SW20 SERIES 20 Watts

KEY FEATURES

- The Smallest Dimension in the Market
- Smaller Dimension with High Efficiency
- 2:1 Input Range
- Regulated Output
- Low Ripple and Noise
- Screw Terminal For Optional
- Remote ON/OFF Control (Optional)
- Operating Temperature: -40°C…+85°C (with derating)
- Small Size :1.0 x 1.0 x 0.433 Inches
- 3-Year Product Warranty



ELECTRICAL SPECIFICATIONS

Model No.	SW20-12-3.3S	SW20-12-5S	SW20-12-12S	SW20-12-15S
Input Voltage (V.DC.)	12V (9-18V)	12V (9-18V)	12V (9-18V)	12V (9-18V)
Output Voltage (V.DC.)	3.3V / 4500mA	5V / 4000mA	12V / 1660mA	15V / 1330mA
Efficiency	85%	89%	88%	87%
Capacitor Load (max)	2000μF	2000μF	470μF	330μF

Model No.	SW20-24-3.3S	SW20-24-5S	SW20-24-12S	SW20-24-15S
Input Voltage (V.DC.)	24V (18-36V)	24V (18-36V)	24V (18-36V)	24V (18-36V)
Output Voltage (V.DC.)	3.3V / 4500mA	5V / 4000mA	12V / 1660mA	15V / 1330mA
Efficiency	86%	89%	89%	88%
Capacitor Load (max)	2000μF	2000μF	470μF	330μF

Model No.	SW20-48-3.3S	SW20-48-5S	SW20-48-12S	SW20-48-15S
Input Voltage (V.DC.)	48V (36-75V)	48V (36-75V)	48V (36-75V)	48V (36-75V)
Output Voltage (V.DC.)	3.3V / 4500mA	5V / 4000mA	12V / 1660mA	15V / 1330mA
Efficiency	84%	88%	89%	88%
Capacitor Load (max)	2000μF	2000μF	470μF	330μF

Model No. (Single Output)		SW20-12-3.3S SW20-24-3.3S SW20-48-3.3S	SW20-12-5S SW20-24-5S SW20-48-5S	SW20-12-12S SW20-24-12S SW20-48-12S	SW20-12-15S SW20-24-15S SW20-48-15S
Max Output Wattage (W)		14.85W	20W	20W	20W
Input	Input Filter	L-C type			
Output	Voltage (V.DC.)	3.3	5	12	15
	Voltage Accuracy	±2%			
	Current (mA) max	4500	4000	1660	1330
	Line Regulation (LL-HL) (typ.)	±0.5%			
	Load Regulation (10-100%) (typ.)	±1%			
	Ripple	75 mV max.		100mV max.	
	Noise	100 mV max.		125mV max.	
	Switching Frequency	450KHz		300KHz	
Protection	Over Power Protection	Works over 120% of rating and recovers automatically.			
	Over Voltage Protection	Zener diode clamp			
	Short Circuit Protection	Current limit, auto-recovery			
Isolation	Voltage	1600 VDC.			
	Resistance	10^8 ohms			
	Capacitance	1000 pF			
Environment	Operating Temperature	-40°C…+85C (with derating)			
	Storage Temperature	-55°C…+105°C			
	Case Temperature	+105°C max.			
	Temperature Coefficient	±0.02% Per°C			
	Humidity	95% RH			
	MTBF	>800,000 h @ 25°C (MIL-HDBK-217F)			
Physical	Dimension (L x W x H)	1.0 x 1.0 x 0.433 Inches (25.4 x 25.4 x 11.0 mm) Tolerance ±0.5 mm			
	Case Material	six-side shielded Aluminum with Non-Conductive base, Black Anodize			
	Weight	15g			
	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.

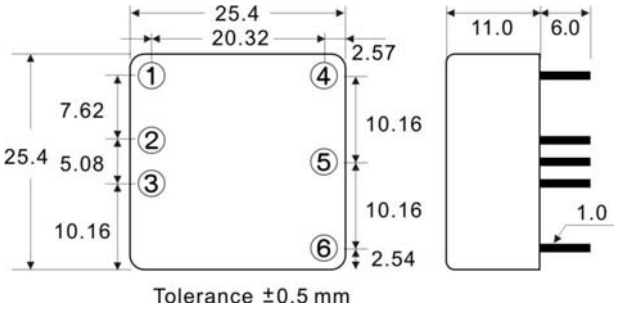
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Model No. (Single Output)		SW15-12-3.3S SW15-24-3.3S SW15-48-3.3S	SW15-12-5S SW15-24-5S SW15-48-5S	SW15-12-12S SW15-24-12S SW15-48-12S	SW15-12-15S SW15-24-15S SW15-48-15S
Remote ON/OFF	DC-DC ON	Open or +5 VDC ~ +15 VDC			
	DC-DC OFF	When -DC IN and ON/OFF CTL is Short (or 0 VDC ~ +0.5VDC)			
	Input Current of Remote Control Pin	1mA			
	Remote off State Input Current	4mA			

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

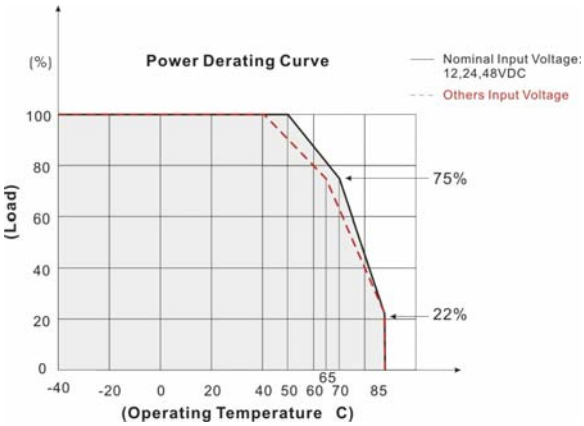
2.Ripple & Noise are measured at 20MHz of bandwidth with 0.1UF & 47UF parallel capacitor.

MECHANICAL DIMENSION (Top View)

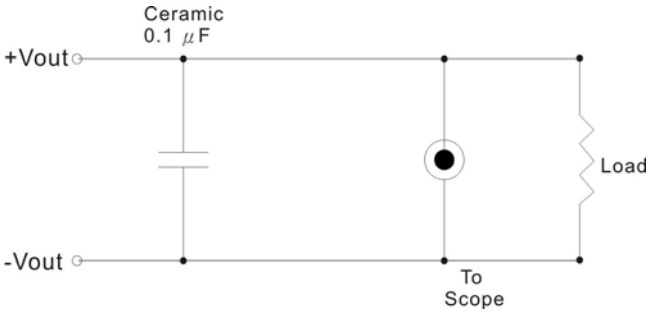


PIN#	Single
1	ON / OFF CTL
2	-DC IN
3	+DC IN
4	-DC OUT
5	NO PIN
6	+DC OUT

DERATING



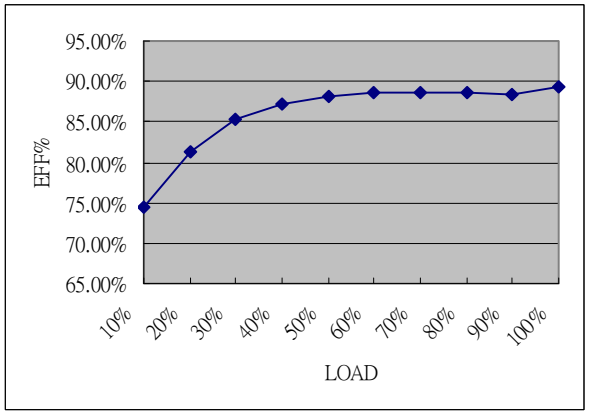
OUTPUT NOISE



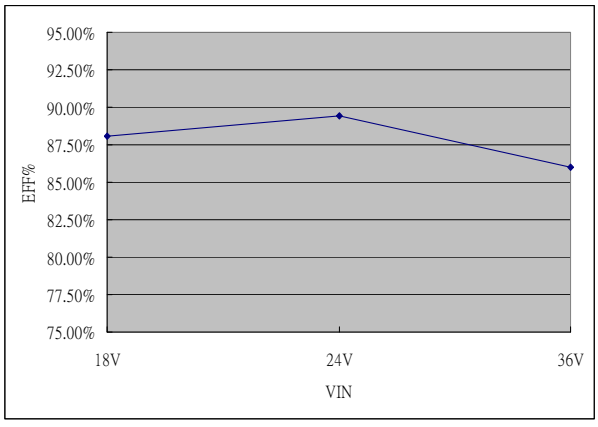
The output noise is measured with 0.1μF tantalum capacitor.

SW20-24-5S Efficiency

Load=100%(4A)



VIN=24 VDC



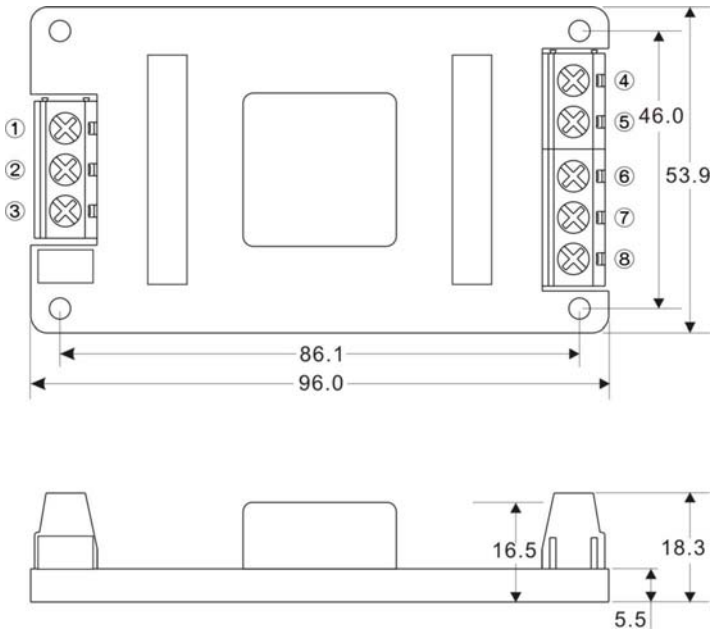
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SCREW TERMINAL

SW20-A2



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



SW20-A5



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

