

# QUICK REFERENCE GUIDE

## CONSTANT CURRENT LED DRIVERS (continued)

Wattage Family	Output Current Range	Catalog Number	Input Voltage	Power Factor	Dimming
100W	500-3200mA	KTLD-100-UV-xxx-67-AP4	120-277V	>0.9	N/A
	530-3200mA	KTLD-100-UV-xxx-L5	120-277V	>0.9	N/A
	530-3200mA	KTLD-100-UV-xxx-VDIM-67-AP4	120-277V	>0.9	0-10V
	500-3200mA	KTLD-100-UV-xxx-VDIM-L5	120-277V	>0.9	0-10V
	1580-2240mA	KTLD-100-UV-xxx-VDIM-W3	120-277V	>0.9	0-10V
	460-1000mA (4 Channel)	KTLD-100-UV-4xxx-VDIM-L18	120-277V	>0.9	0-10V
150W	530-2500mA	KTLD-150-UV-xxx-AU1	120-277V	>0.9	N/A
150W	530-1600mA	KTLD-150-UV-xxx-67-AP3	120-277V	>0.9	N/A
	530-2500mA	KTLD-150-UV-xxx-VDIM-AU1	120-277V	>0.9	0-10V
	530-2500mA	KTLD-150-UV-xxx-VDIM-67-AP3	120-277V	>0.9	0-10V
200W	700-1400mA	KTLD-200-UV-xxx-67-AP5	120-277V	>0.9	N/A
	700-1400mA	KTLD-200-UV-xxx-VDIM-67-AP5	120-277V	>0.9	0-10V
400W	2000mA	KTLD-400-UV-2000-67-AP7	120-277V	>0.9	0-10V

\*"xxx" in the part number is a placeholder for the output current value. For example, KTLD-12-1-350-FDIM-AFI has an output current of 350mA.

## CONSTANT VOLTAGE LED DRIVERS

Family	Keystone Part Number	Input Voltage	Output Voltage	Max. Output Power	Case Style
24W	KTLD-24-UV-12V-AK1	120-277V	12Vdc	24W	AK1
	KTLD-24-UV-24V-AK1	120-277V	24Vdc	24W	AK1
60W	KTLD-60-1-12V	120V	12Vdc	60W	L5
	KTLD-60-1-24V	120V	24Vdc	60W	L5
	KTLD-60-1N-12V-L2	120V	12Vdc	60W	L2
	KTLD-60-UV-12V	120-277V	12Vdc	60W	L5
	KTLD-60-UV-24V	120-277V	24Vdc	60W	L5
	KTLD-60-UV-24V-67-AP4	120-277V	24Vdc	60W	AP4
	KTLD-60-UV-24V	120-277V	24Vdc	60W	L5
100W	KTLD-100-UV-24V	120-277V	24Vdc	100W	L5
120W	KTLD-120-UV-12V-L10	120-277V	24Vdc	120W	L10

## ELECTRONIC BALLASTS

Category	Primary Lamp Type	No. of Lamps	Input Volts	Catalog Number	Description
T12	F20T12	1	120V	KTEB-120-1-TP	F20T12, Normal Power Factor
				KTEB-120-1-TP-EMI	F20T12, FCC Class B, Normal Power Factor
	F40T12	1	120V	KTEB-220-1-TP-EMI	F20T12, FCC Class B, Normal Power Factor
				KTEB-140-1-TP-EMI	F40T12, FCC Class B, Normal Power Factor
		2	120V	KTEB-240-1-TP-PIC	F40T12, F40T12ES, and F34T12, High Power Factor
				120-277V	KTEB-240-UV-TP-PIC
	F96T12	1 or 2	120V	KTEB-275-1-TP-PIC-SL	F96T12 and F96T12ES
				120-277V	KTEB-275-UV-TP-PIC
		1 or 2	120-277V	KTEB-275-UV-TP-PIC-SL	F48/72/96 T12
	F96T12HO	1 or 2	120V	KTEB-2110-1-TP-PIC	F96T12HO and F96T12HOES
120-277V				KTEB-2110-UV-TP-PIC	F96T12HO and F96T12HOES
T8 Instant Start High Efficiency	F32T8	2	120-277V	KTEB-232-UV-IS-N-P	F17/25/32 T8, Standard Output
				KTEB-232-UV-IS-L-P	F17/25/32 T8, Reduced Output
				KTEB-232-UV-IS-H-P	F17/25/32 T8, High Output
		3	120-277V	KTEB-332-UV-IS-N-P	F17/25/32 T8, Standard Output
				KTEB-332-UV-IS-L-P	F17/25/32 T8, Reduced Output
				KTEB-332-UV-IS-H-P	F17/25/32 T8, High Output
	4	120V	KTEB-432-1-IS-N-P	F17/25/32 T8, Standard Output	
			120-277V	KTEB-432-UV-IS-N-P	F17/25/32 T8, Standard Output
4	120-277V	KTEB-432-UV-IS-L-P	F17/25/32 T8, Reduced Output		
		KTEB-432-UV-IS-H-P	F17/25/32 T8, High Output		

Specifications subject to change without notice. For complete product specifications, visit [www.keystonetech.com](http://www.keystonetech.com)

# FLUORESCENT BALLASTS

T12



## ELECTRICAL SPECIFICATIONS

No. of Lamps	Input Power	Catalog Number	Input Volts	Starting Method	Line Current	Min. Power Factor	Max. THD	Ballast Factor	Min. Start Temperature	Max. Case Temperature	Case Style
<b>F14T12</b>											
1	16W	CC1322MTP*	120V	Preheat	0.33A	0.40	15%	0.80	0°C/32°F	90°C/194°F	B2
	15W	KTEB-120-1-TP	120V	Rapid	0.24A	0.50	150%	1.00	-18°C/0°F	75°C/167°F	X1
		KTEB-120-1-TP-EMI	120V	Rapid	0.24A	0.50	150%	1.00	-18°C/0°F	75°C/167°F	L7
2	27W	KTEB-220-1-TP-EMI	120V	Rapid	0.42A	0.50	150%	0.85	-18°C/0°F	75°C/167°F	L7
<b>F15T12</b>											
1	17W	CC1322MTP*	120V	Preheat	0.32A	0.45	15%	0.85	0°C/32°F	90°C/194°F	B2
	14W	KTEB-125-1-TP-FC	120V	Rapid	0.21A	0.52	160%	0.82	-18°C/0°F	75°C/167°F	V2
		KTEB-132-1-TP-FC	120V	Rapid	0.21A	0.52	160%	0.82	-18°C/0°F	75°C/167°F	V2
	17W	KTEB-120-1-TP	120V	Rapid	0.26A	0.50	150%	1.00	-18°C/0°F	75°C/167°F	X1
KTEB-120-1-TP-EMI		120V	Rapid	0.26A	0.50	150%	1.00	-18°C/0°F	75°C/167°F	L7	
2	36W	KTEB-220-1-TP-EMI	120V	Rapid	0.52A	0.50	150%	1.02	-18°C/0°F	75°C/167°F	L7
<b>F20T12</b>											
1	17W	CC1322MTP*	120V	Preheat	0.24A	0.60	15%	0.65	0°C/32°F	90°C/194°F	B2
	18W	KTEB-120-1-TP	120V	Rapid	0.27A	0.50	150%	0.90	-18°C/0°F	75°C/167°F	X1
		KTEB-120-1-TP-EMI	120V	Rapid	0.27A	0.50	150%	0.90	-18°C/0°F	75°C/167°F	L7
	17W	KTEB-125-1-TP-FC	120V	Rapid	0.26A	0.52	160%	0.90	-18°C/0°F	75°C/167°F	V2
		KTEB-132-1-TP-FC	120V	Rapid	0.26A	0.52	160%	0.90	-18°C/0°F	75°C/167°F	V2
2	36W	KTEB-220-1-TP-EMI	120V	Rapid	0.52A	0.50	150%	0.87	-18°C/0°F	75°C/167°F	L7
<b>F30T12</b>											
1	21W	KTEB-125-1-TP-FC	120V	Rapid	0.29A	0.52	160%	0.66	-18°C/0°F	75°C/167°F	V2
		KTEB-132-1-TP-FC	120V	Rapid	0.29A	0.50	160%	0.66	-18°C/0°F	75°C/167°F	V2
2	47W	KTEB-240-1-TP	120V	Rapid	0.73A	0.55	150%	0.85	-18°C/0°F	75°C/167°F	L1
	58W	KTEB-240-1-TP-PIC	120V	Rapid	0.49A	0.99	10%	0.88	-18°C/0°F	75°C/167°F	L6
		KTEB-240-UV-TP-PIC	120-277V	Rapid	0.49A-0.22A	0.99	10%	0.88	-18°C/0°F	75°C/167°F	L6
<b>F34T12</b>											
1	24W	KTEB-125-1-TP-FC	120V	Rapid	0.34A	0.52	160%	0.70	-18°C/0°F	75°C/167°F	V2
		KTEB-132-1-TP-FC	120V	Rapid	0.34A	0.52	160%	0.70	-18°C/0°F	75°C/167°F	V2
<b>F40T12</b>											
1	25W	KTEB-125-1-TP-FC	120V	Rapid	0.34A	0.56	160%	0.65	-18°C/0°F	75°C/167°F	V2
		KTEB-132-1-TP-FC	120V	Rapid	0.34A	0.56	160%	0.65	-18°C/0°F	75°C/167°F	V2
2	36W	KTEB-140-1-TP-EMI	120V	Rapid	0.53A	0.50	150%	0.88	-18°C/0°F	75°C/167°F	L7
	58W	KTEB-240-1-TP	120V	Rapid	0.87A	0.50	150%	0.75	-18°C/0°F	75°C/167°F	L1
	74W	KTEB-240-1-TP-PIC	120V	Rapid	0.62A	0.99	10%	0.88	-18°C/0°F	75°C/167°F	L6
		KTEB-240-UV-TP-PIC	120V	Rapid	0.62-0.27A	0.99	10%	0.88	-18°C/0°F	75°C/167°F	L6
<b>F40T12 (34W ENERGY SAVER)</b>											
1	30W	KTEB-140-1-TP-EMI	120V	Rapid	0.45A	0.50	150%	0.88	-18°C/0°F	75°C/167°F	L7
2	48W	KTEB-240-1-TP	120V	Rapid	0.76A	0.50	150%	0.73	-18°C/0°F	75°C/167°F	L1
	63W	KTEB-240-1-TP-PIC	120V	Rapid	0.53A	0.99	10%	0.85	-18°C/0°F	75°C/167°F	L6
	74W	KTEB-240-UV-TP-PIC	120-277V	Rapid	0.62A-0.27A	0.98	10%	0.88	-18°C/0°F	75°C/167°F	L6
<b>F48T12 (40W)</b>											
2	64W	KTEB-275-1-TP-PIC-SL	120V	Instant	0.68A	0.99	12%	0.92	-18°C/0°F	75°C/167°F	L3
		KTEB-275-UV-TP-PIC	120-277V	Instant	0.68-0.30A	0.99	12%	0.92	-18°C/0°F	75°C/167°F	AA1
		KTEB-275-UV-TP-PIC-SL	120-277V	Instant	0.68-0.30A	0.99	12%	0.92	-18°C/0°F	75°C/167°F	L3
<b>F48T12 (30W ENERGY SAVER)</b>											
2	64W	KTEB-275-1-TP-PIC-SL	120V	Instant	0.60A	0.98	12%	0.92	16°C/60°F	75°C/167°F	L3
		KTEB-275-UV-TP-PIC	120-277V	Instant	0.60-0.26A	0.95	12%	0.92	16°C/60°F	75°C/167°F	AA1
		KTEB-275-UV-TP-PIC-SL	120-277V	Instant	0.60-0.26A	0.95	12%	0.92	16°C/60°F	75°C/167°F	L3

\*electromagnetic ballast

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# REFERENCES

## CROSS REFERENCE GUIDE

### LED DRIVERS

Keystone Part Number	Description	ULT/Magnetek Part Number	Advance Part Number	Meanwell Part Number
<b>60W CONSTANT VOLTAGE</b>				
KTLD-60-UV-12V	60W, 120-277V Input, 12V Output	D12V60UNV-A	LEDINTA0012V50F0	N/A
KTLD-60-UV-12V-67-AP4	60W, 120-277V Input, 12V Output, IP67 Rated	D12V60UNV-Q	N/A	CEN-60-12
<b>100W CONSTANT VOLTAGE</b>				
KTLD-100-UV-24V	100W, 120-277V Input, 24V Output	D24V100UNV-A	LEDINTA0024V41F0	N/A

### FLUORESCENT BALLASTS

Keystone Part Number	Description	ULT/Magnetek Part Number	Advance Part Number	GE Part Number	Sylvania Part Number
<b>T12</b>					
KTEB-240-1-TP-PIC	(2) F40T12, 120V	B240R120HP	RELB-2S40-N	GE-240-RS-120	QTP2X40T12/120/RSNSC
KTEB-240-UV-TP-PIC	(2) F40T12, 120-277V	N/A	ICN-2S40-N	GE-240-RS-MV-N	QTP2x40T12/UNV/RS/SC
KTEB-260HO-UV-PS-SL	(2) F48T12HO, 120-277V	B259SRUNVHP	ICN2S110-SC	N/A	N/A
KTEB-275-1-TP-PIC-SL	(2) F96T12, 120V	B260I120MA	REL-2P60-S-A	N/A	QT2X96/120 IS (Larger Case)
KTEB-275-UV-TP-PIC	(2) F96T12, 120-277V	B260IUNVHP	ICN-2P60-SC	GE-260-IS-MV-N	QTP2x96/T12/UNV/IS
KTEB-2110-1-TP-PIC	(2) F96T12HO, 120V	B295SR120HP	N/A	N/A	QT2X96/120HO
KTEB-2110-UV-TP-PIC	(2) F96T12HO, 120-277V	B295SRUNVHP	ICN-2S110-SC	GE-296-HO-MV-N	QTP2X96T12HO/UNV RS
KTEB-140-1-TP-EMI	(1) F40T12, 120V	B140R120HP	RELB-1S40-SC	GE140RS120-DIY	N/A
<b>T8</b>					
KTEB-232-UV-IS-N-P	(2) F17/25/32T8, 120-277V, Standard Output	B232IUNVHE-A	IOP-2P32-SC	GE232MAX-N/ULTRA	QHE2X32T8/UNVISN-SC
KTEB-332-UV-IS-N-P	(3) F17/25/32 T8, 120-277V, Standard Output	B332IUNVHE-A	IOP-3P32-SC	GE332MAX-N/ULTRA	QHE3X32T8/UNVISN-SC
KTEB-432-UV-IS-N-P	(4) F17/25/32T8, 120-277V, Standard Output	B432IUNVHE-A	IOP-4P32-SC	GE432MAX-N/ULTRA	QHE4X32T8/UNVISN-SC
KTEB-232-UV-IS-L-P	(2) F17/25/32T8, 120-277V, Reduced Output	B232IUNVEL-A	IOP-2P32-LW-SC	GE232MAX-L/ULTRA	QHE2X32T8/UNVISL-SC
KTEB-332-UV-IS-L-P	(3) F17/25/32T8, 120-277V, Reduced Output	B332IUNVEL-A	IOP-3P32-LW-SC	GE332MAX-L/ULTRA	QHE3X32T8/UNVISL-SC
KTEB-432-UV-IS-L-P	(4) F17/25/32T8, 120-277V, Reduced Output	B432IUNVEL-A	IOP-4P32-LW-SC	GE432MAX-L/ULTRA	QHE4X32T8/UNVISL-SC
KTEB-232-UV-IS-H-P	(2) F17/25/32T8, 120-277V, High Output	B232IUNVHEH-A	IOP-2P32-HL-SC	GE232MAX-H/ULTRA	QHE2X32T8/UNVISH-SC
KTEB-332-UV-IS-H-P	(3) F17/25/32T8, 120-277V, High Output	B332IUNVHEH-A	IOP-3P32-HL-90C-SC	GE332MAX-H/ULTRA	QHE3X32T8/UNVISH-SC
KTEB-132-UV-PS-N-P	(1) F17/25/32T8, 120-277V, Standard Output	B132PUNVHE-A	IOP-1S32-SC	GE132-MVPS-N	QTP 1x32T8/UNV PSN-TC
KTEB-232-UV-PS-N-P	(2) F17/25/32T8, 120-277V, Standard Output	B232PUNVHE-A	IOP-2S32-SC	GE232-MVPS-N	QTP 2x32T8/UNV PSN-TC
KTEB-332-UV-PS-N-P	(3) F17/25/32T8, 120-277V, Standard Output	B332PUNVHE-A	IOP-3S32-SC	GE332-MVPS-N	QTP 3x32T8/UNV PSN-SC
KTEB-432-UV-PS-N-P	(4) F17/25/32T8, 120-277V, Standard Output	B432PUNVHE-A	IOP-4S32-SC	GE432-MVPS-N	QTP 4x32T8/UNV PSN-SC
KTEB-232-UV-PS-L-P	(2) F17/25/32T8, 120-277V, Reduced Output	B232PUNVEL-A	IOP-2S32-LW-SC	GE-232-MVPS-L	QTP 2X32T8/UNV PSX-TC
KTEB-332-UV-PS-L-P	(3) F17/25/32T8, 120-277V, Reduced Output	B332PUNVEL-A	IOP-3S32-LW-SC	GE-332-MVPS-L	QTP 3X32T8/UNV PSX-TC
KTEB-432-UV-PS-L-P	(4) F17/25/32T8, 120-277V, Reduced Output	B432PUNVEL-A	IOP-4S32-LW-SC	GE-432-MVPS-L	QTP 4X32T8/UNV PSX-TC
KTEB-232-UV-PS-H-P	(2) F17/25/32T8, 120-277V, High Output	N/A	N/A	GE-232-MVPS-H	QHE 2X32T8/UNVPSH-HT
KTEB-332-UV-PS-H-P	(3) F17/25/32T8, 120-277V, High Output	N/A	N/A	GE-332-MVPS-H	QHE 3X32T8/UNVPSH-HT
KTEB-232-1-IS-N	(2) F17/25/32T8, 120V	B232I120RH-A	REL-2P32-SC	GE-232-120-N	QT 2x32/120 IS-SC
KTEB-432-1-IS-N-P	(4) F17/25/32T8, 120V	B432I120RH-A	REL-4P32-SC	GE-432-120-N	QT 4X32/120 IS
KTEB-259-UV-IS-N	(2) F96T8, 120-277V	B259IUNVHP-A	IOP-2P59-SC	GE-259MAX-N/ULTRA	QTP 2X59T8/UNV ISN-SC
KTEB-259-1-IS-N	(2) F96T8, 120V	B259I120RH	REL-2P59-SC	GE-259-120-N	QTP2X59T8/120ISN-A
<b>T8HO</b>					
KTEB-286HO-UV-PS-N	(2) F96T8HO, 120-277V, Program Start	N/A	ICN-2S86	N/A	QHE2x86T8HO/UNVPSN-HT
KTEB-286HO-UV-IS-N	(2) F96T8HO, 120-277V, Instant Start	B286I20RH or B268I277RH	ICN-2S86 (Program Start Only)	GE-286-HO-MV-N	N/A

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# REFERENCES

## OBSOLETE PRODUCT GUIDE

CATALOG NUMBER OF OBSOLETE ITEM	REPLACED WITH	KEY DIFFERENCES
113ATP	No Replacement	N/A
120TP	KTEB-120-1-TP-EMI	Electronic, Same Mounting and Wiring
122TPWS	KTEB-1C22-1-TP-WS	Electronic, Smaller Footprint
140TP	KTEB-140-1-TP-EMI	Electronic, Same Mounting and Wiring
140TPWS	KTEB-140-1-TP-EMI-WS	Electronic, Same Mounting and Wiring
154TPWS	KTEB-2C72-1-TP-WS	Electronic, Same Mounting and Wiring
172TPWS	KTEB-2C72-1-TP-WS	Electronic, Same Mounting and Wiring
213TPES	No Replacement	N/A
220TP	KTEB-220-1-TP-EMI	Electronic, Same Mounting and Wiring
234TPH	KTEB-240-1-TP-PIC	Electronic, Same Mounting and Wiring
240TPES	No Replacement	N/A
296TPH	KTEB-275-1-TP-PIC-SL	Electronic, 120V, 9" Case
240TPH277	KTEB-240-UV-TP-PIC	Electronic 120-277V, Same Mounting
240TPH	KTEB-240-1-TP-PIC	Electronic, Same Mounting and Wiring
240TPLW	KTEB-240-1-TP-PIC	Electronic, Same Mounting and Wiring
296HOTPH277	KTEB-2110-UV-TP-PIC	Electronic 120-277V, Same Mounting
296HOTPH	KTEB-2110-UV-TP-PIC	Electronic 120-277V, Same Mounting
296TPH277	KTEB-275-UV-TP-PIC	Electronic 120-277V, Same Mounting
IL-xx* Series	No Replacement	N/A
KTEB-132LBF-UV-TP-PIC	No Replacement	N/A
KTEB-1C22-1-TP-WS-LC	KTEB-1C22-1-TP-WS	New Unit has a Smaller Case
KTEB-1C3032-1-TP-WS-LC	KTEB-140-1-TP-EMI-WS	New Unit Operates More Lamp Combinations
KTEB-213-UV-TP-PSD	KTEB-213-UV-PS-DW	None
KTEB-218-UV-TP-PSD	KTEB-218-UV-PS-DW	None
KTEB-226-UV-TP-PSD	KTEB-226-UV-PS-DW	None
KTEB-232LBF-1-TP-PIC-SL	KTEB-232-1-IS-N	None
KTEB-232LBF-UV-TP-PIC	KTEB-232-UV-IS-N-P	New Unit has Improved Energy Efficiency
KTEB-232LBF-UV-TP-PIC-SL	KTEB-232-UV-IS-N-P	New Unit has Improved Energy Efficiency
KTEB-232RIS-1-TP	KTEB-232RIS-1-TP-SL	New Model is Slightly Narrower
KTEB-260-1-TP-PIC	KTEB-275-1-TP-PIC-SL	New Unit Operates a Wider Range of Lamps
KTEB-332LBF-1-TP-PIC	KTEB-332-UV-IS-N-P	New Unit has Improved Energy Efficiency
KTEB-332LBF-UV-TP-PIC	KTEB-332-UV-IS-N-P	New Unit has Improved Energy Efficiency
KTEB-432LBF-1-TP	KTEB-432-UV-IS-N-P	None
KTEB-432LBF-UV-TP-PIC	KTEB-432-UV-IS-N-P	New Unit has Improved Energy Efficiency
KTLD-30-UV-0A80-VDIM-SC	25W & 36W LED Drivers	Larger Wattage Range
KTLD-32-1-0A80-FDIM	36W LED Drivers	Larger Wattage Range
KTLD-60-UV-1214V/A	KTLD-60-UV-12V	None
KTSB-0412-12-1-TP	No Replacement	N/A
KTSB-0620-24-1-TP	No Replacement	N/A
KTSB-1224-24-1-TP	No Replacement	N/A
KTSB-1240-46-1-TP	No Replacement	N/A
KTSB-2040-24-1-TP	No Replacement	N/A
KTSB-2448-46-1-TP	No Replacement	N/A
RL40P	KTEB-140-1-TP-EMI	Electronic, Same Mounting and Wiring
RSL40P	KTEB-140-1-TP-EMI	Electronic, Same Mounting and Wiring
TR20P	KTEB-120-1-TP-EMI	Electronic, Same Mounting and Wiring
KTEB-132-UV-IS-N-P	KTEB-232-UV-IS-N-P	Cap Leads for 1 Lamp Application
KTEB-132-UV-IS-L-P	KTEB-232-UV-IS-L-P	Cap Leads for 1 Lamp Application
KTEB-132-UV-IS-H-P	KTEB-232-UV-IS-H-P	Cap Leads for 1 Lamp Application
KTEB-454HO-UV-PS-SL	KTEB-454HO-UV-PS	Different Case Size
KTEB-428HE-UV-PS	No Replacement	N/A

\* "xx" denotes several case styles available.

Specifications subject to change without notice. For complete product specifications, visit [www.keystonetech.com](http://www.keystonetech.com)

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