

HCE SERIES

High Voltage Cassette Power Supply



The HCE Series of high-voltage regulated AC-DC converters addresses the need for plug in HV modules that allow the system designer to build out a rack chassis as need. The modules are AC line operated fully integrated plug in HV modules with full features for local/remote analog controls & monitoring at good performance. Designed and built utilizing state-of-the-art power-conversion topology, these units feature design, manufacturing process, and encapsulation techniques that provide high reliability.

Typical applications for this series include the following:

Capital Equipment Designers can select multiple modules to create sub-systems to operate process control, manufacturing, test & measurement, and analysis machines for operating detectors, emitters, electrostatics, and actuators.

R&D system designers can select multiple modules to develop experiments, proof-of-concept equipment, and one-of-a-kind devices.

- 11 models provide fixed outputs of 0 to 125V through 35kV
- 0 to 7, 35, 140 or 350 watts of output power
- Input of 115VAC or 230VAC
- Compatible with Euro cassette rack & 19" rack chassis
- Indefinite output short-circuit protection & arc protection
- Remote control & monitors:
 - Constant Voltage/Constant Current Control (CVCC)
 - Output Current & Voltage Monitors
 - Remote TTL Enable / Disable Control
- Front panel controls & monitors:
 - AC power switch, Local/Remote control switch
 - Screwdriver set Constant Voltage/Constant Current Controls (CVCC) with LED mode indicators
 - Output current & voltage monitor jacks with GND jack for meter

PARAMETER	CONDITIONS	MODELS																UNITS
INPUT																		
Voltage Range	Full Power	115								230								VAC
Frequency	All Modes	47 to 63																Hz
OUTPUT (125V-650V)		125V				200V				350V				650V				
Voltage Range	Nominal Input	0 to 125				0 to 200				0 to 350				0 to 650				VDC
Power	Nominal Input, Max Eout	7	35	140	350	7	35	140	350	7	35	140	350	7	35	140	350	W
Current	out Entire Output Voltage Range	50	250	1000	2500	30	150	600	1500	20	100	400	1000	10	50	200	500	mA
OUTPUT (1.25KV-6.5KV)		1,250V				2,000V				3,500V				6,500V				
Voltage Range	Nominal Input	0 to 1250				0 to 2000				0 to 3500				0 to 6500				VDC
Power	Nominal Input, Max Eout	7	35	140	350	7	35	140	350	7	35	140	350	7	35	140	350	W
Current	out Entire Output Voltage Range	5	25	100	250	3	15	60	150	2	10	40	100	1	5	20	50	mA
OUTPUT (12.5KV-35KV)		12,500V				20,000V				35,000V								
Voltage Range	Nominal Input	0 to 12500				0 to 20000				0 to 35000				VDC				
Power	Nominal Input, Max Eout	7	35	140	350	7	35	140	350	7	35	140	350	W				
Current	out Entire Output Voltage Range	0.5	2.5	10	25	0.3	1.5	6	15	0.2	1	4	10	mA				
OUTPUT		ALL TYPES																
Isolation	Input to Output	0V or ± 125 with jumper removed																VDC
Ripple	Full Load, Max Eout	Typical ripple <0.01% + 50mV Pk-Pk																mV p-p
Programming Accuracy	0.1% to 100% Output Voltage	0.01%																Volts
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	200																PPM
Stability	30 Min. warmup, per 8 hr/ per day	100																PPM
PROGRAMMING & CONTROLS		ALL TYPES																
Output Control & Monitoring																		-
ENVIRONMENTAL		ALL TYPES																
Operating	Full Load, Max Eout, Case Temp.	0 to +40																°C
Temperature Coefficient	Over the Specified Temperature	100																PPM
Storage	Non-Operating, Case Temp.	-20 to +60																°C
Humidity	Non-Condensing	80% @ 30 °C; 50% @ 40 °C																-
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

Aluminum

SIZE

Dimensions:

7W @ 125-12500V models:

14U [71mm] W x 3U [133mm] H x [170mm] depth

7W @ 20000V models:

21U [107mm] W x 3U [133mm] H x [170mm] depth

7W @ 35000V models:

28U [142mm] W x 3U [133mm] H x [170mm] depth

35W @ 125-20000V models:

21U [107mm] W x 3U [133mm] x [170mm] depth

35W @ 35000V models:

28U [142mm] W x 3U [133mm] x [170mm] depth

140W @ 125-6500V models:

21U [107mm] W x 6U [262mm] x [230mm] depth

140W @ 12500-35000V models:

28U [142mm] W x 6U [262mm] x [230mm] depth

350W @ 125-2000V models:

21U [107mm] W x 6U [262mm] x [230mm] depth

350W @ 3500-35000V models:

28U [142mm] W x 6U [262mm] x [230mm] depth

Weight:

7W @ 125-3500V models: 2.65lbs [1.2kg]

7W @ 6500-12500V models: 2.87lbs [1.3kg]

7W @ 20000V models: 5.07lbs [2.3kg]

7W @ 35000V models: 5.51lbs [2.5kg]

35W @ 125-6500V models: 3.3lbs [1.5kg]

35W @ 12500V models: 3.97lbs [1.8kg]

35W @ 20000V models: 5.51lbs [2.5kg]

35W @ 35000V models: 6.17lbs [2.8kg]

140W @ 125-3500V models: 6.6lbs [3.0kg]

140W @ 6500-35000V models: 11.02lbs [5.0kg]

350W @ 125-3500V models: 8.82lbs [4.0kg]

350W @ 6500-35000V models: 13.23lbs [6.0kg]

NOTES

From 1250 V nominal voltage on, HV-connectors are provided. The mating HV-connectors are delivered with the unit. HV mating connectors with cables are separate, please contact the factory for part numbers, standard cable lengths, optional cable lengths and cable terminations.

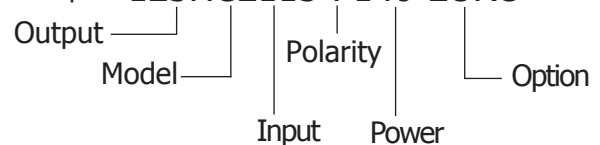
The "0V" - terminal of the output is connected to earth on the back panel but may be disconnected as needed. When disconnected, the "0V" (earthy) terminal may float with respect to earth up to ± 125 V.

See the HCE Tech Note for analog control connector information.

ORDERING INFORMATION		
Output	0 to 125V Output	125
	0 to 200V Output	200
	0 to 350V Output	350
	0 to 650V Output	650
	0 to 1250V Output	1250
	0 to 2000V Output	2000
	0 to 3500V Output	3500
	0 to 6500V Output	6500
	0 to 12500V Output	12500
	0 to 20000V Output	20000
0 to 35000V Output	35000	
Model	Series Name	HCE
Input	115 VAC	-115
	230 VAC	-230
Polarity	Postive Output	-P
	Negative Output	-N
Power	0 to 7W Output	7
	0 to 35W Output	35
	0 to 140W Output	140
	0 to 350W Output	350
Digital Ready Enhanced Interface	5V Controls and Monitors	-I5
	10V Controls and Monitors (24V in only)	-I10
Connectors	Terminals (≤ 650 V)	STD
	SHV connector (> 1 kVDC < 6.5 kV)	STD
	F 3415AG 6.2 (> 6.5 kV ≤ 20 kV)	STD
	F 3430AG 10.2 connector (35kV)	STD
Seperate Rack Chassis Available	19" Rack chassis for multiple modules	OPENRACK-19"
	Euro Rack chassis for multiple modules	OPENRACK-EURO
Chassis Options	Handles for the above open rack chassis	-HANDLES

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

Example: **125HCE115-P140-EURO**



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



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