IDXS-2W Series

Features

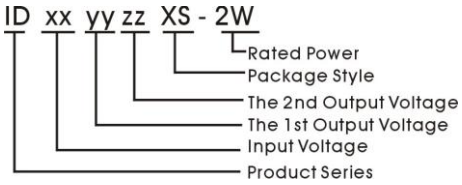
- ★ Small Footprint
- ★ In-Out Isolation Voltage 1000 VDC
- ★ 10 PIN SIP Package
- ★ Temperature Range:-40℃ to +85℃
- ★ UL94V-0 Inflaming retarding package
- ★ MTBF>1million hours(25℃)

Applications

The ID_XS-2W Series are specially designed for applications where a group of polar power supplies are isolated from the input power supply in a distributed power supply system on a circuit board.

These products apply to where:

1) 1000 VDC input and output isolation;
2) Input voltage variation ≤ ±5%;
3) Regulated and low ripple noise is not required.



Model Detail List Specification

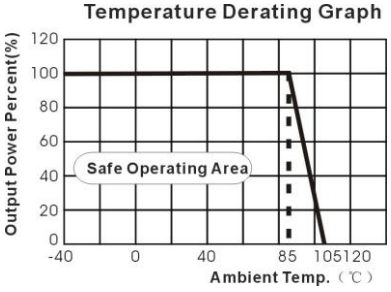
Model Number	Input Voltage range (nominal voltage)	Output Voltage	Output Current (mA)		Input Current Full load.(mA)		Efficiency	Max. Capacitive Load(μF)
			Min.	Max.	Max.	No.		
ID050505XS-2W	4.75~5.25VDC (5 VDC)	5.0V;5.0V	20;20	200;200	294	30	73%	200
ID050909XS-2W		9.0V;9.0V	11;11	111;111	293		76%	
ID051212XS-2W		12.0V;12.0V	8;8	83;83	276		77%	
ID051515XS-2W		15.0V;15.0V	6;6	67;67	287		78%	
ID120505XS-2W	11.4~12.6VDC (12 VDC)	5.0V;5.0V	20;20	200;200	122	26	72%	
ID120909XS-2W		9.0V;9.0V	11;11	111;111	118		78%	
ID121212XS-2W		12.0V;12.0V	8;8	83;83	115		78%	
ID121515XS-2W		15.0V;15.0V	6;6	67;67	111		80%	
ID240505XS-2W	22.8~25.2VDC (24 VDC)	5.0V;5.0V	20;20	200;200	61	20	72%	
ID240909XS-2W		9.0V;9.0V	11;11	111;111	59		77%	
ID241212XS-2W		12.0V;12.0V	8;8	83;83	55		76%	
ID241515XS-2W		15.0V;15.0V	6;6	67;67	53		76%	

Input Over-voltage Protection Circuit

The simplest device for input over-voltage protection is a linear voltage regulator with overheat protection that is connected to the input end in series.

When the environment temperature is higher than 85℃, the product output power should be less then 60% of the rated power. No parallel connection or plug and play.

Temperature Derating Graph



IDXS-2W Series

Output Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Output Power		0.2		2	W
Line Voltage Regulation	For Vin change of ±1%			±0.25	%
Load regulation	10% to 100% load		0.01	0.02	
Ripple	20MHz Bandwidth		10		mVp-p
Noise			20		
Temperature Drift	100% full load			±0.03	%/°C
Input Filter		C Filter			

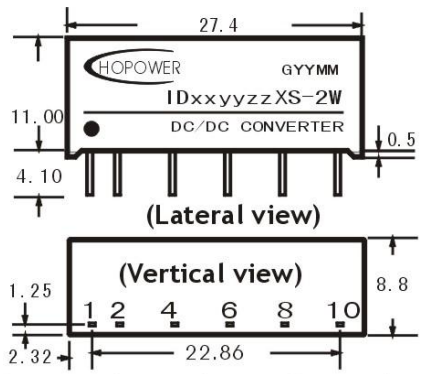
Environmental Specifications

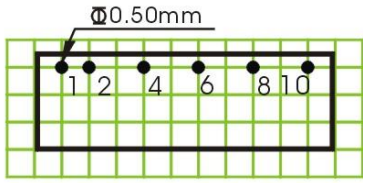
Item	Test Conditions	Min.	Typ.	Max.	Unit
Storage Humidity	Non condensing			95	%
Temp. rise at full load			25	50	℃
Operating Temperature		-40		+85	
Storage Temperature	Power derating (above 85℃)	-55		+125	
Soldering Temperature	1.5mm from case for 10 seconds			300	
Cooling		Free air convection			

Common Specifications

Item	Test Conditions	Min.	Typ.	Max.	Unit
Isolation Voltage	Tested for 1 minute and leakage current less than 1 mA	1000			VDC
Switching Frequency	Full load, nominal input		100		KHz
MTBF	MIL-HDBK-217F@25℃	1000			K hours
Isolation Resistance	Test at 500VDC	1000			MΩ
Isolation Capacitance			350		PF
Weight			3.5		g

Mechanical Dimensions & Recommended Footprint



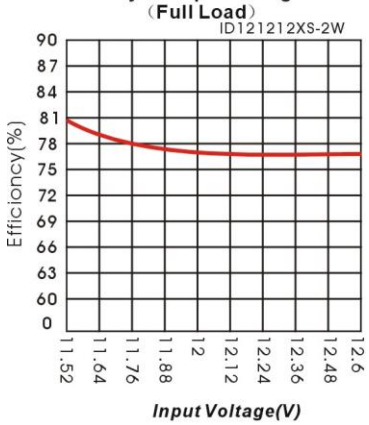


Note:Grid 2.54*2.54mm.
Unit: mm
General tolerances : 0.20mm

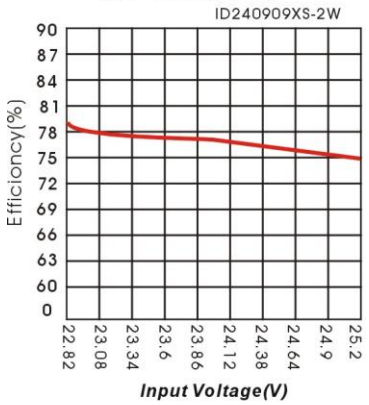
Package	Vin	GND	Ov1	+Vo1	Ov2	+Vo2
IDXS	1	2	4	6	8	10

Product typical Curve

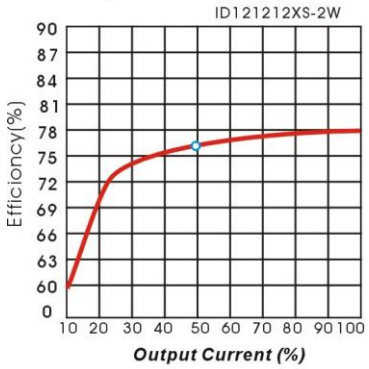
Efficiency VS Input Voltage curve
(Full Load)



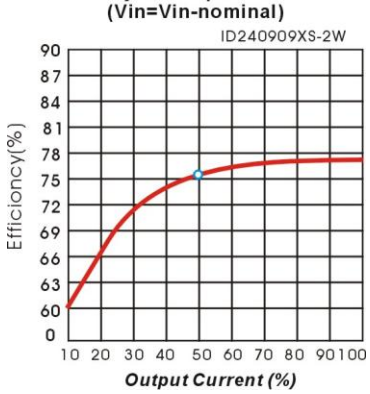
Efficiency VS Output Voltage curve
(Vin=Vin-nominl)



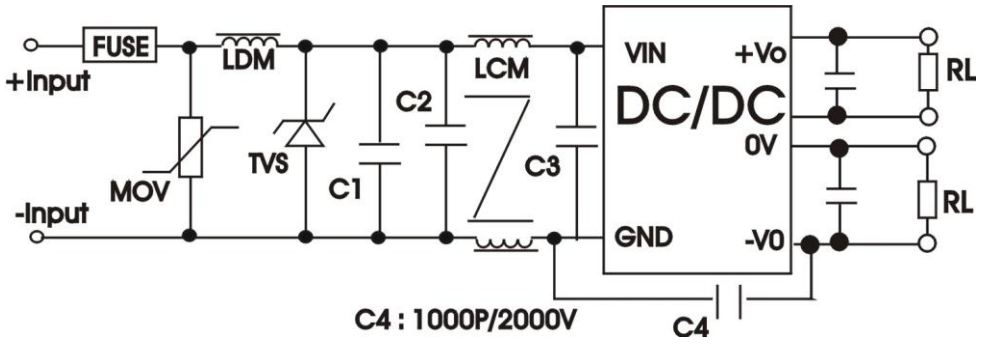
Output Load VS Efficiency curve
(Vin=Vin-nominal)



Efficiency VS Output Load curve
(Vin=Vin-nominal)



EMC Recommended Circuit



EMC Module Application Circuit