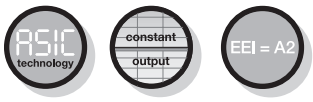
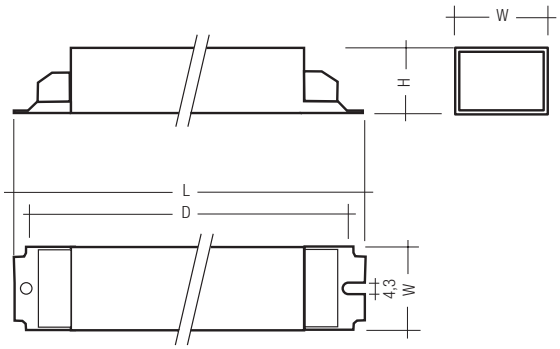
PC T8 TOP 18–58 W 220–240 V 50/60 Hz





- defined lamp warm start within 1,5 s (4x18 W and 3x36 W: 2 s)
- constant light output independent of fluctuations in mains voltage
- Average service life = 50,000 h (at ta max. 50 °C with a failure rate ≤ 0.2 % per 1000 operating hours)
- power factor > 0.97
- AC operation 198–264 V
- overvoltage protection 320 V AC, 1 h
- undervoltage protection (shut down) below 160 V AC
- below 198 V AC for sustained periods of time with reduced ballast life
- Energy Efficiency Index CELMA-EEI = A2 (PC 3/36 T8 TOP: EEI = A3)
- operating frequency ≥ 39 kHz
- wide operating temperature range from -20 °C to +50 °C
- safe switch off of defective lamps
- automatic re-start after lamp change
- for luminaires with ▽ or ▽▽ and ▽▽▽ in acc. with EN 60598/VDE 0710 and VDE 0711
- suitable for luminaires with protection class I and II
- Ingress protection IP 20
- thermal protection according to EN 61347-2-3 C5e ▽

Packaging L=232:
25 pieces/carton
28 cartons/pallet
700 pieces/pallet

Packaging L=280:
25 pieces/carton
36 cartons/pallet
900 pieces/pallet

Packaging L=360:
20 pieces/carton
26 cartons/pallet
520 pieces/pallet

Standards:
EN 55015
EN 61347-2-3
EN 60929
EN 61000-3-2
EN 61547

Lamp		Ballast													
watt-age	length	type	article number	L x W x H	fixing centres	weight	lamp power	circuit power	current at 50Hz 220 V	current at 50Hz 240 V	λ at 50Hz 220 V	λ at 50Hz 240 V	EEI	tc point	temperature range
W	mm			mm	D mm	kg	W	W	A	A				°C	°C
18	590	**PC 1/18 T8 TOP** 220-240V 50/60 Hz	22176366	280 x 30 x 28	270	0.22	16	18.5	0.09	0.08	0.97	0.97	A2	70	-20 → +50
2x18	590	**PC 2/18 T8 TOP** 220-240V 50/60 Hz	22176367	280 x 30 x 28	270	0.22	32	37.7	0,18	0.16	0.97	0.97	A2	70	-20 → +50
3x18	590	**PC 3/18 T8 TOP** 220-240V 50/60 Hz	22176368	360 x 30 x 28	350	0.27	48	56.0	0.26	0.24	0.97	0.97	A2	75	-20 → +50
4x18	590	**PC 4/18 T8 TOP** 220-240V 50/60 Hz	22176369	232 x 40 x 30	220	0.24	64	72.0	0.34	0.31	0.97	0.97	A2	65	-20 → +50
36	1200	**PC 1/36 T8 TOP** 220-240V 50/60 Hz	22176370	280 x 30 x 28	270	0.22	32	35.5	0.17	0.15	0.97	0.97	A2	75	-20 → +50
2x36	1200	**PC 2/36 T8 TOP** 220-240V 50/60 Hz	22176371	280 x 30 x 28	270	0.22	64	71.5	0.34	0.31	0.97	0.97	A2	75	-20 → +50
3x36	1200	**PC 3/36 T8 TOP** 220-240V 50/60 Hz	22176372	360 x 30 x 28	350	0.28	96	110.0	0.51	0.47	0.97	0.97	A3	75	-20 → +50
58	1500	**PC 1/58 T8 TOP** 220-240V 50/60 Hz	22176373	280 x 30 x 28	270	0.22	50	53.5	0.25	0.23	0.97	0.97	A2	70	-20 → +50
2x58	1500	**PC 2/58 T8 TOP** 220-240V 50/60 Hz	22176374	360 x 30 x 28	350	0.28	100	109.0	0.51	0.46	0.97	0.97	A2	75	-20 → +50

Lamp starting characteristics
Warm start
Starting time 1.5 s
(4x18 W and 3x36 W: 2 s)

AC operation
Mains voltage:
220–240 V 50/60 Hz
198–264 V 50/60 Hz including safety tolerance (±10 %)
202–254 V 50/60 Hz including performance tolerance (+6 % / -8 %)

ASIC light management
ASIC (Application specific integrated circuit) is the very latest in lighting management design technology. The lamp friendly warm start is delivering maximum T8 lamp life and enables high switching frequency applications.

Harmonic distortion in the mains supply

Ballast type	THD at 230 V/50 Hz
PC 1/18 T8 TOP 220-240V 50/60Hz	< 11 %
PC 2/18 T8 TOP 220-240V 50/60Hz	< 12 %
PC 3/18 T8 TOP 220-240V 50/60Hz	< 15 %
PC 4/18 T8 TOP 220-240V 50/60Hz	< 12 %
PC 1/36 T8 TOP 220-240V 50/60Hz	< 12 %
PC 2/36 T8 TOP 220-240V 50/60Hz	< 15 %
PC 3/36 T8 TOP 220-240V 50/60Hz	< 12 %
PC 1/58 T8 TOP 220-240V 50/60Hz	< 12 %
PC 2/58 T8 TOP 220-240V 50/60Hz	< 12 %

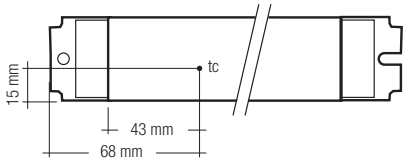
Output voltage

type	U_{out}
PC 1/18 T8 TOP 220-240V 50/60Hz	250 V
PC 2/18 T8 TOP 220-240V 50/60Hz	250 V
PC 3/18 T8 TOP 220-240V 50/60Hz	250 V
PC 4/18 T8 TOP 220-240V 50/60Hz	300 V
PC 1/36 T8 TOP 220-240V 50/60Hz	250 V
PC 2/36 T8 TOP 220-240V 50/60Hz	250 V
PC 3/36 T8 TOP 220-240V 50/60Hz	350 V
PC 1/58 T8 TOP 220-240V 50/60Hz	250 V
PC 2/58 T8 TOP 220-240V 50/60Hz	250 V

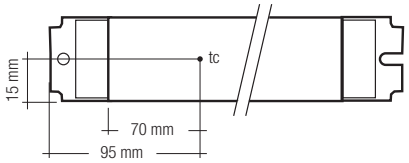
Ballast lumen factor
EN 60929 8.1

Ballast type	AC-BLF at U = 198–254 V, 25 °C
PC 1/18 T8 TOP 220-240V 50/60Hz	1.00
PC 2/18 T8 TOP 220-240V 50/60Hz	1.00
PC 3/18 T8 TOP 220-240V 50/60Hz	1.00
PC 4/18 T8 TOP 220-240V 50/60Hz	1.00
PC 1/36 T8 TOP 220-240V 50/60Hz	1.00
PC 2/36 T8 TOP 220-240V 50/60Hz	1.00
PC 3/36 T8 TOP 220-240V 50/60Hz	1.00
PC 1/58 T8 TOP 220-240V 50/60Hz	1.00
PC 2/58 T8 TOP 220-240V 50/60Hz	1.00

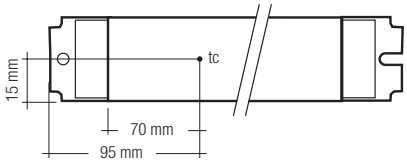
Ambient Temperature
-20 °C to +50 °C



L = 232 mm



L = 280 mm



L = 360 mm

tc point is related to the ballast life time. PC T8 TOP is designed for an average service life of 50,000 hours under reference conditions and with a failure probability of less than 10 %. This corresponds to an average failure rate of ≤ 0.2 % for every 1,000 hours of operation. Reduced temperature will extend ballast life time.

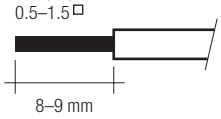
Maximum loading of automatic circuit breakers

Automatic circuit breaker type	C10	C13	C16	C20	B10	B13	B16	B20
Installation ∅	1.5 mm²	1.5 mm²	1.5 mm²	2.5 mm²	1.5 mm²	1.5 mm²	1.5 mm²	2.5 mm²
PC 1/18 T8 TOP	44	62	74	104	22	31	37	52
PC 2/18 T8 TOP	36	50	60	72	18	25	30	36
PC 3/18 T8 TOP	40	60	80	92	20	30	40	46
PC 4/18 T8 TOP	30	40	52	64	15	20	26	32
PC 1/36 T8 TOP	38	52	60	72	19	26	30	36
PC 2/36 T8 TOP	24	32	38	44	12	16	19	22
PC 3/36 T8 TOP	28	40	56	76	14	20	28	38
PC 1/58 T8 TOP	38	56	80	92	19	28	40	46
PC 2/58 T8 TOP	22	34	52	68	11	17	26	34

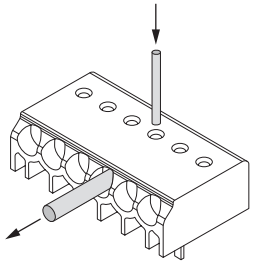
Installation instructions

Wiring type and cross section
Solid wire with a cross section of 0.5 – 1.5 mm².
Strip 8 – 9 mm of insulation from the cables to ensure perfect operation of terminals.

wire preparation:
0.5–1.5 □



Release of the wiring:
Loosen wire through twisting and pulling on using a ∅ 1 mm release tool.



Wiring advice
The lead length is dependant on the capacitance of the cable.
Earthing is not required for the device to operate. Connection to earth reduces radio interference.

Ballast	Terminal	
Type	Cold	Hot
PC 1/xx T8 TOP	13, 14	9, 10
PC 2/xx T8 TOP	11, 12, 13, 14	9, 10
PC 3/xx T8 TOP	11, 12, 13, 14, 15, 16	9, 10
PC 4/xx T8 TOP	13, 14, 15, 16, 17, 18, 19, 20	11, 12

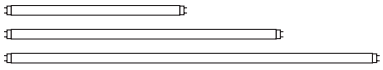
Max. 100 pF between hot lamp leads and earth
Max. 200 pF between cold lamp leads and earth
Max. 200 pF between lamp leads

With standard solid wire 0.5/0.75 mm² the capacitance of the lead is approx. 80 pF/m. This value is influenced by the way the wiring is made. In borderline cases the capacitance must be measured inside the luminaire.
Keep lamp wires short. Lamp connection with twin ballast should be made with symmetrical wiring. Hot leads (9, 10) and cold leads (11, 12, 13, 14, 15, 16) should be separated as much as possible.

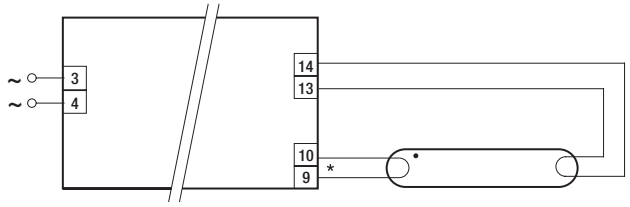
Defective lamp
(Broken filament, rectifying effect, gas defect)
If a lamp is defective, the ballast switches off and goes into standby. There is an automatic restart once the lamp(s) has/have been changed.

RFI
TridonicAtco ballasts are RFI protected in accordance with EN 55015. To operate the luminaire correctly and to minimise RFI we recommend the following instructions:
- Connection to the lamps of the “hot leads” should be kept as short as possible
- Mains leads should be kept apart from lamp leads (ideally 5–10 cm distance)
- Do not run mains leads adjacent to the electronic ballast
- Twist the lamp leads
- Keep the distance of lamp leads from the metal work as large as possible
- For best EMC conditions earthing of the ballast is recommended
- Mains wiring to be twisted when through wiring
- Keep the mains leads inside the luminaire as short as possible

T8 lamp information

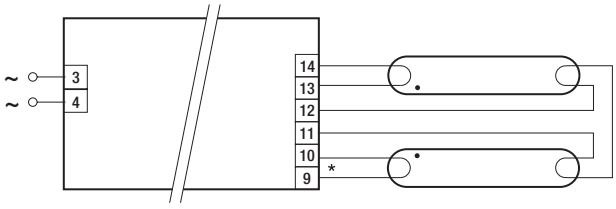


wattage	length
18 W	590 mm
36 W	1200 mm
58 W	1500 mm



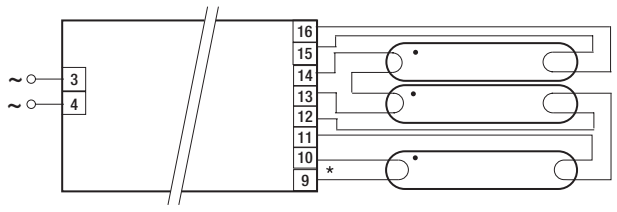
*** leads 9, 10 max. 1.0 m (< 100 pF)**
leads 13, 14 max. 2.0 m (< 200 pF)

PC 1/18 T8 TOP, PC 1/36 T8 TOP, PC 1/58 T8 TOP



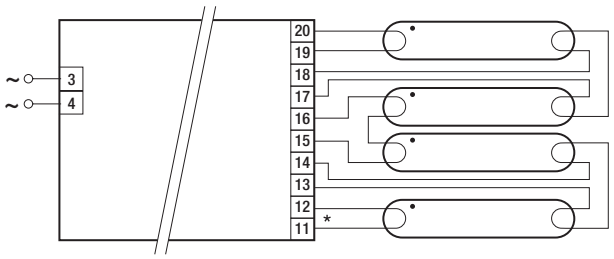
*** leads 9, 10 max. 1.0 m (< 100 pF)**
leads 11, 12, 13, 14 max. 2.0 m (< 200 pF)

PC 2/18 T8 TOP, PC 2/36 T8 TOP, PC 2/58 T8 TOP



*** leads 9, 10 max. 1.0 m (< 100 pF)**
leads 11, 12, 13, 14, 15, 16 max. 2.0 m (< 200 pF)

PC 3/18 T8 TOP, PC 3/36 T8 TOP



*** leads 11, 12 max. 1.0 m (< 100 pF)**
leads 13, 14, 15, 16, 17, 18, 19, 20 max. 2.0 m (< 200 pF)

PC 4/18 T8 TOP

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