

# QUICKTRONIC® PROStart® T8 Parallel Operation Systems



**Type CC, Lamp Striation Control  
Parallel Operation  
Normal Ballast Factor**

## High Efficiency Series

QHE T8 PSN

### Lamp / Ballast Guide

#### Primary Systems

- 32W T8 - OCTRON® lamps
- 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:

- F030/SS, F028/SS, F025/SS, FB032, FB031, FB030/SS, FB029/SS, F025, F017, FB024 & FB016

#### F40T8 operation:

- 1 lamp on 2L ballast; 2 lamps on 3L ballast; 3 lamps on 4L 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



### Application Information

#### SYLVANIA QUICKTRONIC PROStart T8 ballasts

are 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 NEMA Premium Electronic Ballast 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 additional details on this program go to: [www.cee1.org](http://www.cee1.org) or [www.nema.org](http://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.

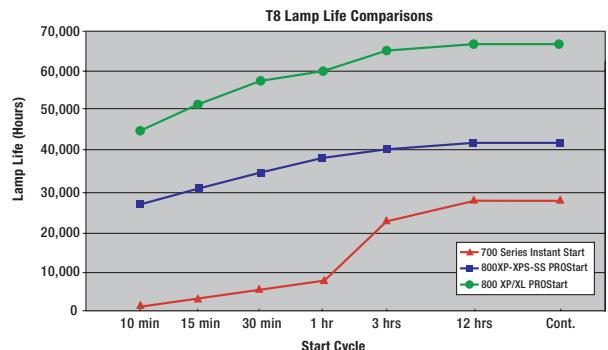
- **UL Type CC compliant:** ballasts utilize a micro-controller based circuit to reduce arcing caused by loose connections or improper lamp pin-to-socket connections.
- **QUICK 60+® System Warranty:** Setting the standard for quality the system is covered by the first and most comprehensive warranty in the industry.

### 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 >42 kHz to reduce potential interference with infrared control systems

Lamp & Ballast Type	Input Power (W)	Initial Lumens	Initial LPW	Mean System Lumens	Relative Mean Light Output	% Energy Savings
3-F032/700 QTP3x32T8/UNV ISN-SC	86	6865	80	6310	100%	0%
3-F032/800/XP® QHE3x32T8/UNV PSN-SC	82	7920	97	7445	118%	5%
3-F028/SS QHE3x32T8/UNV PSN-SC	72	7195	100	6760	107%	16%
3-F025/SS QHE3x32T8/UNV PSN-SC	66	6535	99	6140	97%	23%



**SPECIFICATION DATA**

Catalog #	Date	Type
Project	Prepared by	
Comments		

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



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 277V	System Efficacy <sup>1</sup> (lm/W)	BEF <sup>2</sup>
51397 51398	QHE1x32T8/UNV PSN-MC Banded 10-Pack Pallet Pack	0.26/0.11	F032/700	2600	1	0.88	2290	2105	30 29	79	3.03
		0.26/0.11	F032XPS <sup>®</sup>	3100	1	0.88	2730	2565	30 29	94	3.03
		0.26/0.11	F032XP <sup>®</sup> /XL	2950	1	0.88	2595	2440	30 29	90	3.03
		0.24/0.10	F030/SS	2850	1	0.88	2510	2360	28 26	97	3.38
		<b>0.22/0.10</b>	<b>F028/SS</b>	<b>2725</b>	<b>1</b>	<b>0.88</b>	<b>2400</b>	<b>2255</b>	<b>26 25</b>	<b>96</b>	<b>3.52</b>
0.20/0.09	F025/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	2600	2	0.88	4575	4205	57 55	83	1.60
		0.48/0.21	F032XPS	3100	2	0.88	5455	5130	57 55	99	1.60
		0.48/0.21	F032XP/XL	2950	2	0.88	5190	4980	57 55	94	3.03
		0.46/0.20	F030/SS	2850	2	0.88	5015	4715	55 53	95	1.66
		<b>0.43/0.18</b>	<b>F028/SS</b>	<b>2725</b>	<b>2</b>	<b>0.88</b>	<b>4795</b>	<b>4510</b>	<b>51 50</b>	<b>96</b>	<b>1.76</b>
0.38/0.16	F025/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	2600	3	0.88	6865	6310	83 82	84	1.07
		0.69/0.29	F032XPS	3100	3	0.88	8185	7695	83 82	100	1.07
		0.69/0.29	F032XP/XL	2950	3	0.88	7790	7320	83 82	95	3.03
		0.68/0.28	F030/SS	2850	3	0.88	7525	7075	80 78	96	1.13
		<b>0.62/0.27</b>	<b>F028/SS</b>	<b>2725</b>	<b>3</b>	<b>0.88</b>	<b>7195</b>	<b>6760</b>	<b>73 72</b>	<b>100</b>	<b>1.22</b>
0.56/0.24	F025/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	2600	4	0.88	9150	8415	111 108	85	0.81
		0.93/0.39	F032XPS	3100	4	0.88	10,910	10,255	111 108	101	0.81
		0.93/0.39	F032XP/XL	2950	4	0.88	10,385	9760	111 108	94	3.03
		0.89/0.38	F030/SS	2850	4	0.88	10,030	9430	105 103	97	0.85
		<b>0.83/0.35</b>	<b>F028/SS</b>	<b>2725</b>	<b>4</b>	<b>0.88</b>	<b>9590</b>	<b>9015</b>	<b>98 95</b>	<b>101</b>	<b>0.93</b>
0.77/0.33	F025/SS	2475	4	0.88	8710	8190	91 89	98	0.99		

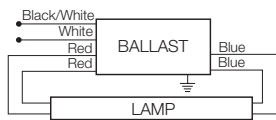
Banded Pack contains 10 pieces each, (add "-B" to description). Pallet Pack contains 840 pieces, (add "-PAL" to description).

1 System Efficacy is based on the lowest Input Power

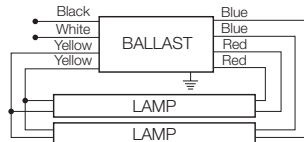
2 BEF (Ballast Efficiency Factor) shown = (Ballast Factor x 100) divided by Input Power (Note: calculation based on lowest input power)

Preliminary specifications. Please contact OSRAM SYLVANIA for additional information.

**1 lamp**

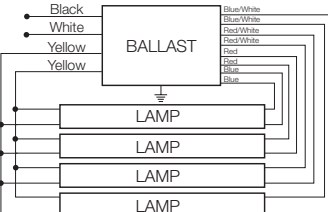


**2 lamp**



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

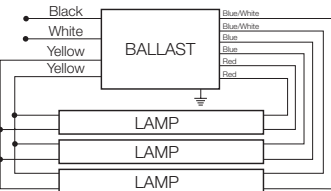
**4 lamp**



Note: For 3L application, individually cap both RED leads. For 2L application, individually cap both RED and BLUE leads. For 1L application, individually cap both RED, BLUE and Red/White leads. For lamps approved for 1L operation, see QUICKSYSTEMS. Insulate to 600 volts.

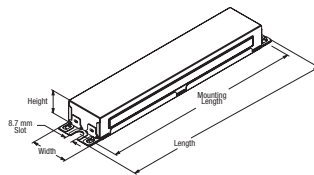
**Installation Notes** Lamp wiring for 3 & 4 lamp QHE PSX "parallel" models vary from QTP series models. Be sure to wire ballasts per label/schematics shown on this bulletin.

**3 lamp**



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

"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"

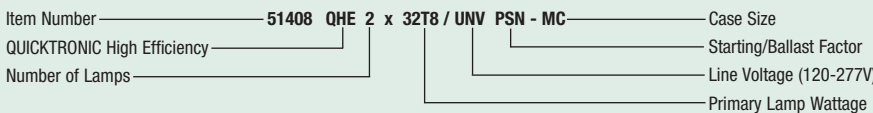


**Product Weight:**

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

**Wiring:**

Leads only (no connectors provided)



**Normal Ballast Factor**

**T8 PROStart<sup>®</sup>**

**High Efficiency**

**Performance Guide**

Data based upon SYLVANIA OCTRON<sup>®</sup> lamps shown. QUICKTRONIC<sup>®</sup> 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<sup>®</sup> & U-Bend equivalent) T8 lamps. Complete performance data is available in the QUICKSYSTEMS section of the SYLVANIA Ballast Technology & Specification Guide.

**Specifications**

Data based on F32T8

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

**QHE T8 PSN**



- 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<sup>4</sup>
- 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 the QUICK 60+<sup>®</sup> warranty, a comprehensive lamp and ballast system warranty. For additional details, refer to the 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.*