ARCH ELECTRONICS CORP.

Encapsulated DC-DC Converter

SK30 SERIES 30 Watts

KEY FEATURES

- Power Module for PCB Mountable
- High Efficiency Up To 87%
- 2:1 Input Rang
- Six-sided Continuous Shield
- Standard Package
- Screw Terminal For Optional
- 3-Years Product Warranty

ELECTRICAL SPECIFICATIONS

Model No.	SK30-48-1.8S	SK30-48-2.5S	SK30-48-3.3S	SK30-48-5S	SK30-48-12S	SK30-48-15S	SK30-48-24S
Max. Output Wattage (W)	10.8W	15W	19.8W	30W	30W	30W	30W
Input Voltage (V.DC.)	48V (36-75V)	48V (36-75V)	48V (36-75V)	48V (36-75V)	48V (36-75V)	48V (36-75V)	48V (36-75V)
Output Voltage (V.DC.)	1.8V / 6000mA	2.5V / 6000mA	3.3V / 6000mA	5V / 6000mA	12V / 2500mA	15V / 2000mA	24V / 1250mA
Efficiency (%)	83%	83%	83%	87%	83%	83%	83%

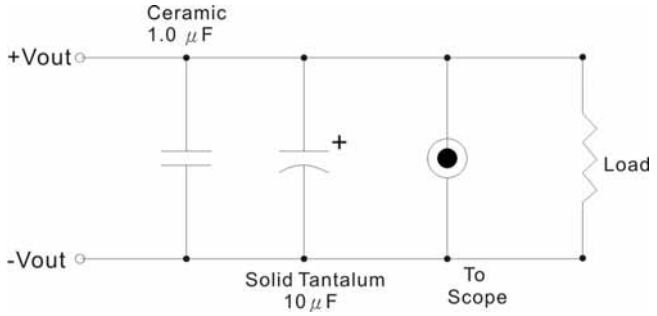
Model No. (Single Output)		SK30-48-1.8S	SK30-48-2.5S	SK30-48-3.3S	SK30-48-5S	SK30-48-12S	SK30-48-15S	SK30-48-24S
Max Output Wattage (W)		10.8W	15W	19.8W	30W	30W	30W	30W
Input	Input Filter	π type						
Output	Voltage (V.DC.)	1.8	2.5	3.3	5	12	15	24
	Voltage Accuracy	±2%						
	Current (mA) max	6000	600	6000	6000	2500	2000	1250
	Line Regulation (LL-HL) (typ.)	±0.5%						
	Load Regulation (10-100%) (typ.)	±1%						
	Ripple (Vp-p)	50 mV max.			±1% max.			
	Noise (Vp-p)	100 mV max.			±1% max.			
	Trim	±10%						
	Switching Frequency	400KHz						
Protection	Over Power Protection	Works over 120% of rating and recovers automatically.						
	Over Voltage Protection	Zener diode clamp						
	Short Circuit Protection	Hiccup mode, auto-recovery						
Isolation	Voltage	1600 VDC.						
	Resistance	10^8 ohms						
	Capacitance	1000 pF						
Environment	Operating Temperature	-25°C…+70°C (with derating)						
	Storage Temperature	-55°C…+105°C						
	Case Temperature	+100°C max.						
	Temperature Coefficient	±0.02% Per°C						
	Humidity	95% RH						
	MTBF	>550,000 h @ 25°C (MIL-HDBK-217F)						
Physical	Dimension (L x W x H)	2.0 x 1.6 x 0.47 Inches (50.8 x 40.6 x 11.9 mm) Tolerance ±0.5 mm						
	Case Material	Five-side shielded Aluminum with Non-Conductive base, Black Anodize						
	Weight	58 g						
	Cooling Method	Free-air convection						

1.All specifications valid at normal input voltage, full load and +25°C after warm-up time unless otherwise stated.

2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1UF & 47UF parallel capacitor.

OUTPUT NOISE

The output noise is measured with 10μF tantalum capacitor and 1μF ceramic capacitor across output.



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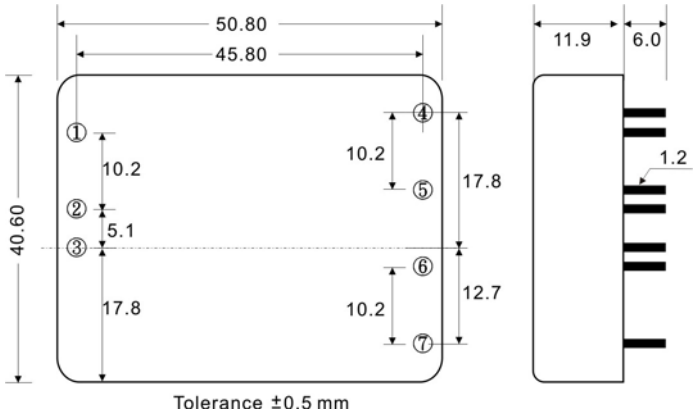
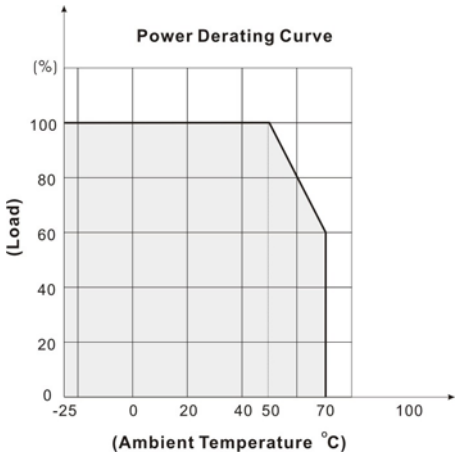
MECHANICAL DIMENSION (Top View)

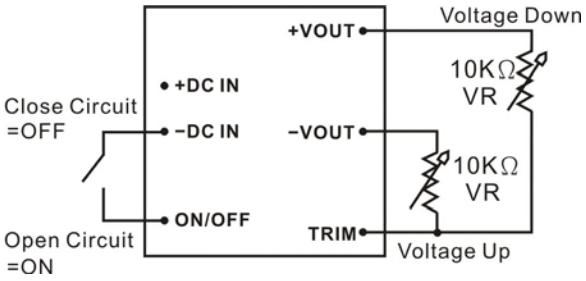


PIN#	Single
1	CTRL
2	-DC IN
3	+DC IN
4	TRIM
5	-DC OUT
6	+DC OUT
7	NO PIN

DERATING

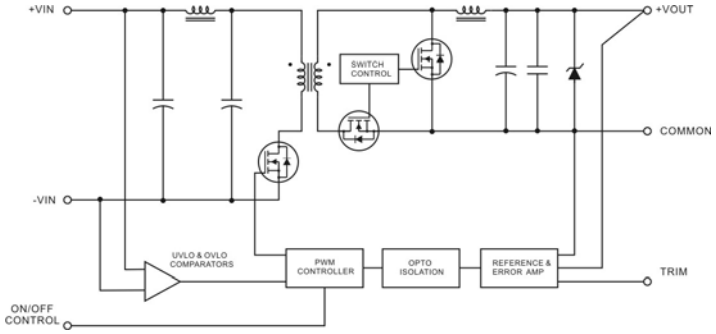


REMOTE ON/OFF CONTROL & TRIM

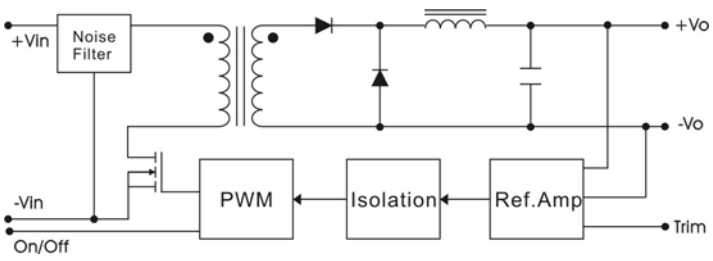


BLOCK DIAGRAM

Output Voltage (V.DC) : 1.8V, 2.5V, 3.3V, 5V



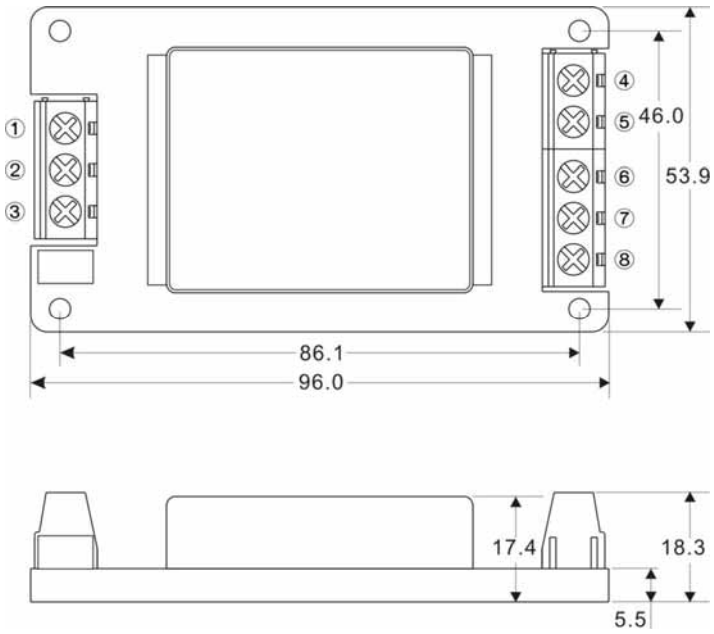
Output Voltage (V.DC) : 12V, 15V, 24V



SCREW TERMINAL

SK30-A2

PIN#	Single
1	CTRL
2	-DC IN
3	+DC IN
4.	TRIM
5	-DC OUT
6	NO CONNECT
7	+DC OUT
8	NO CONNECT



SK30-A5

PIN#	Single
1	CTRL
2	-DC IN
3	+DC IN
4.	TRIM
5	-DC OUT
6	NO CONNECT
7	+DC OUT
8	NO CONNECT