.) Magnetic Field BS EN/EN61000-4-8 Level 2, 3A/m MTBF 2500Khrs MIL-HDBK-217F(25°C) DIMENSION (L*W*H) CASE MATERIAL Non-Conductive black plastic (UL 94V-0 rated) PACKING 12.3g : 110pcs/per tube, 600pcs/60 tube/per carton 1.All parameters are specified at normal input(E:5Vdc, 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 10% to 100% rated load for SCWN03, 25% to 100% rated load for DCWN03. 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: 'Gas available on http://www.meanvell.com)	LittinoniiiLiti									
VIBRATION										
SAFETY STANDARDS										
WITHSTAND VOLTAGE I/P-O/P:3KVDC ISOLATION RESISTANCE I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH										
ISOLATION RESISTANCE I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH			· ·							
SOLATION CAPACITANCE (Typ.) 250 pF										
Parameter Standard Test Level / Note										
EMC EMISSION Conducted BS EN/EN55032(CISPR32) N/A		EMC EMISSION								
Radiated BS EN/EN55032(CISPR32) Class A 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/Burest 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 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 1.All parameters are specified at normal input(E:5Vdc, 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 SCWN03, 25% to 100% rated load for DCWN03. 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)						ISPR32)				
EMC (Note.5) EMC IMMUNITY EM	SAFETY &					•				
EMC IMMUNITY EMC IMMUNITY EFT/Burest BS EN/EN61000-4-3 Level 2, ±8KV air, ±4KV contact Radiated Susceptibility BS EN/EN61000-4-3 Level 2, 3V/m EFT/Burest 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, 3V/m 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 1.All parameters are specified at normal input(E:5Vdc, 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 SCWN03, 25% to 100% rated load for DCWN03. 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)					·	101 1102)				
Radiated Susceptibility BS EN/EN61000-4-3 Level 2, 3V/m	(Note.5)					-2				
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 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 1.All parameters are specified at normal input(E:5Vdc, 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 SCWN03, 25% to 100% rated load for DCWN03. 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)			Radiated Susceptibility		,					
Conducted BS EN/EN61000-4-6 Level 2, 3V(e.m.f.) Magnetic Field BS EN/EN61000-4-8 Level 2, 3A/m 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 1.All parameters are specified at normal input(E:5Vdc, 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 SCWN03, 25% to 100% rated load for DCWN03. 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)			EFT/Burest	BS			Level 1, 0.5KV			
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 1.All parameters are specified at normal input(E:5Vdc, 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 SCWN03, 25% to 100% rated load for DCWN03. 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)			Surge	BS	EN/EN61000-4					
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 1.All parameters are specified at normal input(E:5Vdc, 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 SCWN03, 25% to 100% rated load for DCWN03. 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)			Conducted	BS	EN/EN61000-4	-6	Level 2, 3V(e.m.f.)			
OTHERS 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 1.All parameters are specified at normal input(E:5Vdc, 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 SCWN03, 25% to 100% rated load for DCWN03. 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)			Magnetic Field	BS	EN/EN61000-4	-8	Level 2, 3A/m			
CASE MATERIAL Non-Conductive black plastic (UL 94V-0 rated) PACKING 12.3g; 10pcs/per tube, 600pcs/60 tube/per carton 1.All parameters are specified at normal input(E:5Vdc, 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 SCWN03, 25% to 100% rated load for DCWN03. 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)	OTHERS	MTBF	2500Khrs MIL-HDBK-217F(25°C)							
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File Name:SCWN03,DCWN03-SPEC 2022-05	NOTE	Ripple & noise are mea Line regulation is mease Load regulation is mease The final equipment murefer to "EMI testing of a second sec	measured at 20MHz by using a 12" twisted pair terminated with a 0.1µf & 47µf capacitor. leasured from low line to high line at rated load. leasured from 10% to 100% rated load for SCWN03, 25% to 100% rated load for DCWN03. It must be re-confirm that it still meet EMC directives. For guidance on how to perform these EMC tests, please of component power supplies."(as available on http://www.meanwell.com) sclaimer: 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") $\begin{array}{c} x.xx\pm 0.25 mm (x.xxx\pm 0.010") \\ \bullet \ \ \text{Pin size is:} 0.5\pm 0.05 mm \ (0.02"\pm 0.002") \end{array}$

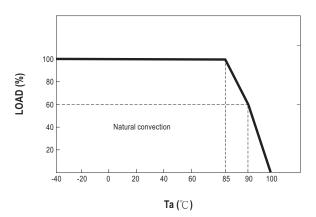




■ Plug Assignment

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.
Tube Nails Product Tube pattern Tube pattern Tube pattern CARTON L390.9 x W284.8 x H175.7	10	147g	600	10.82Kg

■ Installation Manual

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