QUICKTRONIC® PROStart® T8 Parallel Operation Systems

Type CC, Lamp Striation Control
Parallel Operation
Normal Ballast Factor

RoHS compliant

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

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
- 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.

- **Longer lamp life:** PROStart technology extends lamp life compared to instant start models for long or short switching cycles, which is ideal for reducing maitenance 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.

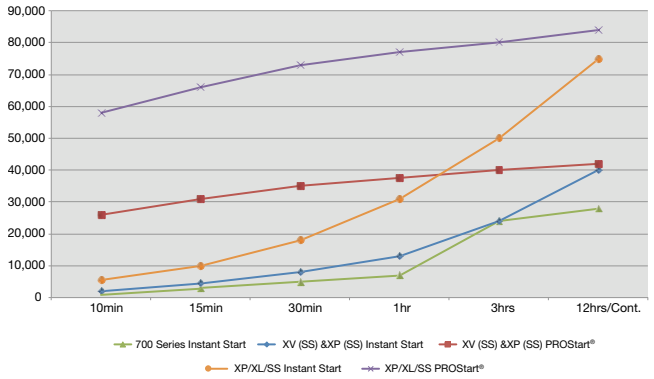
System Information

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-FO32/700 QTP3x32T8/UNV ISN-SC	86	7390	86	6655	100%	0%
3-FO32/800/XP QHE3x32T8/UNV PSN-SC	82	7920	97	7445	112%	5%
3-FO28/SS QHE3x32T8/UNV PSN-SC	72	7195	100	6760	102%	16%
3-FO25/SS QHE3x32T8/UNV PSN-SC	66	6535	99	6140	92%	23%

Lamp Life on QUICKTRONIC® Ballasts



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SPECIFICATION DATA

Catalog # Date Type

Project Prepared by

Comments

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

RoHS compliant

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]
	QHE1x32T8/UNV PSN-MC	0.26/0.11	F032/700	2800	1	0.88	2465	2220	30	29	85	3.03
51397 ✪	*Banded 10-Pack*	0.26/0.11	F032XPS	3100	1	0.88	2730	2565	30	29	94	3.03
51398 ✪	*Pallet Pack*	0.26/0.11	F032XP/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
		0.22/0.10	**F028/SS**	**2725**	**1**	**0.88**	**2400**	**2255**	**26**	**25**	**96**	**3.52**
		0.20/0.09	F025/SS	2475	1	0.88	2180	2045	23	23	95	3.83
	QHE2x32T8/UNV PSN-MC	0.48/0.21	F032/700	2800	2	0.88	4930	4435	57	55	90	1.60
51408 ✪	*Banded 10-Pack*	0.48/0.21	F032XPS	3100	2	0.88	5455	5130	57	55	99	1.60
51409 ✪	*Pallet Pack*	0.48/0.21	F032XP/XL	2950	2	0.88	5190	5523	57	55	94	3.03
		0.46/0.20	F030/SS	2850	2	0.88	5015	4715	55	53	95	1.66
		0.43/0.18	**F028/SS**	**2725**	**2**	**0.88**	**4795**	**4510**	**51**	**50**	**96**	**1.76**
		0.38/0.16	F025/SS	2475	2	0.88	4355	4095	45	44	99	2.00
	QHE3x32T8/UNV PSN-SC	0.69/0.29	F032/700	2800	3	0.88	7390	6655	83	82	90	1.07
51413 ✪	*Banded 10-Pack*	0.69/0.29	F032XPS	3100	3	0.88	8185	7695	83	82	100	1.07
51414 ✪	*Pallet Pack*	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
		0.62/0.27	**F028/SS**	**2725**	**3**	**0.88**	**7195**	**6760**	**73**	**72**	**100**	**1.22**
		0.56/0.24	F025/SS	2475	3	0.88	6535	6140	67	66	99	1.33
	QHE4x32T8/UNV PSN-SC	0.93/0.39	F032/700	2800	4	0.88	9855	8870	111	108	91	0.81
51418 ✪	*Banded 10-Pack*	0.93/0.39	F032XPS	3100	4	0.88	10,910	10,255	111	108	101	0.81
51419 ✪	*Pallet Pack*	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
		0.83/0.35	**F028/SS**	**2725**	**4**	**0.88**	**9590**	**9015**	**98**	**95**	**101**	**0.93**
		0.77/0.33	F025/SS	2475	4	0.88	8710	8190	91	89	98	0.99

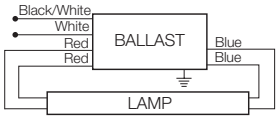
Banded Pack contains 10 pieces each, (add "-B" to description). Pallet Pack contains 840 pieces, (add "-PAL" to description).

1 System Efficacy is based on the lowest Input Power

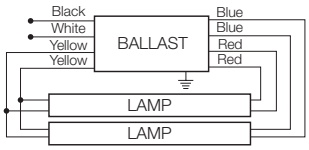
2 BEF (Ballast Efficiency Factor) shown = (Ballast Factor x 100) divided by Input Power (Note: calculation based on lowest input power)

✪ Preliminary specifications. Please contact OSRAM SYLVANIA for additional information.

1 lamp



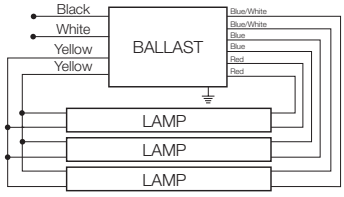
2 lamp



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

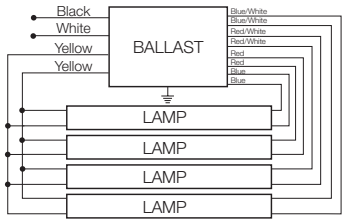
Installation Notes Lamp wiring for 3 & 4 lamp QHE PSN "parallel" models vary from QTP series models. Be sure to wire ballasts per label/schematics shown on this bulletin.

3 lamp



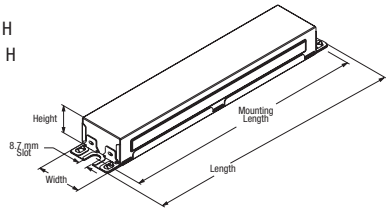
Note: For 2L application, individually cap both RED leads.
For 1L operation, individually cap both RED and BLUE leads.
Insulate to 600 volts.

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.

"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
QUICKTRONIC High Efficiency — Case Size
Number of Lamps — Starting/Ballast Factor
Line Voltage (120-277V)
Primary Lamp Wattage

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 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:[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
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 the QUICK 60+® warranty, a comprehensive lamp and ballast system warranty. For additional details, refer to the QUICK 60+ warranty bulletin.

OSRAM SYLVANIA
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Specifications subject to change without notice.