QUICKTRONIC® PROStart® T8 Parallel Operation Systems

Type CC, Lamp Striation Control
Programmed Rapid Start
Normal Ballast Factor

NEMA Premium
RoHS compliant

High Efficiency Series

QHE T8 PSN

Lamp / Ballast Guide

Primary Systems
32W T8 - OCTRON®
1-lamp QHE 1x32T8/UNV PSN-MC
2-lamp QHE 2x32T8/UNV PSN-MC
3-lamp QHE 3x32T8/UNV PSN-SC
4-lamp QHE 4x32T8/UNV PSN-SC

Also operates:
FO30/SS, FO28/SS, FO25/SS, FBO32, FBO31, FBO30/SS, FBO29/SS, FO25, FO17, FBO24 & FBO16

F40T8 operation:
1 lamp on 2-lp ballast; 2 lamps on 3-lp ballast; 3 lamps on 4-lp ballast

Key System Features

- **High Efficiency Systems** over 90% efficient
- NEMA Premium Electronic Ballast Program compliant
- PROStart programmed rapid start
  - Extends lamp life
- **Parallel operation** (one lamp out, remaining lamps stay lit)
- Normal ballast factor: 0.88
- UL Type CC
- LSC (Lamp Striation Control)
- Universal input voltage (120-277V)
- Minimum starting temperature:
  - -20°F/-29°C for T8 lamps
  - 60°F/16°C for energy saving T8 lamps
- RoHS compliant
- Lead-free solder, printed circuit board and manufacturing process

Recommended for use with Occupancy Sensors

Application Information

SYLVANIA QUICKTRONIC PROStart T8 ballast
is ideally suited for:

- Any application where extended lamp life is required to reduce maintenance costs
- Occupancy sensors
- Energy retrofits
- Building control systems

SYLVANIA QUICKTRONIC High Efficiency PROStart programmed rapid start electronic T8 ballast family offers several major advantages:

- **High Efficiency:** Operate 32W linear and U-bend equivalent T8 lamps, saving >2 watts as compared to standard T8 programmed rapid start ballasts.

- **Parallel Circuitry:** keeps remaining lamps lit if one or more go out.

- **Lamp Striation Control (LSC):** T8 energy saving lamps should be operated above 60°F, but under certain conditions, the lamps may striate. LSC circuitry will minimize or eliminate this condition in most applications. (Please consult lamp manufacturers for additional details.)

- **Micro-Can Enclosure:** the 1 & 2-lamp models are in the micro-can enclosure. This allows the ballast to fit in very small profile fixtures where standard can T8 ballasts are too large.

- **NEMA Premium Electronic Ballast Program and RoHS compliant:** These ballasts feature lead-free solder, printed circuit boards and manufacturing. The

System Information

SYLVANIA QUICKTRONIC High Efficiency (QHE) System advantages:

- Operate from 120V through 277V
  - Eliminates "wrong voltage" errors
  - Reduces inventory by 50%
- Utilize Programmed Rapid Start operation for
  - Longer lamp life
  - Over 100,000 switching cycles for occupancy sensor and building control systems
- Operate at >42kHz to reduce potential interference with infrared control systems
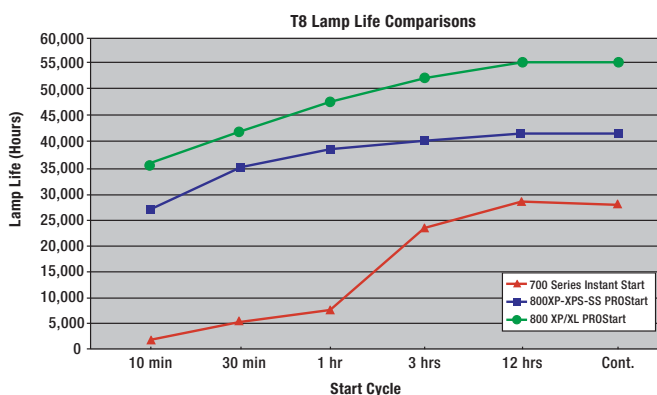

NEMA Premium program promotes the use of high efficiency T8 electronic ballasts by meeting or exceeding the Ballast Efficiency Factors, (BEF) established by the CEE, (Consortium for Energy Efficiency). For addtional details on this program go to: *www.cee1.org or www.nema.org*

- **Longer lamp life:** PROStart technology extends lamp life compared to instant start models for long or short switching

cycles, which is ideal for reducing maintenance costs or for saving energy when using occupancy sensors.

- **UL Type CC compliant:** ballasts utilize a micro-controller based circuit to reduce arcing caused by loose connections or improper lamp pin-to-socket connections.

- **QUICK 60+® System Warranty:** Setting the standard for quality the system is covered by the first and most comprehensive warranty in the industry.

Lamp & Ballast Type	Input Power (W)	Initial Lumens	Initial LPW	Mean System Lumens	Relative Mean Light Output	% Energy Savings
3-FO32/700 QTP 3x32 ISN	86	7390	86	6655	100%	0%
3-FO32/800/XP QHE 3xPSN	82	7920	97	7445	112%	5%
3-FO28/SS QHE 3xPSN	72	7195	100	6760	102%	16%
3-FO25/SS QHE 3xPSN	66	6535	99	6140	92%	23%

T8 Lamp Life Comparisons

Legend:
- 700 Series Instant Start
- 800XP-XPS-SS PROStart
- 800 XP/XL PROStart

X-axis (Start Cycle): 10 min, 30 min, 1 hr, 3 hrs, 12 hrs, Cont.
Y-axis: Lamp Life (Hours), 0 to 60,000

SYLVANIA

SPECIFICATION DATA

Catalog #	Date	Type
Project	Prepared by	
Comments		

High Efficiency Parallel Wired, Type CC, Lamp Striation Control (120-277V)

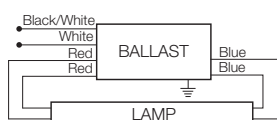✔ RoHS compliant   NEMA Premium

Item Number	OSRAM SYLVANIA Description	Input Current (AMPS)	Lamp Type	Rated Lumens (lm)	No. of Lamps	Ballast Factor (BF)	Initial System Lumens	Mean System Lumens	Input Power (W) 120V	Input Power (W) 277V	System Efficacy[1] (lm/W)	BEF[2]
51397 *51398*	QHE1x32T8/UNV PSN-MC *Banded 10-Pack* *Pallet Pack*	0.26/0.11	F032/700	2800	1	0.88	2465	2220	30	29	85	3.03
		0.26/0.11	FO32XPS	3100	1	0.88	2730	2565	30	29	94	3.03
		0.26/0.11	FO32XP/XL	2950	1	0.88	2595	2440	30	29	90	3.03
		0.24/0.10	FO30/SS	2850	1	0.88	2510	2360	28	26	97	3.38
		0.22/0.10	**FO28/SS**	**2725**	**1**	**0.88**	**2400**	**2255**	**26**	**25**	**96**	**3.52**
		0.20/0.09	FO25/SS	2475	1	0.88	2180	2045	23	23	95	3.83
51408 *51409*	QHE2x32T8/UNV PSN-MC *Banded 10-Pack* *Pallet Pack*	0.48/0.21	F032/700	2800	2	0.88	4930	4435	57	55	90	1.60
		0.48/0.21	FO32XPS	3100	2	0.88	5455	5130	57	55	99	1.60
		0.48/0.21	FO32XP/XL	2950	2	0.88	5190	5523	57	55	94	3.03
		0.46/0.20	FO30/SS	2850	2	0.88	5015	4715	55	53	95	1.66
		0.43/0.18	**FO28/SS**	**2725**	**2**	**0.88**	**4795**	**4510**	**51**	**50**	**96**	**1.76**
		0.38/0.16	FO25/SS	2475	2	0.88	4355	4095	45	44	99	2.00
51413 *51414*	QHE3x32T8/UNV PSN-SC *Banded 10-Pack* *Pallet Pack*	0.69/0.29	F032/700	2800	3	0.88	7390	6655	83	82	90	1.07
		0.69/0.29	FO32XPS	3100	3	0.88	8185	7695	83	82	100	1.07
		0.69/0.29	FO32XP/XL	2950	3	0.88	7790	7320	83	82	95	3.03
		0.68/0.28	FO30/SS	2850	3	0.88	7525	7075	80	78	96	1.13
		0.62/0.27	**FO28/SS**	**2725**	**3**	**0.88**	**7195**	**6760**	**73**	**72**	**100**	**1.22**
		0.56/0.24	FO25/SS	2475	3	0.88	6535	6140	67	66	99	1.33
51418 *51419*	QHE4x32T8/UNV PSN-SC *Banded 10-Pack* *Pallet Pack*	0.93/0.39	F032/700	2800	4	0.88	9855	8870	111	108	91	0.81
		0.93/0.39	FO32XPS	3100	4	0.88	10,910	10,255	111	108	101	0.81
		0.93/0.39	FO32XP/XL	2950	4	0.88	10,385	9760	111	108	94	3.03
		0.89/0.38	FO30/SS	2850	4	0.88	10,030	9430	105	103	97	0.85
		0.83/0.35	**FO28/SS**	**2725**	**4**	**0.88**	**9590**	**9015**	**98**	**95**	**101**	**0.93**
		0.77/0.33	FO25/SS	2475	4	0.88	8710	8190	91	89	98	0.99

Banded Pack contains 10 pieces each, (add "-B" to description). Pallet Pack contains 840 pieces, (add "-PAL" to description).
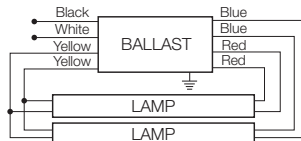1: System Efficacy is based on the lowest Input Power
2: BEF (Ballast Efficiency Factor) shown = (Ballast Factor x 100) divided by Input Power (Note: calculation based on lowest input power)

1 lamp
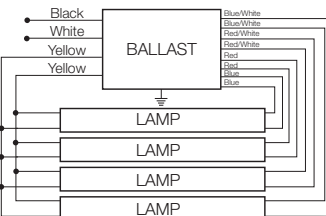

2 lamp

Note: For 1-lp application, individually cap both RED leads. Insulate to 600 volts.

Installation Notes
Lamp wiring for 3 & 4 lamp QHE PSN "parallel" models vary from QTP series models. Be sure to wire ballasts per label/schematics shown on this bulletin.

3 lamp

Note: For 2-lp application, individually cap both RED leads. For 1-lp operation, individually cap both RED and BLUE leads. Insulate to 600 volts.
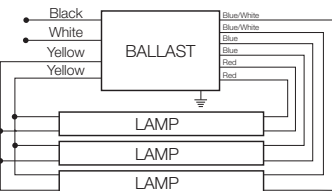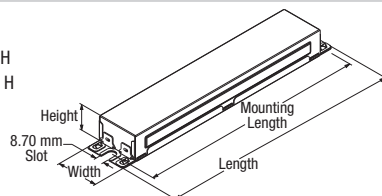
4 lamp

Note: For 3-lp application, individually cap both RED leads. For 2-lp application, individually cap both RED and BLUE leads. For 1-lp application, individually cap both RED, BLUE and Red/White leads. For lamps approved for 1-lp operation, contact OSRAM SYLVANIA. Insulate to 600 volts.

Dimensions "MC & SC" Enclosure:
"SC" Overall: 9.5" L x 1.68" W x 1.18" H
"MC" Overall: 9.5" L x 1.30" W x 1.00" H
Mounting: 8.90"

Product Weight:
QHE1xPSN & QHE2xPSN: 0.66 lbs. each
QHE3xPSN & QHE4xPSN: 1.27 lbs. each

Wiring:
Leads only (no connectors provided)

Item Number — **51408 QHE 2 x 32T8 / UNV PSN - MC** — Case Size
QUICKTRONIC High Efficiency ——— Starting/Ballast Factor
Number of Lamps ——— Line Voltage (120-277V)
Primary Lamp Wattage

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Performance Guide

Data based upon SYLVANIA OCTRON® lamps shown. QUICKTRONIC® QHE PROStart ballasts are also compatible with other lamp manufacturers equivalent lamp types that meet ANSI specifications.

QHE PROStart ballasts will operate F32 (and the SUPERSAVER® & U-Bend equivalent) T8 lamps. Complete performance data is available in the QUICKSYSTEMS section of the SYLVANIA Electronic Ballast Catalog.

Specifications
Data based on F32T8

Starting Method: Programmed Rapid Start
Ballast Factor: 0.88 (see table)
Circuit Type: Parallel
Lamp Frequency: >42kHz
Lamp CCF: Less than 1.7
Starting Temp: [3]
-20°F (-29°C) for OCTRON T8 lamps;
60°F (16°C) for SUPERSAVER® T8 lamps
Input Frequency: 50/60 Hz
Low THD: <10%
Power Factor: >98%
Voltage Range: ±10% of 120-277V rated line (108-305V)

UL Listed Class P, Type 1 Outdoor
UL Type CC Rated
Lamp Striation Control (LSC)
CSA Certified (where applicable)
70°C Max. Case Temperature
FCC 47 CFR Part 18 Non-Consumer
Class A Sound Rating
NEMA Premium Electronic Ballast Program compliant
RoHS compliant [4]
ANSI C62.41 Cat. A Transient Protection
GFCI & emergency ballast compatible
Remote Mounting (Max wire length from ballast case to lampholder):
• 20 ft: full wattage T8s
• 10 ft: energy saving T8s
• 4 ft: 25W energy saving T8s

3 Operation below 50°F (10°C) may affect light output or lamp operation – see "Low Temp. Starting" definition.
4 Complies with European Union Restriction of Hazardous Substances Directive.

System Life / Warranty

QUICKTRONIC products are covered by our QUICK 60+® warranty, a comprehensive lamp and ballast system warranty. For additional details, refer to our QUICK 60+ warranty bulletin.

OSRAM SYLVANIA
National Customer
Service and Sales Center
1-800-LIGHTBULB
(1-800-544-4828)
www.sylvania.com

Specifications subject to change without notice.

⌁ the system solution®