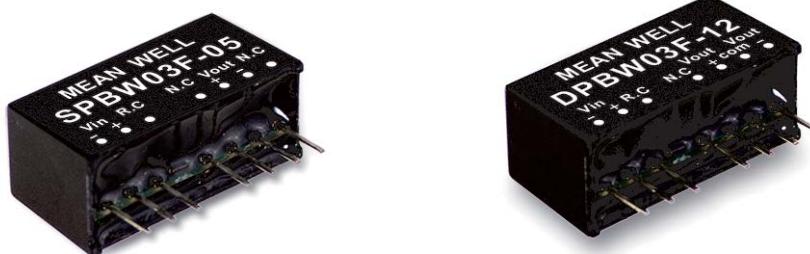




3W SIP Package DC-DC Regulated Converter

SPBW03 & DPBW03 series

EAC C E UK CA



■ Features

- SIP8 package with industry standard pinout
- 4:1 ultrawide input range
- Operating temperature range -40 ~ +85°C
- No minimum load required
- Comply to BS EN/EN55032 radiated Class B without additional components
- High efficiency up to 85%
- Protections: Short circuit (Continuous) / Overload / Input under voltage
- 1.5KVDC I/O isolation
- Remote ON/OFF control
- 3 years warranty

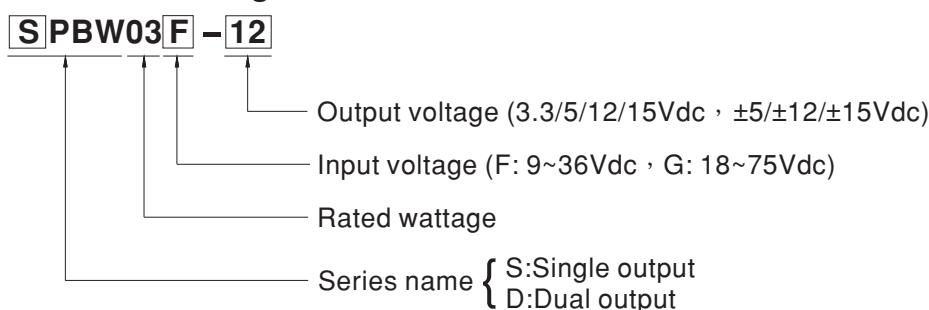
■ Applications

- Telecom/datacom system
- Wireless network
- Industrial control facility
- Instrument
- Analyzer
- Detector
- Data switch

■ Description

SPBW03 and DPBW03 series are 3W isolated and regulated module type DC-DC converter with SIP8 package. It features international standard pins, a high efficiency up to 85%, wide working temperature range -40~+85°C, 1.5KVDC I/P-O/P isolation voltage, compliance to BS EN/EN55032 radiated Class B without additional components, continuous-mode short circuit protection, etc. The models account for different input voltage 9~36V and 18~75V 4:1 wide input range, and various output voltage, 3.3V/5V/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





3W SIP Package DC-DC Regulated Converter **SPBW03 & DPBW03** 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						
SPBW03F-03	24V (9 ~ 36V)	5mA	122mA	3.3V	0 ~ 700mA	79%	180µF		
SPBW03F-05		4mA	154mA	5V	0 ~ 600mA	81%	1000µF		
SPBW03F-12		11mA	150mA	12V	0 ~ 250mA	84%	220µF		
SPBW03F-15		12mA	150mA	15V	0 ~ 200mA	84%	120µF		
DPBW03F-05		8mA	154mA	±5V	±0 ~ 300mA	81%	*100µF		
DPBW03F-12		27mA	150mA	±12V	±0 ~ 125mA	83%	*470µF		
DPBW03F-15		16mA	152mA	±15V	±0 ~ 100mA	81%	*100µF		
SPBW03G-03	48V (18 ~ 75V)	3mA	61mA	3.3V	0 ~ 700mA	79%	180µF		
SPBW03G-05		3mA	77mA	5V	0 ~ 600mA	82%	1000µF		
SPBW03G-12		6mA	74mA	12V	0 ~ 250mA	85%	220µF		
SPBW03G-15		7mA	75mA	15V	0 ~ 200mA	84%	120µF		
DPBW03G-05		5mA	76mA	±5V	±0 ~ 300mA	82%	*100µF		
DPBW03G-12		13mA	75mA	±12V	±0 ~ 125mA	83%	*470µF		
DPBW03G-15		13mA	75mA	±15V	±0 ~ 100mA	83%	*100µF		

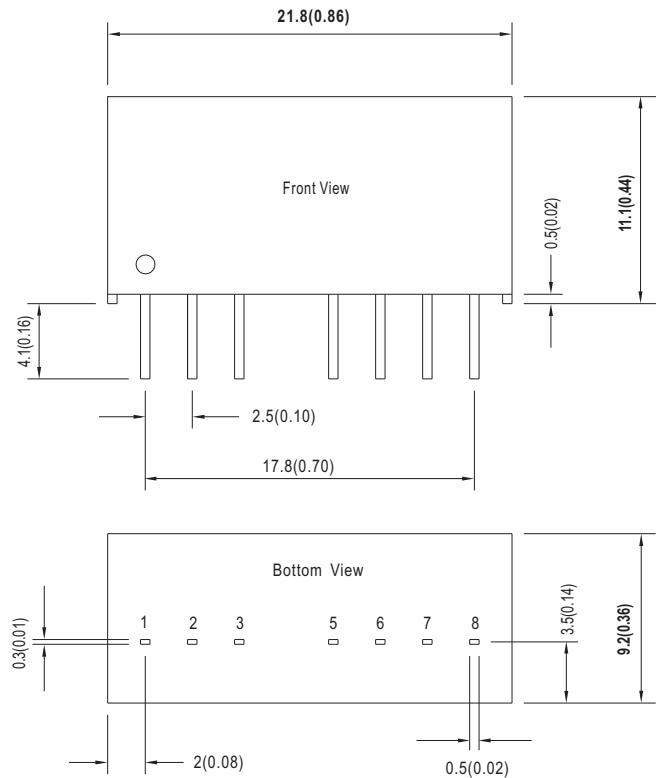
* For each output



SPECIFICATION			
INPUT	VOLTAGE RANGE	F: 9~36Vdc , G: 18~75Vdc	
	SURGE VOLTAGE (100ms max.)	24Vin models : 50Vdc, 48Vin models : 100Vdc	
	FILTER	Internal capacitor	
	PROTECTION	Fuse recommended. 24Vin models: 1A Slow-Blow, 48Vin models: 500mA Slow-Blow 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%	
	SWITCHING FREQUENCY (Min.)	100KHz	
PROTECTION	SHORT CIRCUIT	Protection type : Continuous, automatic recovery	
	OVERLOAD	Protection type : Recovers automatically after fault condition is removed	
	UNDER VOLTAGE LOCKOUT	Start-up voltage	24Vin : 7.5Vdc ; 48Vin : 15.5Vdc
		Shutdown voltage	24Vin : 6Vdc ; 48Vin : 12Vdc
FUNCTION	REMOTE CONTROL	Power ON: R.C. ~ -Vin open circuit ; Power OFF: R.C. ~ -Vin <1.2V or short	
ENVIRONMENT	COOLING	Free-air convection	
	WORKING TEMP.	-40 ~ +85°C (Refer to "Derating Curve")	
	CASE TEMPERATURE	+100°C max.	
	WORKING HUMIDITY	20% ~ 90% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-40 ~ +125°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.	
	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°C / 70% RH	
	ISOLATION CAPACITANCE (Typ.)	500pF	
	EMC EMISSION	Parameter	Standard
		Conducted	BS EN/EN55032(CISPR32)
		Radiated	BS EN/EN55032(CISPR32)
	EMC IMMUNITY	Parameter	Standard
		ESD	BS EN/EN61000-4-2
		Radiated Susceptibility	BS EN/EN61000-4-3
		EFT/Burst	BS EN/EN61000-4-4
		Surge	BS EN/EN61000-4-5
		Conducted	BS EN/EN61000-4-6
		Magnetic Field	BS EN/EN61000-4-8
			Level 2, 3A/m
OTHERS	MTBF	Single output models: 2800Khrs ; Dual output models: 2100Khrs MIL-HDBK-217F(25°C)	
	DIMENSION (L*W*H)	21.8*9.2*11.1mm (0.86*0.36*0.44 inch)	
	CASE MATERIAL	Non-Conductive black plastic (UL 94V-0 rated)	
	PACKING	4.8g	
NOTE	1. All parameters are specified at normal input(F:24Vdc, G: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. 5. 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 http://www.meanwell.com) ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx		

■ Mechanical Specification

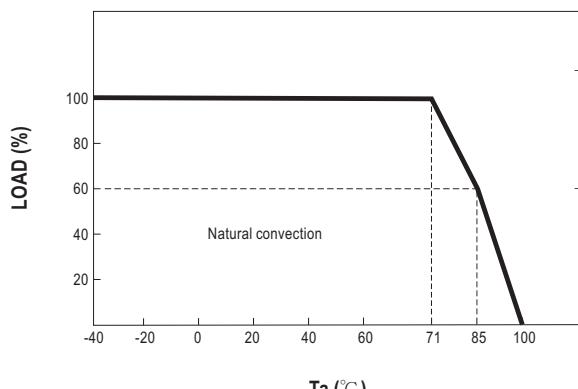
- All dimensions in mm(inch)
- Tolerance: $x.x \pm 0.5\text{mm}$ ($x.xx \pm 0.02''$)
- Pin pitch tolerance: $\pm 0.05\text{mm}$ ($\pm 0.002''$)



■ Plug Assignment

■ Derating Curve

Pin-Out		
Pin No.	SPBW03 (Single output)	DPBW03 (Dual output)
1	-Vin	-Vin
2	+Vin	+Vin
3	R.C.	R.C.
5	N.C.	N.C.
6	+Vout	+Vout
7	-Vout	Common
8	N.C.	-Vout



■ Installation Manual

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