

Ventex Technology, Inc.

Generation III

Innovation • Technology • Reliability



The World's Leading
Electronic Power Supplies
for Neon Lighting

Introducing the next step forward in technology!

Ventex "Generation III" UL 2161 Listed Products — Technology so advanced, no other neon power supply or transformer even comes close in performance and reliability to Ventex Generation III units. With new exclusive Ventex "Triple-Shot", Surge and Brownout protection, Generation III technology does more than any other electronic neon power supply or transformer to keep your signs on and protect your investment.

Generation III

Greater Energy Savings — Ventex standard HPF (High Power Factor) electronic neon power supplies draw minimal input current which lowers energy consumption. Ventex units can save up to 66% of the energy used by standard electromagnetic neon transformers. Lower input current means you can put up to seventeen fully loaded VT 9030CL-120 units on a single 20A circuit. Ventex neon power supplies are comparable to LED systems in energy consumption for a fraction of the cost!

■ **"Triple-Shot" Protection** — Automatically turns on up to three times for intermittent problems to resist spurious trips.

■ **Surge Protection** — Clamps primary incoming voltage spikes on outdoor CL units (up to 2500 joules energy spike) to prevent internal damage due to over voltage and surges.

■ **Brownout Protection** — Eliminates false tripping due to dips in primary voltage.

In addition, the proven "Generation II" technological breakthroughs are still incorporated into each and every "Generation III" unit to ensure maximum performance.

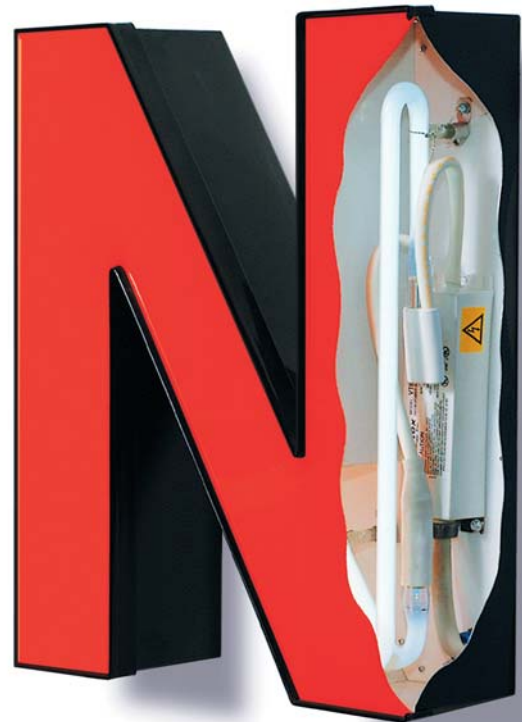
■ **LALR (Line and Load Regulation)** — Automatically maintains consistent brightness between letters. Line and Load regulation means the smallest letter "i" is as bright as the largest letter "W".

■ **SST (Soft Start Technology)** — Combined with Ventex's "Triple-Shot" virtually eliminates nuisance tripping on start-up. Ventex neon power supplies detect the higher strike voltage and automatically compensate to reduce false tripping.

■ **PDS (Phase Detection System)** — Compares Load vs. Capacitance Current to provide full GFI protection and eliminate most false tripping.

Features Built Into All Generation III Ventex Products —

- UL 2161 Listed, CUL Approved
- Self-adjusting output voltage
- Line & load regulated for consistent mA output
- Triple-Shot Technology
- Brownout protection
- LALR, SST and PDS circuitry
- High Power Factor / High Efficiency Designs
- Maximum overload shutdown protection
- Open circuit and ground fault protection
- Patented active anti-migration circuitry
- No neon bubbling
- Built-in GTO grommets to accept GTO sleeving
- Grounded mounting foot
- Conforms to standard footage charts
- Requires no special tube processing
- Units are flashable (with external controller)



Ventex
Technology, Inc.

We put the **ON** in **NEON!**[™]

CL Outdoor Generation III Models

Designed Especially for Channel Letters — Ventex's UL 2161 CL family of neon power supplies are engineered to make channel letter construction and installation easier, faster, and economical. With exclusive Ventex Generation III electronics you eliminate most installation problems — your signs will stay running through transient voltage spikes or brownouts! Plus, Ventex's High Power Factor circuitry will save users up to 66% on energy costs over traditional electromagnetic transformers.

Save Manufacturing Materials and Labor — The low profile design and light weight of Ventex CL Neon Power Supplies combine to reduce channel letter material costs and make construction faster. At only 1.5 inches high, Ventex CL Neon Power Supplies are low enough to fit under the neon tube using standard 1.75" supports, allowing 5" can depths.

Cut Installation Costs by Up to 30% — Letters built with Ventex CL Neon Power Supplies reduce material and labor cost over remote installations or standard electromagnetic transformers. With Ventex's low profile and simple GTO wiring method, letters can be assembled completely in-house, tested, shipped and the installer never has to touch the glass.

Reduce Inventory — Stock fewer transformers. All Ventex neon power supplies are self adjusting for voltage. Just two to three Ventex CL units can replace up to sixteen electromagnetic neon transformers.



Features Unique to Ventex CL Neon Power Supplies

- Output available in 30mA and 60mA
- Available in 120VAC, 220/240VAC and 277VAC
- 1/2" conduit fitting for primary wiring
- No primary polarity restrictions
- Circuitry included for surge suppression
- Operating temperature range -30° to 122°F (-34° to 50°C)
- White enclosures eliminate shadows
- Low profile 1.5" or less fits under the tube

Add it all up — Ventex Generation III CL units are a proven system for cost saving!

Indoor Generation III Models

Advanced Performance — Ventex Indoor Neon Power Supplies are your first and only choice for indoor neon signage and decoration. With exclusive Generation III power supplies ranging from 4kV to 12kV, Ventex offers the most technologically advanced neon power supplies available.

User Friendly — Ventex makes it easier for you to create your best neon signage. Smaller, light weight designs allow for simple and quick installation. And Ventex's full 30mA makes your neon signs crisper, brighter and uniform intensity. With several dimming models, you can even tailor the intensity to any environmental situation.

Reliability — Ventex Indoor Neon Power Supplies have been UL 2161 Listed and field proven since 1997.

Features — In response to industry requests we include 32" GTO leads, 10 foot power cord, on/off switches on all units, GTO clamping system and other standard features that a sign professional needs.

Product Scope — Ventex Indoor units are available in models from 4K to 12K in 120 or 220/240 volts including two and three level dimmable models.



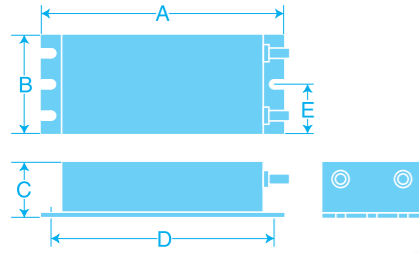
Features Unique to Ventex Indoor Neon Power Supplies

- Field proven performance since 1997
- True 30mA output
- 10 foot power cord
- 9kV and 12kV dimmable models available
- On/Off pull chain or switch
- Available in 120VAC, 220VAC/240VAC
- 32" GTO leads or GTO clamping

Get brighter signs, easier assembly and proven reliability with Ventex Generation III Indoor Neon Power Supplies!



Ventex Neon Power Supplies for Indoor Uses



Great for small signs, up to 12 feet of glass!



VT 4030-120



VT 5520-120



VT 5520-120F



VT 5520A-12F features 18" external leads for flashing!



VT 5520A-120F



VT 6030-120 & VT 6030-240



VT 9030-120 & VT 9030-240

Three levels of lighting 100%, 65% & 45%!



Dimmable VT 9030D-120 & VT 9030D-240



VT 12030-120 & VT 12030-240

Two levels of lighting 100% & 65%!



Dimmable VT 12030D-120

Exclusive GTO Clamping System!



	VT 4030-120	VT 5520-120	VT 5520-120F	VT 5520A-120F	VT 6030-120 & VT 6030-240	VT 9030-120 & VT 9030-240	Dimmable VT 9030D-120 & VT 9030D-240	VT 12030-120 & VT 12030-240	Dimmable VT 12030D-120
120 VAC Model									
Input Voltage:	120 VAC (±10%), 50/60 Hz	120 VAC (±10%), 50/60 Hz	120 VAC (±10%), 50/60 Hz	120 VAC (±10%), 50/60 Hz	120 VAC (±10%) 50/60 Hz	120 VAC (±10%) 50/60 Hz	120 VAC (±10%) 50/60 Hz	120 VAC (±10%) 50/60 Hz	120 VAC (±10%) 50/60 Hz
Input Current:	0.35 A (Max)	0.35 A (Max)	0.35 A (Max)	0.35 A (Max)	0.6 A (Max)	0.9 A (Max)	0.9 A (Max)	1.1 A (Max)	1.1 A (Max)
220/240 VAC Model									
Input Voltage:	—	—	—	—	220/240 VAC (±10%) 50/60 Hz	220/240 VAC (±10%) 50/60 Hz	220/240 VAC (±10%) 50/60 Hz	220/240 VAC (±10%) 50/60 Hz	—
Input Current:	—	—	—	—	0.3 A (Max)	0.5 A (Max)	0.5 A (Max)	0.6 A (Max)	—
Both 120 & 220/240 Models									
Driving Distance:	Based on standard 12mm tube. Deduct one foot from driving footages for each pair of electrodes. **Peak to peak voltage.								
Neon:	1-10 ft, (0.3-3.0 m)	1-13 ft, (0.3-3.9 m)	1-13 ft, (0.3-3.9 m)	1-13 ft, (0.3-3.9 m)	3-16 ft, (1.0-4.9 m)	4-26 ft, (1.2-7.9 m)	4-26 ft, (1.2-7.9 m)	5 - 35 ft, (1.5-10.7 m)	5 - 35 ft, (1.5-10.7 m)
Mercury:	1-12 ft, (0.3-3.7 m)	1-16 ft, (0.3-4.9 m)	1-16 ft, (0.3-4.9 m)	1-16 ft, (0.3-4.9 m)	3-19 ft, (1.0-5.8 m)	4-31 ft, (1.2-9.4 m)	4-31 ft, (1.2-9.4 m)	5 - 41 ft, (1.5-12.5 m)	5 - 41 ft, (1.5-12.5 m)
Output Voltage**:	100 - 4000 Volts	100 - 5500 Volts	100 - 5500 Volts	100 - 5500 Volts	100 - 6000 Volts	100 - 9000 Volts	100 - 9000 Volts	100 - 12,000 Volts	100 - 12,000 Volts
Output Current:	30 mA	20 mA	20 mA	20 mA	30 mA	30 mA	30 mA (3 Level Dimming)	30 mA	30 mA (2 Level Dimming)
Power Factor:	High (+93%)	Normal	Normal	Normal	High (+93%)	High (+93%)	High (+93%)	High (+93%)	High (+93%)
Frequency:	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable
Operating Temp:	32° to 104° F (0° to 40°C)	32° to 104° F (0° to 40°C)	32° to 104° F (0° to 40°C)	32° to 104° F (0° to 40°C)	32° to 104° F (0° to 40°C)	32° to 104° F (0° to 40°C)	32° to 104° F (0° to 40°C)	32° to 104° F (0° to 40°C)	32° to 104° F (0° to 40°C)
Dimensions									
Length (A):	5.0 in. (12.7 cm)	4.90 in. (12.45 cm)	4.90 in. (12.45 cm)	4.90 in. (12.45 cm)	6.50 in. (16.5 cm)	6.50 in. (16.51 cm)	6.50 in. (16.51 cm)	6.50 in. (16.51 cm)	6.50 in. (16.51 cm)
Width (B):	1.80 in. (4.57 cm)	1.50 in. (3.81 cm)	1.50 in. (3.81 cm)	1.50 in. (3.81 cm)	2.05 in. (5.2 cm)	3.04 in. (7.72 cm)	3.04 in. (7.72 cm)	3.05 in. (7.75 cm)	3.05 in. (7.75 cm)
Height (C):	1.50 in. (3.81 cm)	0.90 in. (2.29 cm)	0.90 in. (2.29 cm)	0.90 in. (2.29 cm)	1.45 in. (3.68 cm)	1.51 in. (3.84 cm)	1.51 in. (3.84 cm)	2.0 in. (5.08 cm)	2.0 in. (5.08 cm)
Mounting (D):	4.50 in. (11.43 cm)	4.50 in. (11.43 cm)	4.50 in. (11.43 cm)	4.50 in. (11.43 cm)	6.0 in. (15.24 cm)	6.0 in. (15.24 cm)	6.0 in. (15.24 cm)	6.0 in. (15.24 cm)	6.0 in. (15.24 cm)
Mounting (E):	0.90 in. (2.29 cm)	0.75 in. (1.91 cm)	0.75 in. (1.91 cm)	0.75 in. (1.91 cm)	1.03 in. (2.6 cm)	1.52 in. (3.85 cm)	1.52 in. (3.85 cm)	1.52 in. (3.85 cm)	1.52 in. (3.85 cm)
Weight:	19.0 oz. (539 gr)	14.0 oz. (397 gr)	7.0 oz. (198 gr)	7.0 oz. (198 gr)	24.0 oz. (680 gr)	29.0 oz. (822 gr)	29.0 oz. (822 gr)	32.0 oz. (907 gr)	32.0 oz. (907 gr)
Power Cord:	10 ft. (3.0 m)	10 ft. (3.0 m)	18 in. Leads (45.7 cm)	18 in. Leads (45.7 cm)	10 ft. (3.0 m)	10 ft. (3.0 m)	10 ft. (3.0 m)	10 ft. (3.0 m)	10 ft. (3.0 m)
GTO Leads:	24 in. (61.0 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)	18 in. (45.7 cm)	32 in. (81.28 cm)	32 in. (81.28 cm)	32 in. (81.28 cm)	GTO Clamping System	GTO Clamping System

VENTEX LUMINOUS TUBE FOOTAGE CHART

Ventex Model Number	Type	Secondary Voltage	Secondary Current	NEON FOOTAGE Tube Size in Millimeters						MERCURY FOOTAGE Tube Size in Millimeters					
				8	9	10	12	13	15	8	9	10	12	13	15
VT1510-12	Indoor	1,500V	15mA*	2	3	3	4	4	5	3	3	4	5	5	6
VT20007-12	Indoor	2,000V	15mA*	2	3	3	4	4	5	3	3	4	5	5	6
VT4015-12	Indoor	4,000V	20mA*	7	7	8	10	10	11	8	9	10	12	12	13
VT4015A-12F	Indoor	4,000V	20mA*	7	7	8	10	10	11	8	9	10	12	12	13
NPS-12D10S	Indoor	3,000V	20mA*	7	7	8	10	10	11	8	9	10	12	12	13
VT4030-120	Indoor	4,000V	30mA	7	7	8	10	10	11	8	9	10	12	12	13
VT5520-120 (all)	Indoor	5,500V	20mA	9	9	11	13	14	16	11	12	13	16	17	19
VT6030-120/240	Indoor	6,000V	30mA	11	12	13	16	18	20	13	14	16	19	21	24
VT9030-120/240	Indoor	9,000V	30mA	16	18	21	26	29	33	20	22	25	31	33	40
VT9030D-120/240	Indoor	9,000V	30mA	16	18	21	26	29	33	20	22	25	31	33	40
VT12030-120/240	Indoor	12,000V	30mA	23	26	29	35	39	45	28	31	35	41	46	55
VT12030D-120	Indoor	12,000V	30mA	23	26	29	35	39	45	28	31	35	41	46	55
VT4030CL-120	Outdoor	4,000V	30mA	7	7	8	10	10	11	8	9	10	12	12	13
VT4030CL-277	Outdoor	4,000V	30mA	7	7	8	10	10	11	8	9	10	12	12	13
VT6030CL-120/240	Outdoor	6,000V	30mA	11	12	13	16	18	20	13	14	16	19	21	24
VT6060CL-120	Outdoor	6,000V	60mA	11	12	13	16	18	20	13	14	16	19	21	24
VT9030CL-120/240	Outdoor	9,000V	30mA	16	18	21	26	29	33	20	22	25	31	33	40
VT9030CL-277	Outdoor	9,000V	30mA	16	18	21	26	29	33	20	22	25	31	33	40
VT9060CL-120	Outdoor	9,000V	60mA	16	18	21	26	29	33	20	22	25	31	33	40
VT9060CL-277	Outdoor	9,000V	60mA	16	18	21	26	29	33	20	22	25	31	33	40
VT12030CL-120	Outdoor	12,000V	30mA	23	26	29	35	39	45	28	31	35	41	46	55
Recommended Gas Pressure mm/Hg				16	15	13	11	10	9	16	15	13	11	10	9

Notes:

- 1) The above footage chart is intended to be a guideline. Actual driving distances may vary due to application.
- 2) VT Series electronic power supplies have overload shut-down protection. If activated, unit will flash (trip-off) to protect itself and must be turned off/on to reset protection.
- 3) Ventex electronic power supplies are fully self adjusting from minimum to maximum voltage rating.
- 4) Do not load with mA meter. Ventex electronic power supplies will self regulate to maintain 30 or 60 mA (± 1 mA) regardless of load.
- 5) Deduct one foot from above driving footages for each pair of electrodes.
- 6) Transformers must be de-rated if used in ambient temperatures higher than specified.
- 7) "Triple-Shot" automatically turns on up to three times in about four seconds.

*Equivalent to core & coil mA rating for light intensity.

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