

FEATURES:

- Fixed voltage input, single unregulated output, 3W
- Continuous short-circuit protection, self recover
- I/O isolation voltage 6KV/10KV/15KV (H6/H10/H15)
- Working temperature: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- Insulation gap $\geq 16\text{mm}$
- Stable performance and high reliability (MTBF $\geq 3500\text{K}$ hours)
- Industry standard pin-out
- Flame-retardant case to meet UL94 V-0 requirements
- SIP package



Selection Guide

Part No.	INPUT		OUTPUT			Full Load Efficiency (%) / Typ	Capacitive Load (μF)
	Normal (Vdc)	Range (Vdc)	Voltage (Vdc)	Min current (mA)	Max current (mA)		
Q0303S-3WR3H6/H10/H15	3.3	2.97-3.83	3.3	50	500	79	2400
Q0305S-3WR3H6/H10/H15			5	50	500	85	2400
Q0309S-3WR3H6/H10/H15			9	33	333	85	1000
Q0312S-3WR3H6/H10/H15			12	25	250	85	560
Q0315S-3WR3H6/H10/H15			15	20	200	86	560
Q0324S-3WR3H6/H10/H15			24	13	125	86	220
Q0503S-3WR3H6/H10/H15	5	4.5-5.5	3.3	50	500	79	2400
Q0505S-3WR3H6/H10/H15			5	50	500	85	2400
Q0509S-3WR3H6/H10/H15			9	33	333	85	1000
Q0512S-3WR3H6/H10/H15			12	25	250	85	560
Q0515S-3WR3H6/H10/H15			15	20	200	86	560
Q0524S-3WR3H6/H10/H15			24	13	125	86	220
Q1203S-3WR3H6/H10/H15	12	10.8-13.2	3.3	50	500	79	2400
Q1205S-3WR3H6/H10/H15			5	50	500	85	2400
Q1209S-3WR3H6/H10/H15			9	33	333	85	1000
Q1212S-3WR3H6/H10/H15			12	25	250	85	560
Q1215S-3WR3H6/H10/H15			15	20	200	86	560
Q1224S-3WR3H6/H10/H15			24	13	125	86	220
Q1503S-3WR3H6/H10/H15	15	13.5-16.5	3.3	50	500	79	2400
Q1505S-3WR3H6/H10/H15			5	50	500	85	2400
Q1509S-3WR3H6/H10/H15			9	33	333	85	1000
Q1512S-3WR3H6/H10/H15			12	25	250	85	560
Q1515S-3WR3H6/H10/H15			15	20	200	86	560
Q1524S-3WR3H6/H10/H15			24	13	125	86	220
Q2403S-3WR3H6/H10/H15			3.3	50	500	79	2400
Q2405S-3WR3H6/H10/H15			5	50	500	85	2400
Q2409S-3WR3H6/H10/H15			9	33	333	85	1000

Q2412S-3WR3H6/H10/H15	24	21.6-26.4	12	25	250	85	560
Q2415S-3WR3H6/H10/H15			15	20	200	86	560
Q2424S-3WR3H6/H10/H15			24	13	125	86	220

customized accepted ,pls contact sales for details

Input Specifications

Input Filter	Capacitive Filter	
Ctrl	NONE	
	NONE	
Hot Plug	Unavailable	

Output Specifications

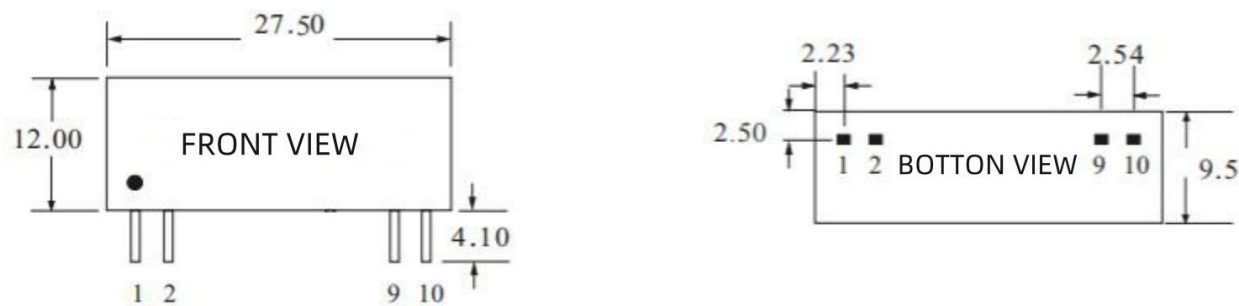
Item	Min	Typ	Max	Test Conditions
Voltage Accuracy	-	-	-	
Line Regulation	-	-	±1.2%	Input voltage ±1%
Load Regulation	-	-	±20%	10% to 100% full load
Ripple&Noise	-	50mVp-p	75mVp-p	20MHz Bandwidth, full load

General Specifications

Switching Frequency	250KHz(Typ)	100% full load, nominal input voltage
Short-Circuit Protection	Continuous, self-recovery	
Case Temperature Rise	25℃ (Typ)	
Temperature Coefficient	0.02%/℃	100% full load
Pin Soldering Resistance Temperature	300℃	Soldering spot is 1.5mm away from case for 10 seconds
Isolation (Input-Output)	6KVDC/10KV/15KV	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%RH	Non-condensing
Cooling Method	Free air convection	
Case Material	Black plastic; flame-retardant and heat-resistant (UL94 V-0)	
Weight	5g (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

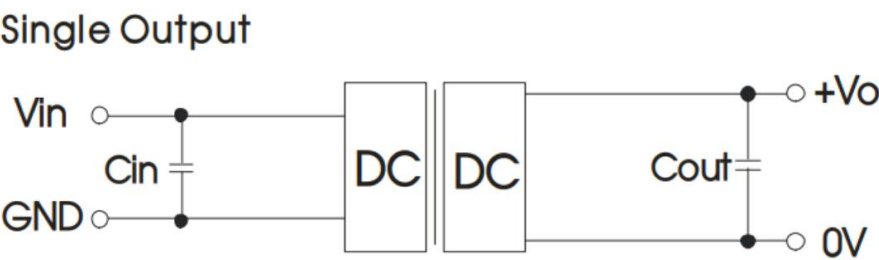


Unit:mm
Terminal diameter tolerance: ±0.10
Unmarked tolerance: ±0.50

Pin-out

Pin	Singe		
1	+Vin		
2	GND		
9	0V		
10	Vo		

Recommended Circuit



Recommended input and output capacitor values					
Vin	Cin	Single Vout	Cout		
5VDC	10uF/16V	3.3VDC	10uF/16V		
12VDC	2.2uF/25V	5VDC	10uF/16V		
15VDC	2.2uF/25V	7.2VDC	10uF/16V		
24VDC	1uF/50V	9VDC	2.2uF/25V		
-	-	12VDC	2.2uF/25V		
-	-	15VDC	1uF/25V		
-	-	24VDC	1uF/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.

*The final interpretation right of the product belongs to ECCO ELECTRONICS.