



HVZI[®]

HIGH VOLTAGE, INC.
BENCHTOP DC HIPOT TESTERS
DBT SERIES PRODUCT CATALOG

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BENCHTOP DC HIPOT TEST SETS

The DBT Series of DC Hipots are ideal for testing many types of medium and high voltage electrical components and apparatus requiring a DC Withstand test, a DC current leakage measurement, or any DC hipot test. They are designed within benchtop cabinets for the industrial and commercial markets. HVI also offers field portable DC units, our PTS Series, for testing many types of electrical apparatus in the field.

Standard models are available from 15 kVdc - 80kVdc, with current ratings of 10 mAdc. They are all single piece designs with the high voltage section inside the cabinet with a shielded cable for high voltage output. Higher voltage models up to 600 kVdc are available that are two piece designs: controller and HV tank. Various control packages are available, from simple manual controls to fully programmable and computer interfaced controls. They are all built to be durable and reliable, with enhanced design features not found elsewhere.



Vacuum Bottles/Interrupters



Switchgear and Circuit Breakers



Substation Apparatus



Hotline Tools



Iso Phase Buss



Small Motors/Generators

For further information and to see our complete product line, please visit www.hvinc.com

High Voltage Section Configurations



Cable Output

Shielded output cable terminated with a red booted alligator clip. Standard on DBT-15, DBT-37.5, DBT-75, DBT-80, DBT-100, DBT-130, and DBT-200. No PD spec.



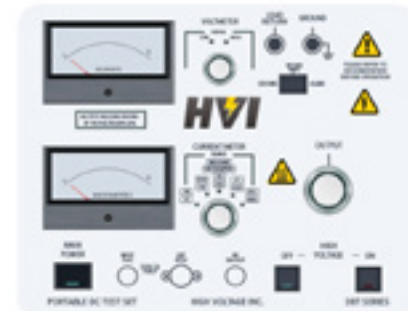
Toroidal Output

Ring Toroid. Standard on the DBT-300 and PTS-600BT. External Current Limit Resistors are provided. No output cable provided. No PD spec.

Controls and Configuration

DBT-15, DBT-37.5, DBT-75, DBT-80, DBT-100, and DBT-130

- Continuously adjustable output voltage
- Secondary connected 2 range analog voltmeter
- 5 range analog current/megohmmeter
- Guard/ground circuit for accurate leakage current measurement
- Transit protected, glass faced meters to prevent damage
- Fixed overload set to 11mA current
- Zero start safety interlock
- External interlock provisions



DBT-200, DBT-300 and PTS-600BT

- Continuously adjustable output voltage
- Secondary connected 2 range analog voltmeter
- 5 range analog current/megohmmeter
- Guard/ground circuit for accurate leakage current measurement
- Transit protected, glass faced meters to prevent damage
- Fixed overload set to 6mA current
- Zero start safety interlock
- External interlock provisions



Optional Accessories



Hand and Foot Safety Interlock Switches

Dead man style safety switches that connect to the external interlock provisions on the rear terminal block of the HPA DC Dielectric Test set the switch must be depressed before "HV On" and remain depressed during the duration of the testing. Releasing the switch has the same effect as hitting "HV Off", turning off the high voltage circuit. Supplied with 12 foot lead.



Grounding Sticks

Safely confirm the device under test has been discharge and is at ground potential before handling after testing.



Reusable Shipping Center

Reusable hard shipping cases designed for safe transportation of your DBT Series DC Hipot.

Optional Upgrades



Digital Metering

Add 3.5-digit digital meters to models with analog meters as standard equipment. Deletes any volt or current meter range switches.

Matrix of Models/Specs



DBT-15



DBT-37.5



DBT-75



DBT-80

	DBT-15	DBT-37.5
Input:	120Vac, 60Hz, 10A (DBT-15) 230Vac, 50Hz, 5A (DBT-15F5) 230Vac, 60Hz, 5A (DBT-15F6) +/-1% input voltage regulator	120Vac, 60Hz, 10A (DBT-37.5) 230Vac, 50/60 Hz, 5A (DBT-37.5F5) 230Vac, 60Hz, 5A (DBT-37.5F5) +/-1% input voltage regulator
Output:	0 – 15 kV DC @ 10 mA, negative polarity, positive ground Full Wave Bridge Rectification	0 – 37.5 kV DC @ 10 mA, negative polarity, positive ground Full Wave Bridge Rectification
Duty:	Continuous, capacitive charging	Continuous, capacitive charging
Voltmeter:	3.5", scaled 0 – 7.5/15 kV DC, ±2% F.S.	3.5", scaled 0 – 15/37.5 kV DC, ±2% F.S.
Current Meter:	3.5", scaled 0 – 1.0 μAdc, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k. Guard/ground load return	3.5", scaled 0 – 1.0 μAdc, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k. Guard/ground load return
Megohmmeter	Scaled 100 -1 MΩ ±2% F.S. with multipliers of x 0.1, x 1, x 10, x 100, x 1 k	Scaled 100 -1 MΩ ±2% F.S. with multipliers of x 0.1, x 1, x 10, x 100, x 1 k
Size & Weight:	14 x 11 x 14 in., 55 lbs. 356 x 279 x 356 mm, 25 kg	19 x 14 x 13in., 48lbs. 483 x 356 x 330 mm, 21.7 kg
Output Termination:	20 ft. (6 m) shielded output cable with alligator clamp	20 ft. (6 m) shielded output cable with alligator clamp
Scope of Supply:	20ft red test lead, 20ft black test leads, 10in safety ground stick, external interlock plug, operations manual, calibration certificate	20ft red test lead, 20ft black test leads, 10in safety ground stick, external interlock plug, operations manual, calibration certificate

	DBT-75	DBT-80
Input:	120Vac, 60Hz, 10A (DBT-75) 230Vac, 50Hz, 5A (DBT-75F5) 230Vac, 60Hz, 5A (DBT-75F6) +/-1% input voltage regulator	120Vac, 60Hz, 10A, (DBT-80) 230Vac, 50/60Hz, 5A (DBT-80F)
Output:	0 – 75 kV DC @ 10 mA, negative polarity, positive ground Full Wave Bridge Rectification	0 – 80 kV DC @ 10 mA, negative polarity, positive ground Full Wave Bridge Rectification
Duty:	Continuous, capacitive charging	Continuous, capacitive charging
Voltmeter:	3.5", scaled 0 – 37.5/75 kV DC, ±2% F.S.	3.5", scaled 0 – 40/80 kV DC, ±2% F.S.
Current Meter:	3.5", scaled 0 – 1.0 μAdc, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k. Guard/ground load return	3.5", scaled 0 – 1.0 μAdc, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k. Guard/ground load return
Megohmmeter	Scaled 100 -1 MΩ ±2% F.S. with multipliers of x 0.1, x 1, x 10, x 100, x 1 k	Scaled 100 -1 MΩ ±2% F.S. with multipliers of x 0.1, x 1, x 10, x 100, x 1 k
Size & Weight:	19 x 14 x 13in., 66lbs. 483 x 356 x 330 mm, 30 kg	21 x 16 x 15in., 70lbs. 533 x 406 x 381 mm, 32 kg
Output Termination:	20 ft. (6 m) shielded output cable with alligator clamp	20 ft. (6 m) shielded output cable with alligator clamp
Scope of Supply:	20ft red test lead, 20ft black test leads, 10in safety ground stick, external interlock plug, operations manual, calibration certificate	20ft red test lead, 20ft black test leads, 10in safety ground stick, external interlock plug, operations manual, calibration certificate

Matrix of Models/Specs



DBT-100



DBT-130



DBT-200



DBT-300

	DBT-100	DBT-130
Input:	120Vac, 60Hz, 15A (DBT-100) 230Vac, 50/60Hz, 8A (DBT-100F)	120Vac, 50/60Hz, 15A (DBT-130) 230Vac, 50/60Hz, 8A (DBT-130F)
Output:	0 – 100 kV DC @ 10 mA, negative polarity, positive ground Full Wave Bridge Rectification	0 – 130 kV DC @ 10 mA, negative polarity, positive ground Full Wave Bridge Rectification
Duty:	Continuous, capacitive charging	Continuous, capacitive charging
Voltmeter:	3.5", scaled 0 – 50/100 kV DC, ±2% F.S.	3.5", scaled 0 – 75/150 kV DC, ±2% F.S.
Current Meter:	3.5", scaled 0 – 1.0 µAdc, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k. Guard/ground load return	3.5", scaled 0 – 1.0 µAdc, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k. Guard/ground load return
Megohmmeter	Scaled 100 -1 MΩ with multipliers of x 0.1, x 1, x 10, x 100, x 1 k	Scaled 100 -1 MΩ ±2% F.S. with multipliers of x 0.1, x 1, x 10, x 100, x 1 k
Size & Weight:	Case: 21 x 16 x 15in., 55lbs. 533 x 406 x 381 mm, 25 kg HV Tank: 13 x 14 x 16in., 68lbs. 330 x 356 x 406 mm, 31 kg	Case: 21 x 16 x 15in., 55lbs. 533 x 406 x 381 mm, 25 kg HV Tank: 13 x 12 x 18in., 87lbs. 330 x 305 x 457 mm, 39 kg
Output Termination:	20 ft. (6 m) shielded EPR output cable with alligator clamp EPR cable stays flexible in cold weather	20ft. (6m) shielded EPR output cable with alligator clamp EPR cable stays flexible in cold weather
Scope of Supply:	20ft EPR shielded output cable, 20ft red test lead, x2 20ft black test leads, 14in safety ground stick, external interlock plug, operations manual, calibration certificate	20ft EPR shielded output cable, 20ft red test lead, x2 20ft black test leads, 14in safety ground stick, external interlock plug, operations manual, calibration certificate

	DBT-200	DBT-300
Input:	120Vac, 50/60Hz, 15A (DBT-200) 230Vac, 50/60Hz, 8A (DBT-200F)	120Vac, 50/60Hz, 15A (DBT-300) 230Vac, 50/60Hz, 8A (DBT-300F)
Output:	0 – 200 kV DC @ 5 mA, negative polarity, positive ground Full Wave Bridge Rectification	0 – 300 kV DC @ 5 mA, negative polarity, positive ground Full Wave Bridge Rectification
Duty:	Continuous, capacitive charging	Continuous, capacitive charging
Voltmeter:	3.5", scaled 0 – 80/200 kV DC, ±2% F.S.	3.5", scaled 0 – 120/300 kV DC, ±2% F.S.
Current Meter:	3.5", scaled 0 – 1.0 µAdc, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k. Guard/ground load return	3.5", scaled 0 – 1.0 µAdc, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k. Guard/ground load return
Megohmmeter	Scaled 100 -1 MΩ ±2% F.S. with multipliers of x 0.1, x 1, x 10, x 100, x 1 k	Scaled 100 -1 MΩ ±2% F.S. with multipliers of x 0.1, x 1, x 10, x 100, x 1 k
Size & Weight:	Case: 21 x 16 x 15in., 55lbs. 533 x 406 x 381 mm, 25 kg HV Tank: 13 x 14 x 28in., 150lbs. 330 x 356 x 711 mm, 68 kg	Case: 21 x 16 x 15 in., 55 lb. 356 x 279 x 356 mm, 15 kg HV Tank: 36 x 28 x 43.5 in., 380 lb. 915 x 915 x 1105 mm, 172 kg
Output Termination:	20 ft. (6m) shielded EPR output cable with alligator clamp EPR cable stays flexible in cold weather	Top toroid
Scope of Supply:	20ft EPR shielded output cable, 20ft red test lead, x2 20ft black test leads, 14in safety ground stick, external interlock plug, operations manual, calibration certificate	20ft red test lead, x2 20ft black test leads, x2 20kohm external limit resistors, 14in safety ground stick, external interlock plug, operations manual, calibration certificate

Matrix of Models/Specs



PTS-600BT

PTS-600BT

Input:	120Vac, 50/60Hz, 30A (PTS-600BT) 230Vac, 50/60Hz, 15A (PTS-600FBT)
Output:	0 – 600 kV DC @ 5 mA Bench top controller, negative polarity, positive ground, Full Wave Bridge Rectification
Duty:	Continuous, capacitive charging
Voltmeter:	3.5", scaled 0-300/600 kV DC ±2% F.S.
Current Meter:	3.5", scaled 0-1.0 µA DC, ±2% F.S. with multipliers of x 1, x 10, x 100, x 1 k, x 10 k Guard/ground load return
Megohmmeter	100 – 1 MΩ w/x.1, x1, x10, x100, x1k ranges, w/analog meters
Size & Weight:	Case: 21 x 15.5 x 15 in., 70 lb. 535 x 395 x 382 mm, 32 kg HV Tank: 36 x 29 x 87 in., 580 lb. 914 x 381 x 1105 mm, 263 kg
Output Termination:	Top toroid
Scope of Supply:	20ft red test lead, x2 20ft black test leads, x4 20kohm external limit resistors, 14in safety ground stick, external interlock plug, operations manual, calibration certificate

Notes



-  hvinc.com
-  31 County Rt. 7A - Copake, NY 12516
-  phone: 518.329.3275
-  fax: 518.329.3271
-  email: sales@hvinc.com

© COPYRIGHT 2023 - HIGH VOLTAGE, INC. – Manufacturers of high voltage test equipment. Products include portable VLF AC .1Hz to .01Hz. Very Low Frequency, sinewave output hipots up to 200 kV; Tan delta and PD diagnostic measurement bridges for cable diagnostics, portable switchgear and bottle testers up to 100 kV AC ; Portable DC Hipots/Megohmmeters to 300 kV DC ; Oil Test sets at 60 kV or 100 kV; Aerial lift and bucket truck testers to 300 kV AC; High Power AC Dielectric test sets up to 300 kV AC @ 40 KVA; OHM Check concentric neutral tester; Controlled energy cable fault locators, Radar and Tracing devices; 150 kV and 300 kV HV voltage dividers.