



# Pacific Ballast® Fluorescent Catalog



## About us

For over 25 years, McWong International, Inc. has been bridging the best of East and West in order to achieve for our valued customers an unparalleled mix of innovation, quality, and service. A California corporation, McWong has grown to become a leader in the design and manufacture of high quality lighting control equipment and related electrical components. Our teams on both sides of the Pacific take great pride in the fact that the majority of our growth comes from organic nurturing of business with long-term, world-class customers. Reliable, competitive products paired with committed customer service year in and year out have enabled sustained growth over more than two decades.

Today, the pace of technological change has quickened and competition continues to intensify. We are meeting these challenges through heightened investment in capable individuals, promising technologies and advanced manufacturing facilities. McWong's disciplined approach to quality management, customer service, and cost control ensures that we are well-poised to accelerate our pace of growth as we partner with our stakeholders to achieve a brighter, more sustainable, more successful future.

### **Pacific Ballast® Fluorescent:**

Under our flagship Pacific Ballast® trademark, McWong's extensive portfolio of fluorescent ballasts has serviced the lighting industry for over two decades. Pacific Ballast® are designed to meet or exceed all ANSI, UL and industry regulatory requirements while ensuring cost effectiveness. Manufactured under unwavering quality standards, Pacific Ballast® are backed by one of the best warranties in the industry.

### **Electronic Fluorescent Ballasts:**

Pacific brand electronic fluorescent ballasts are manufactured with the highest quality components and workmanship. Pacific has a comprehensive line of NEMA Premium designation T8 ballasts which are also CEE Qualified. Combined with our Energy Star® compliant ballasts we deliver an unparalleled sustainable solution for a green future.

### **Magnetic Fluorescent Ballasts:**

Pacific brand magnetic fluorescent ballasts are a time-proven robust workhorse suitable for operation under the toughest lighting environments. Pacific magnetic fluorescent ballasts are also suitable in applications where radio interference of electronic ballast becomes problematic.

### **Sign Ballasts:**

Employing high grade silicon steel cores with uniformly tight coil windings, Pacific brand sign ballasts are designed to provide reliable operation under extreme conditions, including -20°F starting. Six models form the core of the product line for operation of all common lamp quantity and length combinations. Quality designs with rugged construction make Pacific brand sign ballasts ideal for outdoor sign applications where cold starting and lumen maintenance are critical.

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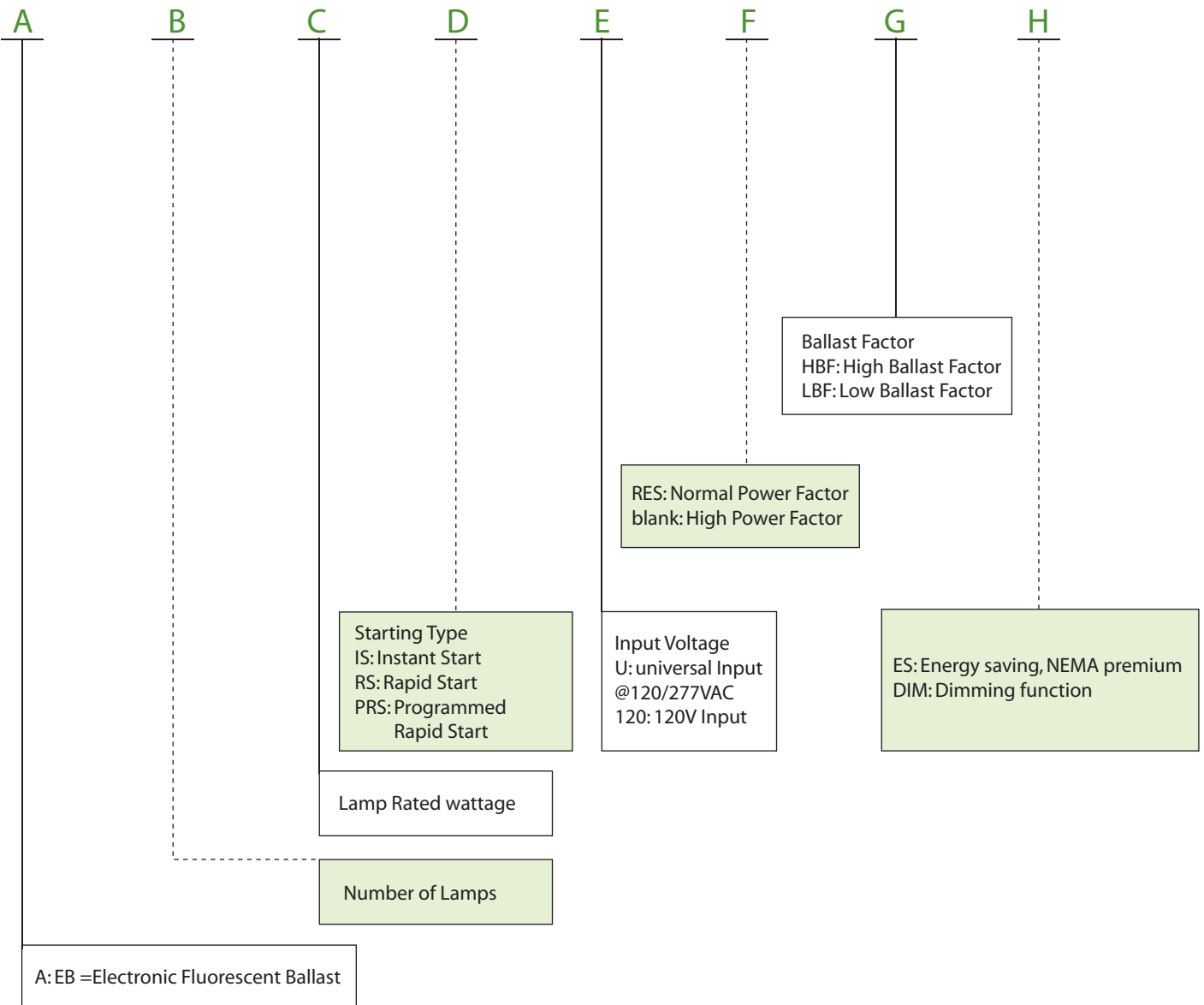
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# Pacific Ballast® Fluorescent Model Numbers Information

EB	-	2	32	IS	-	U	-		HBF	DIM
EB	-	4	54	PRS	-	U	-			ES
EB	-	4	54	PRS	-	U	-			
EB	-	2	32	IS	-	U	-	RES	LBF	
EB		3	32	IS	-	120	-	RES		
EB		1	28	RS	-	120	-			



# PACIFIC BALLAST® LIMITED WARRANTY

McWong International, Inc. ("MCWONG"), 2544 Industrial Blvd., West Sacramento, California 95691, warrants its lamp ballasts to be free from defect in material and workmanship from the date of manufacture by MCWONG for the following time periods:

- Ⓜ High Intensity Discharge (HID)..... 3 Years
- Ⓜ Electromagnetic Fluorescent (Residential)..... 2 Years
- Ⓜ Electromagnetic Fluorescent (Commercial)..... 3 Years
- Ⓜ Electronic Fluorescent (Residential)..... 2 Years
- Ⓜ Electronic Fluorescent (Commercial)..... 5 Years

Date codes for electromagnetic ballast(s) are stamped in the underside of the ballast can.

Date codes for electronic ballast(s) can be found on the label and/or stamped into the underside of the can.

Date codes for HID Ballast(s) can be found imprinted on the end of the lamination and/or on date code label applied to coils.

Pacific Ballast® labels show our toll free number – 888-600-9188 allowing convenient contact directly with a qualified technical support administrator. Warranty claims may also be submitted online by visiting [www.mcwonginc.com](http://www.mcwonginc.com) and clicking on Technical Support / Warranty.

This warranty is not applicable to any ballast subjected to abnormal stresses. Validity of this warranty is also conditioned upon proper storage, installation, use and maintenance. This warranty is not applicable to any PACIFIC BALLAST® product not installed and operated in accordance with:

- The National Electrical Code (NEC)
- The standards for safety of Underwriter's Laboratories, Inc. (UL)
- The standards of the American National Standards Institute (ANSI)
- Relevant electrical ratings and Maximum Temperature Ratings
- The specific instructions provided by MCWONG for the installation of the product(s)

If it appears that the product does not meet the warranty specified above, the Purchaser must notify MCWONG of its claim in writing at the address above and, after receiving proper authorization, must promptly return the product(s) at purchaser's expense to MCWONG – unless prior arrangement has been made with MCWONG for other RGA dispositioning. MCWONG shall correct any defects, at MCWONG's option, by either repairing any defective part(s), by making available a replacement ballast, or by extending a credit in the amount of the ballast purchase price.

The standards and conditions of any tests concerning any PACIFIC BALLAST® claimed to have not performed to this warranty shall be mutually agreed upon in writing and MCWONG shall be notified of, and may be represented at any such tests. This express limited warranty is extended by MCWONG only to the original or first end-user purchaser.

NO IMPLIED STATUTORY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY BEYOND THE AFOREMENTIONED BALLAST WARRANTY PERIOD. This warranty is exclusive of all other statutory, written or oral warranties and no other warranties of any kind, statutory or otherwise, are given or herein expressed.

Under no circumstances, whether as a result of breach of contract, breach of warranty, tort, strict liability or otherwise, will MCWONG be liable for consequential, incidental, special or exemplary damages, including, but not limited to, loss of profits, loss of use or damage to any property or equipment, cost of capital, cost of substitute products, facilities or services, downtime costs or claims of any kind or any loss or damage arising out of, resulting from, or concerning any aspect of this agreement or from the products or services furnished.

## Linear EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wiring Diagram
<b>F6T5 - 6W</b>												
2	120	EB-128RS-120-RES	Rapid	0.21	15	135	0.5	0.95	/	0/-18	C10	W15
<b>F8T5 - 8W</b>												
1	120	EB-114RS-120-RES	Rapid	0.15	9	160	0.45	0.95	/	0/-18	C9	W9
<b>F13T5 - 13W</b>												
1	120	EB-114RS-120-RES	Rapid	0.21	15	135	0.5	0.95	/	0/-18	C9	W9
2	120	EB-128RS-120-RES	Rapid	0.42	30	135	0.5	0.95	/	0/-18	C10	W15
<b>F14T5 - 14W</b>												
1	120	EB-114RS-120-RES	Rapid	0.21	15	135	0.5	0.95	/	0/-18	C9	W9
1	120/277	EB-228PRS-U	Program	0.14/0.07	17	10	0.98	1.06	4.24	0/-18	C1	W10
2	120	EB-128RS-120-RES	Rapid	0.42	30	135	0.5	0.95	/	0/-18	C10	W15
2	120/277	EB-228PRS-U	Program	0.28/0.13	33	10	0.98	1.04	/	0/-18	C1	W10
<b>(1) F8T5 &amp; (1) F13T5 - 8W + 13W</b>												
2	120	EB-121RS-120-RES	Rapid	0.35	23	135	0.5	0.95	/	0/-18	C10	W15
<b>F21T5 - 21W</b>												
1	120	EB-121RS-120-RES	Rapid	0.35	23	135	0.5	0.95	/	0/-18	C10	W9
1	120/277	EB-228PRS-U	Program	0.22/0.10	25	10	0.98	1.06	4.24	0/-18	C1	W10
2	120/277	EB-228PRS-U	Program	0.39/0.17	49	10	0.98	1.02	2.08	0/-18	C1	W10
<b>F28T5(ES) - 25W</b>												
1	120/277	EB-228PRS-U	Program	0.29/0.11	30	10	0.98	1	3.33	0/-18	C1	W10
<b>F28T5 - 28W</b>												
1	120	EB-128RS-120-RES	Rapid	0.42	30	135	0.5	0.95	/	0/-18	C10	W9
1	120/277	EB-228PRS-U	Program	0.29/0.12	31	10	0.98	1.05	3.39	0/-18	C10	W10
2	120/277	EB-228PRS-U	Program	0.53/0.23	61	10	0.98	1	1.61/1.64	0/-18	C1	W10
<b>F24T5/HO - 24W</b>												
2	120/277	EB-224PRS-U	Program	0.45/0.2	54/55	15/15	0.98/0.98	/	/	0/-18	C1	W1
<b>F35T5 - 35W</b>												
1	120/277	EB-228PRS-U	Program	0.34/0.15	40	10	0.98	1.01	2.53	0/-18	C1	W10
<b>F39T5/HO - 39W</b>												
1	120/277	EB-239PRS-U	Program	0.7/0.29	83/83	15/15	0.98/0.98	/	/	0/-18	C1	W1
<b>F54T5/HO/EA - 49W</b>												
2	120/277	EB-454PRS-U	Program	1/0.43	120/117	10/10	0.98/0.98	1/1	0.83/0.85	0/-18	C4	W12
		EB-454PRS-U-DIM*	Program	1/0.43	120/117	10/10	0.98/0.98	1/1	0.83/0.85	0/-18	C4	W12
3	120/277	EB-454PRS-U	Program	1.5/0.65	176/173	10/20	0.98/0.92	1.03/1.03	0.58/0.59	0/-18	C4	W12
		EB-454PRS-U-DIM*	Program	1.5/0.65	176/173	10/20	0.98/0.92	1.03/1.03	0.58/0.59	0/-18	C4	W12
4	120/277	EB-454PRS-U	Program	2/0.9	231/228	10/10	0.98/0.98	1/1	0.42/0.43	0/-18	C4	W12
		EB-454PRS-U-DIM*	Program	2/0.9	231/228	10/10	0.98/0.98	1/1	0.42/0.43	0/-18	C4	W12
<b>F54T5/HO - 54W</b>												
1	120/277	EB-254PRS-U	Program	0.52/0.23	62/62	10/20	0.98/0.9	1.03/1.03	1.66/1.66	0/-18	C1	W11
2	120/277	EB-254PRS-U	Program	1/0.43	120/117	10/10	0.98/0.97	1/1	0.83/0.85	0/-18	C1	W11
		EB-454PRS-U	Program	1/0.43	120/117	10/10	0.98/0.98	1/1	0.83/0.85	0/-18	C4	W12
		EB-454PRS-U-DIM*	Program	1/0.43	120/117	10/10	0.98/0.98	1/1	0.83/0.85	0/-18	C4	W12
3	120/277	EB-454PRS-U	Program	1.5/0.65	176/173	10/20	0.98/0.92	1.03/1.03	0.58/0.59	0/-18	C4	W12
4	120/277	EB-454PRS-U	Program	2/0.9	231/228	10/10	0.98/0.98	1/1	0.42/0.43	0/-18	C4	W12
		EB-454PRS-U-DIM*	Program	2/0.9	231/228	10/10	0.98/0.98	1/1	0.42/0.43	0/-18	C4	W12
<b>F17T8- 17W</b>												
1	120	EB-132IS-120-HB	Instant	0.17	18	30	0.91	0.94	5.25	0/-18	C1	W3
	120/277	EB-132IS-U	Instant	0.18/0.065	17/17	10/15	0.99/0.95	0.91/0.91	5.35/5.35	0/-18	C1	W3
		EB-232IS-U	Instant	0.18/0.08	22/21	10/15	0.98/0.95	1.1/1.1	4.95/5.18	0/-18	C1	W4
		EB-232IS-U-HBF	Instant	0.22/0.105	25/25	10/15	0.95/0.95	1.42/1.42	5.68/5.69	0/-18	C1	W4
		EB-232IS-U-LBF	Instant	0.16/0.8	19/19	10/15	0.95/0.97	0.96/0.96	5.05/5.05	0/-18	C1	W4



Linear EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD (≤%)	PF (≥)	BF	BEF	Min. Start (°F/°C)	Case Size	Wiring Diagram		
F17T8- 17W														
1	120/277	EB-232IS-U-ES	Instant	0.16/0.09	21/21	10/15	0.95/0.95	1.1/1.1	5.2/5.2	0/-18	C 1	W4		
		EB-232IS-U-ES-HBF	Instant	0.22/0.105	25/25	10/15	0.95/0.95	1.42/1.42	5.68/5.69	0/-18	C 1	W4		
		EB-232IS-U-ES-LBF	Instant	0.14/0.08	17/16	10/20	0.98/0.8	0.96/0.96	5.64/5.9	0/-18	C 1	W4		
2	120	EB-232IS-120-RES	Instant	0.52	31	165	0.5	0.85	2.72	0/-18	C 1	W4		
		EB-232IS-120-RES-HBF	Instant	0.7	40	185	0.45	1.1	2.75	0/-18	C 1	W4		
		EB-232IS-120-HB	Instant	0.31	33	35	0.9	0.89	2.7	0/-18	C 1	W4		
	120/277	EB-232IS-U	Instant	0.26/0.12	31/31	10/10	0.98/0.98	0.93/0.93	3/3	0/-18	C 1	W4		
		EB-232IS-U-HBF	Instant	0.33/0.15	39/39	10/15	0.98/0.96	1.23/1.23	3.15/3.15	0/-18	C 1	W4		
		EB-232IS-U-LBF	Instant	0.25/0.11	25/25	10/15	0.98/0.98	0.84/0.84	3.36/3.36	0/-18	C 1	W4		
		EB-232IS-U-ES	Instant	0.25/0.11	28/28	10/15	0.98/0.96	0.91/0.91	3.2/3.2	0/-18	C 1	W4		
		EB-232IS-U-ES-HBF	Instant	0.33/0.15	39/39	10/15	0.98/0.96	1.23/1.23	3.15/3.15	0/-18	C 1	W4		
		EB-232IS-U-ES-LBF	Instant	0.21/0.09	25/23	10/20	0.98/0.85	0.8/0.8	3.07/3.07	0/-18	C 1	W4		
3	120	EB-332IS-120-RES	Instant	0.79	46	180	0.48	0.92	1.96	0/-18	C 1	W6		
		EB-332IS-120-RES-HBF	Instant	0.95	57	175	0.5	1.09	1.91	0/-18	C 1	W6		
		EB-332IS-120	Instant	0.42	46	15	0.92	0.92	2.62	0/-18	C 1	W6		
		EB-332IS-120-HBF	Instant	0.49	60	15	0.96	1.19	1.98	0/-18	C 1	W6		
	120/277	EB-332IS-U	Instant	0.38/0.17	45/45	10/15	0.98/0.96	0.92/0.92	2.04/2.04	0/-18	C 1	W6		
		EB-332IS-U-HBF	Instant	0.49/0.22	58/57	10/10	0.98/0.96	1.23/1.23	2.1/2.15	0/-18	C 1	W6		
		EB-332IS-U-LBF	Instant	0.37/0.16	43/43	10/15	0.98/0.95	0.86/0.86	1.95/2	0/-18	C 1	W6		
		EB-332IS-U-ES	Instant	0.38/0.17	45/45	10/15	0.98/0.96	0.92/0.92	2.04/2.04	0/-18	C 1	W6		
		EB-332IS-U-ES-HBF	Instant	0.49/0.22	58/57	10/10	0.98/0.96	1.23/1.23	2.1/2.15	0/-18	C 1	W6		
		EB-332IS-U-ES-LBF	Instant	0.37/0.16	43/43	10/15	0.98/0.95	0.86/0.86	1.95/2	0/-18	C 1	W6		
		EB-432IS-U-HBF	Instant	0.52/0.24	62/66	10/10	0.98/0.95	1.27/1.27	2.05/1.92	0/-18	C 2	W7		
		EB-432IS-U-ES-HBF	Instant	0.52/0.24	62/66	10/10	0.98/0.95	1.27/1.27	2.05/1.92	0/-18	C 1	W7		
		4	120	EB-432IS-120-RES	Instant	0.97	55	170	0.62	0.83	1.51	0/-18	C 1	W7
				EB-432IS-120	Instant	0.51	61	20	0.98	0.96	1.57	0/-18	C 1	W7
			120/277	EB-432IS-U	Instant	0.49/0.22	59/58	10/10	0.98/0.98	0.93/0.93	1.57/1.59	0/-18	C 1	W7
EB-432IS-U-HBF	Instant			0.63/0.29	75/79	10/10	0.98/0.97	1.18/1.18	1.57/1.49	0/-18	C 2	W7		
EB-432IS-U-LBF	Instant			0.46/0.19	54/52	10/10	0.98/0.98	0.79/0.79	1.46/1.47	0/-18	C 1	W7		
EB-432IS-U-ES	Instant			0.49/0.22	59/58	10/10	0.98/0.98	0.93/0.93	1.57/1.59	0/-18	C 1	W7		
EB-432IS-U-ES-HBF	Instant			0.63/0.29	75/79	10/10	0.98/0.97	1.18/1.18	1.57/1.49	0/-18	C 1	W7		
EB-432IS-U-ES-LBF	Instant			0.46/0.19	54/52	10/10	0.98/0.98	0.79/0.79	1.46/1.47	0/-18	C 1	W4		
F25T8-25W														
1	120	EB-132IS-120-HB	Instant	0.22	25	30	0.96	0.89	3.55	0/-18	C 1	W3		
		EB-232IS-120-RES	Instant	0.46	28	190	0.5	1	3.57	0/-18	C 1	W4		
	120/277	EB-132IS-U	Instant	0.23/0.09	24/24	10/10	0.99/0.97	0.92/0.92	3.83/3.83	0/-18	C 1	W3		
		EB-232IS-U	Instant	0.24/0.11	29/28	10/15	0.98/0.96	1.08/1.08	3.72/3.72	0/-18	C 1	W4		
		EB-232IS-U-HBF	Instant	0.28/0.13	33/33	10/15	0.98/0.96	1.4/1.4	4.24/4.24	0/-18	C 1	W4		
		EB-232IS-U-LBF	Instant	0.22/0.1	25/25	10/15	0.98/0.97	0.94/0.94	3.72/3.72	0/-18	C 1	W4		
		EB-232IS-U-ES	Instant	0.23/0.1	26/26	10/15	0.98/0.96	1.08/1.08	4.01/4.01	0/-18	C 1	W4		
		EB-232IS-U-ES-HBF	Instant	0.28/0.13	33/33	10/15	0.98/0.96	1.4/1.4	4.24/4.24	0/-18	C 1	W4		
2	120	EB-232IS-120-HB	Instant	0.41	47	30	0.96	0.88	1.88	0/-18	C 1	W4		
		EB-232IS-120-LBF	Instant	0.38	45	25	0.97	0.8	1.78	0/-18	C 1	W4		
		EB-232IS-120-RES	Instant	0.65	44	145	0.5	0.88	1.97	0/-18	C 1	W4		
		EB-232IS-120-RES-HBF	Instant	0.9	55	165	0.5	1.09	1.98	0/-18	C 1	W4		
		EB-332IS-120	Instant	0.42	49	15	0.97	0.9	1.84	0/-18	C 1	W6		
		EB-332IS-120-RES	Instant	0.9	50	170	0.48	1.1	1.99	32 / 0	C 1	W6		
		EB-332IS-120-RES-HBF	Instant	1.04	64	165	0.5	1.25	1.95	32 / 0	C 1	W6		

## Linear EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wiring Diagram
F25T8-25W												
2	120/277	EB-232IS-U	Instant	0.38/0.17	46/46	10/10	0.98/0.98	0.9/0.9	1.95/1.95	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.45/0.2	54/54	10/15	0.98/0.97	1.2/1.2	2.2/2.22	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.35/0.15	41/40	10/15	0.98/0.98	0.81/0.81	1.95/2.02	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.36/0.16	42/41	10/15	0.98/0.97	0.89/0.89	2.1/2.14	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.45/0.2	54/54	10/15	0.98/0.97	1.2/1.2	2.2/2.22	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.31/0.13	37/35	10/15	0.98/0.95	0.79/0.79	2.14/2.19	0/-18	C 1	W4
		EB-332IS-U	Instant	0.42/0.18	50/50	10/15	0.98/0.96	1/1	1.96/1.96	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.55/0.25	65/65	10/15	0.98/0.97	1.28/1.28	1.96/1.96	0/-18	C 1	W6
3	120	EB-332IS-U-ES	Instant	0.42/0.18	50/50	10/15	0.98/0.96	1/1	1.96/1.96	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.55/0.25	65/65	10/15	0.98/0.97	1.28/1.28	1.96/1.96	0/-18	C 1	W6
		EB-332IS-120	Instant	0.55	64	15	0.97	0.9	1.84	0/-18	C 1	W6
		EB-332IS-120-HBF	Instant	0.69	83	10	0.98	1.16	1.4	0/-18	C 1	W6
		EB-332IS-120-RES	Instant	1.14	70	150	0.5	0.9	1.29	0/-18	C 1	W6
		EB-332IS-120-RES-HBF	Instant	1.36	85	160	0.5	1.06	1.25	0/-18	C 1	W6
	120/277	EB-432IS-120	Instant	0.62	74	20	0.98	1.04	1.41	0/-18	C 1	W7
		EB-432IS-120-RES	Instant	1.12	64	160	0.64	0.87	1.36	0/-18	C 1	W7
4	120/277	EB-332IS-U	Instant	0.56/0.24	68/66	10/15	0.98/0.97	0.9/0.9	1.32/1.38	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.69/0.3	81/81	10/10	0.98/0.98	1.2/1.2	1.45/1.46	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.51/0.22	60/58	10/15	0.98/0.95	0.82/0.82	1.34/1.36	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.56/0.24	68/66	10/15	0.98/0.97	0.9/0.9	1.32/1.38	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.69/0.3	81/81	10/10	0.98/0.98	1.2/1.2	1.45/1.46	0/-18	C 1	W6
		EB-332IS-U-ES-LBF	Instant	0.51/0.22	60/58	10/15	0.98/0.95	0.82/0.82	1.34/1.36	0/-18	C 1	W6
		EB-432IS-U-HBF	Instant	0.75/0.32	89/87	10/10	0.98/0.97	1.26/1.26	1.42/1.45	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.53/0.22	62/61	10/15	0.98/0.95	0.84/0.84	1.35/1.36	0/-18	C 1	W7
4	120	EB-432IS-U-ES-HBF	Instant	0.75/0.32	89/87	10/10	0.98/0.97	1.26/1.26	1.42/1.45	0/-18	C 1	W7
		EB-432IS-U-ES-LBF	Instant	0.53/0.22	62/61	10/15	0.98/0.95	0.84/0.84	1.35/1.36	0/-18	C 1	W4
	120/277	EB-432IS-120	Instant	0.74	89	20	0.98	0.94	1.06	0/-18	C 1	W7
		EB-432IS-120-RES	Instant	1.25	79	170	0.65	0.82	1.04	0/-18	C 1	W7
		EB-432IS-U	Instant	0.72/0.32	87/85	10/10	0.98/0.98	0.89/0.89	1.02/1.05	0/-18	C 1	W7
		EB-432IS-U-LBF	Instant	0.64/0.27	76/74	10/10	0.98/0.98	0.78/0.78	1.02/1.04	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.72/0.32	87/85	10/10	0.98/0.98	0.89/0.89	1.02/1.05	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	0.92/0.4	109/109	10/10	0.98/0.98	1.17/1.17	1.07/1.07	0/-18	C 1	W7
EB-432IS-U-ES-LBF	Instant	0.64/0.27	76/74	10/10	0.98/0.98	0.78/0.78	1.02/1.04	0/-18	C 1	W4		
F32T8-32W												
1	120	EB-132IS-120-HB	Instant	0.26	30	20	0.98	0.88	2.9	0/-18	C 1	W3
		EB-232IS-120-HB	Instant	0.34	38	30	0.9	1.05	2.76	0/-18	C 1	W4
		EB-232IS-120-LBF	Instant	0.31	36	30	0.92	0.95	2.63	0/-18	C 1	W4
		EB-232IS-120-RES	Instant	0.55	35	165	0.5	1	2.88	0/-18	C 1	W4
		EB-232IS-120-RES-HBF	Instant	0.72	41	180	0.45	1.17	2.85	0/-18	C 1	W4
	120/277	EB-132PRS-U-ES	Program	0.25/0.11	30/30	10/10	0.98/0.98	0.88/0.88	2.93/2.93	0/-18	C 1	W10
		EB-132PRS-U-ES-HBF	Program	0.32/0.14	38/38	10/10	0.98/0.98	1.18/1.18	3.1/3.1	0/-18	C 1	W10
		EB-232IS-U	Instant	0.32/0.14	39/38	10/15	0.98/0.97	1.07/1.07	2.74/2.82	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.37/0.17	45/45	10/15	0.98/0.97	1.38/1.38	3.06/3.06	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.27/0.12	32/31	10/15	0.98/0.98	0.93/0.93	2.9/3	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.29/0.13	35/34	10/15	0.98/0.97	1.08/1.08	3.1/3.15	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.37/0.17	45/45	10/15	0.98/0.97	1.38/1.38	3.06/3.06	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.26/0.12	31/30	10/15	0.98/0.95	0.93/0.93	2.9/3	0/-18	C 1	W4
2	120	EB-232IS-120-HB	Instant	0.49	58	30	0.96	0.87	1.5	0/-18	C 1	W4
		EB-232IS-120-LBF	Instant	0.45	53	20	0.98	0.78	1.47	0/-18	C 1	W4
		EB-232IS-120-RES	Instant	0.8	53	140	0.52	0.82	1.55	0/-18	C 1	W4





Linear EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start (°F/°C)	Case Size	Wiring Diagram
F32T8-32W												
2	120	EB-232IS-120-RES-HBF	Instant	1.02	70	150	0.52	1.05	1.5	0/-18	C 1	W4
		EB-332IS-120	Instant	0.54	64	15	0.98	0.85	1.44	0/-18	C 1	W6
		EB-332IS-120-HBF	Instant	0.69	83	10	0.98	1.27	1.53	0/-18	C 1	W6
		EB-332IS-120-RES	Instant	1.12	65	165	0.48	0.97	1.47	0/-18	C 1	W6
		EB-332IS-120-RES-HBF	Instant	1.2	77	165	0.5	1.12	1.45	0/-18	C 1	W6
	120/277	EB-232IS-U	Instant	0.5/0.21	59/57	10/10	0.98/0.98	0.89/0.89	1.51/1.56	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.62/0.27	74/73	10/10	0.98/0.98	1.18/1.18	1.59/1.61	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.45/0.19	53/52	10/15	0.98/0.98	0.8/0.8	1.51/1.54	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.46/0.2	55/54	10/10	0.98/0.97	0.89/0.89	1.59/1.6	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.62/0.27	74/73	10/10	0.98/0.98	1.18/1.18	1.59/1.61	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.4/0.18	49/48	10/15	0.98/0.97	0.78/0.78	1.59/1.6	0/-18	C 1	W4
		EB-232PRS-U-ES	Program	0.48/0.21	57/56	10/10	0.98/0.98	0.88/0.88	1.54/1.56	0/-18	C 1	W8
		EB-232PRS-U-ES-HBF	Program	0.6/0.26	72/71	10/10	0.98/0.98	1.18/1.18	1.57/1.59	0/-18	C 1	W8
		EB-332IS-U	Instant	0.53/0.24	63/63	10/15	0.98/0.97	0.99/0.99	1.57/1.57	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.69/0.3	81/80	10/10	0.98/0.98	1.27/1.27	1.54/1.56	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.49/0.21	58/57	10/15	0.98/0.95	0.92/0.92	1.53/1.61	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.53/0.24	63/63	10/15	0.98/0.97	0.99/0.99	1.57/1.57	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.69/0.3	81/80	10/10	0.98/0.98	1.27/1.27	1.54/1.56	0/-18	C 1	W6
		EB-332IS-U-ES-LBF	Instant	0.49/0.21	58/57	10/15	0.98/0.95	0.92/0.92	1.53/1.61	0/-18	C 1	W6
		3	120	EB-332IS-120	Instant	0.71	85	10	0.98	0.9	1.06	0/-18
EB-332IS-120-HBF	Instant			0.91	109	10	0.98	1.18	1.08	0/-18	C 1	W6
EB-332IS-120-RES	Instant			1.35	84	160	0.5	0.87	1.02	0/-18	C 1	W6
EB-332IS-120-RES-HBF	Instant			1.6	102	160	0.5	1.08	1.06	0/-18	C 1	W6
EB-432IS-120	Instant			0.79	94	20	0.98	1	1.06	0/-18	C 1	W7
120/277	EB-432IS-120-RES		Instant	1.35	80	160	0.65	0.85	1.06	0/-18	C 1	W7
	EB-332IS-U		Instant	0.71/0.31	85/83	10/10	0.98/0.98	0.88/0.88	1.04/1.06	0/-18	C 1	W6
	EB-332IS-U-HBF		Instant	0.91/0.39	109/107	10/10	0.98/0.98	1.18/1.18	1.06/1.08	0/-18	C 1	W6
	EB-332IS-U-LBF		Instant	0.64/0.27	76/74	10/10	0.98/0.98	0.78/0.78	1.03/1.05	0/-18	C 1	W6
	EB-332IS-U-ES		Instant	0.71/0.31	84/83	10/10	0.98/0.98	0.88/0.88	1.05/1.06	0/-18	C 1	W6
	EB-332IS-U-ES-HBF		Instant	0.91/0.39	108/106	10/10	0.98/0.98	1.18/1.18	1.07/1.08	0/-18	C 1	W6
	EB-332IS-U-ES-LBF		Instant	0.64/0.27	76/74	10/10	0.98/0.98	0.78/0.78	1.04/1.05	0/-18	C 1	W6
	EB-332PRS-U-ES		Program	0.72/0.31	87/85	10/10	0.98/0.98	0.88/0.88	1.01/1.03	0/-18	C 1	W13
	EB-332PRS-U-ES-HBF		Program	0.95/0.40	113/110	10-Oct	0.98/0.98	1.7/1.7	1.04/1.07	0/-18	C2	W7
	EB-432IS-U		Instant	0.77/0.34	92/89	10/10	0.98/0.98	0.96/0.96	1.04/1.07	0/-18	C 1	W7
	EB-432IS-U-HBF		Instant	1.01/0.44	120/120	10/10	0.98/0.98	1.24/1.24	1.03/1.03	0/-18	C 2	W7
	EB-432IS-U-LBF		Instant	0.68/0.29	81/80	10/10	0.98/0.98	0.82/0.82	1.01/1.02	0/-18	C 1	W7
	EB-432IS-U-ES		Instant	0.77/0.34	92/89	10/10	0.98/0.98	0.96/0.96	1.04/1.07	0/-18	C 1	W7
	EB-432IS-U-ES-HBF		Instant	1.01/0.44	120/120	10/10	0.98/0.98	1.24/1.24	1.03/1.03	0/-18	C 1	W7
	EB-432IS-U-ES-LBF		Instant	0.68/0.29	81/80	10/10	0.98/0.98	0.82/0.82	1.01/1.02	0/-18	C 1	W4
4	120	EB-432IS-120	Instant	0.93	112	20	0.98	0.88	0.79	0/-18	C 1	W7
		EB-432IS-120-RES	Instant	1.62	106	155	0.52	0.82	0.77	0/-18	C 1	W7
	120/277	EB-432IS-U	Instant	0.93/0.4	112/108	10/10	0.98/0.98	0.88/0.88	0.79/0.8	0/-18	C 1	W7
		EB-432IS-U-HBF	Instant	1.24/0.53	145/144	10/10	0.98/0.98	1.16/1.16	0.8/0.81	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.82/0.35	98/96	10/10	0.98/0.98	0.77/0.77	0.79/0.8	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.93/0.4	110/108	10/10	0.98/0.98	0.88/0.88	0.8/0.81	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	1.24/0.53	145/144	10/10	0.98/0.98	1.16/1.16	0.8/0.81	0/-18	C 1	W7
EB-432IS-U-ES-LBF	Instant	0.82/0.35	98/96	10/10	0.98/0.98	0.77/0.77	0.79/0.8	0/-18	C 1	W4		
F32T8/ES/25-25W												
1	120/277	EB-132PRS-U-ES	Program	0.21/0.1	25/27	10/10	0.98/0.98	0.88/0.88	3.52/3.25	0/-18	C 1	W10
		EB-132PRS-U-ES-HBF	Program	0.28/0.12	33/32	10/10	0.98/0.98	1.18/1.18	3.58/3.68	0/-18	C 1	W10



## Linear EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}$ F/ $^{\circ}$ C)	Case Size	Wiring Diagram		
F32T8/ES/25-25W														
1	120/277	EB-232IS-U	Instant	0.24/0.105	29/28	10/15	0.98/0.97	1.07/1.07	3.68/3.69	0/-18	C 1	W4		
		EB-232IS-U-HBF	Instant	0.32/0.145	38/38	10/15	0.98/0.97	1.38/1.38	3.63/3.63	0/-18	C 1	W4		
		EB-232IS-U-LBF	Instant	0.22/0.1	25/25	10/15	0.98/0.97	0.93/0.93	3.72/3.72	0/-18	C 1	W4		
		EB-232IS-U-ES	Instant	0.24/0.11	29/29	10/15	0.98/0.97	1.08/1.08	3.67/3.67	0/-18	C 1	W4		
		EB-232IS-U-ES-HBF	Instant	0.32/0.145	38/38	10/15	0.98/0.97	1.38/1.38	3.63/3.63	0/-18	C 1	W4		
		EB-232IS-U-ES-LBF	Instant	0.21/0.1	25/23	10/20	0.98/0.8	0.93/0.93	3.32/4.03	0/-18	C 1	W4		
2	120/277	EB-232IS-U-LBF	Instant	0.35/0.15	41/40	10/15	0.98/0.98	0.8/0.8	1.95/2	0/-18	C 1	W4		
		EB-232IS-U-ES	Instant	0.39/0.24	46/29	10/10	0.98/0.98	0.89/1.08	1.92/3.67	0/-18	C 1	W4		
		EB-232IS-U	Instant	0.39/0.17	47/46	10/10	0.98/0.98	0.89/0.89	1.88/1.89	0/-18	C 1	W4		
		EB-232IS-U-HBF	Instant	0.53/0.23	63/62	10/15	0.98/0.97	1.18/1.18	1.87/1.9	0/-18	C 1	W4		
		EB-232IS-U-ES-HBF	Instant	0.53/0.23	63/62	10/15	0.98/0.97	1.18/1.18	1.87/1.9	0/-18	C 1	W4		
		EB-232IS-U-ES-LBF	Instant	0.33/0.14	39/38	10/15	0.98/0.97	0.78/0.78	2/2	0/-18	C 1	W4		
		EB-232PRS-U-ES	Program	0.42/0.18	50/49	10/10	0.98/0.97	1/1	2/2.04	0/-18	C 1	W8		
		EB-232PRS-U-ES-HBF	Program	0.53/0.22	63/60	10/10	0.98/0.98	1.18/1.18	1.81/1.9	0/-18	C 1	W8		
		EB-332IS-U	Instant	0.43/0.19	51/51	10/15	0.98/0.97	1/1	1.95/1.95	0/-18	C 1	W6		
		EB-332IS-U-HBF	Instant	0.56/0.245	67/66	10/15	0.98/0.97	1.28/1.28	1.9/1.93	0/-18	C 1	W6		
		EB-332IS-U-LBF	Instant	0.41/0.18	48/47	10/15	0.98/0.95	0.95/0.92	1.97/2.02	0/-18	C 1	W6		
		EB-332IS-U-ES	Instant	0.43/0.19	51/51	10/15	0.98/0.97	1/1	1.95/1.95	0/-18	C 1	W6		
		EB-332IS-U-ES-HBF	Instant	0.56/0.245	67/66	10/15	0.98/0.97	1.28/1.28	1.9/1.93	0/-18	C 1	W6		
		EB-332IS-U-ES-LBF	Instant	0.41/0.18	48/47	10/15	0.98/0.95	0.95/0.92	1.97/2.02	0/-18	C 1	W6		
3	120	EB-432IS-U	Instant	0.62	74	10	0.98	0.96	1.29	0/-18	C 1	W7		
		EB-432IS-U-ES	Instant	0.62	74	10	0.98	0.96	1.29	0/-18	C 1	W7		
	120/277	EB-332IS-U	Instant	0.56/0.245	68/68	10/15	0.98/0.97	0.9/0.9	1.32/1.32	0/-18	C 1	W6		
		EB-332IS-U-HBF	Instant	0.72/0.32	86/85	10/10	0.98/0.98	1.2/1.2	1.37/1.4	0/-18	C 1	W6		
		EB-332IS-U-LBF	Instant	0.53/0.23	63/61	10/15	0.98/0.95	0.85/0.85	1.34/1.39	0/-18	C 1	W6		
		EB-332IS-U-ES	Instant	0.56/0.245	68/68	10/15	0.98/0.97	0.9/0.9	1.32/1.32	0/-18	C 1	W6		
		EB-332IS-U-ES-HBF	Instant	0.72/0.32	86/85	10/10	0.98/0.98	1.2/1.2	1.37/1.4	0/-18	C 1	W6		
		EB-332IS-U-ES-LBF	Instant	0.53/0.23	63/61	10/15	0.98/0.95	0.85/0.85	1.34/1.39	0/-18	C 1	W6		
		EB-432IS-U-ES-HBF	Instant	0.77/0.34	92/93	10/10	0.98/0.98	1.24/1.24	1.35/1.33	0/-18	C 1	W7		
		EB-432IS-U-ES-LBF	Instant	0.57/0.25	68/66	10/15	0.98/0.95	0.84/0.84	1.23/1.27	0/-18	C 1	W4		
		EB-432IS-U-HBF	Instant	0.77/0.34	92/93	10/10	0.98/0.98	1.24/1.24	1.35/1.33	0/-18	C 2	W7		
		EB-432IS-U-LBF	Instant	0.57/0.25	68/66	10/15	0.98/0.95	0.84/0.84	1.23/1.27	0/-18	C 1	W7		
		4	120/277	EB-432IS-U	Instant	0.74/0.325	88/88	10/10	0.98/0.98	0.88/0.88	1/1	0/-18	C 1	W7
				EB-432IS-U-HBF	Instant	0.91/0.4	108/109	10/10	0.98/0.98	1.16/1.16	1.07/1.06	0/-18	C 2	W7
EB-432IS-U-LBF	Instant			0.69/0.3	82/81	10/10	0.98/0.98	0.78/0.78	0.95/0.96	0/-18	C 1	W7		
EB-432IS-U-ES	Instant			0.74/0.325	88/88	10/10	0.98/0.98	0.88/0.88	1/1	0/-18	C 1	W7		
EB-432IS-U-ES-HBF	Instant			0.91/0.4	108/109	10/10	0.98/0.98	1.16/1.16	1.07/1.06	0/-18	C 1	W7		
EB-432IS-U-ES-LBF	Instant			0.69/0.3	82/81	10/10	0.98/0.98	0.78/0.78	0.95/0.96	0/-18	C 1	W4		
F32T8/ES/28-28W														
1	120/277	EB-132PRS-U-ES	Program	0.22/0.1	26/27	10/10	0.98/0.98	0.88/0.88	3.38/3.25	0/-18	C 1	W10		
		EB-132PRS-U-ES-HBF	Program	0.28/0.12	33/32	10/10	0.98/0.98	1.18/1.18	3.57/3.68	0/-18	C 1	W10		
		EB-232IS-U	Instant	0.26/0.12	31/31	10/15	0.98/0.97	1.07/1.07	3.45/3.46	0/-18	C 1	W4		
		EB-232IS-U-HBF	Instant	0.33/0.15	39/39	10/15	0.98/0.97	1.38/1.38	3.53/3.54	0/-18	C 1	W4		
		EB-232IS-U-LBF	Instant	0.24/0.105	28/28	10/15	0.98/0.97	0.93/0.93	3.32/3.32	0/-18	C 1	W4		
		EB-232IS-U-ES	Instant	0.25/0.11	30/29	10/15	0.98/0.97	1.08/1.08	3.5/3.67	0/-18	C 1	W4		
		EB-232IS-U-ES-HBF	Instant	0.33/0.15	39/39	10/15	0.98/0.97	1.38/1.38	3.53/3.54	0/-18	C 1	W4		
		EB-232IS-U-ES-LBF	Instant	0.22/0.1	26/24	10/20	0.98/0.85	0.93/0.93	3.44/3.57	0/-18	C 1	W4		
2	120/277	EB-232IS-U	Instant	0.41/0.18	49/48	10/10	0.98/0.98	0.89/0.89	1.81/1.85	0/-18	C 1	W4		
		EB-232IS-U-ES	Instant	0.41/0.18	49/47	10/15	0.98/0.97	0.89/0.89	1.82/1.88	0/-18	C 1	W4		
		EB-232IS-U-ES-HBF	Instant	0.54/0.235	64/63	10/15	0.98/0.98	1.18/1.18	1.84/1.87	0/-18	C 1	W4		



Linear EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start (°F/°C)	Case Size	Wiring Diagram
F32T8/ES/28-28W												
2	120/277	EB-232IS-U-ES-LBF	Instant	0.35/0.15	41/41	10/15	0.98/0.97	0.78/0.78	1.9/1.9	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.54/0.235	64/63	10/15	0.98/0.98	1.18/1.18	1.84/1.87	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.38/0.16	45/44	10/15	0.98/0.98	0.8/0.8	1.78/1.81	0/-18	C 1	W4
		EB-232PRS-U-ES	Program	0.44/0.19	52/51	10/10	0.98/0.97	0.9/0.9	1.73/1.76	0/-18	C 1	W8
		EB-232PRS-U-ES-HBF	Program	0.55/0.23	66/63	10/10	0.98/0.98	1.18/1.18	1.76/1.81	0/-18	C 1	W8
		EB-332IS-U	Instant	0.45/0.2	54/53	10/15	0.98/0.97	0.99/0.99	1.83/1.86	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.59/0.26	70/69	10/15	0.98/0.97	1.27/1.27	1.8/1.84	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.42/0.185	49/48	10/15	0.98/0.95	0.92/0.92	1.87/1.91	0/-18	C 1	W6
3	120/277	EB-332IS-U-ES	Instant	0.45/0.2	54/53	10/15	0.98/0.97	0.99/0.99	1.83/1.86	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.59/0.26	70/69	10/15	0.98/0.97	1.27/1.27	1.8/1.84	0/-18	C 1	W6
		EB-332IS-U-ES-LBF	Instant	0.42/0.185	49/48	10/15	0.98/0.95	0.92/0.92	1.87/1.91	0/-18	C 1	W6
		EB-332IS-U	Instant	0.6/0.26	72/70	10/15	0.98/0.98	0.88/0.88	1.22/1.25	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.78/0.34	93/92	10/10	0.98/0.98	1.18/1.18	1.25/1.27	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.55/0.24	64/63	10/15	0.98/0.95	0.81/0.81	1.26/1.28	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.6/0.26	72/70	10/15	0.98/0.98	0.88/0.88	1.22/1.25	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.78/0.34	93/92	10/10	0.98/0.98	1.18/1.18	1.25/1.27	0/-18	C 1	W6
		EB-332IS-U-ES-LBF	Instant	0.55/0.24	64/63	10/15	0.98/0.95	0.81/0.81	1.26/1.28	0/-18	C 1	W6
		EB-432IS-U	Instant	0.65/0.285	77/77	10/10	0.98/0.98	0.96/0.96	1.24/1.25	0/-18	C 1	W7
		EB-432IS-U-HBF	Instant	0.8/0.36	95/98	10/10	0.98/0.98	1.24/1.24	1.31/1.27	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.59/0.26	70/70	10/10	0.98/0.97	0.82/0.82	1.17/1.17	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.65/0.285	77/77	10/10	0.98/0.98	0.96/0.96	1.24/1.25	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	0.8/0.36	95/98	10/10	0.98/0.98	1.24/1.24	1.31/1.27	0/-18	C 1	W7
EB-432IS-U-ES-LBF	Instant	0.59/0.26	70/70	10/10	0.98/0.97	0.82/0.82	1.17/1.17	0/-18	C 1	W4		
4	120/277	EB-432IS-U	Instant	0.79/0.345	94/94	10/10	0.98/0.98	0.88/0.88	0.93/0.93	0/-18	C 1	W7
		EB-432IS-U-HBF	Instant	0.98/0.42	116/115	10/10	0.98/0.98	1.16/1.16	1/1.01	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.71/0.31	84/84	10/10	0.98/0.98	0.77/0.77	0.91/0.91	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.79/0.345	94/94	10/10	0.98/0.98	0.88/0.88	0.93/0.93	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	0.98/0.42	116/115	10/10	0.98/0.98	1.16/1.16	1/1.01	0/-18	C 1	W7
		EB-432IS-U-ES-LBF	Instant	0.71/0.31	84/84	10/10	0.98/0.98	0.77/0.77	0.91/0.91	0/-18	C 1	W4
F32T8/ES/30-30W												
1	120/277	EB-132PRS-U-ES	Program	0.23/0.11	27/29	10/10	0.98/0.98	0.88/0.88	3.25/3.03	0/-18	C 1	W10
		EB-132PRS-U-ES-HBF	Program	0.3/0.13	36/35	10/10	0.98/0.98	1.18/1.18	3.26/3.35	0/-18	C 1	W10
		EB-232IS-U	Instant	0.3/0.13	38/37	10/15	0.98/0.97	1.07/1.07	2.81/2.87	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.36/0.16	44/44	10/15	0.98/0.97	1.38/1.38	3.13/3.14	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.26/0.115	31/31	10/15	0.98/0.97	0.93/0.93	3/3	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.27/0.12	31/30	10/15	0.98/0.97	1.08/1.08	3.4/3.6	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.36/0.16	44/44	10/15	0.98/0.97	1.38/1.38	3.13/3.14	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.24/0.11	28/28	10/15	0.98/0.85	0.93/0.93	3.32/3.32	0/-18	C 1	W4
2	120/277	EB-232IS-U	Instant	0.46/0.195	55/54	10/10	0.98/0.98	0.89/0.89	1.61/1.64	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.58/0.25	69/69	10/15	0.98/0.98	1.18/1.18	1.71/1.71	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.42/0.18	50/49	10/15	0.98/0.98	0.8/0.8	1.6/1.63	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.44/0.19	51/51	10/15	0.98/0.97	0.89/0.89	1.74/1.7	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.58/0.25	69/69	10/15	0.98/0.98	1.18/1.18	1.71/1.71	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.38/0.17	45/46	10/15	0.98/0.97	0.78/0.78	1.73/1.69	0/-18	C 1	W4
		EB-232PRS-U-ES	Program	0.45/0.2	54/53	10/10	0.98/0.97	0.9/0.9	1.67/1.7	0/-18	C 1	W8
		EB-232PRS-U-ES-HBF	Program	0.59/0.25	71/69	10/10	0.98/0.98	1.18/1.18	1.61/1.66	0/-18	C 1	W8
		EB-332IS-U	Instant	0.48/0.21	59/58	10/15	0.98/0.97	0.99/0.99	1.67/1.7	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.64/0.28	76/75	10/15	0.98/0.97	1.27/1.27	1.67/1.68	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.45/0.2	54/53	10/15	0.98/0.97	0.92/0.92	1.7/1.72	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.48/0.21	59/58	10/15	0.98/0.97	0.99/0.99	1.67/1.7	0/-18	C 1	W6

## Linear EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}$ F/ $^{\circ}$ C)	Case Size	Wiring Diagram	
F32T8/ES/30-30W													
2	120/277	EB-332IS-U-ES-HBF	Instant	0.64/0.28	76/75	10/15	0.98/0.97	1.27/1.27	1.67/1.68	0/-18	C 1	W6	
		EB-332IS-U-ES-LBF	Instant	0.45/0.2	54/53	10/15	0.98/0.97	0.92/0.92	1.7/1.72	0/-18	C 1	W6	
3	120/277	EB-332IS-U	Instant	0.65/0.28	79/77	10/15	0.98/0.98	0.88/0.88	1.11/1.14	0/-18	C 1	W6	
		EB-332IS-U-HBF	Instant	0.84/0.37	99/99	10/10	0.98/0.98	1.18/1.18	1.18/1.19	0/-18	C 1	W6	
		EB-332IS-U-LBF	Instant	0.6/0.26	71/70	10/15	0.98/0.98	0.81/0.81	1.14/1.15	0/-18	C 1	W6	
		EB-332IS-U-ES	Instant	0.65/0.28	79/77	10/15	0.98/0.98	0.88/0.88	1.11/1.14	0/-18	C 1	W6	
		EB-332IS-U-ES-HBF	Instant	0.84/0.37	99/99	10/10	0.98/0.98	1.18/1.18	1.18/1.19	0/-18	C 1	W6	
		EB-332IS-U-ES-LBF	Instant	0.6/0.26	71/70	10/15	0.98/0.98	0.81/0.81	1.14/1.15	0/-18	C 1	W6	
		EB-432IS-U	Instant	0.71/0.31	84/84	10/10	0.98/0.98	0.96/0.96	1.14/1.15	0/-18	C 1	W7	
		EB-432IS-U-HBF	Instant	0.88/0.37	105/101	10/10	0.98/0.98	1.24/1.24	1.18/1.23	0/-18	C 2	W7	
		EB-432IS-U-LBF	Instant	0.63/0.275	75/74	10/10	0.98/0.97	0.82/0.82	1.09/1.1	0/-18	C 1	W7	
		EB-432IS-U-ES	Instant	0.71/0.31	84/84	10/10	0.98/0.98	0.96/0.96	1.14/1.15	0/-18	C 1	W7	
4	120/277	EB-432IS-U-ES-HBF	Instant	0.88/0.37	105/101	10/10	0.98/0.98	1.24/1.24	1.18/1.23	0/-18	C 1	W7	
		EB-432IS-U-ES-LBF	Instant	0.63/0.275	75/74	10/10	0.98/0.97	0.82/0.82	1.09/1.1	0/-18	C 1	W4	
		EB-432IS-U	Instant	0.85/0.37	101/100	10/10	0.98/0.98	0.88/0.88	0.87/0.88	0/-18	C 1	W7	
		EB-432IS-U-HBF	Instant	1.01/0.44	120/120	10/10	0.98/0.98	1.16/1.16	0.97/0.97	0/-18	C 2	W7	
		EB-432IS-U-LBF	Instant	0.76/0.33	90/89	10/10	0.98/0.98	0.77/0.77	0.85/0.86	0/-18	C 1	W7	
		EB-432IS-U-ES	Instant	0.85/0.37	101/100	10/10	0.98/0.98	0.88/0.88	0.87/0.88	0/-18	C 1	W7	
1	120	EB-232IS-120-HB	Instant	0.39	45	30	0.96	1.03	2.29	32/0	C 1	W4	
		EB-232IS-120-LBF	Instant	0.38	45	30	0.92	0.81	1.8	32/0	C 1	W4	
		EB-232IS-120-RES	Instant	0.62	40	155	0.52	0.95	2.35	32/0	C 1	W4	
		EB-232IS-120-RES-HBF	Instant	0.84	49	170	0.49	1.14	2.33	0/-18	C 1	W4	
	120/277	EB-132IS-U	Instant	0.3/0.12	37/37	10/10	0.98/0.98	0.88/0.88	2.32/2.38	32/0	C 1	W3	
		EB-232IS-U	Instant	0.38/0.16	46/45	10/15	0.98/0.97	1.03/1.03	2.24/2.28	32/0	C 1	W4	
		EB-232IS-U-HBF	Instant	0.45/0.2	54/54	10/15	0.98/0.97	1.35/1.35	2.49/2.5	32/0	C 1	W4	
		EB-232IS-U-LBF	Instant	0.34/0.15	40/40	10/15	0.98/0.98	0.91/0.91	2.27/2.27	32/0	C 1	W4	
		EB-232IS-U-ES	Instant	0.35/0.16	44/43	10/15	0.98/0.97	1/1	2.2/2.3	32/0	C 1	W4	
		EB-232IS-U-ES-HBF	Instant	0.45/0.2	54/54	10/15	0.98/0.97	1.35/1.35	2.49/2.5	32/0	C 1	W4	
	2	120	EB-232IS-U-ES-LBF	Instant	0.3/0.13	35/35	10/15	0.98/0.95	0.9/0.9	2.57/2.57	32/0	C 1	W4
			EB-332IS-120	Instant	0.68	80	15	0.97	0.95	1.22	32/0	C 1	W6
			EB-332IS-120-HBF	Instant	0.84	101	10	0.98	1.26	1.25	32/0	C 1	W6
EB-332IS-120-RES			Instant	1.3	77	150	0.5	0.99	1.27	0/-18	C 1	W6	
120/277		EB-332IS-120-RES-HBF	Instant	1.5	94	160	0.5	1.15	1.22	0/-18	C 1	W6	
		EB-332IS-U	Instant	0.65/0.29	78/77	10/15	0.98/0.97	0.95/0.95	1.22/1.23	32/0	C 1	W6	
		EB-332IS-U-HBF	Instant	0.84/0.36	100/98	10/10	0.98/0.98	1.26/1.26	1.26/1.28	32/0	C 1	W6	
		EB-332IS-U-LBF	Instant	0.6/0.26	71/70	10/15	0.98/0.98	0.87/0.87	1.22/1.24	32/0	C 1	W6	
3	120	EB-332IS-U-ES	Instant	0.65/0.29	78/77	10/15	0.98/0.97	0.95/0.95	1.22/1.23	32/0	C 1	W6	
		EB-332IS-U-ES-HBF	Instant	0.84/0.36	100/98	10/10	0.98/0.98	1.26/1.26	1.26/1.28	32/0	C 1	W6	
	120/277	EB-332IS-U-ES-LBF	Instant	0.6/0.26	71/70	10/15	0.98/0.98	0.87/0.87	1.22/1.24	32/0	C 1	W6	
		EB-432IS-120	Instant	0.93	112	20	0.98	0.88	0.79	32/0	C 1	W7	
		EB-432IS-120-RES	Instant	1.62	105	155	0.52	0.83	0.79	32/0	C 1	W7	
		EB-432IS-U	Instant	0.95/0.41	114/109	10/10	0.98/0.98	0.96/0.96	0.84/0.88	0/-18	C 1	W7	
120/277	EB-432IS-U-HBF	Instant	1.22/0.51	143/139	10/10	0.98/0.98	1.25/1.25	0.87/0.9	0/-18	C 2	W7		
	EB-432IS-U-LBF	Instant	0.82/0.35	98/96	10/10	0.98/0.98	0.82/0.82	0.83/0.85	0/-18	C 1	W7		
	EB-432IS-U-ES	Instant	0.95/0.41	114/109	10/10	0.98/0.98	0.96/0.96	0.84/0.88	0/-18	C 1	W7		
	EB-432IS-U-ES-HBF	Instant	1.22/0.51	143/139	10/10	0.98/0.98	1.25/1.25	0.87/0.9	0/-18	C 1	W7		
	EB-432IS-U-ES-LBF	Instant	0.82/0.35	98/96	10/10	0.98/0.98	0.82/0.82	0.83/0.85	0/-18	C 1	W4		



Linear EFB

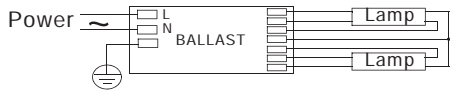
No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wiring Diagram
<b>F96T8-59W</b>												
1	120	EB-259IS-120	Instant	0.57	68	10	0.95	0.95	1.48	32/0	C 1	W5
	120/277	EB-259IS-U	Instant	0.57/0.25	68/67	10/10	0.99/0.98	1.09/1.09	1.6/1.62	32/0	C 1	W4
		EB-259IS-U-ES	Instant	0.57/0.25	68/67	10/10	0.99/0.98	1.09/1.09	1.6/1.62	32/0	C 1	W5
		EB-259IS-U-HBF	Instant	0.7/0.3	83/82	10/10	0.98/0.98	1.44/1.44	1.73/1.76	0/-18	C 2	W5
2	120	EB-259IS-120	Instant	0.93	110	10	0.98	0.98	0.8	32/0	C 1	W5
	120/277	EB-259IS-U	Instant	0.92/0.4	108/106	10/10	0.99/0.98	0.88/0.88	0.8/0.82	32/0	C 1	W4
		EB-259IS-U-HBF	Instant	1.17/0.51	139/137	10/10	0.98/0.98	1.18/1.18	0.85/0.86	0/-18	C 2	W5
		EB-259IS-U-ES	Instant	0.92/0.4	108/106	10/10	0.99/0.98	0.88/0.88	0.8/0.82	32/0	C 1	W5
<b>F96T8-86W</b>												
1	120	EB-259IS-120	Instant	0.77	92	10	0.98	1.05	1.14	32/0	C 1	W5
	120/277	EB-259IS-U	Instant	0.77/0.33	92/91	10/10	0.99/0.98	1.05/1.05	1.14/1.15	32/0	C 1	W4
		EB-259IS-U-HBF	Instant	0.94/0.4	112/109	10/10	0.98/0.98	1.37/1.37	1.22/1.26	0/-18	C 2	W5
		EB-259IS-U-ES	Instant	0.77/0.33	92/91	10/10	0.99/0.98	1.05/1.05	1.14/1.15	32/0	C 1	W5
<b>F25T12-25W</b>												
1	120	EB-132IS-120-HB	Instant	0.22	26	30	0.96	0.91	3.5	0/-18	C 1	W3
		EB-140RS-120-HB	Rapid	0.31	40	20	0.98	1.3	3.25	0/-18	C 1	W9
	120/277	EB-132IS-U	Instant	0.24/0.09	26/26	10/10	0.99/0.97	0.9/0.9	3.46/3.46	0/-18	C 1	W3
2	120	EB-240RS-120-HB	Rapid	0.62	73	20	0.98	1.12	1.51	32/0	C 1	W8
	120/277	EB-240RS-U	Rapid	0.58/0.24	70/69	10/10	0.98/0.98	1.1/1.1	1.57/1.59	32/0	C 1	W8
<b>F30T12-30W</b>												
1	120	EB-140RS-120-HB	Rapid	0.27	33	20	0.96	0.89	2.7	0/-18	C 1	W9
2	120	EB-240RS-120-RES-LBF	Rapid	0.76	51	150	0.53	0.76	1.27	32/0	C 1	W8
		EB-240RS-120-HB	Rapid	0.5	60	25	0.96	0.92	1.48	32/0	C 1	W8
	120/277	EB-240RS-U	Rapid	0.48/0.2	58/56	10/10	0.98/0.98	0.93/0.93	1.6/1.66	32/0	C 1	W8
<b>F34T12-34W</b>												
1	120	EB-140RS-120-HB	Rapid	290	35	20	0.98	0.81	2.32	0/-18	C 1	W9
2	120	EB-240RS-120-RES-LBF	Rapid	0.79	53	140	0.53	0.71	1.04	32/0	C 1	W8
		EB-240RS-120-HB	Rapid	0.54	62	25	0.96	0.85	1.35	32/0	C 1	W8
	120/277	EB-240RS-U	Rapid	0.55/0.23	62/61	10/10	0.98/0.98	0.85/0.85	1.37/1.39	32/0	C 1	W8
<b>F40T12-25W</b>												
2	120	EB-240RS-120-RES-LBF	Rapid	0.87	60	130	0.55	1.11	2.22	32/0	C 1	W8
<b>F40T12-40W</b>												
1	120	EB-140RS-120-HB	Rapid	0.31	40	20	0.98	0.83	2.07	0/-18	C 1	W9
2	120	EB-240RS-120-RES-LBF	Rapid	0.87	60	130	0.55	0.7	0.88	32/0	C 1	W8
		EB-240RS-120-HB	Rapid	0.62	73	20	0.98	0.85	1.15	32/0	C 1	W8
	120/277	EB-240RS-U	Rapid	0.62/0.26	72/70	10/10	0.98/0.98	0.85/0.85	1.18/1.21	32/0	C 1	W8
<b>F48T12/HO-60W</b>												
2	120	EB-2110RS-120	Rapid	0.88	104	10	0.98	1.12	1.08	-20/-29	C 3	W8
<b>F60T12/HO-75W</b>												
2	120	EB-2110RS-120	Rapid	1.05	124	10	0.98	1	0.69	-20/-29	C 3	W8
<b>F72T12-55W</b>												
1	120	EB-260IS-120	Instant	0.54	64	10	0.97	1.02	1.63	0/-18	C 2	W4
2	120	EB-260IS-120	Instant	0.85	106	10	0.99	0.9	0.85	0/-18	C 2	W4
	120/277	EB-260IS-U	Instant	0.91/0.4	108/107	10/10	0.98/0.98	0.92/0.92	0.85/0.86	32/0	C 2	W5
<b>F72T12-85W</b>												
2	120	EB-2110RS-120	Rapid	1.25	148	10	0.98	0.91	0.55	-20/-29	C 3	W8
<b>F96T12/ES-60W</b>												
1	120	EB-260IS-120	Instant	0.88	105	10	0.99	0.88	0.84	60/16	C 2	W4
2	120	EB-260IS-120	Instant	0.88	105	10	0.99	0.88	0.84	60/16	C 2	W4
	120/277	EB-260IS-U	Instant	0.88/0.38	105/103	10/10	0.98/0.98	0.89/0.89	0.85/0.86	32/0	C 2	W5



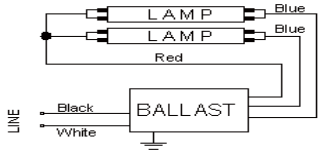
## Linear EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wiring Diagram
F96T12-75W												
1	120/277	EB-260IS-120	Instant	0.68	82	10	0.97	1.02	1.24	0/-18	C 2	W4
2	120	EB-260IS-120	Instant	1.13	135	10	0.99	0.88	0.65	0/-18	C 2	W4
	120/277	EB-260IS-U	Instant	1.17/0.5	137/135	10/10	0.98/0.98	0.9/0.9	0.66/0.67	32/0	C 2	W5
F96T12/HO/ES-95W												
1	120	EB-2110RS-120	Rapid	0.8	95	10	0.98	1.05	1.11	60/16	C 3	W8
2	120	EB-2110RS-120	Rapid	1.44	170	10	0.99	0.89	0.94	60/16	C 3	W8
F96T12/HO-110W												
1	120	EB-2110RS-120	Rapid	0.92	109	10	0.98	0.9	0.62	-20/-29	C 3	W8
	120/277	EB-1110IS-U	Instant	0.79/0.34	98/93	10/10	0.98/0.98	0.88/0.88	0.93/0.95	-20/-29	C 1	W3
		EB-2110PRS-U	Rapid	0.8/0.37	96/95	10/10	0.98/0.9	0.91/0.91	0.95/0.96	-20/-29	C 3	W8
2	120	EB-2110RS-120	Rapid	1.65	195	10	0.99	0.89	0.46	-20/-29	C 3	W8
	120/277	EB-2110PRS-U	Rapid	1.54/0.66	185/180	10/10	0.98/0.97	0.88/0.88	0.48/0.49	-20/-29	C 3	W8

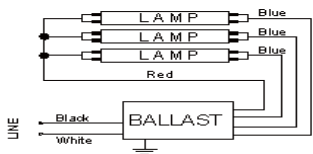
## W1



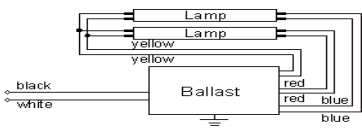
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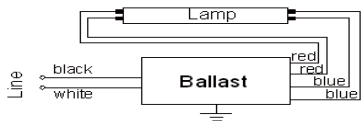
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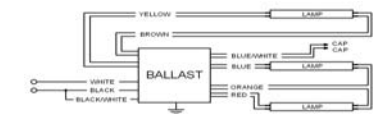
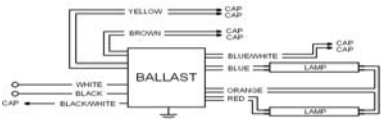
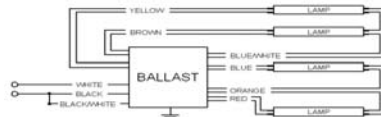
## W8



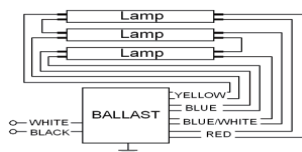
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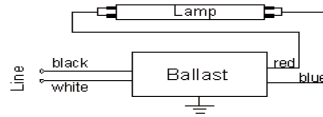
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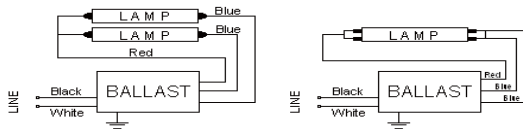
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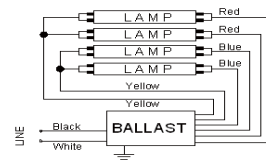
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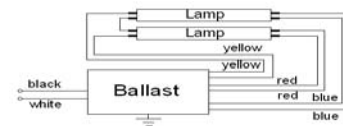
## W5



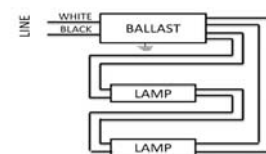
## W7



## W10, W11



## W15



	Length inch	Width inch	Height inch
Case 1	9.50	1.30	1.00
Case 2	9.50	1.80	1.20
Case 3	9.50	2.30	1.60
Case 4	16.70	1.80	1.20
Case 5	3.90	2.00	1.20
Case 6	4.94	2.35	1.00
Case 7	5.92	5.83	1.14
Case 8	6.55	2.90	1.18
Case 9	7.50	0.86	0.83
Case 10	9.71	0.86	0.83



## U-Bend CFL EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start (°F/°C)	Case Size	Wiring Diagram
CFM26-26W												
2	120/277	EB-242PRS-U	Program	0.46/0.21	56/56	10/20	0.99/0.98	0.99/0.96	1.77/1.71	-22/-32	C 8	W14
CFM26-32W												
1	120/277	EB-242PRS-U	Program	0.3/0.13	35/36	20/50	0.98/0.91	0.92/0.95	2.63/2.64	-22/-37	C 8	W14
2	120/277	EB-242PRS-U	Program	0.55/0.24	66/66	10/20	0.99/0.98	0.89/0.92	1.35/1.39	-22/-31	C 8	W14
CFM42-42W												
1	120/277	EB-242PRS-U	Program	0.38/0.18	45/48	15/30	0.99/0.96	0.92/0.94	2.04/1.96	-22/-36	C 8	W14
2	120/277	EB-242PRS-U	Program	0.74/0.32	88/88	10/20	0.99/0.99	0.85/0.87	0.97/0.99	-22/-30	C 8	W14
CFQ13W-13W												
1	120/277	EB-213PRS-U	Program	0.15/0.07	18/18	10/10	0.98/0.97	1/1	5.55/5.55	0/-18	C 6	W2
2	120/277	EB-213PRS-U	Program	0.26/0.11	30/30	10/10	0.98/0.97	1/1	3.33/3.33	0/-18	C 6	W2
CFQ18W-18W												
1	120	EB-118RS-120-RES	Rapid	0.28	18	140	0.5	0.88	4.9	0/-18	C 5	W9
	120/277	EB-218PRS-U	Program	0.17/0.08	19/19	10/10	0.98/0.97	1/1	5.26/5.26	0/-18	C 6	W2
2	120/277	EB-218PRS-U	Program	0.33/0.15	35/35	10/10	0.98/0.97	0.95/0.95	2.71/2.71	0/-18	C 6	W2
CFQ26W-26W												
1	120/277	EB-226PRS	Program	0.25/0.11	30/30	10/10	0.98/0.97	1/1	3.33/3.34	0/-18	C 6	W2
		EB-226PRS-U	Program	0.25/0.11	30/30	10/10	0.98/0.97	1/1	3.33/3.34	0/-18	C 6	W2
	120	EB-126RS-120-RES	Rapid	0.43	26	140	0.5	0.88	3.26	0/-18	C 5	W9
2	120/277	EB-226PRS	Program	0.47/0.21	56/55	10/10	0.98/0.97	0.97/0.97	1.67/1.73	0/-18	C 6	W2
		EB-226PRS-U	Program	0.47/0.21	56/55	10/10	0.98/0.97	0.97/0.97	1.67/1.73	0/-18	C 6	W2
CFS21W-21W												
1	120/277	EB-218PRS-U	Program	0.17/0.08	19/19	10/10	0.98/0.97	0.93/0.93	4.89/4.89	0/-18	C 6	W2
		EB-226PRS	Program	0.2/0.09	24/24	10/10	0.98/0.9	0.98/0.98	4.08/4.08	0/-18	C 6	W2
		EB-226PRS-U	Program	0.2/0.09	24/24	10/10	0.98/0.9	0.98/0.98	4.08/4.08	0/-18	C 6	W2
2	120/277	EB-218PRS-U	Program	0.3/0.13	34/34	10/10	0.98/0.97	0.91/0.91	2.67/2.67	0/-18	C 6	W2
		EB-226PRS	Program	0.37/0.16	44/43	10/10	0.98/0.97	0.95/0.95	2.1/2.2	0/-18	C 6	W2
		EB-226PRS-U	Program	0.37/0.16	44/43	10/10	0.98/0.97	0.95/0.95	2.1/2.2	0/-18	C 6	W2
CFT50W/2G11-50W												
1	120/277	EB-254PRS-U	Program	0.52/0.23	61/61	10/20	0.98/0.9	1.15/1.15	1.89/1.89	0/-18	C 1	W11
2	120/277	EB-254PRS-U	Program	1.01/0.43	118/115	10/10	0.98/0.97	1.12/1.12	0.95/0.97	0/-18	C 1	W11
		EB-454PRS-U	Program	0.84/0.36	100/98	10/10	0.98/0.97	1.15/1.15	1.15/1.17	0/-18	C 4	W12
		EB-454PRS-U-DIM*	Program	0.84/0.36	100/98	10/10	0.98/0.97	1.15/1.15	1.15/1.17	0/-18	C 4	W12
3	120/277	EB-454PRS-U	Program	1.28/0.53	150/146	20-Oct	0.98/0.92	1.15/1.15	0.76/0.78	0/-18	C 4	W12
		EB-454PRS-U-DIM*	Program	1.28/0.53	150/146	20-Oct	0.98/0.92	1.15/1.15	0.76/0.78	0/-18	C 4	W12
4	120/277	EB-454PRS-U	Program	1.57/0.77	200/196	10/10	0.98/0.97	1.15/1.15	0.57/0.58	0/-18	C 4	W12
		EB-454PRS-U-DIM*	Program	1.57/0.77	200/196	10/10	0.98/0.97	1.15/1.15	0.57/0.58	0/-18	C 4	W12
CFT50W/2G11-55W												
1	120/277	EB-254PRS-U	Program	0.51/0.22	58/58	10/20	0.98/0.9	0.93/0.93	1.6/1.6	0/-18	C 1	W11
2	120/277	EB-254PRS-U	Program	0.94/0.4	112/109	10/10	0.98/0.97	0.91/0.91	0.81/0.83	0/-18	C 1	W11
CFTR32W-32W												
1	120/277	EB-226PRS	Program	0.27/0.14	32/38	10/10	0.98/0.97	0.85/0.85	2.65/2.23	0/-18	C 6	W2
		EB-226PRS-U	Program	0.27/0.14	32/38	10/10	0.98/0.97	0.85/0.85	2.65/2.23	0/-18	C 6	W2
CFTR42W-42W												
1	120/277	EB-226PRS	Program	0.34/0.15	40/40	10/10	0.98/0.97	0.85/0.85	2.12/2.12	0/-18	C 6	W2
		EB-226PRS-U	Program	0.34/0.15	40/40	10/10	0.98/0.97	0.85/0.85	2.12/2.12	0/-18	C 6	W2
FT55W/2G11-55W												
2	120/277	EB-454PRS-U	Program	0.94/0.41	113/113	10/10	0.98/0.97	0.91/0.91	0.81/0.81	0/-18	C 4	W12
		EB-454PRS-U-DIM*	Program	0.94/0.41	113/113	10/10	0.98/0.97	0.91/0.91	0.81/0.81	0/-18	C 4	W12
3	120/277	EB-454PRS-U	Program	1.5/0.6	170/160	10/20	0.98/0.92	0.93/0.93	0.53/0.58	0/-18	C 4	W12
		EB-454PRS-U-DIM*	Program	1.5/0.6	170/160	10/20	0.98/0.92	0.93/0.93	0.53/0.58	0/-18	C 4	W12

\* Bi-level dimming version available





## U-Bend CFL EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD (≤%)	PF (≥)	BF	BEF	Min. Start (°F/°C)	Case Size	Wiring Diagram
4	120/277	EB-454PRS-U	Program	1.9/0.9	226/222	10/10	0.98/0.97	0.91/0.91	0.38/0.38	0/-18	C 4	W12
		EB-454PRS-U-DIM*	Program	1.9/0.9	226/222	10/10	0.98/0.97	0.91/0.91	0.38/0.38	0/-18	C 4	W12
BX36-36W												
1	120/277	EB-242PRS-U	Program	0.28/0.13	33/35	25/45	0.98/0.92	0.83/0.85	2.52/2.43	-22/-42	C 8	W14
2	120/277	EB-242PRS-U	Program	0.51/0.23	62/64	10/20	0.99/0.98	0.84/0.86	1.35/1.34	-22/-35	C 8	W14
BX39-39W												
1	120/277	EB-242PRS-U	Program	0.3/0.14	35/36	25/50	0.98/0.92	0.62/0.64	1.77/1.78	-22/-41	C 8	W14
2	120/277	EB-242PRS-U	Program	0.54/0.24	64/66	10/20	0.99/0.98	0.62/0.62	0.97/0.94	-22/-34	C 8	W14
BX40-40W												
1	120/277	EB-242PRS-U	Program	0.36/0.17	42/44	20/35	0.99/0.95	0.84/0.86	2/1.95	-22/-40	C 8	W14
2	120/277	EB-242PRS-U	Program	0.66/0.29	79/80	10/20	0.99/0.98	0.79/0.82	1/1.03	-22/-33	C 8	W14
BX50-50W												
1	120/277	EB-242PRS-U	Program	0.39/0.18	47/48	20/25	0.99/0.96	0.82/0.83	1.74/1.73	-22/-39	C 8	W14
BX55-55W												
1	120/277	EB-242PRS-U	Program	0.36/0.16	43/44	20/35	0.99/0.95	0.62/0.64	1.44/1.45	-22/-38	C 8	W14
FB28T8 -28W												
1	120/277	EB-132PRS-U-ES	Program	0.22/0.1	26/27	10/10	0.98/0.98	0.88/0.88	3.38/3.25	0/-18	C 1	W10
		EB-132PRS-U-ES-HBF	Program	0.27/0.12	32/32	10/10	0.98/0.98	1.18/1.18	3.68/3.68	0/-18	C 1	W10
		EB-232IS-U	Instant	0.26/0.12	31/31	10/15	0.98/0.97	1.07/1.07	3.45/3.46	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.33/0.15	39/39	10/15	0.98/0.97	1.38/1.38	3.53/3.54	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.24/0.105	28/27	10/15	0.98/0.98	0.93/0.93	3.32/3.44	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.25/0.11	30/29	10/15	0.98/0.97	1.08/1.08	3.5/3.67	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.33/0.15	39/39	10/15	0.98/0.97	1.38/1.38	3.53/3.54	0/-18	C 1	W4
2	120/277	EB-232IS-U-ES-LBF	Instant	0.22/0.1	26/24	10/20	0.98/0.85	0.93/0.93	3.44/3.85	0/-18	C 1	W4
		EB-232IS-U	Instant	0.41/0.18	49/48	10/10	0.98/0.98	0.89/0.89	1.82/1.85	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.54/0.235	65/63	10/15	0.98/0.98	1.18/1.18	1.81/1.87	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.38/0.16	45/44	10/15	0.98/0.98	0.8/0.8	1.78/1.81	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.41/0.18	49/47	10/15	0.98/0.97	0.89/0.89	1.8/1.85	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.54/0.235	65/63	10/15	0.98/0.98	1.18/1.18	1.81/1.87	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.35/0.15	41/41	10/15	0.98/0.97	0.78/0.78	1.9/1.9	0/-18	C 1	W4
		EB-232PRS-U-ES	Program	0.44/0.19	52/51	10/10	0.98/0.97	0.9/0.9	1.73/1.76	0/-18	C 1	W8
		EB-232PRS-U-ES-HBF	Program	0.55/0.23	66/63	10/10	0.98/0.98	1.18/1.18	1.76/1.81	0/-18	C 1	W8
		EB-332IS-U	Instant	0.45/0.2	54/53	10/15	0.98/0.97	0.99/0.99	1.83/1.86	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.59/0.26	69/69	10/15	0.98/0.97	1.27/1.27	1.83/1.84	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.42/0.185	48/48	10/15	0.98/0.95	0.92/0.92	1.91/1.91	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.45/0.2	54/53	10/15	0.98/0.97	0.99/0.99	1.83/1.86	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.59/0.26	69/69	10/15	0.98/0.97	1.27/1.27	1.83/1.84	0/-18	C 1	W6
EB-332IS-U-ES-LBF	Instant	0.42/0.185	48/48	10/15	0.98/0.95	0.92/0.92	1.91/1.91	0/-18	C 1	W6		
3	120/277	EB-332IS-U	Instant	0.6/0.26	72/70	10/15	0.98/0.98	0.88/0.88	1.22/1.25	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.78/0.34	93/92	10/10	0.98/0.98	1.18/1.18	1.25/1.27	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.55/0.24	65/64	10/15	0.98/0.97	0.81/0.81	1.24/1.26	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.6/0.26	72/70	10/15	0.98/0.98	0.88/0.88	1.22/1.25	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.78/0.34	93/92	10/10	0.98/0.98	1.18/1.18	1.25/1.27	0/-18	C 1	W6
		EB-332IS-U-ES-LBF	Instant	0.55/0.24	65/64	10/15	0.98/0.97	0.81/0.81	1.24/1.26	0/-18	C 1	W6
		EB-432IS-U	Instant	0.65/0.285	77/77	10/10	0.98/0.98	0.96/0.96	1.24/1.25	0/-18	C 1	W7
		EB-432IS-U-HBF	Instant	0.87/0.38	103/104	10/10	0.98/0.98	1.24/1.24	1.2/1.19	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.59/0.26	70/70	10/10	0.98/0.97	0.82/0.82	1.17/1.17	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.65/0.285	77/77	10/10	0.98/0.98	0.96/0.96	1.24/1.25	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	0.87/0.38	103/104	10/10	0.98/0.98	1.24/1.24	1.2/1.19	0/-18	C 1	W7
EB-432IS-U-ES-LBF	Instant	0.59/0.26	70/70	10/10	0.98/0.97	0.82/0.82	1.17/1.17	0/-18	C 1	W4		



## U-Bend CFL EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wiring Diagram
4	120/277	EB-432IS-U	Instant	0.79/0.34	94/92	10/10	0.98/0.98	0.88/0.88	0.93/0.95	0/-18	C 1	W7
		EB-432IS-U-HBF	Instant	1.05/0.47	124/128	10/10	0.98/0.98	1.16/1.16	0.94/0.91	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.71/0.31	84/84	10/10	0.98/0.98	0.77/0.77	0.91/0.91	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.79/0.34	94/92	10/10	0.98/0.98	0.88/0.88	0.93/0.95	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	1.05/0.47	124/128	10/10	0.98/0.98	1.16/1.16	0.94/0.91	0/-18	C 1	W7
		EB-432IS-U-ES-LBF	Instant	0.71/0.31	84/84	10/10	0.98/0.98	0.77/0.77	0.91/0.91	0/-18	C 1	W4
FB31T8 -31W												
1	120/277	EB-132PRS-U-ES	Program	0.23/0.11	27/29	10/10	0.98/0.98	0.88/0.88	3.25/3.03	0/-18	C 1	W10
		EB-132PRS-U-ES-HBF	Program	0.3/0.13	36/35	10/10	0.98/0.98	1.18/1.18	3.26/3.35	0/-18	C 1	W10
		EB-232IS-U	Instant	0.3/0.13	38/37	10/15	0.98/0.97	1.07/1.07	2.81/2.87	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.36/0.16	44/44	10/15	0.98/0.97	1.38/1.38	3.13/3.14	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.26/0.115	31/30	10/15	0.98/0.98	0.93/0.93	3/3.1	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.28/0.13	32/31	10/15	0.98/0.97	1.08/1.08	3.34/3.4	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.36/0.16	44/44	10/15	0.98/0.97	1.38/1.38	3.13/3.14	0/-18	C 1	W4
2	120/277	EB-232IS-U	Instant	0.48/0.2	58/56	10/10	0.98/0.98	0.88/0.88	1.52/1.57	0/-18	C 1	W4
		EB-232IS-U-HBF	Instant	0.58/0.25	73/71	10/10	0.98/0.98	1.18/1.18	1.61/1.66	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.42/0.18	50/49	10/15	0.98/0.98	0.8/0.8	1.6/1.63	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.44/0.19	52/51	10/15	0.98/0.97	0.89/0.89	1.7/1.7	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.58/0.25	73/71	10/10	0.98/0.98	1.18/1.18	1.61/1.66	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.38/0.17	45/46	10/15	0.98/0.97	0.78/0.78	1.73/1.69	0/-18	C 1	W4
		EB-232PRS-U-ES	Program	0.46/0.2	55/54	10/10	0.98/0.97	0.88/0.88	1.62/1.66	0/-18	C 1	W8
		EB-232PRS-U-ES-HBF	Program	0.59/0.25	71/69	10/10	0.98/0.98	1.18/1.18	1.61/1.66	0/-18	C 1	W8
		EB-332IS-U	Instant	0.51/0.22	61/60	10/15	0.98/0.97	0.99/0.99	1.62/1.65	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.67/0.29	80/79	10/10	0.98/0.98	1.27/1.27	1.57/1.6	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.46/0.2	55/54	10/15	0.98/0.97	0.92/0.92	1.67/1.7	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.51/0.22	61/60	10/15	0.98/0.97	0.99/0.99	1.62/1.65	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.67/0.29	80/79	10/10	0.98/0.98	1.27/1.27	1.57/1.6	0/-18	C 1	W6
		EB-332IS-U-ES-LBF	Instant	0.46/0.2	55/54	10/15	0.98/0.97	0.92/0.92	1.67/1.7	0/-18	C 1	W6
3	120/277	EB-332IS-U	Instant	0.67/0.29	80/79	10/10	0.98/0.98	0.88/0.88	1.1/1.11	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.85/0.38	101/101	10/10	0.98/0.98	1.18/1.18	1.15/1.16	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.6/0.26	73/71	10/10	0.98/0.97	0.81/0.81	1.1/1.14	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.67/0.29	80/79	10/10	0.98/0.98	0.88/0.88	1.1/1.11	0/-18	C 1	W6
		EB-332IS-U-ES-HBF	Instant	0.85/0.38	101/101	10/10	0.98/0.98	1.18/1.18	1.15/1.16	0/-18	C 1	W6
		EB-332IS-U-ES-LBF	Instant	0.6/0.26	73/71	10/10	0.98/0.97	0.81/0.81	1.1/1.14	0/-18	C 1	W6
		EB-432IS-U	Instant	0.73/0.32	87/87	10/10	0.98/0.98	0.96/0.96	1.1/1.1	0/-18	C 1	W7
		EB-432IS-U-HBF	Instant	0.95/0.4	113/109	10/10	0.98/0.98	1.24/1.24	1.1/1.14	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.64/0.285	76/77	10/10	0.98/0.97	0.82/0.82	1.07/1.06	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.73/0.32	87/87	10/10	0.98/0.98	0.96/0.96	1.1/1.1	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	0.95/0.4	113/109	10/10	0.98/0.98	1.24/1.24	1.1/1.14	0/-18	C 1	W7
EB-432IS-U-ES-LBF	Instant	0.64/0.285	76/77	10/10	0.98/0.97	0.82/0.82	1.07/1.06	0/-18	C 1	W4		
4	120/277	EB-432IS-U	Instant	0.9/0.39	107/106	10/10	0.98/0.98	0.88/0.88	0.82/0.83	0/-18	C 1	W7
		EB-432IS-U-HBF	Instant	1.15/0.49	137/134	10/10	0.98/0.98	1.16/1.16	0.85/0.87	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.79/0.34	94/92	10/10	0.98/0.98	0.77/0.77	0.81/0.83	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.9/0.39	106/105	10/10	0.98/0.98	0.88/0.88	0.83/0.85	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	1.15/0.49	137/134	10/10	0.98/0.98	1.16/1.16	0.85/0.87	0/-18	C 1	W7
		EB-432IS-U-ES-LBF	Instant	0.79/0.34	94/92	10/10	0.98/0.98	0.77/0.77	0.81/0.83	0/-18	C 1	W4
FB32T8 -32W												
1	120/277	EB-132PRS-U-ES	Program	0.25/0.11	30/30	10/10	0.98/0.98	0.88/0.88	2.93/2.93	0/-18	C 1	W10
		EB-132PRS-U-ES-HBF	Program	0.32/0.14	38/38	10/10	0.98/0.98	1.18/1.18	3.1/3.1	0/-18	C 1	W10
		EB-232IS-U	Instant	0.32/0.14	39/38	10/15	0.98/0.97	1.07/1.07	2.74/2.82	0/-18	C 1	W4



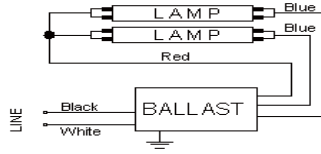
## U-Bend CFL EFB

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq$ %)	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}$ F/ $^{\circ}$ C)	Case Size	Wiring Diagram
FB32T8 -32W												
1	120/277	EB-232IS-U-HBF	Instant	0.37/0.17	45/45	10/15	0.98/0.97	1.38/1.38	3.06/3.06	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.27/0.12	32/31	10/15	0.98/0.98	0.93/0.93	2.9/3	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.29/0.13	35/34	10/15	0.98/0.97	1.08/1.08	3.1/3.15	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.37/0.17	45/45	10/15	0.98/0.97	1.38/1.38	3.06/3.06	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.26/0.12	31/30	10/15	0.98/0.95	0.93/0.93	2.9/3	0/-18	C 1	W4
		EB-232IS-U	Instant	0.5/0.21	59/57	10/10	0.98/0.98	0.89/0.89	1.51/1.56	0/-18	C 1	W4
2	120/277	EB-232IS-U-HBF	Instant	0.62/0.27	74/73	10/10	0.98/0.98	1.18/1.18	1.59/1.61	0/-18	C 1	W4
		EB-232IS-U-LBF	Instant	0.45/0.19	53/52	10/15	0.98/0.98	0.8/0.8	1.51/1.54	0/-18	C 1	W4
		EB-232IS-U-ES	Instant	0.46/0.2	55/54	10/15	0.98/0.97	0.89/0.89	1.59/1.6	0/-18	C 1	W4
		EB-232IS-U-ES-HBF	Instant	0.62/0.27	74/73	10/10	0.98/0.98	1.18/1.18	1.59/1.61	0/-18	C 1	W4
		EB-232IS-U-ES-LBF	Instant	0.4/0.18	49/48	10/15	0.98/0.97	0.78/0.78	1.59/1.6	0/-18	C 1	W4
		EB-232PRU-ES	Program	0.48/0.21	57/56	10/10	0.98/0.97	0.88/0.88	1.54/1.56	0/-18	C 1	W8
		EB-232PRU-ES-HBF	Program	0.6/0.26	72/71	10/10	0.98/0.98	1.18/1.18	1.57/1.59	0/-18	C 1	W8
		EB-332IS-U	Instant	0.53/0.24	63/63	10/15	0.98/0.97	0.99/0.99	1.57/1.57	0/-18	C 1	W6
		EB-332IS-U-HBF	Instant	0.69/0.3	81/80	10/10	0.98/0.98	1.27/1.27	1.54/1.56	0/-18	C 1	W6
		EB-332IS-U-LBF	Instant	0.49/0.21	58/57	10/15	0.98/0.97	0.92/0.92	1.53/1.61	0/-18	C 1	W6
		EB-332IS-U-ES	Instant	0.53/0.24	63/63	10/15	0.98/0.97	0.99/0.99	1.57/1.57	0/-18	C 1	W6
		3	120/277	EB-332IS-U-ES-HBF	Instant	0.69/0.3	81/80	10/10	0.98/0.98	1.27/1.27	1.54/1.56	0/-18
EB-332IS-U-ES-LBF	Instant			0.49/0.21	58/57	10/15	0.98/0.97	0.92/0.92	1.53/1.61	0/-18	C 1	W6
EB-332IS-U	Instant			0.71/0.31	85/83	10/10	0.98/0.98	0.88/0.88	1.04/1.06	0/-18	C 1	W6
EB-332IS-U-HBF	Instant			0.91/0.39	109/107	10/10	0.98/0.98	1.18/1.18	1.06/1.08	0/-18	C 1	W6
EB-332IS-U-LBF	Instant			0.64/0.27	76/74	10/10	0.98/0.98	0.78/0.78	1.03/1.05	0/-18	C 1	W6
EB-332IS-U-ES	Instant			0.71/0.31	84/83	10/10	0.98/0.98	0.88/0.88	1.05/1.06	0/-18	C 1	W6
EB-332IS-U-ES-HBF	Instant			0.91/0.39	108/106	10/10	0.98/0.98	1.18/1.18	1.07/1.08	0/-18	C 1	W6
EB-332IS-U-ES-LBF	Instant			0.64/0.27	76/74	10/10	0.98/0.98	0.78/0.78	1.04/1.05	0/-18	C 1	W6
EB-332PRU-ES-HBF	Program			0.95/0.40	113/110	10-Oct	0.98/0.98	1.7/1.7	1.04/1.07	0/-18	C2	W7
EB-332PRU-ES	Program			0.72/0.31	87/85	10/10	0.98/0.98	0.88/0.88	1.01/1.03	0/-18	C 1	W13
EB-432IS-U	Instant			0.77/0.34	92/89	10/10	0.98/0.98	0.96/0.96	1.04/1.07	0/-18	C 1	W7
4	120/277			EB-432IS-U-HBF	Instant	1.01/0.44	120/120	10/10	0.98/0.98	1.24/1.24	1.03/1.03	0/-18
		EB-432IS-U-LBF	Instant	0.68/0.29	81/80	10/10	0.98/0.98	0.82/0.82	1.01/1.02	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.77/0.34	92/89	10/10	0.98/0.98	0.96/0.96	1.04/1.07	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	1.01/0.44	120/120	10/10	0.98/0.98	1.24/1.24	1.03/1.03	0/-18	C 1	W7
		EB-432IS-U-ES-LBF	Instant	0.68/0.29	81/80	10/10	0.98/0.98	0.82/0.82	1.01/1.02	0/-18	C 1	W4
		EB-432IS-U	Instant	0.93/0.4	112/108	10/10	0.98/0.98	0.88/0.88	0.79/0.8	0/-18	C 1	W7
4	120/277	EB-432IS-U-HBF	Instant	1.24/0.53	145/144	10/10	0.98/0.98	1.16/1.16	0.8/0.81	0/-18	C 2	W7
		EB-432IS-U-LBF	Instant	0.82/0.35	98/96	10/10	0.98/0.98	0.77/0.77	0.79/0.8	0/-18	C 1	W7
		EB-432IS-U-ES	Instant	0.93/0.4	110/108	10/10	0.98/0.98	0.88/0.88	0.8/0.81	0/-18	C 1	W7
		EB-432IS-U-ES-HBF	Instant	1.24/0.53	145/144	10/10	0.98/0.98	1.16/1.16	0.8/0.81	0/-18	C 1	W7
		EB-432IS-U-ES-LBF	Instant	0.82/0.35	98/96	10/10	0.98/0.98	0.77/0.77	0.79/0.8	0/-18	C 1	W4

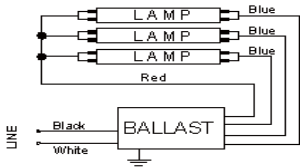
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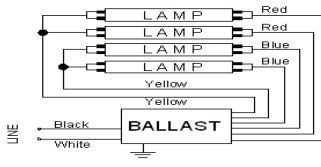
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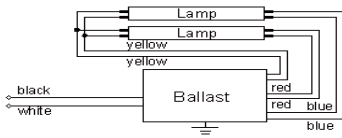
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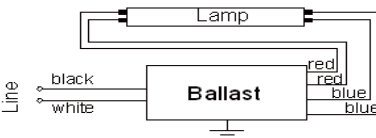
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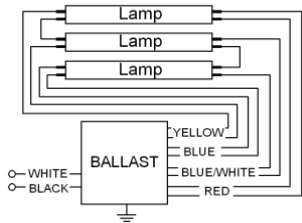
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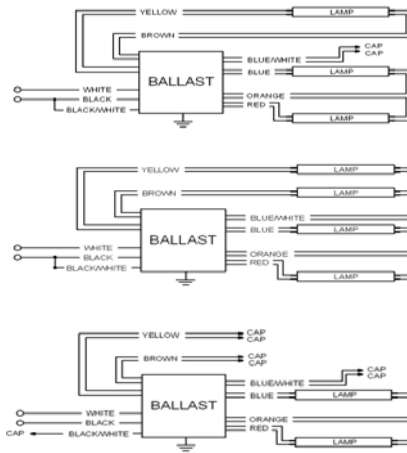
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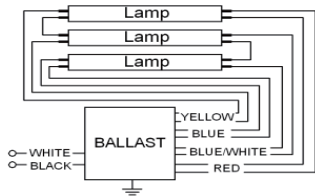
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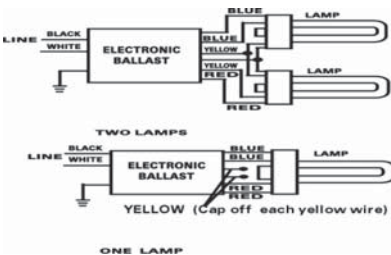
**W12**



**W13**



**W14**



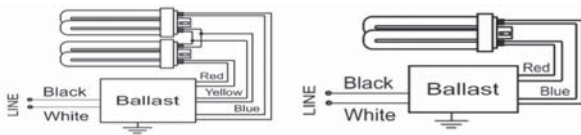
	Length inch	Width inch	Height inch
Case 1	9.50	1.30	1.00
Case 2	9.50	1.80	1.20
Case 3	9.50	2.30	1.60
Case 4	16.70	1.80	1.20
Case 5	3.90	2.00	1.20
Case 6	4.94	2.35	1.00
Case 7	5.92	5.83	1.14
Case 8	6.55	2.90	1.18
Case 9	7.50	0.86	0.83
Case 10	9.71	0.86	0.83



Circline

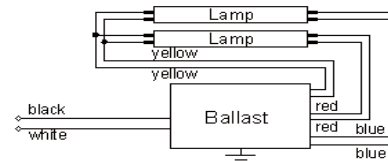
No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	BEF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wire
FC12T5/HO-55W												
1	120/277	EB-254PRS-U	Program	0.45/0.2	55/55	10/20	0.98/0.9	0.88/0.88	1.6/1.6	0/-18	C 1	W11
2	120/277	EB-254PRS-U	Program	0.87/0.37	106/103	10/10	0.98/0.97	0.86/0.86	0.81/0.83	0/-18	C 1	W11
FC12T9-32W												
2	120	EB-240RS-120-HB	Rapid	0.52	62	20	0.98	0.53	1.38	32/0	C 1	W8
		EB-240RS-120-RES-LBF	Rapid	0.82	55	130	0.55	0.68	0.94	32/0	C 1	W8
FC16T9-40W												
2	120	EB-240RS-120-RES-LBF	Rapid	0.82	55	130	0.55	0.68	0.94	32/0	C 1	W8
(1)FC16T9&(1)FC12T9-40W+32W												
1+1	120	EB-240RS-120-HB	Rapid	0.58	70	20	0.98	0.6	1.23	32/0	C 1	W8
(1)FC8T9&(1)FC12T9-22W+32W												
2	120	EB-240RS-120-RES-LBF	Rapid	0.68	43	150	0.53	0.65	1.2	32/0	C 1	W8
FT36-36W												
1	120/277	EB-226PRS	Program	0.27/0.14	32/38	10/10	0.98/0.95	0.75/0.75	2.34/1.97	0/-18	C 6	W2
2	120	EB-240RS-120-RES-LBF	Rapid	0.85	56	130	0.55	0.65	0.9	32/0	C 1	W8
		EB-240RS-120-HB	Rapid	0.6	70	20	0.98	0.58	1.17	32/0	C 1	W8
TL5C-22W												
1	120/277	EB-226PRS-U	Program	0.19/0.09	23/23	10/10	0.98/0.9	0.86/0.86	3.73/3.73	0/-18	C 6	W2
2	120/277	EB-226PRS-U	Program	0.37/0.15	44/42	10/10	0.98/0.97	0.84/0.84	1.85/2	0/-18	C 6	W2
TL5C-32W												
1	120/277	EB-226PRS-U	Program	0.26/0.11	31/30	10/10	0.98/0.95	0.78/0.78	2.51/2.6	0/-18	C 6	W2
TL5C-40W												
1	120/277	EB-226PRS-U	Program	0.28/0.13	33/33	10/10	0.98/0.95	0.74/0.74	2.24/2.24	0/-18	C 6	W2
TL5C 22W+32W												
1+1	120/277	EB-226PRS-U	Program	0.41/0.18	49/48	10/10	0.98/0.97	0.8/0.8	1.63/1.66	0/-18	C 6	W2
TL5C 40W+32W												
1+1	120/277	EB-226PRS-U	Program	0.44/0.19	52/51	10/10	0.98/0.97	0.73/0.73	1.4/1.43	0/-18	C 6	W2

W2

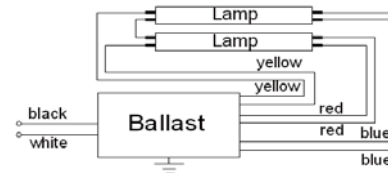


	Length inch	Width inch	Height inch
Case 1	9.50	1.30	1.00
Case 2	9.50	1.80	1.20
Case 3	9.50	2.30	1.60
Case 4	16.70	1.80	1.20
Case 5	3.90	2.00	1.20
Case 6	4.94	2.35	1.00
Case 7	5.92	5.83	1.14
Case 8	6.55	2.90	1.18
Case 9	7.50	0.86	0.83
Case 10	9.71	0.86	0.83

W8



W11





## Magnetic

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wire
<b>F8 T5-8W</b>											
1	120	PN-107(TP)	Preheat	0.15	8.5	15	0.5	0.85	50	A	1
		PO-107-TP	Preheat	0.16	9	15	0.53	0.88	50	-	1
<b>F13 T5-13</b>											
1	120	PT-113-TP	Preheat	0.28	17	15	0.5	0.82	50	E	2
<b>F14 T8-14W</b>											
1	120	PN-113-TP	Preheat	0.37	16.5	15	0.46	0.97	50	L	1
		PO-113-TP	Preheat	0.32	16.5	15	0.47	0.9	50	-	1
<b>F15 T8-15W</b>											
1	120	PN-113-TP	Preheat	0.28	16	15	0.49	0.89	50	L	1
		PN-120-TP	Preheat	0.26	15	32	0.43	0.81	50	E	3
		PO-113-TP	Preheat	0.28	16.5	15	0.47	0.84	50	--	1
		TN-120-TP	Trigger	0.58	29	10	0.38	0.95	50	D	3
2	120	EN-220-TP	Rapid	0.52	35	18	0.55	0.75	50	F	4
		PN-240-TP	Preheat-ES	0.63	34	30	0.44	0.91	50	D	15
<b>F17 T8-17W</b>											
1	120	EN-117-TP	Rapid	0.47	25	10	0.42	0.9	50	D	3
		PN-120-TP	Preheat-ES	0.26	18	33	0.52	0.86	50	E	3
		PN-232-TP	Preheat	0.22	19	55	0.71	0.55	50	F	3
2	120	PN-232-TP	Preheat	0.52	35	55	0.55	0.51	50	F	3
		PN-240-TP	Preheat-ES	0.67	40	30	0.52	1.01	50	D	15
<b>F18 T8-18W</b>											
1	120	PN-113-TP	Preheat	0.25	15	15	0.52	0.71	50	L	1
		PO-113-TP	Preheat	0.24	16.5	15	0.53	0.6	50	--	1
<b>F25 T8-25W</b>											
1	120	EN-125-TP	Rapid	0.57	31	15	0.45	0.88	50	D	3
2	120	PN-232-TP	Preheat	0.26	24	55	0.77	0.48	50	F	3
		PN-232-TP	Preheat	0.53	44	55	0.47	0.68	50	F	3
<b>F32 T8-32W</b>											
1	120	EN-132-TP	Rapid	0.54	35	20	0.54	0.87	50	D	3
		PN-232-TP	Preheat	0.28	29	55	0.86	0.56	0	F	3
2	120	ES-232-TP	Rapid	0.65	73	25	0.96	0.93	60	G	4
		PN-232-TP	Preheat	0.53	56	55	0.86	0.58	50	F	3
	277	ES-27-232-TP	Rapid	0.29	74	25	0.93	0.93	60	G	4
<b>F14 T12-14W</b>											
1	120	PN-113-TP	Preheat	0.39	16.5	10	0.44	0.7	50	L	1
		PO-113-TP	Preheat	0.34	16.5	10	0.43	0.92	50	--	1
		TN-120-TP	Trigger	0.58	15	10	0.4	0.92	50	D	3
2	120	PN-240-TP	Preheat-ES	0.58	31	25	0.43	0.85	50	D	15
<b>F15 T12-15W</b>											
1	120	PN-113-TP	Preheat	0.29	17	15	0.48	0.87	50	L	1
		PN-120-TP	Preheat-ES	0.28	14	25	0.43	0.85	50	E	3
		PO-113-TP	Preheat	0.29	17	15	0.47	0.84	50	--	1
		TN-120-TP	Trigger	0.57	28	10	0.38	0.96	50	D	3
2	120	EN-220-TP	Rapid	0.55	37	18	0.55	0.73	50	F	4
		PN-240-TP	Preheat-ES	0.58	30	25	0.43	0.85	50	D	15
<b>F20 T12-20W</b>											
1	120	PN-113-TP	Preheat	0.24	17	15	0.59	0.69	50	L	1
		PN-120-TP	Preheat-ES	0.26	16.5	25	0.53	0.65	50	E	3
		PO-113-TP	Preheat	0.25	17	15	0.55	0.64	50	-	1
		TN-120-TP	Trigger	0.58	30	10	0.43	0.82	50	D	3
2	120	EN-220-TP	Rapid	0.46	36	15	0.63	0.58	50	F	4



## Magnetic

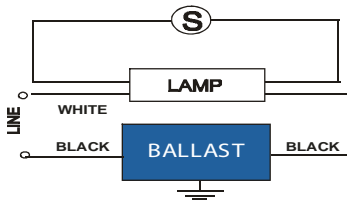
No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wire
<b>F20 T12-20W</b>											
2	120	PN-240-TP	Preheat-ES	0.60A	35	30	0.48	0.71	50	D	15
<b>F25T12-25W</b>											
1	120	EN-132-TP	Rapid	0.72	34	10	0.4	0.87	50	D	3
<b>25W/48T12-25W</b>											
2	120	EN-234-TP	Rapid	0.54	44	20	0.61	0.6	60	F,G	4
<b>F30T12-25W</b>											
1	120	EN-140-TP	Rapid	0.53		15	0.49	0.91	50	D,G	3
		ES-230-TP	Rapid	0.58		10	0.92	0.85	50	G	4
		ES-27-230-TP	Rapid	0.24	66	10	0.97	0.8	50	G	4
<b>F30 T12-30W</b>											
1	120	EN-140-TP	Rapid	0.61	32	10	0.45	0.77	50	D,G	3
2	120	ES-230-TP	Rapid	0.67	75	10	0.94	0.89	50	G	4
		PN-240-TP	Preheat-ES	0.65	54	30	0.67	0.78	50	D	15
		ES-27-230-TP	Rapid	0.25		10	0.98	0.81	50	G	4
<b>F40T12-25W</b>											
2	120	PN-240-TP	Preheat-ES	0.58	58	33	0.8	1.01	50	M	15
<b>F40T12-34W</b>											
1	120	EN-140-TP	Rapid	0.6	31	10	0.45	0.68	60	D,G	3
2	120	EN-234-TP	Rapid	0.75	57	15	0.58	0.59	60	F,G	4
		PN-240-TP	Preheat-ES	0.68	50	33	0.64	0.71	50	D	15
<b>F40 T12-40W</b>											
1	120	EN-140-TP	Rapid	0.56	34	10	0.52	0.64	50	D,G	3
		PN-232-TP	Preheat	0.24	24	55	0.83	0.33	55	F	3
2	120	PN-232-TP	Preheat	0.48	44	55	0.75	0.32	55	F	3
		EN-234-TP	Rapid	0.5	40	20	0.31	0.4	60	F,G	4
		PN-240-TP	Preheat-ES	0.62	58	33	0.8	0.68	50	D	15
<b>FC6 T9-20W</b>											
1	120	PN-113-TP	Preheat	0.35	17.5	$\leq 10$	0.5	0.92	50	L	5
		PO-113-TP	Preheat	0.3	17.5	$\leq 10$	0.06	0.82	50	--	5
<b>FC8 T9-22W</b>											
1	120	EN-125-TPWS	Rapid	0.49	24.5	$\leq 10$	0.41	0.61	50	D	6
		PN-140-TPWS	Preheat-ES	0.28	19	$\leq 33$	0.56	0.63	50	D	6
		PN-113-TP	Preheat	0.24	16	$\leq 15$	0.56	0.67	50	L	5
		PO-113-TP	Preheat	0.25	17.5	$\leq 13$	0.54	0.66	50	--	5
<b>FC12 T9-32W</b>											
1	120	PN-140-TPWS	Preheat-Es	0.34	26	33	0.65	0.79	50	D	6
		EN-140-TPWS	Rapid	0.56	32	$\leq 15$	0.48	0.69	50	D	6
<b>FC16T9-40W</b>											
1	120	PN-140-TPWS	Preheat-Es	0.34	31	33	0.76	0.66	50	D	6
<b>(1)FC8&amp;(1)FC12-22W+32W</b>											
1+1	120	EN-2232-TPWS	Rapid	0.61	43	$\leq 15$	0.6	0.7	50	F	7
		PN-240-TPWS	Preheat-ES	0.59	46	$\leq 33$	0.65	0.69	50	D	7
<b>(1)FC12&amp;(1)FC12-32W+40W</b>											
1+1	120	PN-240-TPWS	Preheat-ES	0.65	57	$\leq 33$	0.72	0.71	50	D	7
		EN-3240-TPWS	Rapid	0.63	52	$\leq 20$	0.67	0.55	50	F	7
<b>PL7-7W</b>											
1	120	PN-107-TP	Preheat	0.16A	8.5	$\leq 15$	0.47	0.88	50	A	8
		PO-107-TP	Preheat	0.17A	9	$\leq 15$	0.47	0.92	50	--	8
<b>PL9-9W</b>											
1	120	PN-107-TP	Preheat	0.13A	8.5	$\leq 15$	0.57	0.76	50	A	8
		PO-107-TP	Preheat	0.14A	9	$\leq 15$	0.55	0.78	50	--	8



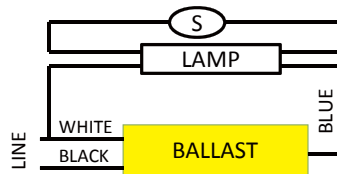
## Magnetic

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD ( $\leq\%$ )	PF ( $\geq$ )	BF	Min. Start ( $^{\circ}\text{F}/^{\circ}\text{C}$ )	Case Size	Wire
<b>PL13-13W</b>											
1	120	PN-113-TP	Preheat	0.25A	15	$\leq 15$	0.51	0.93	50	L	8
		PO-113-TP	Preheat	0.24A	15.5	$\leq 15$	0.5	0.89	50	--	8
		PS-113-TP	Preheat	0.14A	15.5	$\leq 30$	0.92	0.93	50	B	8
<b>PL18/PLC18-18W</b>											
1	120	PN-113-TP	Preheat	0.93A	17.5	$\leq 15$	0.47	0.95	50	L	8
1	120	PO-113-TP	Preheat	0.21A	17.5	$\leq 20$	0.61	0.89	50	--	8
2	120	PL-218	Preheat	0.37	41	20	0.95	0.85	50	D	11
<b>PL-S13-13W</b>											
2	120	PL-213	Preheat	0.26A	29	30	0.97	0.9	50	B	10
<b>CFQ13-13W</b>											
2	120	PL-213	Preheat	0.26A	29	30	0.97	0.9	50	B	10
<b>CFQ18-18W</b>											
2	120	PL-218	Preheat	0.37	41	20	0.95	0.85	50	D	11
<b>F18DBXT4-18W</b>											
2	120	PL-218	Preheat	0.37	41	20	0.95	0.85	50	D	11
<b>CF18DD-18W</b>											
2	120	PL-218	Preheat	0.37	41	20	0.95	0.85	50	D	11
<b>FCM18W-18W</b>											
2	120	PL-218	Preheat	0.37	41	20	0.95	0.85	50	D	11
<b>F18DBX-18W</b>											
2	120	PL-218	Preheat	0.37	41	20	0.95	0.85	50	D	11
<b>CF18DT-18W</b>											
2	120	PL-218	Preheat	0.37	41	20	0.95	0.85	50	D	11

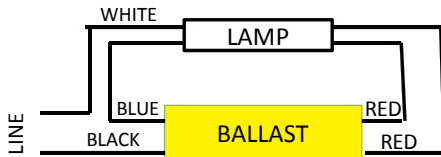
**W1**



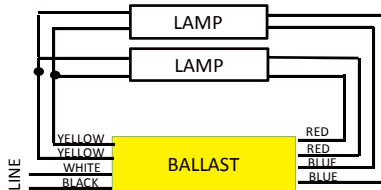
**W2**



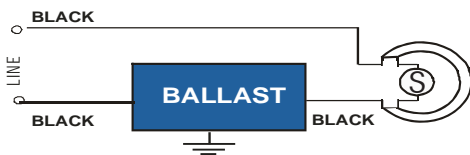
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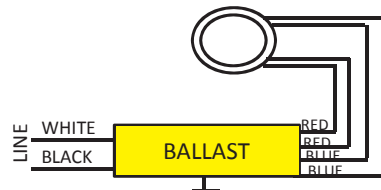
**W4**



**W5**

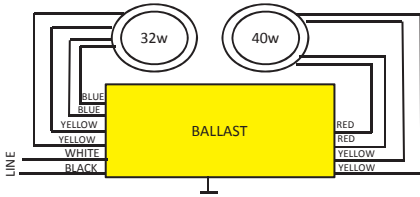


**W6**

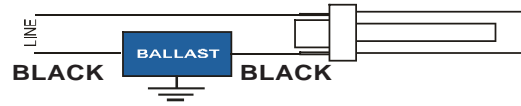




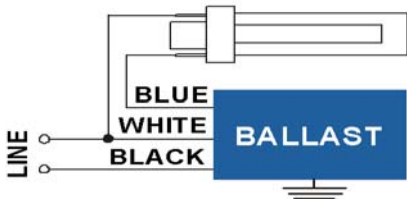
W7



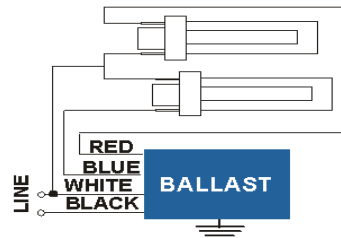
W8



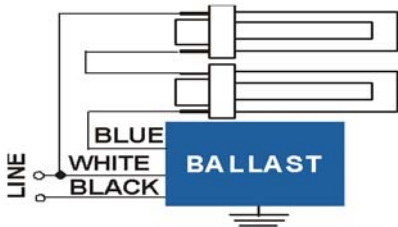
W9



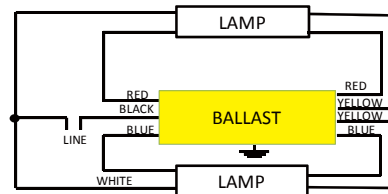
W10/C1



W11/C2



W15



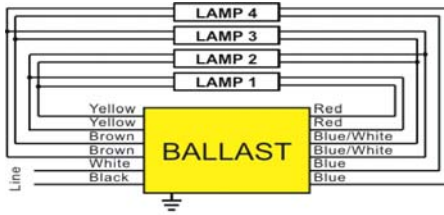
Can Size	Length inch	Width inch	Height inch
A	2-3/4"	1-1/2"	1-1/8"
B	1900-1-4	1-3/8"	1-3/8"
C	3-1/16"	1-7/8"	1-3/8"
D	6-1/2"	1-7/8"	1-3/8"
E	6-1/2"	1-7/8"	15/16"
F	6-1/2"	2-1/4"	1-1/2"
G	9-1/2"	2-3/8"	1-1/2"
H	11-3/4"	3-1/8"	1-7/8"
I	11-3/4"	3-1/8"	2-1/2"
J	9-7/16"	1-5/8"	1-3/16"
K	9-7/16"	2-3/8"	1-5/8"
L	3-1/16"	1-13/16"	1-5/16"



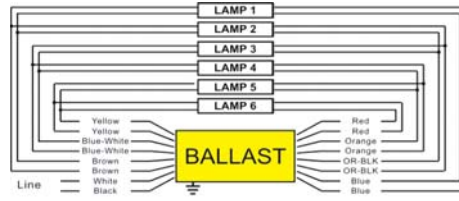
## Sign

No. of Lamps	Input Volts (V)	Model No.	Starting Type	Input Current (A)	Power (W)	THD (≤%)	PF (≥)	BF	BEF	Min. Start (°F/°C)	Case Size	Wiring Diagram
<b>F24T12/HO-35W</b>												
2	120	PSB12L4-12	Rapid	1	93	42	0.76	0.72	0.81	-20	M	14
3	120	ES-460-120-TP	Rapid	1.6	148	40	0.77	0.94	0.63	-20	M	12
4	120	ES-460-120-TP	Rapid	1.9	212	20	0.45	0.98	0.56	-20	M	12
<b>F36T12/HO-50W</b>												
2	120	PSB24L6-20	Rapid	1.1	121	25	0.72	0.86	0.72	-20	M	12
3	120	ES-460-120-TP	Rapid	1.6	166	30	0.86	0.93	0.55	-20	M	12
4	120	ES-460-120-TP	Rapid	1.9	212	20	0.93	0.98	0.45	-20	M	12
		PSB46L12-40	Rapid	2.8	196	35	0.59	0.62	0.37	-20	L	13
<b>F48T12/HO-60W</b>												
1	120	PSB12L4-12	Rapid	1	84	45	0.7	0.68	0.92	-20	M	14
2	120	PSB12L4-12	Rapid	1.3	136	20	0.91	0.85	0.63	-20	M	14
3	120	ES-485-120-TP	Rapid	1.7	190	10	0.93	0.86	0.46	-20	N	12
		ES-460-120-TP	Rapid	1.9	217	20	0.95	0.92	0.43	-20	M	12
4	120	ES-460-120-TP	Rapid	2.4	399	15	1	0.92	0.33	-20	M	12
		ES-485-120-TP	Rapid	2	237	15	0.99	0.81	0.35	-20	N	12
5	120	PSB46L12-40	Rapid	2.9	237	28	0.69	0.72	0.27	-20	L	13
<b>F60T12/HO-75W</b>												
3	120	ES-485-120-TP	Rapid	1.9	223	20	0.97	0.83	0.38	-20	N	12
		PSB24L6-20	Rapid	2.3	264	15	0.98	1.02	0.33	-20	M	12
4	120	ES-485-120-TP	Rapid	2.4	278	15	0.99	0.8	0.29	-20	N	12
<b>F64T12/HO-80W</b>												
3	120	ES-485-120-TP	Rapid	2.1	246	15	0.98	0.84	0.34	-20	N	12
4	120	ES-485-120-TP	Rapid	2.6	312	10	0.98	0.78	0.26	-20	N	12
<b>F72T12/HO-85W</b>												
1	120	PSB12L4-12	Rapid	1.1	102	35	0.79	0.81	0.78	-20	M	14
2	120	PSB24L12-24	Rapid	1.8	202	25	0.93	0.8	0.42	-20	N	12
		PSB12L4-12	Rapid	1.6	181	15	0.97	0.89	0.49	-20	M	14
3	120	ES-485-120-TP	Rapid	2.3	271	18	0.99	0.82	0.32	-20	N	12
		ES-460-120-TP	Rapid	2.1	246	15	0.98	0.96	0.35	-20	M	12
		PSB24L6-20	Rapid	2.1	246	15	0.98	0.96	0.35	-20	M	12
		PSB24L12-24	Rapid	2.3	271	18	0.99	0.82	0.31	-20	N	12
4	120	PSB24L12-24	Rapid	2.8	325	10	0.98	0.84	0.27	-20	N	12
		PSB46L24-48	Rapid	4	373	20	0.78	0.72	0.22	-20	L	13
		ES-485-120-TP	Rapid	2.8	325	10	0.98	0.84	0.27	-20	N	12
5	120	PSB46L24-48	Rapid	4.3	453	15	0.87	0.8	0.2	-20	L	13
		PSB46L12-40	Rapid	3.5	372	15	0.9	0.77	0.21	-20	L	13
<b>F84T12/HO-100W</b>												
3	120	ES-485-120-TP	Rapid	2.3	278	15	0.98	0.8	0.29	-20	N	12
<b>F96T12/HO-110W</b>												
1	120	PSB12L4-12	Rapid	1.2	123	25	0.87	0.85	0.68	-20	M	14
3	120	ES-485-120-TP	Rapid	2.5	292	15	0.97	0.75	0.27	-20	N	12
5	120	PSB46L24-48	Rapid	4.7	546	10	0.96	0.86	0.16	-20	L	13
6	120	PSB46L24-48	Rapid	5.2	621	10	0.99	0.87	0.14	-20	L	13
<b>F120T12/HO-135W</b>												
2	120	PSB24L20-40	Rapid	3	255	30	0.71	0.75	0.33	5	L	12
3	120	PSB24L20-40	Rapid	3.4	357	15	0.89	0.82	0.25	5	L	12
4	120	PSB24L20-40	Rapid	4	464	12	0.97	0.8	0.18	5	L	12
<b>(2)F96T12/HO &amp; (4) F72T12/HO -110W+85W</b>												
2+4	120	PSB46L12-40	Rapid	4	466	10	0.98	0.78	0.17	-20	L	13

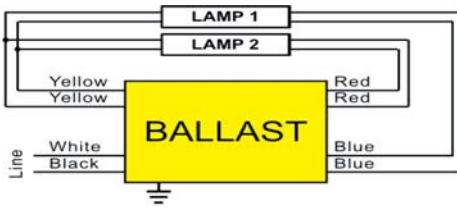
W12



W13



W14



Can Size	Length inch	Width inch	Height inch
M	11-3/4"	3-3/16"	2-5/8"
N	14-5/16"	3-3/16"	2-5/8"
L	19-3/6"	3-3/16"	2-7/16"



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