



**500 Watt
AC/DC Enclosed Power Supply
Single Output
Series DVM500S-C**



Features

- Input Voltage 80 – 264VAC or 110 – 370VDC
- Active PFC
- Low Stand-By Power Consumption
- Isolation I/O 4000VAC
- Operating Temperature Range -30°C to +70°C
- Over Voltage Class III (Meet 61558)
- Meet Safety IEC/UL/EN62368-1, EN60335-1, GB4943.1, IEC/EN60601-1
- Over Current / Over Voltage Protection
- Over Temperature Protection
- Output Short Circuit Constant Current
- Remote ON/OFF
- Efficiency to 93%
- Safety Class I

MODEL NUMBER (Note 1 + 2)	OUTPUT VOLTAGE / OUTPUT CURRENT MAX. (Vo / Io)	OUTPUT VOLTAGE ADJUSTABLE RANGE [V]	EFF. TYP. [%]	OUTPUT POWER [W]	CAP. LOAD MAX. [µF]
DVM500S12-C	12V/41,7A	11,4-12,6	92	500	12000
DVM500S15-C	15V/33,4A	14,25-15,75	92	501	12000
DVM500S24-C	24V/20,9A	22,8-25,2	93	501	6000
DVM500S27-C	27V/18,6A	25,65-28,35	93	502	6000
DVM500S36-C	36V/13,9A	34,2-37,8	93	500	3000
DVM500S48-C	48V/10,4A	45,6-50,4	93	499	1800
DVM500S54-C	54V/9,3A	51,3-56,7	93	502	1800

Note:

1. Under any conditions, the total power of the product should not exceed rated power, and the output current should not exceed the rated output current.
2. Suffix "-R" with Remote ON/OFF Function

INPUT SPECIFICATIONS:

Input Voltage Range.....	80 to 264VAC / 110 to 370VDC
AC Input Frequency	47 to 63Hz
Input Current	115VAC 6A / 230VAC 3A max.
Inrush Current	Cold start 230VAC 40A typ.
Power Factor.....	Full Load, 115VAC 0,98 typ.
	Full Load, 230VAC 0,95 typ.
Leakage Current.....	Full Load, 240VAC <0,1mA

OUTPUT SPECIFICATIONS:

Voltage Accuracy	Full Load Range	±1,0% typ.
Line Regulation	Rated Load	±0,3% typ.
Load Regulation	0%-100% Load	±1,0% typ.
	Vo 12V/15V/24V/48V	±0,5% typ.
Ripple & Noise (Note 1).....	20MHz bandwidth (peak-to-peak value), 25°C	120mVp-p max.
Temperature Coefficient.....		±0,03%/°C typ.
Minimum Load.....		0%
Short Circuit Protection.....	Recovery time <3s after short circuit disappear.	Constant Current Protection, Continuous, Self-recovery
Over Current Protection.....	Room Temperature, High Temperature ..	110%-160% Io, constant current protection, Self-recovery
	Low Temperature	>105% Io, constant current protection, Self-recovery
Over Voltage Protection	Vo 12V	≤ 16V (Output Voltage turn-off, re-power on for recovery)
	Vo 15V	≤ 21,8V (Output Voltage turn-off, re-power on for recovery)
	Vo 24V	≤ 32,4V (Output Voltage turn-off, re-power on for recovery)
	Vo 27V	≤ 35V (Output Voltage turn-off, re-power on for recovery)
	Vo 36V	≤ 45V (Output Voltage turn-off, re-power on for recovery)
	Vo 48V	≤ 60V (Output Voltage turn-off, re-power on for recovery)
	Vo 54V	≤ 63V (Output Voltage turn-off, re-power on for recovery)
Over Temperature Protection		Output voltage turn off, self-recovery after the temperature drops
Hold-up Time.....	230VAC	18ms typ.

GENERAL SPECIFICATIONS:

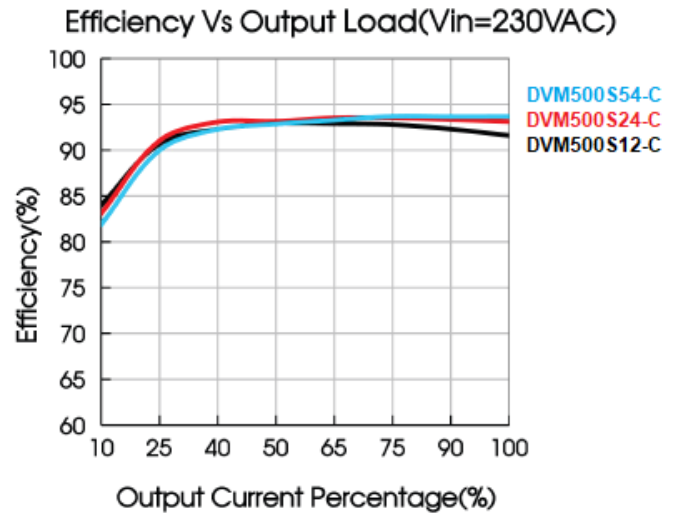
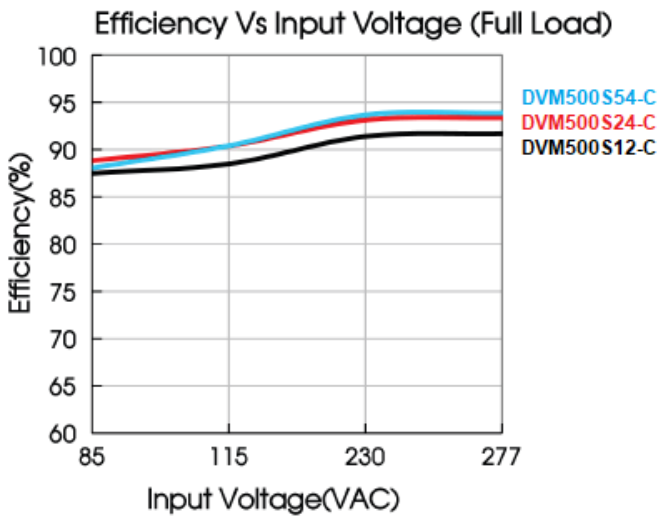
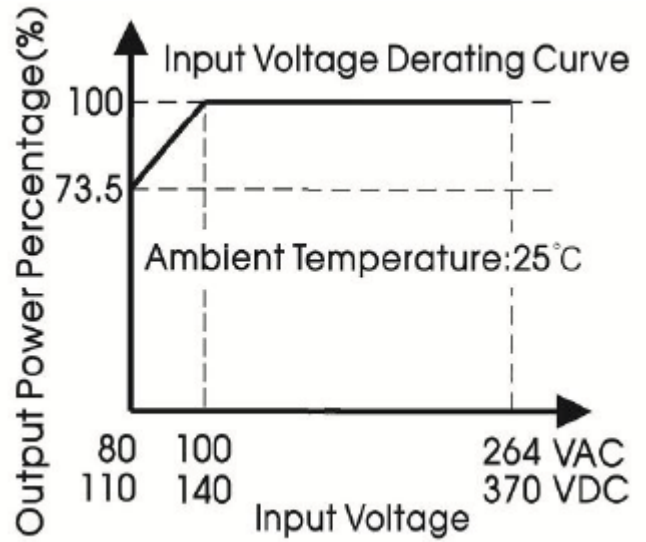
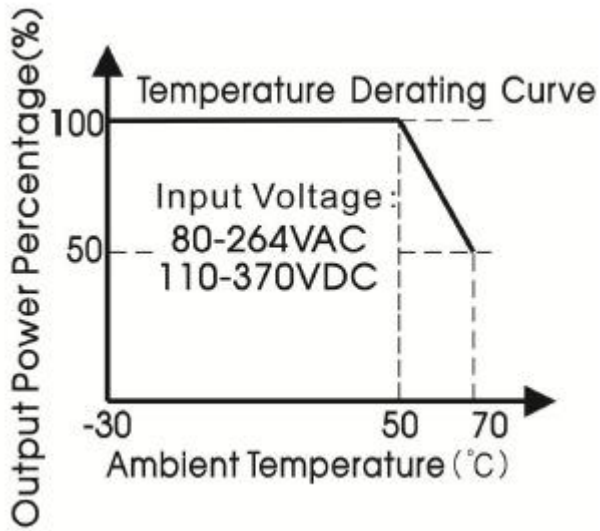
Isolation Voltage (Test for 1min., leakage current <5mA).....	Input-Output.....	4000Vac min.
	Input-PE	2000Vac min.
	Output-PE	2000Vac min.
Insulation Resistance (at 500Vdc)	Input-Output/In.-PE/Out.-PE	100MΩ min.
Operating Temperature Range		-30°C to +70°C
Derating	above 50°C 2,5%/°C, see Derating Curve	
Input Voltage Derating.....		see Derating Curve
Storage Temperature Range		-40°C to +85°C
Cooling.....		Forced Air Convection
Storage Humidity (non condensing).....		95% max.
Efficiency.....		see table
MTBF (MIL-HDBK-217@25°C).....		>300.000h
Safety Standards meet	IEC/UL/EN62368-1, EN60335, EC/EN60601-1,, GB4943.1, EN61558-1, EN61558-2-16	
Safety Class		CLASS I
EMI	CE/RE	CISPR32/EN55032 Class B
	Harmonic Current.....	IEC/EN61000-3-2 Class A
Immunity	ESD.....	IEC/EN61000-4-2 Contact ±8KV/Air ±15KV
	RS.....	IEC/EN61000-4-3 10V/m
	EFT.....	IEC/EN61000-4-4 ±4KV
	Surge.....	IEC/EN61000-4-5 line to line ±2KV/line to ground ±4KV
	CS.....	IEC/EN61000-4-6 10 Vr.m.s
Voltage dips, short interruptions and voltage variations immunity.....		IEC/EN61000-4-11 0%, 70%

MECHANICAL SPECIFICATIONS:

Case Material	Metal
Dimension	203,1 x 101,6 x 40,6 (mm)
Weight.....	850g typ.

NOTE:

- The "Tip and barrel method" is used for ripple and noise test, (47µF electrolytic capacitor and 0,1µF ceramic capacitor) please refer to enclosure and guide rail Converter Application Notes for specific information.
- Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25°C, humidity<75% with nominal input voltage and rated output load;
- The room temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m;
- In order to improve the efficiency at high input voltage, there will be audible noise generated, but it does not affect product performance and reliability;
- The out case needs to be connected to PE () of system when the terminal equipment in operating;



Dimension

Series DVM500S-C

Note:

Unit: mm [inch]

ADJ: Output Adjustable Resistor

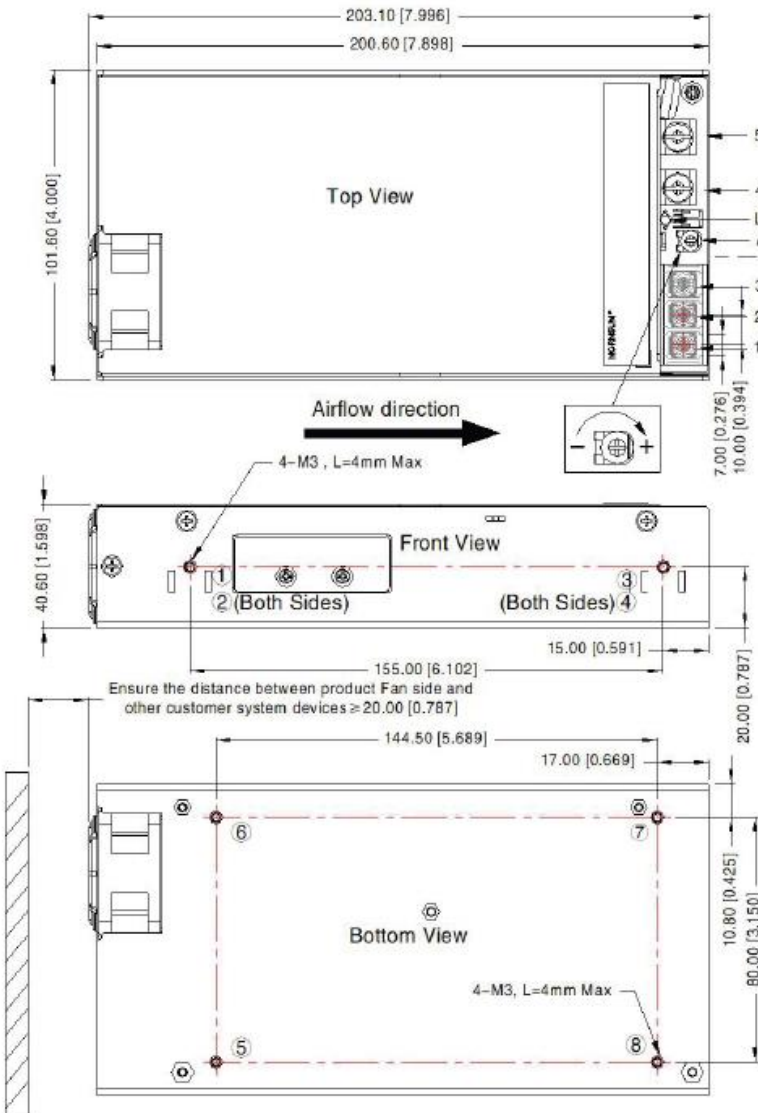
Input Connector Wire Range: 22-14 AWG

Input Connector Tightening torque: M4, 1,2Nm (Max.)

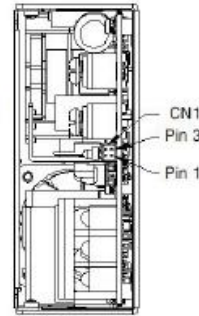
Output Connector (-Vo/+Vo) Tightening torque: M5, 2,4Nm (Max.)

General tolerances: $\pm 1.00\text{mm}$ [± 0.039]

1-8 any position must be connected to PE (Earth)



THIRD ANGLE PROJECTION

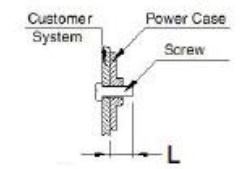


Pin	Single Output
1	PE
2	AC(N)
3	AC(L)
4	+Vo
5	-Vo

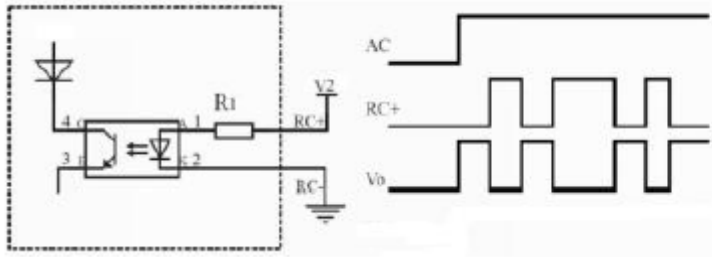
Pin-Out		Customer Connector
Pin	Mark	
1	RC-	Housing: JST PHD-2*2Y or equivalent Contact: JST PHD-TE or equivalent
2	RC+	
3	VSENSE-	
4	VSENSE+	

①-⑧ any position must be connected to the earth (⊕)

Position	Screw Spec.	L(max)	Torque(max)
①-⑧	M3	4mm	0.4N·m



Remote ON/OFF

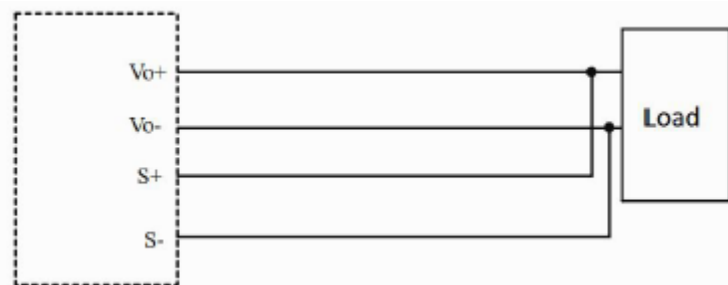


R1 (Product inside)	2KΩ, $\frac{1}{4}$ W
V2 (User side)	5V-15V

Note:

1. When the product is working normally, apply voltage (5-15V) to RC+ and RC- to trigger the remote ON/OFF function, and the output voltage will be off. Withdraw the voltage, the output voltage will be re-established;
2. 5V standby power supply is not controlled by remote ON/OFF function.

Remote Sense Compensation



Note:

1. The left side represents the internal schematic diagram of the product, the right side represents the customer system;
2. Twisted pair wires are needed for S+/S-.