50W DC-DC Regulated Single Output Converter — SKM50 series



Features :

- 2"x1" compact size
- 2:1 wide input range
- High efficiency up to 92%
- 1500VDC I/O isolation
- Built-in remote ON/OFF control
- Built-in trimming output
- Comply with CE / FCC without external components
- Protections: Short circuit / Overload / Input and Output Over voltage
- Cooling by free air convection
- Six-sided shield metal case
- 100% burn-in test
- Low cost / High reliability
- Approvals: FCC / EAC / CE / UKCA
- 2 years warranty

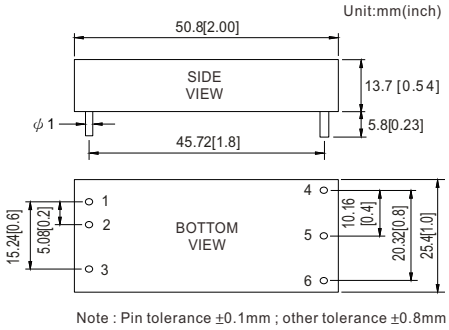
GTIN CODE

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

SPECIFICATION

ORDER NO.			SKM50B-05	SKM50C-05	SKM50B-12	SKM50C-12	SKM50B-15	SKM50C-15
OUTPUT	DC VOLTAGE		5V		12V		15V	
	CURRENT RANGE		1 ~ 10A		0.41 ~ 4.17A		0.33 ~ 3.33A	
	RATED POWER		50W					
	RIPPLE & NOISE (max.) Note.2		60mVp-p		80mVp-p		100mVp-p	
	LINE REGULATION Note.3		±0.2%					
	LOAD REGULATION Note.4		±0.5%					
	VOLTAGE ACCURACY		±2.0%					
	SWITCHING FREQUENCY		300KHz typ.					
	EXTERNAL CAPACITANCE LOAD (max.)		1000uF					
	EXTERNAL TRIM Adj. RANGE(Typ.)		±10%		-20 ~ +10%		-20 ~ +10%	
INPUT	VOLTAGE RANGE		B: 18 ~ 36VDC C: 36 ~ 75VDC					
	UNDER VOLTAGE SHUTDOWN		B: 16VDC C: 32VDC					
	EFFICIENCY (Typ.)		91%	91%	92%	91%	90%	91%
	DC CURRENT	Full load	2300mA	1160mA	2300mA	1160mA	2300mA	1160mA
		No load	110mA	60mA	110mA	60mA	110mA	60mA
	FILTER		Pi network					
	REMOTE CONTROL		Power ON : R.C ~ -Vin > 2.5V ~ 30VDC or open circuit ; Power OFF : R.C ~ -Vin < 0.5VDC or short					
	PROTECTION		Fuse recommended					
PROTECTION (Note. 5)	OVER CURRENT		110% ~ 180% rated output power					
			Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	SHORT CIRCUIT		All output equipped with short circuit					
			Protection type : Hiccup mode, recovers automatically after fault condition is removed					
	OVER VOLTAGE	Input(Typ.)	B: >40 ~ 50VDC C: >80 ~ 100VDC input voltage Protection type : Shut down o/p voltage, recovers automatically after fault condition is removed					
		Output(Typ.)	5Vo : 7V ~ 8.95V ; 12Vo : 15V ~ 19.2V ; 15Vo : 18V ~ 23.3V Protection type : Clamp by TVS diode					
ENVIRONMENT	WORKING TEMP.		-40 ~ +75℃ (Refer to "Derating Curve")					
	CASE TEMP.		+115℃ max.					
	WORKING HUMIDITY		20% ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY		-55 ~ +125℃, 10 ~ 95% RH					
	TEMP. COEFFICIENT		±0.03% / ℃ (0 ~ 55℃)					
	VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes					
SAFETY & EMC	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					
	EMC EMISSION Note.5		Compliance to BS EN/EN55032 Class A, FCC part 15 Class A without external components, EAC TP TC 020					
	EMC IMMUNITY		Compliance to BS EN/EN61000-4-2,3,4,5,6,8, light industry level, criteria A, EAC TP TC 020					
OTHERS	MTBF		700Khrs min. MIL-HDBK-217F(25℃)					
	DIMENSION		50.8*25.4*13.7 mm or 2"*1"*0.54" inch (L*W*H)					
	PACKING		43g ; 10pcs/per tube, 320pcs/32 tube/per carton					

Mechanical Specification

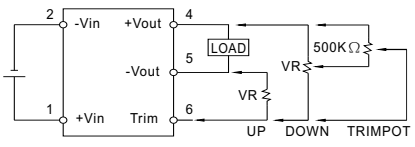


Note : Pin tolerance ±0.1mm ; other tolerance ±0.8mm

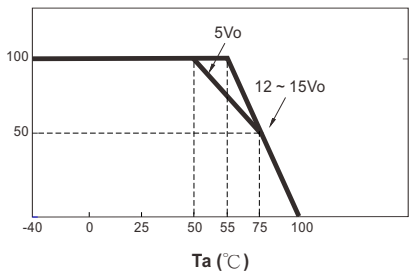
Pin Configuration

Pin No.	Output	Pin No.	Output
1	+Vin	4	+Vout
2	-Vin	5	-Vout
3	R.C	6	Trim

External Output Trimming



Derating Curve

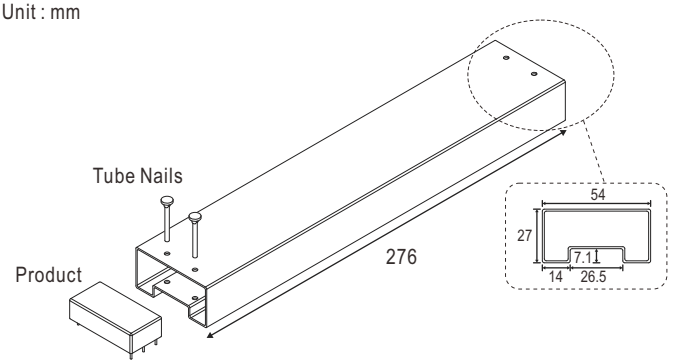
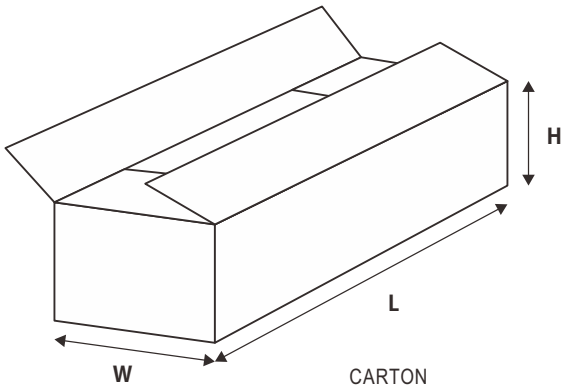


NOTE

1.All parameters are specified at normal input, rated load, 25℃ 70% RH ambient.
2.Ripple & noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf & 47uf 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.Consult MEAN WELL for deployment of Class B.
6.Please prevent the converter from operating in overload or short circuit condition for more than 30 seconds.
※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx

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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  CARTON L620 x W230 x H230	10	450g	320	15.2Kg

■ Installation Manual

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

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