

PC TC PRO sr+ 1/2x11 – 42 W

PC PRO compact

Product description

- CELMA Energy Efficiency Index A2 BAT / A2
- Nominal life-time up to 50,000 h (at ta 50 °C with a failure rate max. 0.2 % per 1,000 h)
- Large temperature range (for values see table)
- No tools required for installation
- Integrated terminal cover and strain relief
- Through wiring possible
- 3 separate strain reliefs
- Devices can operate either 1 or 2 lamps
- Intelligent Voltage Guard (overvoltage indication and undervoltage shutdown)
- Constant luminous flux irrespective of fluctuations in mains voltage
- For luminaires of protection class I and protection class II
- Automatic start after replacement of defective lamps
- Safety shutdown of defective lamps and at end of lamp life (EOL 2)
- For emergency lighting systems as per EN 50172
- For luminaires with M and MM as per EN 60598, VDE 0710 and VDE 0711
- Temperature protection as per EN 61347-2-3 C5e

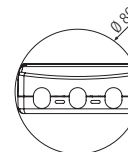
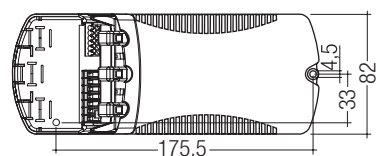
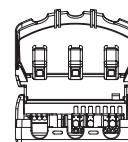
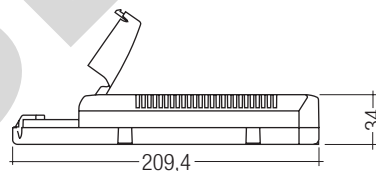
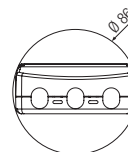
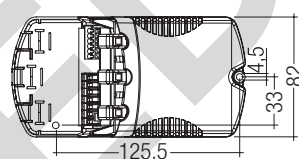
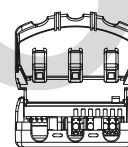
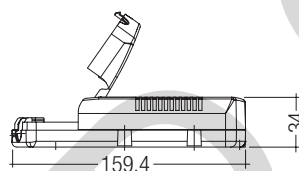
Technical data

AC voltage range	198 – 264 V
DC voltage range	176 – 280 V (Lamp start $\geq$ 198 V DC)
Overvoltage protection	320 V AC, 1 h
Defined warm start	$\leq$ 1.6 s
Operating frequency	$\geq$ 40 kHz
Type of protection	IP20



Standards, page 3

Wiring diagrams and installation examples, page 5



Ordering data

Type	Article number	Packaging carton	Packaging pallet	Weight per pc.
For luminaires with 1 or 2 lamps				
PC 1/2x11–17 TC PRO sr+	22176411	25 pc(s).	550 pc(s).	0.181 kg
PC 1/2x18 TC PRO sr+	22176412	25 pc(s).	550 pc(s).	0.181 kg
PC 1/2x26–42 TC PRO sr+	22176413	25 pc(s).	550 pc(s).	0.181 kg
For luminaires with 2 lamps				
PC 2x26–42 TC PRO sr+	22176414	25 pc(s).	350 pc(s).	0.223 kg

Specific technical data

Lamp wattage	Lamp type	Type	Article number	Dimensions L x W x H	Lamp power	Circuit power	EEI	Current at 50 Hz		λ at 50 Hz		tc point max.	Ambient temperature ta	tc/ta for ≥ 50.000 h
								220 V	240 V	220 V	240 V			
For luminaires with 1 or 2 lamps														
1 x 11 W	TC-TEL HE	PC 1/2x11-17 TC PRO sr+	22176411	159.4 x 82 x 34 mm	12.0 W	13.5 W	A2 BAT	0.066 A	0.061 A	0.93	0.91	80 °C	-25 ... 75 °C	70/65 °C
2 x 11 W	TC-TEL HE	PC 1/2x11-17 TC PRO sr+	22176411	159.4 x 82 x 34 mm	24.5 W	27.3 W	A2 BAT	0.127 A	0.116 A	0.98	0.97	75 °C	-25 ... 65 °C	70/60 °C
1 x 14 W	TC-TEL HE	PC 1/2x11-17 TC PRO sr+	22176411	159.4 x 82 x 34 mm	15.5 W	16.7 W	A2	0.080 A	0.074 A	0.95	0.93	80 °C	-25 ... 75 °C	70/65 °C
2 x 14 W	TC-TEL HE	PC 1/2x11-17 TC PRO sr+	22176411	159.4 x 82 x 34 mm	32.0 W	33.9 W	A2 BAT	0.157 A	0.144 A	0.98	0.98	75 °C	-25 ... 65 °C	70/60 °C
1 x 17 W	TC-TEL HE	PC 1/2x11-17 TC PRO sr+	22176411	159.4 x 82 x 34 mm	18.6 W	19.5 W	A2 BAT	0.094 A	0.086 A	0.96	0.95	80 °C	-25 ... 75 °C	70/65 °C
2 x 17 W	TC-TEL HE	PC 1/2x11-17 TC PRO sr+	22176411	159.4 x 82 x 34 mm	37.8 W	40.0 W	A2 BAT	0.186 A	0.171 A	0.99	0.98	75 °C	-25 ... 65 °C	70/60 °C
1 x 18 W	TC-DEL	PC 1/2x18 TC PRO sr+	22176412	159.4 x 82 x 34 mm	16.7 W	18.7 W	A2 BAT	0.090 A	0.082 A	0.95	0.94	75 °C	-25 ... 65 °C	75/65 °C
2 x 18 W	TC-DEL	PC 1/2x18 TC PRO sr+	22176412	159.4 x 82 x 34 mm	33.6 W	36.5 W	A2 BAT	0.170 A	0.156 A	0.98	0.98	75 °C	-25 ... 65 °C	75/65 °C
1 x 18 W	TC-TEL	PC 1/2x18 TC PRO sr+	22176412	159.4 x 82 x 34 mm	16.6 W	18.8 W	A2 BAT	0.090 A	0.083 A	0.95	0.94	75 °C	-25 ... 65 °C	75/65 °C
2 x 18 W	TC-TEL	PC 1/2x18 TC PRO sr+	22176412	159.4 x 82 x 34 mm	34.8 W	37.3 W	A2 BAT	0.174 A	0.159 A	0.98	0.98	75 °C	-25 ... 65 °C	75/65 °C
1 x 22 W	T5c	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	21.7 W	24.6 W	A2	0.117 A	0.107 A	0.96	0.95	75 °C	-25 ... 60 °C	70/55 °C
2 x 22 W	T5c	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	44.8 W	48.7 W	A2 BAT	0.225 A	0.206 A	0.99	0.98	75 °C	-25 ... 55 °C	70/50 °C
1 x 40 W	T5c	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	38.2 W	40.7 W	A2 BAT	0.189 A	0.173 A	0.99	0.98	75 °C	-25 ... 60 °C	70/55 °C
1 x 26 W	TC-DEL	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	23.0 W	25.6 W	A2 BAT	0.125 A	0.114 A	0.97	0.96	75 °C	-25 ... 60 °C	70/55 °C
2 x 26 W	TC-DEL	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	49.9 W	52.4 W	A2 BAT	0.242 A	0.222 A	0.99	0.99	75 °C	-25 ... 55 °C	70/50 °C
1 x 18 W	TC-F	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	13.7 W	15.4 W	A2	0.077 A	0.071 A	0.92	0.91	75 °C	-25 ... 60 °C	70/55 °C
2 x 18 W	TC-F	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	26.4 W	30.4 W	A2 BAT	0.142 A	0.130 A	0.98	0.97	75 °C	-25 ... 60 °C	70/55 °C
1 x 24 W	TC-F	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	20.0 W	22.2 W	A2 BAT	0.106 A	0.097 A	0.96	0.95	75 °C	-25 ... 60 °C	70/55 °C
2 x 24 W	TC-F	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	42.9 W	45.7 W	A2 BAT	0.211 A	0.193 A	0.99	0.98	75 °C	-25 ... 55 °C	70/50 °C
1 x 18 W	TC-L	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	14.5 W	16.7 W	A2	0.083 A	0.076 A	0.93	0.92	75 °C	-25 ... 60 °C	70/55 °C
2 x 18 W	TC-L	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	29.5 W	33.3 W	A2 BAT	0.155 A	0.142 A	0.98	0.97	75 °C	-25 ... 60 °C	70/55 °C
1 x 24 W	TC-L	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	21.6 W	24.1 W	A2 BAT	0.114 A	0.104 A	0.96	0.95	75 °C	-25 ... 60 °C	70/55 °C
2 x 24 W	TC-L	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	44.5 W	48.4 W	A2 BAT	0.223 A	0.204 A	0.99	0.97	75 °C	-25 ... 55 °C	70/50 °C
1 x 26 W	TC-TEL	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	24.4 W	26.7 W	A2 BAT	0.125 A	0.115 A	0.97	0.96	75 °C	-25 ... 60 °C	70/55 °C
2 x 26 W	TC-TEL	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	50.2 W	53.3 W	A2 BAT	0.243 A	0.223 A	0.99	0.99	75 °C	-25 ... 55 °C	70/50 °C
1 x 32 W	TC-TEL	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	31.3 W	33.7 W	A2 BAT	0.157 A	0.144 A	0.98	0.97	75 °C	-25 ... 60 °C	70/55 °C
1 x 42 W	TC-TEL	PC 1/2x26-42 TC PRO sr+	22176413	159.4 x 82 x 34 mm	40.9 W	42.7 W	A2 BAT	0.198 A	0.181 A	0.99	0.98	75 °C	-25 ... 60 °C	70/55 °C
For luminaires with 2 lamps														
2 x 22 W	T5c	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	48.0 W	50.9 W	A2 BAT	0.237 A	0.218 A	0.97	0.96	75 °C	-25 ... 65 °C	75/65 °C
2x40 W	T5c	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	62.5 W	66.6 W	A2 BAT	0.309 A	0.283 A	0.97	0.97	70 °C	-25 ... 55 °C	70/55 °C
2 x 40 W	T5c	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	74.5 W	80.2 W	A2 BAT	0.370 A	0.339 A	0.98	0.97	70 °C	-25 ... 55 °C	70/55 °C
2 x 26 W	TC-DEL	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	52.5 W	56.4 W	A2 BAT	0.263 A	0.241 A	0.98	0.97	75 °C	-25 ... 65 °C	75/65 °C
2 x 18 W	TC-F	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	28.3 W	31.0 W	A2 BAT	0.151 A	0.138 A	0.94	0.93	80 °C	-25 ... 75 °C	75/70 °C
2 x 24 W	TC-F	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	42.4 W	45.7 W	A2 BAT	0.216 A	0.198 A	0.96	0.95	75 °C	-25 ... 65 °C	75/65 °C
2 x 18 W	TC-L	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	30.5 W	33.3 W	A2 BAT	0.161 A	0.148 A	0.95	0.93	80 °C	-25 ... 75 °C	75/70 °C
2 x 24 W	TC-L	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	47.7 W	51.1 W	A2 BAT	0.239 A	0.219 A	0.97	0.96	75 °C	-25 ... 65 °C	75/65 °C
2 x 26 W	TC-TEL	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	51.6 W	55.5 W	A2 BAT	0.259 A	0.237 A	0.98	0.97	75 °C	-25 ... 65 °C	75/65 °C
2 x 32 W	TC-TEL	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	66.1 W	71.2 W	A2 BAT	0.329 A	0.302 A	0.98	0.98	70 °C	-25 ... 55 °C	70/55 °C
2 x 42 W	TC-TEL	PC 2x26-42 TC PRO sr+	22176414	209.4 x 82 x 34 mm	83.0 W	90.4 W	A2 BAT	0.417 A	0.382 A	0.99	0.98	70 °C	-25 ... 55 °C	70/55 °C

Standards

EN 55015
EN 60929
EN 61000-3-2
EN 61347-2-3
EN 61347-2-4
EN 61547
according to EN 50172

Lamp starting characteristics

Warm start
Starting time ≤ 1.6 s with AC and DC operation
Cathode heating will be reduced after preheat time

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 %)

DC operation

Mains voltage:
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 EN 50172 or for emergency luminaires according to EN 61347-2-3 appendix J.

Instant start after mains interruption < 0.5 s
EBLF ≥ 0.5

Mains current for defective or missing lamps at DC operation < 10 mA.

Intelligent Voltage Guard

Intelligent Voltage Guard is the name of an electronic monitor from Tridonic. This innovative feature of the PC PRO family of control gear from Tridonic immediately shows if the mains voltage rises above or falls below certain thresholds. Measures can then be taken quickly to prevent damage to the control gear.

- If the mains voltage rises above ≥ 306 V the lamps flash.
- This signal "demands" disconnection of the power supply to the lighting system.
- If the mains voltage falls below 150 V the control gear automatically disconnects the lamp circuit (light off) to protect the control gear from being irreparably damaged.

Smart Heating

PC PRO with smart heating ignition technology optimises lamp start and ensures no energy is wasted. After the lamp has struck the filament heating is reduced automatically to a defined minimum value. This reduction in filament heating, saves energy, yet maintains the proper operating conditions for the lamp. The lamp is always operated within specification.

Mains current in DC operation

Type	Lamp type	Wattage	Mains current at $U_n = 220$ V _{DC}	Mains current at $U_n = 240$ V _{DC}
PC 1/2x11–17 TC PRO sr+	TC-TEL HE	1x11 W	66 mA	61 mA
	TC-TEL HE	2x11 W	127 mA	116 mA
	TC-TEL HE	1x14 W	80 mA	74 mA
	TC-TEL HE	2x14 W	157 mA	144 mA
	TC-TEL HE	1x17 W	94 mA	86 mA
	TC-TEL HE	2x17 W	186 mA	171 mA
PC 1/2x18 TC PRO sr+	TC-DEL	1x18 W	90 mA	82 mA
	TC-DEL	2x18 W	170 mA	156 mA
	TC-TEL	1x18 W	90 mA	83 mA
	TC-TEL	2x18 W	174 mA	159 mA
	T5c	1x22 W	117 mA	107 mA
	T5c	2x22 W	225 mA	206 mA
PC 1/2x26–42 TC PRO sr+	T5c	1x40 W	189 mA	173 mA
	TC-DEL	1x26 W	125 mA	114 mA
	TC-DEL	2x26 W	242 mA	222 mA
	TC-F	1x18 W	77 mA	71 mA
	TC-F	2x18 W	142 mA	130 mA
	TC-F	1x24 W	106 mA	97 mA
PC 2x26–42 TC PRO sr+	TC-F	2x24 W	211 mA	193 mA
	TC-L	1x18 W	83 mA	76 mA
	TC-L	2x18 W	155 mA	142 mA
	TC-L	1x24 W	114 mA	104 mA
	TC-L	2x24 W	223 mA	204 mA
	TC-TEL	1x26 W	125 mA	115 mA
PC 2x26–42 TC PRO sr+	TC-TEL	2x26 W	243 mA	223 mA
	TC-TEL	1x32 W	157 mA	144 mA
	TC-TEL	1x42 W	198 mA	181 mA
	T5c	2x22 W	237 mA	218 mA
	T5c	2x40 W	309 mA	283 mA
	T5c	2x40 W	370 mA	339 mA
PC 2x26–42 TC PRO sr+	TC-DEL	2x26 W	263 mA	241 mA
	TC-F	2x18 W	151 mA	138 mA
	TC-F	2x24 W	216 mA	198 mA
	TC-L	2x18 W	161 mA	148 mA
	TC-L	2x24 W	239 mA	219 mA
	TC-TEL	2x26 W	259 mA	237 mA
PC 2x26–42 TC PRO sr+	TC-TEL	2x32 W	329 mA	302 mA
	TC-TEL	2x42 W	417 mA	382 mA

Harmonic distortion in the mains supply

Type	Lamp type	Wattage	THD at 230V/50Hz
PC 1/2x11-17 TC PRO sr+	TC-TEL HE	1x11 W	< 15 %
	TC-TEL HE	2x11 W	< 10 %
	TC-TEL HE	1x14 W	< 12 %
	TC-TEL HE	2x14 W	< 10 %
	TC-TEL HE	1x17 W	< 12 %
	TC-TEL HE	2x17 W	< 10 %
PC 1/2x18 TC PRO sr+	TC-DEL	1x18 W	< 15 %
	TC-DEL	2x18 W	< 10 %
	TC-TEL	1x18 W	< 15 %
	TC-TEL	2x18 W	< 10 %
PC 1/2x26-42 TC PRO sr+	T5c	1x22 W	< 12 %
	T5c	2x22 W	< 10 %
	T5c	1x40 W	< 10 %
	TC-DEL	1x26 W	< 12 %
	TC-DEL	2x26 W	< 10 %
	TC-F	1x18 W	< 17 %
	TC-F	2x18 W	< 10 %
	TC-F	1x24 W	< 12 %
	TC-F	2x24 W	< 10 %
	TC-L	1x18 W	< 17 %
	TC-L	2x18 W	< 10 %
	TC-L	1x24 W	< 12 %
	TC-L	2x24 W	< 10 %
	TC-TEL	1x26 W	< 12 %
	TC-TEL	2x26 W	< 10 %
	TC-TEL	1x32 W	< 10 %
	TC-TEL	1x42 W	< 10 %
PC 2x26-42 TC PRO sr+	T5c	2x22 W	< 12 %
	T5c	2x40 W	< 10 %
	T5c	2x40 W	< 10 %
	TC-DEL	2x26 W	< 12 %
	TC-F	2x18 W	< 15 %
	TC-F	2x24 W	< 12 %
	TC-L	2x18 W	< 15 %
	TC-L	2x24 W	< 12 %
	TC-TEL	2x26 W	< 12 %
	TC-TEL	2x32 W	< 10 %
	TC-TEL	2x42 W	< 10 %

Output voltage

Type	Lamp type	Wattage	U _{out}
PC 1/2x11-17 TC PRO sr+	TC-TEL HE	1x11 W	400V
	TC-TEL HE	2x11 W	400V
	TC-TEL HE	1x14 W	400V
	TC-TEL HE	2x14 W	400V
	TC-TEL HE	1x17 W	400V
	TC-TEL HE	2x17 W	400V
PC 1/2x18 TC PRO sr+	TC-DEL	1x18 W	250V
	TC-DEL	2x18 W	250V
	TC-TEL	1x18 W	250V
	TC-TEL	2x18 W	250V
	T5c	1x22 W	300V
PC 1/2x26-42 TC PRO sr+	T5c	2x22 W	300V
	T5c	1x40 W	300V
	TC-DEL	1x26 W	300V
	TC-DEL	2x26 W	300V
	TC-F	1x18 W	300V
	TC-F	2x18 W	300V
	TC-F	1x24 W	300V
	TC-F	2x24 W	300V
	TC-L	1x18 W	300V
	TC-L	2x18 W	300V
	TC-L	1x24 W	300V
	TC-L	2x24 W	300V
	TC-TEL	1x26 W	300V
	TC-TEL	2x26 W	300V
	TC-TEL	1x32 W	300V
	TC-TEL	1x42 W	300V
PC 2x26-42 TC PRO sr+	T5c	2x22 W	300V
	T5c	2x40 W	300V
	T5c	2x40 W	300V
	TC-DEL	2x26 W	300V
	TC-F	2x18 W	300V
	TC-F	2x24 W	300V
	TC-L	2x18 W	300V
	TC-L	2x24 W	300V
	TC-TEL	2x26 W	300V
	TC-TEL	2x32 W	300V
	TC-TEL	2x42 W	300V

Ballast lumen factor (EN 60929 8.1)

Type	Lamp type	Wattage	AC/DC-BLF at U = 198–254 V, 25 °C
PC 1/2x11–17 TC PRO sr+	TC-TEL HE	1x11 W	1.01
	TC-TEL HE	2x11 W	1.03
	TC-TEL HE	1x14 W	1.01
	TC-TEL HE	2x14 W	1.04
	TC-TEL HE	1x17 W	1.01
	TC-TEL HE	2x17 W	1.03
PC 1/2x18 TC PRO sr+	TC-DEL	1x18 W	1.03
	TC-DEL	2x18 W	1.06
	TC-TEL	1x18 W	1.02
	TC-TEL	2x18 W	1.04
PC 1/2x26–42 TC PRO sr+	T5c	1x22 W	1.00
	T5c	2x22 W	1.03
	T5c	1x40 W	1.01
	TC-DEL	1x26 W	1.02
	TC-DEL	2x26 W	1.08
	TC-F	1x18 W	0.94
	TC-F	2x18 W	0.98
	TC-F	1x24 W	1.01
	TC-F	2x24 W	1.05
	TC-L	1x18 W	0.94
	TC-L	2x18 W	1.01
	TC-L	1x24 W	1.01
	TC-L	2x24 W	1.06
	TC-TEL	1x26 W	1.00
PC 2x26–42 TC PRO sr+	TC-TEL	2x26 W	1.04
	TC-TEL	1x32 W	0.98
	TC-TEL	1x42 W	0.99
	T5c	2x22 W	1.04
	T5c	2x40 W	1.07
	T5c	2x40 W	1.00
	TC-DEL	2x26 W	1.08
	TC-F	2x18 W	0.99
	TC-F	2x24 W	1.06
	TC-L	2x18 W	0.98
	TC-L	2x24 W	1.08
	TC-TEL	2x26 W	1.08
	TC-TEL	2x32 W	1.01
	TC-TEL	2x42 W	1.01

PC PRO with x:itec processor

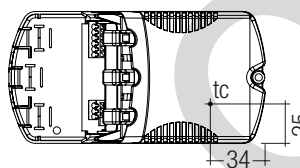
The very latest in lighting management design technology. The lamp friendly warm start is delivering maximum lamp life and enables many frequency applications. Smallest power loss and new freedom in the lamp design thanks to convincing thermal management.

Energy class: CELMA EEI = A2 BAT / A2¹⁾

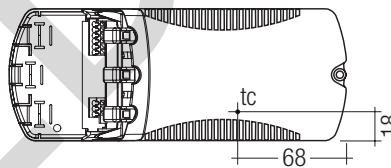
Maximum energy efficiency:

Right from the early stages in the development of xitec technology the focus has always been on achieving maximum energy efficiency. In conjunction with Smart Heating Technology, PC TC PRO sr+ is rated in the best possible efficiency class of A2 BAT that CELMA provides for ballasts with a constant luminous flux.

¹⁾ according to the EU directives on ecodesign requirements (EC) No. 245/2009 and (EC) No. 347/2010

Temperature range

PC TC PRO sr+, L = 159,4 mm



PC TC PRO sr+, L = 209,4 mm

The ballast life duration is related to the ambient temperature t_a .

The relation of t_c to t_a temperature depends also on the luminaire design. If the measured t_c temperature is approx. 5 K below t_c max. or higher, t_a temperature should be checked and eventually critical components (e.g. ELCAP) measured. Detailed information on request.

PC TC PRO sr+ is designed for an average life-time of 50,000 (at t_a for ≥ 50.000 h) 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.

Humidity: 5 % up to max. 85 %,
not condensed
(max. 56 days/year at 85 %)

Storage temperature: -40 °C up to max. +80 °C

The devices have to be within the specified temperature range (t_a) before they can be operated.

Expected life-time

Type	Lamp type	Lamp power		ta = 40 °C	ta = 50 °C	ta = 55 °C	ta = 60 °C	ta = 65 °C	ta = 70 °C	ta = 75 °C
PC 1/2x11-17 TC PRO sr+	TC-TEL HE	1x11 W	tc	45 °C	55 °C	60 °C	65 °C	70 °C	75 °C	80 °C
	TC-TEL HE	1x14 W	Life-time	> 100,000 h	> 100,000 h	100,000 h	80,000 h	50,000 h	35,000 h	25,000 h
	TC-TEL HE	1x17 W								
	TC-TEL HE	2x11 W	tc	50 °C	60 °C	65 °C	70 °C	75 °C	x	x
PC 1/2x18 TC PRO sr+	TC-DEL	1x18 W	tc	50 °C	60 °C	65 °C	70 °C	75 °C	x	x
	TC-TEL	1x18 W	Life-time	> 100,000 h	> 100,000 h	> 100,000 h	75,000 h	55,000 h	x	x
	TC-DEL	2x18 W	tc	55 °C	60 °C	65 °C	70 °C	75 °C	x	x
	TC-TEL	2x18 W	Life-time	> 100,000 h	> 100,000 h	95,000 h	65,000 h	50,000 h	x	x
PC 1/2x26-42 TC PRO+	T5c	1x22 W	tc	55 °C	65 °C	70 °C	75 °C	x	x	x
	TC-DEL	1x26 W								
	TC-F	1x18 W	Life-time	> 100,000 h	100,000 h	65,000 h	45,000 h	x	x	x
	TC-F	1x24 W								
	TC-L	1x18 W								
	TC-L	1x24 W								
	TC-TEL	1x26 W								
	T5c	1x40 W	tc	55 °C	65 °C	70 °C	75 °C	x	x	x
	TC-F	2x18 W								
	TC-L	2x18 W	Life-time	> 100,000 h	90,000 h	60,000 h	45,000 h	x	x	x
	TC-TEL	1x32 W								
	TC-TEL	1x42 W								
PC 2x26-42 TC PRO sr+	T5c	2x22 W	tc	60 °C	70 °C	75 °C	x	x	x	x
	TC-DEL	2x26 W								
	TC-F	2x24 W	Life-time	> 100,000 h	60,000 h	45,000 h	x	x	x	x
	TC-L	2x24 W								
	TC-TEL	2x26 W								
	T5c	22+40 W	tc	55 °C	65 °C	70 °C	x	x	x	x
	T5c	2x40 W								
	TC-TEL	2x32 W	Life-time	> 100,000 h	100,000 h	70,000 h	x	x	x	x
	TC-TEL	2x42 W								
PC 2x26-42 TC PRO sr+	TC-F	2x18 W	tc	45 °C	55 °C	60 °C	65 °C	70 °C	75 °C	80 °C
	TC-L	2x18 W	Life-time	> 100,000 h	> 100,000 h	> 100,000 h	> 100,000 h	75,000 h	60,000 h	45,000 h
	T5c	2x22 W	tc	50 °C	60 °C	65 °C	70 °C	75 °C	x	x
	TC-DEL	2x26 W								
	TC-F	2x24 W	Life-time	> 100,000 h	> 100,000 h	> 100,000 h	80,000 h	55,000 h	x	x
	TC-L	2x24 W								
	TC-TEL	2x26 W								
	T5c	22+40 W	tc	55 °C	65 °C	70 °C	x	x	x	x

x = not permitted

Maximum loading of automatic circuit breakers

Automatic circuit	C10	C13	C16	C20	B10	B13	B16	B20	Inrush current	
Installation cross section	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	1.5 mm ²	1.5 mm ²	1.5 mm ²	2.5 mm ²	I _{max}	time
PC 1/2x11-17 TC PRO sr+	22	32	44	50	11	16	22	25	22.3 A	255 µs
PC 1/2x18 TC PRO sr+	47	62	76	95	24	36	76	80	13.0 A	200 µs
PC 1/2x26-42 TC PRO sr+	24	38	52	66	12	19	31	33	23.5 A	245 µs
PC 2x26-42 TC PRO sr+	14	20	24	30	7	10	12	15	37.1 A	205 µs

Wiring advice

The lead length is dependant on the capacitance of the cable.

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. Lamp connection should be made with symmetrical wiring.

Ballast	Terminal	Maximum capacitance allowed			
Type		Cold	Hot	Cold	Hot
PC 1xx TC PRO sr+		8, 9	12, 13	200 pF	100 pF
PC 2xx TC PRO sr+		8, 9, 10, 11	8, 9, 12, 13	200 pF	100 pF

To avoid the damage of the control gear, the wiring must be protected against short circuits to earth (sharp edged metal parts, metal cable clips, louver, etc.)

Installation instructions

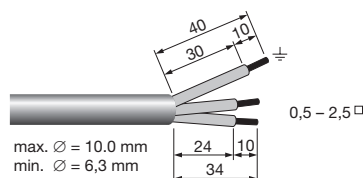
Mains supply wires

Wiring type and cross section

Stranded wire or solid wire up to 2.5 mm² may be used for wiring. Strip 10–11 mm of insulation from the cables to ensure perfect operation of the screw terminals.

Use one wire for each terminal connector only.

Use each strain relief channel for one cable only.



Lamp wires

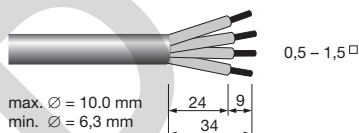
Wiring type and cross section

The wiring can be in stranded wires with ferrules or solid with a cross section of 0.5–1.5 mm².

Strip 8.5–9.5 mm of insulation from the cables to ensure perfect operation of the push-wire terminals.

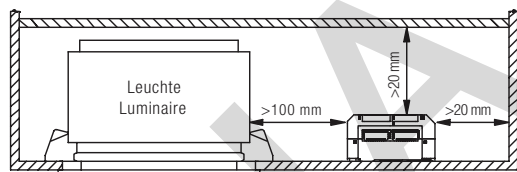
Use one wire for each terminal connector only.

Use each strain relief channel for one cable only.



Fixing conditions

Dry, acidfree, oilfree, fatfree. It is not allowed to exceed the maximum ambient temperature (ta) stated on the device. Minimum distances stated below are recommendations and depend on the actual luminaire. Is not suitable for fixing in corner.

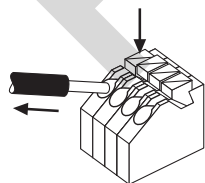


The mounting of the device with the aid of the mounting hole inside the housing is only allowed with screws which are not electrically conducting.

Detailed monting instruction see on www.tridonic.com → „Technical Data“.

Release of the wiring

Press down the “push button” and remove the cable from front.



RFI

Tridonic 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” must be kept as short as possible
- Mains leads should be kept apart from lamp leads
- 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
- Connect functional earth to the ballast
- Keep the mains leads inside the luminaire as short as possible

Defective lamp

If a lamp is defective, the ballast switches off and goes into standby. Switch off tested according to EN 61347-2-3 17.3 (EoL-Test 2). There is an automatic restart once the lamp has been changed.

Isolation and electric strength testing of luminaires

Electronic devices can be damaged by high voltage. This has to be considered during the routine testing of the luminaires in production.

According to IEC 60598-1 Annex Q (informative only) or ENEC 303-Annex A, each luminaire should be submitted to an isolation test with 500 V_{DC} for 1 second. This test voltage should be connected between the interconnected phase and neutral terminals and the earth terminal.

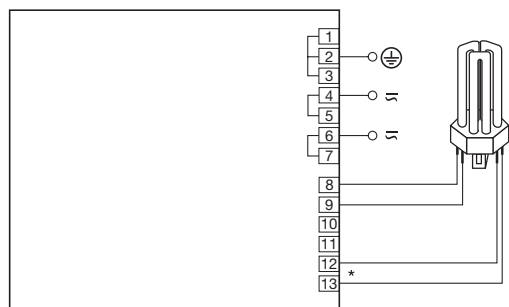
The isolation resistance must be at least 2 MΩ.

As an alternative, IEC 60598-1 Annex Q describes a test of the electrical strength with 1500 V_{AC} (or 1.414 x 1500 V_{DC}). To avoid damage to the electronic devices this test must not be conducted.

Glow-wire test

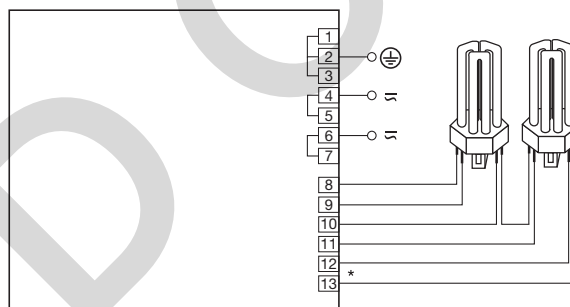
according to EN 60598-1 with increased temperature of 850 °C passed.

Wiring diagrams



* leads 12, 13 max. 1.0 m (< 100 pF)
leads 8, 9 max. 2.0 m (< 200 pF)
For luminaires of protection class I: Earthing via earth terminal (according to IEC 60598)
For luminaires of protection class II: No earthing required

PC 1/2x11-17 TC PRO sr+ with 1 lamp
PC 1/2x18 TC PRO sr+ with 1 lamp
PC 1/2x26-42 TC PRO sr+ with 1 lamp



* leads 12, 13 max. 1.0 m (< 100 pF)
leads 8, 9, 10, 11 max. 2.0 m (< 200 pF)
For luminaires of protection class I: Earthing via earth terminal (according to IEC 60598)
For luminaires of protection class II: No earthing required

PC 1/2x11-17 TC PRO sr+ with 2 lamps
PC 1/2x18 TC PRO sr+ with 2 lamps
PC 1/2x26-42 TC PRO sr+ with 2 lamps
PC 2x26-42 TC PRO sr+ with 2 lamps

Through wiring

