

**SPECIFICATION** 



### ■ Features :

- Wide 2:1 DC input range
- In/out capacitance1000pF
- Protections: Short circuit / Overload / Over voltage
- 1000VDC I/O isolation for D/D
- Cooling by free air convection
- Built-in remote ON-OFF control
- 100% full load burn-in test
- Fixed switching frequency at 225KHz
- Low cost
- High reliability
- 2 years warranty

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	SDM30-12S3	SDM30-24S3	SDM30-48S3	SDM30-12S5	SDM30-24S5	SDM30-48S5		
DC VOLTAGE		1	1		1	1.2		
				1 1				
	***			***				
-								
				±2.0% max.				
LINE REGULATION	±1.0%			±1.0%				
LOAD REGULATION	±1.0%			±1.0%				
TRIM OUTPUT	1.0							
RATED DC INPUT								
VOLTAGE RANGE	120.1212							
EFFICIENCY (Typ.)	77%	79%	80%	77%	79%	80%		
DC CURRENT	12S:3.6A 24S:2	2A 48S:1A	'		'	<b>'</b>		
IDLE CURRENT	12S:35mA 24S	/48S:30mA						
OVERLOAD	Protection type: Over power limiting, recovers automatically after fault condition is removed							
	3.8 ~ 4.95V 5.75 ~ 7.5V							
OVER VOLIAGE	Protection type : Shut off o/p voltage, clamping by zener diode							
SHORT CIRCUIT	Protection type: Constant current limiting, recovers automatically after fault condition is removed							
ON/OFF CONTROL	Logic "1" or open: power on Logic "0" short to Vin-: power off							
WORKING TEMP.	-25 ~ +85°C (Refer to "Derating Curve")							
STORAGE TEMP., HUMIDITY	-25 ~ +85°C, 0 ~ 95% RH							
TEMP. COEFFICIENT	±0.03%/°C (0~50°C)							
SAFETY STANDARDS	Design refer to LVD							
ISOLATION VOLTAGE	I/P-O/P:1KVDC							
ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH							
EMC EMISSION	Compliance to EN55022 (CISPR22) Class B							
EMC IMMUNITY	Compliance to EN61000-2,3,4,6,8, EN55024, light industry level, criteria A							
MTBF	322.4K hrs min. MIL-HDBK-217F (25°C)							
DIMENSION	50.8*50.8*16mm (2"*2"*0.63") (L*W*H)							
PACKING	, , , , , , , , , , , , , , , , , , ,	<u> </u>						
Ripple & noise are measure     Tolerance : includes set up     Short circuit not more than     DC source wires ≧5cm, an     The power supply is consid	le & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  cance: includes set up tolerance, line regulation and load regulation.  t circuit not more than 60 second.  cource wires ≧5cm, an input external al capacitor 47 ~ 100uF is required.  power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on							
	VOLTAGE TOLERANCE Note.3  LINE REGULATION  LOAD REGULATION  TRIM OUTPUT  RATED DC INPUT  VOLTAGE RANGE  EFFICIENCY (Typ.)  DC CURRENT  IDLE CURRENT  OVERLOAD  OVER VOLTAGE  SHORT CIRCUIT  ON/OFF CONTROL  WORKING TEMP.  STORAGE TEMP., HUMIDITY  TEMP. COEFFICIENT  SAFETY STANDARDS  ISOLATION VOLTAGE  ISOLATION VOLTAGE  ISOLATION RESISTANCE  EMC EMISSION  EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters NOT specia 2. Ripple & noise are measure 3. Tolerance: includes set up 4. Short circuit not more than 5. DC source wires ≧5cm, an 6. The power supply is consided	RATED CURRENT	RATED CURRENT  CURRENT RANGE  0 ~ 5A  RATED POWER  16.5W  RIPPLE & NOISE (max.) Note.2 75mVp-p  VOLTAGE TOLERANCE Note.3 ±3.0%  LINE REGULATION  ±1.0%  LOAD REGULATION  ±1.0%  TRIM OUTPUT  RATED DC INPUT  12S: 12VDC  24S: 24VDC  48S  VOLTAGE RANGE  12S: 9.2 ~ 18VDC  24S: 18~ 36VDC  EFFICIENCY (Typ.)  77%  79%  DC CURRENT  12S:3.5AA  24S:2A  48S:1A  IDLE CURRENT  12S:35mA  24S/48S:30mA  Above 105% rated output power  Protection type: Over power limiting, rec  3.8 ~ 4.95V  Protection type: Constant current limiting  ON/OFF CONTROL  WORKING TEMP.  25 ~ +85°C (Refer to "Derating Curve"  STORAGE TEMP., HUMIDITY  -25 ~ +85°C (Nefer to "Derating Curve"  SAFETY STANDARDS  Design refer to LVD  ISOLATION VOLTAGE  I/P-O/P:1KVDC  ISOLATION VOLTAGE  I/P-O/P:1KVDC  ISOLATION RESISTANCE  I/P-O/P:100M Ohms / 500VDC / 25°C / 7  EMC EMISSION  Compliance to EN55022 (CISPR22) CIa  EMC IMMUNITY  Compliance to EN61000-2, 3, 4, 6, 8, EN6  MTBF  322.4K hrs min. MIL-HDBK-217F (25°  DIMENSION  50.8*50.8*16mm (2"*2"*0.63") (L*W*H)  PACKING  1. All parameters NOT specially mentioned are measured at 12, 24, 48'  2. Ripple & noise are measured at 20MHz of bandwidth by using a 12  3. Tolerance: includes set up tolerance, line regulation and load regula  4. Short circuit not more than 60 second.  5. DC source wires ≧5cm, an input external al capacitor 47 ~ 100UF is  6. The power supply is considered a component which will be installed  6. The power supply is considered a component which will be installed	RATED CURRENT  5A  CURRENT RANGE  0 ~ 5A  RATED POWER  16.5W  RIPPLE & NOISE (max.) Note.2  75mVp-p  VOLTAGE TOLERANCE Note.3 ±3.0%  LINE REGULATION  ±1.0%  LOAD REGULATION  ±1.0%  TRIM OUTPUT  ±13%(Typ.) output voltage  RATED DC INPUT  12S: 12VDC  24S: 24VDC  48S: 48VDC  VOLTAGE RANGE  12S: 9.2 ~ 18VDC  24S: 18~ 36VDC  48S: 36~ 72VD  EFFICIENCY (Typ.)  77%  79%  80%  DC CURRENT  12S: 3.6A  24S: 2A  48S:1A  IDLE CURRENT  12S: 3.5mA  24S/48S:30mA  Above 105% rated output power  Protection type: Over power limiting, recovers automatically at the composition of the composition o	DC VOLTAGE   3.3V   5V	DC VOLTAGE   3.3V   5V		



#### ■ Features :

- Wide 2:1 DC input range
- In/out capacitance1000pF
- Protections: Short circuit / Overload/ Over voltage
- 1000VDC I/O isolation for D/D
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- 100% full load burn-in test
- Fixed switching frequency at 225KHz
- Low cost
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- 2 years warranty

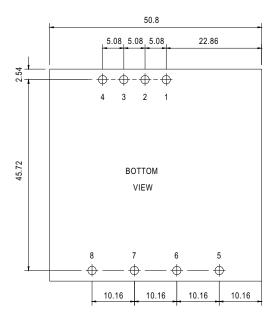
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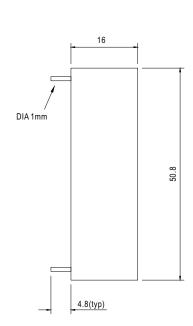
PECIFIC	ATION			2 yours warrar	•		(		
MODEL	-	SDM30-12S12	SDM30-24S12	SDM30-48S12	SDM30-12S15	SDM30-24S15	SDM30-48S15		
	DC VOLTAGE	12V			15V				
	RATED CURRENT	2.1A	2.5A		1.7A	2A			
	CURRENT RANGE	0 ~ 2.1A	0 ~ 2.5A		0 ~ 1.7A	0 ~ 2A			
	RATED POWER	25.2W	30W		25.5W	30W			
DUTPUT	RIPPLE & NOISE (max.) Note.2	100mVp-p			100mVp-p				
	VOLTAGE TOLERANCE Note.3	±2.0% max.			±2.0% max.				
	LINE REGULATION	±1.0%			±1.0%				
	LOAD REGULATION	±1.0%			±1.0%				
	TRIM OUTPUT	±13%(Typ.) output voltage							
	RATED DC INPUT	12S: 12VDC 24S: 24VDC 48S: 48VDC							
	VOLTAGE RANGE	12S: 9.2 ~ 18VDC	24S: 18~ 36VDC	48S: 36~ 72VD	С				
NPUT	EFFICIENCY (Typ.)	80%	82%	84%	80%	83%	85%		
	DC CURRENT	12S:3.6A 24S:2	2A 48S:1A	-		-			
	IDLE CURRENT	12S:35mA 24S/48S:30mA							
		Above 105% rated output power							
	OVERLOAD	Protection type: Over power limiting, recovers automatically after fault condition is removed							
PROTECTION	OVER VOLTAGE	13.8 ~ 18V 17.25 ~ 22.5V							
		Protection type : Shut off o/p voltage, clamping by zener diode							
	SHORT CIRCUIT	Protection type: Constant current limiting, recovers automatically after fault condition is removed							
FUNCTION	ON/OFF CONTROL	Logic "1" or open: power on Logic "0" short to Vin-: power off							
	WORKING TEMP.	-25 ~ +85°C (Refer to "Derating Curve")							
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-25~+85°C, 0~95% RH							
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)							
	SAFETY STANDARDS	Design refer to LVD							
SAFETY &	ISOLATION VOLTAGE	I/P-O/P:1KVDC							
EMC	ISOLATION RESISTANCE								
(Note 6)	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B							
	EMC IMMUNITY	Compliance to EN61000-2,3,4,6,8, EN55024, light industry level, criteria A							
	MTBF	322.4K hrs min. MIL-HDBK-217F (25°C)							
OTHERS	DIMENSION	50.8*50.8*16mm (2"*2"*0.63") (L*W*H)							
	PACKING	0.1Kg; 150pcs/15.8Kg/0.97CUFT							
NOTE	1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25°C of ambient temperature.  2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  3. Tolerance : includes set up tolerance, line regulation and load regulation.  4. Short circuit not more than 60 second.  5. DC source wires ≧5cm, an input external al capacitor 47 ~ 100uF is required.  6. The power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit of a 230mm*230mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)								

Case No. SDM-30 Unit:mm

# MEAN WELL

#### ■ Mechanical Specification

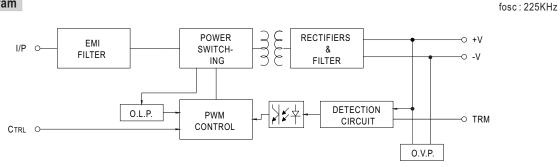




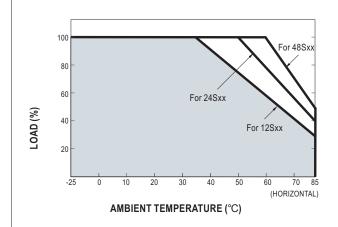
Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment	
1	+Vin	6	+Vout	
2	-Vin	7	-Vout	
3,5	No pin	8	Trim	
4	Control ON/OFF			

#### ■ Block Diagram

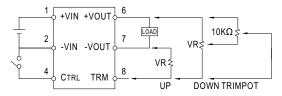


#### ■ Derating Curve



#### **■** External Output Trimming

OUTPUT MAY OPTIONALLY BE EXTERNALLY TRIMMED(±13%) A FIXED RESISTER OR AN EXTERNAL TRIMPOTAS SHOWN



#### ■ ON/OFF Control Pin

CONTROL INPUT......PIN4
CONTROL COMMON.....PIN2
LOGIC COMPATIBILITY.....CMOS OR OPEN COLLECTOR TTL
CONTROL VOLTAGE

ON.....+5.5VDC min OR OPEN CIRCUIT OFF.....+2.5VDC max. OR SHORT TO PIN2

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