

Catalogue 2001|2002

Control gear for fluorescent lamps

Comprehensive range of literature available:

Control gear for high pressure discharge lamps

Transformers for low voltage lamps

Digital dimming – control gear and lighting control systems

TRIDONIC

Index

	page	
Electronic ballasts		
Introduction	3	
T5 fluorescent lamps FH, FQ	14–80 W	
T8 fluorescent lamps	18–70 W	
TC-L compact lamps	18–55 W	
TC-L compact lamps	18–24 W	
TC-S, TC-D, TC-T compact lamps	5–57 W	
Circuit diagrams	11	
Technical details – IDC-Push-in terminal	15	
Table showing an overview of the Energy Classification System for ballasts from CELMA	53	
Magnetic chokes		
Introduction	16	
Magnetic chokes for fluorescent lamps		
T5 16 mm, T8 26 mm	EC 4–16 W 230 V	18
T5 16 mm, T8 26 mm	EC 4–16 W 240 V	19
T8 26 mm, 28 mm, 30 mm, T12 38 mm	EC 15–40 W 230 V	20
T8 26 mm, 28 mm, 30 mm, T12 38 mm	EC 15–40 W 240 V	21
T8 26 mm, 28 mm, 30 mm, T12 38 mm	EC 15–40 W 230 V	22
T8 26 mm, 28 mm, 30 mm, T12 38 mm	EC 15–40 W 240 V	23
T8 26 mm, T12 38 mm	EC 58–70 W 230 V	24
T8 26 mm, T12 38 mm	EC 58–70 W 240 V	25
T12 38 mm	EC 80–125 W 230 V	26
T12 38 mm	EC 100–125 W 240 V	27
T8 26 mm	EC 18–58 W 230 V	28
T8 26 mm	EC 18–58 W 240 V	29
Low loss chokes for fluorescent lamps		
T8 26 mm	EC 8–58 W 230 V	30
T8 26 mm, 30 mm, T12 38 mm	EC 18–75 W 240 V	31
Super low loss chokes for fluorescent lamps		
T5 16 mm, T8 26 mm, 30 mm, T12 38 mm	EC 8–65 W 230 V	32
Low loss chokes for fluorescent lamps with reinforced insulation and protection		
T8 26 mm	EC 18–58 W 230 V	33
Magnetic chokes for compact lamps		
TC-D, TC-DD, TC-S	EC 5–18 W 230 V	34
TC-D, TC-DD, TC-S	EC 5–18 W 240 V	35
TC-D, TC-DD, TC-L	EC 18–38 W 230 V	36
TC-D, TC-DD, TC-L	EC 18–38 W 240 V	37
Low loss chokes for compact lamps		
TC-D, TC-DD, TC-L	EC 18–36 W 230 V	38
Super low loss chokes for compact lamps		
TC-D, TC-DD, TC-S	EC 5–18 W 230 V	39
TC-D, TC-DD, TC-S	EC 5–18 W 240 V	40
TC-D, TC-DD, TC-L	EC 18–36 W 230 V	42
TC-D, TC-DD, TC-L	EC 18–36 W 240 V	43
Low loss chokes for compact lamps with reinforced insulation and protection		
TC-D, TC-L	EC 18–36 W 230 V	44
Luxfit for compact lamps		
TC-D, TC-S	LEC 5–13 W 230 V and 240 V	45
TC-S	UEC 5–11 W 230 V and 240 V	46
TC-D	UEC 13–26 W 230 V and 240 V	47
TC-DD	UEC 16–28 W 230 V and 240 V	48
Special baseplates for EC chokes		49
Circuit diagrams for fluorescent lamps		50
Circuit diagrams for compact lamps		51
Table showing an overview of the Energy Classification System for ballasts from CELMA		53
Tridonic-Atco-Group/Sales Organisation		56

Electronic ballasts for fluorescent lamps

Fluorescent lamps cannot be connected directly to the power supply as they are unable to regulate power and would not strike. The ballast ensures that the lamp electrodes are preheated, sufficient voltage is generated to strike the lamp and that the discharge current is controlled

This function is achieved by both electromagnetic (conventional switchstart and low loss) and Electronic High frequency ballasts

Electronic ballasts operate fluorescent lamps with high-frequency voltages and currents (40–100 kHz). The starting voltage is generated internally (no starter required) and the power factor is $> 0,95$ (no capacitor required for correcting the reactive power).

Electronic ballasts start fluorescent lamps in accordance with two different starting principles:

Warm-start

After a specific period in which the lamp electrodes are preheated, the lamp is ignited using a preset ignition voltage. warm-starting the lamp protects the fluorescent lamp cathode and allows for frequent switching cycles during the life of the lamp.

Cold-start

The fluorescent lamp is started immediately ($< 0,2$ seconds) by directly applying the starting voltage. Cold-starting the lamp reduces the switching cycles of the lamp (2–3 cycles of operation per day)

Tridonic electronic ballasts are characterised as being:

- Economical
- Easy to use
- Reliable

A high level of economy

Energy savings

Electronic ballasts operate fluorescent lamps in the high-frequency range (≥ 42 kHz). This increases the luminous flux of the lamp by approximately 10 % or put another way a 10 % reduction in lamp operating wattage will produce the same luminous flux.

Electronic ballasts have reduced power losses (≥ 10 % of the lamp wattage)

Electronic ballasts have a reduced level of self-heating (a lower lamp temperature increases the efficiency of the lamp).

Savings of up to 30 % can be achieved by using electronic high frequency ballasts when compared to a conventional switch start ballasts (diagram showing energy savings).

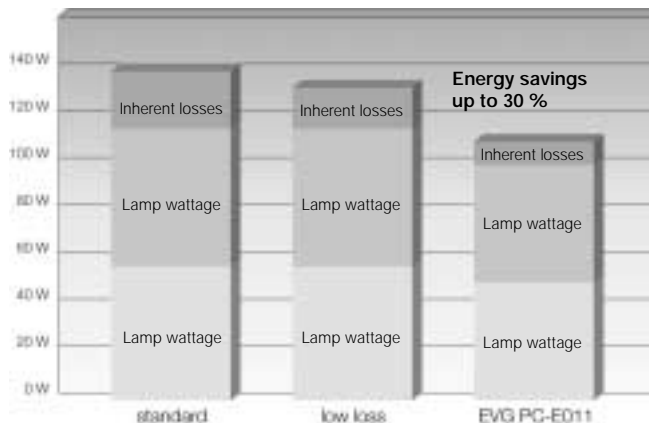
Longer service life of the lamp

Electronic warm start ballasts increase the operating life of fluorescent lamps considerably when compared with a conventional switch start circuit.

Thus the costs of replacing the lamp and the maintenance costs for the lighting installation are reduced (maintenance intervals for the lighting installation become longer).

Disconnection of faulty lamps

Electronic ballasts are able to identify faulty lamps and switch off the lamp. This avoids nuisance cycling of lamps at the end of their life and ensures no energy is wasted in repeated attempts to strike a faulty lamp. Once the lamp has been replaced, the lamp will start automatically.



Example: Operation of a 2 x 58 W lamp

Constant Power

Electronic ballasts with constant power control guarantee optimum performance of the lamp regardless of fluctuations in mains voltage (198–254 V). This produces a constant luminous output and energy savings.

Suitable for emergency lighting

Electronic ballasts can be operated with both AC and DC current. Therefore in cases where emergency lighting is required, there is no need to install a separate emergency lighting system (no additional investment costs).

Long service life

Electronic ballasts from Tridonic are designed to have an average service life of 50 000 hours at their maximum permissible ambient temperature. This can only be achieved by using high-quality components, by configuring the circuit accordingly and by operating rigorous test programs.

Simple to use

Comfortable high quality lighting due to high frequency operation

Electronic ballasts operate fluorescent lamps at a higher frequency (40–100 kHz) than mains power 50 Hz. The effects of this are all very positive: the gas discharge is more constant than with conventional ballasts which interrupt the lamp current at 50 Hz 100 times a second. The visible results of this constant gas discharge include:

- no cathode flickering (even at low temperatures)
- no stroboscopic effects (particularly important on rotating parts of machinery)

Overall improved visual comfort due to improved lighting quality.

Comfortable lighting and a high level of quality due to ASIC light management

Electronic ballasts from Tridonic are fitted with an integrated module specifically designed for Tridonic (ASIC) for the latest in lamp management.

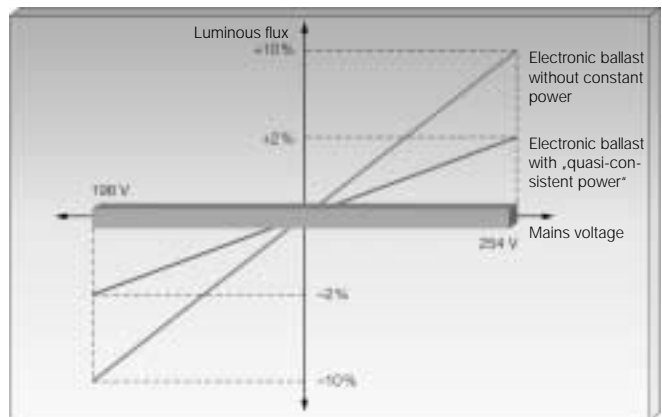
- The lamps start reliably without nuisance flickering or noise
- In the event of a fault, the lamp is switched off automatically without causing any further faults (flashing of faulty lamps)
- Safe shut down when the lamp comes to the end of its life

General comfort

Electronic ballasts from Tridonic have an operating frequency of > 42 kHz and therefore do not interfere with IR remote control facilities (36 kHz).

Electronic ballasts are lightweight.

Electronic ballasts are fitted with an insulation displacement connector (IDC), which permits fast automatic and manual wiring (see page 15 for technical specifications).



PCE 011 consistent power output regardless of the mains voltage in the range 198 V to 254 V.

Safety, reliability and standards

Safety and standards

Electronic ballasts from Tridonic comply with all European standards relating to safety, operation and EMC/immunity

EN 60928	General requirements and safety, alternating current AC
EN 60929	Operation, alternating current AC
EN 60924	General requirements and safety, direct current DC
EN 60925	Operation, direct current DC
EN 61000-3-2	Harmonic suppression
EN 61547	Immunity
EN 55015	Interference suppression < 30 MHz
EN 55022	Interference suppression > 30 MHz

can be used in emergency lighting installations in accordance with VDE 0108

ENEC tested



CE mark



Tridonic Quality Assurance

A full and comprehensive test program is carried out on 100 % of the goods produced by Tridonic in order to maintain the highest standards of reliability for all Tridonic devices.

All components undertake a strict Thermal function test program based on all current standards and methods.

Lamp matrix

Which ballast for what lamp?

You can obtain the current lamp matrix

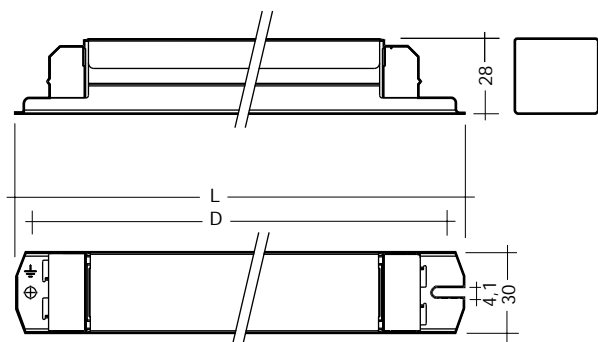
- via the Internet at www.tridonic.com – FAQ
- on request by e-mail: hotline.tec@tridonic.co.at



T5 16 mm

Electronic ballasts T5, 16 mm Linear lamps

PC T5 PRO 14-80 W 220-240 V 50/60/0 Hz



- lamp friendly warm start within 0,5 s
- cut off of filament heating (cut off technology)
- constant light output independent of fluctuations in mains voltage (198–254 V)
- AC voltage range 198–254 V
- DC voltage range 154–310 V (lamp start 200–310 V); battery voltage may drop briefly to 154 V, although ignition must be ≥ 198 V
- power factor $> 0,95$
- overvoltage protection 320 V AC, 1 h
- operating frequency ≥ 42 kHz

- suitable for automatic and manual wiring with insulation displacement connector (IDC)
- wide operating temperature range from -25°C to $+60^{\circ}\text{C}$ (50°C)
- suitable for use in emergency lighting installations in accordance with VDE 0108
- safe switch off of defective lamps
- automatic re-start after lamp change
- for luminaires with ∇ and ∇/∇ or ∇/∇ and $\nabla/\nabla/\nabla$ in acc. with EN 60598, VDE 0710 and VDE 0711

Packaging:
Box of 25
28 boxes/pallet
700 pieces/pallet

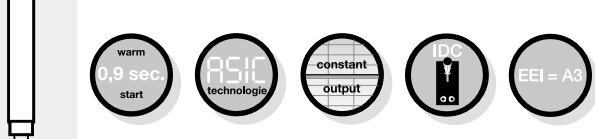
Wiring:
Page 11
Figure A, B, C, D

Certified:
• EN 60928
• EN 60929
• EN 60924
• EN 60925
• EN 61000-3-2
• EN 61547
• EN 55015
• EN 55022
• in accordance with VDE 0108



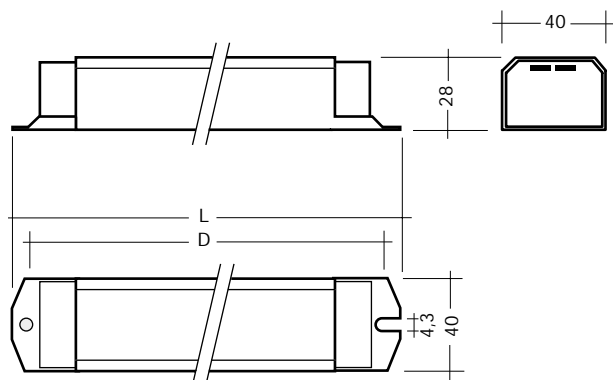
Lamp		Ballast										
watt-age W	length mm	type	article number	length L mm	fixing centres D mm	weight kg	circuit power W	lamp power W	current at 230V/50Hz A	λ at 230V/50Hz	tc point $^{\circ}\text{C}$	temperature range $^{\circ}\text{C}$
14	549	PC 1/14 T5 PRO 220-240V 50/60/0Hz	22083839	360	350	0,27	16,5	13,5	0,08	0,97	70	-25 \rightarrow +60
2x14	549	PC 2/14 T5 PRO 220-240V 50/60/0Hz	22083845	360	350	0,29	32,5	27,5	0,15	0,97	75	-25 \rightarrow +60
3x14	549	PC 3/14 T5 PRO 220-240V 50/60/0Hz	22086614	360	340-350	0,36	49,0	3x14,0	0,22	0,96	65	-25 \rightarrow +50
4x14	549	PC 4/14 T5 PRO 220-240V 50/60/0Hz	22086620	360	340-350	0,36	63,0	4x14,0	0,28	0,96	70	-25 \rightarrow +50
21	849	PC 1/21 T5 PRO 220-240V 50/60/0Hz	22085135	360	350	0,27	25,0	20,5	0,10	0,97	70	-25 \rightarrow +60
2x21	849	PC 2/21 T5 PRO 220-240V 50/60/0Hz	22085141	360	350	0,29	46,0	41,5	0,21	0,97	75	-25 \rightarrow +60
28	1149	PC 1/28 T5 PRO 220-240V 50/60/0Hz	22085157	360	350	0,28	32,0	28,0	0,15	0,97	75	-25 \rightarrow +60
2x28	1149	PC 2/28 T5 PRO 220-240V 50/60/0Hz	22085160	360	350	0,35	62,5	55,0	0,29	0,97	80	-25 \rightarrow +60
35	1449	PC 1/35 T5 PRO 220-240V 50/60/0Hz	22083851	360	350	0,28	38,5	34,5	0,17	0,97	75	-25 \rightarrow +60
2x35	1449	PC 2/35 T5 PRO 220-240V 50/60/0Hz	22083864	360	350	0,35	77,5	69,5	0,35	0,97	80	-25 \rightarrow +60
24	549	PC 1/24 T5 PRO 220-240V 50/60/0Hz	22085176	360	350	0,27	25,5	22,5	0,12	0,97	75	-25 \rightarrow +60
2x24	549	PC 2/24 T5 PRO 220-240V 50/60/0Hz	22085182	360	350	0,29	50,5	45,0	0,23	0,97	75	-25 \rightarrow +60
39	849	PC 1/39 T5 PRO 220-240V 50/60/0Hz	22085198	360	350	0,28	41,5	38,0	0,19	0,97	75	-25 \rightarrow +60
2x39	849	PC 2/39 T5 PRO 220-240V 50/60/0Hz	22085208	360	350	0,30	83,5	75,5	0,38	0,97	80	-25 \rightarrow +60
49	1449	PC 1/49 T5 PRO 220-240V 50/60/0Hz	22085217	360	350	0,29	54,5	49,5	0,25	0,97	80	-25 \rightarrow +60
2x49	1449	PC 2/49 T5 PRO 220-240V 50/60/0Hz	22085223	360	350	0,36	108,0	97,0	0,49	0,97	80	-25 \rightarrow +60
54	1149	PC 1/54 T5 PRO 220-240V 50/60/0Hz	22083870	360	350	0,29	60,0	54,0	0,27	0,97	80	-25 \rightarrow +60
2x54	1149	PC 2/54 T5 PRO 220-240V 50/60/0Hz	22083886	360	350	0,36	117,5	107,5	0,53	0,97	80	-25 \rightarrow +50
80	1449	PC 1/80 T5 PRO 220-240V 50/60/0Hz	22085239	360	350	0,30	86,0	80,0	0,39	0,97	80	-25 \rightarrow +60

With a DC supply L and N terminals are interchangeable.



Electronic ballasts
T8, 26 mm Linear lamps

PC-E 011 IDC 18-70 W 220-240 V 50/60/0 Hz



- lamp friendly warm start within 0,9 s
- constant light output independent of fluctuations in mains voltage (198–254 V)
- AC voltage range 198–254 V
- DC voltage range 154–310 V (lamp start 200–310 V); battery voltage may drop briefly to 154 V, although ignition must be ≥ 198 V
- power factor $> 0,95$
- overvoltage protection 320 V AC, 1 h
- operating frequency ≥ 42 kHz
- suitable for automatic and manual wiring with insulation displacement connector (IDC)

- wide operating temperature range from -25°C to $+60^{\circ}\text{C}$ (50°C)
- suitable for use in emergency lighting installations in accordance with VDE 0108
- safe switch off of defective lamps
- automatic re-start after lamp change
- for luminaires with ∇/∇ and $\nabla/\nabla/\nabla$ or ∇/∇ and $\nabla/\nabla/\nabla$ in acc. with EN 60598, VDE 0710 and VDE 0711
- VDE EMV

Packaging L 234:
 Box of 25
 30 boxes/pallet
 750 pieces/pallet

Packaging L 360:
 Box of 10
 35 boxes/pallet
 350 pieces/pallet

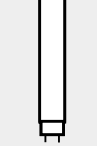
Wiring:
 Page 12 Fig. E, F, G
 Page 13 Fig. H, I, J

- Certified:
- EN 60928
 - EN 60929
 - EN 60924
 - EN 60925
 - EN 61000-3-2
 - EN 61547
 - EN 55015
 - EN 55022
 - in accordance with VDE 0108



Lamp		Ballast										
wattage	length	type	article number	length	fixing	weight	circuit	lamp	current	λ	tc point	temperature
W	mm			L	centres	kg	power	power	at 230V/50Hz	at 230V/50Hz	$^{\circ}\text{C}$	range
				L	D mm		W	W	A			$^{\circ}\text{C}$
18	590	PC 1x18 E011 IDC 220/240V 50/60/0Hz	22085113	234	220	0,28	20,5	16,5	0,09	0,95	80	-25 \rightarrow +60
2x18	590	PC 2x18 E011 IDC 220/240V 50/60/0Hz	22085129	234	220	0,28	38,5	2x16,5	0,17	0,95	80	-25 \rightarrow +60
3x18	590	PC 3x18 E011 IDC 220/240V 50/60/0Hz	22084399	234	220	0,28	57,0	3x16	0,26	0,95	90	-25 \rightarrow +60
4x18	590	PC 4x18 E011 IDC 220/240V 50/60/0Hz	22084402	360	340–350	0,36	72,0	4x16	0,33	0,95	80	-25 \rightarrow +60
30	900	PC 1x30 E011 IDC 220/240V 50/60/0Hz	22086960	234	220	0,28	30,0	25	0,14	0,95	75	-25 \rightarrow +60
2x30	900	PC 2x30 E011 IDC 220/240V 50/60/0Hz	22086976	234	220	0,28	56,0	2x25	0,26	0,95	85	-25 \rightarrow +60
36	1200	PC 1x36 E011 IDC 220/240V 50/60/0Hz	22083149	234	220	0,28	36,0	32	0,16	0,95	80	-25 \rightarrow +60
2x36	1200	PC 2x36 E011 IDC 220/240V 50/60/0Hz	22083155	234	220	0,28	72,0	2x32	0,32	0,95	80	-25 \rightarrow +50
3x36	1200	PC 3x36 E011 IDC 220/240V 50/60/0Hz	22084480	360	340–350	0,36	105,0	3x32	0,48	0,98	70	-25 \rightarrow +50
38	1050	PC 1x38 E011 IDC 220/240V 50/60/0Hz	22086191	234	220	0,28	37,0	33	0,17	0,95	80	-25 \rightarrow +60
2x38	1050	PC 2x38 E011 IDC 220/240V 50/60/0Hz	22086201	234	220	0,28	74,0	2x33	0,33	0,95	85	-25 \rightarrow +60
58	1500	PC 1x58 E011 IDC 220/240V 50/60/0Hz	22083168	234	220	0,28	56,5	50,5	0,25	0,98	85	-25 \rightarrow +60
2x58	1500	PC 2x58 E011 IDC 220/240V 50/60/0Hz	22083174	234	220	0,28	107,0	2x50	0,49	0,95	80	-25 \rightarrow +50
70	1800	PC 1x70 E011 IDC 220/240V 50/60/0Hz	22084503	234	220	0,28	72,0	61,0	0,32	0,98	70	-25 \rightarrow +50
2x70	1800	PC 2x70 E011 IDC 220/240V 50/60/0Hz	22084512	360	340–350	0,36	135,5	2x61,0	0,62	0,98	75	-25 \rightarrow +50

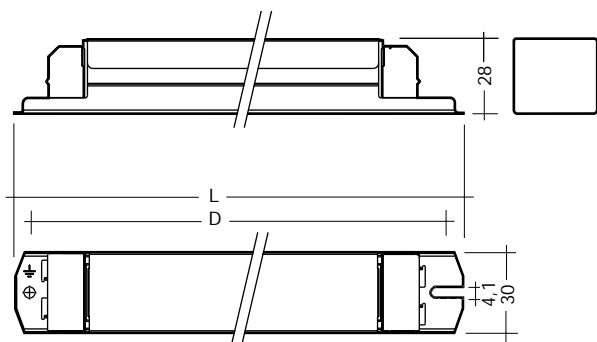
With a DC supply L and N terminals are interchangeable.



T8 26 mm

Electronic ballasts T8, 26 mm Linear lamps

PC T8 PRO 18-58 W 220-240 V 50/60/0 Hz



- lamp friendly warm start within 0,9 s
- constant light output independent of fluctuations in mains voltage (198-254 V)
- AC voltage range 198-254 V
- DC voltage range 176-280 V; battery voltage may drop briefly to 154 V, although ignition must be ≥ 198 V
- power factor $> 0,95$
- overvoltage protection 320 V AC, 1 h
- operating frequency ≥ 42 kHz
- suitable for automatic and manual wiring with insulation displacement connector (IDC)

- wide operating temperature range from -25°C to $+60^{\circ}\text{C}$ (50°C)
- suitable for use in emergency lighting installations in accordance with VDE 0108
- safe switch off of defective lamps
- automatic re-start after lamp change
- for luminaires with ∇F and $\nabla F/\nabla F$ or ∇M and $\nabla M/\nabla M$ in acc. with EN 60598, VDE 0710 and VDE 0711

Packaging:
Box of 25
28 boxes/pallet
700 pieces/pallet

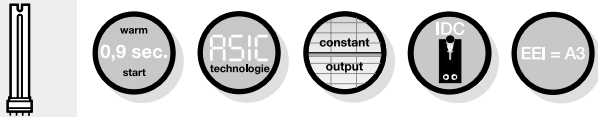
Wiring:
Page 14 Fig. K, L

- Certified:
- EN 60928
 - EN 60929
 - EN 60924
 - EN 60925
 - EN 61000-3-2
 - EN 61547
 - EN 55015
 - EN 55022
 - in accordance with VDE 0108



Lamp		Ballast										
watt-age W	length mm	type	article number	length L mm	fixing centres D mm	weight kg	circuit power W	lamp power W	current at 230V/50Hz A	λ at 230V/50Hz	tc point $^{\circ}\text{C}$	temperature range $^{\circ}\text{C}$
18	590	PC 1/18 T8 PRO 220-240V 50/60/0Hz	22085627	360	350	0,27	19,5	15,5	0,09	0,97	60	-25 \rightarrow +50
2x18	590	PC 2/18 T8 PRO 220-240V 50/60/0Hz	22085633	360	350	0,28	40,0	31,0	0,18	0,97	65	-25 \rightarrow +50
36	1200	PC 1/36 T8 PRO 220-240V 50/60/0Hz	22085649	360	350	0,28	38,0	31,5	0,17	0,97	65	-25 \rightarrow +50
2x36	1200	PC 2/36 T8 PRO 220-240V 50/60/0Hz	22085655	360	350	0,30	76,0	62,5	0,34	0,97	70	-25 \rightarrow +50
58	1500	PC 1/58 T8 PRO 220-240V 50/60/0Hz	22085668	360	350	0,28	57,5	50,0	0,27	0,97	65	-25 \rightarrow +50
2x58	1500	PC 2/58 T8 PRO 220-240V 50/60/0Hz	22085674	360	350	0,31	117,5	99,0	0,53	0,97	70	-25 \rightarrow +50

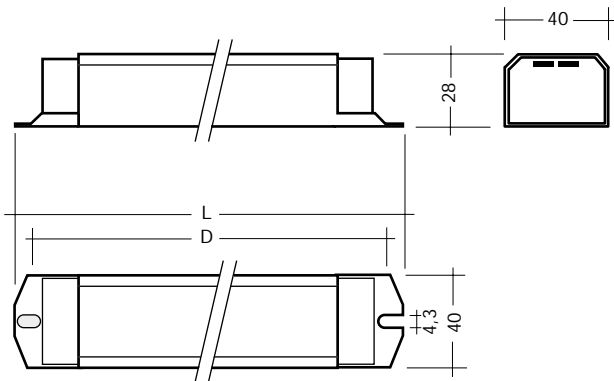
With a DC supply L and N terminals are interchangeable.



TC-L

**Electronic ballasts
Compact lamps TC-L**

PC PRO TC-L IDC 18-55 W 220-240 V 50/60/0 Hz



- lamp friendly warm start within 1,5 s
- constant light output independent of fluctuations in mains voltage (198–254 V)
- AC voltage range 198–254 V
- DC voltage range 176–280 V; battery voltage may drop briefly to 154 V, although ignition must be ≥ 198 V
- power factor $> 0,95$
- overvoltage protection 320 V AC, 1 h
- operating frequency ≥ 42 kHz
- suitable for automatic and manual wiring with insulation displacement connector (IDC)

- wide operating temperature range from -25°C to $+60^{\circ}\text{C}$ (50°C)
- suitable for use in emergency lighting installations in accordance with VDE 0108
- safe switch off of defective lamps
- automatic re-start after lamp change
- for luminaires with ∇/∇ and $\nabla/\nabla/\nabla$ or $\nabla/\nabla/\nabla$ and $\nabla/\nabla/\nabla$ in acc. with EN 60598, VDE 0710 and VDE 0711
- VDE EMV

Packaging L 234:
Box of 25
30 boxes/pallet
750 pieces/pallet

Packaging L 360:
Box of 10
35 boxes/pallet
350 pieces/pallet

Wiring:
Page 14
Fig. M, N, O

- Certified:
- EN 60928
 - EN 60929
 - EN 60924
 - EN 60925
 - EN 61000-3-2
 - EN 61547
 - EN 55015
 - EN 55022
 - in accordance with VDE 0108

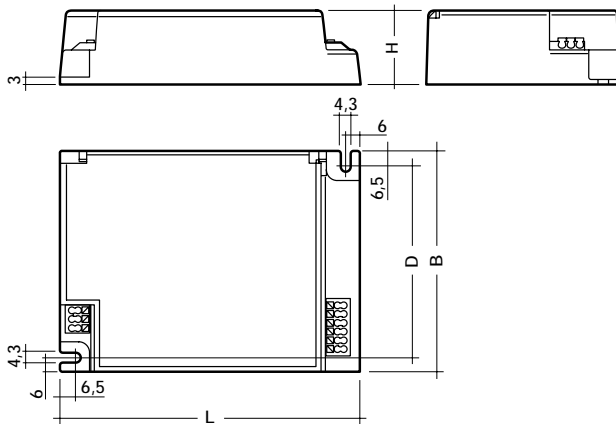


Lamp		Ballast										
wattage	type	type	article number	length L mm	fixing centres D mm	weight kg	circuit power W	lamp power W	current at 230V/50Hz A	λ at 230V/50Hz	tc point $^{\circ}\text{C}$	temperature range $^{\circ}\text{C}$
W												
18/24	TC-L	PC PRO 18/24 FSD a101 IDC 220–240V 50/60/0Hz	22084617	234	220	0,28	20/27	16/22	0,09/0,124	0,95	75	-25 \rightarrow +60
2x18	TC-L	PC PRO 2x18 FSD a101 IDC 220–240V 50/60/0Hz	22084623	234	220	0,28	40	2x16	0,185	0,97	80	-25 \rightarrow +60
2x24	TC-L	PC PRO 2x24 FSD a101 IDC 220–240V 50/60/0Hz	22084639	234	220	0,28	57	2x22	0,22	0,97	80	-25 \rightarrow +60
36	TC-L	PC PRO 36 FSD a101 IDC 220–240V 50/60/0Hz	22085061	234	220	0,28	37,5	32,0	0,18	0,95	80	-25 \rightarrow +60
2x36	TC-L	PC PRO 2x36 FSD a101 IDC 220–240V 50/60/0Hz	22085077	234	220	0,28	76	2x32	0,345	0,96	80	-25 \rightarrow +60
40	TC-L	PC PRO 40 FSD a101 IDC 220–240V 50/60/0Hz	22085083	234	220	0,28	44	40,0	0,2	0,95	70	-25 \rightarrow +60
2x40	TC-L	PC PRO 2x40 FSD a101 IDC 220–240V 50/60/0Hz	22085099	234	220	0,28	87	2x40	0,385	0,95	75	-25 \rightarrow +60
55	TC-L	PC PRO 55 FSD a101 IDC 220–240V 50/60/0Hz	22085104	234	220	0,28	60	55,0	0,275	0,96	85	-25 \rightarrow +60
2x55	TC-L	PC PRO 2x55 FSD a101 IDC 220–240V 50/60/0Hz	22084496	360	340–350	0,36	120	2x55	0,535	0,97	75	-25 \rightarrow +50

With a DC supply L and N terminals are interchangeable.

**Electronic compact ballasts
Compact lamps TC-L**

PC PRO TC-L 18-24 W 220-240 V 50/60/0 Hz



- lamp friendly warm start within 1,5 s
- constant light output independent of fluctuations in mains voltage (198–254 V)
- AC voltage range 198–254 V
- DC voltage range 176–280 V; battery voltage may drop briefly to 154 V, although ignition must be ≥ 198 V
- power factor $> 0,95$
- overvoltage protection 320 V AC, 1 h
- operating frequency ≥ 42 kHz

- wide operating temperature range from -25°C to $+60^{\circ}\text{C}$ (50°C)
- suitable for use in emergency lighting installations in accordance with VDE 0108
- safe switch off of defective lamps
- automatic re-start after lamp change
- for luminaires with ∇/∇ and $\nabla/\nabla/\nabla$ or ∇/∇ and $\nabla/\nabla/\nabla$ in acc. with EN 60598, VDE 0710 and VDE 0711
- VDE EMV

Packaging L 103:
Box of 15
50 boxes/pallet
750 pieces/pallet

Packaging L 123:
Box of 10
50 boxes/pallet
500 pieces/pallet

Wiring:
Page 15 Fig. P, Q

- Certified:
- EN 60928
 - EN 60929
 - EN 60924
 - EN 60925
 - EN 61000-3-2
 - EN 61547
 - EN 55015
 - EN 55022
 - in accordance with VDE 0108



Lamp		Ballast											
wattage	type	type	article number	LxBxH	D	weight	circuit power	lamp power	current	λ	tc point	temperature range	
W				mm	mm	kg	W	W	A	at 230V/50Hz	$^{\circ}\text{C}$	$^{\circ}\text{C}$	
18	TC-L	PC PRO 18/24 FSD b101	220–240V 50/60/0Hz	22083278	103x67x30	54,5	0,14	20	16	0,10	0,94	85	-25 \rightarrow +60
2x18	TC-L	PC PRO 2x18 FSD b101	220–240V 50/60/0Hz	22083284	123x79x30	66,5	0,17	40,5	2x18	0,19	0,96	80	-25 \rightarrow +60
24	TC-L	PC PRO 18/24 FSD b101	220–240V 50/60/0Hz	22083278	103x67x30	54,5	0,14	29	25	0,13	0,96	85	-25 \rightarrow +60
2x24	TC-L	PC PRO 2x24 FSD b101	220–240V 50/60/0Hz	22083290	123x79x30	66,5	0,17	57	2x25	0,25	0,96	85	-25 \rightarrow +60

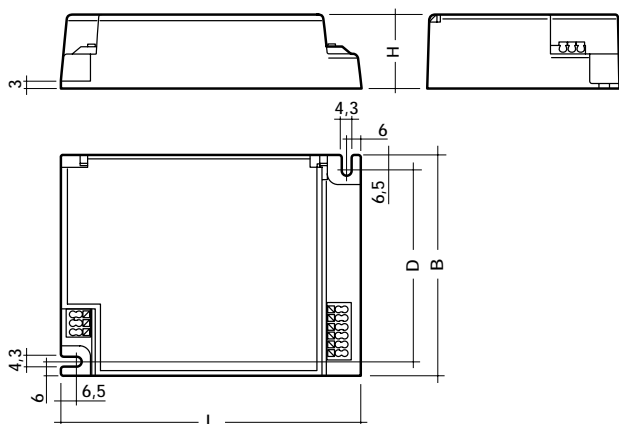
With a DC supply L and N terminals are interchangeable.



TC-S/E
TC-D/E
TC-T/E

Electronic compact ballasts Compact lamps TC-S/E, TC-D/E, TC-T/E

PC PRO 5-57 W 220-240 V 50/60/0 Hz



- lamp friendly warm start within 1,0 s
- constant light output independent of fluctuations in mains voltage (198–254 V)
- AC voltage range 198–254 V
- DC voltage range 176–280 V; battery voltage may drop briefly to 154 V, although ignition must be ≥ 198 V
- power factor $> 0,95$
- overvoltage protection 320 V AC, 1 h
- operating frequency ≥ 42 kHz

- wide operating temperature range from -25°C to $+60^{\circ}\text{C}$ (50°C)
- suitable for use in emergency lighting installations in accordance with VDE 0108
- safe switch off of defective lamps
- automatic re-start after lamp change
- for luminaires with ∇ and ∇/∇ or ∇/∇ and $\nabla/\nabla/\nabla$ in acc. with EN 60598, VDE 0710 and VDE 0711
- VDE EMV

Packaging L 103:
Box of 15
50 boxes/pallet
750 pieces/pallet

Packaging L 123:
Box of 10
50 boxes/pallet
500 pieces/pallet

Wiring:
Page 15 Fig. P, Q

- Certified:
- EN 60928
 - EN 60929
 - EN 60924
 - EN 60925
 - EN 61000-3-2
 - EN 61547
 - EN 55015
 - EN 55022
 - in accordance with VDE 0108

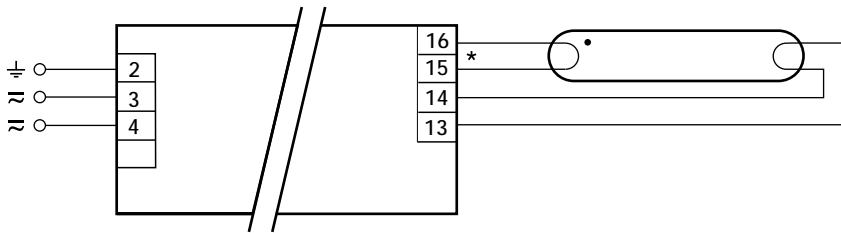


Lamp	Ballast													
watt- age W	type	type	article number	LxBxH mm	D mm	weight kg	circuit power W	lamp power W	current at 230V/50Hz A	λ at 230V/50Hz	tc- point $^{\circ}\text{C}$	temperature range $^{\circ}\text{C}$		
5	TC-S/E	PC PRO 5/7 FSD b101 220-240V 50/60/0Hz	22083215	103x67x30	54,5	0,14	7,5	5	0,03-0,04	0,96	70	-25 → +60		
2x5	TC-S/E	PC PRO 2x5/7 FSD b101 220-240V 50/60/0Hz	22083221	123x79x30	66,5	0,17	13	2x5	0,06-0,07	0,96	70	-25 → +60		
7	TC-S/E	PC PRO 5/7 FSD b101 220-240V 50/60/0Hz	22083215	103x67x30	54,5	0,14	9	7	0,04-0,05	0,96	70	-25 → +60		
2x7	TC-S/E	PC PRO 2x5/7 FSD b101 220-240V 50/60/0Hz	22083221	123x79x30	66,5	0,17	18	2x7,5	0,08-0,09	0,96	70	-25 → +60		
9	TC-S/E	PC PRO 9/11 FSD b101 220-240V 50/60/0Hz	22082999	103x67x30	54,5	0,14	11	8,5	0,05-0,06	0,96	70	-25 → +60		
2x9	TC-S/E	PC PRO 2x9/11 FSD b101 220-240V 50/60/0Hz	22083003	123x79x30	66,5	0,17	20	2x8,5	0,09-0,10	0,96	80	-25 → +60		
11	TC-S/E	PC PRO 9/11 FSD b101 220-240V 50/60/0Hz	22082999	103x67x30	54,5	0,14	15,5	13	0,07-0,08	0,96	80	-25 → +60		
2x11	TC-S/E	PC PRO 2x9/11 FSD b101 220-240V 50/60/0Hz	22083003	123x79x30	66,5	0,17	30	2x13	0,13-0,15	0,96	80	-25 → +60		
10	TC-D/E	PC PRO 10/13 FSQ b101 220-240V 50/60/0Hz	22083237	103x67x30	54,5	0,14	12	9	0,05-0,06	0,96	75	-25 → +60		
2x10	TC-D/E	PC PRO 2x10/13 FSQ b101 220-240V 50/60/0Hz	22083243	123x79x30	66,5	0,17	23	2x10	0,10-0,11	0,96	75	-25 → +60		
13	TC-D/E	PC PRO 10/13 FSQ b101 220-240V 50/60/0Hz	22083237	103x67x30	54,5	0,14	16	13	0,07-0,08	0,96	75	-25 → +60		
2x13	TC-D/E	PC PRO 2x10/13 FSQ b101 220-240V 50/60/0Hz	22083243	123x79x30	66,5	0,17	34	2x15	0,15-0,16	0,96	75	-25 → +60		
18	TC-D/E	PC PRO 18 FSQ b101 220-240V 50/60/0Hz	22082606	103x67x30	54,5	0,14	20,5	18	0,09-0,10	0,96	80	-25 → +60		
2x18	TC-D/E	PC PRO 2x18 FSQ b101 220-240V 50/60/0Hz	22082589	123x79x30	66,5	0,17	40	2x18	0,17-0,19	0,96	80	-25 → +60		
26	TC-D/E	PC PRO 26/32/42 FSM b101 220-240V 50/60/0Hz	22082595	103x67x30	54,5	0,14	28,5	25	0,12-0,14	0,96	85	-25 → +60		
2x26	TC-D/E	PC PRO 2x26 FSQ b101 220-240V 50/60/0Hz	22082573	123x79x30	66,5	0,17	56	2x25,7	0,24-0,26	0,96	85	-25 → +60		
18	TC-T/E	PC PRO 18 FSQ b101 220-240V 50/60/0Hz	22082606	103x67x30	54,5	0,14	20,5	18	0,09-0,10	0,96	80	-25 → +60		
2x18	TC-T/E	PC PRO 2x18 FSQ b101 220-240V 50/60/0Hz	22082589	123x79x30	66,5	0,17	40	2x18	0,17-0,19	0,96	80	-25 → +60		
26	TC-T/E	PC PRO 26/32/42 FSM b101 220-240V 50/60/0Hz	22082595	103x67x30	54,5	0,14	28,5	25	0,12-0,14	0,96	85	-25 → +60		
2x26	TC-T/E	PC PRO 2x26 FSQ b101 220-240V 50/60/0Hz	22082573	123x79x30	66,5	0,17	56	2x25,7	0,24-0,26	0,96	85	-25 → +60		
32	TC-T/E	PC PRO 26/32/42 FSM b101 220-240V 50/60/0Hz	22082595	103x67x30	54,5	0,14	35	31,5	0,15-0,17	0,96	85	-25 → +60		
42	TC-T/E	PC PRO 26/32/42 FSM b101 220-240V 50/60/0Hz	22082595	103x67x30	54,5	0,14	46	42,5	0,20-0,22	0,96	85	-25 → +60		
2x32	TC-T/E	PC PRO 2x32/42 FSM b101 220-240V 50/60/0Hz	22082567	123x102x30	89,5	0,21	71	2x33	0,30-0,34	0,96	100	-25 → +60		
2x42	TC-T/E	PC PRO 2x32/42 FSM b101 220-240V 50/60/0Hz	22082567	123x102x30	89,5	0,21	100	2x46	0,41-0,46	0,96	100	-25 → +60		
57	TC-T/E	PC PRO 57 FSM b101 220-240V 50/60/0Hz	22086982	123x102x30	89,5	0,21	64,0	57,5	0,29	0,97	75	-25 → +60		

With a DC supply L and N terminals are interchangeable.

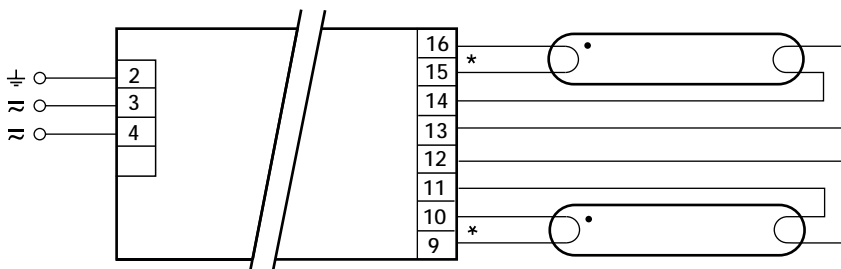
Electronic ballasts

Circuit diagrams



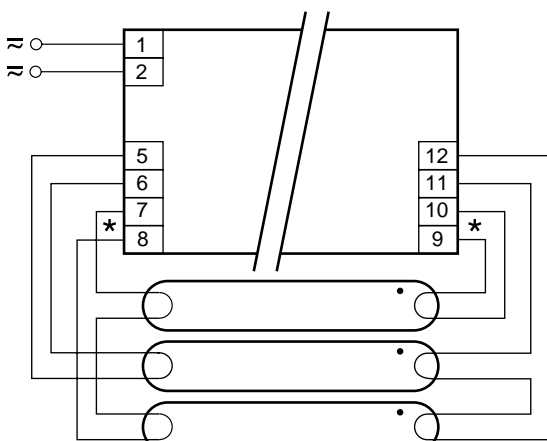
- * leads (15,16) max. 1,0 m (< 150 pF)
- leads (13,14) max. 2,0 m (< 300 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

A) PC T5 PRO 14-80 W

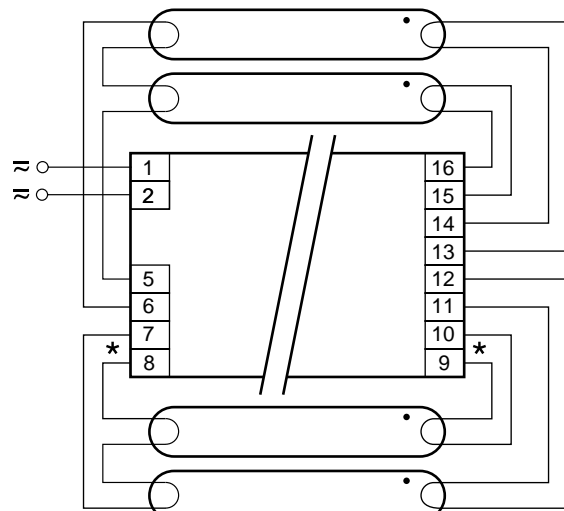


- * leads (9,10,15,16) max. 1,0 m (< 150 pF)
- leads (11,12,13,14) max. 2,0 m (< 300 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

B) PC T5 PRO 2 x 14-54 W



- * leads (7,8,9,10) max.1,0 m (< 150 pF)
- leads (5,6,11,12) max. 2,0 m (< 300 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required



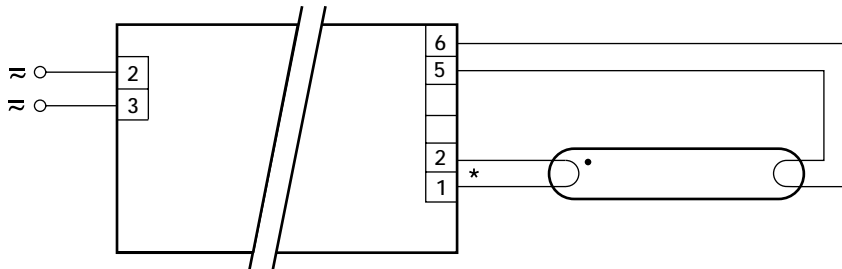
- * leads (7,8,9,10) max. 1,0 m (< 150 pF)
- leads (5,6,11,12,13,14,15,16) max. 2,0 m (< 300 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

C) PC T5 PRO 3 x 14 W

D) PC T5 PRO 4 x 14 W

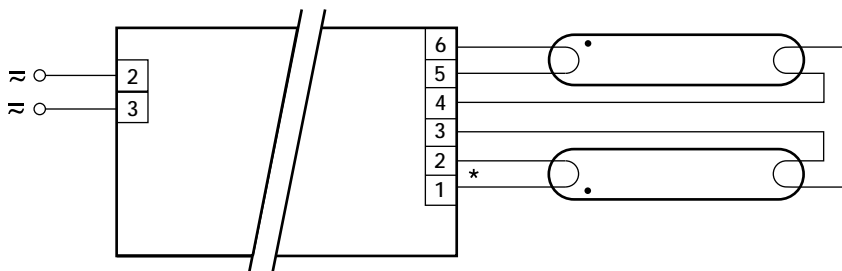
Electronic ballasts

Circuit diagrams



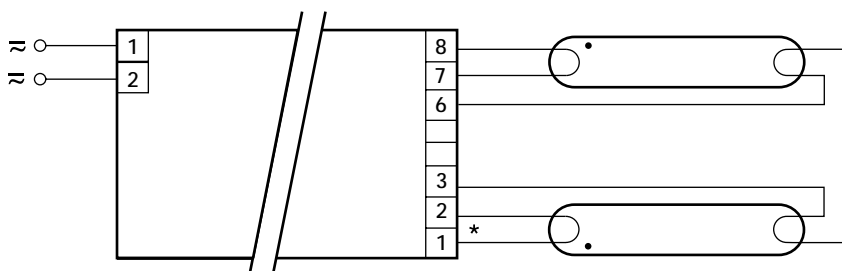
- * leads (1,2) max. 1,0 m (< 100 pF)
- leads (5,6) max. 2,0 m (< 200 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

E) PC-E 011 IDC 18-70 W



- * leads (1,2) max. 1,0 m (< 100 pF)
- leads (3,4,5,6) max. 2,0 m (< 200 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

F) PC-E 011 IDC 2 x 18-58 W

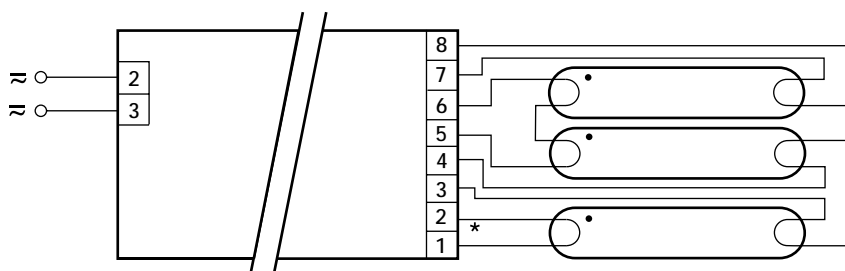


- * leads (1,2) max. 1,0 m (< 100 pF)
- leads (3,6,7,8) max. 2,0 m (< 200 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

G) PC-E 011 IDC 2 x 70 W

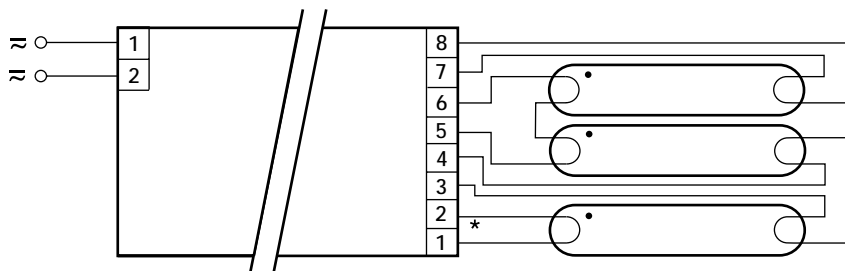
Electronic ballasts

Circuit diagrams



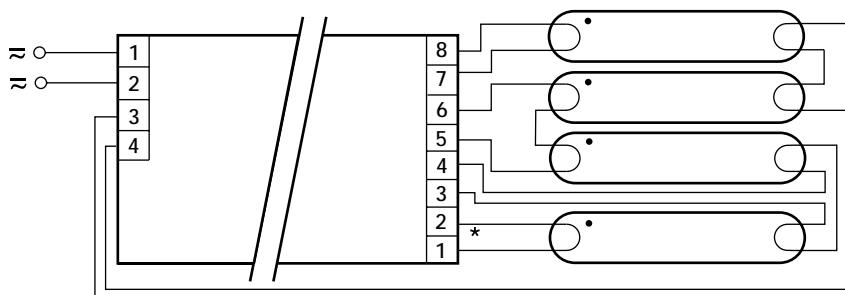
- * leads (1,2) max. 1,0 m (< 100 pF)
- leads (3,4,5,6,7,8) max. 2,0 m (< 200 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

H) PC-E 011 IDC 3 x 18 W



- * leads (1,2) max. 1,0 m (< 100 pF)
- leads (3,4,5,6,7,8) max. 2,0 m (< 200 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

I) PC-E 011 IDC 3 x 36 W

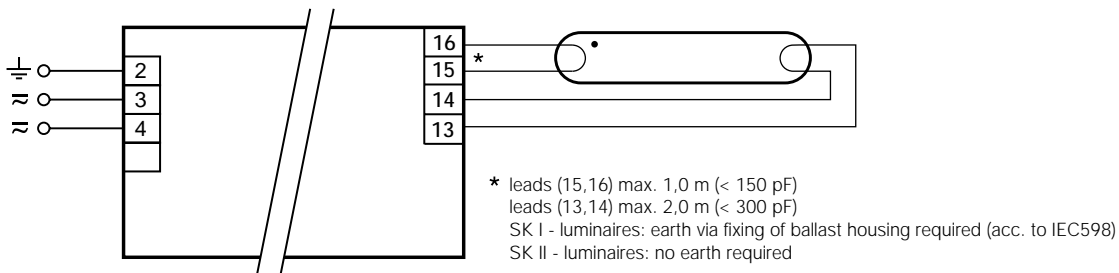


- * leads (1,2) max. 1,0 m (< 100 pF)
- leads (3,4,5,6,7,8) max. 2,0 m (< 200 pF)
- SK I - luminaires: earth via fixing of ballast housing required (according to IEC598)
- SK II - luminaires: no earth required

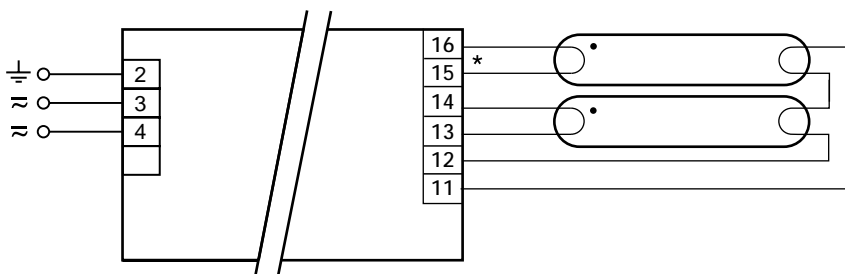
J) PC-E 011 IDC 4 x 18 W

Electronic ballasts

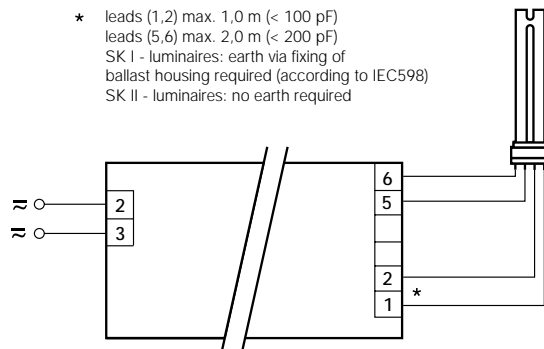
Circuit diagrams



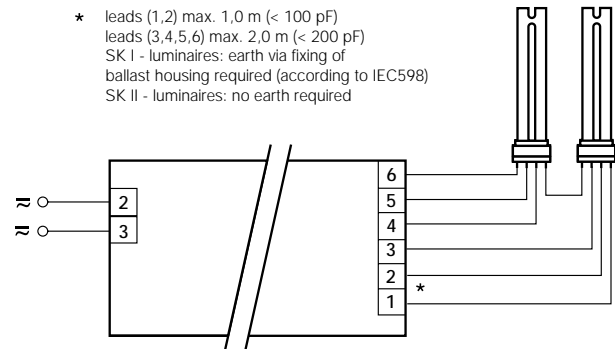
K) PC T8 PRO 18-58 W



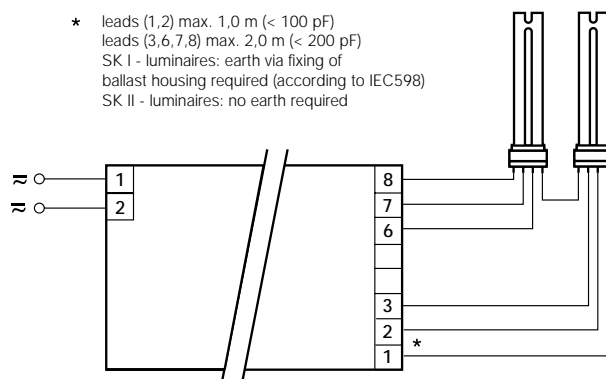
L) PC T8 PRO 2x18-58 W



M) PC PRO a FSD 18-55 W



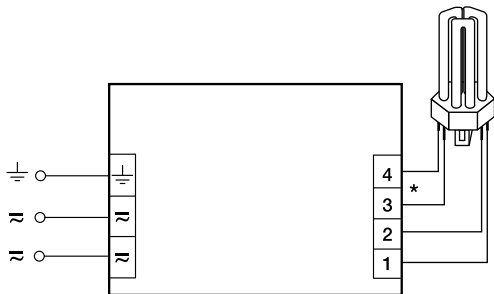
N) PC PRO a FSD 2 x 18-40 W



O) PC T8 PRO a FSD 2x55 W

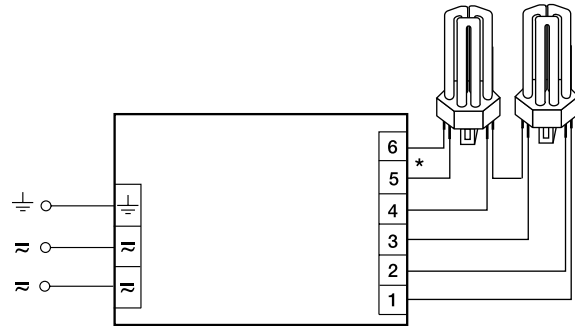
Electronic ballasts

Circuit diagrams



* leads (3,4) max. 1,0 m (< 100 pF)
leads (1,2) max. 2,0 m (< 200 pF)

P) PC PRO b 5-42 W; PC PRO b FSD 18-24 W



* leads (5,6) max. 1,0 m (< 100 pF)
leads (1,2,3,4) max. 2,0 m (< 200 pF)

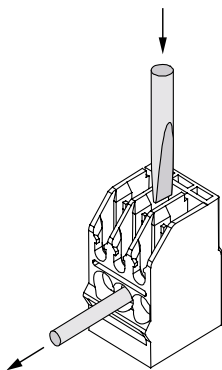
Q) PC PRO b 2 x 5-42 W; PC PRO b FSD 2 x 18-24 W

Technical Information

IDC terminals

Why IDC terminals?

- fast manual and automatic wiring
- clear sight marks for accurate positioning
- 4,1 mm round fastening hole for accurate positioning



Terminal data

Plug-in contact

- suitable for rigid single-wire conductors, 0,5-1,5 mm²
- stripping length 7,5-8,5 mm
- wire removal tool, screwdriver, blade, 2,5 x 0,4 mm

Insulation piercing contact

- suitable for automatic wiring of rigid single-wire conductors, 0,5 mm²
- the conductor can only be loosened with force

Important!

Manually fastening the wire in this insulation piercing contact manually is not recommended!

The type of cable to be selected should be taken from the information provided by the wiring robot manufacturer.

Magnetic chokes for fluorescent lamps

A choke is required to run a fluorescent lamp. This is a current limiting device which works on the self inductance principle. The impedance of the choke is set to match the arc voltage of the lamp which ensures that the correct current is supplied. In some cases a choke can be used for more than one lamp but the lamp should never be used with any other choke than the one specifically designed for the job. Also any supply voltage or frequency variation will affect the optimum performance of the choke, and hence the lamp, so the type with the correct values should always be used.

Optimum performance

This is achieved by maintaining careful control of the main parameters.

Preheat current

This is supplied to the cathodes prior to the striking voltage, without the correct preheat current the cathodes would be progressively damaged resulting in short lamp life. If the current is too high this is also the case.

Strike voltage

In the case of a glow starter this is produced by the choke when the starter switch opens. The required voltage increases at high and low temperatures, and electronic starters may be required in abnormal temperature conditions.

For a fluorescent lamp to operate constantly the supply voltage must be at least twice the lamp voltage.

If it is less, then an auto transformer is required to step up the voltage.

Lamp current

The tight tolerances used in manufacture ensure that the impedance is the correct value for the correct lamp current and hence lamp wattage and luminous flux.

Minimum power losses

An inefficient choke means high losses, which in turn leads to high temperatures. This means the lamp runs out of its optimum temperature range and, in some cases, other components in the luminaire, such as capacitors, will also run too hot and fail prematurely.

Tridonic chokes are designed to ensure that losses are minimised by guaranteeing that the windings fill the bobbin, thereby optimising the dimensions of the choke and ensuring the correct amount of steel and copper per winding.

The losses (lamp and ballast) are rated in accordance with the ballast-lamp circuit (EEI) classification.

Selection of the right choke

Generally there are 3 types of wound chokes available:

- Standard (EEI = C)
- Low loss (EEI = B2)
- Super low loss (EEI = B1)

Each version has the same impedance and provides the same lamp current. The difference is that the losses, and temperature rise, are progressively less, which can be seen from the data.

There are two reasons to select lower loss chokes:

Energy consumption

A low loss choke typically consumes 30 % less power than a standard choke, and a super low loss uses 67 % less power than a standard choke.

Temperature rise

A typical standard choke will increase in temperature by 55 K (Kelvin) above its surroundings, a low loss choke 35–40 K and a super low loss choke 25 K.

When considering dimensions, Tridonic chokes have optimised dimensions to minimise losses but lower loss chokes do have increased dimensions.

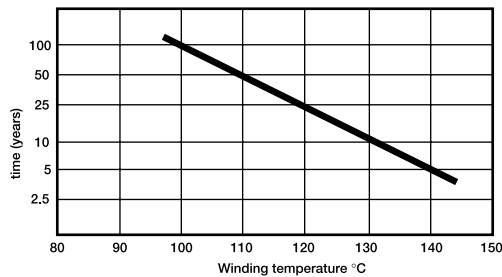
As the measured power consumption depends strongly on the method of measurement, differences up to 10 K are possible in the results.

Maximum service life

Tridonic chokes use high quality class H insulation materials which are designed for temperatures above 180°C, thus ensuring maximum service life.

Long years of research and development have gone into the choice and selection of the right insulation materials, and the heat resistant properties of Tridonic products are far superior to the mandatory requirements.

The graph shows the theoretical service life of a choke against winding temperature. Every 10°C over the maximum winding temperature of 130°C ($T_w = 130$) halves choke life. The expected length of life is based on 10 years continuous operation with a winding temperature of 130°C. The winding temperature is the ambient temperature plus ΔT or temperature rise, which is a function of choke power consumption.



Minimum stray fields

Tridonic chokes are designed to keep stray fields at a minimum, thus enabling them to be used near sensitive equipment.

National and international test marks

Tridonic chokes are approved by national and international test houses.

Consistent high quality

Certified to ISO 9001, the production process and equipments guarantee a consistent high quality standard. All finished goods are 100 % end of line tested and only the highest quality raw materials are used. Constant high quality is ensured by the use of fully automatic production.

Special features of Tridonic chokes

- very short magnetic paths
- transverse lamination design with no stray field junctions
- compact windings
- short heat paths
- class H insulation
- vacuum impregnation
- long service life
- push in terminals for EC types
- screw terminals for UEC, LEC and OMC
- voltage 230 V 50 Hz or 240 V 50 Hz (other voltages on request)
- low power consumption
- maximum winding temperature $t_w = 130^\circ\text{C}$
- fully automatic production with continuous tolerance test
- 100 % final testing, including continuity, short circuit, short to earth and operating values
- tropicalised

Lamp matrix

Which ballast for what lamp?

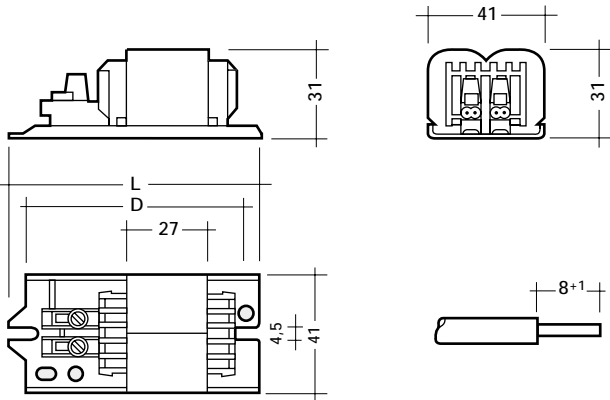
You can obtain the current lamp matrix

- via the Internet at www.tridonic.com – FAQ
- on request by e-mail: hotline.tec@tridonic.co.at

T5 16 mm
T8 26 mm

Magnetic chokes
Linear lamps, T5 16 mm, T8 26 mm

EC 4-16 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- push terminal 0,5–1,5 mm²

Packaging:
5 off, banded
2 200 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 50



Lamp			Choke										P. F. Correction	
wattage	length	dia- meter	type	article number	core stack length KL mm	length L mm	fixing centres D mm	weight kg	ΔT K	losses W ①	nominal lamp current A	λ	parallel compensation	
W	mm	mm											capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A
4	136	16	EC 4/8 A27 230V 50Hz	20296804	27	84,5	74–80	0,3	50	5,2	0,170	0,25	2,0	0,04
2x4	136	16	EC 4/8 A27 230V 50Hz	20296804	27	84,5	74–80	0,3	40	5,2	0,170	0,34	2,0	0,05
6	212	16	EC 4/8 A27 230V 50Hz	20296804	27	84,5	74–80	0,3	45	4,7	0,160	0,30	2,0	0,05
2x6	212	16	EC 4/8 A27 230V 50Hz	20296804	27	84,5	74–80	0,3	40	3,8	0,160	0,44	2,0	0,05
8	288	16	EC 4/8 A27 230V 50Hz	20296804	27	84,5	74–80	0,3	45	3,9	0,145	0,35	2,0	0,06
2x8	288	16	EC 13 A27 230V 50Hz	20563014	27	84,5	74–80	0,3	40	3,1	0,145	0,60	2,0	0,09
10	470	26	EC 13 A27 230V 50Hz	20563014	27	84,5	74–80	0,3	40	4,2	0,170	0,44	2,0	0,07
13	517	16	EC 13 A27 230V 50Hz	20563014	27	84,5	74–80	0,3	40	4,0	0,165	0,47	2,0	0,08
16	720	26	EC 16 A27 230V 50Hz	20563020	27	84,5	74–80	0,3	45	5,2	0,200	0,49	2,0	0,09

① mean value, measured at 25°C copper temperature

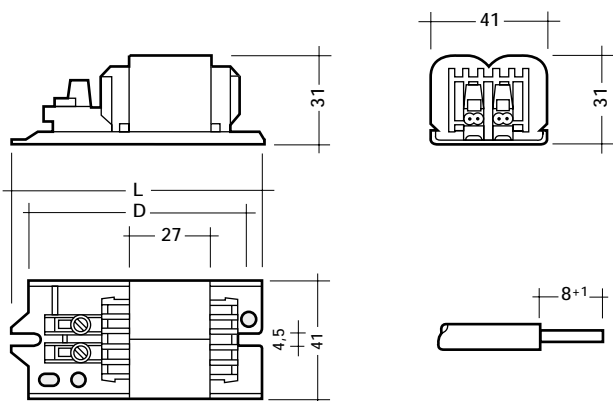
* $\cos \varphi > 0,9$



T5 16 mm
T8 26 mm

Magnetic chokes
Linear lamps, T5 16 mm, T8 26 mm

EC 4-16 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- push terminal 0,5-1,5 mm²

Packaging:
5 off, banded
2 200 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 48



Lamp			Choke										P. F. Correction	
wattage	length	dia-meter	type	article number	core stack length	length	fixing centres	weight	ΔT	losses	nominal lamp current	λ	parallel compensation	
W	mm	mm			KL mm	L mm	D mm	kg	K	W ①	current A		capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A
4	136	16	EC 4/8 A27 240V 50Hz	20294731	27	84,5	74-80	0,3	55	5,4	0,170	0,25	2,0	0,04
6	212	16	EC 4/8 A27 240V 50Hz	20294731	27	84,5	74-80	0,3	45	4,8	0,160	0,28	2,0	0,05
8	288	16	EC 4/8 A27 240V 50Hz	20294731	27	84,5	74-80	0,3	45	4,0	0,145	0,38	2,0	0,06
2x8	288	16	EC 13 A27 240V 50Hz	20294719	27	84,5	74-80	0,3	50	3,3	0,145	0,49	2,0	0,09
13	517	16	EC 13 A27 240V 50Hz	20294719	27	84,5	74-80	0,3	50	4,3	0,165	0,44	2,0	0,07
16	720	26	EC 16 A27 240V 50Hz	20294652	27	84,5	74-80	0,3	55	5,5	0,200	0,46	2,0	0,09

① mean value, measured at 25°C copper temperature

* $\cos \phi > 0,9$

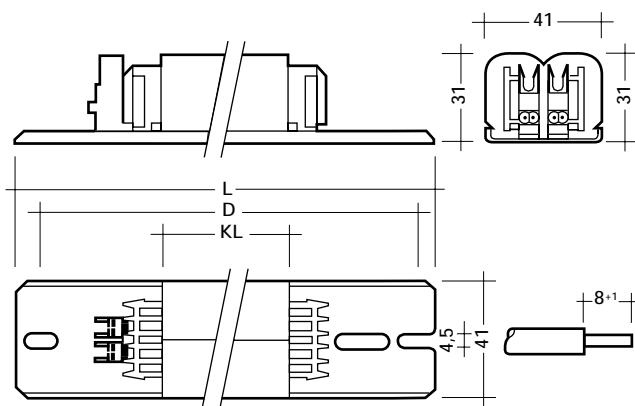


Magnetic chokes

Linear lamps, T8 26 mm, 28 mm, 30 mm, T12 38 mm

EC 15-40 W 230 V 50 Hz, core stack length 50 mm

T8 26 mm
28 mm
30 mm
T12 38 mm



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 50



Lamp			Choke											P. F. Correction		
watt- age W	length mm	dia- meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W ①/EEL	nominal lamp current A ②	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$	
15	438	26	EC 15 A50 230V 50Hz	22117446	151	50	105-144	0,5	50	EEL = C	0,310	0,32	4,5	0,12	–	
2x15	438	26	EC 22/30 A50 230V 50Hz	22117201	151	50	105-144	0,5	50	EEL = C	0,350②	0,45	4,5	0,18	2,9/450V	
18	590	26	EC 20 A50 230V 50Hz	22116689	151	50	105-144	0,5	60	EEL = C	0,370	0,35	4,5	0,13	2,7/480V	
2x18	590	26	EC 40 A50 230V 50Hz	22116727	151	50	105-144	0,5	50	EEL = C	0,410②	0,47	4,5	0,22	3,4/450V	
$\phi 22$	$\phi 216$	28	EC 22/30 A50 230V 50Hz	22117201	151	50	105-144	0,5	60	11,6	0,400	0,37	5,0	0,16	3,0/480V	
23	970	26	EC 20 A50 230V 50Hz	22116689	151	50	105-144	0,5	50	8,4	0,290	0,45	3,0	0,14	2,4/450V	
30	895	26	EC 22/30 A50 230V 50Hz	22117201	151	50	105-144	0,5	50	EEL = C	0,365	0,47	4,5	0,17	2,9/450V	
$\phi 32$	$\phi 307$	30	EC 32 A50 230V 50Hz	22118347	151	50	105-144	0,5	65	9,5	0,450	0,40	5,0	0,21	3,4/450V	
36	1200	26	EC 40 A50 230V 50Hz	22116727	151	50	105-144	0,5	55	EEL = C	0,430	0,48	4,5	0,22	3,4/450V	
38	1047	26	EC 40 A50 230V 50Hz	22116727	151	50	105-144	0,5	55	EEL = C	0,430	0,49	4,5	0,23	3,4/450V	
$\phi 40$	$\phi 409$	30	EC 40 A50 230V 50Hz	22116727	151	50	105-144	0,5	55	13,0	0,415	0,50	4,5	0,24	3,4/450V	
U40	607	38	EC 40 A50 230V 50Hz	22116727	151	50	105-144	0,5	55	13,5	0,430	0,50	4,5	0,24	3,4/450V	

① mean value, measured at 25°C copper temperature

② lamp current, measured in parallel connection

* $\cos \phi > 0,9$

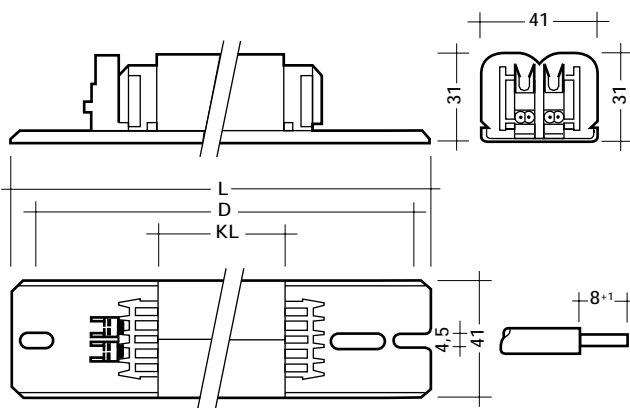


T8 26 mm
28 mm
30 mm
T12 38 mm

Magnetic chokes

Linear lamps, T8 26 mm, 28 mm, 30 mm, T12 38 mm

EC 15–40 W 240 V 50 Hz, core stack length 50 mm and 140 mm



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
KL 50 mm
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

KL 140 mm
5 off, banded
600 pieces/pallet

Wiring:
Page 50



Lamp			Choke										P. F. Correction		
watt-age W	length mm	dia- meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W ①/EEL	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
15	438	26	EC 15 A50 240V 50Hz	22117380	151	50	130–144	0,5	60	8,0	0,310	0,32	4,0	0,12	–
2x15	438	26	EC 22/30 A50 240V 50Hz	22117333	151	50	130–144	0,5	60	6,5	0,310②	0,49	4,0	0,17	–
18	590	26	EC 20 A50 240V 50Hz	22116695	151	50	130–144	0,5	55	9,9	0,370	0,33	4,0	0,13	–
2x18	590	26	EC 40 A50 240V 50Hz	22116733	151	50	130–144	0,5	50	7,5	0,370②	0,51	4,0	0,21	–
$\phi 22$	$\phi 216$	28	EC 22/30 A50 240V 50Hz	22117333	151	50	130–144	0,5	60	10,6	0,400	0,34	4,0	0,16	–
23	970	26	EC 20 A50 240V 50Hz	22116695	151	50	130–144	0,5	45	6,5	0,290	0,42	3,5	0,13	–
30	895	26	EC 22/30 A50 240V 50Hz	22117333	151	50	130–144	0,5	60	8,9	0,365	0,47	4,0	0,17	–
$\phi 32$	$\phi 307$	30	EC 32 A50 240V 50Hz	22118319	151	50	130–144	0,5	70	11,1	0,450	0,41	4,0	0,22	–
36	1200	26	EC 40 A50 240V 50Hz	22116733	151	50	130–144	0,5	60	10,0	0,430	0,46	4,0	0,22	–
38	1047	26	EC 40 A50 240V 50Hz	22116733	151	50	130–144	0,5	60	10,0	0,430	0,47	4,0	0,23	–
U40	670	30	EC 40 A50 240V 50Hz	22116733	151	50	130–144	0,5	60	10,0	0,430	0,49	4,0	0,23	–
$\phi 40$	$\phi 410$	26	EC 40 A50 240V 50Hz	22116733	151	50	130–144	0,5	60	10,0	0,430	0,50	4,0	0,23	–
$\phi 40$	409	30	EC 40 A50 240V 50Hz	22116733	151	50	130–144	0,5	60	10,0	0,430	0,50	4,0	0,23	–
40	590	38	EC 40–59 A140 240V 50Hz	24076530	231	140	210–224	1,3	55	18,0	0,880	0,27	10,0	0,27	–
2x40	590	38	EC 2/40–59 A140 240V 50Hz	24076676	231	140	210–224	1,3	55	17,0	0,880②	0,45	8,0	0,45	–

① mean value, measured at 25°C copper temperature

② lamp current, measured in parallel connection

* $\cos \phi > 0,9$

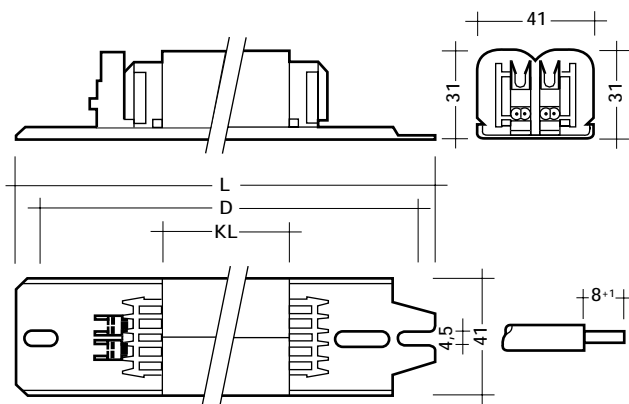


Magnetic chokes

Linear lamps, T8 26 mm, 28 mm, 30 mm, T12 38 mm

EC 15-40 W 230 V 50 Hz, core stack length 54 mm

T8 26 mm
28 mm
30 mm
T12 38 mm



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 50

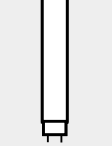


Lamp			Choke										P. F. Correction		
watt-age W	length mm	dia-meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W @/EEL	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
15	438	26	EC 15 A54 230V 50Hz	22118422	151	54	105-144	0,55	50	EEL = C	0,310	0,31	4,5	0,12	-
2x15	438	26	EC 22/30 A54 230V 50Hz	22117424	151	54	105-144	0,55	50	EEL = C	0,350 ^②	0,45	4,5	0,18	2,9/450V
18	590	26	EC 20 A54 230V 50Hz	22116702	151	54	105-144	0,55	55	7,5	0,370	0,33	4,5	0,13	2,7/480V
2x18	590	26	EC 40 A54 230V 50Hz	22116749	151	54	105-144	0,55	45	8,4	0,410 ^②	0,49	4,5	0,22	3,4/450V
$\phi 22$	$\phi 216$	28	EC 22/30 A54 230V 50Hz	22117424	151	54	105-144	0,55	60	9,5	0,400	0,35	5,0	0,16	3,0/480V
23	970	26	EC 20 A54 230V 50Hz	22116702	151	54	105-144	0,55	45	7,3	0,290	0,43	3,0	0,14	2,4/450V
30	895	26	EC 22/30 A54 230V 50Hz	22117424	151	54	105-144	0,55	45	EEL = C	0,365	0,46	4,5	0,17	2,9/450V
$\phi 32$	$\phi 307$	30	EC 32 A54 230V 50Hz	22118444	151	54	105-144	0,55	65	9,1	0,450	0,40	5,0	0,21	3,4/450V
36	1200	26	EC 40 A54 230V 50Hz	22116749	151	54	105-144	0,55	55	EEL = C	0,430	0,48	4,5	0,22	3,4/450V
38	1047	26	EC 40 A54 230V 50Hz	22116749	151	54	105-144	0,55	50	EEL = C	0,430	0,49	4,5	0,23	3,4/450V
U40	409	38	EC 40 A54 230V 50Hz	22116749	151	54	105-144	0,55	50	12,5	0,430	0,52	4,5	0,24	3,4/450V

① mean value, measured at 25°C copper temperature

② lamp current, measured in parallel connection

* $\cos \varphi > 0,9$

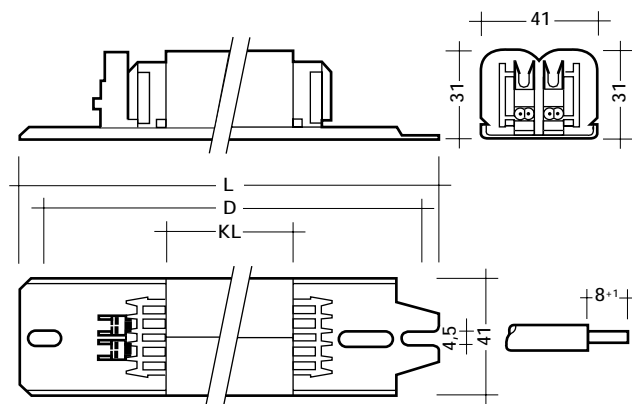


T8 26 mm
28 mm
30 mm
T12 38 mm

Magnetic chokes

Linear lamps, T8 26 mm, 28 mm, 30 mm, T12 38 mm

EC 15-40 W 240 V 50 Hz, core stack length 54 mm



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 50



Lamp			Choke										P. F. Correction		
watt- age W	length mm	dia- meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W @/EEL	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
15	438	26	EC 15 A54 240V 50Hz	22118438	151	54	105-144	0,55	55	7,6	0,310	0,31	4,0	0,12	–
2x15	438	26	EC 22/30 A54 240V 50Hz	22118450	151	54	105-144	0,55	55	6,2	0,310 ^②	0,48	4,0	0,17	–
18	590	26	EC 20 A54 240V 50Hz	22116711	151	54	105-144	0,55	60	10,0	0,370	0,33	4,0	0,13	–
2x18	590	26	EC 40 A54 240V 50Hz	22116755	151	54	105-144	0,55	50	7,6	0,370 ^②	0,50	4,0	0,21	–
$\phi 22$	$\phi 216$	28	EC 22/30 A54 240V 50Hz	22118450	151	54	105-144	0,55	70	10,1	0,400	0,33	4,0	0,16	–
23	970	26	EC 20 A54 240V 50Hz	22116711	151	54	105-144	0,55	45	6,2	0,290	0,42	3,5	0,13	–
30	895	26	EC 22/30 A54 240V 50Hz	22118450	151	54	105-144	0,55	60	8,7	0,365	0,46	4,0	0,17	–
36	1200	26	EC 40 A54 240V 50Hz	22116755	151	54	105-144	0,55	60	10,0	0,430	0,46	4,0	0,22	–
38	1047	26	EC 40 A54 240V 50Hz	22116755	151	54	105-144	0,55	60	10,0	0,430	0,47	4,0	0,23	–
U40	409	30	EC 40 A54 240V 50Hz	22116755	151	54	105-144	0,55	60	10,0	0,430	0,49	4,0	0,23	–
$\phi 40$	$\phi 410$	26	EC 40 A54 240V 50Hz	22116755	151	54	105-144	0,55	55	9,5	0,415	0,50	4,0	0,23	–
$\phi 40$	$\phi 410$	38	EC 40 A54 240V 50Hz	22116755	151	54	105-144	0,55	55	9,5	0,415	0,50	4,0	0,23	–

① mean value, measured at 25°C copper temperature

② lamp current, measured in parallel connection

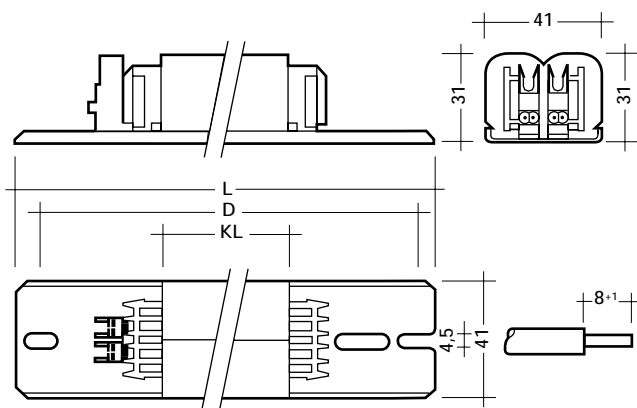
* $\cos \phi > 0,9$



T8 26 mm
T12 38 mm

Magnetic chokes Linear lamps, T8 26 mm, T12 38 mm

EC 58-70 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
KL 90 mm
5 off, banded
1 000 pieces/pallet

Certified:
• EN 60920/921

KL 100 mm
5 off, banded
1 000 pieces/pallet

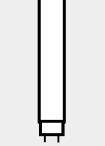
Wiring:
Page 50



Lamp			Choke										P. F. Correction		
watt-age W	length mm	dia-meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W @/EEL	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
58	1500	26	EC 65 A90 230V 50Hz	22116768	191	90	170–184	0,85	50	EEL = C	0,670	0,48	7,0	0,32	5,3 / 450V
U65	765	38	EC 65 A90 230V 50Hz	22116768	191	90	170–184	0,85	50	12,0	0,670	0,50	7,0	0,32	5,3 / 450V
70	1800	26	EC 70 B101K 230V 50Hz	22116796	191	100	170–184	0,97	40	EEL = B1	0,700	0,52	6,0	0,38	–
75	1800	38	EC 70 B101K 230V 50Hz	22116796	191	100	170–184	0,97	40	9,7	0,670	0,55	6,0	0,39	–

① mean value, measured at 25°C copper temperature

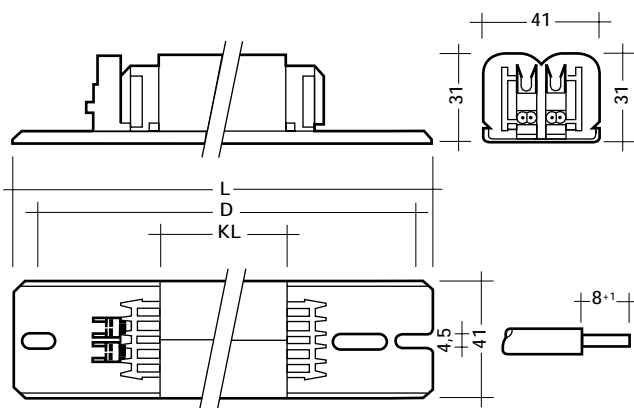
* $\cos \varphi > 0,9$



T8 26 mm
T12 38 mm

Magnetic chokes
Linear lamps, T8 26 mm, T12 38 mm

EC 58-70 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
KL 90 mm
5 off, banded
1 000 pieces/pallet

Certified:
• EN 60920/921

KL 100 mm
5 off, banded
1 000 pieces/pallet

Wiring:
Page 50



Lamp			Choke										P. F. Correction		
watt-age W	length mm	dia-meter mm	type	article number	length L mm	core stack length KL mm	fixing centres mm	weight kg	ΔT K	losses W @/EEI	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
58	1500	26	EC 65 A90 240V 50Hz	22116774	191	90	170–184	0,85	55	13,1	0,670	0,46	6,0	0,33	–
65	1500	38	EC 65 A90 240V 50Hz	22116774	191	90	170–184	0,85	55	13,1	0,670	0,46	6,0	0,36	–
U65	765	38	EC 65 A90 240V 50Hz	22116774	191	90	170–184	0,85	55	13,1	0,670	0,51	6,0	0,36	–
70	1800	26	EC 70 B102K 240V 50Hz	22116824	191	100	170–184	0,97	45	10,3	0,700	0,50	6,0	0,36	–
75	1800	38	EC 70 B102K 240V 50Hz	22116824	191	100	170–184	0,97	45	10,0	0,670	0,56	6,0	0,38	–

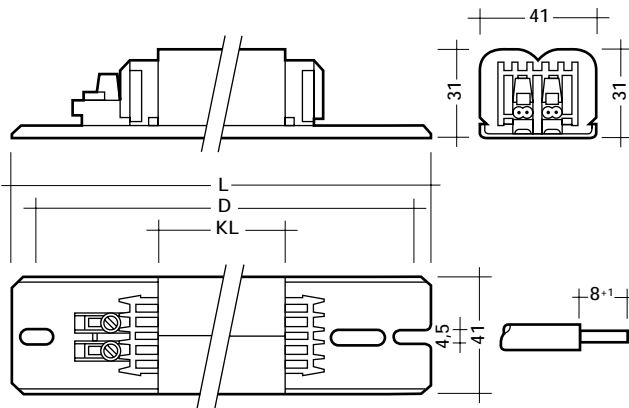
① mean value, measured at 25°C copper temperature

* $\cos \phi > 0,9$

EEI = C

Magnetic chokes
Linear lamps, T12 38 mm

EC 80-125 W 230 V 50 Hz



- EN 60920/921
- $t_w = 130^\circ\text{C}$
- push terminal 0,5–1,5 mm²

Packaging:
 5 off, banded
 600 pieces/pallet

Certified:
 • EN 60920/921

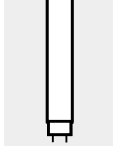
Wiring:
 Page 50



Lamp			Choke										P. F. Correction		
watt- age W	length mm	dia- meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W $\text{\textcircled{1}}$ /EEI	nominal lamp current A	λ	parallel compensation		series comp.
													capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	capacitor $\mu\text{F} \pm 4\%$
80	1500	38	EC 80/85 C140 230V 50Hz	24076758	231	140	210–224	1,30	45	13,4	0,870	0,46	8,0	0,46	–
85	1800	38	EC 80/85 C140 230V 50Hz	24076758	231	140	210–224	1,30	40	11,4	0,800	0,53	8,0	0,47	–
125	2400	38	EC 125 A140 230/240V 50Hz	24076641	231	140	210–224	1,30	55	14,5	0,940	0,62c	–	–	7,6 / 440V $\text{\textcircled{2}}$

$\text{\textcircled{1}}$ mean value, measured at 25°C copper temperature

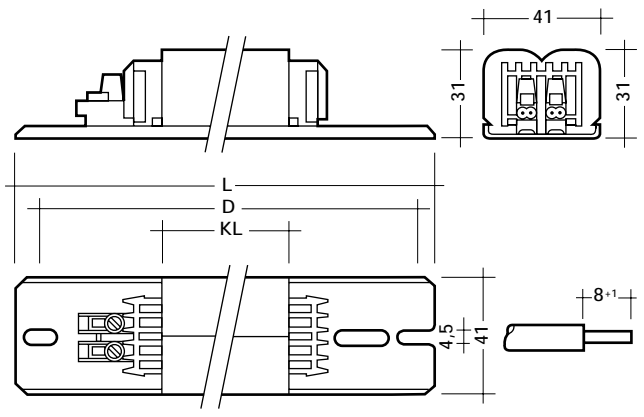
* $\cos \varphi > 0,9$



T12 38 mm

Magnetic chokes
Linear lamps, T12 38 mm

EC 100-125 W 240 V 50 Hz



- EN 60920/921
- $t_w = 130^{\circ}\text{C}$
- push terminal 0,5–1,5 mm²

Packaging:
5 off, banded
600 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 50



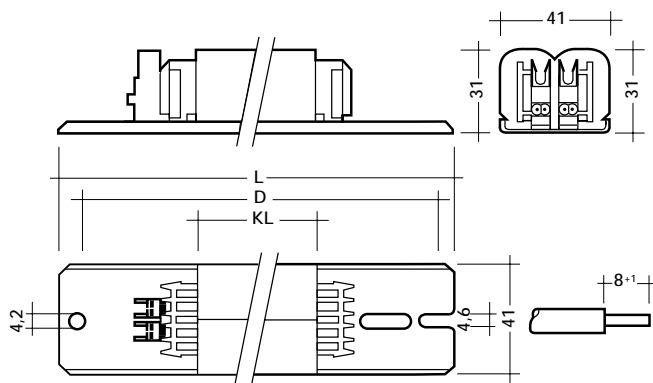
Lamp			Choke										P. F. Correction		
watt- age W	length mm	dia- meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W $\text{\textcircled{D}}/\text{EEI}$	nominal lamp current A	λ	parallel compensation		series comp.
													capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	capacitor $\mu\text{F} \pm 4\%$
100	1800	38	EC 100 A140 240V 50Hz	24076635	231	140	210–224	1,3	60	16,4	0,980	0,51	10,0	0,50	–
100	2400	38	EC 100 A140 240V 50Hz	24076635	231	140	210–224	1,3	60	15,8	0,960	0,50	8,4	0,53	–
125	2400	38	EC 125 A140 230/240V 50Hz	24076641	231	140	210–224	1,3	55	14,5	0,940	0,60c	–	–	7,2 / 440V

$\text{\textcircled{D}}$ mean value, measured at 25°C copper temperature
* $\cos \varphi > 0,9$



Magnetic chokes
Linear lamps, T8 26 mm

EC 18-58 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
KL 54 mm
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

KL 90 mm
5 off, banded
1 000 pieces/pallet

Wiring:
Page 50

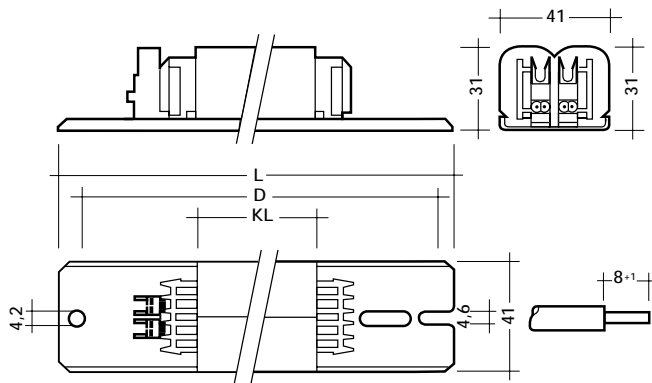


Lamp			Choke										P. F. Correction		
watt- age W	length mm	dia- meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W @/EEI	nominal lamp current A	λ	parallel compensation		series comp.
													capacitor $\mu\text{F} \pm 10\%$ 250V	* line current A	capacitor $\mu\text{F} \pm 4\%$
18	590	26	EC 18 LC501K 230V 50Hz	22115859	151	54	140	0,55	55	EEI = B2	0,370	0,32	4,5	0,13	2,7/480V
2x18	590	26	EC 36 LC501K 230V 50Hz	22115862	151	54	140	0,55	55	EEI = B2	0,410 ^②	0,42	4,5	0,22	3,4/450V
23	970	26	EC 18 LC501K 230V 50Hz	22115859	151	54	140	0,55	45	6,0	0,290	0,43	3,0	0,14	2,4/450V
36	1200	26	EC 36 LC501K 230V 50Hz	22115862	151	54	140	0,55	55	EEI = B2	0,430	0,46	4,5	0,22	3,4/450V
38	1047	26	EC 36 LC501K 230V 50Hz	22115862	151	54	140	0,55	60	EEI = B2	0,430	0,49	4,5	0,23	3,4/450V
58	1500	26	EC 58 C501K 230V 50Hz	22115907	191	90	180	0,85	50	EEI = B2	0,670	0,47	7	0,32	5,3/480V

① mean value, measured at 25°C copper temperature
 ② lamp current, measured in parallel connection
 * $\cos \varphi > 0,9$

Magnetic chokes
Linear lamps, T8 26 mm

EC 18-58 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
KL 50 mm
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

KL 90 mm
5 off, banded
1 000 pieces/pallet

Wiring:
Page 50



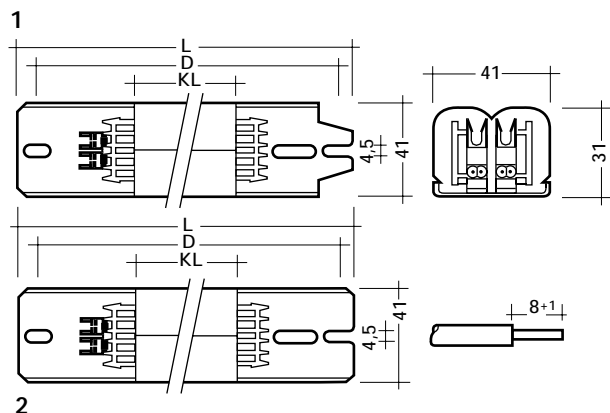
Lamp			Choke										P. F. Correction			
watt- age W	length mm	dia- meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W @/EEI	nominal lamp current A	λ	parallel compensation		series comp.	
													capacitor $\mu\text{F} \pm 10\%$ 250V	* line current A	capacitor $\mu\text{F} \pm 4\%$	
18	590	26	EC 18 A502K 240V 50Hz	22115884	151	50	140	0,50	55	9,9	0,370	0,33	4,0	0,13	–	
2x18	590	26	EC 36 A502K 240V 50Hz	22115890	151	50	140	0,50	55	7,5	0,370	0,51	4,0	0,21	–	
23	970	26	EC 18 A502K 240V 50Hz	22115884	151	50	140	0,50	45	6,5	0,290	0,42	3,5	0,13	–	
36	1200	26	EC 36 A502K 240V 50Hz	22115890	151	50	140	0,50	60	9,5	0,430	0,46	4,0	0,22	–	
38	1047	26	EC 36 A502K 240V 50Hz	22115890	151	50	140	0,50	60	10,0	0,430	0,47	4,0	0,23	–	
58	1500	26	EC 58 A502K 240V 50Hz	22115878	191	90	180	0,85	55	13,1	0,670	0,46	6,0	0,33	–	

① mean value, measured at 25°C copper temperature
* $\cos \phi > 0,9$



Low loss chokes
Linear lamps, T8 26 mm

EC 8-58 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging: KL 50 mm
5 off, banded
1 400 pieces/pallet

Wiring: Page 50
Certified:
• EN 60920/921

KL 54 mm
5 off, banded
1 400 pieces/pallet

KL 90 mm
5 off, banded
1 000 pieces/pallet



Lamp		Choke											P. F. Correction			
watt-age W	length mm	diameter mm	type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W $\text{\textcircled{D}}$ /EEI	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\%$ 250V	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
15	438	26	EC 15 C101K 230V 50Hz	22118372	2	151	50	105–144	0,50	50	EEI = B2	0,310	0,33	4,5	0,12	–
15	438	26	EC 15 LC101K 230V 50Hz	22118463	1	151	54	105–144	0,55	50	EEI = B2	0,310	0,33	4,5	0,12	–
2x15	438	26	EC 30 C101K 230V 50Hz	22118394	2	151	50	105–144	0,50	60	7,6	0,350 ^{\textcircled{2}}}	0,45	4,5	0,18	2,9/450V
2x15	438	26	EC 30 LC101K 230V 50Hz	22118479	1	151	54	105–144	0,55	60	7,5	0,350 ^{\textcircled{2}}}	0,45	4,5	0,18	2,9/450V
18	590	26	EC 18 LC101K 230V 50Hz	22117430	1	151	54	105–144	0,55	55	EEI = B2	0,370	0,32	4,5	0,13	2,7/480V
23	970	26	EC 18 LC101K 230V 50Hz	22117430	1	151	54	105–144	0,55	45	6,0	0,290	0,43	3,0	0,14	2,4/450V
30	895	26	EC 30 C101K 230V 50Hz	22118394	2	151	50	105–144	0,50	50	EEI = B2	0,365	0,47	4,5	0,17	2,9/450V
30	895	26	EC 30 LC101K 230V 50Hz	22118479	1	151	54	105–144	0,55	45	EEI = B2	0,365	0,47	4,5	0,17	2,9/450V
36	1200	26	EC 36 LC101K 230V 50Hz	22116931	1	151	54	105–144	0,55	55	EEI = B2	0,430	0,46	4,5	0,22	3,4/450V
38	1047	26	EC 36 LC101K 230V 50Hz	22116931	1	151	54	105–144	0,55	50	EEI = B2	0,430	0,49	4,5	0,23	3,4/450V
58	1500	26	EC 58 C101K 230V 50Hz	22116953	2	191	90	170–184	0,85	50	EEI = B2	0,670	0,47	7,0	0,32	5,3/480V

^{\textcircled{1}} mean value, measured according to DKE
^{\textcircled{2}} lamp current, measured in parallel connection
 * $\cos \phi > 0,9$

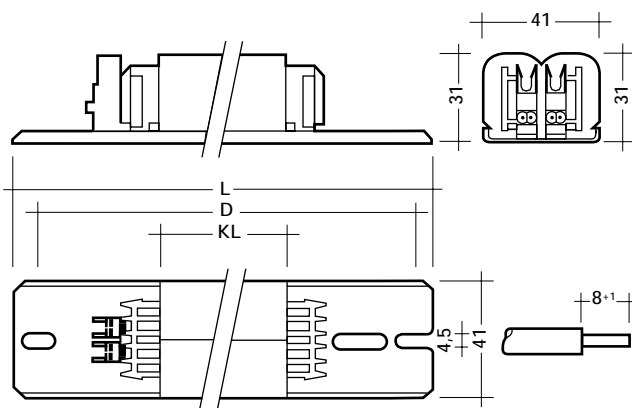


T8 26 mm
30 mm
T12 38 mm

Low loss chokes

Linear lamps, T8 26 mm, 30 mm, T12 38 mm

EC 18-75 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
KL 90 mm
5 off, banded
1 000 pieces/pallet

Wiring:
Page 50

Certified:
• EN 60920/921

KL 100 mm
5 off, banded
1 000 pieces/pallet

KL 140 mm
5 off, banded
600 pieces/pallet



Lamp		Choke										P. F. Correction			
watt- age W	length mm	dia- meter mm	type	article number	length L mm	KL mm	fixing centres D mm	weight kg	ΔT K	losses W ①/EEI	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
18	590	26	EC 20 B90 240V 50Hz	22118523	191	90	170–184	0,85	30	8,5	0,370	0,29	4,0	0,12	–
2x18	590	26	EC 40 B90 240V 50Hz	22118517	191	90	170–184	0,85	30	5,7	0,410②	0,45	4,0	0,19	–
20	590	38	EC 20 B90 240V 50Hz	22118523	191	90	170–184	0,85	30	6,5	0,370	0,30	4,0	0,13	–
2x20	590	38	EC 40 B90 240V 50Hz	22118517	191	90	170–184	0,85	30	5,7	0,410	0,47	4,0	0,20	–
23	970	38	EC 20 B90 240V 50Hz	22118523	191	90	170–184	0,85	25	4,2	0,290	0,38	3,5	0,12	–
36	1200	26	EC 40 B90 240V 50Hz	22118517	191	90	170–184	0,85	35	6,3	0,430	0,41	4,0	0,20	–
38	1047	26	EC 40 B90 240V 50Hz	22118517	191	90	170–184	0,85	35	6,3	0,430	0,44	4,0	0,21	–
40	1200	38	EC 40 B90 240V 50Hz	22118517	191	90	170–184	0,85	35	6,3	0,430	0,47	4,0	0,22	–
U40	607	38	EC 40 B90 240V 50Hz	22118517	191	90	170–184	0,85	35	6,3	0,430	0,45	4,0	0,22	–
$\phi 40$	$\phi 409$	30	EC 40 B90 240V 50Hz	22118517	191	90	170–184	0,85	30	5,8	0,415	0,46	4,0	0,22	–
58	1500	26	EC 65 B140 240V 50Hz	24076571	231	140	210–224	1,3	30	9,2	0,670	0,44	6,0	0,33	–
65	1500	38	EC 65 B140 240V 50Hz	24076571	231	140	210–224	1,3	30	9,2	0,670	0,48	6,0	0,34	–
U65	765	38	EC 65 B140 240V 50Hz	24076571	231	140	210–224	1,3	30	9,2	0,670	0,48	6,0	0,34	–
70	1800	26	EC 70 B102K 240V 50Hz	22116824	191	100	170–184	0,97	45	10,3	0,700	0,50	6,0	0,36	–
75	1800	38	EC 70 B102K 240V 50Hz	22116824	191	100	170–184	0,97	45	10,0	0,670	0,56	6,0	0,38	–

- ① mean value, measured according to DKE
 ② lamp current, measured in parallel connection
 * $\cos \phi > 0,9$

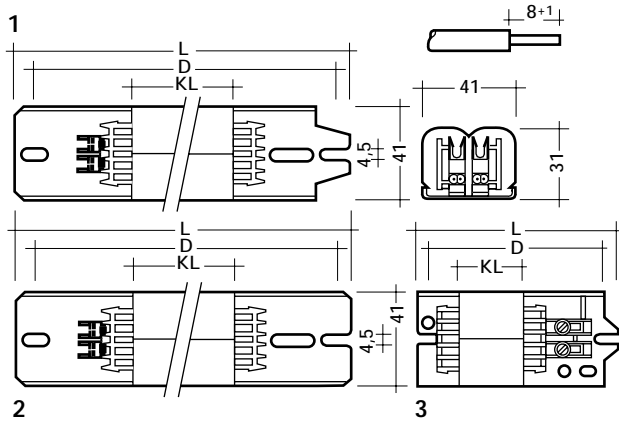


Super low loss chokes

Linear lamps, T5 16 mm, 26 mm, 30 mm, T12 38 mm

EC 8-65 W 230 V 50 Hz

T5 16 mm
26 mm
30 mm
T12 38 mm



- $t_w = 130^\circ\text{C}$
- push terminal $0,5\text{--}1,5\text{ mm}^2$ (fig. 3)
- ConCut – IDC terminals $0,5\text{--}1,5\text{ mm}^2$
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging: KL 90 mm 5 off, banded
KL 27 mm 5 off, banded
5 off, banded
2 200 pieces/pallet

Certified:
• EN 60920/921

KL 140 mm 5 off, banded
KL 50 mm 5 off, banded
1 400 pieces/pallet

KL 54 mm 5 off, banded
1 400 pieces/pallet

Wiring:
Page 50

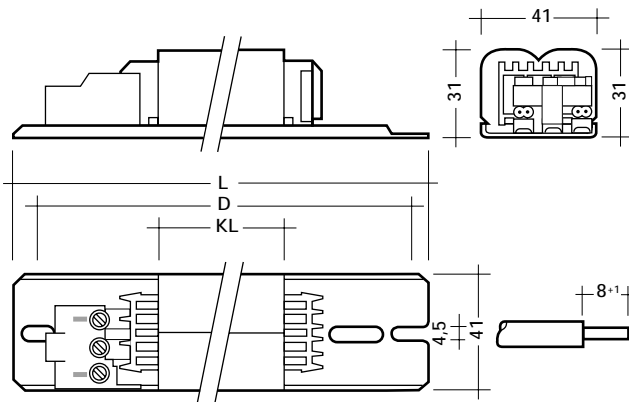


Lamp		Choke											P. F. Correction			
watt- age W	length mm	dia- meter mm	type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W $\text{\textcircled{D}}$ /EEI	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\%$ 250V	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
2x8	288	16	EC 13 B27 230V 50Hz	22116351	3	84,5	27	74–80	0,30	55	5,5	0,170 $\text{\textcircled{2}}$	0,55	2,0	0,09	–
10	470	26	EC 13 B27 230V 50Hz	22116351	3	84,5	27	74–80	0,30	55	5,5	0,170	0,37	2,0	0,07	–
13	517	16	EC 13 B27 230V 50Hz	22116351	3	84,5	27	74–80	0,30	55	4,4	0,165	0,46	2,0	0,08	–
2x15	438	26	EC 22/30 B90 230V 50Hz	22118539	2	191	90	170–184	0,85	35	5,4	0,350 $\text{\textcircled{2}}$	0,30	4,5	0,18	2,9/450V
2x15	438	26	EC 30 B101K 230V 50Hz	22118485	1	151	54	105–144	0,55	60	7,4	0,350 $\text{\textcircled{2}}$	0,44	4,5	0,18	2,9/450V
16	720	26	EC 16 B27 230V 50Hz	20821698	3	84,5	27	74–80	0,30	45	4,4	0,200	0,44	2,0	0,09	–
18	590	26	EC 20 B90 230V 50Hz	22118545	2	191	90	170–184	0,85	35	EEI = B1	0,370	0,30	4,5	0,13	2,7/480V
2x18	590	26	EC 40 B90 230V 50Hz	22118551	2	191	90	170–184	0,85	30	5,8	0,410 $\text{\textcircled{2}}$	0,45	4,5	0,22	3,4/450V
23	970	26	EC 20 B90 230V 50Hz	22118545	2	191	90	170–184	0,85	30	5,3	0,290	0,40	3,0	0,14	2,4/450V
30	895	26	EC 22/30 B90 230V 50Hz	22118539	2	191	90	170–184	0,85	35	EEI = B1	0,365	0,30	4,5	0,17	2,9/450V
30	895	26	EC 30 B101K 230V 50Hz	22118485	1	151	54	130–144	0,55	45	EEI = B1	0,365	0,44	4,5	0,17	2,9/450V
36	1200	26	EC 40 B90 230V 50Hz	22118551	2	191	90	170–184	0,85	30	EEI = B1	0,430	0,43	4,5	0,22	3,4/450V
U40	607	38	EC 40 B90 230V 50Hz	22118551	2	191	90	170–184	0,85	30	6,0	0,430	0,45	4,5	0,24	3,4/450V
$\phi 40$	409	30	EC 40 B90 230V 50Hz	22118551	2	191	90	170–184	0,85	30	6,0	0,415	0,43	4,5	0,24	3,4/450V
58	1500	26	EC 65 B140 230V 50Hz	24076524	2	231	140	210–224	1,30	30	EEI = B1	0,670	0,45	7,0	0,32	5,3/480V
U65	765	38	EC 65 B140 230V 50Hz	24076524	2	231	140	210–224	1,30	30	8,3	0,670	0,49	7,0	0,32	5,3/480V

$\text{\textcircled{1}}$ mean value, measured according to DKE
 $\text{\textcircled{2}}$ lamp current, measured in parallel connection
 * $\cos \phi > 0,9$

Low loss chokes with reinforced insulation and protection Linear lamps, T8 26 mm

EC 18–58 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- push terminal 0,5–1,5 mm²
- non-resettable protection
- switch off temperature 150°C

Packaging:
KL 54 mm
Box of 32
1 152 pieces/pallet

Wiring:
Page 50

Certified:
• EN 60920/921

KL 60 mm
Box of 32
1 152 pieces/pallet

KL 90 mm
Box of 22
792 pieces/pallet



Lamp			Choke										P. F. Correction		
watt- age W	length mm	dia- meter mm	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W @ EEI	nominal lamp current A	λ	parallel compensation		series comp.
													capacitor $\mu\text{F} \pm 10\%$ 250V	* line current A	capacitor $\mu\text{F} \pm 4\%$
18	590	26	EC 18 C201B 230V 50Hz	20887486	151	54	105–144	0,55	60	EEI = B2	0,370	0,35	4,5	0,13	2,7/480V
23	970	26	EC 18 C201B 230V 50Hz	20887486	151	54	105–144	0,55	50	EEI = B2	0,290	0,42	3,0	0,14	2,4/450V
36	1200	26	EC 36 C201B 230V 50Hz	20887492	151	60	105–144	0,60	60	EEI = B2	0,430	0,46	4,5	0,22	3,4/450V
38	1047	26	EC 36 C201B 230V 50Hz	20887492	151	60	105–144	0,60	60	EEI = B2	0,430	0,46	4,5	0,23	3,4/450V
58	1500	26	EC 58 C201B 230V 50Hz	20887509	191	90	170–184	0,90	50	EEI = B2	0,670	0,47	7,0	0,32	5,3/480V

* $\cos \varphi > 0,9$

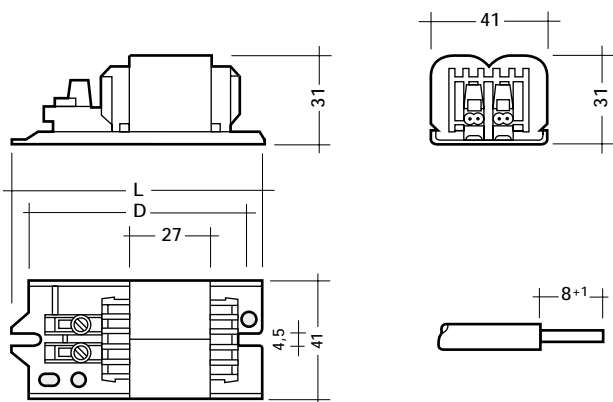


TC-D
TC-DD
TC-S



Magnetic chokes Compact lamps, TC-D, TC-DD, TC-S

EC 5-18 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- push terminal 0,5-1,5 mm²

Packaging:
5 off, banded
2 200 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52

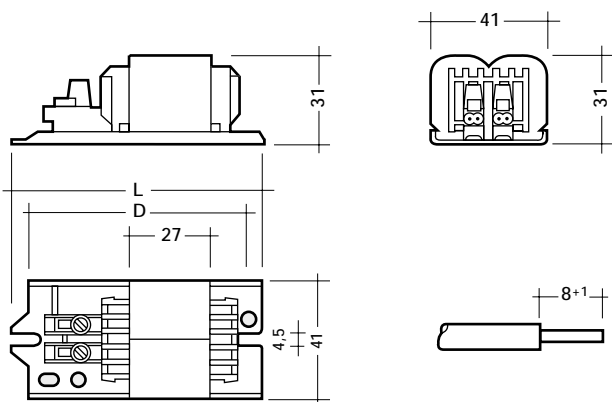


Lamp		Choke											P. F. Correction	
wattage	type	type	article number	length	core stack length	fixing centres	weight	ΔT	losses	nominal lamp current	λ	parallel compensation		
W				L mm	KL mm	D mm	kg	K	W ①	current A		capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	
5	TC-S	EC 09 A27 230V 50Hz	20563005	84,5	27	74-80	0,3	50	5,0	0,180	0,28	2,0	0,05	
7	TC-S	EC 09 A27 230V 50Hz	20563005	84,5	27	74-80	0,3	50	5,0	0,180	0,32	2,0	0,05	
2x7	TC-S	EC 13 A27 230V 50Hz	20563014	84,5	27	74-80	0,3	40	4,2	0,170②	0,47	2,0	0,08	
9	TC-S	EC 09 A27 230V 50Hz	20563005	84,5	27	74-80	0,3	50	4,5	0,170	0,36	2,0	0,06	
2x9	TC-S	EC 13 A27 230V 50Hz	20563014	84,5	27	74-80	0,3	35	3,7	0,160②	0,58	1,5	0,08	
10	TC-D	EC 13 A27 230V 50Hz	20563014	84,5	27	74-80	0,3	50	EEL = C	0,190	0,37	2,0	0,07	
10	TC-DD	EC 13 A27 230V 50Hz	20563014	84,5	27	74-80	0,3	50	EEL = C	0,180	0,39	2,0	0,07	
11	TC-S	EC 09 A27 230V 50Hz	20563005	84,5	27	74-80	0,3	40	3,7	0,155	0,47	2,0	0,07	
13	TC-D	EC 13 A27 230V 50Hz	20563014	84,5	27	74-80	0,3	40	EEL = C	0,165	0,47	2,0	0,08	
16	TC-DD	EC 16 A27 230V 50Hz	20563020	84,5	27	74-80	0,3	45	EEL = C	0,195	0,48	2,0	0,10	
18	TC-D	EC 18 A27 230V 50Hz	20563036	84,5	27	74-80	0,3	55	EEL = C	0,220	0,49	2,0	0,11	

- ① mean value, measured according to DKE
 ② lamp current, measured in parallel connection
 * $\cos \phi > 0,9$

Magnetic chokes
Compact lamps, TC-D, TC-DD, TC-S

EC 5-18 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- push terminal 0,5-1,5 mm²

Packaging:
5 off, banded
2 200 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52



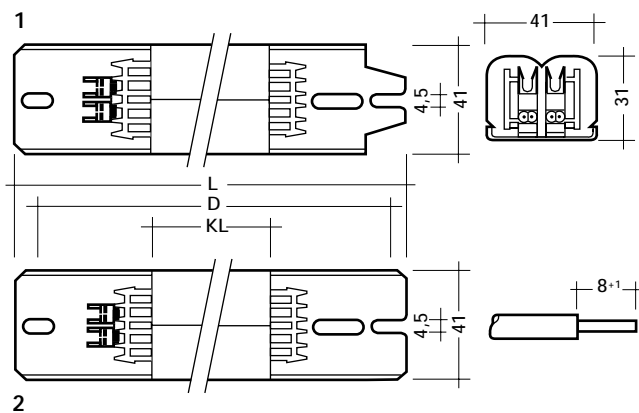
Lamp		Choke										P. F. Correction	
wattage	type	type	article number	length	core stack length	fixing centres	weight	ΔT	losses	nominal lamp current	λ	parallel compensation	
W				L mm	KL mm	D mm	kg	K	W ^①	current A		capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A
5	TC-S	EC 09 A27 240V 50Hz	20294646	27	84,5	74-80	0,3	60	5,8	0,180	0,28	2,0	0,05
7	TC-S	EC 09 A27 240V 50Hz	20294646	27	84,5	74-80	0,3	55	5,4	0,175	0,31	2,0	0,05
2x7	TC-S	EC 13 A27 240V 50Hz	20294719	27	84,5	74-80	0,3	40	4,8	0,175	0,45	2,0	0,08
9	TC-S	EC 09 A27 240V 50Hz	20294646	27	84,5	74-80	0,3	50	5,0	0,170	0,36	2,0	0,06
2x9	TC-S	EC 13 A27 240V 50Hz	20294719	27	84,5	74-80	0,3	35	4,6	0,170	0,52	2,0	0,08
10	TC-D	EC 13 A27 240V 50Hz	20294719	27	84,5	74-80	0,3	50	5,5	0,190	0,34	2,0	0,07
10	TC-DD	EC 13 A27 240V 50Hz	20294719	27	84,5	74-80	0,3	45	4,9	0,180	0,36	2,0	0,06
11	TC-S	EC 09 A27 240V 50Hz	20294646	27	84,5	74-80	0,3	40	4,4	0,155	0,44	2,0	0,07
13	TC-D	EC 13 A27 240V 50Hz	20294719	27	84,5	74-80	0,3	40	4,8	0,175	0,45	2,0	0,08
16	TC-DD	EC 16 A27 240V 50Hz	20294652	27	84,5	74-80	0,3	50	5,3	0,195	0,46	2,0	0,09
18	TC-D	EC 18 A27 240V 50Hz	20305399	27	84,5	74-80	0,3	55	6,2	0,220	0,46	2,0	0,10

① mean value, measured according to DKE
 ② lamp current, measured in parallel connection
 * $\cos \phi > 0,9$



Magnetic chokes
Compact lamps, TC-D, TC-DD, TC-L

EC 18-38 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52



Lamp		Choke											P. F. Correction		
watt-age W	type	type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W ϕ /EEI	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\%$ 250V	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
18	TC-L	EC 20 A50 230V 50Hz	22116689	2	151	50	105-144	0,50	60	EEI = C	0,370	0,35	4,5	0,13	2,7/480V
2x18	TC-L	EC 40 A50 230V 50Hz	22116727	2	151	50	105-144	0,50	50	8,5	0,400 ^②	0,48	4,5	0,20	3,4/450V
24	TC-L	EC 20 A50 230V 50Hz	22116689	2	151	50	105-144	0,50	50	EEI = C	0,345	0,43	3,0	0,14	2,5/450V
26	TC-D	EC 20 A50 230V 50Hz	22116689	2	151	50	105-144	0,50	45	EEI = C	0,325	0,47	3,0	0,15	2,5/450V
28	TC-DD	EC 20 A50 230V 50Hz	22116689	2	151	50	105-144	0,50	45	EEI = C	0,320	0,49	3,0	0,15	-
34	TC-L	EC 40 A50 230V 50Hz	22116727	2	151	50	105-144	0,50	55	9,4	0,430	0,49	4,5	0,20	-
36	TC-L	EC 40 A50 230V 50Hz	22116727	2	151	50	105-144	0,50	55	EEI = C	0,430	0,49	4,5	0,22	3,4/450V
38	TC-DD	EC 40 A50 230V 50Hz	22116727	2	151	50	105-144	0,50	55	EEI = C	0,430	0,48	4,5	0,23	-

Lamp		Choke											P. F. Correction		
watt-age W	type	type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W ϕ /EEI	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\%$ 250V	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
18	TC-L	EC 20 A54 230V 50Hz	22116702	1	151	54	105-144	0,55	55	EEI = C	0,370	0,32	4,5	0,13	2,7/480V
2x18	TC-L	EC 40 A54 230V 50Hz	22116749	1	151	54	105-144	0,55	45	8,0	0,400 ^②	0,48	4,5	0,20	3,4/450V
24	TC-L	EC 20 A54 230V 50Hz	22116702	1	151	54	105-144	0,55	50	EEI = C	0,345	0,42	3,0	0,14	2,5/450V
26	TC-D	EC 20 A54 230V 50Hz	22116702	1	151	54	105-144	0,55	45	EEI = C	0,325	0,46	3,0	0,15	2,5/450V
28	TC-DD	EC 20 A54 230V 50Hz	22116702	1	151	54	105-144	0,55	40	EEI = C	0,320	0,48	3,0	0,15	-
34	TC-L	EC 40 A54 230V 50Hz	22116749	1	151	54	105-144	0,55	55	9,2	0,430	0,47	4,5	0,20	-
36	TC-L	EC 40 A54 230V 50Hz	22116749	1	151	54	105-144	0,55	55	EEI = C	0,430	0,49	4,5	0,22	3,4/450V
38	TC-DD	EC 40 A54 230V 50Hz	22116749	1	151	54	105-144	0,55	55	EEI = C	0,430	0,43	4,5	0,23	-

① mean value, measured at 25°C copper temperature
 ② lamp current, measured in parallel connection
 * $\cos \phi > 0,9$

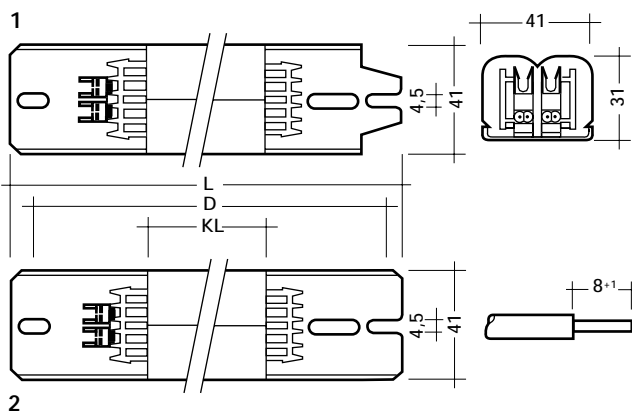


TC-D
TC-DD
TC-L

Magnetic chokes

Compact lamps, TC-D, TC-DD, TC-L

EC 18–38 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52



Lamp		Choke											P. F. Correction		
watt-age W	type	type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W $\text{\textcircled{D}}/\text{EEI}$	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
18	TC-L	EC 20 A50 240V 50Hz	22116695	2	151	50	130–144	0,5	60	10,1	0,375	0,33	4,0	0,12	–
2x18	TC-L	EC 40 A50 240V 50Hz	22116733	2	151	50	130–144	0,5	50	8,8	0,400 $\text{\textcircled{2}}$	0,49	4,0	0,20	–
24	TC-L	EC 20 A50 240V 50Hz	22116695	2	151	50	130–144	0,5	50	8,7	0,345	0,42	3,5	0,14	–
26	TC-D	EC 20 A50 240V 50Hz	22116695	2	151	50	130–144	0,5	45	7,6	0,325	0,44	3,5	0,14	–
28	TC-DD	EC 20 A50 240V 50Hz	22116695	2	151	50	130–144	0,5	40	7,5	0,320	0,48	3,5	0,15	–
34	TC-L	EC 40 A50 240V 50Hz	22116733	2	151	50	130–144	0,5	55	9,8	0,430	0,45	4,0	0,19	–
36	TC-L	EC 40 A50 240V 50Hz	22116733	2	151	50	130–144	0,5	60	10,0	0,425	0,46	4,0	0,20	–
38	TC-DD	EC 40 A50 240V 50Hz	22116733	2	151	50	130–144	0,5	60	9,8	0,430	0,48	4,0	0,20	–

Lamp		Choke											P. F. Correction		
watt-age W	type	type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W $\text{\textcircled{D}}/\text{EEI}$	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
18	TC-L	EC 20 A54 240V 50Hz	22116711	1	151	54	130–144	0,55	60	10,3	0,375	0,33	4,0	0,12	–
2x18	TC-L	EC 40 A54 240V 50Hz	22116755	1	151	54	130–144	0,55	50	8,3	0,400 $\text{\textcircled{2}}$	0,46	4,0	0,20	–
24	TC-L	EC 20 A54 240V 50Hz	22116711	1	151	54	130–144	0,55	50	8,8	0,345	0,42	3,5	0,14	–
26	TC-D	EC 20 A54 240V 50Hz	22116711	1	151	54	130–144	0,55	45	7,8	0,325	0,44	3,5	0,14	–
28	TC-DD	EC 20 A54 240V 50Hz	22116711	1	151	54	130–144	0,55	45	7,4	0,320	0,48	3,5	0,15	–
34	TC-L	EC 40 A54 240V 50Hz	22116755	1	151	54	130–144	0,55	55	9,5	0,430	0,44	4,0	0,19	–
36	TC-L	EC 40 A54 240V 50Hz	22116755	1	151	54	130–144	0,55	60	10,2	0,435	0,47	4,0	0,20	–
38	TC-DD	EC 40 A54 240V 50Hz	22116755	1	151	54	130–144	0,55	55	10,0	0,430	0,48	4,0	0,20	–

① mean value, measured at 25°C copper temperature

② lamp current, measured in parallel connection

* $\cos \phi > 0,9$



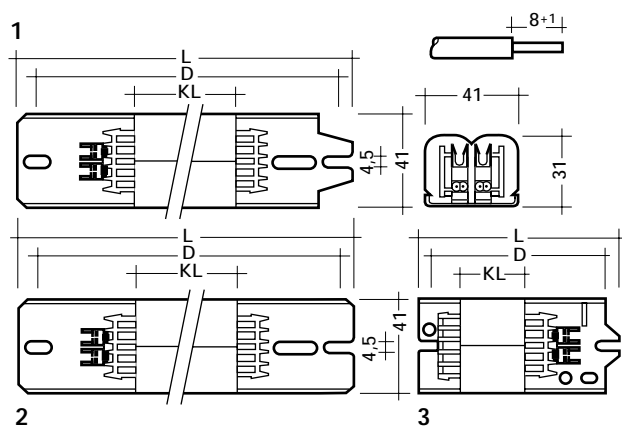
TC-D
TC-DD
TC-L

EEI = B2

Low loss chokes

Compact lamps, TC-D, TC-DD, TC-L

EC 18–36 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52

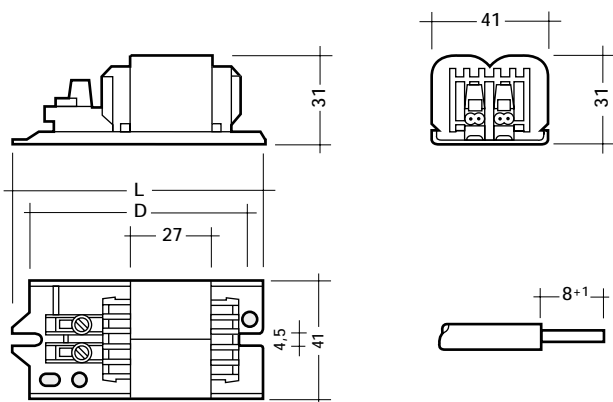


Lamp		Choke											P. F. Correction		
watt- age W	type	type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W ①/EEI	nominal lamp current A	λ	parallel compensation		series comp.
													capacitor $\mu\text{F} \pm 10\%$ 250V	* line current A	capacitor $\mu\text{F} \pm 4\%$
18	TC-L	EC 18 LC101K 230V 50Hz	22117430	1	151	54	105–144	0,55	55	EEI = B2	0,370	0,33	4,5	0,13	2,7/480V
2x18	TC-L	EC 36 LC101K 230V 50Hz	22116931	1	151	54	105–144	0,55	55	9,2	0,400②	0,44	4,5	0,20	3,4/450V
21	TC-DD	EC 21 C101K 230V 50Hz	22118388	3	115	50	104–110	0,50	35	EEI = B2	0,260	0,42	3,0	0,11	–
24	TC-L	EC 18 LC101K 230V 50Hz	22117430	1	151	54	105–144	0,55	50	EEI = B2	0,345	0,42	3,0	0,14	2,7/480V
24	TC-L	EC 26 C101K 230V 50Hz	22117374	3	110	54	100–104	0,55	40	EEI = B2	0,345	0,42	3,0	0,14	2,7/480V
26	TC-D	EC 26 C101K 230V 50Hz	22117374	3	110	54	100–104	0,55	40	EEI = B2	0,325	0,42	3,0	0,15	2,5/450V
28	TC-DD	EC 18 LC101K 230V 50Hz	22117430	1	151	54	105–144	0,55	45	EEI = B2	0,320	0,49	3,0	0,15	–
36	TC-L	EC 36 LC101K 230V 50Hz	22116931	1	151	54	105–144	0,55	55	EEI = B2	0,430	0,44	4,5	0,22	3,4/450V

- ① mean value, measured according to DKE
 ② lamp current, measured in parallel connection
 * $\cos \varphi > 0,9$

Super low loss chokes
Compact lamps, TC-D, TC-DD, TC-S

EC 5-18 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- push terminal 0,5-1,5 mm²

Packaging:
5 off, banded
2 200 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52



Lamp		Choke										P. F. Correction	
wattage	type	type	article number	length	core stack length	fixing centres	weight	ΔT	losses	nominal lamp current	λ	parallel compensation	
W				L mm	KL mm	D mm	kg	K	W ①	current A		capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A
5	TC-S	EC 09 B27 230V 50Hz	20821657	84,5	27	74-80	0,30	40	4,6	0,180	0,25	2,0	0,05
7	TC-S	EC 09 B27 230V 50Hz	20821657	84,5	27	74-80	0,30	40	4,4	0,180	0,30	2,0	0,05
2x7	TC-S	EC 13 B27 230V 50Hz	22116351	84,5	27	74-80	0,30	40	4,1	0,170②	0,45	2,0	0,07
9	TC-S	EC 09 B27 230V 50Hz	20821657	84,5	27	74-80	0,30	35	4,2	0,170	0,34	2,0	0,06
2x9	TC-S	EC 13 B27 230V 50Hz	22116351	84,5	27	74-80	0,30	40	4,0	0,160②	0,55	1,5	0,09
10	TC-D	EC 13 B27 230V 50Hz	22116351	84,5	27	74-80	0,30	45	EEI = B2	0,190	0,33	2,0	0,06
10	TC-DD	EC 13 B27 230V 50Hz	22116351	84,5	27	74-80	0,30	40	EEI = B1	0,180	0,38	2,0	0,06
11	TC-S	EC 09 B27 230V 50Hz	20821657	84,5	27	74-80	0,30	35	3,6	0,155	0,43	2,0	0,07
13	TC-D	EC 13 B27 230V 50Hz	22116351	84,5	27	74-80	0,30	40	EEI = B1	0,165	0,44	2,0	0,07
16	TC-DD	EC 16 B27 230V 50Hz	20821698	84,5	27	74-80	0,30	45	EEI = B1	0,195	0,45	2,0	0,10
18	TC-D	EC 18 B27 230V 50Hz	20821714	84,5	27	74-80	0,30	55	EEI = B1	0,220	0,47	2,0	0,11

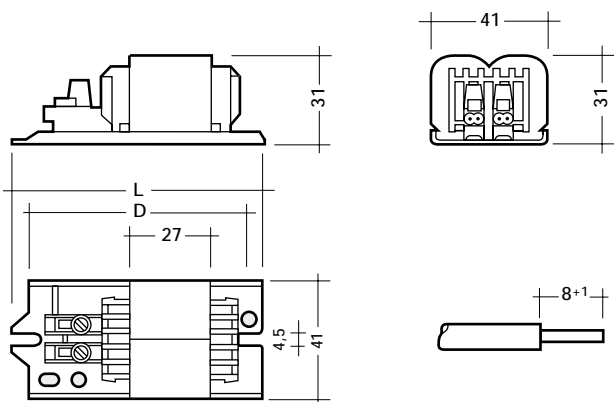
① mean value, measured according to DKE
 ② lamp current, measured in parallel connection
 * $\cos \phi > 0,9$



TC-D
TC-DD
TC-S

Super low loss chokes
Compact lamps, TC-D, TC-DD, TC-S

EC 5-18 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- push terminal 0,5-1,5 mm²

Packaging:
5 off, banded
2 200 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52



Lamp		Choke										P. F. Correction	
wattage	type	type	article number	length	core stack length	fixing centres	weight	ΔT	losses	nominal lamp current	λ	parallel compensation	
W				L mm	KL mm	D mm	kg	K	W ①	current A		capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A
5	TC-S	EC 09 B27 240V 50Hz	20821660	84,5	27	74-80	0,30	50	5,3	0,180	0,25	2,0	0,05
7	TC-S	EC 09 B27 240V 50Hz	20821660	84,5	27	74-80	0,30	45	5,0	0,175	0,29	2,0	0,05
9	TC-S	EC 09 B27 240V 50Hz	20821660	84,5	27	74-80	0,30	40	4,5	0,170	0,34	2,0	0,06
11	TC-S	EC 09 B27 240V 50Hz	20821660	84,5	27	74-80	0,30	40	4,0	0,155	0,39	2,0	0,07
16	TC-DD	EC 16 B27 240V 50Hz	20821705	84,5	27	74-80	0,30	45	4,2	0,195	0,44	2,0	0,09
18	TC-D	EC 18 B27 240V 50Hz	20821720	84,5	27	74-80	0,30	60	5,4	0,220	0,44	2,0	0,10

① mean value, measured according to DKE

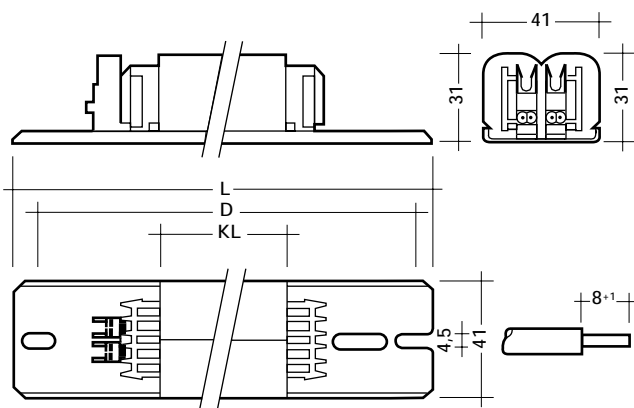
* $\cos \varphi > 0,9$



TC-D
TC-DD
TC-S

Super low loss chokes
Compact lamps, TC-D, TC-DD, TC-S

EC 5-18 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52



Lamp		Choke										P. F. Correction	
wattage	type	type	article number	length	core stack length	fixing centres	weight	ΔT	losses	nominal lamp current	λ	parallel compensation	
W				L mm	KL mm	D mm	kg	K	W ①	current A		capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A
5	TC-S	EC 09 B50 240V 50Hz	22118366	110	50	100-104	0,50	30	3,9	0,180	0,22	2,0	0,04
7	TC-S	EC 09 B50 240V 50Hz	22118366	110	50	100-104	0,50	30	3,7	0,175	0,27	2,0	0,04
2x7	TC-S	EC 13 B50 240V 50Hz	22117487	110	50	100-104	0,50	30	3,4	0,175	0,41	2,0	0,07
9	TC-S	EC 09 B50 240V 50Hz	22118366	110	50	100-104	0,50	30	3,5	0,170	0,30	2,0	0,05
2x9	TC-S	EC 13 B50 240V 50Hz	22117487	110	50	100-104	0,50	25	3,2	0,170	0,48	2,0	0,09
10	TC-D	EC 13 B50 240V 50Hz	22117487	110	50	100-104	0,50	35	3,9	0,190	0,30	2,0	0,06
10	TC-DD	EC 13 B50 240V 50Hz	22117487	110	50	100-104	0,50	30	3,5	0,180	0,34	2,0	0,06
11	TC-S	EC 09 B50 240V 50Hz	22118366	110	50	100-104	0,50	25	2,9	0,155	0,39	2,0	0,06
13	TC-D	EC 13 B50 240V 50Hz	22117487	110	50	100-104	0,50	25	3,4	0,175	0,40	2,0	0,07
16	TC-DD	EC 16 B50 240V 50Hz	22118325	110	50	100-104	0,50	30	3,4	0,195	0,41	2,0	0,08
18	TC-D	EC 18 B50 240V 50Hz	22117191	110	50	100-104	0,50	35	4,0	0,220	0,41	2,0	0,08

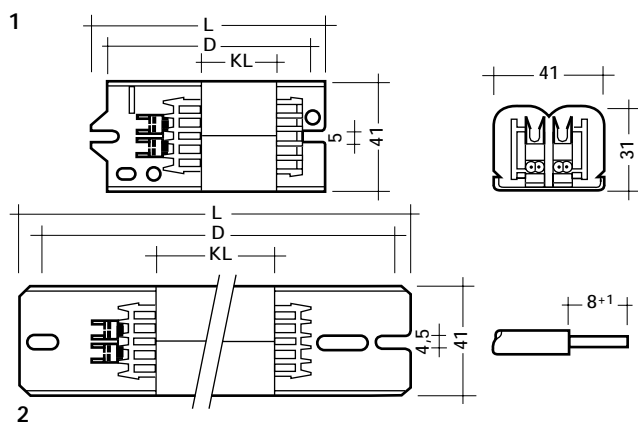
① mean value, measured according to DKE

* $\cos \phi > 0,9$



Super low loss chokes
Compact lamps, TC-D, TC-DD, TC-L

EC 18-36 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
KL 50 mm
5 off, banded
1 400 pieces/pallet

Certified:
• EN 60920/921

KL 90 mm
5 off, banded
1 000 pieces/pallet

Wiring:
Page 51, 52

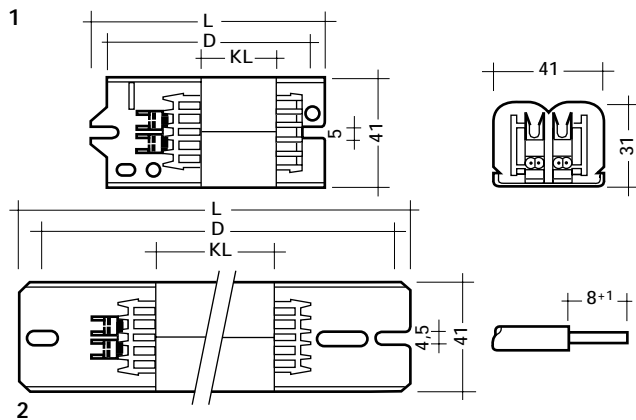


Lamp	watt- age W	type	Choke type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W ①/EEI	nominal lamp current A	λ	P. F. Correction		
														parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
18	TC-L	EC 20 B90	230V 50Hz	22118545	2	191	90	170–184	0,85	40	EEI = B1	0,370	0,29	4,5	0,10	2,7/480V
2x18	TC-L	EC 40 B90	230V 50Hz	22118551	2	191	90	170–184	0,85	30	5,2	0,400②	0,46	4,5	0,20	3,4/450V
21	TC-DD	EC 21 B50	230V 50Hz	22118353	1	115	50	105–109	0,50	35	EEI = B1	0,260	0,42	3,0	0,11	–
24	TC-L	EC 20 B90	230V 50Hz	22118545	2	191	90	170–184	0,85	30	EEI = B1	0,345	0,39	3,0	0,13	2,5/450V
26	TC-D	EC 20 B90	230V 50Hz	22118545	2	191	90	170–184	0,85	30	EEI = B1	0,325	0,43	3,0	0,14	2,5/450V
28	TC-DD	EC 20 B90	230V 50Hz	22118545	2	191	90	170–184	0,85	30	EEI = B1	0,320	0,46	3,0	0,15	–
36	TC-L	EC 40 B90	230V 50Hz	22118551	2	191	90	170–184	0,85	35	EEI = B1	0,430	0,44	4,5	0,22	3,4/450V

① mean value, measured according to DKE
② lamp current, measured in parallel connection
* $\cos \varphi > 0,9$

Super low loss chokes
Compact lamps, TC-D, TC-DD, TC-L

EC 18–36 W 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- ConCut – IDC terminals 0,5–1,5 mm²
- also suitable for automatic wiring of luminaires
- authorized for BJB and ALF automatic wiring machines

Packaging:
 KL 50 mm
 5 off, banded
 1 400 pieces/pallet

Certified:
 • EN 60920/921

KL 90 mm
 5 off, banded
 1 000 pieces/pallet

Wiring:
 Page 51, 52



Lamp		Choke											P. F. Correction		
watt- age W	type	type	article number	base plate	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W $\text{\textcircled{1}}$ /EEI	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	series comp. capacitor $\mu\text{F} \pm 4\%$
18	TC-L	EC 20 B90 240V 50Hz	22118523	2	191	90	170–184	0,85	30	6,7	0,375	0,29	4,0	0,10	–
2x18	TC-L	EC 40 B90 240V 50Hz	22118517	2	191	90	170–184	0,85	30	5,5	0,400	0,44	4,0	0,18	–
21	TC-DD	EC 21 B50 240V 50Hz	22118331	1	115	50	100–109	0,50	35	5,0	0,260	0,41	3,0	0,11	–
24	TC-L	EC 20 B90 240V 50Hz	22118523	2	191	90	170–184	0,85	30	5,8	0,345	0,38	3,5	0,13	–
26	TC-D	EC 20 B90 240V 50Hz	22118523	2	191	90	170–184	0,85	30	5,1	0,325	0,40	3,5	0,13	–
28	TC-DD	EC 20 B90 240V 50Hz	22118523	2	191	90	170–184	0,85	25	4,9	0,320	0,44	3,5	0,14	–
34	TC-L	EC 40 B90 240V 50Hz	22118517	2	191	90	170–184	0,85	30	6,3	0,430	0,39	4,0	0,17	–
36	TC-L	EC 40 B90 240V 50Hz	22118517	2	191	90	170–184	0,85	35	6,3	0,435	0,42	4,0	0,18	–
38	TC-DD	EC 40 B90 240V 50Hz	22118517	2	191	90	170–184	0,85	30	6,0	0,430	0,42	4,0	0,19	–

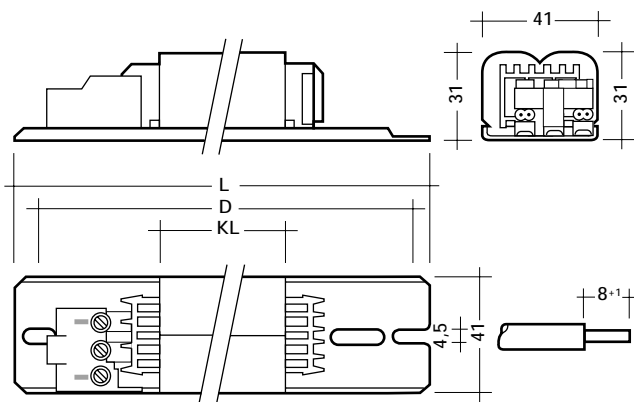
$\text{\textcircled{1}}$ mean value, measured according to DKE

* $\cos \varphi > 0,9$



Low loss chokes with reinforced insulation and protection
Compact lamps, TC-D, TC-L

EC 18-36 W 230 V 50 Hz



- $t_w = 130^\circ\text{C}$
- push terminal 0,5–1,5 mm²
- non-resettable protection
- switch off temperature 150°C

Packaging:
KL 54 mm
Box of 32
1 152 pieces/pallet

Certified:
• EN 60920/921

KL 60 mm
Box of 32
1 152 pieces/pallet

Wiring:
Page 51, 52

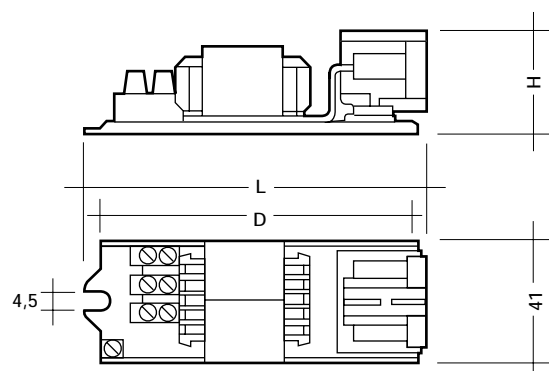


Lamp		Choke										P. F. Correction		
watt- age W	type	type	article number	length L mm	core stack length KL mm	fixing centres D mm	weight kg	ΔT K	losses W @ EEI	nominal lamp current A	λ	parallel compensation		series comp.
												capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	capacitor $\mu\text{F} \pm 4\%$
18	TC-L	EC 18 C201B 230V 50Hz	20887486	151	54	105–144	0,55	60	EEI = B2	0,370	0,35	4,5	0,10	2,7/480V
24	TC-L	EC 18 C201B 230V 50Hz	20887486	151	54	105–144	0,55	55	EEI = B2	0,345	0,42	3,0	0,14	2,5/480V
26	TC-D	EC 18 C201B 230V 50Hz	20887486	151	54	105–144	0,55	50	EEI = B2	0,325	0,42	3,0	0,15	2,5/480V
36	TC-L	EC 36 C201B 230V 50Hz	20887492	151	60	105–144	0,60	60	EEI = B2	0,430	0,46	4,5	0,22	3,4/450V

* $\cos \varphi > 0,9$

Luxfit
Compact lamps, TC-D, TC-S

LEC 5-13 W 230 V 50 Hz and 240 V 50 Hz



- $t_w = 130^{\circ}\text{C}$
- screw terminal

Packaging:
LEC 09
Box of 42
1 344 pieces/pallet

Certified:
• EN 60920/921

LEC 13
Box of 33
1 056 pieces/pallet

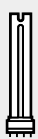
Wiring:
Page 51, 52



Lamp		Choke											P. F. Correction	
wattage	type	type	article number	height H mm	length L mm	fixing centres D mm	weight kg	ΔT K	losses W ^①	nominal lamp current A	λ	parallel compensation		
W												capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	
5	TC-S	LEC 09 A27 230V 50Hz	20295798	39	114	100-102	0,35	50	5,3	0,180	0,28	2,0	0,05	
7	TC-S	LEC 09 A27 230V 50Hz	20295798	39	114	100-102	0,35	40	4,9	0,180	0,32	2,0	0,05	
9	TC-S	LEC 09 A27 230V 50Hz	20295798	39	114	100-102	0,35	40	4,7	0,170	0,36	2,0	0,06	
11	TC-S	LEC 09 A27 230V 50Hz	20295798	39	114	100-102	0,35	40	4,0	0,155	0,47	2,0	0,07	
10	TC-D	LEC 13 A27 230V 50Hz	20565552	50	114	100-102	0,35	50	EEL = C	0,190	0,37	2,0	0,07	
13	TC-D	LEC 13 A27 230V 50Hz	20565552	50	114	100-102	0,35	40	EEL = C	0,165	0,47	2,0	0,08	

① mean value, measured at 25°C copper temperature

* $\cos \phi > 0,9$

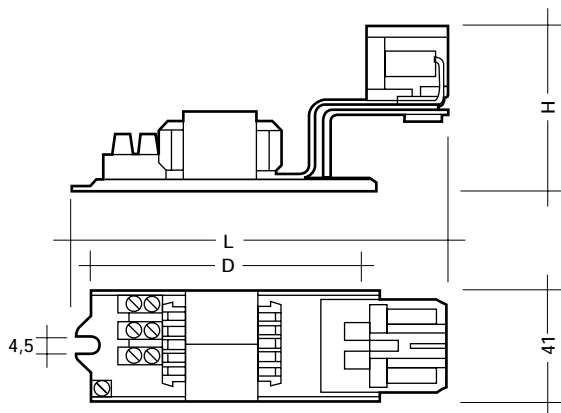


TC-S



Luxfit
Compact lamps, TC-D, TC-S

UEC 5-11 W 230 V 50 Hz and 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- screw terminal

Packaging:
Box of 27
864 pieces/pallet

Certified:
• EN 60920/921

Wiring:
Page 51, 52



Lamp		Choke											P. F. Correction	
wattage	type	type	article number	height H mm	length L mm	fixing centres D mm	weight kg	ΔT K	losses W ①	nominal lamp current A	λ	parallel compensation		
W												capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	
5	TC-S	UEC 09 A27 230V 50Hz	20295757	63	138	92-102	0,35	50	5,3	0,180	0,28	2,0	0,05	
7	TC-S	UEC 09 A27 230V 50Hz	20295757	63	138	92-102	0,35	40	4,9	0,180	0,32	2,0	0,05	
9	TC-S	UEC 09 A27 230V 50Hz	20295757	63	138	92-102	0,35	40	4,7	0,170	0,36	2,0	0,06	
11	TC-S	UEC 09 A27 230V 50Hz	20295757	63	138	92-102	0,35	40	4,0	0,155	0,47	2,0	0,07	

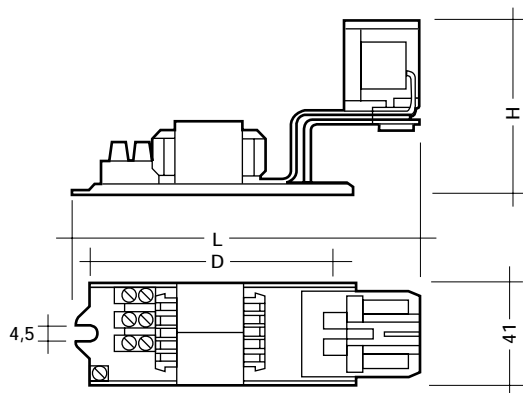
Lamp		Choke											P. F. Correction	
wattage	type	type	article number	height H mm	length L mm	fixing centres D mm	weight kg	ΔT K	losses W ①	nominal lamp current A	λ	parallel compensation		
W												capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	
5	TC-S	UEC 09 A27 240V 50Hz	20295760	63	138	92-102	0,35	60	5,7	0,180	0,28	2,0	0,05	
7	TC-S	UEC 09 A27 240V 50Hz	20295760	63	138	92-102	0,35	55	5,4	0,180	0,31	2,0	0,05	
9	TC-S	UEC 09 A27 240V 50Hz	20295760	63	138	92-102	0,35	50	5,0	0,170	0,36	2,0	0,06	
11	TC-S	UEC 09 A27 240V 50Hz	20295760	63	138	92-102	0,35	40	4,4	0,155	0,44	2,0	0,07	

① mean value, measured at 25°C copper temperature

* $\cos \phi > 0,9$

Luxfit
Compact lamps, TC-D

UEC 13-26 W 230 V 50 Hz and 240 V 50 Hz



- $t_w = 130^{\circ}\text{C}$
- screw terminal

Packaging:
UEC 13 and 18
Box of 24
768 pieces/pallet

Certified:
• EN 60920/921

UEC 26
Box of 18
576 pieces/pallet

Wiring:
Page 51, 52

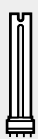


Lamp		Choke										P. F. Correction	
wattage	type	type	article number	height H mm	length L mm	fixing centres D mm	weight kg	ΔT K	losses W ①	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A
10	TC-D	UEC 13 A27 230V 50Hz	20304705	75	138	92-102	0,35	50	EEI = C	0,190	0,37	2,0	0,07
13	TC-D	UEC 13 A27 230V 50Hz	20304705	75	138	92-102	0,35	40	EEI = C	0,165	0,47	2,0	0,08
18	TC-D	UEC 18 A27 230V 50Hz	20563591	75	138	92-102	0,35	55	EEI = C	0,220	0,44	2,0	0,11
26	TC-D	UEC 26 A50 230V 50Hz	20560920	75	151	130-144	0,55	45	EEI = C	0,315	0,47	3,0	0,14

Lamp		Choke										P. F. Correction	
wattage	type	type	article number	height H mm	length L mm	fixing centres D mm	weight kg	ΔT K	losses W ①	nominal lamp current A	λ	parallel compensation capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A
10	TC-D	UEC 13 A27 240V 50Hz	20304714	75	138	92-102	0,35	55	EEI = C	0,190	0,35	2,0	0,07
13	TC-D	UEC 13 A27 240V 50Hz	20304714	75	138	92-102	0,35	45	EEI = C	0,165	0,43	2,0	0,08
18	TC-D	UEC 18 A27 240V 50Hz	20562534	75	138	92-102	0,35	60	EEI = C	0,220	0,46	2,0	0,10

① mean value, measured at 25°C copper temperature

* $\cos \phi > 0,9$

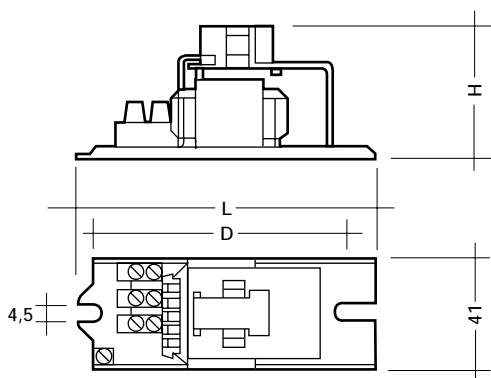


TC-DD



Luxfit Compact lamps, TC-DD

UEC 16-28 W 230 V 50 Hz and 240 V 50 Hz



- $t_w = 130^\circ\text{C}$
- screw terminal

Packaging:
UEC 16
Box of 33
1 056 pieces/pallet

Certified:
• EN 60920/921

UEC 28
Box of 24
768 pieces/pallet

Wiring:
Page 51, 52

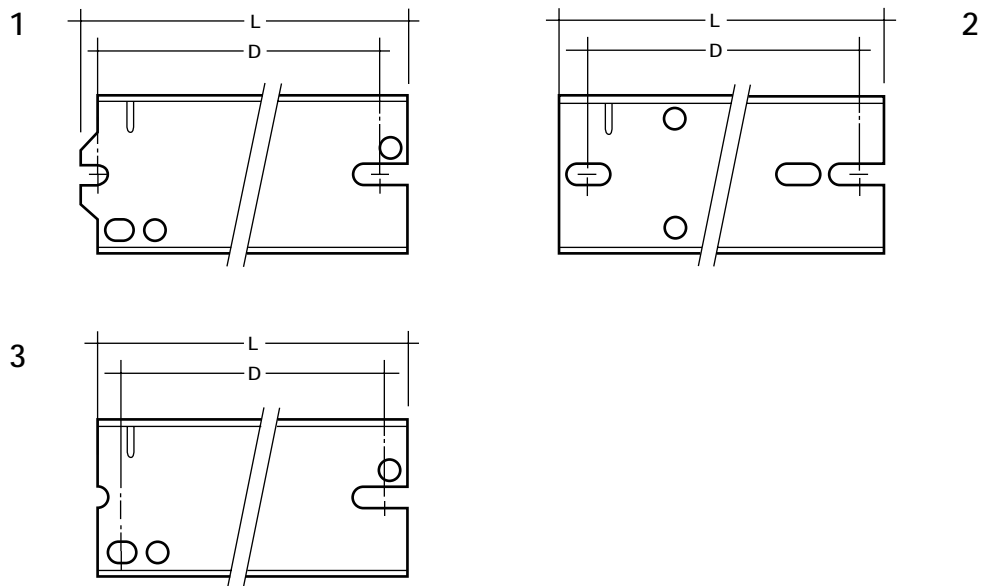


Lamp		Choke											P. F. Correction	
wattage	type	type	article number	height H mm	length L mm	fixing centres D mm	weight kg	ΔT K	losses W ^①	nominal lamp current A	λ	parallel compensation		
W												capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	
16	TC-DD	UEC 16 A27 230V 50Hz	20295776	50	110	92-102	0,35	45	EEL = C	0,195	0,48	2,0	0,10	
28	TC-DD	UEC 28 A50 230V 50Hz ^②	20566607	50	151	130-144	0,55	45	EEL = C	0,320	0,50	3,0	0,15	

Lamp		Choke											P. F. Correction	
wattage	type	type	article number	height H mm	length L mm	fixing centres D mm	weight kg	ΔT K	losses W ^①	nominal lamp current A	λ	parallel compensation		
W												capacitor $\mu\text{F} \pm 10\% 250\text{V}$	* line current A	
16	TC-DD	UEC 16 A27 240V 50Hz	20295782	50	110	92-102	0,35	50	EEL = C	0,195	0,46	2,0	0,10	
28	TC-DD	UEC 28 A50 240V 50Hz	20300845	50	151	130-144	0,55	45	EEL = C	0,320	0,50	3,5	0,15	

- ① mean value, measured at 25°C copper temperature
 ② base for 4-pin lamp for connection to an external starter
 * $\cos \phi > 0,9$

Special baseplates for EC chokes



Tridonic ballasts are designed for standard fixing centres.

For special requirements Tridonic also offers the following possibilities:

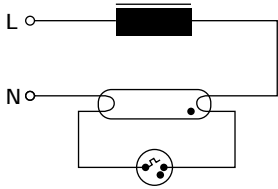
Type	Description			KU		
	L	D	drawing	L	D	drawing
	mm	mm		mm	mm	
EC ... 27	84,5	77	1	80	70	3
EC ... 50	151	140	2	110	100	1
EC ... 90	191	180	2	155	140	1

Other dimensions on request.

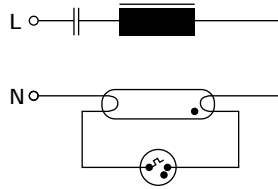
Linear lamps

Circuit diagrams

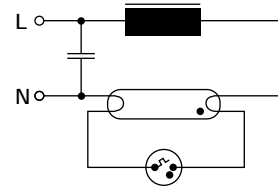
1. Linear lamps



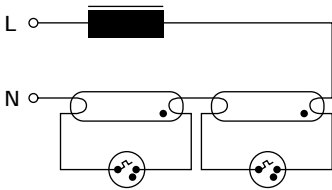
A) Single lamp uncompensated



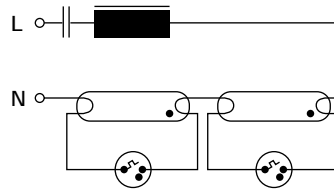
B) Single lamp series compensated



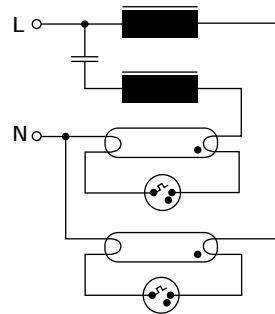
C) Single lamp parallel compensated



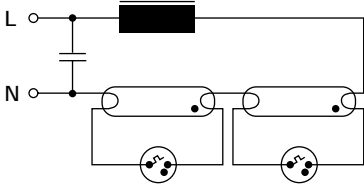
D) Twin series lamps uncompensated



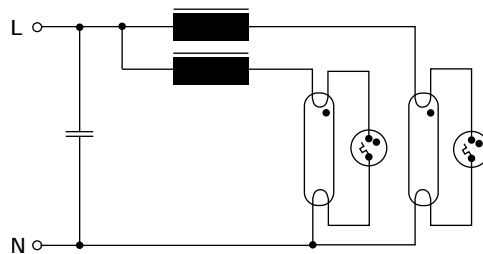
E) Twin series lamps series compensated



F) Twin lamp lead/lag



G) Twin series lamps parallel compensated

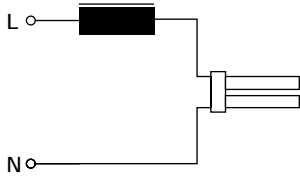


H) Twin lamps parallel compensated

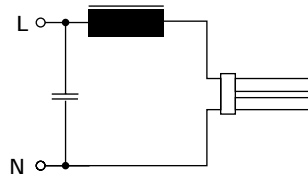
Compact lamps

Circuit diagrams

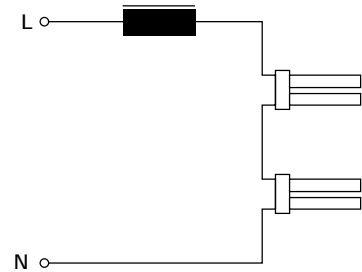
2. Compact lamps



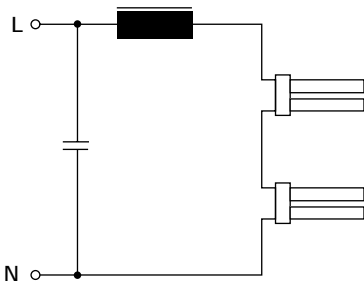
I) Single 2 pin lamp uncompensated



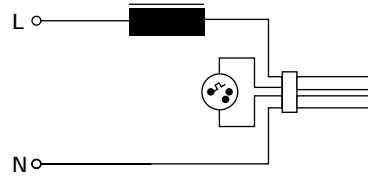
J) Single 2 pin lamp parallel compensated



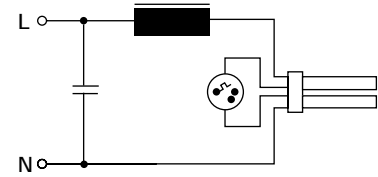
K) Twin series 2 pin lamps uncompensated



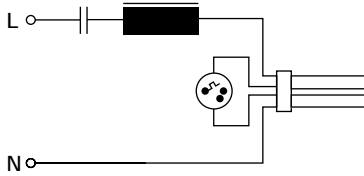
L) Twin series 2 pin lamps parallel compensated



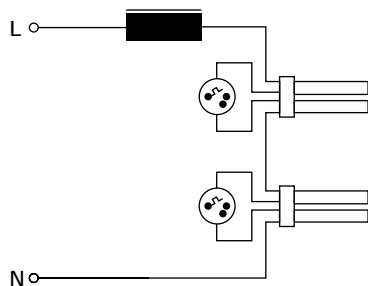
M) Single 4 pin lamp uncompensated



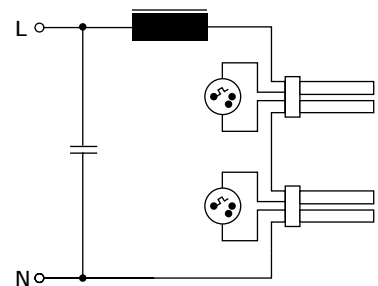
N) Single 4 pin lamp parallel compensated



O) Single 4 pin lamp series compensated



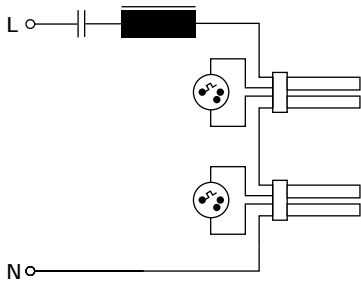
P) Twin series 4 pin lamps uncompensated



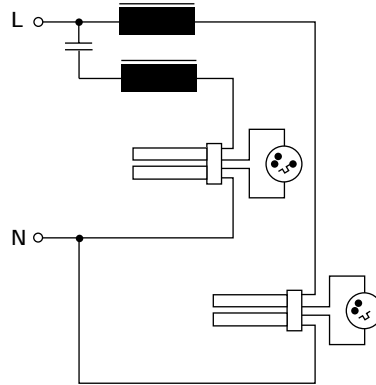
Q) Twin series 4 pin lamps parallel compensated

Linear and Compact lamps

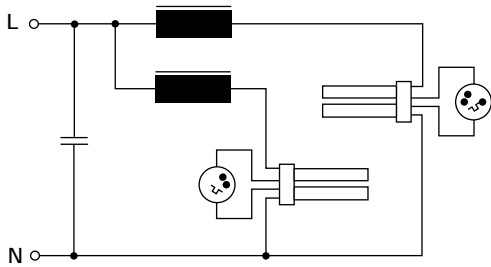
Circuit diagrams



R) Twin series 4 pin lamps series compensated

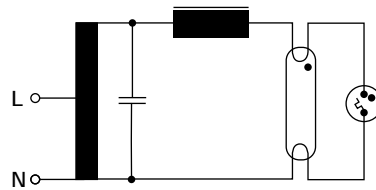


S) Twin 4 pin lamps lead/lag



T) Twin 4 pin lamps parallel compensated

3. Step-up transformer



U) Step-up transformer

Table showing an overview of the Energy Classification System for ballasts from CELMA

Linear lamps

lamp type	lamp wattage 50 Hz	EEI-Class						
		A1	A2	A3	B1	B2	C	D
T	15W	18/9W	≤ 16W	≤ 18W	≤ 21W	≤ 23W	≤ 25W	> 25W
T	18W	21/11W	≤ 19W	≤ 21W	≤ 24W	≤ 26W	≤ 28W	> 28W
T	30W	30/15W	≤ 28W	≤ 30W	≤ 36W	≤ 38W	≤ 40W	> 40W
T	36W	38/19W	≤ 36W	≤ 38W	≤ 41W	≤ 43W	≤ 45W	> 45W
T	38W	38/19W	≤ 36W	≤ 38W	≤ 43W	≤ 45W	≤ 47W	> 47W
T	58W	59/30W	≤ 55W	≤ 59W	≤ 64W	≤ 67W	≤ 70W	> 70W
T	70W	72/36W	≤ 66W	≤ 70W	≤ 77W	≤ 80W	≤ 83W	> 83W

TC-L lamps

lamp type	lamp wattage 50 Hz	EEI-Class						
		A1	A2	A3	B1	B2	C	D
TC-L	18W	21/11W	≤ 19W	≤ 21W	≤ 24W	≤ 26W	≤ 28W	> 28W
TC-L	24W	27/14W	≤ 25W	≤ 27W	≤ 30W	≤ 32W	≤ 34W	> 34W
TC-L	36W	38/19W	≤ 36W	≤ 38W	≤ 41W	≤ 43W	≤ 45W	> 45W
TC-L	40W	46/24W	≤ 44W	≤ 46W				
TC-L	55W	63/32W	≤ 59W	≤ 63W				

TC-F lamps

lamp type	lamp wattage 50 Hz	EEI-Class						
		A1	A2	A3	B1	B2	C	D
TC-F	18W	21/11W	≤ 19W	≤ 21W	≤ 24W	≤ 26W	≤ 28W	> 28W
TC-F	24W	27/14W	≤ 25W	≤ 27W	≤ 30W	≤ 32W	≤ 34W	> 34W
TC-F	36W	38/19W	≤ 36W	≤ 38W	≤ 41W	≤ 43W	≤ 45W	> 45W

TC-D lamps

lamp type	lamp wattage 50 Hz	EEI-Class						
		A1	A2	A3	B1	B2	C	D
TC-D, TC-DE	10W	13/7W	≤ 12W	≤ 13W	≤ 14W	≤ 16W	≤ 18W	> 18W
TC-D, TC-DE	13W	16/8W	≤ 15W	≤ 16W	≤ 17W	≤ 19W	≤ 21W	> 21W
TC-D, TC-DE	18W	21/11W	≤ 19W	≤ 21W	≤ 24W	≤ 26W	≤ 28W	> 28W
TC-D, TC-DE	26W	29/15W	≤ 27W	≤ 29W	≤ 32W	≤ 34W	≤ 36W	> 36W

TC-T lamps

lamp type	lamp wattage 50 Hz	EEI-Class						
		A1	A2	A3	B1	B2	C	D
TC-T, TC-TE	18W	21/11W	≤ 19W	≤ 21W	≤ 24W	≤ 26W	≤ 28W	> 28W
TC-T, TC-TE	26W	29/15W	≤ 27W	≤ 29W	≤ 32W	≤ 34W	≤ 36W	> 36W
TC-T, TC-TE	32W	39/20W	≤ 36W	≤ 39W				
TC-T, TC-TE	42W	49/25W	≤ 46W	≤ 49W				

2 D compact lamps

lamp type	lamp wattage 50 Hz	EEI-Class						
		A1	A2	A3	B1	B2	C	D
TC-DD, TC-DDE	10W	13/7W	≤ 12W	≤ 13W	≤ 14W	≤ 16W	≤ 18W	> 18W
TC-DD, TC-DDE	16W	20/10W	≤ 18W	≤ 20W	≤ 21W	≤ 23W	≤ 25W	> 25W
TC-DD, TC-DDE	21W	24/12W	≤ 22W	≤ 24W	≤ 27W	≤ 29W	≤ 31W	> 31W
TC-DD, TC-DDE	28W	30/15W	≤ 28W	≤ 30W	≤ 34W	≤ 36W	≤ 38W	> 38W
TC-DD, TC-DDE	38W	39/20W	≤ 37W	≤ 39W	≤ 43W	≤ 45W	≤ 47W	> 47W

Tridonic-Atco-Group

TRIDONIC-Bauelemente GmbH
Färbergasse 15
A-6851 Dornbirn / Austria
Telefon: +43(0)5572/395-0
Telefax: +43(0)5572/20176
Internet: www.tridonic.com
e-mail: sales@tridonic.co.at

Atco Controls Pty. Ltd.
Private Bag No. 9
130 Melrose Drive,
Tullamarine, Victoria, 3043
Australia
Tel. +61 3 9338 2333
Fax +61 3 9330 3595
Internet: www.atco.com.au
e-mail: atco@atco.com.au

Electro-Terminal Ges.m.b.H.
Archenweg 58
A-6022 Innsbruck
Tel. +43(0)5512 3321
Fax +43(0)512 3321-80
Internet: www.electroterminal.com
e-mail: office@electroterminal.co.at

Knobel AG
Obere Allmeind
CH-8755 Ennenda
Tel. +41(0)55/6454747
Fax +41(0)55/6454700
Internet: www.knobelag.ch
e-mail: sales@knobelag.ch

Newtronics Pty. Ltd.
122 Melrose Drive,
Tullamarine, Victoria, 3043
Australia
Tel. +61 3 9338 5088
Fax +61 3 9338 5022
Internet: www.newtronics.com.au
e-mail: sales@newtronics.com.au

Sales Organisation

AUSTRIA
Electro-Terminal Ges.m.b.H.
Feldstraße 11
A-6020 Innsbruck
Tel. +43(0)512 584221
Fax +43(0)512 584221-20
e-mail: office@electroterminal.co.at

BENELUX
Sales office BENELUX
Rue Gaston Bary 39
B-1310 La Hulpe
Tel. +32/2/652 1964
Fax +32/2/652 0718
e-mail:
pauwels.tridonic@skynet.be

DENMARK
as Electrotrading
Postboks 333
N-1411 Kolbotn
Norway
Tel. +47 6681 7330
Fax +47 6681 7333
e-mail: jan-erik@electrotrading.no

ESTONIA
Wennerström Ljuskontroll AB
Skarpsätter
S-64591 Strängnäs
Sweden
Tel. +46 152 91000
Fax +46 152 91078
Internet: www.ljuskontroll.com
e-mail: myyk@ljuskontroll.com

FINLAND
Wennerström Ljuskontroll AB
Skarpsätter
S-64591 Strängnäs
Sweden
Tel. +358 9 6223856
Fax +358 2 7353761
Internet: www.ljuskontroll.com
e-mail: myynti@ljuskontroll.com

FRANCE
TRIDONIC KNOBEL France
34 Rue de l'Expansion
F-67150 ERSTEIN GARE
Tel. +33/3 88 59 62 70
Fax +33/3 88 59 62 75
e-mail: info@tridonic.fr

GERMANY
Tridonic Bauelemente GmbH
Industriestraße 25
89269 Vöhringen
Postfach 1229
D-89266 Vöhringen
Tel. +49(0)7306/9662-0
Fax +49(0)7306/9662-15
e-mail: vertrieb@tridonic.de

GREECE
2 KAPPA Ltd.
SOFOKLI VENIZELOY 13
MENEMENI LAHANAGORA
546 28 THESSALONIKI
Tel. +30 310 775510-15
Fax +30 310 775514
e-mail: 2kappa@pel.forthnet.gr

HONGKONG
GLM International Ltd.
1508-9, Prosperity Center
25 Chong Yip Street, Kwun Tong,
Kowloon
Tel. +852-2398 3918
Fax +852-2398 3911
e-mail: glmark@netvigator.com

INDIA
Atco Controls (India) Pvt. Ltd.
38B Nariman Bhavan,
Nariman Point
Mumbai, 400 021,
India
Tel. +91 22 202 5528
Fax +91 22 202 2304
e-mail: sales@atcocontrols.com

ITALY
Sicom Spa
Via Lussemburgo, 10-12
35127 Padova-Zona Ind.
Tel. +39 049 8701470
Fax +39 049 8700738
Internet: www.sicom-pd.it
e-mail: sicom@sicom-pd.it

MIDDLE EAST
ATCO Controls (ME) FZCO
P.O. Box 17972
Jebel Ali - Dubai
United Arab Emirates
Tel. +971-4-8871744
Fax +971-4-8871755
Internet: www.atco.com.au
e-mail: atcouae@emirates.net.ae

NEW ZEALAND
Atco Controls Ltd.
Airport Oaks Mangere
PO Box 107044
9 Aintree Ave
Auckland
New Zealand
Tel. +649 256 2310
Fax +649 256 0109
Internet: www.atco.co.nz
e-mail: sales@atco.co.nz

NORWAY
as Electrotrading
Postboks 333
N-1411 Kolbotn
Norway
Tel. +47 6681 7330
Fax +47 6681 7333
e-mail: jan-erik@electrotrading.no

REPUBLIC OF SOUTH AFRICA
Tridonic SA (Pty) Ltd.
Cnr. Pooke & Ester Roads
Athlone, Industria, Box 123
Gatesville 7766
South Africa
Tel. +27(0)21/637-8000
Fax +27(0)21/637-4501

SINGAPORE
Atco Controls Pte. Ltd.
39 Kaki Bukit View
Kaki Bukit Techpark II
Singapore, 415968
Tel. +65 292 8148, +65 7491880
Fax +65 293 3700
e-mail: atcosin@mbox5.singnet.com.sg

SPAIN
HUXLEY
Benito Quemada, 3
28224 Pozuelo de Alarcón
Madrid
Tel. +34 91/3522255
Fax +34 91/3528864
e-mail: f.fernandez@cgcac.es

SWEDEN
Wennerström Ljuskontroll AB
Skarpsätter
S-64591 Strängnäs
Sweden
Tel. +46 152 91000
Fax +46 152 91078
Internet: www.ljuskontroll.com
e-mail: sales@ljuskontroll.com

SWITZERLAND
Knobel AG
Obere Allmeind
CH-8755 Ennenda
Tel. +41(0)55/6454747
Fax +41(0)55/6454700
Internet: www.knobelag.ch
e-mail: sales@knobelag.ch

TURKEY
ER ELEKTRONIK A.S.
Yeniyl Sok No. 16
TR-80370 Kasimpasa-Istanbul
Tel. +90/212/2387411
+90/212/2387412
+90/212/2387420
Fax +90/212/2387421

UNITED KINGDOM
Tridonic Limited
Thomas House
Hampshire International
Business Park
Crockford Lane
Chineham
Basingstoke
Hampshire RG 24 8LB
Tel. +44(0)1256/374300
Fax +44(0)1256/374200
e-mail: enquiries@uk.tridonic.co.at

USA
TRIDONIC Inc.
4405 International Boulevard
Suite B-113
Norcross, GA 30093 USA
Toll-free: 1-866-TRIDONIC
Tel. +1 770-717 0556
Fax +1 770-717 7969
Internet: www.tridonic.com
e-mail: sales_usa@tridonic.com

EUROPE EAST
Sales office Europe East
Im Vogelsang 21
D-16547 Birkenwerder bei Berlin
Tel. +49(0)3303/409953
Fax +49(0)3303/409954

Contact Europe East:

BULGARIA
D E A company
2 Nerazdelni str.
BG-1421 Sofia
Tel. +359/2/831261
Fax +359/2/9634408

CZECH REPUBLIC
SCHÄFER & SYKORA spol. s.r.o.
tr. 9 kvetna 393
CZ-40801 Rumburk
Tel. +420/413/333181
Fax +420/413/333690

HUNGARY
HOLUX Co. Ltd
Lighting Systems
Béke út, 51-55
H-1135 Budapest
Tel. +36-1-450-27-00
Fax +36-1-450-27-10
Internet: www.holux.hu
e-mail: hoso@holux.hu

LITHUANIA
MAZGAS
Uosio g. 8-2
LT-3009 Kaunas
Tel. +370 7 330876
Fax +370 7 730789

REPUBLIC OF SLOVAKIA
COMLUX - spol. s.r.o.
Kopanice 5
SK-82104 Bratislava
Tel. +421/7/43424832
Fax +421/7/43422641

ROMANIA
ENERGOLUX
str. Donath, nr. 182
RO-3400 Cluj-Napoca
Tel. +40 64 435 113
Fax +40 64 420 450

RUSSIA
TOCHKA OPORY
Fakultetskij per. 12
RU-125080 Moskow
Tel. +7 095 1581359
Fax +7 095 1582433

SLOVENIA
ETT Rehar Stanislav s.p.
Dobrna 7
SI-3204 Dobrna
Tel. +386/37818177
Fax +386/35778032
Internet: www.ett-sp.si
e-mail: ett@siol.net

Test marks, Standards and Symbols



Tridonic products comply with the requirements of EC Directives 89/336/EEC (EMC Directive) and 73/23/EEC (Low-Voltage Directive) and are entitled to bear the CE mark. EC declarations of conformity can be requested

- via the Internet at www.tridonic.com – FAQ
- by sending an enquiry by e-mail to:
hotline.tec@tridonic.co.at



The ENEC mark (European Norms Electrical Certification) is a European test mark and confirms that the device on which the symbol is shown complies with all the requirements of the ENEC test body. Tridonic test certificates can be requested

- via the Internet at www.tridonic.com – FAQ
- by sending an enquiry by e-mail to:
hotline.tec@tridonic.co.at



The device is suitable for mounting on standard flammable surfaces. Standard flammable surfaces include building materials such as wood and wood-based materials more than 2 mm thick.




The device is suitable to be installed in or attached to furniture whose behaviour in fire corresponds to standard flammable building materials within the context of DIN 4102 Part 1. The materials can be laminated, veneered or varnished.



The device is suitable for installing on or in furniture which is made from materials with unknown flammability properties.



Over temperature-protected ballast. Electronic ballasts from Tridonic contain devices to prevent overheating.

For example,  corresponds to over temperature protection of 100°C across the whole surface of the ballast. The current values for the individual types are specified on the housing.

EN 55015
EN 55022
EN 60924
EN 60925
EN 60928
EN 60929
EN 61000-3-2
EN 61547
in accordance
with VDE 0108

Interference suppression < 30 Mhz
Interference suppression > 1 Ghz
DC operation general and safety requirements
DC operation performance requirements
AC operation general and safety requirements
AC operation performance requirements
Harmonics suppression
Interference immunity
suitable for installation in emergency lighting
installations

A list of the pictograms used in the catalogue and explanations can be found on the inside cover.

Pictograms



Lamp friendly warmstart within 0,5 s



Lamp friendly warmstart within 0,9 s



Lamp friendly warmstart within 1,5 s



Application Specific Integrated Circuit



Constant light output independent of fluctuations in mains voltage



IDC (Insulation Deformation Connection) terminal for fast manual and automatic wiring



Cathode heating cut-off



CELMA energy class EEI = A1



CELMA energy class EEI = A2



CELMA energy class EEI = A3



CELMA energy class EEI = B1



CELMA energy class EEI = B2



CELMA energy class EEI = C



Irreversible thermal fuse



Reversible, current-sensitive, self-holding thermal fuse, resets after supply reset