

Input/Output Proportional HV Power Supply

Ultra compact / Low noise

U3 / U6 series ■■■

U3...3W/U6...6W

- > Ultra compact · light weight · I/O proportional
- > Low noise
- > High reliability
- > Input/Output isolated (models upto 6kV)
- > Detachable input connector
- > Aluminum housing



APPLICATIONS
* Electrostatic chuck
* PMT, MCP, radiation counter
* Electron Beam / Ion Beam
* MASS spectrometry
* Electro Microscope

SUMMARY

These compact input/output proportional HV modules were designed with the OEM in mind. They are perfect for PMT, MCP and radiation counter applications, or whenever less load regulation is required. Models below 6kV feature an isolated primary and secondary, just right for floating applications. With a wide lineup ranging from 300V to 25kV and 3W to 6W, you are sure to find a model that is best suited to your needs.

LINEUP

Output Voltage (kV)max	Output Range (kV)	Output Current (mA)	Minimum Load (Ω)	Model	Ripple (%p-p)	Case	Output Range (kV)	Output Current (mA)	Minimum Load (Ω)	Model	Ripple (%p-p)	Case	I/O Isolation (Vdc)		
0.3	0.02 to 0.3	10	30K	U3-0.3PN	0.12	C1	0.03 to 0.3	20	15K	U6A-0.3PN	0.15	C2	2000		
0.6	0.04 to 0.6	5	120K	U3-0.6PN			0.05 to 0.6	10	60K	U6A-0.6PN					
1.1	0.1 to 1.1	2.75	400K	U3-1.1PN			0.1 to 1.1	5.5	200K	U6A-1.1PN					
1.5	0.1 to 1.5	2	750K	U3-1.5PN		0.1 to 1.5	4	375K	U6A-1.5PN						
2	0.2 to 2	1.5	1.3M	U3A-2PN		C2	0.2 to 2	3	0.65M	U6A-2PN		0.2		C3	2500
3	0.2 to 3	1	3M	U3A-3PN			0.2 to 3	2	1.5M	U6A-3PN					3500
6	0.4 to 6	0.5	12M	U3A-6PN	0.3 to 6		1	6M	U6A-6PN	7000					
10	0.8 to 10	0.25	40M	U3A-10*	0.05	C4	0.5 to 10	0.5	20M	U6A-10*	0.05	C4	—		
15	1.2 to 15	0.2	75M	U3A-15*		C5	0.8 to 15	0.4	37M	U6A-15*		C5			
25	2 to 25	0.1	250M	U3A-25*		C6	1.4 to 25	0.2	125M	U6A-25*		C6			

*P for Positive, N for Negative Output Polarity

SPECIFICATIONS

Input Voltage/Current U3 : 2V to 15 Vdc, 300mA typ.
U6 : 2V to 24Vdc, 360mA typ.

Output Voltage Proportional to input voltage

Output Polarity PN Type : Reversible Polarity
P, N Type : Fixed Polarity

Load Regulation U3 : 8% typ. for 50% load change
U6 : 12% typ. for 50% load change

Protection Arc & momentary short circuit protected

Input terminal Flying leads 25cm(0.8feet) (Case type C1)
3pin connector(2kV to 10kV)
8pin connector(15kV to 25kV)
Mating connector and pins are assorted
(Recommendation :
wire are AWG18
Crimp Tooling for Molex crimp terminal 2478, 2578)

Output Cable HV flying lead 25cm(0.8feet) (up to 6kV) × 2
HV flying lead 50cm(1.6feet) (10kV to 25kV) × 1

Temperature Operating : -10 to 60°C
Storage : -20 to 60°C

Humidity 20 to 80%RH(no condensation)

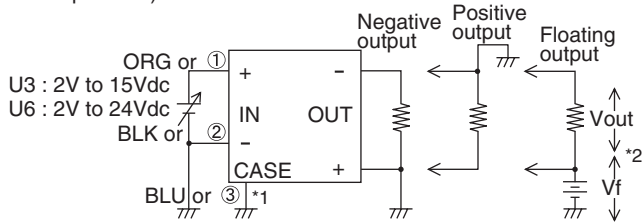
OPTIONS

CN3U Assembled input connector
(Accessory for C2, C3, C4 Case models)
(connector with 25cm flying leads)

CN8U Assembled input connector
(Accessory for C5, C6 Case models)
(connector with 25cm flying leads)

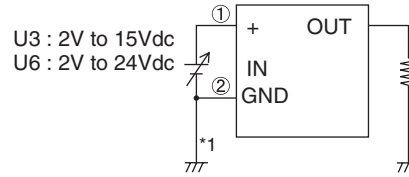
CONNECTION DIAGRAM

(Models up to 6kV)

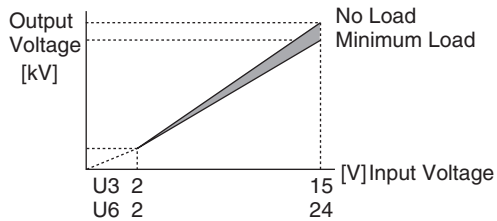


- *1 CASE & GND must be properly grounded
- *2 $V_{out} + V_f$ should not be greater than isolation voltage

(10kV to 25kV Models)

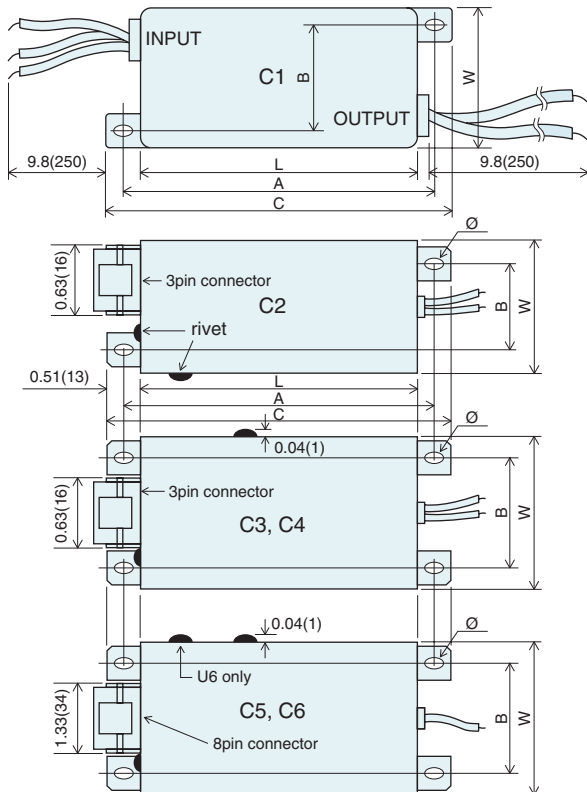


INPUT/OUTPUT PROPORTIONAL CHARACTERISTICS



- *Specifications are at the max output after one hour warm-up
- *Specifications are subject to change without notice

DIMENSIONS inch(mm)



Case	A	B	C	W	L	H	Ø
C1	2.63 (67)	0.63 (16)	2.95 (75)	1.02 (26)	2.36 (60)	0.94 (24)	0.14 × 0.2 (3.5 × 5)
C2	3.27 (83)	0.79 (20)	3.58 (91)	1.18 (30)	3.01 (76.5)	1.06 (27)	
C3	3.86 (98)	0.98 (25)	4.17 (106)	1.38 (35)	3.58 (91)	1.22 (31)	
C4	4.65 (118)	1.57 (40)	4.96 (126)	1.97 (50)	4.33 (110)	1.22 (31)	
C5	4.72 (120)	1.97 (50)	5.12 (130)	2.76 (70)	4.33 (110)	1.26 (32)	0.18 × 0.24 (4.5 × 6)
C6	5.12 (130)	2.76 (70)	5.51 (140)	3.94 (100)	4.72 (120)	1.38 (35)	

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