

# Miniature HV Power Supplies

TA Series TC Series 1kV to 2kV 1.5W

01.031.02|44-1



## FEATURES

- Ultra-compact, PCB mountable
- Low ripple, 5mVp-p(1kV output type)
- Low Noise due to metal shielding
- Well-regulated, high performance
- External potentiometer or external control voltage programming
- Arc and continuous short circuit protection
- NRTL(UL1950), TÜV, CE approved

## SUMMARY

TA and TC Series are miniaturized, well regulated high voltage power supplies suitable for photomultiplier. They feature exceptionally low noise, external potentiometer or voltage control and fully protection against arc and continuous output short circuit.

Output voltage (kVdc)	Output		Model(*Specify "12" for 12Vdc, "15" for 15Vdc input.)				Ripple (mVp-p)
	Current(mA)	Minimum load( $\Omega$ ) <sup>☆</sup>	Positive polar output		Negative polar output		
0 to 1	1.5	350k	TA-1P-*	TC-1P-*	TA-1N-*	TC-1N-*	5
0 to 1.5	1	750k	TA-1.5P-*	TC-1.5P-*	TA-1.5N-*	TC-1.5N-*	7
0 to 2	0.7	1.5M	TA-2P-*	TC-2P-*	TA-2N-*	TC-2N-*	10

☆ Rated output current is not to be drawn at low output voltage range (Output current x Minimum load). Use at larger than minimum load.

[NOTE] This power supply is designed with adequate consideration for high voltage safety as an integrated power supply. Yet, please make sure to ground the case for further safety when using.

## SPECIFICATIONS

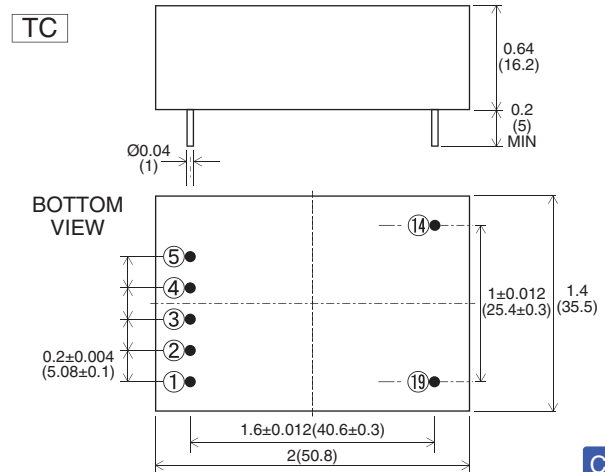
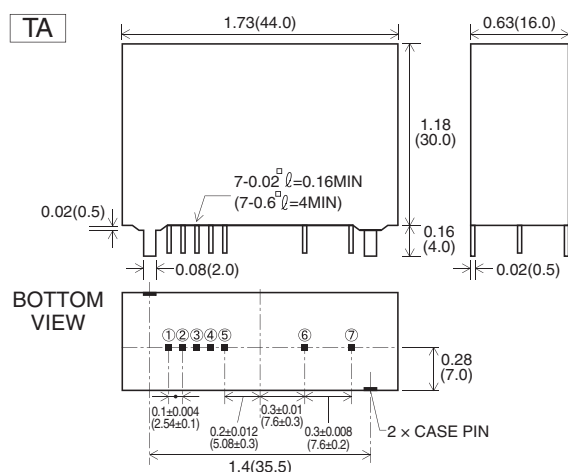
<b>Input voltage/current</b>	+12Vdc $\pm$ 1Vdc 230mA typ. +15Vdc $\pm$ 1Vdc 180mA typ.
<b>Output control</b>	By external 5k $\Omega$ potentiometer or external control voltage(Vcon-in) 0 to 6Vdc(Input impedance $\geq$ 30k $\Omega$ )
<b>Regulation</b>	Line : $\pm$ 0.02% of max voltage for Vin $\pm$ 1V Load : 0.02% of max voltage for full load change
<b>Stability</b>	0.02%/Hr 0.05%/8Hr
<b>Temperature coefficient</b>	70ppm/ $^{\circ}$ C
<b>Protection</b>	Overload, arc and continuous output short circuit
<b>Temperature range</b>	Operating : -10 $^{\circ}$ C to +50 $^{\circ}$ C Storage : -25 $^{\circ}$ C to +85 $^{\circ}$ C
<b>Humidity</b>	20% to 80%RH(no condensation)
<b>Weight</b>	60g approx.

Note : • Specifications are at the maximum rated output after 1/2Hr warm-up.  
• Specifications are subject to change without notice.

## OPTION

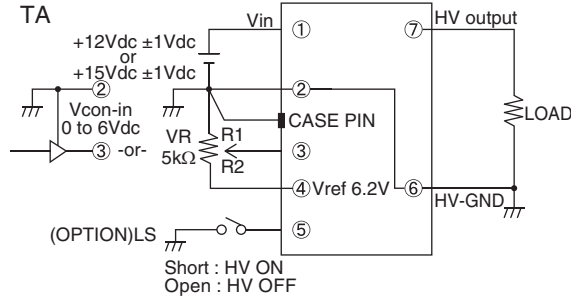
**LS** : remote HV ON/OFF  
Enable to HV ON/OFF with contact signal.  
When open collector,  
ON  $\leq$  0.3V(Low)  
OFF  $\geq$  2V(High)  
Add LS to the model number.  
i.e. : TA-1P-12LS, TC-1.5N-15LS

## DIMENSIONS inch(mm)

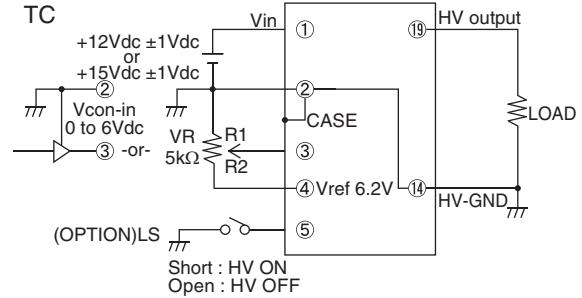


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## CONNECTION DIAGRAM

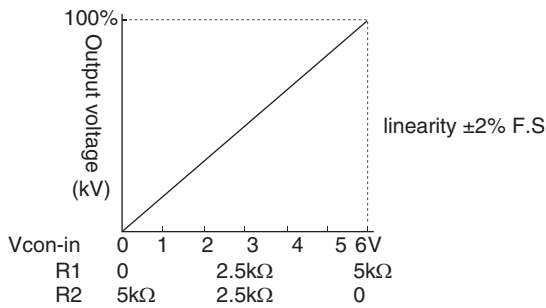


- PIN ②, ⑥ are internally connected (isolated from CASE).
- CASE PIN should be always connected to ground.
- Input impedance of Pin ③ is greater than 30kΩ
- External potentiometer of T.C  $\leq 100\text{ppm}/^\circ\text{C}$ , PC  $\geq 1/4\text{W}$  is recommended.

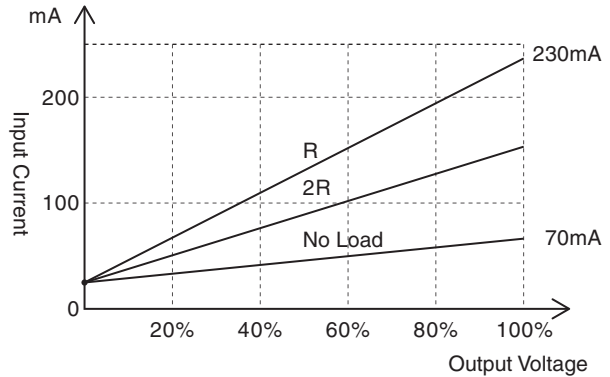


- PIN ②, ⑭ and CASE are internally connected.
- Input impedance of Pin ③ is greater than 30kΩ
- External potentiometer of T.C  $\leq 100\text{ppm}/^\circ\text{C}$ , PC  $\geq 1/4\text{W}$  is recommended.

## CHARACTERISTICS OF OUTPUT VOLTAGE SETTING



## INPUT CURRENT



- It is TYP value in 12V input type.
- The 15V input type makes the current value to be 80%.

$$R = \frac{V_o \text{ max}}{I_o \text{ max}}$$

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