

# QUICKTRONIC T8 Instant Start

Universal Voltage Systems  
High Efficiency Series



**Type CC**  
**Lamp Striation Control**  
**Normal Ballast Factor**

QHE T8 ISN CC

## Lamp / Ballast Guide

- 32W T8 - OCTRON® lamps**  
 1-lamp QHE1x32T8/UNV-ISN-SC-1  
 2-lamp QHE2x32T8/UNV-ISN-SC-1  
 3-lamp QHE3x32T8/UNV-ISN-SC-1  
 4-lamp QHE4x32T8/UNV-ISN-SC-1

**Also operates:**  
 FBO32, FBO31, F025, FB024, F017, FBO16, F030/SS (30W), FB030/SS (30W), FBO29/SS (29W), F028/SS (28W) & F025/SS (25W)

**Display lamps:**  
 F013, F014, F021 & F028

**Preheat lamps:**  
 F15T8, F25T8 & F30T8

**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
- UL Type CC Rated (Commercial Cabinet)
- Lamp Striation Control (LSC)
- Min. Starting Temp:
  - -20°F(-29°C) for T8 lamps
  - 60°F (16°C) for Energy Saving T8 lamps
  - 0°F (-18°C) for F040T8 lamps
- Flexible De-Lamp Combinations — see wiring diagrams on next page
- QHE ballasts meet the most demanding utility rebate standards
- 30-50% energy savings
- RoHS compliant
- Lead-free solder and manufacturing process

## Application Information

### QUICKTRONIC High Efficiency (QHE) ballasts

are ideally suited for:

#### UL Type CC

- Refrigerated cases\*
- Walk-in coolers\*
- Commercial cabinets
- Display cases
- Applications that could expose lamp and sockets to vibration and potential movement

\*T8 energy saving lamps should not be used in applications below 60°F lamp ambient.

#### Lamp Striation Control (LSC)

- General lighting applications where energy saving T8 lamps may striate, particularly for the F25 energy saving T8 lamps.

**QUICKTRONIC High Efficiency, (QHE) Type CC energy saving electronic T8 ballasts offer four major advantages:**

1. **Same Light, Less Power!**
  - Up to 6% in energy savings compared to standard T8 low power electronic ballasts without compromising light output
  - Maximum energy savings when compared to F40T12 magnetically ballasted systems
2. **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.
3. **Lamp Striation Control (LSC):** T8 energy saving lamps should be operated above 60°F, but under certain conditions the lamps may striate. LSC circuitry may minimize or eliminate this condition; however there are limited applications where LSC circuitry may not entirely mitigate lamp striations. (Please consult lamp manufacturers for additional details.)

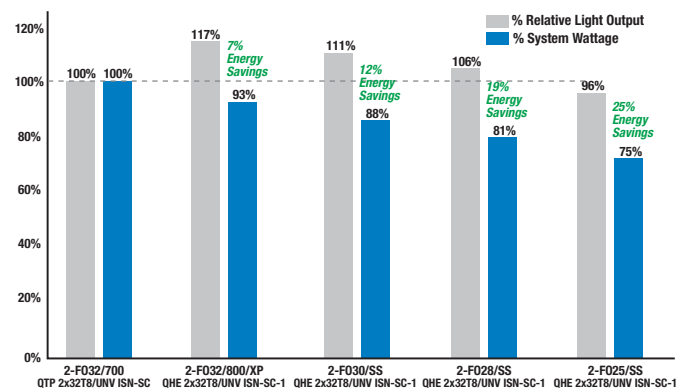


## System Information

**QUICKTRONIC High Efficiency (QHE) System advantages:**

- Operate from 120V through 277V
  - Eliminates "wrong voltage" errors
  - Reduces inventory by 50%
- Utilizes Instant Start operation for
  - Highest System Efficacy
  - Low temperature starting capability
  - Parallel circuitry - keeps remaining lamps lit if one or more go out
- Very low harmonic distortion (<10%)THD
- Operate at >42 kHz to reduce potential interference with infrared control systems

Lamp & Ballast Type	System Watts	Initial LPW	Mean System Lumens @ 8000 Hours	Relative Light Output @ 8000 Hours	% Energy Savings	% Lamp Life @3hrs/start
2-F032/700 QTP2x32T8/UNV ISN-SC	59	76	4205	Baseline	Baseline	Baseline
2-F032/800/XP® QHE2x32T8/UNV ISN-SC-1	55	95	4905	117%	7%	160%
2-F030/SS QHE2x32T8/UNV ISN-SC-1	52	95	4660	111%	12%	160%
2-F028/SS QHE2x32T8/UNV ISN-SC-1	48	99	4455	106%	19%	160%
2-F025/SS QHE2x32T8/UNV ISN-SC-1	44	98	4050	96%	25%	160%



**SPECIFICATION DATA**

Catalog #	Date	Type
Project	Prepared by	
Comments		

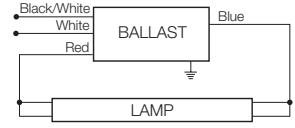
**High Efficiency UNV (120-277V) Type CC & Lamp Striation Control**



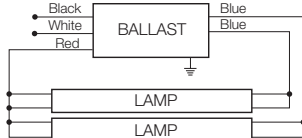
Item Number	Description	Input Current (AMPS)	Lamp Type	Rated Lumens (lm)	No. of Lamps	Ballast Factor (BF)	System Lumens	Mean Lumens	Input Wattage (W)	System Efficacy (lm/W)	BEF <sup>1</sup>
49381	QHE1x32T8/UNV-ISN-SC-1 <i>Banded Pack</i>	0.25/0.11	F032/700	2600	1	0.87	2260	2080	28	81	3.11
		0.25/0.11	F032/XP <sup>®</sup>	3000	1	0.87	2610	2455	28	93	3.11
		0.23/0.09	F030/SS	2850	1	0.87	2480	2330	27/26	92/95	3.35
		<b>0.21/0.09</b>	<b>F028/SS</b>	<b>2725</b>	<b>1</b>	<b>0.87</b>	<b>2370</b>	<b>2230</b>	<b>25/24</b>	<b>95/99</b>	<b>3.63</b>
		0.20/0.09	F025/SS	2475	1	0.87	2155	2025	23/22	94/98	3.95
49383	QHE2x32T8/UNV-ISN-SC-1 <i>Banded Pack</i>	0.47/0.20	F032/700	2600	2	0.87	4525	4160	55	82	1.58
		0.47/0.20	F032/XP	3000	2	0.87	5220	4905	55	95	1.58
		0.44/0.19	F030/SS	2850	2	0.87	4960	4660	52	95	1.67
		<b>0.40/0.18</b>	<b>F028/SS</b>	<b>2725</b>	<b>2</b>	<b>0.87</b>	<b>4740</b>	<b>4455</b>	<b>48/47</b>	<b>99/101</b>	<b>1.85</b>
		0.37/0.16	F025/SS	2475	2	0.87	4305	4050	44/43	98/100	2.02
49385	QHE3x32T8/UNV-ISN-SC-1 <i>Banded Pack</i>	0.68/0.30	F032/700	2600	3	0.87	6785	6240	82/81	83/84	1.07
		0.68/0.30	F032/XP	3000	3	0.87	7830	7360	82/81	96/97	1.07
		0.65/0.28	F030/SS	2850	3	0.87	7440	6990	77/76	97/98	1.14
		<b>0.61/0.26</b>	<b>F028/SS</b>	<b>2725</b>	<b>3</b>	<b>0.87</b>	<b>7110</b>	<b>6685</b>	<b>72/71</b>	<b>99/100</b>	<b>1.23</b>
		0.55/0.23	F025/SS	2475	3	0.87	6460	6070	65/64	99/101	1.36
49387	QHE4x32T8/UNV-ISN-SC-1 <i>Banded Pack</i>	0.92/0.39	F032/700	2600	4	0.87	9050	8315	109/107	83/85	0.81
		0.92/0.39	F032/XP	3000	4	0.87	10,440	9815	109/107	96/98	0.81
		0.86/0.37	F030/SS	2850	4	0.87	9920	9325	102	97	0.85
		<b>0.80/0.35</b>	<b>F028/SS</b>	<b>2725</b>	<b>4</b>	<b>0.87</b>	<b>9485</b>	<b>8915</b>	<b>95/94</b>	<b>100/101</b>	<b>0.93</b>
		0.74/0.31	F025/SS	2475	4	0.87	8615	8095	87/86	99/100	1.01

*Banded Pack contains 10 pieces, (add "-B" to Description).*

<sup>1</sup> Ballast Efficiency Factor (BEF) shown = (Ballast Factor x 100) divided by Input Power (Note: calculation based on lowest wattage value).

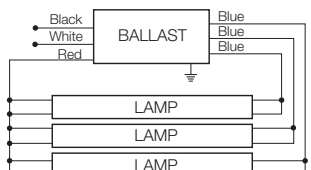


**QUICKTRONIC 1x32**



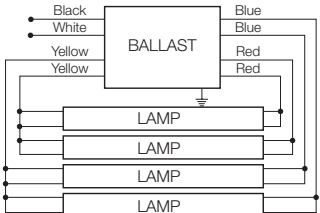
Note: For one lamp application, cap any blue lead. Insulate to 600 volts.

**QUICKTRONIC 2x32**



Note: For two lamp application, cap any blue lead. For one lamp application, cap any two blue leads. Insulate to 600 volts.

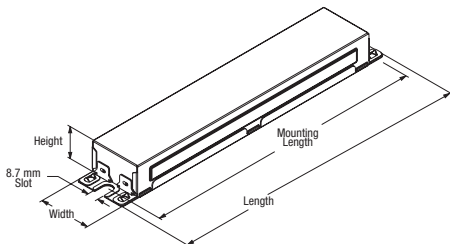
**QUICKTRONIC 3x32**



Note: For three lamp application, cap any unused blue lead. For two lamp application, cap two blue leads individually. For one lamp application, cap two blue leads, one red and one yellow lead individually. Insulate to 600 volts.

**QUICKTRONIC 4x32**

**Dimensions:**  
 Overall: 9.5" L x 1.68" W x 1.18" H  
 Mounting: 8.90"  
**Product Weight:**  
 1.6 lbs each (approx.)  
**Wiring:**  
 Leads only (no connectors provided)



**Normal Ballast Factor**

**T8 Instant Start**

**High Efficiency**

**Performance Guide**

Data based upon SYLVANIA OCTRON<sup>®</sup> lamps shown. QUICKTRONIC<sup>®</sup> QHE Instant Start ballasts are also compatible with other manufacturers equivalent lamp types that meet ANSI specifications.

QHE Instant Start ballasts will also operate F17, F25, F32 and the U-Bend equivalent & energy saving T8 lamps.

**Specifications**

Data based on F32T8

- Starting Method: Instant Start
- Ballast Factor: 0.87
- Circuit Type: Parallel
- Lamp Frequency: >42 kHz
- Lamp CCF: Less than 1.7
- Starting Temp:<sup>2</sup>
  - 20°F (-29°C) for OCTRON T8 lamps;
  - 60°F (16°C) for SUPERSAVER<sup>®</sup> T8 lamps
- 0°F (-18°C) for FO40T8
- 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
- CSA Certified
- 70°C Max Case Temperature
- FCC 47 CFR Part 18 Non-Consumer
- Class A Sound Rating
- RoHS Compliant<sup>3</sup>
- ANSI 62.41 Cat. A Transient Protection
- GFCI compatible
- 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

<sup>2</sup> Operation below 50°F (10°C) may affect light output or lamp operation – see "Low Temp. Starting" definition.

<sup>3</sup> Complies with European Union Restriction of Hazardous Substances Directive (Directive EC 2002/95)

**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**  
 1-877-636-5267  
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 ds.warranty@osram.com

*Specifications subject to change without notice.*

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**QHE T8 ISN CC**