

ESB216-12

APPLICATION and PERFORMANCE SPECIFICATION

Electronic ballast for (2/1) T12HO lamps up to 8ft long or any combination thereof from 2-16 ft.
 Electronic ballast for (2/1) T8HO lamps up to 6ft long or any combination thereof from 4-12 ft.
 Electronic ballast for use with (6-1) T12HO/T8HO lamps or any combination of lamps in circuit as long as total length on each circuit does not exceed 7 ft.

- Line Voltage: 120 to 277 vac, $\pm 10\%$, 50/60Hz
- Parallel Lamp Operation
- Instant Start Operation
- Active Power Factor Correction

*60 Hz data

Lamp		Lamp Footage		Volts	Max Input Power (Watts)	Nominal Line Current (Amps)	Power Factor	THD	Crest Factor
Type	#	Min	Max						
T12HO	2,1	2	16	120	134	1.12	>.90	<10%	<1.7
T12HO	2,1	2	16	277	130	0.47	>.90	<10%	<1.7
T8HO	2,1	4	12	120	125	1.04	>.90	<10%	<1.7
T8HO	2,1	4	12	277	121	0.44	>.90	<10%	<1.7

Application and Performance Specification Information Subject to Change without Notification.

Power factor >.80 and THD <25% for 2ft application, THD <15% for 3-4ft applications

Performance:

- Meets FCC Part 18 (Class A) for EMI and RFI non-consumer limits

Safety:

- No PCB's
- cUL_{US} Listed (Class P, Type HL, Type 2 Outdoor)
- CSA Listed

Application:

- Minimum Starting Temperature: -20° F, -29° C
- Maximum Case Temperature: 176° F, 80° C
- Sound Rated: A

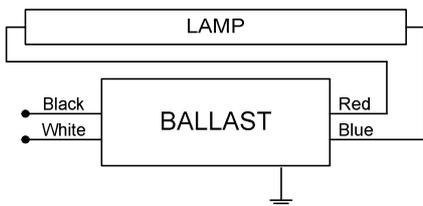
Physical Parameters:

- Length: 11.75"
- Width: 3.24"
- Height: 1.78"
- Weight: 4.2 lbs
- Carton Quantity: 1 piece
- Lead length: Black, White 24" ($\pm 1"$)
Red, Blue 120" ($\pm 1"$)

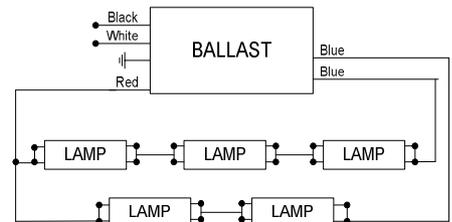
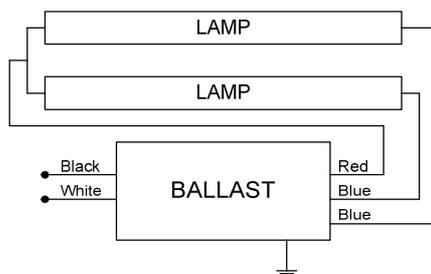
Warranty:

Universal Lighting Technologies warrants to the purchaser that each electronic ballast will be free from defects in material or workmanship for a period of 4 years from date of manufacture when properly installed and under normal conditions of use. Call **1-800-BALLASTx800** for technical assistance.

Manufactured in North America



For 1-lamp application, cap blue lead



Multiple Lamp Application



ESB432-14

APPLICATION and PERFORMANCE SPECIFICATION

Electronic ballast for 4, 3, 2 and 1 T12HO lamps up to 8ft long or any combination thereof from 4-32 ft.
 Electronic ballast for 4, 3, 2 and 1 T8HO lamps up to 6ft long or any combination thereof from 4-24 ft.
 For use with T12HO/T8HO lamps in any combination as long as total length on each circuit does not exceed 7 ft.

- Line Voltage: 120 - 277 vac, ±10%, 50/60Hz
- Parallel Lamp Operation
- Instant Start
- Active Power Factor Correction

*60 Hz data

Lamp Type	Lamp #	Lamp Footage		Volts	Max Input Power (Watts)	Nominal Line Current (Amps)	Power Factor	Harmonic Total	Crest Factor
		Min	Max						
T12HO	4,3,2,1	4	32	120	280	2.34	>.90	<10%	<1.7
T12HO	4,3,2,1	4	32	277	274	0.99	>.90	<10%	<1.7
T8HO	4,3,2,1	4	24	120	257	2.14	>.90	<10%	<1.7
T8HO	4,3,2,1	4	24	277	250	0.90	>.90	<10%	<1.7

Application and Performance Specification Information Subject to Change without Notification.

Power factor >.85 for 4-5ft applications, THD <20% for 4-12ft applications

Performance:

- Meets ANSI Standard C82.11-1993
- Meets FCC Part 18 (Class A) for EMI and RFI Non-Consumer Limits

Safety:

- No PCB's
- cUL_{US} listed (Class P, Type HL, Type 2 Outdoor)

Application:

- Minimum Starting Temperature: -20° F, -29° C
- Maximum Case Temperature: 176° F, 80° C
- Sound Rated: A

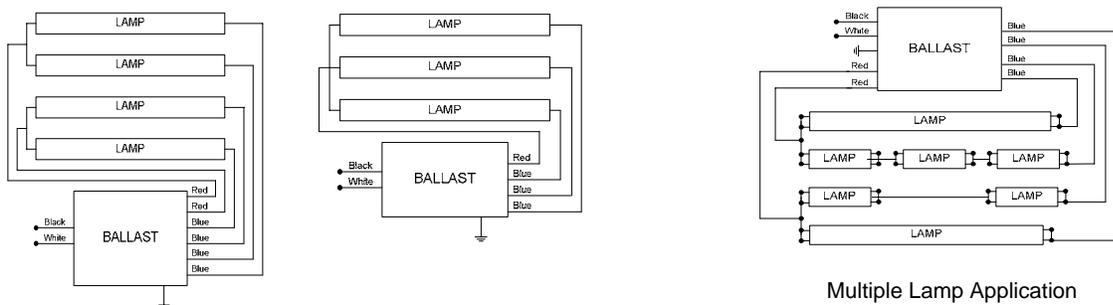
Physical Parameters:

- Length: 14.31"
- Width: 3.19"
- Height: 2.67"
- Weight: 7.4 lbs
- Carton Quantity: 1 piece
- Lead length: Black, White 24" (± 1")
Red, Blue 120" (± 1")

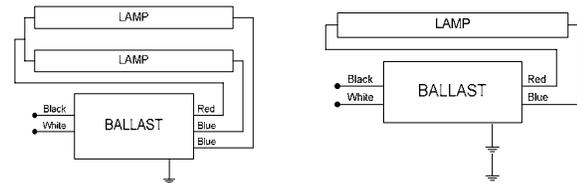
Warranty:

Universal Lighting Technologies warrants to the purchaser that each electronic ballast will be free from defects in material or workmanship for a period of 4 years from date of manufacture when properly installed and under normal conditions of use. Call **1-800-BALLASTx800** for technical assistance.

Manufactured in North America



For 3-lamp, 2-lamp and 1-lamp application individually cap red and blue leads



ESB848-46

APPLICATION and PERFORMANCE SPECIFICATION

Electronic ballast for (6/5/4) T12HO lamps up to 8ft long or any combination thereof from 8-48 ft.
 Electronic ballast for (6/5/4) T8HO lamps up to 6ft long or any combination thereof from 16-36 ft.
 Electronic ballast for use with T12HO/T8HO lamps or any combination of lamps in circuit as long as total length per circuit does not exceed 7ft for T12HO/5ft for T8HO. Not to be used with less than 4 circuits.

- Parallel Lamp Operation
- Active Power Factor Correction

*60 Hz data

Lamp		Lamp Footage		Volts	Max Input Power (Watts)	Nominal Line Current (Amps)	Power Factor	THD	Crest Factor
Type	#	Min	Max						
T12HO	6,5,4	8	48	120	420	3.50	>.99	<10%	<1.7
T12HO	6,5,4	8	48	277	415	1.50	>.97	<10%	<1.7
T8HO	6,5,4	16	36	120	380	3.17	>.99	<10%	<1.7
T8HO	6,5,4	16	36	277	380	1.37	>.96	<10%	<1.7

Application and Performance Specification Information Subject to Change without Notification.

Performance:

- Meets ANSI standard C82.11-1993
- Meets FCC Part 18 (Class A) for EMI and RFI non-consumer limits

Safety:

- No PCB's
- cUL_{US} Listed (Class P, Type HL, Type 2 Outdoor)
- CSA Listed

Application:

- Minimum Starting Temperature: -20° F, -29° C
- Maximum Case Temperature: 176° F, 80° C
- Sound Rated: A

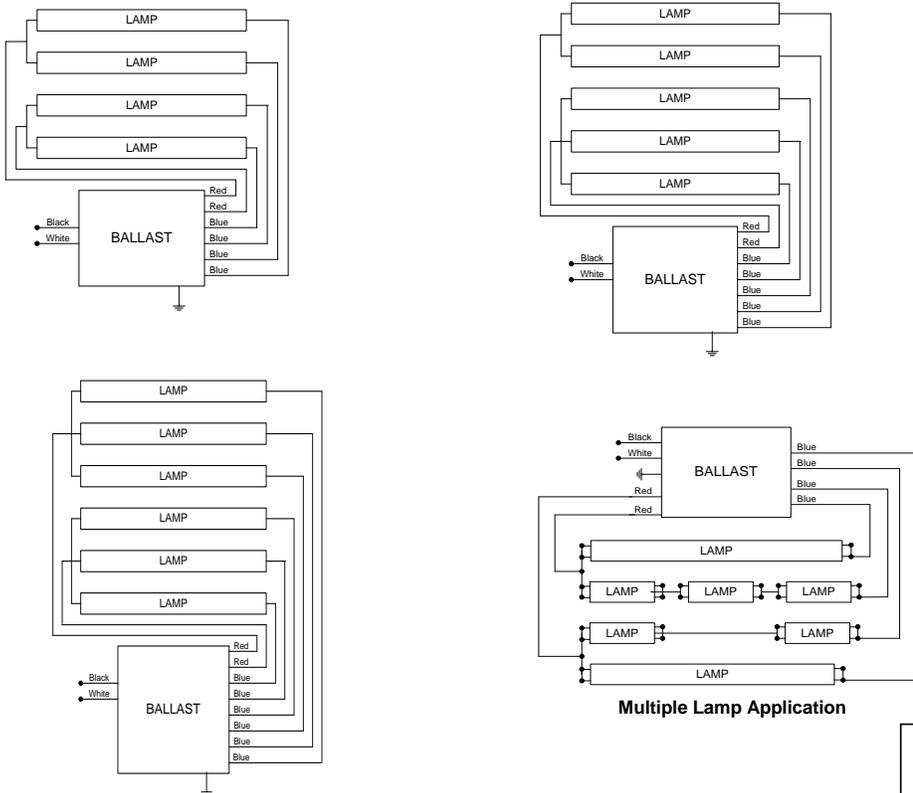
Physical Parameters:

- Length: 16.68"
- Width: 3.24"
- Height: 2.67"
- Weight: 9.7 lbs
- Carton Quantity: 1 piece
- Lead length: White, Black 24" (± 1")
Red, Blue 120" (± 1")

Warranty:

Universal Lighting Technologies warrants to the purchaser that each electronic ballast will be free from defects in material or workmanship for a period of 4 years from date of manufacture when properly installed and under normal conditions of use. Call **1-800-BALLASTx800** for technical assistance.

Manufactured in North America



Multiple Lamp Application

For 5-lamp and 4-lamp applications, individually cap blue leads



ESB1040-14

APPLICATION and PERFORMANCE SPECIFICATION

Electronic ballast for 4, 3, 2 and 1 F120T12HO lamps
Electronic ballast for 4, 3, 2 and 1 Lamp F96T8HO lamps

- Line Voltage: 120 - 277 vac, $\pm 10\%$, 50/60Hz
- Full Parallel Lamp Operation
- Instant Start Operation
- Active Power Factor Correction

Maximum load operating parameters (60Hz)

Lamp		Lamp Footage		Volts	Max Input Power (Watts)	Nominal Line Current (Amps)	Power Factor	Harmonic Total	Crest Factor
Type	#	Min	Max						
F120T12HO	4,3,2,1	10	40	120	341	2.85	>.99	<10%	<1.7
F120T12HO	4,3,2,1	10	40	277	331	1.25	>.95	<10%	<1.7
F96T8HO	4,3,2,1	8	32	120	321	2.69	>.99	<10%	<1.7
F96T8HO	4,3,2,1	8	32	277	313	1.19	>.95	<10%	<1.7

Application and Performance Specification Information Subject to Change without Notification.

Performance:

- Meets FCC Part 18 (Class A) for EMI and RFI Non-Consumer Limits

Safety:

- No PCB's
- cULus listed (Class P, Type HL, Type 2 Outdoor)

Application:

- Minimum Starting Temperature: -20° F, -29° C
- Maximum Case Temperature: 194° F, 90° C
- Sound Rated: A

Physical Parameters:

- Length: 16.68"
- Width: 3.19"
- Height: 2.67"
- Weight: 10 lbs
- Carton Quantity: 1 piece
- Lead length: Black, White 24" ($\pm 1"$)
Red, Blue 120" ($\pm 1"$)

Warranty:

Universal Lighting Technologies warrants to the purchaser that each electronic ballast will be free from defects in material or workmanship for a period of 3 years from date of manufacture when properly installed and under normal conditions of use. Call **1-800-BALLASTx800** for technical assistance.

Manufactured in North America

