

HIGH VOLTAGE POWER SUPPLIES

Programmable/Non-programmable

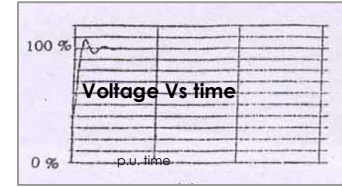
MHVLC-Series

Introduction:

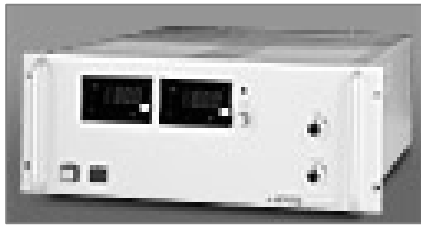
MHVLC series of high voltage /low current supplies are available upto 20,000 kv/(15.0 to 100,000 watts), in more than 50 different models working in constant voltage/current mode virtually offering solutions to electrical insulation, pollution control, electrostatic precipitators, Capillary zone electrophoresis, Petrochemical industry, organic/inorganic chemical, heavy electrical/mechanical industries, high voltage testing, electron microscope supplies, smart sensors and actuators, electrorheology, biotechnology, capacitor energy storage, solids state physics application and many uncountable defense/nuclear applications. Updated design topology ensures better controllability and efficiency with additional integrated power/voltage and frequency control/protection. These power supplies may operate in parallel to make it more redundant. Company offers tailor made solution to custom requirement.

Operating Principle:

These high voltage supply current/low voltage are line commutated S.C.R. or force commutated high frequency I.G.B.T. controlled converters working in feedback cascade mode. Set voltage/ current immediately settles to set point with consistent regulation over wide load range with fail proof protection against over/under voltage. These power supplies may be operated in parallel along with facility of parallel Port/serial port to enable it to interface with computer to achieve any real time Voltage /current profile.



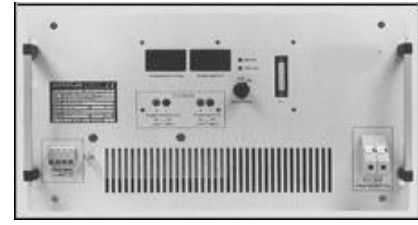
Transient time response of power supply



MHVLC-020010



MHVLC-050020



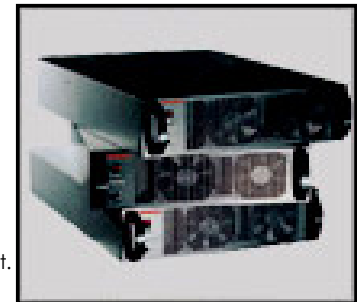
MHVLC-100100

Model	Power watts	Volts K.V./ option	Current m.a./ option	Repetition rate pulse/sec maximum	cooling	Model	Power watts	Volts K.V.	Current m.a.	Repetition rate Pulse/sec maximum	Cooling
MHVLC-0509993	500.0	0.5	1000.0	100/option	Air/oil	MHVLC-0300103	500.0	30.0	010.0	100/option	Air/oil
MHVLC-0301003	300.0	03.0	100.0	100/option	Air/oil	MHVLC-0300203	500.0	30.0	020.0	100/option	Air/oil
MHVLC-0500403	200.0	05.0	040.0	100/option	Air/oil	MHVLC-0500103	500.0	50.0	010.0	100/option	Air/oil
MHVLC-0501003	500.0	05.0	100.0	100/option	Air/oil	MHVLC-0500203	1000.0	50.0	020.0	100/option	Air/oil
MHVLC-0500203	200.0	10.0	020.0	100/option	Air/oil	MHVLC-0500403	2000.0	50.0	040.0	100/option	Air/oil
MHVLC-0100503	500.0	10.0	050.0	100/option	Air/oil	MHVLC-0501003	5000.0	50.0	100.0	100/option	Air/oil
MHVLC-0101003	1000.0	10.0	100.0	100/option	Air/oil	MHVLC-1000103	1000.0	100.0	10.0	100/option	Air/oil
MHVLC-0105003	5000.0	10.0	500.0	100/option	Air/oil	MHVLC-1000203	2000.0	100.0	020.0	100/option	Air/oil
MHVLC-0109993	10,000.0	10.0	1000.0	100/option	Air/oil	MHVLC-1000503	5000.0	100.0	050.0	100/option	Air/oil
MHVLC-0200503	1000.0	20.0	050.0	100/option	Air/oil	MHVLC-1001003	10000.0	100.0	100.0	100/option	Air/oil
MHVLC-0201003	2000.0	20.0	100.0	100/option	Air/oil	MHVLC-2002003	10000.0	200.0	050.0	100/option	Air/oil
MHVLC-0205003	10000.0	20.0	500.0	100/option	Air/oil	MHVLC-2002003	20000.0	200.0	100.0	100/option	Air/oil
MHVLC-0209993	20,000.0	20.0	1000.0	100/option	Air/oil	MHVLC-4000503	20,000.0	400.0	050.0	100/option	Air/oil

Voltage/current specs of above power supplies are of regular production, however company is regularly manufacturing power supplies of higher voltage/current options.

High voltage/low current power supply Specification:

Operating voltage: 1.0-200.0 kV D.C. / 100.0 kilo watts
 Output current: 0.0-40,000 m.a (max)
 Voltage/current control accuracy: 99.9% of set point
 Voltage regulation: Line : $\pm 0.05\%$ (for $\pm 10\%$ of input change)/ Load: 0.05% (for 10 to 100% of load change)
 Current regulation: Line : $\pm 0.05\%$ (For $\pm 10\%$ of input change)/Load: 0.05% (for 10 to 100% of load change)
 Resolution: 0.1 volts/amps D.C.
 Repeatability: 100 percent
 Response time: 0.5 – 1.1 mill-seconds
 Interface Signal: 0.0-12.0 volts D.C. proportional to output voltage
 Voltage control ranges: 0.0-400 K.V.
 Step down ratio: 0-100%
 Control options: 1. **Reverse polarity control** 2. 1. Cascade feedback control with Soft start 2. Ratio control (option) 2. Constant voltage/current with external adjustment.
 Display: 3-1/2, 4-1/2, 5-1/2 Voltage/current/charge/kilowatt/option in 3 1/2 red glow LED display
 Protection: over voltage/short ckt.
 Additional: Local: Constant voltage mode, by 10-turn potentiometer Constant current mode, by 10-turn potentiometer
 Remote: Constant voltage mode, by external voltage of 0 to 10Vdc*



NOTE: These power supplies are also offered in pulse mode.

MOTORON SEMICONDUCTORS CORPORATION

33, Shri nagar colony, Shakti nagar extension, DELHI-110052. Tel: 011-23644180/23655454
 e.mail: motoron@hotmail.com

HIGH VOLTAGE POWER SUPPLIES

Programmable/Non-programmable

MHVLC-Series

High Voltage Power Supply Specification:

Model	Power watts	Volts K.V.	Current 10 ⁻² amps	Repetition rate pulse/sec maximum	cooling	Model	Power watts	Volts K.V.	Current 10 ⁻² amps.	Repetition rate Pulse/sec maximum	Cooling
MHVLC-0301002	03000	03.0	100.0	100	Air/oil	MHVLC-0300102	06000	30.0	20.0	100	Air/oil
MHVLC-0500402	02000	05.0	040.0	100	Air/oil	MHVLC-0500102	05000	50.0	10.0	100	Air/oil
MHVLC-0501002	05000	05.0	100.0	100	Air/oil	MHVLC-0500202	01000	50.0	20.0	100	Air/oil
MHVLC-0500202	02000	10.0	020.0	100	Air/oil	MHVLC-0500402	02000	50.0	40.0	100	Air/oil
MHVLC-0100502	05000	10.0	050.0	100	Air/oil	MHVLC-0501002	05000	50.0	100.0	100	Air/oil
MHVLC-0101002	01000	10.0	100.0	100	Air/oil	MHVLC-1000102	01000	100.0	10.0	100	Air/oil
MHVLC-0105002	05000	10.0	500.0	100	Air/oil	MHVLC-1000202	02000	100.0	20.0	100	Air/oil
MHVLC-0109992	10000	10.0	1000.0	100	Air/oil	MHVLC-1000502	05000	100.0	50.0	100	Air/oil
MHVLC-0200502	01000	20.0	050.0	100	Air/oil	MHVLC-1001002	10000	100.0	100.0	100	Air/oil
MHVLC-0201002	02000	20.0	100.0	100	Air/oil	MHVLC-2002002	10000	200.0	50.0	100	Air/oil
MHVLC-0205002	10000	20.0	500.0	100	Air/oil	MHVLC-2002002	20000	200.0	100.0	100	Air/oil
MHVLC-0209992	20000	20.0	1000.0	100	Air/oil	MHVLC-4000502	20000	400.0	50.0	100	Air/oil

High Voltage Power Supply Specification:

Model	Power watts	Volts K.V.	Current 10 ⁻⁵ amps	Repetition rate pulse/sec maximum	cooling	Model	Power watts	Volts K.V.	Current 10 ⁻⁵ amps.	Repetition rate Pulse/sec maximum	Cooling
MHVLC-0301005	030.0	03.0	100.0	100	Air/oil	MHVLC-0300105	060.0	30.0	20.0	100	Air/oil
MHVLC-0500405	020.0	05.0	040.0	100	Air/oil	MHVLC-0500105	050.0	50.0	10.0	100	Air/oil
MHVLC-0501005	050.0	05.0	100.0	100	Air/oil	MHVLC-0500205	010.0	50.0	20.0	100	Air/oil
MHVLC-0500205	020.0	10.0	020.0	100	Air/oil	MHVLC-0500405	020.0	50.0	40.0	100	Air/oil
MHVLC-0100505	050.0	10.0	050.0	100	Air/oil	MHVLC-0501005	050.0	50.0	100.0	100	Air/oil
MHVLC-0101005	010.0	10.0	100.0	100	Air/oil	MHVLC-1000105	010.0	100.0	10.0	100	Air/oil
MHVLC-0105005	050.0	10.0	500.0	100	Air/oil	MHVLC-1000205	020.0	100.0	20.0	100	Air/oil
MHVLC-0109995	100.0	10.0	1000.0	100	Air/oil	MHVLC-1000505	050.0	100.0	50.0	100	Air/oil
MHVLC-0200505	010.0	20.0	050.0	100	Air/oil	MHVLC-1001005	100.0	100.0	100.0	100	Air/oil
MHVLC-0201005	020.0	20.0	100.0	100	Air/oil	MHVLC-2002005	100.0	200.0	50.0	100	Air/oil
MHVLC-0205005	100.0	20.0	500.0	100	Air/oil	MHVLC-2002005	200.0	200.0	100.0	100	Air/oil
MHVLC-0209995	200.0	20.0	1000.0	100	Air/oil	MHVLC-4000505	200.0	400.0	50.0	100	Air/oil



MHVLC-0301005



MHVLC-0209992



MHVLC-0500202

High voltage/low current power supplies dimension:

MHVLC-0301002	08X06X06	MHVLC-0300103	14x14x14	MHVLC-0301002	14x14x14	MHVLC-0300102	20x16x16
MHVLC-0500402	12x08x08	MHVLC-0500103	18x16x16	MHVLC-0500402	18x16x16	MHVLC-0500102	22x18x18
MHVLC-0501002	12x10x10	MHVLC-0500203	20x18x18	MHVLC-0501002	20x18x18	MHVLC-0500202	24x18x18
MHVLC-0500202	12x10x10	MHVLC-0500403	20x18x18	MHVLC-0500202	20x18x18	MHVLC-0500402	24x20x16
MHVLC-0100502	14x10x10	MHVLC-0501003	14x12x12	MHVLC-0100502	14x12x12	MHVLC-0501002	28x14x14
MHVLC-0101002	16x12x12	MHVLC-1000103	18x16x16	MHVLC-0101002	18x16x16	MHVLC-1000102	28x14x14
MHVLC-0105002	16x14x14	MHVLC-1000203	14x14x14	MHVLC-0105002	14x14x14	MHVLC-1000202	28x16x16
MHVLC-0109992	18x10x10	MHVLC-1000503	18x16x16	MHVLC-0109992	18x16x16	MHVLC-1000502	28x18x18
MHVLC-0200502	18x12x12	MHVLC-1001003	20x16x16	MHVLC-0200502	20x16x16	MHVLC-1001002	28x20x20
MHVLC-0201002	18x14x14	MHVLC-2002003	22x18x18	MHVLC-0201002	22x18x18	MHVLC-2002002	28x22x22
MHVLC-0205002	18x16x18	MHVLC-2002003	24x18x18	MHVLC-0205002	24x18x18	MHVLC-2002002	28x22x24
MHVLC-0209992	16x16x16	MHVLC-4000503	24x20x16	MHVLC-0209992	24x20x16	MHVLC-4000502	28x24x24

Three numerals after MHVLC indicates wattage x10 of supply and last three digit indicates milli amps. All dimensions are in inches. Above models are in current range of production, however company undertake any tailor made specification power supply.

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e.mail: motoron@hotmail.com