



Genvolt

High Voltage Power Supplies



High Voltage Power Supplies and Components

Product Brochure

Web: www.Genvolt.com **Email:** info@Genvolt.co.uk **Tel:** +44 (0) 1746 862555
New Road, Bridgnorth, Shropshire. WV16 6NN.



Contents

• Research and Laboratory Power Supplies	3
• <i>Aquila</i>	4
• <i>7xx30</i>	5
• <i>7xx30T</i>	6
• <i>8000 Series</i>	7
• <i>Europa</i>	8
• <i>Sirius 1</i>	9
• <i>Sirius 2 and Sirius 3</i>	10
• <i>Pegasus P600/P900</i>	11
• Electrostatic Precipitator Power Supplies	12
• <i>AF01</i>	13
• <i>AF04 / AF04B</i>	14
• <i>AF05</i>	15
• <i>AF06</i>	16
• High Powered Electrostatic Precipitators	17
• <i>ESP03</i>	18
• <i>Mercury Series</i>	19
• Capacitor Charging Power Supplies	20
• <i>5040</i>	21
• <i>CCL</i>	22
• <i>High Powered Capacitor Charging Power Supply</i>	23
• General Applications	24
• <i>Pleiades</i>	25
• <i>EB Series</i>	26
• Non-destructive X-ray Power Supplies	27
• <i>Pegasus P1800</i>	28
• <i>Perseus</i>	29
• Bespoke Services	30
• <i>Vulcan</i>	31
• <i>Transformer Rectifier</i>	32
• High Voltage Components	33
• <i>Capacitors</i>	34
• <i>Resistors</i>	35
• <i>High Voltage Connectors</i>	36
• <i>High Voltage Cable</i>	37
• Global Presence and Contact	38



Aquila Range
Compact power supply unit,
available up to 50kV, 40 Watts



7xx30
Available up to 30kV, 30
Watts. Low cost bench top
laboratory power supply



7xx30T
Our popular 7xx30 is also available
with touch screen operation.
Available up to 30kV, 30 Watts.



8000 Series
Voltages available up to 50kV. This
is a step up from the 7xx30 range
offering the same compact design
at higher voltages

Research and Laboratory



We have low cost laboratory units to highly sophisticated power supply units for educational institutes and universities.

Genvolt has a long history of working with the world's most reputed universities and supporting them for their new era research activities.

We have extended our reach in the world wide research laboratories. Our products have been adapted widely within many research organizations as well as within the science and technology sector. Genvolt laboratory power supplies have been used in the following fields of interest:

- Applied Mechanics
- Applied science and engineering
- Bio-technology
- Bio-chemical
- Polymer and process engineering
- Particle physics
- And many more...

Europa

The Europa is a classic high voltage laboratory power supply. With output voltages of up to 100kV (100W) and output power of up to 210 Watts (35kV). The Europa is available with interchangeable polarity heads so that both polarities can be achieved



Sirius Range

Up to 60kV, 30 Watts
general purpose high
voltage power supply



Pegasus P600/P900

Up to 120kV, 600 or 900 Watt
power supply with optional
multiple interfacing options





Aquila

Input Specification	
Input voltage range	20VDC - 28VDC
Input Current	2.2A Maximum
Output specification	
Power	40W Maximum at 50kV
Output voltage range	Near 0kV - 50kV
Available voltages	10kV, 20kV, 30kV, 40kV, 50kV
Output polarity	Positive or Negative
Output current	800µA (0.8mA)
Voltage Load Regulation	<0.5%
Voltage Line regulation	<0.5%
Voltage ripple	<0.5%
Voltage stability	<0.01% (peak to peak) of maximum output voltage
Controls	
Control interface	15 way D connector (female) for analogue remote control
Environmental	
Operating Temperature	0°C - 40°C
Storage Temperature	0°C - 60°C
Relative humidity	Operation - 30% to 80%. Storage <95%
Mechanical	
Weight	2.65kg
Dimensions	H - 65mm, W - 127mm, L - 323mm (inc. rear connections)





7xx30



Input Specifications					
DC Input voltage range	22 - 26 VDC				
AC input voltage range	85 - 260 VAC				
DC input current	2.5A Maximum at full power and minimum input voltage				
Output Specifications					
Model No.	70130	70230	71030	72030	73030
Output Voltage Range	Near 0kV - 1kV	Near 0kV - 2kV	Near 0kV - 10kV	Near 0kV - 20kV	Near 0kV - 30kV
Maximum output current	30mA	15mA	3.0mA	1.5mA	1.0mA
Output Power	30W				
Output Polarity	Positive or Negative with respect to ground				
Voltage Load Regulation	Less than 0.01% for a load changing from no load to full load				
Voltage Line Regulation	Less than 0.3% for an input changing from maximum input to minimum input				
Voltage Ripple	Less than 0.01% peak to peak of maximum output voltage				
Voltage Stability	Less than 0.05% for 8 hours per day with 30 minute warm up				
Temperature coefficient	Less than 200ppm/°C over the specified temperature				
Environmental					
Operating Temperature	0°C - 40°C				
Storage Temperature	-20°C - 60°C				
Humidity	0% - 90% non-condensing				
Mechanical					
Input Type	AC Input			DC Input	
Weight	3.6kg			2.8kg	
Dimensions					
Width	200mm			200mm	
Length	300mm			300mm	
Height	100mm			100mm	
Power input connector	Standard IEC Connector			24V 5 way XLR connector (male)	
High Voltage output connector	Genvolt 30kV XLCG Connector			Genvolt 30kV XLCG Connector	



7XX30T



Input voltage	220VAC \pm 10%
Output voltage	Near 0kV - 30kV
Output power	Up to 30W
Output Polarity	Positive or Negative
Linear adjustment rate	Better than 0.1%
Load adjustment rate	Better than 0.1%
Temperature drift	Working temperature below 55 ° C is better than 300PPM / ° C
Working style	continuous work
Operating temperature	0 ° C to 50 ° C
Operating Humidity	less than 90% without condensation
Dimensions	Length 300 x Width 200 x Height 100(mm)
Weight	3kg



8000 Series



Input specification		Standard Features			
AC input voltage range	85VAC to 256VAC, 47-63Hz	Control	Logic level for high voltage enable/disable.		
Power Factor	FL 0.99 NL 0.98	Over voltage protection	Overvoltage conditions can be caused by excessive input program signal. If an overvoltage condition is detected, the power supply is latched off until input power is reset		
Output polarity	Positive (+ve) or Negative (-ve)	PS Fault condition	A PS fault indicator and a PS fault output on J1, indicate an OVP or a regulation error		
Voltage load regulation	0.01% of full voltage for a no load to full load change	PF and Universal input	The input voltage of the 8000 can operate within the range from 85VAC to 265VAC. The power factor is actively corrected across the entire range and is better than 0.99 at full load		
Voltage line regulation	+/- 0.005% of full voltage over the specified input voltage range	Internal EMI Filter	An internal EMI filter and fuse provide protection against line voltage surges and power supply faults		
Current load regulation	0.01% from 0V to full voltage	Mechanical Specification			
Current line regulation	+/- 0.01% of full current over the specified input voltage range per 8 hours after	Weight	Model specific, approximately 3Kgs		
Voltage ripple	0.1% peak to peak of output voltage	Dimensions	95.25mm (H) x 127mm (W) x 279.4mm (L)		
Current stability	0.02% per 8hrs after ½hr warm up	Power input connector	IEC320 with mating connector x 2 Metres		
Temperature coefficient	100 ppm per °C	HV output connector	Proprietary HV Connector		
Temperature	Operating 0°C to 45°C Storage -20°C to +85°C	Control interface connector	15 pin 'D' connector (Male)		
Interlock	Open Interlock will shut down unit	Models			
Circuit Protection	Overvoltage, Overcurrent, Arcing and Over temperature	Maximum Voltage	Maximum Current	Polarity	Model Number
Relative humidity	Non condensing	1kV	120mA	+ve or -ve	80120P (+ve) 80120N (-ve)
Remote operating features		5kV	24mA	+ve or -ve	8024P (+ve) 8024N (-ve)
Remote programming	Allows remote adjustment of the output voltage and current, via an external voltage source	10kV	12mA	+ve or -ve	8012P (+ve) 8012N (-ve)
Remote monitor	Allows remote monitoring of the output voltage and current	20kV	6mA	+ve or -ve	806P (+ve) 806N (-ve)
High voltage enable / disable	Allows remote ON/OFF control of the high voltage	30kV	4mA	+ve or -ve	804P (+ve) 804N (-ve)
+10VDC Reference	A +10VDC is provided for remote programming via a potentiometer or voltage divider	40kV	3mA	+ve or -ve	803P (+ve) 803N (-ve)
		50kV	2.4mA	+ve or -ve	8050P (+ve) 8050N (-ve)



Europa



Electrical Specification		
Voltage	Current	Power
100kV	1mA	100W
50kV	4mA	200W
35kV	6mA	210W
20kV	10mA	200W
Line Regulation		
Line Regulation	Not more than 50ppm of maximum rated output voltage for $\pm 10\%$ input line change	
Load Regulation		
Load Regulation	Not more than 100ppm of maximum rated output voltage for 0 to maximum output current change	
Ripple		
Ripple	Not more than 20V (peak to peak) - 100W Version	
Temperature Coefficient		
0 - 50°C	Not more than 50ppm of maximum output per °C	
Stability after 1/2 hour warm up	Not more than 0.01% per hour Not more than 0.02% per 8 hours	
Mechanical		
Size	19 inch wide suitable for standard rack mounting, 6U high	
Weight	Main Unit: 34.5kg Alternative polarity head: 20kg. Total Weight 59.5kg with cables	
High Voltage connector and cable	Pre-assembled mating high voltage connector with 3 metres of high voltage shielded cable will be provided as standard	
Power Input connector	A 2m 3-wire mains lead plug will be provided as standard	
Cooling	Forced air by means of a fan	
IEEE-488 Interface	Full talker/listener capability is available through the IEEE-488 interface. The interface functions allow output voltage and current limit to be programmed via the IEEE-488 bus. In addition, voltage and current measurements can be taken on request	
Power Requirements	230V AC $\pm 10\%$, less than 2A, 50Hz	
Environmental		
Temperature	Operating: 15°C to 35°C. Storage: 0°C to 50°C	
Relative humidity	Operating: 30% to 80%. Storage: < 95%	



Sirius 1



Input Specifications	
AC Input Voltage	220VAC +/- 10%
Output Specifications	
Output Voltage	Near 0kV - 30kV, Near 0kV - 40kV, Near 0kV - 50kV, Near 0kV - 60kV
Output Polarity	Positive or Negative
Output Power	30W, 60W, 100W
Stability	<0.1%
Line Regulation	<0.5%
Load Regulation	<0.5%
Environmental	
Ambient Temperature	-10°C - 40°C
Relative Humidity	Less than 80% non-condensing
Temperature Coefficient	<200ppm/°C



Sirius 2



Sirius 3



Sirius 2

Input Specifications	
AC Input Voltage	240VAC +/- 10%
Output Specifications	
Output Voltage	Output Current
Near 0kV - 5kV	0mA - 60mA
Near 0kV - 10kV	0mA - 30mA
Near 0kV - 20kV	0mA - 15mA
Near 0kV - 30kV	0mA - 10mA
Near 0kV - 40kV	0mA - 7.5mA
Near 0kV - 50kV	0mA - 6mA
Near 0kV - 60kV	0mA - 5mA
Output Polarity	Positive or Negative
Maximum output voltage	Near 0kV - 60kV adjustable
Maximum output current	0mA - 5mA adjustable
Output Power	300W
Stability	Less than 0.5%
Line Regulation	Less than 0.5%
Load Regulation	Less than 0.5%
Environmental	
Ambient Temperature	-10°C - 40°C
Relative Humidity	Less than 80% non-condensing

Sirius 3

Input Specifications	
AC Input Voltage	240VAC +/- 10%
Output Specifications	
Output Voltage	30kV Maximum
Output Polarity	Negative
Output Power	900W
Stability	Less than 0.5%
Line Regulation	Less than 0.5%
Load Regulation	Less than 0.5%
Environmental	
Ambient Temperature	-10°C - 40°C
Relative Humidity	Less than 80% non-condensing



Pegasus P600/P900



Input Specifications					
AC input voltage Range	220 - 240VAC				
Input Frequency	50 - 60HZ				
Input Current	For P900 4.7A maximum at full power and minimum input voltage				
Nominal Efficiency at full load	Better than 80%				
Output Specifications					
Model No.	P600/15	P600/20	P600/30	P600/40	P600/50
Insulation	Air			Encapsulated	
Output Voltage	15kV	20kV	30kV	40kV	50kV
Maximum Output Current	40mA	30mA	20mA	15mA	12mA
Output Power	600W				
Model No.	P900/15	P900/20	P900/30	P900/40	P900/50
Insulation	Air			Encapsulated	
Output Voltage	15kV	20kV	30kV	40kV	50kV
Maximum Output Current	60mA	45mA	30mA	22.5mA	18mA
Output Power	900W				
Output Polarity	Positive/ Negative				
Load Regulation	Not more than 100ppm of maximum rated output voltage for 10% to maximum output current				
Line Regulation	Not more than 100ppm of maximum rated output voltage for 10% to maximum output current \pm 10% input line charge				
Voltage Ripple	Better than 0.05% (Peak to Peak) of maximum output voltage				
Temperature Coefficient	Typically not more than 100ppm of the maximum output per °C				
Environmental Details					
Operating Temperature	0°C - 35°C				
Storage Temperature	0°C - 60°C				
Relative Humidity	Operating at 30% to 80%. Do not store the unit at above 95% humidity				
Mechanical Details					
Weight	Approximately 11kg				
Dimensions	Width 482.6mm x Height 88.1mm x Length 478.2mm				
Power input connector	Standard IEC Connector				
HV output connector	LEMO circular push pull connectors with dust cap fitted				
Control Interface connector	15 way D connector				

Electrostatic Air Cleaning:

Genvolt high frequency, switched mode power supplies for electrostatic systems are an application specific product which are reliable and proven making them the first choice to many ESP OEMs.

Genvolt has expertise in designing and delivering products from the smallest ESP's to larger high power ESP's for air cleaning.

With over 50 thousand installations worldwide, Genvolt's AF0 range of high voltage power supplies are reliable and proven for electrostatic air and oil cleaning applications. Our products are used around the world by many OEMs in the field of commercial kitchen exhaust systems, fume extraction, industrial air / oil cleaning and other electrostatic principal based applications.



AF01

Up to 50 Watts,
12kV/6kV dual output,
robust air clean

AF04/ AF04B

12kV/6kV up to 100
Watts. Available with
single or dual outputs

AF05/AF06

Up to 60kV, 1kW remote
controlled units with
optional remote display

AF Range Selection Sheet			
Model	Voltage (kV)	Power (W)	Key Features
AF01	7, 8, 9, 10, 11, 12, 8/4, 10/5, 12/6	20, 30, 40, 50	Hiccup mode, fault indication, change over contacts
AF01B	15, 18, 20, 22, 24, 26, 15/7, 16/8, 18/9	20, 30, 40, 50	Hiccup mode, fault indication, change over contacts
AF04	7, 8, 9, 10, 11, 12, 8/4, 10/5, 12/6	100	Hiccup mode, fault indication, change over contacts
AF04B	8, 10, 12, 14, 16, 18 - Dual output also available	150, 200, 250, 300	Output voltage tune control
AF05	14, 16, 18, 20, 22, 14/7, 16/8, 20/10	350, 450, 500	Analog remote control
AF06	14, 16, 18, 20, 22, 14/7, 16/8, 20/10, 25, 30, 35, 45, 50, 55, 60	600, 800, 1000	Optional remote touch screen control unit



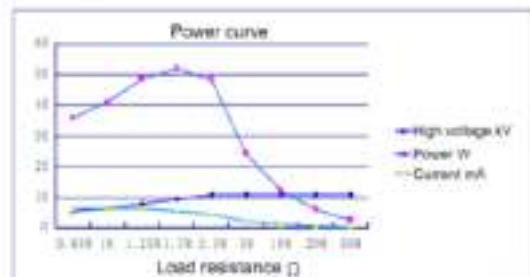
AF01



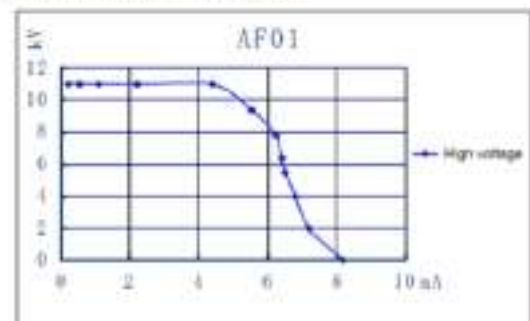
Input Specifications	
Input Voltage Range	115VAC (105 - 125VAC) 220VAC (200 - 240VAC)
Input Current	Less than 400mA at 220VAC
Output Specifications	
Output Voltage	
7kV / 3.5kV	Ionizer / Collector
8kV / 4kV	Ionizer / Collector
9kV / 4.5kV	Ionizer / Collector
10kV / 5kV	Ionizer / Collector
11kV / 5.5kV	Ionizer / Collector
12kV / 6kV	Ionizer / Collector
Output Power	
20W	
30W	
40W	
50W	
Load Regulation	Less than 0.1%
Line Regulation	Less than 0.1%
Temperature Drift	Less than 400ppm/°C when operating under 55°C
Voltage Ripple	Less than 0.3% at full load
Environmental Details	
Operating Temperature	0 to 55°C
Storage Temperature	-20 to 80°C
Mechanical Details	
Dimensions	Length 200mm x Width 80mm x Height 40mm
Weight	0.6kg
Enclosure Material	Aluminium Alloy

Power Input Connector		
Legend	Definition	
L	Mains input	Live
N		Neutral
E		Earth
COM	Relay Contacts	Common
NC		Normally Closed
NO		Normally Open
High Voltage Output connector		
Legend	Definition	
Ionizer	Full HV output	
Collector	Half HV output	

Power curve

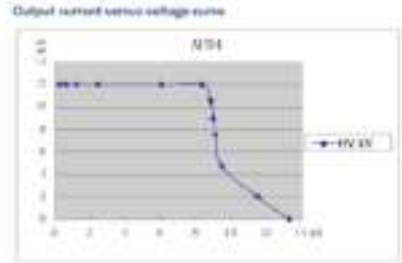
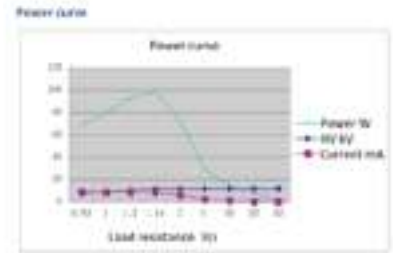


Output current versus voltage curve





AF04 / AF04B



Input specifications			Output specifications	
Input voltage	110VAC or 220VAC		Load regulation	Less than 0.1%
Input current	Less than 400mA at 220VAC		Line regulation	Less than 0.1%
Input frequency	50Hz		Temperature drift	Less than 400ppm/°C when operating at <55°C
Output voltage range			Voltage ripple	Less than 0.3% at Full load
AF04 4/8kV	Collector / Ionizer	4kV / 8kV	Environmental requirements	
AF04 4.5/9kV	Collector / Ionizer	4.5kV / 9kV	Operating temperature	0°C to 55°C
AF04 5/10kV	Collector / Ionizer	5kV / 10kV	Storage Temperature	-20°C to 80°C
AF04 5.5/11kV	Collector / Ionizer	5.5kV / 11kV	Mechanical Details	
AF04 6/12kV	Collector / Ionizer	6kV / 12kV	Weight	0.6kg
Power input connector			Width	120mm
Legend	Definition		Length	200mm
L	Mains input	Live	Height	40mm
N		Neutral	Enclosure material	Aluminium Alloy
E		Earth		
COM	Relay contacts	Common	HV Output connector	
NC		Normally closed	Legend	Definition
NO		Normally open	Ionizer	Full HV output
			Collector	Half HV output



AF05



Input specification		Mechanical Specifications			
Input voltage	200VAC to 240VAC	Power	150W	300W	450W
Input current	Less than 5A	Width	150mm	150mm	150mm
Output specification		Height	95mm	95mm	95mm
Power Range	150W, 300W, 450W, 1000W	Length	220mm	220mm	220mm
Output voltage	10kV, 15kV, 20kV Adjustable	Weight	1kg	1.5kg	1.6kg
Line regulation	Less than 1%	Protection			
Load regulation	Less than 1%	Short circuit protection	In the event of an output short circuit, the output current will remain at the set value		
Temperature drift	300ppm/°C maximum	Over-current protection	In the event of an output over-current, the output current will remain at the set value		
		Spark protection	When the power supply experiences a spark on load, the output will be switched off momentarily. After which, it will be restored automatically		
Environmental requirements					
Ambient temperature	-10°C to 50°C				
Storage temperature	-20°C to 80°C				
Relative humidity	Less than 90%				



AF06



Input Specification						
Input Voltage	220VAC (200VAC - 240VAC)					
Input Current	Less than 6A					
Output Specification						
Output Voltage Range (kV)	8 - 10	16-20	24-30	32-40	40-50	48-60
Available Output Voltages	10kV	20kV	30kV	40kV	50kV	60kV
Power Ranges Available (W)	600W, 800W or 1000W					
Output Polarity	Available with either positive or negative output polarity. Please specify which at time of order					
Line Regulation	<0.5%					
Load Regulation	<0.5%					
Voltage Ripple	<1% at Full Load					
Temperature Drift	300ppm/°C maximum when operating under 55°C					
Protection						
Short Circuit Protection	In the event of an output short circuit, the output current will remain at the set value					
Over-Current Protection	In the event of an output over-current, the output current will remain at the set value					
Spark Protection	When the power supply experiences a spark on the load, the output will be switched off momentarily. After which, it will be restored automatically					
Environmental Conditions						
Operating Temperature	-10°C to 50°C					
Storage Temperature	-20°C to 80°C					
Control Interface Connector	9 way D type female connector as standard			Optional: 10 way IDC Connector. Please contact us to discuss your requirements		
HV Output Connector Location						
10kV - 20kV			30kV - 60kV			
On one side of the power supply			Mounted on the back panel			
Power input connector						
Standard 3-way PCB terminal Socket & plug 7.62mm pitch						
Legend		Definition				
L	Mains input	Live				
N		Neutral				
E		Earth				

High Powered Electrostatic Precipitators:

Genvolts expertise in designing very high frequency SMP's resulted in the development of these high power ESP units. They offer high reliability and efficiency for air cleaning and have been well accepted by our customers globally. The power supplies operate on a higher power efficiency with guaranteed filtration performance, providing adjustable pulse width to effectively inhibit anti-corona. The robust design of Genvolt ESP's along with the extensive arc and short circuit protection allows operation even in the most demanding environments.



ESP03

Up to 80kV, 240 kW robust unit predominantly designed for use in cement and coal based power plants



Mercury Series

80-150kV, 150W – 1kW versatile unit for specific air purification systems offering 99.98% efficiency even with micron sized particles

Technical Lead over traditional T-R sets

- Very compact size compared to the equivalent rating line frequency transformer-rectifier sets.
- SMPS based sophisticated Genvolt products offer less output ripple, resulting in high efficient cleaning results.
- Our products are packed with tight regulation control giving stable output even in the most adverse industrial conditions.
- These products are available in multiple mounting options as they are comparatively light weight and do not require as much dedicated floor space.
- Offers advanced control and monitoring features alongside customized smart interfacing solutions.
- For more information on our custom options please contact us at - info@genvolt.co.uk



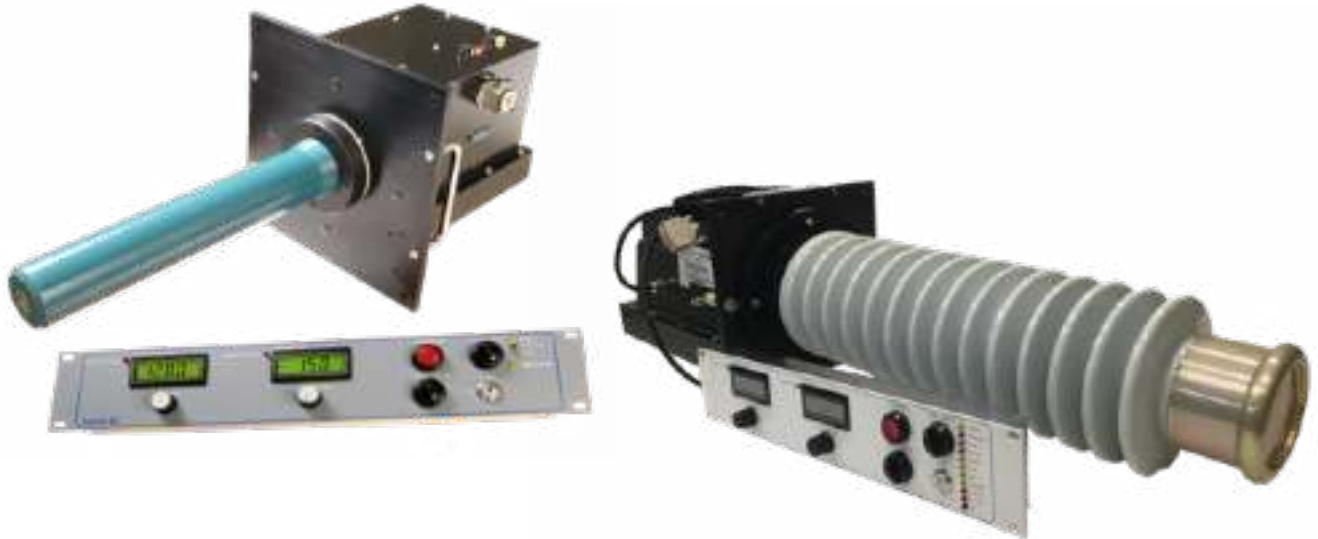
ESP03



Serial No.	Installed Capacity	AC Input Voltage	AC Input Current	DC Output Voltage	DC Output Current	AC Input Power	DC Output Power
		(V)	(A)	(kV)	(A)	(kVA)	(kW)
1	0.2A/72kV	380	24	72	0.2	15	14.4
2	0.4A/72kV	380	47	72	0.4	31	28.8
3	0.6A/72kV	380	71	72	0.6	46	43.2
4	0.8A/72kV	380	94	72	0.8	62	57.6
5	1.0A/72kV	380	118	72	1	77	72
6	1.2A/72kV	380	141	72	1.2	93	86.4
7	1.4A/72kV	380	165	72	1.4	108	100.8
8	1.6A/72kV	380	188	72	1.6	124	115.2
9	1.8A/72kV	380	212	72	1.8	139	129.6
10	2.0A/72kV	380	235	72	2	155	144
11	2.2A/72kV	380	259	72	2.2	170	158.4
12	2.4A/72kV	380	282	72	2.4	186	172.8
13	0.2A/80kV	380	26	80	0.2	17	16
14	0.4A/80kV	380	52	80	0.4	34	32
15	0.6A/80kV	380	78	80	0.6	52	48
16	0.8A/80kV	380	104	80	0.8	69	64
17	1.0A/80kV	380	131	80	1	86	80
18	1.2A/80kV	380	157	80	1.2	103	96
19	1.4A/80kV	380	183	80	1.4	120	112
20	1.6A/80kV	380	209	80	1.6	138	128
21	1.8A/80kV	380	235	80	1.8	155	144
22	2.0A/80kV	380	261	80	2	172	160
23	2.2A/80kV	380	287	80	2.2	189	176
24	2.4A/80kV	380	313	80	2.4	206	192



Mercury Series



	Mercury 1	Mercury 2	Mercury 3
Supply voltage	<p>198 to 264 VAC, 45 to 60Hz. The input is via conventional filtered industrial connector. This allows for different installation wire lengths, convenient installation and servicing and also provides better EMC performance. However, if local legislation insists, a direct wiring system may be adopted. The type of connection should be specified with the order</p>		
Power	200W	480W	960W
Output voltage	100kV	120kV	150kV
Output current	2.5mA	4mA	8mA
Accuracy	The voltage and current are within 5% FSD of the demand value		
Rise time	300msec from HV On command into 30pF load		
Control	By operator's control unit or remote interface. A basic facility for remote computer monitoring and control of the output voltage and current is incorporated		
Interlock	An interlock key switch is provided on the front panel of the control unit. A facility for an external interlock loop is also included		

Capacitor Charging

Genvolt Capacitor charging power supplies use a rugged IGBT based inverter running in resonant mode to achieve high efficiency. The power supplies are designed to have a high tolerance to the noise generated by electrical discharge.

We supply our capacitor chargers to the worlds most renowned and critical research institutes in the fields of atomic, defense and nuclear research.



5040

1kJ/sec capacitor charging module available in voltages up to 150kV

CCL

Designed for capacitor charging applications. Available in voltages up to 40kV, 1000W output power.



High Power Capacitor charging power supply

120kV, 45kJ/sec high speed, high power supply with PRF's as high as 250Hz



Features:

- Genvolt products are designed and developed to handle capacitor charging applications
- High charge and discharge rates help them to be applied on low to high PRF
- Safety interlocks to suit capacitor loads
- Robust and reliable
- External controlling features are provided to allow operation in remote conditions
- In high power chargers optical interfacing solutions provided



5040



Output voltage	Model illustrated is 50kV. Higher voltages if required. Both positive and negative polarities are available
Output current	Peak current is 40mA for the example shown
Duty cycle	The model above is designed for low duty cycle operation (<10%). Continuous operation with appropriate heatsinking can be provided
Input Voltage	The unit is designed to operate from a DC source such as a battery pack. For 1kJ/sec 2kW peak operation, a 100-140VDC supply is required. (However, for 500J/sec 1kW peak, operation from 20-48V is available)
Input current	Less than 25A maximum, depending on input voltage. (50A for low voltage use)
Environment	0 to 50°C ambient. Non-condensing atmosphere
Weight	Model shown is 13kg
Stability and ripple	The unit is designed for capacitor charging with a maximum PRF of 100Hz. For CW operation, ripple and stability can be tailored to suit the customer's own specification
Control interface	Active low HV ON input. 0-10V HV and current limit programming, OC-TTL constant voltage/ current outputs, 0-10V HV and current monitor outputs



CCL

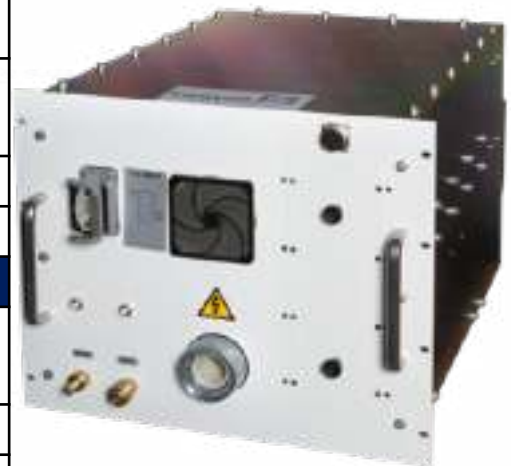


Input Specifications						
Input Voltage	220 VAC (200-240 VAC)					
Input Current	<6A at 220VAC					
Output Specifications						
Model	5kV	10kV	20kV	30kV	40kV	50kV
Output Voltage Range	Near 0-5kV	Near 0-10kV	Near 0-20kV	Near 0-30kV	Near 0-40kV	Near 0-50kV
Power	1000W					
Output Current	200mA	100mA	50mA	33mA	25mA	20mA
Line Regulation	<0.5%					
Load Regulation	<0.5%					
Temperature drift	When operating temperature is below 55 °C <300ppm / ° C					
Voltage Stability	Better than 1% under load conditions					
Operating Temperature	-10 ° C - 50 ° C					
Storage Temperature	-20 ° C - 80 ° C					
Dimensions	(L) 360mm x (W) 180mm x (H) 136mm					
Weight	Between 2kg - 6kg depending on output voltage					



High Powered Capacitor Charging Power Supply

Input Power	
DC Input Voltage Range	550VDC
AC Input Voltage Range	380 - 440VAC
Efficiency	>90%
Output Power	
Output Voltage Range	1kV - 120kV
Available Output Voltages	1kV, 2kV, 5kV, 20kV, 30kV, 40kV, 50kV, 60kV, 120kV
Polarity	Positive or Negative
Stability	>0.1%
Line Regulation	>0.1%
Load Regulation	>0.1%
Output Power	up to 30kW
Operating Mode	Constant Voltage or Constant Current
Operating Cycle	Continuous
Environmental	
Operating Temperature	10°C - 40°C
Storage Temperature	-10°C - 60°C
Humidity	<90% non-condensing
Cooling	Forced Air or Water Cooling
Mechanical	
Format	Titan Format (Rack mounted) Callisto Format (Free Standing)
Height	9U 11U
Length	560mm (excl. Handles) 780mm (excl. Handles)
Width	19" Rack 605mm
Weight	70kg (Typical) 100kg (Typical)





Pleiades

19" 6U power supply. Available with voltages from 1kV to 100kV and output power of up to 6kW. Suitable for ion beam implantation, electron beam welding, capacitor charging and X-ray systems



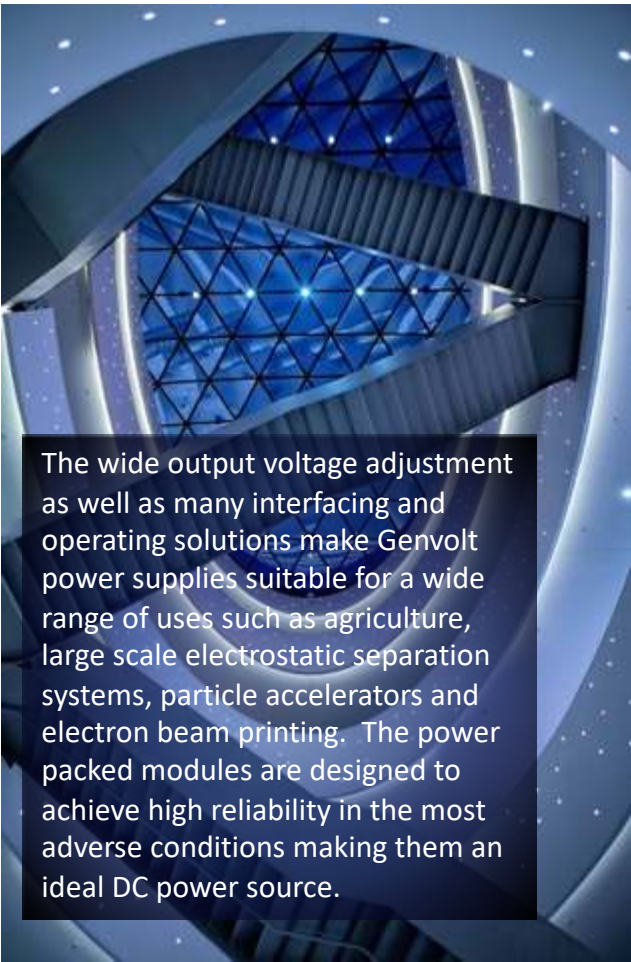
EB Series

Voltages of up to 150kV and power up to 60kW Electron Beam power supply. Suitable for electron beam welding

General Applications



Genvolt power supplies are designed to produce a highly stable output, high efficiency and low ripple.



The wide output voltage adjustment as well as many interfacing and operating solutions make Genvolt power supplies suitable for a wide range of uses such as agriculture, large scale electrostatic separation systems, particle accelerators and electron beam printing. The power packed modules are designed to achieve high reliability in the most adverse conditions making them an ideal DC power source.

Features:

- High Stability
- High Accuracy
- Low Ripple
- Highly Regulated
- Low Temperature drift
- Smart interfacing solutions
- Remote control using multiple options
- Protections against over voltage, over current, arcs, short circuits and more...

Applications:

- Electrospinning
- Mass spectrometry
- Electron beam printing
- Electrostatic sputtering
- Electrostatic sprayers
- Electron beam welding / melting
- Corona treaters
- Electrostatic separation
- And many more...



Pleiades



Input Specifications	
Input Voltage	380VAC, three phase, efficiency 90%, power factor 0.92
Optional:	360 - 528VAC
Output Specifications	
Output Power	Up to 6kW
Output Voltage	18 units are available with voltages from 1kV - 100kV
Output Polarity	Positive or Negative
Output ripple	Better than 0.1%
Power adjustment rate	Better than 0.1%
Load Regulation	Better than 0.1%
Local output control	The voltage and current are continuously adjustable over the full range by using a ten-turn potentiometer with a lockable counting dial
Environmental	
Operating Temperature	0 - 40°C
Storage Temperature	-40 - + 85°C
Humidity	10% - 90%
Relative humidity	Non condensing
Cooling	Forced air cooling. The air inlet passes through the front panel and the outlet is on the rear panel
System Status	The front panel indicators provide up to 13 system operating states, including: voltage and current regulation, fault conditions, and circuit control
Analog interface connector	Genvolt provide a detachable 3 meter long shielded high voltage line. 1.8 m input power cord
Dimensions	
Sizing	19" 6U rack mounted design
Height	266mm
Width	483mm
Length	573mm
Weight	1kV - 10kV - 40kg 20kV - 100kV - 50kg
Controls	Both local and remote modes are available with remote control being via DB50 female D connector to the rear



EB Series



EB-100-400-F50-B2		EB-60-100-F20-B2		EB-100-160-F50-B2	
Product Specification		Product Specification		Product Specification	
Input Voltage	AC three-phase 380V with neutral line, voltage allowable fluctuation 5%	Input Voltage	AC three-phase 380V with neutral line, voltage allowable fluctuation 5%	Input Voltage	AC three-phase 380V with neutral line, voltage allowable fluctuation 5%
Output		Output		Output	
High Voltage Power Supply		High Voltage Power Supply		High Voltage Power Supply	
Output Voltage	Maximum 150kV	Output Voltage	-60kV	Output Voltage	150kV
Output Power	3,6,10,15,20,30 and 40kW	Output Power	3,6,10,15,20,30 and 40kW	Output Power	3,6,10,15,20,30 and 40kW
Stability of Output voltage	<0.2%	Stability of Output voltage	<0.2%	Stability of Output voltage	<0.2%
RMS of High Voltage Ripple	<0.5%	RMS of High Voltage Ripple	<0.5%	RMS of High Voltage Ripple	<0.5%
Filament Power Supply		Filament Power Supply		Filament Power Supply	
Output current	DC 0-50A	Output current	DC 0-20A	Output current	DC 0-50A
Output voltage	0 - 20V - Determined by the filament load, the power does not exceed 1kW	Output voltage	0 - 10V	Output voltage	0 - 20V
Stability of Filament Current	<0.5%	Stability of Filament Current	<0.5%	Stability of Filament Current	<0.5%
Grid Bias Power Supply		Grid Bias Power Supply		Grid Bias Power Supply	
Output Current	Maximum 10mA	Output Current	Maximum 10mA	Output Current	Maximum 10mA
Output Voltage	DC 0 - 2kV	Output Voltage	-300V, 0 - 2kV (switchable)	Output Voltage	DC 0 - 2kV
Stability of Output voltage	<0.2%	Stability of Output voltage	<0.2%	Stability of Output voltage	<0.2%
RMS of Output Voltage Ripple	0.20%	RMS of Output Voltage Ripple	0.20%	RMS of Output Voltage Ripple	0.20%
Output Current	Determined by output power	Output Current	50, 100, 150, 200, 300 and 400mA	Output Current	50, 100, 150, 200, 300 and 400mA
Stability of Output Current	<0.2%	Stability of Output Current	<0.2%	Stability of Output Current	<0.2%
Working Mode	Continuous	Working Mode	Continuous	Working Mode	Continuous
Cooling Method	Water forced and Air Cooling	Cooling Method	Water forced and Air Cooling	Cooling Method	Water forced and Air Cooling
Working Temperature	-10°C - 40°C	Working Temperature	-10°C - 40°C	Working Temperature	-10°C - 40°C
Working Humidity	<90%, non condensing	Working Humidity	<90%, non condensing	Working Humidity	<90%, non condensing
Dimensions	Width: 1062mm, Length: 1270mm, Height: 965mm	Dimensions	Width: 731.5mm, Length: 970mm, Height: 857mm	Dimensions	Width: 891.5mm, Length: 949mm, Height: 907mm
Weight	800kg	Weight	700kg	Weight	750kg



Non-destructive testing X-ray

Industrial X-ray demands highly stable and accurate power supplies. Our power supplies are capable of material analysis, security checks and industrial probing to name a few.

We make small miniature DC input modules to high power X-ray generators supporting various filament voltages suitable for continuous operation.

Biograph Horizon

What is NDT?

Non-destructive testing (NDT) is the process of inspecting, testing or evaluating materials, components or assemblies for discontinuities or differences in characteristics without destroying the serviceability of the part of system. In other words, it is the process of detecting and evaluating flaws in materials.

Genvolt Products

We offer a range of X-ray power supplies compatible to various industrial X-ray needs. The Genvolt products illustrate our capability to produce innovative designs in response to challenging specifications. Please contact us for special application requirements at - info@genvolt.co.uk

Key Features:

- Highly reliable
- High efficiency and superior output quality
- Very high voltage and power options available
- Optional integrated bias and filament supply outputs
- Wide controls and monitoring options
- Various remote control and interfacing solutions
- Optional external remote control
- Operating temperature management by air or water



Pegasus P1800

Up to 120kV, 2400 Watt power supply with optional multiple interfacing options. The P1800 is suitable for a variety of applications which include industrial X-ray usage.



Perseus

A high voltage power supply which is designed specifically for industrial X-ray use. It's highly stable, accurate, and is capable of being applied to material analysis and security as well as many other applications. Available in voltages up to 60kV and up to 2kW power.



Pegasus P1800



Input Specifications									
AC input voltage range	230VAC (198 - 264VAC)								
Input frequency	45-60Hz								
Power Factor	Greater than 0.95								
Output specifications									
	Air				Encapsulated				
Model No.	P1800/10	P1800/20	P1800/30	P1800/40	P1800/50	P1800/70	P1800/90	P1800/100	P1800/120
Output Voltage	10kV	20kV	30kV	40kV	50kV	70kV	90kV	100kV	120kV
Output current	180mA	90mA	60mA	45mA	36mA	26mA	20mA	18mA	15mA
Other output specifications									
Output polarity	Positive or Negative - Please specify								
Load regulation	Not more than 100ppm of maximum rated output voltage for 10% to maximum output current change								
Line regulation	Not more than 100ppm of maximum rated output voltage for $\pm 10\%$ input line change								
Ripple	0.1% peak to peak at inverter frequency								
Stability after half hour settling period	Not more than 0.04% per hour - Not more than 0.05% per 8 hours								
Temperature coefficient (0 to 50°C)	Typically not more than 100ppm of maximum output per °C								
Optional outputs	Isolated grid output available up to 2000V at 10mA Isolated filament available up to 10V at 10A								
Protection	Spark protection, overload and short circuit protection, primary over current protection								
Mechanical Specifications									
Weight	Approximately 35kg for 120kV. Weight dependent on size and model								
Dimensions	Standard 19" format chassis 3U high, 580mm long excluding such back panel furniture as connectors and earth stud								
Power input connector	Neutrik NAC3FCA power inlet								
HV output connector	Modified shell size 19TNM female socket								
Control interface connector	40 pin harting connector or 37 way D-sub connector								
Environmental requirements									
Operating temperature	0°C - 35°C								
Storage temperature	0°C to 60°C								
Relative humidity	Operating at 30% to 80%. Do not store the unit at above 95% humidity								



Perseus



Input Specifications		Environmental	
AC input voltage Range	220 VAC \pm 10%	Temperature	0°C - 50°C
Power Factor	0.92	Humidity	Less than 90% non-condensing
Output Specifications		Mechanical Specifications	
Output voltage	Near 0-60kV	Dimensions	
Output current	0-33mA, 45mA Maximum	Width	483mm
Output voltage stability	Within 0.1% of set value after warm up	Length	600mm
Ripple	<0.2%	Height	178mm
Filament voltage	0-6V DC	Weight	32kg
Filament current	0-5A DC	Power Input connector	Standard IEC socket
Parameter settings		HV output connector	Claymount CA1 (03) 100kV high voltage socket
Voltage setting	0-10V = 0-60kV	Control Interface connector	25 pin female D connector (Optional RS232 available on request)
Current setting	0-10V = 0-45mA		
Maximum filament current setting	0-10V = 0-5A (This is set to prevent the filament from failing when over-current)		
Output feedback			
Output voltage feedback	0-60kV		
Output current feedback	0-45mA		
Filament current feedback	0-5A		

Bespoke Services

Genvolt has a proven track record in producing innovative solutions within the high voltage engineering field.

Whether you require high voltage power supplies, electron beam machines, capacitor chargers, laboratory power supplies, or X-ray equipment, we have the experience to design develop and manufacture a tailor-made solution to best suit your requirements.

Many of our 'off the shelf' products are based on designs that were originally created to meet specific customer requirements.

If you can't find a suitable high voltage power supply or component, we can call upon our vast engineering experience to deliver just what you are looking for.



Vulcan Series

Up to 200kV, 24kW
specially designed
electron beam /
capacitor charging units



HV

Transformer / Rectifier

High Voltage
units outputting
10kV – 50kV DC



Features:

- Completely customized solutions suitable for specific requirements
- Very high voltage outputs can be achieved
- Higher power requirements can be met
- Single or dual polarity options
- Reversible polarity feature with easy access
- Multiple outputs when required
- Forced air / water cooled provision
- Traditional oil sealed transformer-rectifier sets with high operating frequency
- Various remote control options using analog or digital interfacing
- Different smart interface solutions to meet specific requirements



Vulcan Series

Output voltage	The output voltage may be set to any value up to 60kV negative (in this example). Values below 500V are considered to be outside the normal operational range and are not subject to specification
Output stored energy	Any level of current may be drawn from the supply up to a maximum of 250mA Automatic reduction of output voltage occurs above approximately 275mA
Ripple	60V peak to peak at twice the main oscillator frequency. The oscillator operates at 50 to 60kHz and so the main ripple component of the output will be at 100 to 120kHz. This assumes that the high voltage cable is at least 1000pF. There is also a ripple component at 100Hz (for a 50Hz supply). This is below 60V peak to peak but is measured separately from the convertor frequency component. Note that convertor frequency ripple is mainly related to load current, not voltage, while mains frequency ripple is related to output power
Regulation	Line: Less than 15V for a 25VAC change in supply voltage Load: Less than 15V for a 25mA (10%) to 250mA (100%) change in load current Analogue inputs and outputs
HV command input	0 to +10V = 0 to 60kV
mA command input	0 to +10V = 0 to 250mA
Bias command input	0 to +10V = 0 to -2000V (Standby Mode)
HV feedback output	0 to +10V = 0 to 60kV
mA feedback output	0 to +10V = 0 to 250mA
Bias feedback output	0 to +10V = 0 to -2000V
filament feedback output	0 to +10V = 0 to 100A
Dimensions	56cm x 78cm x 100cm
Weight	Approx. 250kg





Transformer rectifier

Specification Summary		
Model	6.4kW HV Transformer Rectifier	20kW HV Transformer Rectifier
Power Rating	6.4kW	20kW
Frequency of Operation	20kHz	20kHz
Output Voltage	46kVDC on full load	33kVDC on full load
Average Current	140mA Max.	600mA Max.
Input Voltage	450V peak to peak	450V peak to peak
Primary Current	Quasi sine wave	Quasi sine wave
Leakage Inductance	<30μH	<25μH
Pulse Load Current	4A Max.	20A Max.
Primary Average Current	20A Max.	60A Max.
Primary Pulse Current	55A Max.	160A Max.
Dimensions		
Width	265mm	365mm
Length	425mm	525mm
Height	347mm	407mm
Material	Stainless Steel	Stainless Steel
Weight	50kg Max.	80kg Max.
Environmental		
High Temperature Operation	+55°C	+55°C
High Temperature Storage	+70°C	+70°C
Low Temperature Operation	-20°C	-20°C
Low Temperature Storage	-30°C	-30°C
Relative Humidity Test	95% RH at 40°C. Non-condensing	95% RH at 40°C. Non-condensing



High Voltage Components

Genvolt high voltage components include capacitors, resistors and connectors, which are designed to withstand the test of time. Their robust design, economical viability and super quality are common factors to all of them. They are highly stable and are used in a variety of applications including voltage dividers, test equipment, medical equipment, measuring equipment, oscillators and coupling circuits to name a few. Needless to say, these components can all be tailor-made to suit individual requirements.



DXU Range

High Voltage ceramic capacitors up to 8000pF, 10kV to 50kV



RES100

High voltage resistors ranging from 50Ω to 100GΩ, 30 Watts to 1000 Watts

RES200

Up to 200kΩ, 1kW highly stable high voltage resistors with impulse stability as high as 500kV, 300A



CGG81 Range

High frequency power capacitors ranging up to 2200pF, 120kV



XLCG Connector

30kV high voltage connector set, supplied with or without high voltage cable



60kV High Voltage Connector

60kV PTFE high voltage connector set with or without high voltage cable.



High Voltage Cable

Genvolt stocks and supplies a variety of high voltage PTFE and silicon cables which are suitable for internal wiring of CRT based television, electronic oven, copy machine etc.



Capacitors



DXU – Doorknob capacitors



CGG81 – Disc capacitors

DXU Capacitors							
Part No.	Capacitance (pF)	Capacitance Tolerance	DC Rated Voltage (kV)	Dimension mm			Terminal Type
				D	L	H	Thread & Depth
DXU-10-561	560	±10	10	24	20	18	M4x4mm
DXU-10-122	1200	±10	10	30	20	18	M4x4mm
DXU-10-282	2800	±10	10	40	20	18	M4x4mm
DXU-10-502	5000	±10	10	52	20	18	M5x4mm
DXU-10-802	8000	±10	10	60	16	14	M5x4mm
DXU-20-281	280	±10	20	24	26	24	M4x4mm
DXU-20-881	880	±10	20	30	26	24	M4x4mm
DXU-20-142	1400	±10	20	40	26	24	M4x4mm
DXU-20-252	2500	±10	20	52	26	24	M5x4mm
DXU-20-402	4000	±10	20	60	26	24	M5x4mm
DXU-30-591	590	±10	30	30	30	28	M4x4mm
DXU-30-941	940	±10	30	40	30	28	M5x4mm
DXU-30-172	1700	±10	30	52	30	28	M5x4mm
DXU-30-272	2700	±10	30	60	30	28	M5x4mm
DXU-40-441	440	±10	40	30	32	30	M4x4mm
DXU-40-701	700	±10	40	40	32	30	M5x4mm
DXU-40-132	1300	±10	40	52	32	30	M5x4mm
DXU-40-202	2000	±10	40	60	32	30	M5x4mm
DXU-50-401	400	±10	50	30	35	33	M4x4mm
DXU-50-651	650	±10	50	36	35	33	M5x4mm
DXU-50-911	910	±10	50	40	33	31	M5x4mm
DXU-50-112	1100	±10	50	52	35	33	M5x4mm
DXU-50-172	1700	±10	50	59	35	33	M5x4mm

CGG81 - Disc capacitors									
Model Number	Capacitance	pF Tolerance	Rated Voltage		kVA	Temperature Characteristic	Dimension (mm)		
			DC	High Freq			D	H	Thread
CGG81-01	100	10%	12	7	15	-750±120ppm/°C	60	40	M6
CGG81-01	300	10%	10	7	8	-750±120ppm/°C	60	37	M6
CGG81-01	500	10%	8	4	8	-750±120ppm/°C	60	25	M6
CGG81-02	50	10%	12	7	12	-750±120ppm/°C	80	34	M6
CGG81-02	300	10%	15	8	30	-750±120ppm/°C	80	37	M6
CGG81-02	500	10%	15	8	15	-750±120ppm/°C	80	37	M6
CGG81-02	1000	10%	7	5	15	-750±120ppm/°C	80	35	M6
CGG81-03	300	10%	25	20	90	-750±120ppm/°C	110	55	M8
CGG81-03	500	10%	15	10	30	-750±120ppm/°C	110	55	M8
CGG81-03	1000	10%	8	7	30	-750±120ppm/°C	110	50	M8
CGG81-03	1500	10%	7	7	20	-750±120ppm/°C	110	50	M8
CGG81-04	800	10%	25	20	90	-750±120ppm/°C	140	56	M8
CGG81-04	1000	10%	20	15	100	-750±120ppm/°C	140	53	M8
CGG81-04	1500	10%	15	8	90	-750±120ppm/°C	140	51	M8
CGG81-05	1500	10%	21	15	120	-750±120ppm/°C	160	52	M8
CGG81-05	2200	10%	20	10	120	-750±120ppm/°C	160	50	M8



Resistors



RES100 and RES200

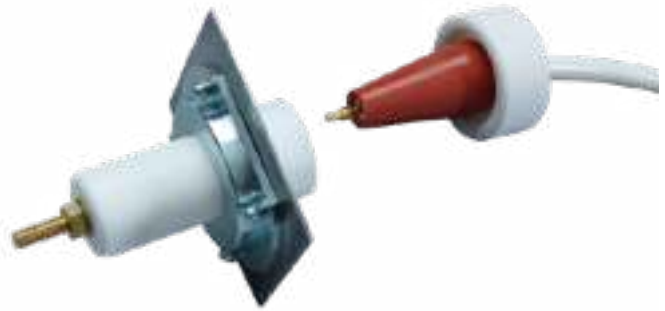
RES100					
Rated Power	Resistance Value, Ω	Termination	Temperature Coefficient	Tolerance	Voltage Limit
30	50~100G	M5	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		30kV
50	50~100G	M6	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		50kV
70	50~100G	M6	$\leq \pm 150 \text{ppm}/^\circ\text{C}$	$\pm 2\%$	70kV
100	50~100G	M6	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		100kV
130	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		130kV
150	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$	$\pm 5\%$	150kV
200	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		200kV
250	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		250kV
300	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		300kV
350	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$	$\pm 8\%$	350kV
400	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		400kV
500	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		500kV
600	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$	$\pm 10\%$	600kV
700	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		700kV
800	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		800kVp[[[
1000	50~100G	M8	$\leq \pm 150 \text{ppm}/^\circ\text{C}$		1000kV
RES200					
Rated Power	Resistance Range, Ω	Termination	Temperature Coefficient	Tolerance	Voltage Limit
30	0.1 ~ 200K	M5	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		10kV
50	0.1 ~ 200K	M6	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		30kV
70	0.1 ~ 200K	M6	$\leq \pm 400 \text{ppm}/^\circ\text{C}$	2%	40kV
100	0.1 ~ 200K	M6	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		50kV
130	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$	$\pm 5\%$	60kV
150	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		80kV
200	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		100kV
250	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$	$\pm 8\%$	100kV
300	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		120kV
350	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		120kV
400	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		130kV
500	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$	$\pm 10\%$	180kV
600	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		200kV
700	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		300kV
800	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		400kV
1000	0.1 ~ 200K	M8	$\leq \pm 400 \text{ppm}/^\circ\text{C}$		500kV



High Voltage connectors



XLCG - 30kV Connector



60kV Connector

Type	Rated Voltage (kV)	Size (AWG)	External Diameter (mm)	Wire Gauge	Insulator Material
TV-20	20kV	22	3.15 mm	7/0.25	Polyethylene
TV-30	30kV	22	3.50 mm	7/0.25	Polyethylene
TV-40	40kV	22	4.15 mm	7/0.25	Polyethylene
TV-50	50kV	22	5.00 mm	7/0.25	Polyethylene
Materials					
Connector Receptacle	Flame-retardant Polypropylene				
Connector Plug	Flame-retardant Polypropylene				
Contact	Brass/Gold plated Phosphor bronze				
Cap	Flame-retardant Polypropylene				
Mechanical					
Temperature rating	Up to 60°C				
Contact size	4mm				
Position	Breakdown voltage ratings				
A: Earthed probe to HV	>40kV				
B: Chassis to HV	>50kV				
C: Earthed Probe to HV (Cap end)	>30kV				

Housing Material	PTFE
Contact Terminal	4mm diameter gold plated spring contact
High Voltage Wire	Silicone rubber 2.5mm ² 60kV HV cable

The Genvolt Type 60kV HV connector is designed for convenient connection and disconnection of non-live circuits. It should not be possible, in operation, for a user to pull on the wire or unscrew the cap.

It is designed typically for use with unscreened silicone-covered HV wire which Genvolt can also supply.

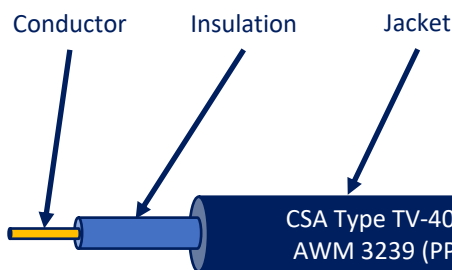
The connector has a plastic shell and uses compression to enhance the tracking performance of the length of the cable inside the housing.

Some caution needs to be taken into account before incorporating the Genvolt 60kV HV connector into equipment intended for operation at high voltages.

The connector is intended only for use with DC circuits.



High Voltage Cable



CSA Type TV-40 HLHDPE 105CFT1 SUMITOMO-M(*) E41105-M
AWM 3239 (PP) 105C 40kV(DC) VW-1 AWG No. (*) – F - K - LF

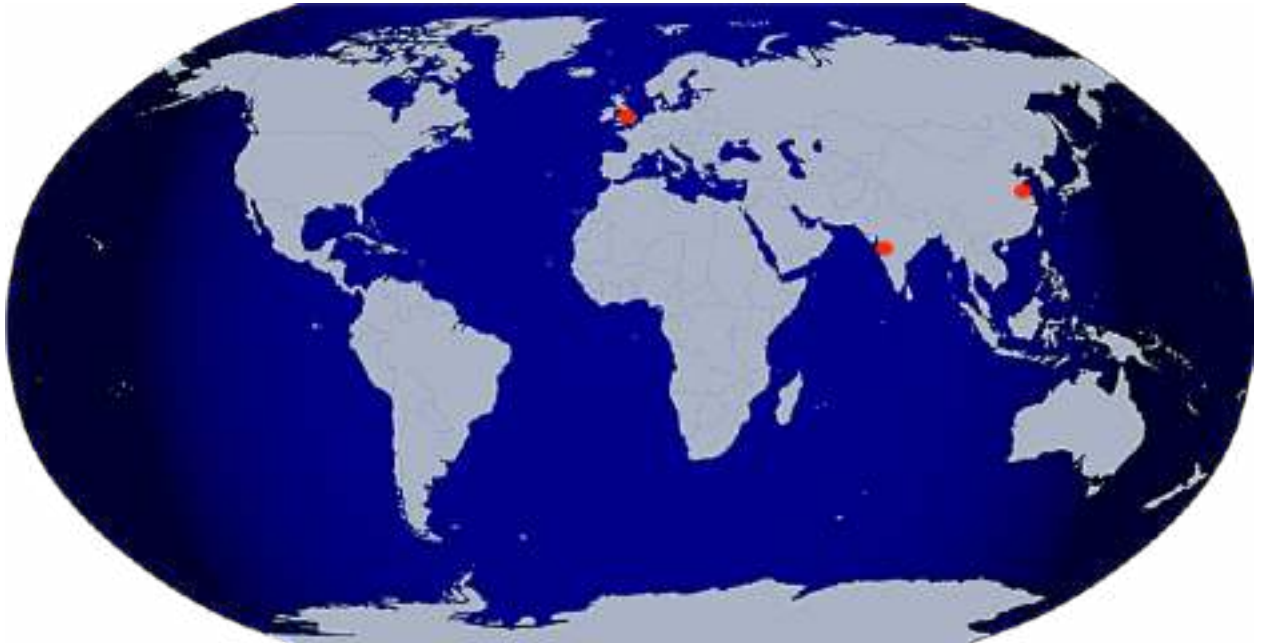
Please Note: Identification marking is printed in one line
(*) : Production Lot No.

Style No.	CSA Standard	Rating		Conductor (Tinned Annealed Copper Wire)			Insulation (Heat Resistant Irrax®, natural colour)		Jacket (Lead free XLPVC)		
		Temp (°C)	Voltage (kV DC)	Conductor (Tinned Annealed Copper Wire)	No. (mm)	Nom. Diameter (mm)	Nom. Thickness (mm)	Nom. Diameter (mm)	Nom. Thickness (mm)	Nom. Diameter (mm)	Colour
3239	TV-10	105°C	10kV	22	7/0.26	0.78	0.31	1.4	0.4	2.2	Red, White and black
3239 (OO)*	TV-20			22	7/0.26	0.78	0.64	2.06	0.57	3.2	
3239			TV-30	20kV	20	1/0.81	0.81	0.63	2.06	0.52	
3239 (SS)*	TV-40				30kV	18	19/0.254	1.27	0.55	2.37	0.69
3239 (PP)*			TV-50	40kV		22	7/0.26	0.78	0.76	2.3	0.55
339	50kV				20	1/0.81	0.81	0.76	2.33	0.54	3.4
				22	7/0.26	0.78	1.01	2.8	0.7	4.2	
			20	1/0.81	0.81	0.995	2.8	0.7	4.2		
		22	7/0.26	0.78	1.1	2.98	1.1	5.2			
		20	1/0.81	0.81	1.11	3.03	1.085	5.2			

Please note we are also able to provide a selection of silicone cables if required. For more information please contact us at – info@Genvolt.co.uk



Global Presence



UK Office:

Genvolt, New Road, Bridgnorth, Shropshire.
WV16 6NN, United Kingdom

Tel: +44 (0) 1746 86 25 55 Fax: +44 (0) 1746 86 26 66
Email: info@genvolt.co.uk Website: www.genvolt.com

India Office:

Genvolt India Private Limited, 806, Suratwala Mark Plazzo, Hinjewadi Road, Hinjewadi, Pune,
411057 (Maharashtra), India

Email: supportindia@genvolt.co.uk Website: www.genvolt.in

Research and development:

Genvolt Ltd

New Road, Bridgnorth, Shropshire. WV16 6NN

Factories:

Genvolt Ltd

New Road, Bridgnorth, Shropshire. WV16 6NN

Boher High Voltage Power Supplies Ltd (Genvolt China)

No. 79 Yandangshan Road, Suyu District, Suqian City, Jiangsu, China

