



15W DC-DC Regulated Single Output

NSD15-S series



■ Features :

- Wide 4:1 DC input range
- Protections: Short circuit / Overload / Over voltage
- 1500VDC I/O isolation
- Built-in EMI filter
- Cooling by free air convection
- Output voltage trimming function
- Built-in remote ON-OFF control
- 100% full load burn-in test
- Low cost
- High reliability
- 2 years warranty

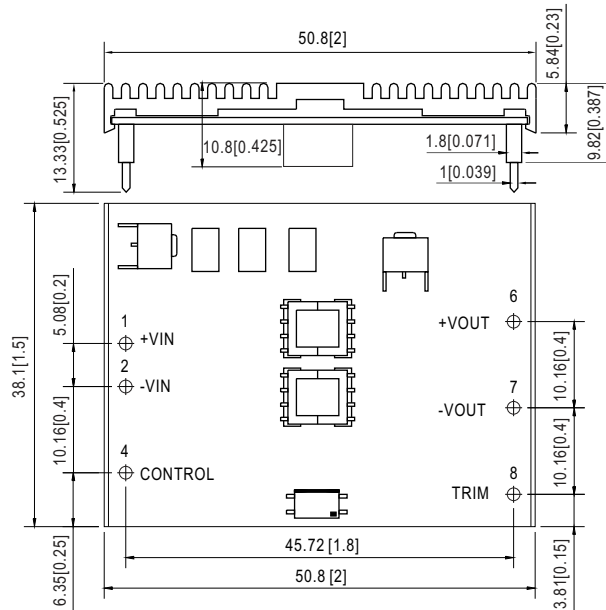


SPECIFICATION

MODEL	NSD15-12S3		NSD15-12S5		NSD15-12S12		NSD15-12S15		NSD15-48S3		NSD15-48S5		NSD15-48S12		NSD15-48S15		
OUTPUT	DC VOLTAGE	3.3V		5V		12V		15V		3.3V		5V		12V		15V	
	RATED CURRENT	3.75A		3A		1.25A		1A		3.75A		3A		1.25A		1A	
	CURRENT RANGE	0.18 ~ 3.75A		0.15 ~ 3A		0.06 ~ 1.25A		0.05 ~ 1A		0.18 ~ 3.75A		0.15 ~ 3A		0.06 ~ 1.25A		0.05 ~ 1A	
	RATED POWER	12.375W		15W		15W		15W		12.375W		15W		15W		15W	
	CAPACITIVE LOAD (max.)	3300uF															
	RIPPLE & NOISE (max.)	Note.2 100mVp-p(25% ~ 100% load) for 3.3V only 75mVp-p(25% ~ 100% load)															
	VOLTAGE TOLERANCE	Note.3 ± 2.0%															
	LINE REGULATION	± 1.0% at 10% ~ 100% load															
	LOAD REGULATION	± 1.0% at 10% ~ 100% load															
	TRIM OUTPUT (Typ.)	+10%		± 5.0%		± 5.0%		± 3.0%		+10%		± 5.0%		± 5.0%		± 3.0%	
SETUP TIME	100ms/RATED DC INPUT at full Load																
INPUT	RATED DC INPUT	12VDC								48VDC							
	VOLTAGE RANGE	9.4 ~ 36VDC								18 ~ 72VDC							
	EFFICIENCY (Typ.)	73%		77%		81%		81%		77%		81%		84%		85%	
	DC CURRENT	1.8A/12VDC								0.4A/48VDC							
	SHUTDOWN IDLE CURRENT	20mA															
PROTECTION	OVERLOAD	Above 105% rated output power Protection type : Over power limiting, recovers automatically after fault condition is removed															
	OVER VOLTAGE(CLAMP)	5.8 ~ 6.93V		5.8 ~ 7.5V		13.8 ~ 18V		17.25 ~ 22.5V		5.61 ~ 6.93V		5.5 ~ 7.5V		13.8 ~ 18V		17.25 ~ 22.5V	
	SHORT CIRCUIT	Note.4 Recovers automatically after fault condition is removed															
FUNCTION	ON/OFF CONTROL	Logic "1" or open circuit : ON Logic "0" or short to PIN2 : OFF															
ENVIRONMENT	WORKING TEMP.	-25 ~ +70℃															
	WORKING HUMIDITY	0% ~ 95% RH max.															
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 0 ~ 95% RH															
	TEMP. COEFFICIENT	± 0.03%/℃ (0~50℃)															
SAFETY & EMC (Note 5)	SAFETY STANDARDS	UL62368-1, EAC TP TC 004 approved, Design refer to TUV EN62368-1															
	ISOLATION VOLTAGE	I/P-O/P:1.5KVDC															
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25℃/ 70% RH															
	EMC EMISSION	Compliance to EN55032 (CISPR32) Class B, EAC TP TC 020															
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,6,8; EN55024, light industry level, criteria A, EAC TP TC 020															
OTHERS	MTBF	1734K hrs min. MIL-HDBK-217F (25℃)															
	DIMENSION	50.8*38.1*9.82mm (2"*1.5"*0.387") (L*W*H)															
	PACKING	0.03Kg; 180pcs/6.4Kg/0.94CUFT															
NOTE	1. All parameters NOT specially mentioned are measured at 12, 48VDC input, rated load and 25℃ 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 no more than 60 seconds. 5. 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 on 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 to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com) 6. Derating to 80% load is needed for NSD15-48S series at 18Vdc input voltage. Full output wattage can be acquired when the input voltage is higher than 20Vdc. 7. EMC filter suggestion: 8. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx																

Mechanical Specification

Unit:mm[inch]

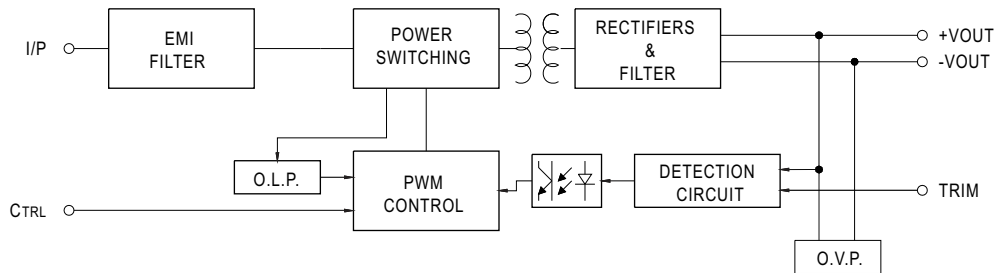


Pin No. Assignment

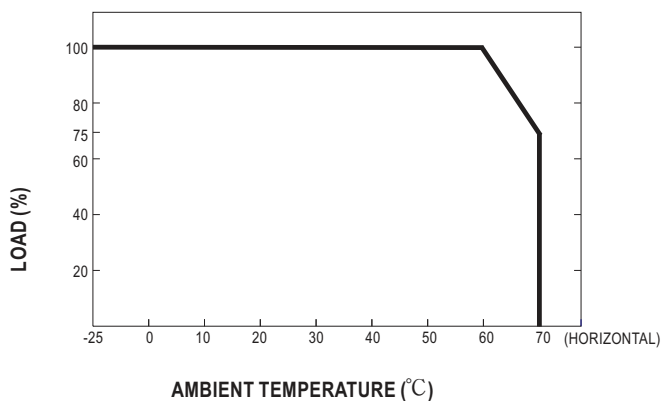
Pin No.	Assignment	Pin No.	Assignment
1	+VIN	6	+VOUT
2	-VIN	7	-VOUT
3,5	No Pin	8	TRIM
4	CONTROL		

Block Diagram

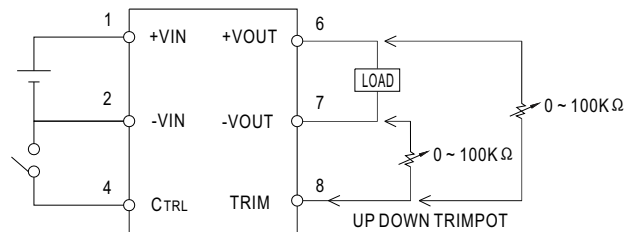
fosc : 400KHz



Derating Curve



ON/OFF Control & Output Trim



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