6W 1"x1" Package 8:1 Ultra-Wide Input DC-DC Regulated Converter SI06W8 & DI06W8 series





TPTC004

Automate Industrial Security Network Telecom

Features

- DIP 1"x1" package with industry standard pinout
- 8:1 ultrawide 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 / Input under voltage
- 3KVDC I/O isolation
- Remote ON/OFF control (optional)
- 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

SI06W8 and DI06W8 series are 6W isolated and regulated module type DC-DC converter with DIP 1"x1" 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, overload, Input under voltage protection etc. The models account input voltage 9~75V 8:1 ultrawide input range, and various output voltage, 3.3V/5V/9V/12V/15V/24V 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 I06 W8 – 12 R

- R: Blank: Non-Remote control (Standard model); R: Built-in Remote control (Optional model)
- 12: Output voltage (3.3/5/9/12/15/24Vdc，±5/±12/±15Vdc)
- W8: 8:1 Ultra wide input voltage (9~75Vdc)
- I06: 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				
SI06W8-03	Normal 12V,24V,36V,48V,72V (9 ~ 75V)	5mA	268mA	3.3V	0~1500mA	80%	1800μF
SI06W8-05		5mA	309mA	5V	0~1200mA	81%	1000μF
SI06W8-09		7mA	301mA	9V	0~667mA	82.5%	680μF
SI06W8-12		7mA	300mA	12V	0~500mA	85%	470μF
SI06W8-15		8mA	294mA	15V	0~400mA	86%	220μF
SI06W8-24		8mA	294mA	24V	0~250mA	85%	220μF
DI06W8-05		7mA	309mA	±5V	±0~600mA	81%	*470μF
DI06W8-12		9mA	295mA	±12V	±0~250mA	85%	*100μF
DI06W8-15		11mA	300mA	±15V	±0~200mA	84.5%	*100μF

* For each output

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SPECIFICATION

INPUT	VOLTAGE RANGE	9 ~ 75Vdc		
	SURGE VOLTAGE (100ms max.)	100Vdc		
	FILTER	Capacitor network		
	PROTECTION	Fuse recommended. 2A Slow-Blow Type		
OUTPUT	VOLTAGE ACCURACY	±2%		
	RATED POWER	6W		
	RIPPLE & NOISE Note.2	100mVp-p		
	LINE REGULATION Note.3	±0.2% (±0.5% for 3.3Vo)		
	LOAD REGULATION Note.4	±0.5%		
	SWITCHING FREQUENCY (Typ.)	300KHz (PWM)		
PROTECTION	SHORT CIRCUIT	Protection type : Continuous, automatic recovery		
	OVERLOAD	110 ~ 230% rated output power		
		Protection type : Recovers automatically after fault condition is removed		
	OVER VOLTAGE	Protection type : Clamp by TVS diode		
	UNDER VOLTAGE LOCKOUT	Start-up voltage	8.8V	
		Shutdown voltage	8.5V	
FUNCTION	REMOTE CONTROL (OPTIONAL)	Power ON: RC ~ -Vin > 2.5Vdc ~ 6Vdc or open circuit		
		Power OFF: RC ~ -Vin <1Vdc or short		
ENVIRONMENT	COOLING	Free-air convection		
	WORKING TEMP.	-40 ~ +90℃ (Refer to "Derating Curve")		
	CASE TEMPERATURE	+105℃ max.		
	WORKING HUMIDITY	5% ~ 95% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-55 ~ +125℃, 10 ~ 95% RH non-condensing		
	TEMP. COEFFICIENT	±0.05% / ℃ (0 ~ 71℃)		
	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 004 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(CISPR32)	N/A
		Radiated	BS EN/EN55032(CISPR32)	Class A without external components Class B with external components
	EMC IMMUNITY	**Parameter**	**Standard**	**Test Level / Note**
		ESD	BS EN/EN61000-4-2	contact ±4KV
		Radiated Susceptibility	BS EN/EN61000-4-3	3V/m
		EFT/Burest	BS EN/EN61000-4-4	±0.5KV
		Surge	BS EN/EN61000-4-5	Line-Line±0.5KV
		Conducted	BS EN/EN61000-4-6	3Vrms
		Magnetic field immunity	BS EN/EN61000-4-8	1A/m
OTHERS	MTBF	>400Khrs MIL-HDBK-217F(25℃)		
	DIMENSION (L*W*H)	25.4*25.4*10.2mm (1*1*0.401 inch)		
	CASE MATERIAL	Black coated copper with non-conductive base		
	PACKING	20g; 10pcs/per tube, 600pcs/60 tube/per carton		

NOTE

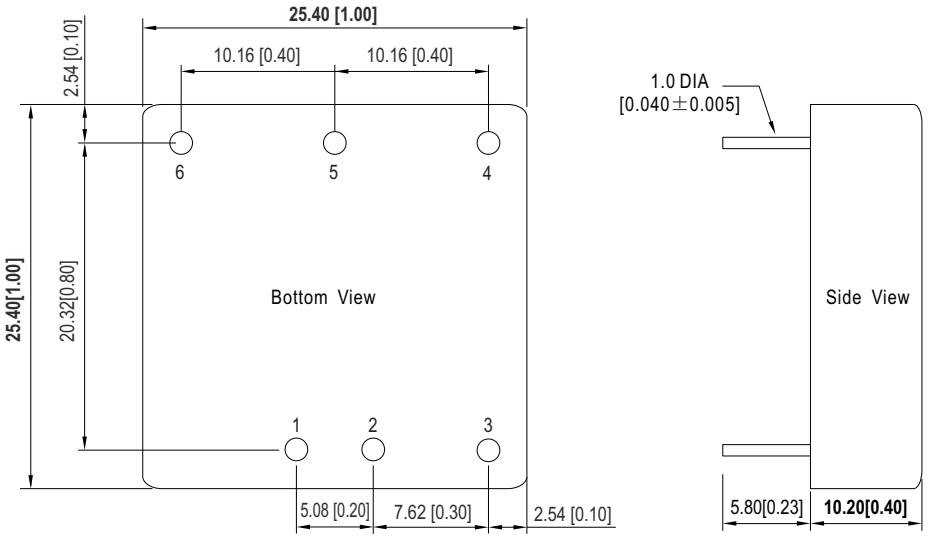
1.All parameters are specified at normal input(24Vdc), rated load, 25℃ 70% RH ambient.
2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1μf & 47μf capacitor.
3.Line regulation is measured from low line to high line at rated load.
4.Load regulation is measured from 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)

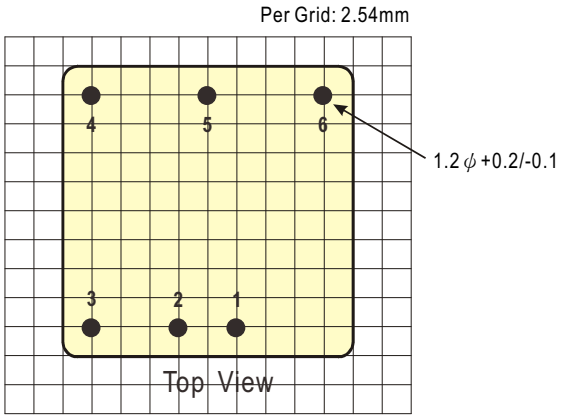
※ Product Liability Disclaimer ： For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

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■ Mechanical Specification

- All dimensions in mm(inch)
- Tolerance:x.x or x.xx ±0.5mm(0.019 inch)
- Pin size is 1±0.1mm (0.04" ±0.004")

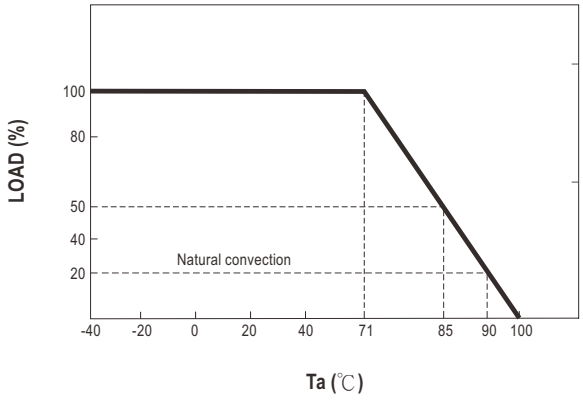




■ Plug Assignment

Pin-Out		
Pin No.	SI06W8 (Single output)	DI06W8 (Dual output)
1	+Vin	+Vin
2	-Vin	-Vin
3	N.P(Standard) ; R.C (Optional)	
4	-Vout	-Vout
5	N.P	Common
6	+Vout	+Vout

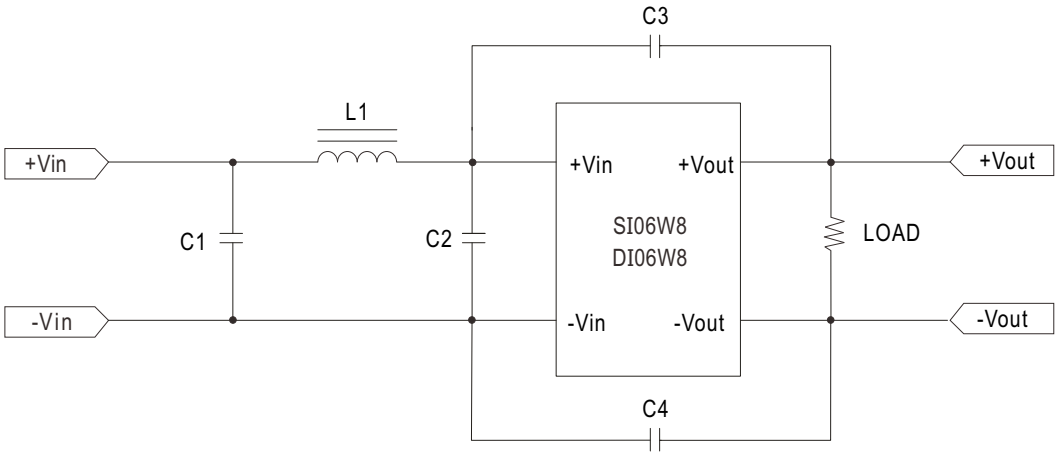
■ Derating Curve



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■ EMC Suggest Ciruit

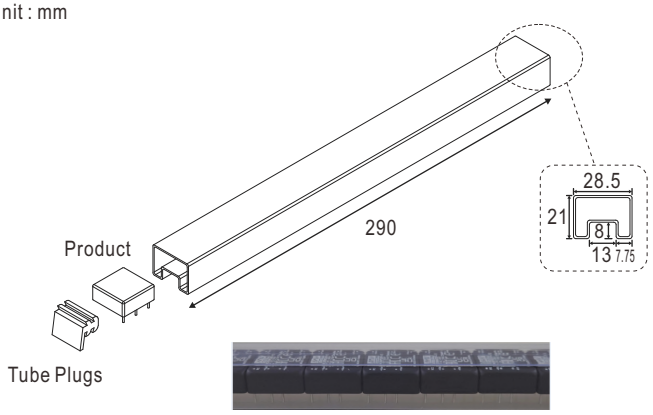
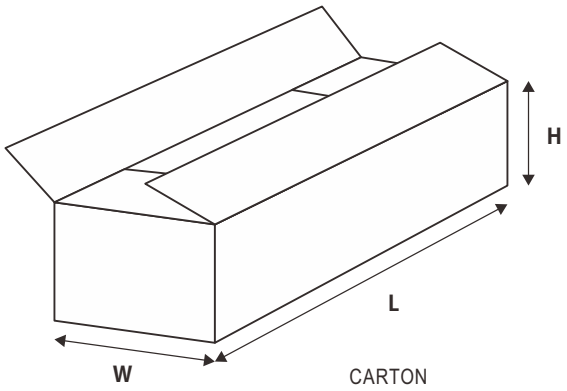
* Required external componets to meet BS EN/EN55032 radiated Class B emission as below:



Model No.	C1	C2	C3	C4	L1
SI06W8 DI06W8	2.2μF/100V	2.2μF/100V	152pF/5KV	152pF/5KV	10μH Common Choke

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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	10	243g	600	15.38Kg
 CARTON L620 x W230 x H230				

■ Installation Manual

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

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