

Special Fluorescent Lamps

c i r c u i t i n f o r m a t i o n



For more information or support:

Lightwave
Tel.: +1 626 791 3977
web: www.lwlight.com
email: sales@uvdrivers.com

Vossloh-Schwabe Deutschland GmbH
Tel: +49 2 2351/10 10
web: www.vossloh-schwabe.com

Advance Transformers Co.
Tel.: +1 847 390 5000
web: www.advancetransformer.com

ZED
Tel: +49 3677 2059259
web: www.z-e-d.com
email: info@z-e-d.com



www.uvdisinfection.philips.com

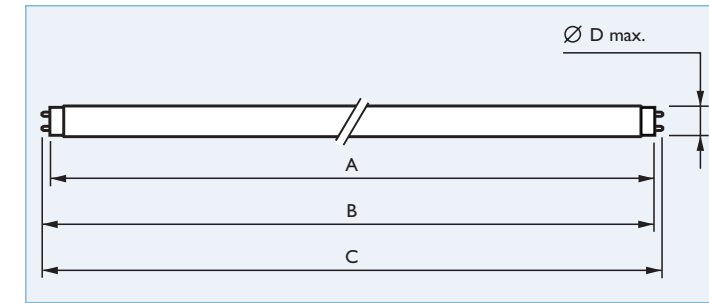
3222 635 48241
Data subject to change 08/04

PHILIPS

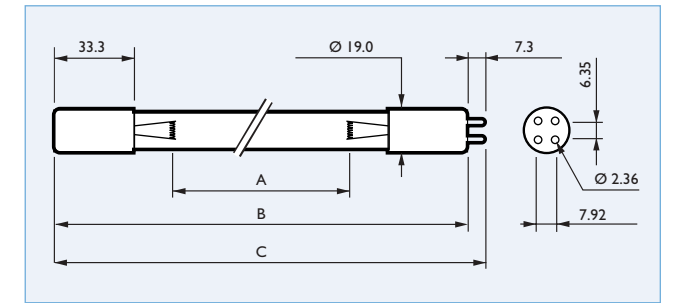
Product overview

Type	Dimensions according IEC 81 (mm)						Color												
	A max	B min	B max	C max	D max		TUV	/03	/05	/08	/10	/15	/16	/16 CR	/17	/18	/89	AQUASKY	
'TL' 4W	T5	135.9	140.6	143.0	150.1	16.0	X	X	X										
'TL' 6W	T5	212.1	216.8	219.2	226.3	16.0	X	X	X	X									
'TL' 8W	T5 1ft	288.3	293.0	295.4	302.5	16.0	X	X	X	X							X	X	
'TL' 13W	T5	516.9	521.6	524.0	531.1	16.0													
'TL' 11W	T5	212.1	216.8	219.2	226.3	16.0	X	X											
'TL' 15W	T5 1ft	288.3	293.0	295.4	302.5	16.0	16W												
'TL' 25 W	T5	516.9	521.6	524.0	531.1	16.0	X												
'TL'D 10W	T8	331.5	336.2	338.6	345.7	28.0	X	X	X										
'TL'D 14-16W	T8	361.2	365.9	368.3	375.4	28.0											X	X	
'TL'D 15W	T8	437.4	442.1	444.5	451.6	28.0	X	X	X	X	X				/50	X	X		
TUV 25W	T8	437.4	442.1	444.5	451.6	28.0	X												
'TL'D 18W	T8 2ft	589.8	594.5	596.9	604.0	28.0		X	X	X	X	X			X	X	X	X	X
'TL'D 25W	T8	740.0	744.7	747.1	754.2	28.0			X								X	X	
'TL'DK 30W	T8	437.4	442.1	444.5	451.6	28.0		X	X										
'TL'D 30W	T8 3ft	894.6	899.3	901.7	908.8	28.0	X	X	X								X	X	
'TL'D 36W	T8 4ft	1199.4	1204.1	1206.5	1213.6	28.0	X	X	X	X	X	X	X	X	X	X	X	X	X
'TL'D 36W-I	T8	970.0	974.7	977.1	984.2	28.0													
'TL'D 38W	T8	1047.4	1051.7	1054.1	1061.2	28.0						X					X	X	
'TL'D 58W	T8 5ft	1500.0	1504.7	1507.1	1514.2	28.0							X				X		
'TL'D 55W HO	T8 3ft	894.6	899.3	901.7	908.8	28.0	X												
'TL'D 75W HO	T8 4ft	1199.4	1204.1	1206.5	1213.6	28.0	X												
'TL' 20W (RS)	T12 2ft	589.8	594.5	596.9	604.0	40.5		X	X	X	X								
'TL' 30W (RS)	T12 3ft	894.6	899.3	901.7	908.8	40.5		X											
'TL'K 40W	T12 2ft	589.8	594.5	596.9	604.0	40.5		X	X	X	X								
'TL' 40W (RS)	T12 4ft	1199.4	1204.1	1206.5	1213.6	40.5		X	X	X	X								
'TL' 60W	T12 4ft	1199.4	1204.1	1206.5	1213.6	40.5					X								
'TL' 65W	T12 5ft	1500.0	1504.7	1507.1	1514.2	40.5													
'TL' 80W	T12 5ft	1500.0	1504.7	1507.1	1514.2	40.5		X	X										
'TL' 100W	T12 6ft	1763.8	1768.5	1770.9	1778.0	40.5				X									
'TL' 115W VHO	T12 4ft	1199.4	1204.1	1206.5	1213.6	40.5	X												
'TL' 140W	T12 5ft	1500.0	1504.7	1507.1	1514.2	40.5		X	X	X									
'TL' 176D38	T12 6ft	1778.0	1768.5	1770.9	1778.0	40.5					X								
TUV 11W 4P-SE	T5	161.0	238.1	244.1	251.9	19.0	X												
TUV 16W 4P-SE	T5	237.0	314.3	320.3	328.1	19.0	X												
TUV 25W 4P-SE	T5 2ft	466.0	542.9	548.9	556.7	19.0	X												
TUV 36T5 4P-SE	T5 3ft	762.0	839.4	845.4	853.0	19.0	X												
TUV 36T5 HO 4P-SE	T5 3ft	762.0	839.4	845.4	853.0	19.0	X												
TUV 64T5 4P-SE	T5 5ft	1473.0	1550.6	1556.6	1564.5	19.0	X												
TUV 64T5 HO 4P-SE	T5 5ft	1473.0	1550.6	1556.6	1564.5	19.0	X												
'TL'E 22W											X								
PL-S 5W 2P		67.0	83.0	105.0	13.0		X												
PL-S 9W 2P		129.0	145.0	167.0	13.0		X		X	X									
PL-S 9W 4P		128.0	145.0	152.0	13.0		X		X	X									
PL-S 11W 2P		198.0	214.0	236.0	13.0		X			X					/51	/52			
PL-L 18W		195.0		225.0	20.0		X				X								
PL-L 24W		290.0		320.0	20.0		X			X									
PL-L 35W HO		195.0		225.0	20.0		X												
PL-L 36W		385.0		415.0	20.0		X												
PL-L 55W HF		505.0		535.0	20.0		X												
PL-L 60W HO		385.0		415.0	20.0		X												
PL-L 95W HO		505.0		535.0	20.0		X												

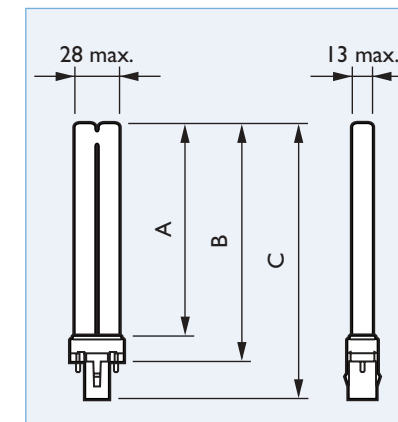
Fluorescent lamps



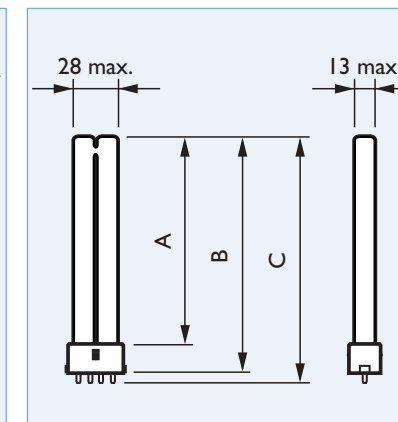
'TL' / 'TL'D' / 'TL'DK' / 'TL'K



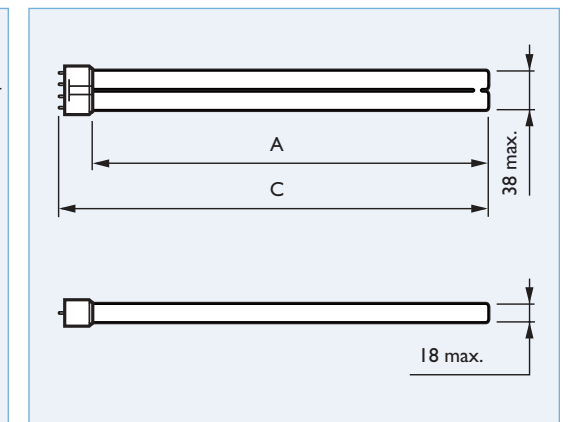
TUV 4P-SE



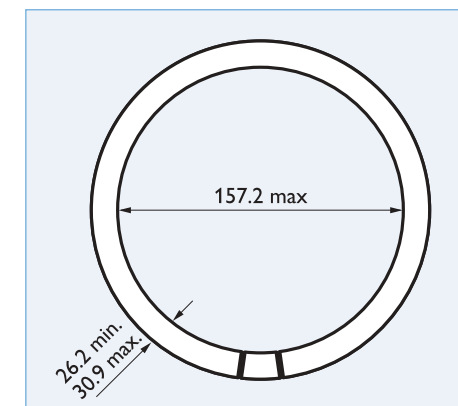
PL-S 2-pin



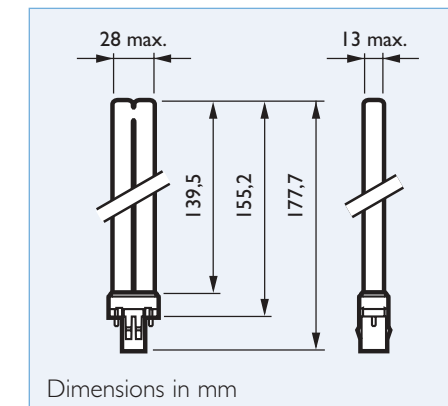
PL-S 4-pin



PL-L



'TL'E



TUV PL-S 13W GX23

Supply Voltage 230V (50Hz)

Type	# Lamps	Starter	*Capacitor (uF)	Electromagnetic ballast ⁽¹⁾²⁾ PHILIPS EOC	Vossloh-Schwabe	Circuit Number (Page 7)
'TL' 4W	T5	1 2	S2 2*S2	2.0 paral. 2.0 paral.	BTL 8W 230V B2 BTL 8W 230V B2	928122 30 928122 30
'TL' 6W	T5	1 2	S2 2*S2	2.0 paral. 2.0 paral.	BTL 8W 230V B2 BTL 13W 230V B2	928122 30 928245 30
'TL' 8W	T5 1ft	1 1 2	S2 S2 2*S2	2.0 paral. 2.0 paral. 1.6 paral.	BTL 8W 230V B2 BTL 13W 230V B2 BTL 13W 230V B2	928122 30 928245 30 928245 30
'TL' 13W	T5	1	S10	1.6 paral.	BTL 13W 230V B2	928245 30
'TL' 11W	T5	1	S10	4.5 paral.	BTL 8W 230V B2 (2*/I)	928122 30
'TL' 15W	T5 1ft	1 2	S10 2*S2	4.5 paral. 4.5 paral.	BTA 18W 230V C BTA 30W 230V C	919120 30 919151 30
'TL' 25W	T5	1	S10	4.5 paral.	BTA 18W 230V C	919120 30
'TL'D 10W	T8	1	S10	2.0 paral.	BPL 18W 230V B2	928306 30
'TL'D 14-16W	T8	1	S10	4.5 paral.	BTA 18W 230V C	919120 30
'TL'D 15W	T8	1	S10	4.5 paral.	BTA 15W 230V B2	919106 30
TUV 25W	T8	1	S10	4.5 paral.	BTA 36W 230V C	919175 30
'TL'D 18W	T8 2ft	1 2	S10 2*S2	4.5 paral. 2.7 series.	BTA 18W 230V C BTA 36W 230V C	919120 30 919175 30
'TL'D 25W	T8	1	S10	4.5 paral.	BTA 30 230V C	919151 30
'TL'DK 30W	T8	1 2 2	S10 2*S2 2*S2	6.5 paral. 6.5 paral. 5.3 series	BTA 15W 230V B2 (2*/I) BTA 30W 230V C (2*/I) BTA 58W 230V B2	919106 30 919120 30 919229 30
'TL'D 30W	T8 3ft	1	S10	4.5 paral.	BTA 30 230V C	919151 30
'TL'D 36W	T8 4ft	1	S10	4.5 paral.	BTA 36W 230V C	919175 30
'TL'D 36W-I	T8	1	S10	4.5 paral.	BTA 36W 230V C	919175 30
'TL'D 38W	T8	1	S10	4.5 paral.	BTA 36W 230V C	919175 30
'TL'D 58W	T8 5ft	1	S10	6.5 paral.	BTA 58W 230V B2	919229 30
'TL'D 55W HO	T8 3ft	1	S10	6.5 paral.	BTA 58W 230V B2	919229 30
'TL'D 75W HO	T8 4ft	1	S12	2x4.5 paral.	BTA 36W 230V C (2*/I)	919175 30
'TL' 20W (RS)	T12 2ft	1	S10	4.5 paral.	BTA 18W 230V C	919120 30
'TL' 30W (RS)	T12 3ft	1	S10	4.5 paral.	BTA 30W 230V C	919151 30
'TL'K 40W	T12 2ft	1 2	S10 2*S2	6.5 paral.	BTA 58W 230V B2	919229 30
'TL' 40W (RS)	T12 4ft	1	S10	4.5 paral.	BTA 36W 230V C	919175 30
'TL' 60W	T12 4ft	1	S10	6.5 paral.	BTA 58W 230V B2	919229 30
'TL' 65W	T12 5ft	1	S10	6.5 paral.	BTA 58W 230V B2	919229 30
'TL' 80W	T12 5ft	1	S12	9 paral.		VS L80.397
'TL' 100W	T12 6ft	1	S12	10 paral.		VS L100.396
'TL' 115W VHO	T12 4ft	1	CP	2x9 paral.		VS L140UV 799
'TL' 140W	T12 5ft	1	CP	2x9 paral.	BTA 58W 230V B2 (2*/I)	919229 30
'TL' 176D38	T12 6ft	1	CP	2x9 paral.		VS L140UV 799 VS L60UV.047
TUV 11W 4P-SE	T5	1	S10	4.5 paral.	BTL 8W 230V B2 (2*/I)	919122 30
TUV 16W 4P-SE	T5	1 2	S10 2*S2	4.5 paral. 4.5 paral.	BTA 18W 230V C BTA 30 230V C	919120 30 919151 30
TUV 25W 4P-SE	T5 2ft	1	S10	4.5 paral.	BTA 36W 230V C	919175 30
TUV 36T5 4P-SE	T5 3ft	1	S10	4.5 paral.	BTA 36W 230V C	919175 30
TUV 36T5 HO 4P-SE	T5 3ft	1	S10	9 paral.		VS L80.397
TUV 64T5 4P-SE	T5 5ft	1	CP	2x9 paral.		VS L140UV 799
TUV 64T5 HO 4P-SE	T5 5ft	1	CP	2x9 paral.		VS L160UV.047
PL-S 5W 2P		1	N.A		BPL 11W 230V B1	928184 30
PL-S 9W 2P		2	N.A		BPL 11W 230V B1	928184 30
PL-S 9W 4P		1	N.A		BPL 11W 230V B1	928184 30
PL-S 11W 2P		2	N.A		BPL 13W 230V B2	928245 30
PL-S 11W 4P		1	N.A			
PL-L 18W		1	S10	4.5 paral.	BTA 36W 230V C	919175 30
PL-L 24W		2	2*S2	4.5 paral.	BTA 36W 230V C	919175 30
PL-L 35W HO		1	S10	4.5 paral.	BTA 30 230V C	919151 30
PL-L 36W		1	S10	6.5 paral.	BTA 58W 230V B2	919229 30
PL-L 55W HF		1	S10	4.5 paral.	BTA 36W 230V C	919175 30
PL-L 60W HO		1	S10	6.5 paral.	BTA 58W 230V B2	919229 30
PL-L 95W HO		1	CP	2x9 paral.		

N.A Starter is implemented

CP 100-180W Cleo Power bimetal starter

* Voltage values for Capacitors: parallel: 250Vrms, series: 450Vrms

1) To support the existing lamp types as listed for special lighting applications, the specified ballast types are approved for use in special lamp-ballast combinations. Because these ballasts are not specially designed for operating the listed lamp types, the applicability of these solutions is not guaranteed for the future. Despite our efforts to ensure backwards-compatibility, the specifications of the future ballast types may change so that these no longer support the special lamp as listed.

2) We will publish written notifications when such changes occur, resulting in the inability to support specific lamp-ballast combinations.

Supply Voltage 230V (50Hz)

Type	# Lamps	PHILIPS	Electronic ballast ⁽¹⁾²⁾ EOC	Circuit Number (Page 7)
'TL' 4W	T5	1	HF-MboxBLUE 105 TL/PL-S (square / linear)	53672330 / 53678530
'TL' 6W	T5	1	HF-MboxBLUE 109 TL/PL-S (square / linear)	53674730 / 53680830
'TL' 8W	T5 1ft	1	HF-MboxRED 109 TL/PL-S (square)	93142930
'TL' 13W	T5	1	HF-MboxRED 114 TL/PL-S (square)	93140530
'TL' 11W	T5	1 2	HFP 1 24-39 TL5 HO HFP 2 24-39 TL5 HO	928573 928658
'TL' 15W	T5 1ft	1 2	HFP 1 24-39 TL5 HO HFP 2 24-39 TL5 HO	928573 928658
'TL' 25W TUV	T5	1 2	HFP 1 24-39 TL5 HO HFP 2 24-39 TL5 HO	928573 928658
'TL'D 10W	T8	1	HF-P 118 PL-T/C	74939030
'TL'D 14-16W	T8	1		
'TL'D 15W	T8	1 2	HF-P 118 TLD EII HF-P 218 TLD EII	93408630 93413030
TUV 25W	T8	1	HFP 1 60-120 PL-H	92875731
'TL'D 18W	T8 2ft	1 2	HF-P 118 TLD EII HF-P 218 TLD EII	93408630 93413030
'TL'D 25W	T8	1 2	HF-P 118 TLD EII HF-P 218 TLD EII	93408630 93413030
'TL'DK 30W	T8	1	HF-P 136 TLD EII	93146730
'TL'D 30W	T8 3ft	1	HF-P 136 TLD EII	93146730
'TL'D 36W	T8 4ft	1 2	HF-P 136 TLD EII HF-P 236 TLD EII	93146730 93150430
'TL'D 36W-I	T8	1	HF-P 136 TLD EII	93146730
'TL'D 38W	T8	1	HF-P 136 TLD EII	93146730
'TL'D 58W	T8 5ft	1	HF-P 158 TLD EII	93148130
'TL'D 55W HO	T8 3ft	1	HFP 1 60-120 PL-H IUV-2560-M4LD (120-277V main)	92875731 ADVANCE
'TL'D 75W HO	T8 4ft	1	HFP 1 60-120 PL-H IUV-2560-M4LD (120-277V main)	92875731 ADVANCE
'TL'K 40W	T12 2ft	1	HF-P 1 60-120 PL-H IUV-2560-M4LD (120-277V main)	92875731 ADVANCE
'TL' 40W (RS)	T12 4ft	1	HF-B 136 TLD EII	93154230
'TL' 60W	T12 4ft	1	IUV-2560-M4LD (120-277V main)	ADVANCE
'TL' 65W	T12 5ft	1	HF-P 158 TLD EII	93148130
'TL' 80W	T12 5ft	2	HF-P 258 TLD EII	93152830
'TL' 80W	T12 5ft	1	HF-P 1 60-120 PL-H IUV-2560-M4LD (120-277V main)	92875731 ADVANCE
'TL' 100W	T12 6ft	1	IUV-2560-M4LD (120-277V main)	ADVANCE
'TL' 115W VHO	T12 4ft	1	EVG 1.4-1.5A (Instant Start four wires)	ZED Germany
'TL' 140W	T12 5ft	1	EVG 1.4-1.5A (Instant Start four wires)	ZED Germany
'TL' 176D38	T12 6ft	1	EVG 1.4-1.5A (Instant Start four wires)	ZED Germany
TUV 11W 4P-SE	T5	1 2	HFP 1 24-39 TL5 HO HFP 2 24-39 TL5 HO	928573 928658
TUV 16W 4P-SE	T5	1 2	HFP 1 24-39 TL5 HO HFP 2 24-39 TL5 HO	928573 928658
TUV 25W 4P-SE	T5 2ft	1 2	HFP 1 24-39 TL5 HO HFP 2 24-39 TL5 HO	928573 928658
TUV 36T5 4P-SE	T5 3ft	1	HF-B 158 TLD EII	93156630
TUV 36T5 HO 4P-SE	T5 3ft	1	HFP 1 54 TL5 HO HF-P 136 TLD EII	928610 93146730
TUV 64T5 4P-SE	T5 5ft	1	HFP 1 60-120 PL-H IUV-2560-M4LD (120-277V main)	92875731 ADVANCE
TUV 64T5 HO 4P-SE	T5 5ft	1	HFP 1 54 TL5 HO IUV-2560-M4LD (120-277V main)	928610 ADVANCE
PL-S 5W 2P		1		
PL-S 9W 2P		1	HF-MboxBLUE 109 TL/PL-S (square / linear)	53674730 / 53680830
PL-S 9W 4P		1	HF-MboxRED 109 TL/PL-S (square)	93142930
PL-S 11W 2P		1	HF-P 1 18-24 PL-L	749376
PL-S 18W		2	HF-P 2 18-24 PL-L	749703
PL-L 24W		1 2	HF-P 1 18-24 PL-L HF-P 2 18-24 PL-L	749376 749703
PL-L 35W HO		1	HF-P 1 60-120 PL-H IUV-2560-M4LD (120-277V main)	92875731 ADVANCE
PL-L 36W		1 2	HF-P 136 PL-L EII HF-P 236 PL-L EII	934178 30 934253 30
PL-L 55W HF		1 2	HF-P 155 PL-L EII HF-P 255 PL-L EII	934239 30 934291 30
PL-L 60W HO		1	HF-P 1 60-120 PL-H IUV-2560-M4LD (120-277V main)	92875731 ADVANCE
PL-L 95W HO		2	IUV-2560-M4LD (120-277V main)	ADVANCE
PL-L 95W HO		1	HF-P 1 60-120 PL-H IUV-2560-M4LD (120-277V main)	92875731 ADVANCE

1) To support the existing lamp types as listed for special lighting applications, the specified ballast types are approved for use in special lamp-ballast combinations. Because these ballasts are not specially designed for operating the listed lamp types, the applicability of these solutions is not guaranteed for the future. Despite our efforts to ensure backwards-compatibility, the specifications of the future ballast types may change so that these no longer support the special lamp as listed.

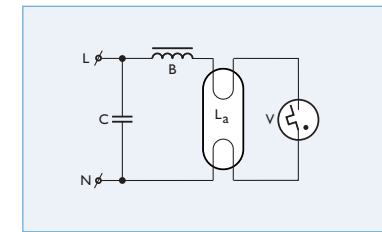
2) We will publish written notifications when such changes occur, resulting in the inability to support specific lamp-ballast combinations.

Supply Voltage 120V (60Hz)

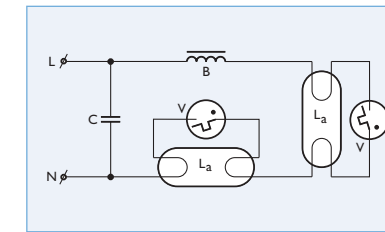
Type	Base-face length (mm)	# Lamps	Electromagnetic ballast ¹⁾²⁾ Advance Transformers Co.	Electronic ballast ¹⁾²⁾ Advance Transformers Co.	Electronic ballast ¹⁾²⁾ Lightwave
'TL' 4W = F4T5	T5	1	LPL-5-9	RMB-IP13-S1	LW20EB20-120-xxx
'TL' 6W = F6T5	T5	1	LC-4-9-C	RMB-IP13-S1	LW20EB20-120-xxx
'TL' 8W = F8T5	T5 1ft	1	LPL-5-9		LW20EB20-120-xxx
		1	LPL-7-9		
		2	LC-4-9-C		LW20EB26-120
'TL' 11W = F11T5	T5	1	LC-14-20-C		LW20EB20-120-xxx
'TL' 15W = F15T5	T5 1ft	1	LC-14-20-C	RMB-2P13-L2	LW20EB20-120-xxx
'TL' 25W = F25T5	T5	1			LW20EB20-120-xxx
'TL'D 10W = F10T8	T8	1			
'TL'D 15W = F15T8	T8 18"	1	LO-13-22	REL2P32-SC	LW20EB20-120-xxx
		1	LC-14-20-C		
		1	L-120F		
TUV 25W	T8 18"	1			LW20EB40-120-xxx
'TL'D 18W	T8 2ft	1	LC-14-20-C		
		1		LO-13-22	
F17T8	T8 2ft	1	RCN-1P32	REL1P32-SC	LW20EB20-120-xxx
'TL'D 25W	T8	1			
'TL'DK 30W	T8	1			
'TL'D 30W = F30T8	T8 3ft	1			LW20EB40-120-xxx
'TL'D 36W	T8 4ft	1		REL1S40-SC	
		2		REL2S40-SC	
TUV 55W	T8 3ft	1		IUV-2S60-M4LD (120-277 main)	LW20EB65-PFC-xx
'TL'D 58W	T8 5ft	1			
TUV 75W	T8 4ft	1		IUV-2S60-M4LD (120-277 main)	LW20EB65-PFC-xx
'TL' 20W (RS) = F20T12	T12 2ft	1			
'TL' 30W (RS) = F30T12	T12 3ft	1	HM-1P30-TP	REL1S40-SC	
'TL'K 40W	T12 2ft	1			
'TL' 40W (RS) = F40T12	T12 4ft	1			
		2	R-140-TP Mark III	REL1S40-SC	
		1	R-2S40-TP Mark III	REL2S40-SC	
'TL' 60W = F48T12/HO	T12 4ft	1	RS-2S60-TP	IUV-2S60-M4LD (120-277 main)	
'TL' 80W	T12 5ft	1	RS-110-TP	IUV-2S60-M4LD (120-277 main)	
'TL' 100W	T12 6ft	1			
		2	RS2S100-TP		
TUV 115WVHO	T12 4ft	1	RC2S102-TP		
'TL' 140W	T12 5ft	1	RC2S102-TP		
'TL' 176D38	T12 6ft	1	RC2S102-TP		
TUV 36T5 SP	T5 3ft	1			LW20EB40-120-IN-xx
TUV 36T5 4P-SE	T5 3ft	1		ICN2S39	LW20EB40-120-xx
TUV 36T5 HO 4P/SE	T5 3ft	1		IUV-2S60-M4LD (120-277 main)	LW20EB65-PFC-xx
TUV 64T5 SP	T5 5ft	1		SSB21202/64-UV	LW20EB65-PFC-IN-xx
		2		SSB21202/64-UV	
TUV 64T5 4P/SE	T5 5ft	1		ICN1S80	LW20EB65-PFC-xx
TUV 64T5 HO 4P/SE	T5 5ft	1		IUV-2S60-M4LD (120-277 main)	
PL-S 9W 2P	145	1	LPL-5-9-TP		
		1	LC-4-9-C-TP		
PL-S 9W 4P	145	1		RMB-IP13-L2	LW20EB26-120
		1		RMB-IP13-S1	
PL-S 11W 2P	214	1	N.A.		
PL-S 13W 2P	155	1	LC-13-TP		
		1	LO-13-22-TP		
PL-L 18W	218	1	LC-25-TP	RMB-2P13-L2	LW20EB20-120-xxx
		1		RMB-2P13-S2	
PL-L 24W	315	1		R-1BP27-TP	ICN2S24
PL-L 35W HO	218	1		IUV-2S60-M4LD (120-277 main)	LW20EB40-120-xxx
		2		IUV-2S60-M4LD (120-277 main)	
PL-L 36W	408	1	R-1BP39-TP	REL-1TTS39	LW20EB40-120-xxx
		1		ICN2S24	
		2	R-2BS39-TP	REL-2TTS39	
		2		ICN2S54	LW20EB65-120-xxx
PL-L 55W HF	528	1		ICN1S80	LW20EB40-120-xxx
PL-L 60W HO	408	1		REL2S110	LW20EB65-PFC-xx
		1		IUV-2S60-M4LD (120-277 main)	
		2		IUV-2S60-M4LD (120-277 main)	
PL-L 95W HO	528	1		IUV-2S60-M4LD (120-277 main)	LW20EB65-PFC-xx
'TL'E 22W	157*	1	LC-14-20-C-TP		

1) To support the existing lamp types as listed for special lighting applications, the specified ballast types are approved for use in special lamp-ballast combinations. Because these ballasts are not specially designed for operating the listed lamp types, the applicability of these solutions is not guaranteed for the future. Despite our efforts to ensure backwards-compatibility, the specifications of the future ballast types may change so that these no longer support the special lamp as listed.
2) We will publish written notifications when such changes occur, resulting in the inability to support specific lamp-ballast combinations.

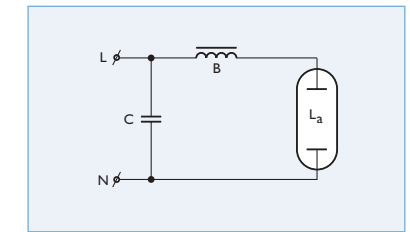
Wiring diagrams



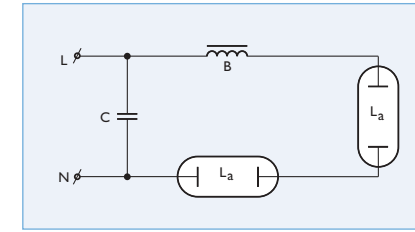
Circuit 1



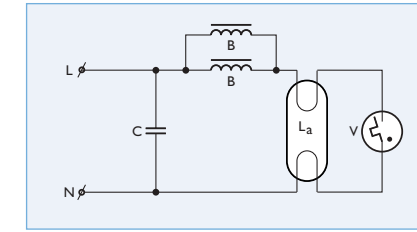
Circuit 2



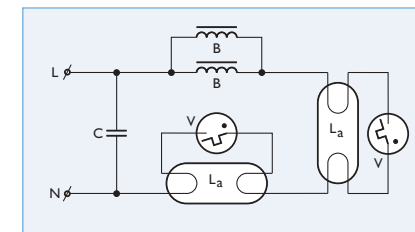
Circuit 3



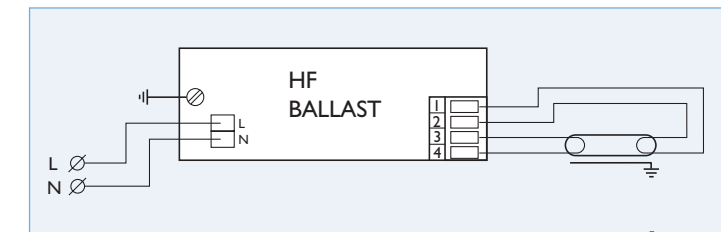
Circuit 4



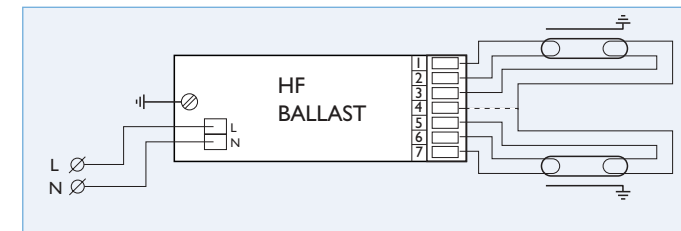
Circuit 5



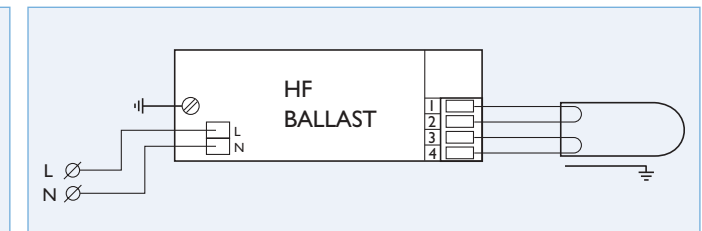
Circuit 6



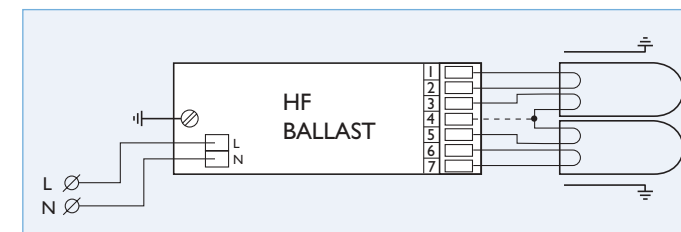
Circuit 7



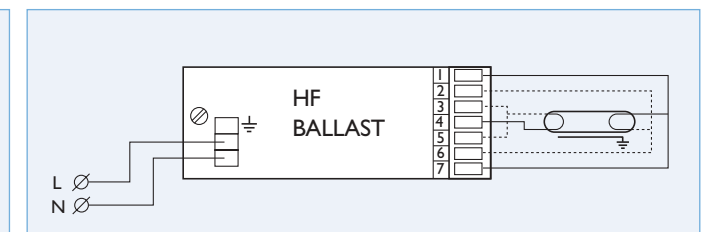
Circuit 8



Circuit 9



Circuit 10



Circuit 11