

HIGH VOLTAGE CHARGERS

150-1500 J/s Series

From 300 V to 200 kV Output Voltage



- ▶ Voltage & Current Outputs continuously adjustable from 0 to full scale
- ▶ Customized V and C full scales* with no extra cost
- ▶ Total protection against arcs, overloads and short circuits
- ▶ Over Temperature protection
- ▶ Compact design
- ▶ Double Resonance Technology (ZVC)
- ▶ V & C Setting and Monitoring from front panel or remote
- ▶ Automatic crossover
- ▶ Limited inrush current
- ▶ Remote, Inhibit & Interlock functions
- ▶ 3 ½ digit displays with polarity display
- ▶ Safety switch key
- ▶ **Warranty: 2 Years**



CCR 15-P-1500
0 to 15 kV, 1500 J/s

Non-contractual photo

*You can choose your own full scales (V_{max} and I_{max}) even if these values are not available in standard. For example, you can get a 3750 V generator based on 750 J/s model. In this case, you will get an Output Voltage adjustable from 0 to 3750 V and an Output Current from 0 to 400 mA.

Options*

- Other Voltage and Current values available with no extracost*
- Reversibility and Floating outputs
- 4 ½ digit display
- Non instrumented version
- Automatic Inhibit when discharging
- RS232, GPIB, Ethernet and Profibus interfaces
- Optic fiber transmission kit with RS32 only
- LABVIEW Run Time RS232 or GPIB
- Relay interface 24 V dc
- Insulated Remote Interface
- Repetition Frequency > 10 Hz: No extracost
- Customer Remote Adaptation
- Multichannel control unit
- Safety signs and devices alerting to hazard
- Tropicalization
- Transportable "all terrain" container
- Specific AC or DC main power inputs
- OEM version
- Remote Front Panel

Description

High Voltage CCR models are designed to charge high voltage capacitors and marx generators. All the numerous advantages of compactness, robustness, reliability, and saving offered with the double resonance technology are already available on these models which constitute the low end range.

Five series of chargers rate are offered: 150 J/s, 300 J/s, 600 J/s, 750 J/s and 1500 J/s. These chargers are all based on a 3U and 5U height 19" rack presentation.

Using a modular design, our products integrate the latest technology components.

Above 20KV, High Voltage subassembly is wrapped in resin.

*There maybe some restrictions on multiple option combinations (Please contact our sales department for more details)



Electrical Specifications

• Output Voltage and Output Current:

Both Voltage Output and Current Output are continuously adjustable from 0 to 100 % (full scale)

In local mode: by using 10 turns potentiometers resolution 0.05%

In remote mode: by an external 0 to 10 V

• Reproducibility (pulse to pulse voltage variation):

Load Regulation: $\pm 0.25\%$ (Frequency < 10 Hz)

Line Regulation: $\pm 0.1\%$ (for Main Voltage $\pm 10\%$)

• Current regulation:

Load Regulation: $\pm 0.05\%$ (for 0 – 100 % load)

Line Regulation: $\pm 0.05\%$ (for Main Voltage $\pm 10\%$)

• Voltage Holding: 0.25 % p-p (better on request)

• Stored Energy: 0.2J/kJ

• Protections: Against short circuit & HV arc to ground
Shutdown on Overtemperature, & open interlock

• Stability (after one hour warm-up):

0.01 % / hour, 0.03 % / 8 hours of operating with constant load and ambient temperature.

• Temperature Coefficient: 100 ppm/°C

• Operating Temperature: from 0 to 40°C

• Efficiency: > 88 % full load

• Air Cooling

• Mains Voltage:

Up to 1200 W: 170 V to 255 VAC 47 – 63 Hz Single Phase + Earth
(Power Factor Correction Input ≥ 0.98)

From 1500 W: 400 VAC $\pm 10\%$ 47 – 63 Hz 3 Phases + Earth
($\text{Cos}\phi \geq 0.98$)

• Inrush current: limited to full power operating current

• Calibration: with probes periodically approved by Authorized Measurement Laboratories

• CE Certification



Physical description

Non contractual photos



19" Rack	3U - 480 mm	3U - 600 mm	5U - 600 mm
Dimensions	H 133 x W483 x D480 mm	H 133 x W483 x D600 mm	H 222 x W 483x D600 mm

Voltage	CCR 150 J/s Series		CCR 300 J/s series		CCR 600 J/s Series		CCR 750 J/s Series		CCR 1500 J/s Series	
	mA	Model	mA	Model	mA	Model	mA	Model	A	Model
300 V	Not Available		Not Available		Not Available		5000	CCR0.3*750	10.00	CCR0.3*1500
700 V	429	CCR0.7*150	857	CCR0.7*300	1714	CCR0.7*600	2143	CCR0.7*750	4.29	CCR0.7*1500
1 kV	300	CCR1*150	600	CCR1*300	1200	CCR1*600	1500	CCR1*750	3.00	CCR1*1500
2.5 kV	120	CCR2.5*150	240	CCR2.5*300	480	CCR2.5*600	600	CCR2.5*750	1.20	CCR2.5*1500
5 kV	60.0	CCR5*150	120	CCR5*300	240	CCR5*600	300	CCR5*750	0.60	CCR5*1500
10 kV	30.0	CCR10*150	60.0	CCR10*300	120	CCR10*600	150	CCR10*750	0.30	CCR10*1500
15 kV	20.0	CCR15*150	40.0	CCR15*300	80.0	CCR15*600	100	CCR15*750	0.20	CCR15*1500
20 kV	15.0	CCR20*150	30.0	CCR20*300	60.0	CCR20*600	75	CCR20*750	NOT AVAILABLE	
30 kV	10.0	CCR30*150	20.0	CCR30*300	40.0	CCR30*600	50	CCR30*750		
40 kV	7,50	CCR40*150	15.0	CCR40*300	30.0	CCR40*600	37,5	CCR40*750		
50 kV	6.00	CCR50*150	12.0	CCR50*300	24.0	CCR50*600	30	CCR50*750		
60 kV	5.00	CCR60*150	10.0	CCR60*300	20.0	CCR60*600	25	CCR60*750		
80 kV	3,75	CCR80*150	7,50	CCR80*300	15.0	CCR80*600	18,7	CCR80*750		
100 kV	3.00	CCR100*150	6.00	CCR100*300	12.0	CCR100*600				
120 kV	2,50	CCR120*150	5.00	CCR120*300						
150 kV	2.00	CCR150*150	4.00	CCR150*300						
200 kV	1,50	CCR200*150	3.00	CCR200*300						

*Specify Polarity: P For Positive, N For Negative,
F For Floating (option) & R For Reversibility (option)

Higher Voltage: Contact Us

All our chargers are delivered with - HV Output: Connector and 3 meters cable
- Mains Input: 230 VAC models: 2 meters CE22 cable
400 VAC models: 4 pins female connector

Example of Reference : CCR 15 N 150

Mode	CCR model (Capacitor charger Regulation)
Voltage	Adjustable from 0 to 15 kV
Polarity	Negative Polarity
J/s	150 J/s charging power

Our chargers are supposed to be used in following conditions:

- Complete discharge
- Max. frequency : 10 Hz
- Capacitor Load

If it is used in other conditions, please fill our charger formulary.