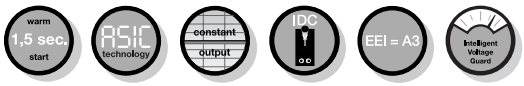
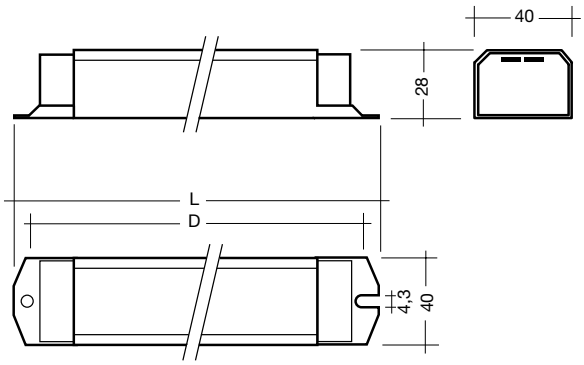
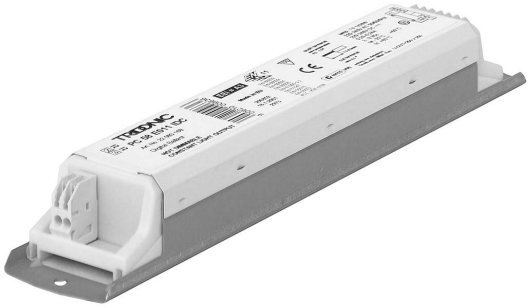
PC T8 PRO 3/18 W and 4/18 W 220-240 V 50/60/0 Hz







- defined lamp warm start in 1 s
- constant light output independent of fluctuations in mains voltage
- AC voltage range 198–254 V
- DC voltage range 176–280 V, for ignition input voltage ≥ 198 V
- power factor > 0.97
- overvoltage protection 320 V AC, 1 h
- overvoltage indication starting at input voltage 267–306 V AC
- undervoltage protection (shut down) below 150 V AC / 176 V DC
- operating frequency ≥ 40 kHz
- suitable for automatic and manual wiring with insulation displacement connector (IDC)
- wide operating temperature range from -25°C to +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 or ▽M and ▽M▽M in acc. with EN 60598/VDE 0710 and VDE 0711
- suitable for luminaires with protection class SK I and SK II
- Ingress protection IP 20
- thermal protection according to EN 61347-2-3 C5e ▽110

Packaging:
25 pieces/carton
30 cartons/pallet
750 pieces/pallet

Certified:
EN 55015
EN 55022
EN 61347-2-4
EN 60925
EN 61347-2-3
EN 60929
EN 61000-3-2
EN 61547
in accordance with VDE 0108
IEC 68-2-64 Fh
IEC 68-2-29 Eb
IEC 68-2-30

Lamp		**Ballast**										
watt-age	length	type	article number	length L	fixing centres	weight	circuit power	lamp power	current at 230V/50Hz	λ at 230V/50Hz	tc point	temperature range
W	mm			mm	D mm	kg	W	W	mA		°C	°C
3x18	590	**PC 3/18 T8 PRO** 220-240V 50/60/0Hz	22088146	234	220	0.28	60.0	48.0	269	0.97	75	-25 → +50
4x18	590	**PC 4/18 T8 PRO** 220-240V 50/60/0Hz	22088152	234	220	0.28	80.3	64.0	360	0.97	75	-25 → +50

Technical data

The PC T8 PRO complies with:
EN 55015
EN 55022
EN 61000-3-2
EN 61347-2-4
EN 60925
EN 61547
EN 61347-2-3
EN 60929
IEC 68-2-64 Fh
IEC 68-2-29 Eb
IEC 68-2-30

CE
ENEC marked
CELMA energy classification EEI = A3

Lamp starting characteristics

Warm start
Starting time 1 s with AC and DC operation

AC operation

Mains voltage:
220–240 V 50/60 Hz
198–254 V 50/60 Hz

DC operation

220–240 V 0 Hz
198–280 V 0 Hz certain lamp start
176–280 V 0 Hz operating range
Light output level in DC operation: 100 %

Emergency lighting

Use in emergency lighting installations according to VDE 0108 or for emergency luminaires according to EN 61347-2-3 appendix J.

Instant start after mains interruption < 0.5 s

Intelligent Voltage Guard

Overvoltage indication (lamp flashes) starting at certain voltage level. Undervoltage protection (ballast shut down) at certain voltage level. Automatic restart of ballast within AC/DC operation voltage.

Mains currents in DC operation

Ballast type	Mains current at U_n = 220 VDC	Mains current at U_n = 240 VDC
PC 3/18 T8 PRO 220-240V 50/60/0Hz	273 mA	250 mA
PC 4/18 T8 PRO 220-240V 50/60/0Hz	363 mA	333 mA

Harmonic distortion in the mains supply

Ballast type	THD at 230 V/50 Hz
PC 3/18 T8 PRO 220-240V 50/60/0Hz	< 10 %
PC 4/18 T8 PRO 220-240V 50/60/0Hz	< 10 %

Output voltage

type	U_{out}
PC 3/18 T8 PRO 220-240V 50/60/0Hz	250 V
PC 4/18 T8 PRO 220-240V 50/60/0Hz	250 V

Ballast lumen factor
EN 60929 8.1

Ballast type	AC/DC-BLF at U = 198–254 V, 25 °C
PC 3/18 T8 PRO 220-240V 50/60/0Hz	= 1.00
PC 4/18 T8 PRO 220-240V 50/60/0Hz	= 1.00

ASIC light management

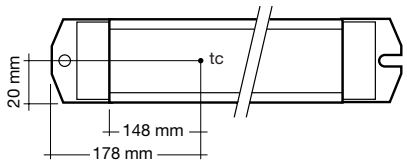
ASIC (Application specific integrated circuit) is the very latest in lighting management design technology. The lamp friendly warm start is delivering maximum T8 lamp life and enables high switching frequency applications.

Energy class CELMA EEI = A3

PC T8 PRO complies with Energy Efficiency Index class A3.

Ambient Temperature

-25 °C to +50 °C



tc point is related to the ballast life duration.
PC T8 PRO 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.

Wiring advice

The lead length is dependant on the capacitance of the cable.
For safety reasons, the PC T8 PRO must only be earthed in the case of a safety class 1 luminaire. Earthing is not required for the device to operate. Connection to earth reduces radio interference.

Ballast Type	Terminal		Maximum capacitance allowed	
	Cold	Hot	Cold	Hot
PC 3/18 T8 PRO	11, 12, 13, 14, 15, 16	9, 10	200 pF	100 pF
PC 4/18 T8 PRO	5, 6, 11, 12, 13, 14, 15, 16	9, 10	200 pF	100 pF

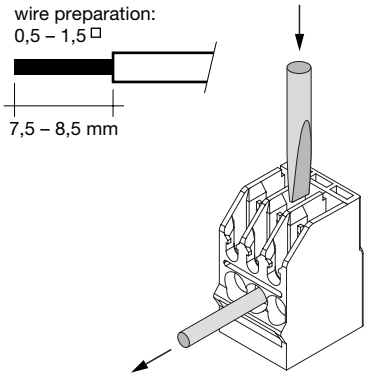
With standard solid wire 0,5/0,75 mm² the capacitance of the lead is 30–80 pF/m. This value is influenced by the way the wiring is made. Keep lamp wires short. Lamp connection with twin ballast should be made with symmetrical wiring. Hot leads and cold leads should be separated as much as possible.

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 3/18 T8 PRO	40	60	80	92	20	30	40	46
PC 4/18 T8 PRO	30	40	52	64	15	20	26	32

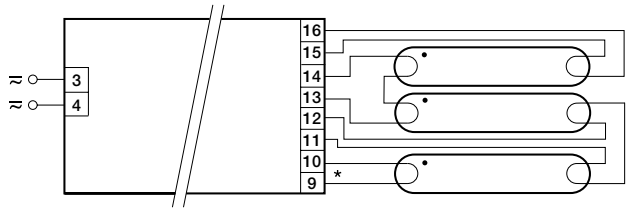
Installation instructions

Wiring type and cross section
Suitable for solid cables from 0.5 to 1.5 mm².



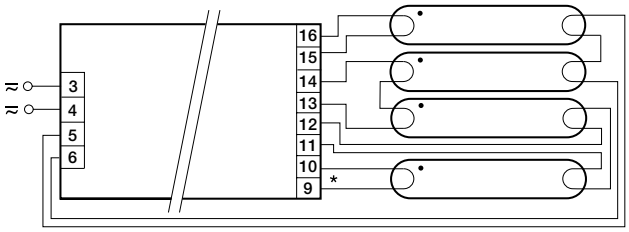
RFI
Tridonic ballasts are RFI protected in accordance with EN 55015 and EN 55022. To operate the luminaire correctly and and to minimise RFI we recommend the following instructions:
- Connection to the lamps of the “hot leads” must be kept as short as possible
- Mains leads should be kept apart from 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
- Ballast must be earthed
- Mains wiring to be twisted when through wiring
- Keep the mains leads inside the luminaire as short 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 has been changed.



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

PC 3/18 T8 PRO



* leads (9, 10) max. 1.0 m (< 100 pF)
leads (5, 6, 11, 12, 13, 14, 15, 16) 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

PC 4/18 T8 PRO