1~15kV 0~15W E-chuck Special for semiconductor electronic chuck



ISO9001:2015

Page 1 of 3





- Output Voltage Range: 1kV-15kV
- Single Output and Bipolar Models
- Input to Output Isolation: >500MΩ
- Automatic Polarity Reversal
- Automatic Discharge
- Short Circuit and Open Circuit Protection
- Built-in RF Filtering Available
- Analog / RS232 / DeviceNet (option)

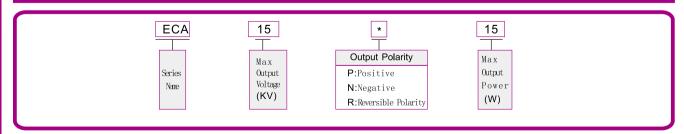
INSTRODUCTION:

Wisman ECA Series is a high voltage power system with floating outputs up to 15kV ($\pm 7500V$) with both bipolar and unipolar versions. The output polarity can be reversed automatically with an input signal to the remote interface connector (25 pin D-type female). Input power is 24VDC via 3-pin Molex type, non-reversible quick disconnect. MHV connectors are used for the HV outputs, and a BNC for the center tap connection.

APPLICATION:

Electrostatically driven material handling, semiconductor wafer processing, non-mechanical transfer of flat plates or other processed materials sensitive to mechanical handling.

SELECTION EXAMPLE





1~15kV 0~15W E-chuck Special for semiconductor electronic chuck



ISO9001:2015

Page 2 of 3

ECA SPECIFICATIONS

Output Stability 1% or better of full output Output Ripple Less than 0.5% at >35kHz operating frequency Output Voltage Linearity Better than ±1% from 10% to 100% output Output Polarity Reversal On command or programmable automatic. Note: ESC-HV10 does not include polarity included to polarity included units. Output Voltage Balance On command or programmable automatic via 100kΩ resistor network HV output to chassis ground Operating Ambient Temperature Oto +40°C Storage Temperature Oto +70°C Humidity 10-90% non-condensing RF filtering R filtering is included on all models except ESC-HVxx DC Output Connection RF filtering is included on all models except ESC-HVxx DC Power Input Connection MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connectors for HV- and HV-, (SHV for model ESC-HVXP) BNC connectors for HV- and HV-, (SHV for model ESC-HVXP) BNC connectors for HV- and BN-, (SHV for model ESC-HVXP) BNC connectors for HV- and BN-, (SHV for model ESC-HVXP) BNC connectors for HV- and BN-, (SHV for model ESC-HVXP) BNC connectors for HV- and BN-, (SHV for model ESC-HVXP) BNC connectors for HV- and BN-, (SHV for model ESC-HVXP) BNC connectors for HV- and BN-, (SHV for model ESC-HVXP) BNC connectors for HV- and BN-, (SHV for model ES	Description	Specifications
Output Voltage Output voltage is programmable and continuously variable on all models Output Current Limit Output current limit is programmable and continuously variable on all models Output Stability 1% or better of full output Output Ripple Less than 0.5% at >35kHz operating frequency Output Voltage Linearity Better than ±1% from 10% to 100% output Output Voltage Balance On command or programmable automatic. Note: ESC-HV10 does not include polarity in the polarity of models (dual pole units) Output Safety On command or programmable automatic via 100kΩ resistor network HV output to chassis ground Operating Ambient Temperature 0 to +40°C Storage Temperature / Humidity 0 to +70°C Humidity 10-90% non-condensing RF Filtering RF filtering is included on all models except ESC-HVxx DC Output Connection 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) included and the polyment of the polyment	Floating Bipolar Output	Minimum path to chassis ground from any HV output terminal >50M Ω
Output Current Limit Output current limit is programmable and continuously variable on all modulus to the control of the control o	Output to Input Isolation	>500MΩ based on standard 5kV DC hi-pot tests)
Output Stability 1% or better of full output Output Ripple Less than 0.5% at >35kHz operating frequency Output Voltage Linearity Better than ±1% from 10% to 100% output Output Polarity Reversal On command or programmable automatic. Note: ESC-HV10 does not include polarity roughly for matched loads (dual pole units) Output Voltage Balance Better than 1% for matched loads (dual pole units) Output Safety On command or programmable automatic via 100kΩ resistor network HV output to chassis ground Operating Ambient Temperature 0 to +40°C Storage Temperature Pressure 0 to +70°C Humidity 10-90% non-condensing RF filtering RF filtering is included on all models except ESC-HVxx DC Output Connection 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclused 4 VDC input. Molex P/N - consult factory DC PowerInput Connection MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connection HV-CT (not used on models ESC-1D or ESC-3D) Remote Signal Interface 25 pin D-type female for analog remote (DB-25s)	Output Voltage	Output voltage is programmable and continuously variable on all models
Output Ripple Less than 0.5% at >35kHz operating frequency Output Voltage Linearity Better than ±1% from 10% to 100% output Output Polarity Reversal On commandor programmable automatic. Note: ESC-HV10 does not include polarity not pola	Output Current Limit	Output current limit is programmable and continuously variable on all models
Output Voltage Linearity Better than ±1% from 10% to 100% output Output Polarity Reversal On command or programmable automatic. Note: ESC-HV10 does not include polarity routput Voltage Balance Output Voltage Balance Better than 1% for matched loads (dual pole units) Output Safety On command or programmable automatic via 100kΩ resistor network Discharge Relay HV output to chassis ground Operating Ambient Temperature 0 to +40°C Storage Temperature / Humidity 0 to +70°C Humidity 10-90% non-condensing RF Filtering RF filtering is included on all models except ESC-HVxx DC Output Connection 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 V D C input. Molex P/N - consult factory DC Power Input Connection MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connection HV-CT (not used on models ESC-1D or ESC-3D) Remote Signal Interface 25 pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	Output Stability	1% or better of full output
Output Polarity Reversal Oncommand or programmable automatic. Note: ESC-HV10 does not include polarity in Dutput Voltage Balance Better than 1% for matched loads (dual pole units) Output Safety On command or programmable automatic via 100kΩ resistor network HV output to chassis ground Operating Ambient Temperature 0 to +40°C Storage Temperature / Humidity / Air 0 to +70°C Humidity 10-90% non-condensing RF Filtering RF filtering is included on all models except ESC-HVxx DC Output Connection 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 VDC input. Molex P/N - consult factory DC Power Input Connection MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connection HV-CT (not used on models ESC-1D or ESC-3D) Remote Signal Interface 25 pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	Output Ripple	Less than 0.5% at >35kHz operating frequency
Output Voltage BalanceBetter than 1% for matched loads (dual pole units)Output SafetyOn command or programmable automatic via 100kΩ resistor network HV output to chassis groundOperating Ambient Temperature0 to +40°CStorage Temperature (Humidity)0 to +70°CHumidity10-90% non-condensingRF FilteringRF filtering is included on all models except ESC-HVxxDC Output Connection3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 VDC input. Molex P/N - consult factoryDC Power Input ConnectionMHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connection HV-CT (not used on models ESC-1D or ESC-3D) 25 pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s)MountingStandard EIA rack mounting with ½ rack filler panel Convection (do not block vents)	Output Voltage Linearity	Better than ±1% from 10% to 100% output
Output Safety Discharge RelayOn command or programmable automatic via 100kΩ resistor network HV output to chassis groundOperating Ambient Temperature0 to +40°CStorage Temperature / Humidity/Air0 to +70°CPressure10-90% non-condensingRF FilteringRF filtering is included on all models except ESC-HVxxDC Output Connection3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 VDC input. Molex P/N - consult factoryDC Power Input ConnectionMHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connective HV-CT (not used on models ESC-1D or ESC-3D) 25 pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s)MountingStandard EIA rack mounting with ½ rack filler panel Cooling	Output Polarity Reversal	On command or programmable automatic. Note: ESC-HV10 does not include polarity reversal
Discharge Relay Operating Ambient Temperature Storage Temperature Humidity	Output Voltage Balance	Better than 1% for matched loads (dual pole units)
Operating Ambient Temperature Storage Temperature / Humidity / Air Pressure Humidity 10-90% non-condensing RF Filtering RF filtering is included on all models except ESC-HVxx 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 V D C input. Molex P/N - consult factory DC Power Input Connection MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connective HV-CT (not used on models ESC-1D or ESC-3D) Remote Signal Interface P pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	Output Safety	On command or programmable automatic via $100k\Omega$ resistor network from
Temperature Storage Temperature / Humidity/Air Pressure Humidity 10-90% non-condensing RF filtering RF filtering is included on all models except ESC-HVxx 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 V D C input. Molex P/N - consult factory DC Power Input Connection MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connection HV-CT (not used on models ESC-1D or ESC-3D) Remote Signal Interface Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	Discharge Relay	HV output to chassis ground
Temperature Storage Temperature Humidity	Operating Ambient	0 to +40°C
Humidity 10-90% non-condensing RF Filtering RF filtering is included on all models except ESC-HVxx 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 V D C input. Molex P/N - consult factory DC Power Input Connection MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connective HV-CT (not used on models ESC-1D or ESC-3D) Remote Signal Interface P pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	Temperature	
RF filtering RF filtering is included on all models except ESC-HVxx 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 V D C input. Molex P/N - consult factory MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connectors for HV-CT (not used on models ESC-1D or ESC-3D) Remote Signal Interface P pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Convection (do not block vents)	/Humidity/Air	0 to +70°C
DC Output Connection 3 pin Molex type, non-reversible quick disconnect. 10ft (3m) inclu 24 VDC input. Molex P/N - consult factory MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connection HV-CT (not used on models ESC-1D or ESC-3D) 25 pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Convection (do not block vents)	Humidity	10-90% non-condensing
DC Output Connection 24 VDC input. Molex P/N - consult factory MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connection Remote Signal Interface 25 pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	RF Filtering	RF filtering is included on all models except ESC-HVxx
HV-CT (not used on models ESC-1D or ESC-3D) 25 pin D-type female for analog remote (DB-25s) P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	DC Output Connection	3 pin Molex type, non-reversible quick disconnect. 10ft (3m) included. 24VDC input. Molex P/N - consult factory
P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	DC Power Input Connection	MHV connectors for HV+ and HV-, (SHV for model ESC-HVXP) BNC connector fo HV-CT (not used on models ESC-1D or ESC-3D)
P pin D-type female for RS-232 (Db9s) Mounting Standard EIA rack mounting with ½ rack filler panel Cooling Convection (do not block vents)	Remote Signal Interface	25 pin D-type female for analog remote (DB-25s)
Cooling Convection (do not block vents)		P pin D-type female for RS-232 (Db9s)
	Mounting	Standard EIA rack mounting with ½ rack filler panel
W : 11	Cooling	Convection (do not block vents)
weight 2 to 5lbs. (907 to 2267g) approx. depending on model	Weight	2 to 5lbs. (907 to 2267g) approx. depending on model

1~15kV 0~15W E-chuck Special for semiconductor electronic chuck



ISO9001:2015

Page 3 of 3

Dimensions



