

PROGRAMMABLE CAPACITOR CHARGING POWER SUPPLIES

Feedback controlled

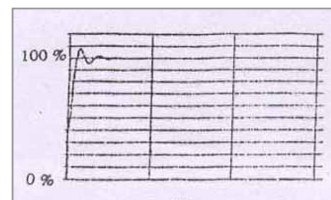
MCGPS-Series

Introduction:

MCGPS series of high voltage/low-current pulse capacitor charger are designed for achieving optimum results in following electro ceramic applications... 1. Capacitor charging and discharging 2. laser, 3.welding, and many other capacitor related applications. This pulse charger unit contains programmable kilo volt/meter -minute controller, space mark controller, and digital volt/ampere meter with RS-232 port, which enable the user to online assess/monitor the process parameter and control the quality and quantity of capacitor alignment with high degree of repeatability, accuracy all the time. Only for this reason, our pulse capacitor charger is the first choice of any industrial/research application. This charger could be operated in parallel. Company offers tailor made solution to custom requirement.

Operating Principle:

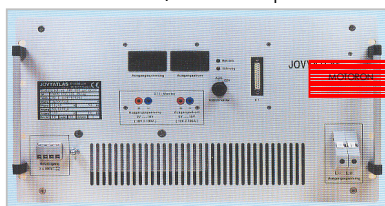
These pulse incorporate the compact high frequency AC/DC converter, which ensure low voltage/current ripple. Pulse capacitor charger is able to bring in uniform dipole alignment with improved grain structure exhibiting high level of polar charging as current delivered is in quantified manner which allows the restricted style growth of grain during every Pulse of current ,ensuring an improved uniform dense capacitor's dipole alignment that is further enhanced during depolarized period when over/under unregulated polar grain spread either lateral e or height wise are marginalized, thus bringing a highly density charging of capacitor. This ability of pulse power supplies makes it possible to achieve much high polar alignment in narrow and multipolar applications. With conventional , non-uniform charging leads to uneven grain structures leading to development of differential stress zone. A portion of zone having less polar charging or more hardness gains higher crack potential due course of time and will imitate a specific form of crack there by reducing the life/break down of capacitor even. Normally such phenomenon does not exist with conventional capacitor charger . Because of pulse mode periodic output of , it is possible to achieve multi polar compact charging with high polar alignment/high mechanical strength of film and better /reliable operational life.



Current vs time



MCGPS-0800200



MCGPS-0800500



MCGPS-0800050

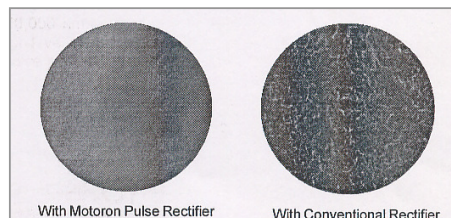
Electrical specification for High voltage capacitor charging supplies

volt: less than 80 kilo volt

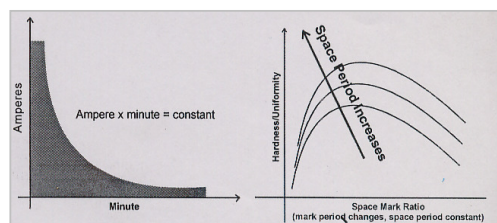
Model	Watts	Volts K.V.	Current m.a. ave/peak	dI/dT peak	cooling	Model	Watts	Volts K.V.	Current m.a. ave/peak	dI/dT peak	cooling
MCGPS-050015	1200	05	0015.0	option	Air	MCGPS-152000	16000	15	02000.0	option	Air
MCGPS-050025	2000	05	0025.0	option	Air	MCGPS-154000	32000	15	04000.0	option	Air
MCGPS-050050	4000	05	0050.0	option	Air	MCGPS-156000	48000	15	06000.0	option	Air
MCGPS-050100	8000	05	0100.0	option	Air	MCGPS-158000	64000	30	07000.0	option	Air
MCGPS-100200	16000	10	0200.0	option	Air	MCGPS-309000	80000	30	90000.0	option	Air
MCGPS-100500	40000	10	0500.0	option	Air	MCGPS-405000	120000	40	05000.0	option	Air
MCGPS-101000	80000	10	1000.0	option	Air	MCGPS-408000	160000	40	08000.0	option	Air

High Frequency pulse capacitor charging power supply specification:

Operating voltage 220 volts, 1/3 phase, 40-60 Hz
 Output current/voltage 0-80 kilo Volts/20000 mili amps (max)
 Voltage/current ripple 10 micro volts-noload/ 100 micro volt-full load
 Operating frequency 5.0-200 K.Hz
 Voltage/current control accuracy 99.9% of set point
 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 capacitor charging]
 Voltage control range 0.0-8.0 kilo volts
 SPACE-MARK RATIO 1:3 to 1:9
 Control options 1.cascade feedback control with soft start
 2. Constant voltage/current with external adjustment.
 Display Voltage/current/gauss/space mark/gauss-second in 3½ red glow LED display
 Protection over voltage/short ckt.



comparative dipole alignment



Two numerals after MCGPS indicates voltage of pulse capacitor and last four digit Indicates current. All dimensions are in inches.

MOTORON SEMICONDUCTORS CORPORATION

11, Shri nagar colony, Shakti nagar extension, DELHI-110052. Tel: 011-23648181/23655454 fax: 011-23585424
 e.mail: motoronenergy@hotmail.com

PROGRAMMABLE CAPACITOR CHARGING POWER SUPPLIES

Feedback controlled

MCGPS-Series

Electrical specification for High voltage capacitor charging supplies

volt: less than 2.0 kilo volt

Model	Watts	Volts K.V.	Current m.a. ave/peak	di/dT peak	cooling	Model	Watts	Volts K.V.	Current m.a. ave/peak	di/dT peak	cooling
MCGPS-0010015	1200	1.0	15.0	05-50	Air	MCGPS-0022000	16000	2.0	15.0	05-50	Air
MCGPS-0010025	2000	1.0	25.0	05-50	Air	MCGPS-0024000	32000	2.0	25.0	05-50	Air
MCGPS-0010050	4000	1.0	50.0	05-50	Air	MCGPS-0026000	48000	2.0	50.0	05-50	Air
MCGPS-0010100	8000	1.0	100.0	05-50	Air	MCGPS-0020200	640000	2.0	100.0	05-50	Air
MCGPS-0010200	16000	1.0	200.0	05-50	Air	MCGPS-0810000	800000	2.0	200.0	05-50	Air
MCGPS-0010500	40000	1.0	500.0	05-50	Air	MCGPS-0815000	1200000	2.0	500.0	05-50	Air
MCGPS-0011000	80000	1.0	1000.0	05-50	Air	MCGPS-0820000	1600000	2.0	1000.0	05-50	Air

Two numerals after MCGPS indicates voltage of pulse capacitor and last four digit Indicates current. All dimensions are in inches.

Electrical specification for High voltage capacitor charging supplies

volt: less than 5.0 kilo volt

Model	Watts	Volts K.V.	Current m.a. ave/peak	di/dT peak	cooling	Model	Watts	Volts K.V.	Current m.a. ave/peak	di/dT peak	cooling
MCGPS-0030015	1200	03	15.0	05-50	Air	MCGPS-0052000	16000	05	2000.0	05-50	Air
MCGPS-0030025	2000	03	25.0	05-50	Air	MCGPS-0054000	32000	05	4000.0	05-50	Air
MCGPS-0030050	4000	03	50.0	05-50	Air	MCGPS-0056000	48000	05	6000.0	05-50	Air
MCGPS-0030100	8000	03	100.0	05-50	Air	MCGPS-0050500	640000	05	8000.0	05-50	Air
MCGPS-0030200	16000	03	200.0	05-50	Air	MCGPS-0810000	800000	05	10000.0	05-50	Air
MCGPS-0030500	40000	03	500.0	05-50	Air	MCGPS-0815000	1200000	05	15000.0	05-50	Air
MCGPS-0031000	80000	03	1000.0	05-50	Air	MCGPS-0820000	1600000	05	20000.0	05-50	Air

Two numerals after MCGPS indicates voltage of pulse capacitor and last four digit Indicates current. All dimensions are in inches.

Common Mechanical dimension :(INCH):

Ultra-low Voltage Power Supplies

Low-Medium Voltage power supplies

High Voltage power supplies

Radio-Voltage power

MCGPS-050015	12x08x08	MCGPS-152000	20x18x18	MCGPS-0030015	08X06X06	MCGPS-0052000	18x16x16
MCGPS-050025	12x08x08	MCGPS-154000	20x18x18	MCGPS-0030025	12X08X08	MCGPS-0054000	20x18x16
MCGPS-050050	12x10x10	MCGPS-156000	14x12x12	MCGPS-0030050	12X08X08	MCGPS-0056000	20x18x18
MCGPS-050100	14x12x10	MCGPS-158000	18x16x16	MCGPS-0030100	12X10X10	MCGPS-0050500	20x18x18
MCGPS-100200	16x14x12	MCGPS-309000	14x14x14	MCGPS-0030200	14x12x12	MCGPS-0810000	22x20x20
MCGPS-100500	18x16x14	MCGPS-405000	18x16x16	MCGPS-0030500	18x16x16	MCGPS-0815000	24x20x20
MCGPS-101000	16x14x14	MCGPS-408000	20x16x16	MCGPS-0031000	20X18X18	MCGPS-0820000	32x24x24

Two numerals after MCGPS indicates voltage of pulse capacitor and last four digit Indicates current. All dimensions are in inches.

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