FEATURES：

- Wide input range
- Continuous short-circuit protection,self recover
- I/O isolation voltage 1.5KV
- Working temperature：-40℃～+105℃
- No additional components required
- Stable performance and high reliability (MTBF≥2 million hours)
- Industry standard pin-out
- Metal case
- DIP package

Selection Guide

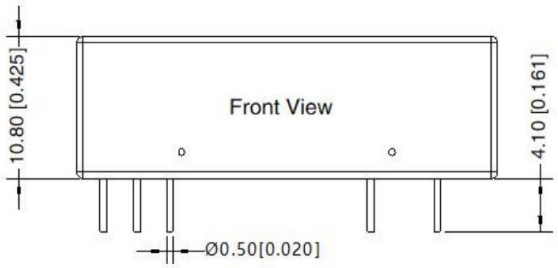
Part No.	INPUT		OUTPUT			Full Load Efficiency (%)/Typ.	Capacitive Load(μF)
	Norminal (Vdc)	Range (Vdc)	Voltage (V1dc)	Current Min(mA)	Current Max(mA)		
VRA1205ZP-10WR3	12	9-18	±5	0	±1000	83	1000
VRA1212ZP-10WR3			±12	0	±416	86	470
VRA1215ZP-10WR3			±15	0	±333	86	330
VRB1203ZP-10WR3			3.3	0	2400	86	1200
VRB1205ZP-10WR3			5	0	2000	86	1000
VRB1212ZP-10WR3			12	0	833	87	470
VRB1215ZP-10WR3			15	0	667	87	330
VRB1224ZP-10WR3			24	0	416	88	100
VRA2405ZP-10WR3	24	18-36	±5	0	±1000	83	1000
VRA2412ZP-10WR3			±12	0	±416	87	470
VRA2415ZP-10WR3			±15	0	±333	87	330
VRB2403ZP-10WR3			3.3	0	2400	85	1200
VRB2405ZP-10WR3			5	0	2000	87	1000
VRB2412ZP-10WR3			12	0	833	86	470
VRB2415ZP-10WR3			15	0	667	87	330
VRB2424ZP-10WR3			24	0	416	86	100
VRA4805ZP-10WR3	48	36-72	±5	0	±1000	83	1000
VRA4812ZP-10WR3			±12	0	±416	87	470
VRA4815ZP-10WR3			±15	0	±333	87	330
VRB4803ZP-10WR3			3.3	0	2400	86	1200
VRB4805ZP-10WR3			5	0	2000	87	1000
VRB4812ZP-10WR3			12	0	833	87	470
VRB4815ZP-10WR3			15	0	667	87	330
VRB4824ZP-10WR3			24	0	416	88	100

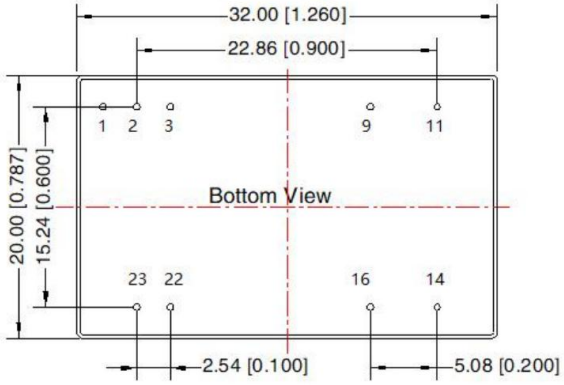
customized accepted,pls contact sales for details

Input Specifications

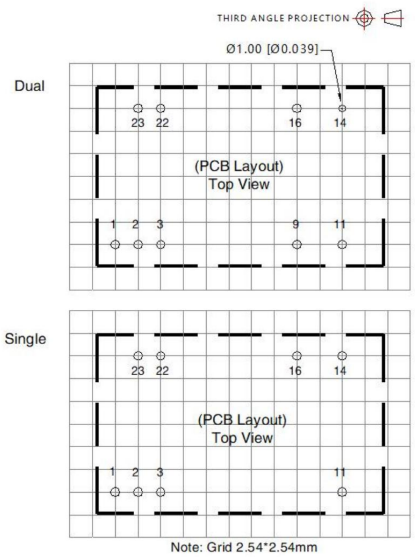
Input Filter	Capacitive Filter	
Ctrl	NONE	

	NONE			
Hot Plug	Unavailable			
Output Specifications				
Item	Typ	Max	Test Conditions	
Voltage Accuracy	±1%	±3%	5%-100% load	
No-load Output Voltage Accuracy	±1.5%	±5%	Input voltage range	
Balance Of Output Voltage	±0.5%	±1%	Dual output, balanced load	
Line Regulation	±0.2%	±0.5%	Input voltage variation from low to high at full load	
Load Regulation	±0.2%	±0.5%	5%-100% load	
Ripple&Noise	100mVp-p	120mVp-p	24Vout	20MHz Bandwidth, full load
	50	80	Others	
Gerneral Specifications				
Switching Frequency	200KHz(Typ)		100% full load, nominal input voltage	
Short-Circuit Protection	Continuous, self-recovery			
Case Temperature Rise	25℃（Typ）			
Temperature Coefficient	0.03%/℃		100% full load	
Pin Soldering Resistance Temperature	300℃		Soldering spot is 1.5mm away from case for 10 seconds	
Isolation（Input-Output）	1.5KVDC		Input-output electric strength test for 1 minute with a leakage current	
Insulation Resistance（Input-Output）	1000MΩ		Input-output resistance 500Vdc	
Operating Temperature	-40～+105℃			
Storage Temperature	-55～+125℃			
Storage Humidity	<95%		Non-condensing	
Cooling Method	Free air convection			
Case Material	Aluminum alloy			
Weight	14g（Typ）			
**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25℃ room temperature environment.				
Dimensions and Recommended Layout				





Note:
Unit: mm[inch]
Pin diameter tolerances: ± 0.10[± 0.004]
General tolerances: ± 0.50[± 0.020]

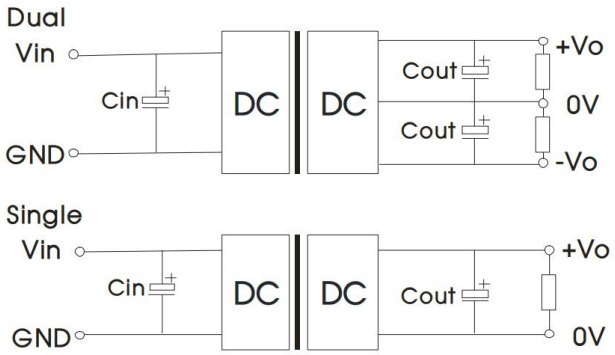


Note: Grid 2.54*2.54mm

Pins

Pin	Single	Dual	
1	CTRL	CTRL	
2.3	GND	GND	
9	No Pin	0V	
11	NC	-Vo	
14	+Vo	+Vo	
16	0V	0V	
22,23	Vin	Vin	

Recommended Circuit



Vin(VDC)	Vout(VDC)	Cin	Cout
12	3.3/5/±5	100μF/35V	10μF/16V
	12/15/±12/±15		10μF/25V
	24		10μF/50V
24	3.3/5/±5	100μF/50V	10μF/16V
	12/15/±12/±15		10μF/25V
	24		10μF/50V
48	3.3/5/±5	10μF ~47μF/100V	10μF/16V
	12/15/±12/±15		10μF/25V
	24		10μF/50V

Noted

1. Input current: Ensure that the output current of the power supply meets the instantaneous starting current of the power module (that is, twice the average input current of the power module).
2. Output load requirements: Avoid no-load use. When the actual power consumption of the load is less than 10% of the rated output power of the module or no load occurs, connect an external resistance to the output end (the sum of the external resistance and the load power is greater than or equal to 10% of the rated load) or select a module with a smaller rated power.
3. The external capacitance of the output end should not be too large; otherwise, the module may be overcurrent or poorly started. For details, see the external capacitance recommendation table.
4. External LC filter circuit can be connected for occasions with high ripple noise requirements.