

# MS0.2MZZ065

## 6 INDEPENDENT -200V TO +200V O/PS @100UA EACH

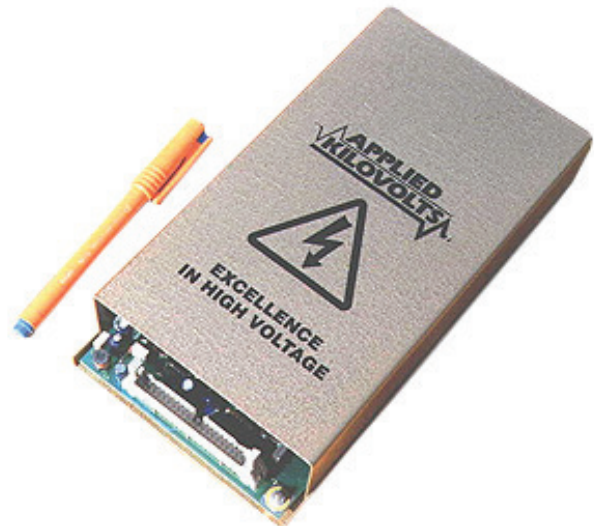
### PRECISION HIGH VOLTAGE MODULE

**APPLIED  
KILOVOLTS**  
A Harris Company

#### Applications:

Beam steering, Focus and bias supplies, Deflector Plates, Electron guns & Ion beams

- High Stability, Low Ripple
- Externally programmable - through zero control
- Short circuit and flashover proof
- 24 hour burn in



This power supply provides six outputs each separately programmable from -200V to +200V with respect to Gnd.

It is intended for steering, focusing & biasing of electron & ion beam applications. Biasing steering plates in pairs, this can control X, Y & Z directions. Each output is controllable cleanly through zero.

Please consult the factory for special variants of this supply including high speed versions.

#### SPECIFICATIONS FOR: MS0.2MZZ065

##### ELECTRICAL SPECIFICATION

Input:	+24V dc $\pm 0.5V$ <0.5A. 0V input common to HV return and chassis. +15V dc $\pm 0.5V$ <0.05A , & -15Vdc $\pm 0.5V$ <0.05A.
Control of output:	-10V to +10V for -100% to 100% $\pm 2\%$ , ( $Z_{in} = 200\text{Kohm}$ )
Output Current:	100 $\mu$ A per channel
Voltage monitor:	-8V to +8V $\pm 2\%$ for -100% to 100%. ( $Z_{out} = 10\text{k}$ )
Current Monitor:	Not available
Ripple:	<25mV pk to pk
Line regulation:	<100ppm for 1V change in input voltage
Load regulation:	<100ppm for 10uA to maximum load
Temperature co-efficient:	<25ppm/ $^{\circ}$ C
Drift (after 1 hour warm up):	<0.01% per hour, <0.05 over an 8 hour period
Protection (all outputs):	Protected against intermittent arcing and continued short circuit to ground. While able to source or sink 100uA, the unit will be damaged by sustained sinking of a beam current in excess of 200uA.

##### MECHANICAL SPECIFICATION

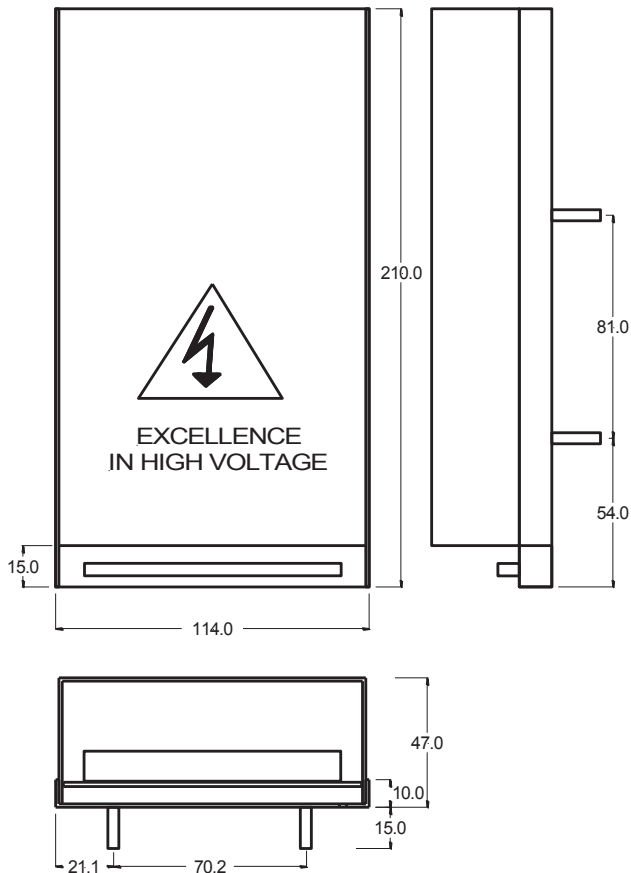
Dimensions:	210 x 114 x 47 mm
Mounting centres:	2 off M4 studs
Input / control:	40 Way IDC header, 0.05" pitch, straight latching, bump/clip polarised (Thomas & Betts 635-4034ES) Mating connector supplied.
Mating Output Socket:	QM 12 way plug, Souriau SMS 12 P1, plus SMS12H1 (Hood) plus 12 off T2P20FC1LT Trident 20AWG socket contacts

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## ENVIRONMENTAL SPECIFICATION

Temperature, operating:	+10°C to +50°C.	Humidity (RH) <30°C non-condensing:	80% maximum
Temperature, storage:	-35°C to +85°C.	Humidity (RH) >30°C non-condensing:	Decrease linearly to 50% at 40°C
Altitude, operating:	Up to 2,000m.	Altitude, storage:	Up to 18,000m

The unit is to be supplied from a current limited supply providing 24V dc, impulse limited to overvoltage Category I (of IEC60364-4-443) . For use in an environment of pollution degree 2.



### About Harris Corporation

Harris Corporation is a leading technology innovator, solving our customers' toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports customers in more than 125 countries, has approximately \$8 billion in annual revenue and 22,000 employees worldwide. The company is organized into four business segments: Communication Systems, Space and Intelligence Systems, Electronic Systems, and Critical Networks.

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## INPUT PIN ASSIGNMENT

1. 1 control i/p	21. 6 control i/p
2. Signal gnd	22. Signal gnd
3. 1 Voltage Monitor o/p	23. 6 Voltage Monitor o/p
4. Signal gnd	24. Signal gnd
5. 2 control i/p	25. Linked to pin 27
6. Signal gnd	26. Linked to pin 28
7. 2 Voltage Monitor o/p	27. Linked to pin 25
8. Signal gnd	28. Linked to pin 26
9. 3 control i/p	29. Linked to pin 31
10. Signal gnd	30. Linked to pin 32
11. 3 Voltage Monitor o/p	31. Linked to pin 29
12. Signal gnd	32. Linked to pin 30
13. 4 control i/p	33. nc
14. Signal gnd	34. +15V input <sup>2</sup>
15. 4 Voltage Monitor o/p	35. Signal gnd <sup>1</sup>
16. Signal gnd	36. -15V input
17. 5 control i/p	37. 0V Pwr Gnd <sup>2</sup>
18. Signal gnd	38. 0V Pwr Gnd <sup>2</sup>
19. 5 Voltage Monitor o/p	39. +24V input
20. Signal gnd	40. +24V input

### Notes:

1. Program Lo and monitor Lo are all connected to pin 35, Signal Ground.
2. Separate signal 0V (+15V) and Power 0V (+24V) grounds are provided, these are held to within +0.5V by back to back diodes or may optionally be connected by an on board link.

## OUTPUT PIN ASSIGNMENT

1. o/p 1	5. o/p 5	9. nc
2. o/p 2	6. o/p 6	10. nc
3. o/p 3	7. nc	11. 0V Load Return
4. o/p 4	8. Nc	12. 0V Load Return

## PART NUMBER SELECTION

MS0.2MZZ065

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