

FRANCE

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Channel Letter Eneon - Information Sheet OE1G Series UL2161 Outdoor Type 3

The France OE1G Series is a family of high quality electronic neon power supplies for mounting inside channel letters.

DANGER

***Hazardous voltages will cause shock, burn, or death. Turn off power before servicing.
Servicing should be performed only by qualified personnel.***

Features – 5000 OE1G 120 Volt, and 7500 OE1G and 10000 OE1G 120 and 277 Volt.

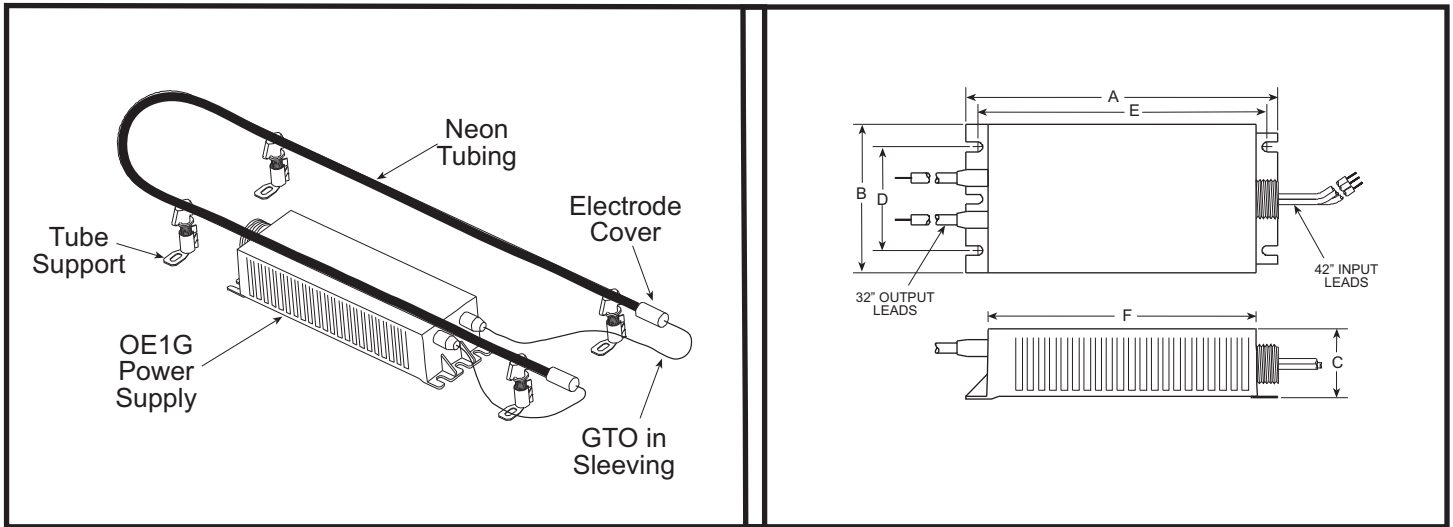
- UL 2161 Listed Outdoor Type 3 (for dry & damp locations)
- Secondary-Circuit Ground-Fault Protection with auto-restart. Detects arcs to ground – shuts down after two attempts to restart. Ground fault detection circuitry highly tolerant of capacitive leakage currents.
- Open Circuit Shutdown. Shuts down when opens are detected in the high voltage circuit.
- No “Jelly Beaning” or Mercury Migration.
- Maintains tubing current at 30 mA regardless of tube load or line voltage (if maximum specified tube load is not exceeded).
- High Line Power Factor – Reduces wiring costs.
- High Electrical Efficiency – saves energy.
- ½” Conduit Nipple for primary connection.
- Ground Connection to the sign by convenient mounting foot.
- No adjustments or special tools are required to use this product.

Important Pre-Installation Information:

1. All installations must be made in accordance with the National Electrical Code[®], UL48, CSA C22.2 No. 207 & No. 13 and any local codes and ordinances.
2. All metal parts of the sign must be grounded. The OE1G power supply is a high frequency, high voltage device. Any metal parts that are in the vicinity of the neon tubing, GTO wire, or the neon power supply may become energized if left ungrounded. Ungrounded metal parts may impart an electrical shock.
3. Never ground any high voltage wiring of the sign system.
4. Do not feed the high voltage GTO leads through metallic conduit, but each GTO lead should be run in approved sleeving.
5. Keep GTO wires at least 1 ½ inches away from all surfaces and each other.
6. The OE1G power supply may be mounted directly inside the channel letter and/or mounted underneath the neon tubes on the back wall of the channel letter.
7. Do not mount the OE1G power supply in a manner allowing direct exposure to the weather or where it might eventually stand in water.
8. Always mount two or more power supplies used in the same channel letter at least 12 inches apart.
9. The OE1G may not be dimmed.
10. A milliamp meter cannot be used to properly load tubing to the power supply. Use the tube loading chart only. Do not attempt to overload the power supply – it will trip off if significantly overloaded.

Installation Instructions:

1. Use slots on each end of the OE1G power supply to fasten with screws or pop rivets to the channel letter. If mounted against metal, make sure the power supply is bonded to the metal surface.
2. Connect primary leads to standard 120 VAC power (3-wire/grounded) only for 120V units and 277 VAC for 277V units.
3. The power supply's green wire must be connected to the branch circuit safety ground. Assure the furnished safety ground is traceable all the way back to the breaker panel.
4. Firmly connect the GTO leads to the tubing. Do not run GTO in metallic conduit – may cause tripping or tube dimming. Maintain at least 1 ½ inch clearance between the GTO and any surface. Do not splice additional GTO to existing output leads.
5. Keep all GTO leads as short as possible, especially those from the power supply to the first tubing electrodes (“Home Runs”). Trim power supply GTO leads to fit application.
6. Avoid crossing one GTO wire with another. If GTO wires must cross, cross at right angles using as large a clearance as possible.
7. Virtually mid-point wire the sign if possible. This means to keep the home runs short and the same length and place the longest run of GTO in the electrical center of the sign (“balance the tubing”).
8. When passing a GTO cable through a metal partition, use as large a hole as possible. Use approved bushings to center the wire in the partition. Failure to follow this procedure will result in premature failure of the GTO cable and eventual power supply tripping.
9. It is best to wire any border tubing in a sign near the electrical center of the sign.



Specifications												
Catalog Number	Input Voltage	Input Current	Output Voltage	Output Current	Dimensions are in Inches						Weight in lbs.	
					A	B	C	D	E	F		
5000 OE1G	120 VAC 50/60 Hz	0.5 A	1-5 kV	30 mA	6.88	1.95	1.45	1.38	6.50	6.00	1.4	
7500 OE1G	120 VAC 50/60 Hz	0.75 A	1-7.5 kV	30 mA	6.65	3.13	1.55	2.25	6.13	5.65	2.1	
10000 OE1G	120 VAC 50/60 Hz	1.0 A	1-10 kV	30 mA	6.65	3.54	1.55	2.25	6.13	5.65	2.5	
7500 OE1G 277	277 VAC 50/60 Hz	0.35 A	1-7.5 kV	30 mA	6.65	3.13	1.55	2.25	6.13	5.65	2.1	
10000 OE1G 277	277 VAC 50/60 Hz	0.55 A	1-10 kV	30 mA	6.65	3.54	1.55	2.25	6.13	5.65	2.5	

Luminous Tube Footage Chart																		
Catalog No.	Clear or Fluorescent Red Neon Tube Size, Millimeters									Clear or Fluorescent Mercury Filled Tubes All colors (All Enclosed Applications) 1 Tube Size, Millimeters								
	18	15	14	13	12	11	10	9	8	18	15	14	13	12	11	10	9	8
5000 OE1G	22	18	16	15	14	12	11	9	8	26	21	19	18	16	14	13	11	10
7500 OE1G ²	35	28	26	23	21	19	17	15	13	41	33	30	28	25	23	20	18	15
10000 OE1G ²	48	38	35	32	29	26	23	20	17	56	45	41	38	34	31	27	24	21
Recommended Gas Pressure mm of Hg	8	9.5	10	10.5	11	12	13	14.5	15	8	9.5	10	10.5	11	12	13	14.5	15

¹ All enclosed application. Exposed and extremely cold climate may require footage to be reduced by 10%-20%
 Note 1: Deduct approximately 1 foot from above figures for each pair of electrodes.
 Note 2: Recommended gas pressure for 10-foot plus lengths. Increase 10% for tube lengths under 10 feet.
² Footage is same for 120 and 277 volt units.

Troubleshooting:

- The OE1G will attempt to reset twice after a ground fault. If the automatic resets are unsuccessful, power to the OE1G must be manually reset by removing primary power for at least 10 seconds before reapplying power.
- If after manual resetting the OE1G still trips off, check the following:
 - Electrical shorts or arcing from live high voltage sign components to ground.
 - Excessive moisture captured within or near sign. Make sure the sign is properly ventilated and water does not directly enter sign.
 - Tubing too close to metal surfaces. A 1 1/2 inch clearance is recommended.
 - Bad insulators or standoffs. Make sure they are free from corrosion and they provide a secure connection.
 - Conductive debris between high voltage connections and conductive portions of the sign. Keep sign free of dirt, insects, etc.
 - GTO leads too close to metallic sign parts. A 1 1/2 inch clearance is recommended.
 - Unbalanced tubing on each side of a virtual ground.
 - Power supplies mounted too close to each other in the same channel letter (12 inch separation recommended).
 - Poor grounding to the power supply.
- Check for broken or otherwise degassed tubing.
- Are all sign connections robust?
- If the OE1G still does not function properly, please call 1-800-753-2753
- DO NOT ATTEMPT TO ALTER OR REPAIR THE OE1G POWER SUPPLY. THIS MAY CAUSE INJURY AND WILL VOID WARRANTY.**