

UNIVERSAL® ELECTROMAGNETIC BALLASTS

- 14-20 Watt
- Preheat/Trigger
- T12/T8



EXPORT

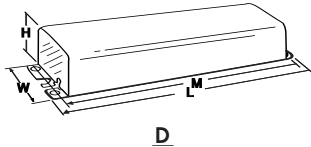
FOR 14 - 20 WATT, T8 AND T12 LAMPS

Lamp		Line Volts	Catalog Number	Certification					Line Current (Amps)	Input Power (Watts)	Ballast Factor	Ballast Efficacy Factor	Crest Factor	THD %	Min. F/C Start Temp	Sound Rating	Wiring Diag.	Dim.
Qty.	Descr.			E	UL	SF	IEC	NOM										
F14T12- High Power Factor																		
2	Trigger	220/60Hz	567-L-TC						.22	44	.76	1.74	< 1.9	< 20	50/10	A	1	D2
F15T12- High Power Factor																		
2	Trigger	220/60Hz	567-L-TC						.24	47	.85	1.81	< 1.9	< 20	50/10	A	1	D2
F15T8- High Power Factor																		
2	Trigger	220/60Hz	567-L-TC						.25	49	.86	1.77	< 1.9	< 32	50/10	A	1	D2
F20T12- High Power Factor																		
2	Trigger	127/60Hz	597-L-TC-P [Ⓞ]						.45	55	.88	1.60	< 1.7	< 15	50/10	A	1	D2
2	Trigger	220/60Hz	567-L-TC						.26	53	.83	1.55	< 1.7	< 20	50/10	A	1	D2

ⓄMay also be used with F14T12, F15T8 and F15T12 Lamps

Fluorescent-Electromagnetic

Overall Dimensions			Mounting Dimensions		
Draw #	L	W	H	M	X
D2	9 1/2	2 3/8	1 1/2	8 57/64	1 11/16



WIRING DIAGRAMS

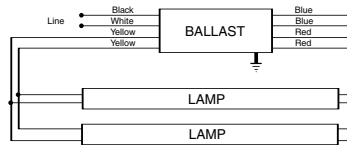
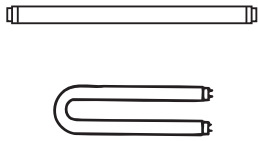


DIAGRAM 1



- 430-460 mA
- Rapid Start T12

UNIVERSAL® ELECTROMAGNETIC BALLASTS

FOR F30T12, F30T12ES, F40T12, F40T12/U,
F40T12ES AND F40T12ES/U LAMPS

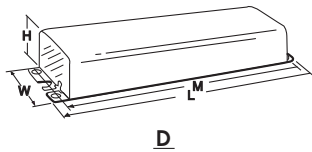
Fluorescent-Electromagnetic

Lamp		Line Volts	Catalog Number	Certification					Line Current (Amps)	Input Power (Watts)	Ballast Factor	Ballast Efficacy Factor	Crest Factor	THD %	Min. F/C Start Temp	Sound Rating	Wiring Diag.	Dim.
Qty.	Descr.			E	UL	SF	RoHS	NOM										
F40T12 - High Power Factor																		
2	Rapid	120/60Hz	446-LR-TC-P [ⓧ]	•	•	•	•	.77	91	.93	1.02	< 1.7	< 20	50/10	A	1	D2	
2	Rapid	127/60Hz	595-L-TC-P [Ⓞ]	•	•	•	•	.70	87	.88	1.01	< 1.7	< 20	50/10	A	1	D2	
2	Rapid	220/60Hz	540-L-TC-P [ⓧ]	•	•	•	•	.42	90	.91	1.01	< 1.7	< 20	50/10	A	1	D2	
2	Rapid	277/60Hz	443-L-TC-P [ⓧ]	•	•	•	•	.36	96	.94	0.97	< 1.7	< 20	50/10	A	1	D2	
F40T12/U- High Power Factor																		
1	Rapid	120/60Hz	412-L-TC-P [ⓧ]	•	•	•	•	.48	57	.95	1.67	< 1.7	< 20	60/15	A	42	D2	
2	Rapid	120/60Hz	446-LR-TC-P [ⓧ]	•	•	•	•	.77	91	.91	1.00	< 1.7	< 20	50/10	A	1	D2	
F40T12ES- High Power Factor																		
1	Rapid	120/60Hz	412-L-TC-P [ⓧ]	•	•	•	•	.44	51	.90	1.76	< 1.7	< 20	50/10	A	42	D2	
2	Rapid	120/60Hz	446-LR-TC-P [ⓧ]	•	•	•	•	.66	75	.86	1.15	< 1.9	< 20	60/15	A	1	D2	
2	Rapid	220/60Hz	540-L-TC-P [ⓧ]	•	•	•	•	.36	75	.86	1.15	< 1.9	< 20	60/15	A	1	D2	
2	Rapid	277/60Hz	443-L-TC-P [ⓧ]	•	•	•	•	.32	82	.88	1.08	< 1.9	< 20	60/15	A	1	D2	
F40T12ES/U- High Power Factor																		
2	Rapid	120/60Hz	446-LR-TC-P [ⓧ]	•	•	•	•	.66	75	.86	1.15	< 1.9	< 20	60/15	A	1	D2	

- Ⓞ Power Factor Corrected to >80%
- ⓧ Power Factor Corrected to >85%
- ⓧ For Export Only-may not be purchased for use in the USA
- ✓ May also be operated at 230 Volt

- Ⓞ May also be used with F40T12ES Lamps
- For Replacement Only
- ✱ For Distribution Only

Overall Dimensions		Mounting Dimensions			
Draw #	L	W	H	M	X
D2	9 1/2	2 3/8	1 1/2	8 57/64	1 11/16



WIRING DIAGRAMS

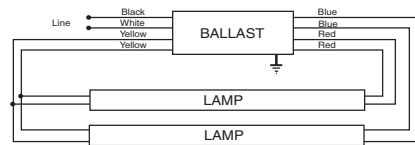


DIAGRAM 1

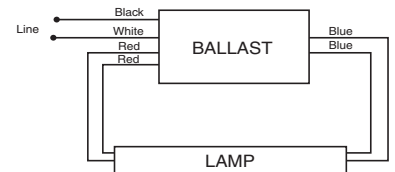


DIAGRAM 42

UNIVERSAL® ELECTROMAGNETIC BALLASTS

- 430 mA
- Rapid Start
- Continuous Dimming



EXPORT

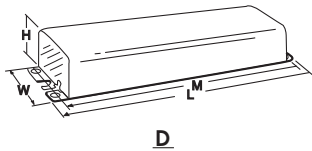
FOR F30T12 AND F40T12 LAMPS

Fluorescent-Electromagnetic

Lamp		Line Volts	Catalog Number	Certification					Line Current (Amps)	Input Power (Watts)	Ballast Factor	Ballast Efficacy Factor	Crest Factor	THD %	Min. F/C Start Temp	Sound Rating	Wiring Diag.	Dim.
Qty.	Descr.			(E)	(UL)	(SF)	(ULC)	NOM										
F40T12 - High Power Factor																		
2	@ 100%	120	502-A-TC-P†Ⓢ	•	•			.85	94	.88	0.94	< 1.7	< 20	50/10	A	18	D5	
2	@ 20%	120	502-A-TC-P†Ⓢ	•	•			.68	35	.20	0.57	< 1.7	< 32	50/10	A	18	D5	
F30T12 - Corrected Power Factor																		
2	@ 100%	120	502-A-TC-P†Ⓢ	•	•			.87	83	.89	1.07	< 1.7	< 20	50/10	A	18	D5	
2	@ 20%	120	502-A-TC-P†Ⓢ	•	•			.58	27	.21	0.77	< 1.9	< 32	50/10	A	18	D5	

- ♣ Requires one circuit interrupting lamp holder
- † Requires two circuit interrupting lamp holders
- Ⓢ UL component recognized for use with specific Dimming Controls
- ② Power Factor Corrected to <60%
- ③ Power Factor Corrected to >60%
- Ⓢ For Distribution Only

Overall Dimensions			Mounting Dimensions		
Draw #	L	W	H	M	X
D5	16 3/8"	2 3/8"	1 1/2"	15 25/32"	1 11/16"



WIRING DIAGRAMS

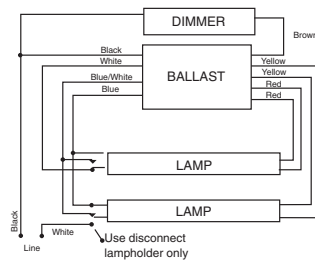


DIAGRAM 18

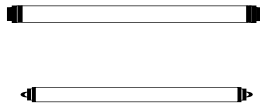
WARNING

External fuses should not be used with 277-volt dimming ballasts.

CAUTION

The control circuit line will carry approximately 0.375 amps per 40-watt lamp (and approximately 0.41 amps per 30-watt lamp). This means that the control circuit attached to the ballast brown wire must be sized appropriately. Please note that the ampacity of the control line is approximately double the ampacity requirement of the line when 277-volt dimming ballasts are used. When 120-volt ballasts are used, the ampacity requirement of the control lead is slightly lower than the line current.

EXPORT



- 425-440 mA
- 4'-8' Lamp Applications
- T12 Slimline
- Instant Start

UNIVERSAL® ELECTROMAGNETIC BALLASTS

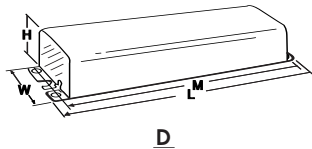
FOR F64, F72, F84, F96T12 AND F96T12ES LAMPS

Fluorescent-Electromagnetic

Lamp		Line Volts	Catalog Number	Certification					Line Current (Amps)	Input Power (Watts)	Ballast Factor	Ballast Efficacy Factor	Crest Factor	THD %	Min. F/C Start Temp	Sound Rating	Wiring Diag.	Dim.
Qty.	Descr.			E	UL	SF	RoHS	NOM										
F64T12 - High Power Factor																		
2	Instant	120/60Hz	806-BR-TC-P	•	•			1.05	124	1.05	0.84	<1.85	<20	50/10	C	39	D12	
F72T12 - High Power Factor																		
2	Instant	120/60Hz	806-BR-TC-P [ⓧ]	•	•			1.15	131	.90	0.69	< 1.85	< 32	50/10	C	39	D12	
2	Instant	220/60Hz	808-BR-TC-P [ⓧ]	•				.73	134	.93	0.69	< 1.85	< 32	50/10	C	39	D12	
F84T12 - High Power Factor																		
2	Instant	120/60Hz	806-BR-TC-P [ⓧ]	•	•			1.29	149	.92	0.62	< 1.85	< 32	50/10	C	39	D12	
2	Instant	220/60Hz	808-BR-TC-P	•				.77	152	.95	0.63	< 1.85	< 32	50/10	C	39	D12	
F96T12 - High Power Factor																		
2	Instant	120/60Hz	806-BR-TC-P [ⓧ]	•	•			1.40	162	.89	0.55	< 1.85	< 32	50/10	C	39	D12	
2	Instant	220/60Hz	808-BR-TC-P [ⓧ]	•	•			.85	165	.92	0.55	< 1.85	< 32	50/10	C	39	D12	
F96T12ES - High Power Factor																		
2	Instant	120/60Hz	806-BR-TC-P [ⓧ]	•	•			1.16	129	.86	0.67	< 2.0	< 32	60/15	C	39	D12	
2	Instant	220/60Hz	808-BR-TC-P [ⓧ]	•	•			.76	130	.86	0.66	< 2.0	< 32	60/15	C	39	D12	
2	Instant	127/60Hz	831-TC					1.07	124	.68	0.55	< 1.85	< 25	50/10	B	39	D10	

- ▶ Power Factor Corrected to >75%
- Power Factor Corrected to >80%
- ✦ Power Factor Corrected to >85%
- ⓧ For Export Only-may not be purchased for use in the USA
- ⓧ For Distribution Only

Overall Dimensions			Mounting Dimensions			
Draw #	L	W	H	M	X	
D10	9 29/64	3 3/32	1 25/32	8 57/64	1 11/16	
D12	11 3/4	3 3/16	1 25/32	11 9/64	2	



WIRING DIAGRAMS

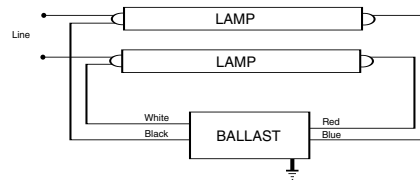


DIAGRAM 39