

**SF30 SERIES**
**30 Watts**
**KEY FEATURES**

- Power Module for PCB Mountable
- Six-sided Continuous Shield
- 4:1 Wide Input Range
- High Efficiency
- Standard Package
- 2 Years Product Warranty


**ELECTRICAL SPECIFICATIONS**

Model No. ( Single Output )	SF30-24-2.5S	SF30-24-3.3S	SF30-24-5S	SF30-24-12S	SF30-24-15S	SF30-24-24S
Max. Output Wattage (W)	15W	19.8W	30W	30W	30W	30W
Input Voltage (V.DC.)	24V (10-40V)	24V (10-40V)	24V (10-40V)	24V (10-40V)	24V (10-40V)	24V (10-40V)
Output Voltage (V.DC.)	2.5V / 6000mA	3.3V / 6000mA	5V / 6000mA	12V / 2500mA	15V / 2000mA	24V / 1250mA
Efficiency (%)	80%	83%	85%	83%	83%	84%
capacitor Load max	33000μF	19500μF	10200μF	820μF	420μF	180μF

Model No. ( Single Output )	SF30-48-2.5S	SF30-48-3.3S	SF30-48-5S	SF30-48-12S	SF30-48-15S	SF30-48-24S
Max. Output Wattage (W)	15W	19.8W	30W	30W	30W	30W
Input Voltage (V.DC.)	48V (18-75V)	48V (18-75V)	48V (18-75V)	48V (18-75V)	48V (18-75V)	48V (18-75V)
Output Voltage (V.DC.)	2.5V / 6000mA	3.3V / 6000mA	5V / 6000mA	12V / 2500mA	15V / 2000mA	24V / 1250mA
Efficiency (%)	81%	85%	87%	84%	84%	84%
capacitor Load max	33000μF	19500μF	10200μF	820μF	420μF	180μF

Model No. ( Dual Output )	SF30-24-5D	SF30-24-12D	SF30-24-15D	SF30-48-5D	SF30-48-12D	SF30-48-15D
Max. Output Wattage (W)	30W	30W	30W	30W	30W	30W
Input Voltage (V.DC.)	24V (10-40V)	24V (10-40V)	24V (10-40V)	48V (18-75V)	48V (18-75V)	48V (18-75V)
Output Voltage (V.DC.)	±5V / ±3000mA	±12V / ±1250mA	±15V / ±1000mA	±5V / ±3000mA	±12V / ±1250mA	±15V / ±1000mA
Efficiency (%)	81%	83%	83%	82%	84%	83%
capacitor Load max	±4800μF	±560μF	±470μF	±4800μF	±560μF	±470μF

Model No. ( Single Output )	SF30-24-2.5S	SF30-24-3.3S	SF30-24-5S	SF30-24-12S	SF30-24-15S	SF30-24-24S	
Max Output Wattage (W)	15W	19.8W	30W	30W	30W	30W	
Output	Voltage (V.DC.)	2.5	3.3	5	12	15	24
	Voltage Accuracy	±2%					
	Current (mA) max	6000	6000	6000	2500	2000	1250
	Line Regulation (LL-HL) (typ.)	±0.5%					
	Load Regulation (10-100%) (typ.)	±1%					
	Ripple	100 mV max.			±1% max.		
	Noise	100 mV max.			±1% max.		
	Trim	±10%					
Protection	Switching Frequency	250KHz					
	Over Power Protection	Works over 120% of rating and recovers automatically.					
	Over Voltage Protection	Zener diode clamp					
Isolation	Short Circuit Protection	Hiccup mode, auto-recovery					
	Voltage	1600 VDC.					
	Resistance	10 <sup>8</sup> ohms					
Environment	Capacitance	1000 pF					
	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					
Physical	MTBF	>550,000 h @ 25°C (MIL-HDBK-217F)					
	Dimension (L x W x H)	2.0 x 1.60 x 0.47 Inches ( 50.80 x 40.6 x 11.90 mm ) Tolerance ±0.5 mm					
	Case Material	Nickel-Coated Copper with Non-Conductive Base, Six-side shielded.					
	Weight	58 g					
Cooling Method	Free-air convection						

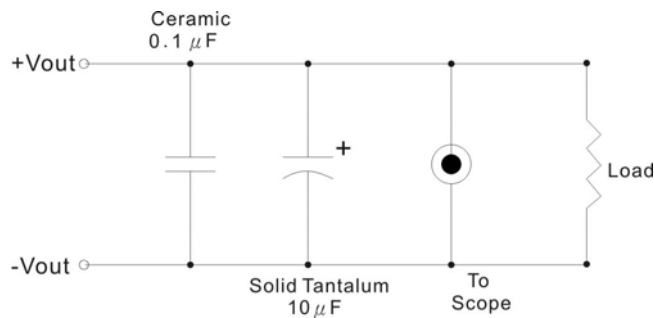
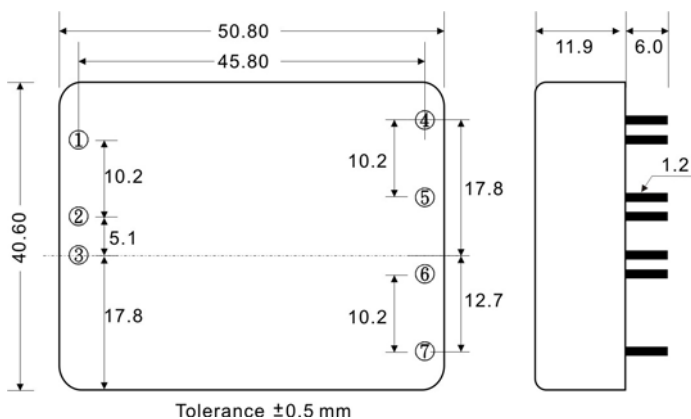
All specifications valid at nominal input voltage, full load and +25°C after warm-up time unless otherwise stated.

**SF30 SERIES**
**30 Watts**

Model No. (Dual Output)	SF30-24-5D SF30-48-5D	SF30-24-12D SF30-48-12D	SF30-24-15D SF30-48-15D
Max Output Wattage (W)	30W		
Input	Input Filter	$\pi$ type	
Output	Voltage (V.DC.)	$\pm 5$	$\pm 12$
	Voltage Accuracy	$\pm 2\%$	
	Current (mA) max	$\pm 3000$	$\pm 1250$
	Line Regulation (LL-HL) (typ.)	$\pm 0.5\%$	
	Load Regulation (10-100%) (typ.)	$\pm 1\%$	
	Ripple	$\pm 1\%$	
	Noise	$\pm 1\%$	
	Trim	$\pm 10\%$	
	Switching Frequency	250KHz	
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	$-25^{\circ}\text{C} \dots +70^{\circ}\text{C}$ (with derating)	
	Storage Temperature	$-55^{\circ}\text{C} \dots +105^{\circ}\text{C}$	
	Case Temperature	$+100^{\circ}\text{C}$ max.	
	Temperature Coefficient	$\pm 0.02\%$ Per $^{\circ}\text{C}$	
	Humidity	95% RH	
	MTBF	$>550,000$ h @ $25^{\circ}\text{C}$ (MIL-HDBK-217F)	
Physical	Dimension (L x W x H)	2.0 x 1.60 x 0.47 Inches ( 50.80 x 40.6 x 11.90 mm ) Tolerance $\pm 0.5$ mm	
	Case Material	Nickel-Coated Copper with Non-Conductive Base, Six-side shielded.	
	Weight	58 g	
	Cooling Method	Free-air convection	

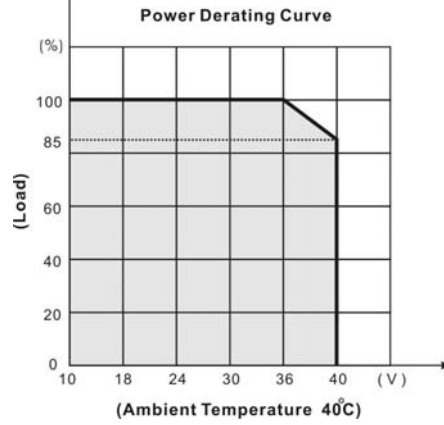
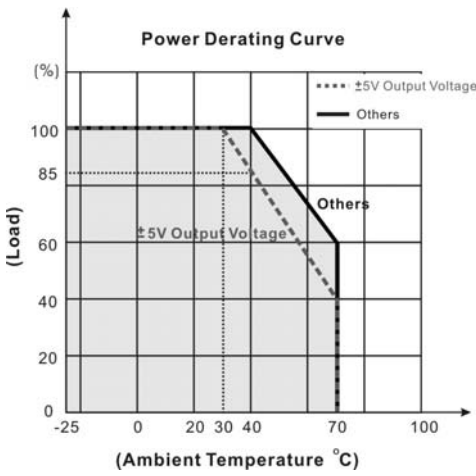
 All specifications valid at nominal input voltage, full load and  $+25^{\circ}\text{C}$  after warm-up time unless otherwise stated.

**OUTPUT NOISE**

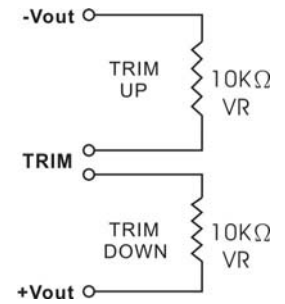
 The output noise is measured with  $10\mu\text{F}$  tantalum capacitor and  $0.1\mu\text{F}$  ceramic capacitor across output.

**MECHANICAL DIMENSION ( Top View )**


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

**DERATING**



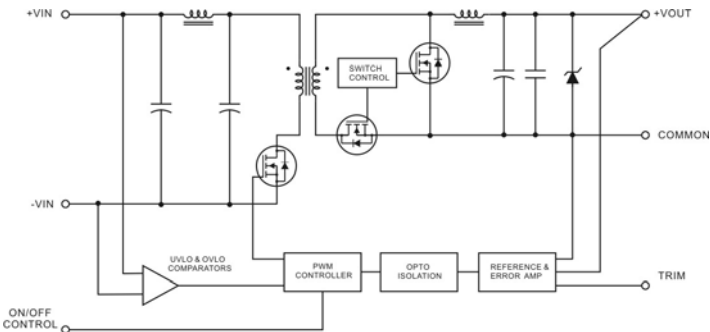
**REMOTE ON/OFF CONTROL**



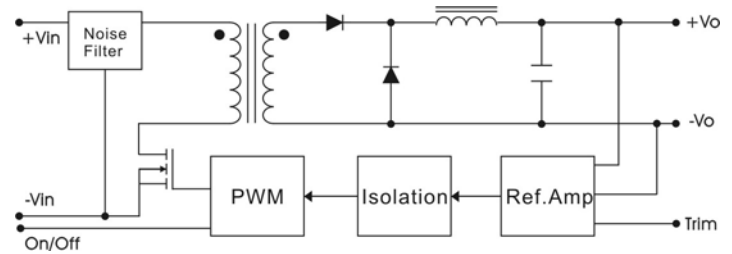
**BLOCK DIAGRAM**

**Single Output**

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



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



**Dual Output**

