

### Input voltage

3.3,5, 12, 15, 24 VDC

### Output voltage

(+/- /+/-)3.3, 5, 9, 12, 15 VDC

For other specifications, please consult Shunyuan Technology Co., Ltd.

### Electrical characteristics

Unless otherwise specified, the following data is measured at TA=25°C, nominal input voltage, and rated output current.

#### Input characteristics

voltage range +/- 10%  
Filter Ceramic capacitors

#### Isolation characteristics

Rated voltage 6000 VAC  
Leakage current 1 mA  
resistance  $10^9$  Ohm  
capacitance 60 pF type.

#### Output characteristics

Static level  $\geq 8000V$   
Voltage accuracy The output voltage fluctuation range is +/- 2% (load variation range 0-100%).

(20 MHz BW) Ripple and noise <50 mV p-p, max.

Sustainable short-circuit time The output has anti-static 8KV and self-recovery overload short-circuit protection.

Linear voltage calibration +/- 0,5 % max., (3.3 VDC output +/- 1 % max )

Load voltage calibration +/- 0,5 % typ., +/- 1 % max. (No load to full load)

Temperature Coefficient +/- 0,02 % / °C

#### General characteristics

efficient 60% to 80%  
operating frequency 60KHz, typ.

#### Environmental characteristics

Working temperature (environment) - 40° C to + 85° C  
storage temperature - 55 °C to + 125 °C  
Decrease the quota value See the temperature characteristic graph  
humidity  $\leq 90$  %, Uncompressed  
cooling method Natural air cooling

#### Volume characteristics

SIP Package size 32.0 x 7.70 x 13.8 mm  
1.26 x 0.30x 0.54 inch

### Weight

6g~10g

### Shell material

Non-conductive flame-retardant black plastic

### Product model example

(The following data is the reference value of the product after 8 hours of continuous full load aging)

Product number	Input voltage Vin(VDC)	Input current no load(mA)	Input current full load(mA)	output voltage (VDC)	Output current (max.mA)	Full load efficiency(% TYPE)
WDH050303H-1W	5	21	317	3.3/3.3	100/100	63
WDH050505H-1W	5	24	303	5/5	100/100	66
WDH051212H-1W	5	22	289	12/12	42/42	66

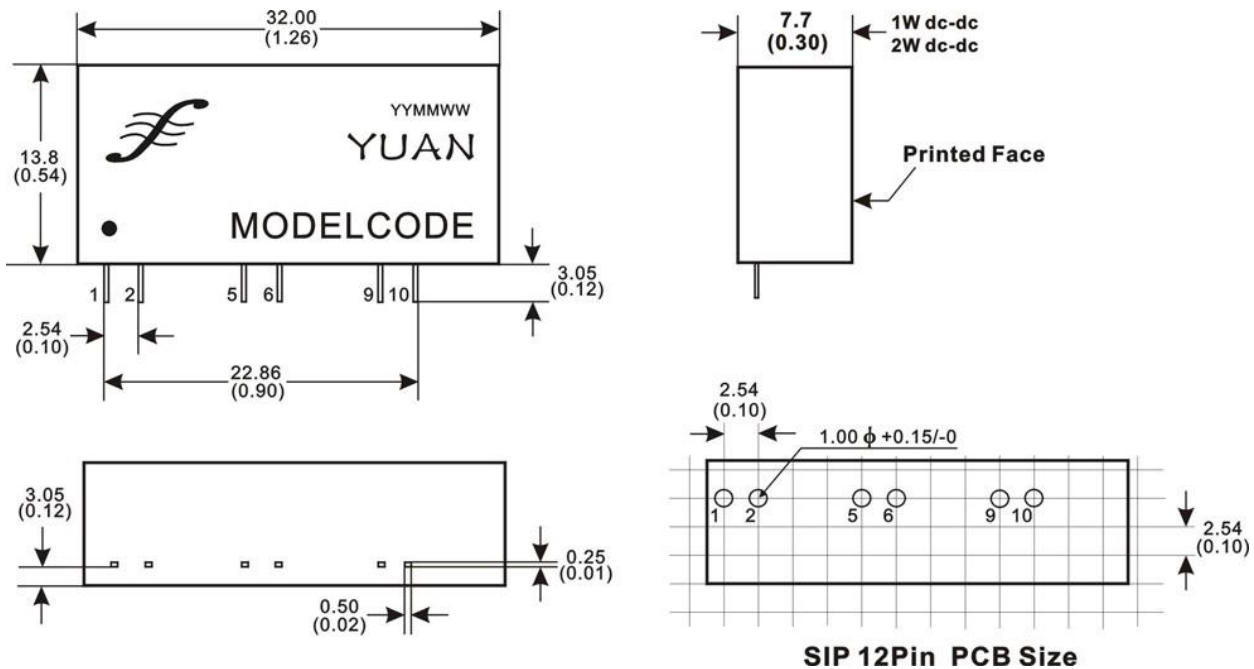
WDH power meter dedicated 6KVAC high isolation anti-static series

WDHxxxxH-xW Output voltage stabilized self-recovery overload short Circuit protection. SIP12-pin package

Comply with the relevant regulations in the national power industry standard DL/T614-2007 The output has 8KV anti-static protection

Product number	Input voltage Vin(VDC)	Input current no load(mA)	Input current full load(mA)	output voltage (VDC )	Output current (max.mA)	Full load efficiency(% TYPE)
WDH120505H-1W	12	18	123	5/5	100/100	68
WDH120909H-1W	12	16	12	9/9	55/55	68
WDH121212H-1W	12	16	118	12/12	42/42	69
WDH240505S-1W	24	14	55	5/5	100/100	75
WDH240909S-1W	24	15	58	9/9	55/55	72
WDH241212S-1W	24	14	55	12/12	42/42	76
WDH050303H-2W	5	40	667	3.3/3.3	200/200	60
WDH050505H-2W	5	38	645	5/5	200/200	62
WDH050512H-2W	5	42	571	5/12	250/150	70
WDH051212H-2W	5	32	556	12/12	83/83	72
WDH090512H-2W	9	38	317	9/12	250/150	70
WDH120203H-2W	12	20	252	2.5/3.3	300/300	66
WDH120505H-2W	12	25	245	5/5	200/200	68
WDH120909H-2W	12	20	245	9/9	111/111	68
WDH121212H-2W	12	20	256	12/12	83/83	65
WDH240505H-2W	24	10	119	5/5	200/200	70
WDH240909H-2W	24	8	116	9/9	111/111	72
WDH241212H-2W	24	8	113	12/12	83/83	72

### Outline and PCB layout reference size

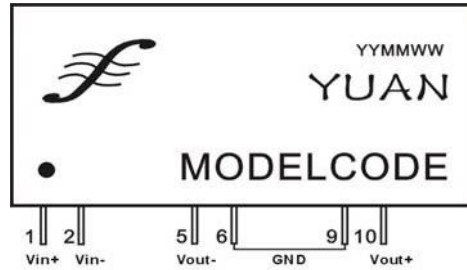


WDH power meter dedicated 6KVAC high isolation anti-static series

WDHxxxxH-xW Output voltage stabilized self-recovery overload short Circuit protection. SIP12-pin package

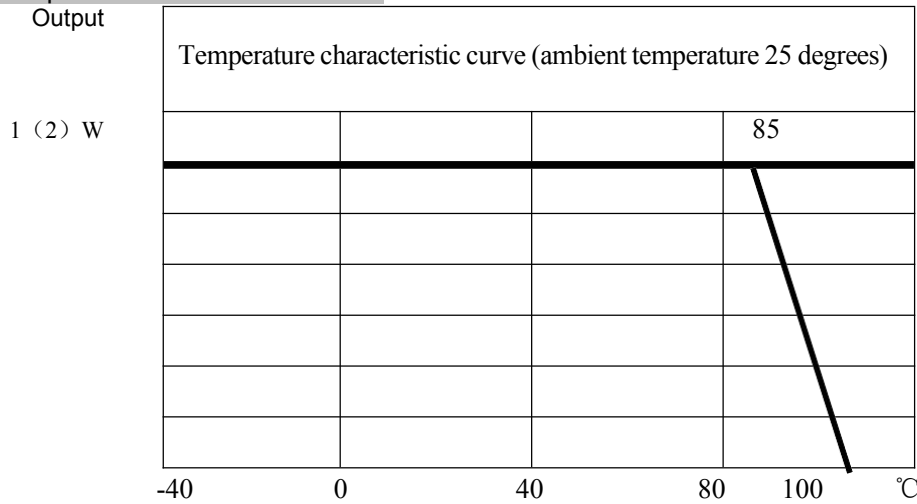
Comply with the relevant regulations in the national power industry standard DL/T614-2007 The output has 8KV anti-static protection

\* WDH series products connect the “+” of one group of outputs with the “-” of the other group of outputs to realize the double output function of positive and negative with the same voltage, as shown in the figure below. \* Product design and specifications are subject to change without notice



WDH产品正负双输出的接线图

### Temperature characteristic curve



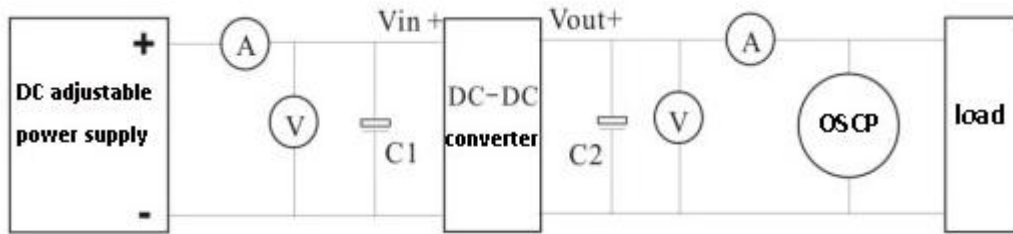
### Pin function description

Pin	Pin function description		
1	+	Vin	Input positive
2	-	Vin	Input negative
3~4			Empty feet
5	-	Vout1	Output negative
6	+	Vout1	Positive output
7~8			Empty feet
9	-	Vout2	Output negative
10	+	Vout2	Positive output
11~12			Empty feet

一. The main parameter detection method of DC-DC module power supply products

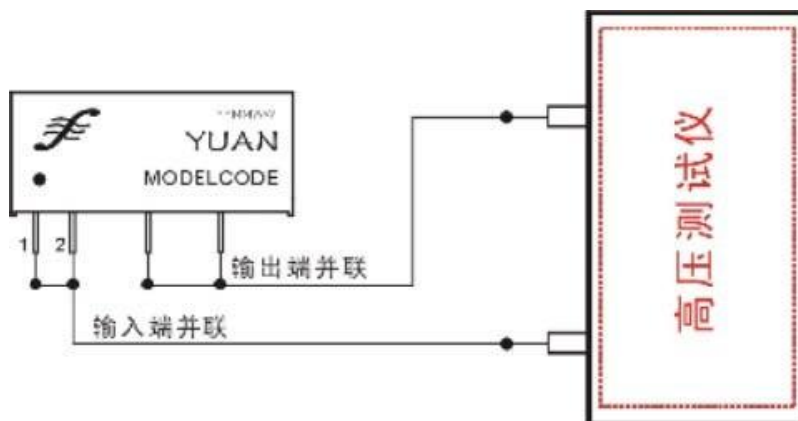
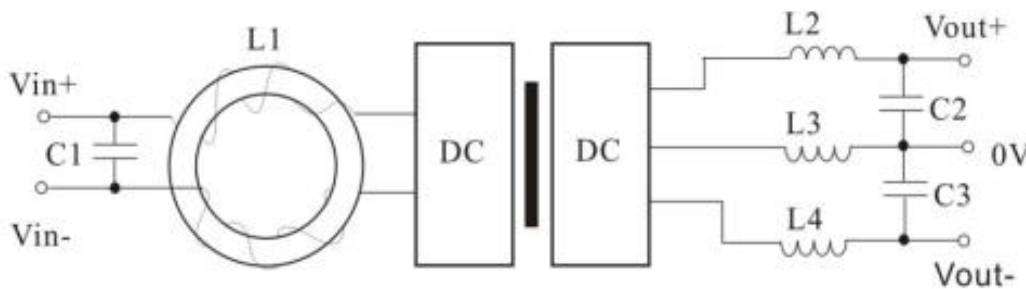
Adopt standard Kelvin four-terminal input and rated load test (as picture)

Test conditions: room temperature  $T_A = 25$  degrees Celsius, temperature: less than 75% of nominal input and rated load.



二. Reference method for reducing noise common mode interference in the use of DC-DC module converter.

The module power supply will generate common mode and differential mode noise at the switching frequency. The way to reduce the text wave and noise is to add a passive LC or RC (large loss) filter network at the input and output ends. The self-resonant frequency of L is much higher than the switching frequency of the module. The current value allowed to pass is preferably selected to be more than twice the maximum input current of the module. The internal resistance should be small to reduce DC loss.



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