

MCP SERIES

Floating Output High Voltage Power System



The MCP Series of high-voltage rack mount and bench-top power systems is a fully-featured chassis that enables users to reach higher levels of power, up to 15kW. The broad range of voltage and power levels make the MCP Series suitable for a broad range of industries and applications. Users will also benefit from the high performance of the system, which includes low ripple, excellent regulation, floating output, and a low stored energy.

Applications for the MCP Series include photomultipliers, particle accelerators, ion implantation, ion sources, ion pumps, electrostatics, test equipment and more.

- Floating output voltage up to 2kV
- Output power from 0 to 12W up to 15kW
- ½19" rack mount, 19" rack mount, or bench-top case
- Efficiency at 90%
- Fully programmable by 10-turn potentiometer
- Voltage and current monitors on all models
- Multiple computer interfaces available

PARAMETER	CONDITIONS	MODELS																		UNITS		
INPUT		12W to 1200W									2000W to 15kW											
Voltage Range	Full Power	Single phase 115 or 230									Three phase 400 (360-440)									VAC		
Frequency	All Modes	47 to 63																		Hz		
OUTPUT (125V-200V)		125V									200V											
Voltage Range	Nominal Input	0 to 125									0 to 200									VDC		
Power	Nominal Input, Max Eout	30	120	300	600	1200	2400	5000	10000	15000	30	120	300	600	1200	2400	5000	10000	15000	W		
Current	out Entire Output Voltage Range	0.25	1	2.5	5	10	20	40	80	120	0.15	0.6	1.5	3	6	15	25	50	75	A		
OUTPUT (350V-650V)		350V									650V											
Voltage Range	Nominal Input	0 to 350									0 to 650									VDC		
Power	Nominal Input, Max Eout	30	120	300	600	1200	2400	5000	10000	15000	12	30	120	300	600	1200	2400	4500	10000	15000	W	
Current	out Entire Output Voltage Range	0.1	0.4	1	2	4	8	14	28	42	0.02	0.05	0.2	0.5	1	2	4	7	15	22.5	A	
OUTPUT (1250V-2000V)		1250V									2000V											
Voltage Range	Nominal Input	0 to 1250									0 to 2000									VDC		
Power	Nominal Input, Max Eout	12	30	120	300	600	1200	2400	5000	10000	15000	12	30	120	300	600	1200	2000	5000	10000	14000	W
Current	out Entire Output Voltage Range	0.01	0.025	0.1	0.25	0.5	1	2	4	8	12	0.006	0.015	0.06	0.15	0.3	0.6	1	2.5	5	7	A
OUTPUT		ALL TYPES																				
Isolation	Input to Output	12V to 350V: ±500; 650V to 2kV: ±2000																		VDC		
Ripple	Full Load, Max Eout	12W to 300W: 50ppm + 50; 600W to 15kW: 200ppm +200																		mV p-p		
Programming Accuracy	0.1% to 100% Output Voltage	0.001%																		-		
Dynamic Load Regulation	½ to Full Load, Max Eout	100																		PPM		
Line Regulation	Nom. Input, Max Eout, Full Power	10																		PPM		
Static Load Regulation	No Load to Full Load, Max Eout	100																		PPM		
Stability	30 Min. warmup, per 8 hr/ per day	100																		PPM		
PROGRAMMING & CONTROLS		ALL TYPES																				
Output Control & Monitoring		Front panel and/or optional Analog 0 to +10 standard & isolated / Digital 12 bit: RS-232, RS-422, Ethernet, USB, LAN																		-		
ENVIRONMENTAL		ALL TYPES																				
Operating	Full Load, Max Eout, Case Temp.	0 to +40																		°C		
Storage	Non-Operating, Case Temp.	-20 to +60																		°C		
Humidity	All Conditions, Standard Package	80% @ 30C; 50% @ 40C																		-		
Shock	Mil-Std-810, Method 516.5, Proc. IV	< 20																		G's		
Vibration	Mil-Std-810, Method 514.5, Fig.514.5C-3	TBD																		-		

Specifications subject to change without notice.



Making High Voltage Easier!®

Higher Service, Higher Performance, Higher Reliability

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CONSTRUCTION

TBD

SIZE

Dimensions:

0 to 300W models:

½19" [222mm] W x 3U [133mm] H x 13.78" [350mm] depth

600W models:

19" [443mm] W x 3U [133mm] x 13.78" [350mm] depth

1200W models:

19" [443mm] W x 3U [133mm] x 17.72" [450mm] depth

2000W and 2400W models:

19" [443mm] W x 3U [133mm] x 21.65" [550mm] depth

4500W and 5000W models:

19" [443mm] W x 6U [266mm] x 25.59" [650mm] depth

10kW models:

19" [443mm] W x 9U [399mm] x 25.59" [650mm] depth

14kW and 15kW models:

19" [443mm] W x 12U [532mm] x 25.59" [650mm] depth

Weight:

12W & 30W models: 8.82lbs [4kg]

120W models: 11.02lbs [5kg]

300W models: 13.23lbs [6kg]

600W models: 19.84lbs [9kg]

1200W and 2000W models: 26.46lbs [12kg]

2400W models: 50.71lbs [23kg]

4500W and 5000W models: 88.18lbs [40kg]

10kW models: 165.35lbs [75kg]

14kW and 15kW models: 242.51lbs [110kg]

TOLERANCE

TBD

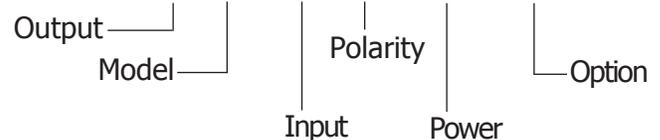
NOTES

For outline drawings of the MCP Series chassis, please contact the factory.

ORDERING INFORMATION		
Output	0 to 125V Output	0.125
	0 to 200V Output	0.2
	0 to 350V Output	0.35
	0 to 650V Output	0.65
	0 to 1250V Output	1.25
	0 to 2000V Output	2
Model	Series Name	MCP
Input	115V (12W to 1200W models only)	115
	230V (12W to 1200W models only)	230
	400V 3 Phase(2000W to 15kW models only)	400
Polarity	Positive Output	-P
	Negative Output	-N
	Floating Output (Isolation voltage up to ±300VDC)	-FL
Power	0 to 12W Output (650V to 2kV models only)	12
	0 to 30W Output	30
	0 to 120W Output	120
	0 to 300W Output	300
	0 to 600W Output	600
	0 to 1.2kW Output	1.2kW
	0 to 2kW Output (2kV models only)	2kW
	0 to 2.4kW Output (Not available on 2kV models)	2.4kW
	0 to 4.5kW Output (650V models only)	4.5kW
	0 to 5kW Output (Not available on 650V models)	5kW
	0 to 10kW Output	10kW
0 to 14kW Output (2kV models only)	14kW	
0 to 15kW Output (Not available on 2kV models)	15kW	
Options	Rear panel RS232 interface	-RS232
	Rear panel RS422 interface	-RS422
	Rear panel Ethernet interface	-ETH
	Rear panel USB interface	-USB
	Rear panel LAN interface	-LAN
	Fine adjust potentiometer	-FA
	Analog interface 0 to 10VDC control & monitors	-I10
	Floating analog interface 0 to 10VDC control & monitors	-I10I
	Lower ripple	-F
	Higher stability	-10PPM
	Low stored energy	-LSE
Power limit	-CP	
Rackmount	-RACK	

High resolution meters available. Contact the factory for more information.

Example: 1.25MCP115-FL2.4kW-USB



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*The MCP Series is not available in all territories. Please contact an UltraVolt Applications Engineer for details concerning sales in your area.



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