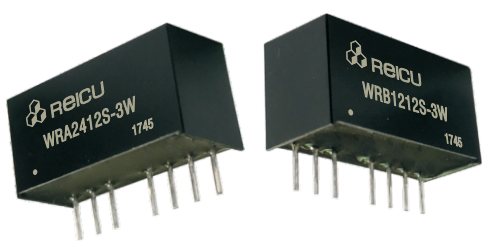
Features

- Efficiency up to 80%
- 1600VDC Isolation
- Singl/Double output
- Regulated output
- Remote On/Off Control
- Continous short circuit protection
- 2:1 Wide input voltage range
- Wide temperature -40℃ to 85℃
- Low ripple and noise
- Small size



Model Selection Guide

Order Code	Vin(V)		Output		Max capacitive Load	Efficiency(%) (Typ)
	Nominal	Range	Vo(V)	Io(mA)		
WRB0505S-3W	5	4.5-9	5	600	470	72
WRB0509S-3W			9	333	330	73
WRB0512S-3W			12	250	330	73
WRB0515S-3W			15	200	330	73
WRB1205S-3W	12	9-18	5	600	470	75
WRB1209S-3W			9	333	330	77
WRB1212S-3W			12	250	330	81
WRB1215S-3W			15	200	330	82
WRB2405S-3W	24	18-36	5	600	470	80
WRB2409S-3W			9	333	330	81
WRB2412S-3W			12	250	330	81
WRB2415S-3W			15	200	330	81
WRB4805S-3W	48	36-72	5	600	470	76
WRB4809S-3W			9	333	330	78
WRB4812S-3W			12	250	330	81
WRB4815S-3W			15	200	330	82
WRA0505S-3W	5	4.5-9	±5	±300	330	71
WRA0512S-3W			±12	±125	330	72
WRA0515S-3W			±15	±100	330	72
WRA1205S-3W	12	9-18	±5	±300	330	76
WRA1212S-3W			±12	±125	330	77
WRA1215S-3W			±15	±100	330	79
WRA2405S-3W	24	18-36	±5	±300	330	78
WRA2412S-3W			±12	±125	330	80
WRA2415S-3W			±15	±100	330	80
WRA4805S-3W	48	36-72	±5	±300	330	75
WRA4812S-3W			±12	±125	330	76
WRA4815S-3W			±15	±100	330	79

*All the specifications typical at Ta=+25℃ resistive load, nominal input voltage and rated output current unless otherwise noted.

Input Characteristics

Parameter	Condition	Min	Typ	Max	Units
Input Surge Voltage (1 sec. Max.)	5V Input Models	-0.7	--	15	VDC
	12V Input Models	-0.7	--	25	
	24V Input Models	-0.7	--	50	
	48V Input Models	-0.7	--	90	
Input Filter Type	All Models	Internal Capacitor			

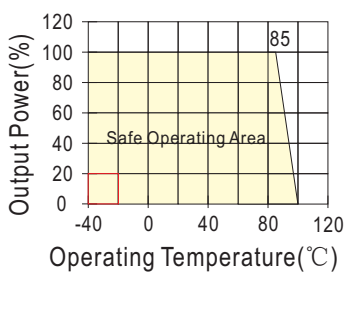
Output Characteristics

Parameter	Condition	Min	Typ	Max	Units
Line regulation	Full load,Vin(Min~Max)	±0.15	--	±0.5	%
Switching frequency	Full load,nominal input	--	250	--	KHz
Load regulation	10%～100% load	--	±0.5	±1	%
Ripple and noise	BW=DC to 20MHz	--	30	75	mVp-p
Short circuit Protection		Continuous,Automatic Recovery			

General Characteristics

Parameter	Condition	Min	Typ	Max	Units
Operating Temperature	All output types	-40	--	+85	℃
Storage		-55	--	+125	℃
Storage humidity		--	--	+95	%
Cooling	Free air convection	--	--	--	
Isolation voltage	1mA≤1minute	--	1600	--	VDC
Isolation resistance	500VDC	1000	--	--	MΩ
MTBF	2×10^5				K hours
Case material		Plastic			

Temperature Derating Graph Curve

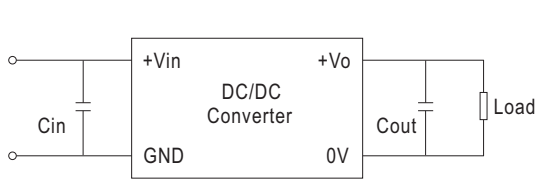


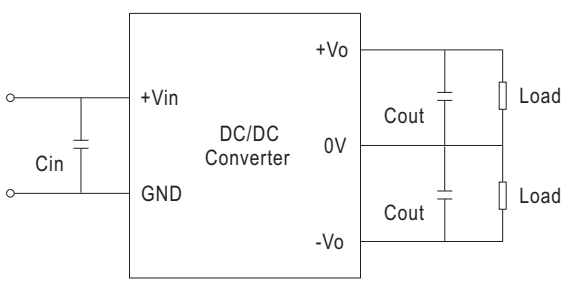
Design & Feature Considerations

1. Input/Output Ripple Reduction

Reduce output ripple, it is recommended to use capacitors at the input/output.

It is recommended to use 10uF~100uF capacitors at the input; 3.3~22uF capacitors at the output.





2. Overload Protection

Tthe products provide protection against overload, the unit is equipped with internal current limiting circuitry .

3. Remote On/Off (CTRL Terminal)

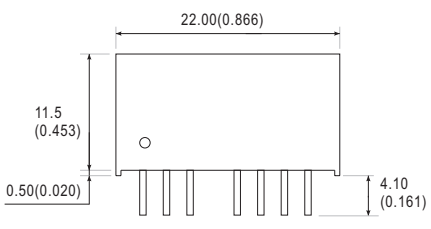
When open or high impedance, the converter work well; When this pin is high,t he converter shut down; It should be note that the input current should between 5-10mA,exceeding the maximum 20mA will cause permanence damage to the converter. The value of R can be derived as follows:

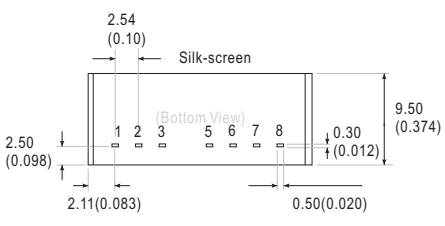
$$R = \frac{V_C - V_D - 1.0}{I_C}$$

Note

1.To ensure this module can operate efficinetly and reliably,During operation,the minimum output load is not less than 10% of the full load.
2.Other input and output voltage may be available, please
3.Specifications subject to change without notice

Mechanical Dimension & Pin Connections





Note:
Unit:mm(inch)

Pin	1	2	3	5	6	7	8
Single	GND	Vin	CTRL	NC	+Vo	-Vo	CS
Double	GND	Vin	CTRL	NC	+Vo	COM	-Vo