

THORN

1st August 2009

Replacement Ballast Guide



Replacement Ballast Guide

Operating Voltage

All fittings which include control gear are suitable for 240V 50Hz unless otherwise stated.

Quality Assurance

Thorn Lighting has a declared policy regarding quality and all the European manufacturing sites have implemented ISO 9000. As a company we regard the safety and quality of our products as top priority.

Our manufacturing and distribution operations are registered by IQNET to the highest possible standard for quality systems - BS5750 Part 1/ISO9001:2000

Thorn Lighting's policy of total quality means that all relevant EC directives are met and that all products carry the CE mark.

Spare Parts

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Magnetic Chokes - Linear lamps

EC 58-125W 240V 50Hz

→ T8, T12

EN 60921

EN 61347-1

EN 61347-2/8

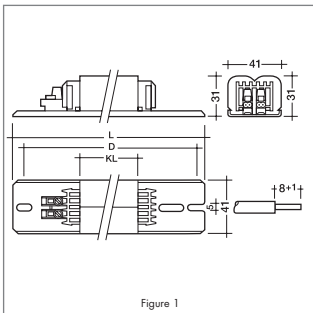


Figure 1

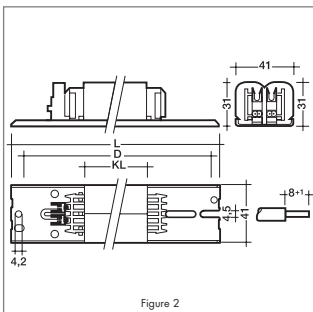


Figure 2

Lamp			Choke				
wattage W	length mm	diameter mm	type	article	fig.	length L mm	fixing centres D mm
Energy Efficiency Index EEI = B1							
58	1500	0.67	EC 65 B140 240/50	22175033	1	231	210-224
65	1500	0.67	EC 65 B140 240/50	22175033	1	231	210-224
U65	765	0.67	EC 65 B140 240/50	22175033	1	231	210-224
70	1800	0.7	EC 70 B502K 240/50	22148772	2	191	150-184
75	1800	0.67	EC 70 B502K 240/50	22148772	2	191	150-184
Energy Efficiency Index EEI = B2							
58	1500	0.67	EC 58 LC502K 240/50	22119165	2	191	150-184
58	1500	0.67	EC 58 C502K 240/50	22149260	2	191	150-184
U65(58)	765	0.67	EC 58 C502K 240/50	22149260	2	191	150-184
U65(58)	765	0.67	EC 58 LC502K 240/50	22119165	2	191	150-184
70	1800	0.7	EC 70 C502K 240/50	22148773	2	191	150-184
75	188	0.67	EC 70 C502K 240/50	22148773	2	191	150-184
Energy Efficiency Index EEI = C							
58	1500	0.67	EC 58 A502K 240/50*	22115878	2	191	150-184
65	1500	0.67	EC 58 A502K 240/50*	22115878	2	191	150-184
U65	765	0.67	EC 58 A502K 240/50*	22115878	2	191	150-184
100	1800	0.98	EC 100 A140 240/50	22175032	1	231	210-224
100	2400	0.96	EC 100 A140 240/50	22175032	1	231	210-224
125	2400	0.94	EC 125 A140 230/240/50	22175035	1	231	210-224

*no CE marking according to CELMA Directive 2000/55/EC

Magnetic Chokes - Compact lamps

EC 5-18W 240V 50Hz

TC-D TC-DD TC-L TC-S

EN 60921

EN 61347-1

EN 61347-2/8

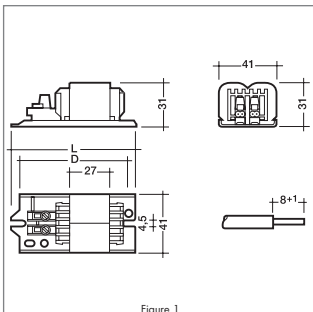


Figure 1

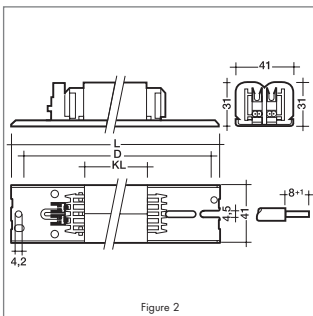


Figure 2

Lamp		Choke				
wattage W	type	type	article	fig.	length L mm	fixing centres D mm
Energy Efficiency Index EEI = B1						
5	TC-S	EC 09 B27 240/50	20821660	1	84.5	74-80
7	TC-S	EC 09 B27 240/50	20821660	1	84.5	74-80
2x7	TC-S*	EC 13 B27 240/50	22116865	1	84.5	74-80
2x7	TC-S	EC 13 LB502K 240/50	22148763	2	151	110-144
9	TC-S	EC 09 B27 240/50	20821660	1	84.5	74-80
2x9	TC-S*	EC 13 B27 240/50	22116865	1	84.5	74-80
2x9	TC-S	EC 13 LB502K 240/50	22148763	2	151	110-144
10	TC-DD	EC 13 B27 240/50	22116865	1	84.5	74-80
10	TC-D	EC 13 LB502K 240/50	22148763	2	151	110-144
10	TC-DD	EC 13 LB502K 240/50	22148763	2	151	110-144
11	TC-S	EC 09 B27 240/50	20821660	1	84.5	74-80
13	TC-D	EC 13 B27 240/50	22116865	1	84.5	74-80
13	TC-D	EC 13 LB502K 240/50	22148763	2	151	110-144
16	TC-DD	EC 16 B27 240/50	20821705	1	84.5	74-80
18	TC-D	EC 18 B27 240/50	20821720	1	84.5	74-80
18	TC-D	EC 18 TCD LB502K 240/50	22148766	2	151	110-144
18	TC-L	EC 18 B502K 240/50	22148765	2	191	150-184
2x18	TC-L*	EC 36 B502K 240/50	22148771	2	191	150-184
Energy Efficiency Index EEI = B2						
5	TC-S	EC 09 C102K 240/50	22149307	1	84.5	74-80
7	TC-S	EC 09 C102K 240/50	22149307	1	84.5	74-80
2x7	TC-S	EC 13 C102K 240/50	20821682	1	84.5	74-80
9	TC-S	EC 09 C102K 240/50	22149307	1	84.5	74-80
2x9	TC-S	EC 13 C102K 240/50	20821682	1	84.5	74-80
10	TC-D	EC 13 C102K 240/50	20821682	1	84.5	74-80
10	TC-DD	EC 13 C102K 240/50	20821682	1	84.5	74-80
11	TC-S	EC 09 C102K 240/50	22149307	1	84.5	74-80
13	TC-D	EC 13 C102K 240/50	20821682	1	84.5	74-80
16	TC-DD	EC 16 C102K 240/50	22115480	1	84.5	74-80
18	TC-D	EC 18 TCD C102K 240/50	22149235	1	84.5	74-80
18	TC-L	EC 18 LC502K 240/50	22148708	2	151	110-144
2x18	TC-L*	EC 36 LC502K 240/50	22148709	2	151	110-144

* lamp current, measured in parallel connection

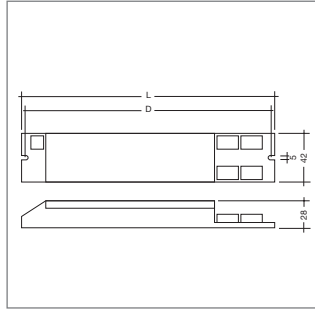
Electronic Ballast - Linear lamps T8, 26mm

PC 4x36 GM 001 220-240V 50/60/0Hz, non dimmable

 T8
EN 60928, EN 60929, EN 61000-3-2
EN 61547, EN 55015, acc. VDE 0108
IEC 68-2-64 Fh, IEC 68-2-29 Eb
IEC 68-2-30 








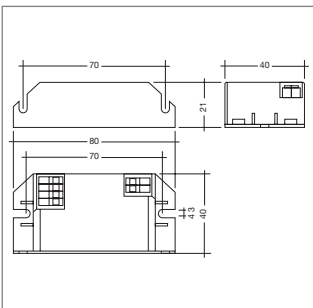
Lamp		Ballast							
wattage W	length mm	type	article	length L mm	fixing centres D mm	circuit power W	lamp power W	temperature range °C	
36	1200	PC 4x36 GM 001 220-240V 50/60/0Hz	89818848	424	414	142	132	-25 → +50	



Electronic Ballasts - Linear and Compact Lamps

PC Basic 4-28W 220-240V 50/60/0Hz, non dimmable

 TC-SEL	 TC-DEL	 TC-TEL
 TC-DD	⇒ T5	
EN 55015, EN 61000-3-2		
EN 61347-2-3, EN 61347-2-4		
EN 61547 		



Lamp		Ballast							
wattage W	type	type	article	LxWxH mm	fixing centres D mm	lamp power W	circuit power W	Celma class EEI	
4	T5	PC 1x4-13 W Basic 220-240 V 50/60/0 Hz	24138831	80x40x21	70	3.5	5.0	A2	
6	T5	PC 1x4-13 W Basic 220-240 V 50/60/0 Hz	24138831	80x40x21	70	5.0	7.0	A2	
8	T5	PC 1x4-13 W Basic 220-240 V 50/60/0 Hz	24138831	80x40x21	70	6.5	8.5	A2	
13	T5	PC 1x4-13 W Basic 220-240 V 50/60/0 Hz	24138831	80x40x21	70	11.0	15.5	A3	
5	TC-SEL	PC 1x5-16 W Basic 220-240 V 50/60/0 Hz	24138830	80x40x21	70	4.5	6.5	A2	
7	TC-SEL	PC 1x5-16 W Basic 220-240 V 50/60/0 Hz	24138830	80x40x21	70	6.0	8.0	A2	
9	TC-SEL	PC 1x5-16 W Basic 220-240 V 50/60/0 Hz	24138830	80x40x21	70	7.5	10.0	A2	
11	TC-SEL	PC 1x5-16 W Basic 220-240 V 50/60/0 Hz	24138830	80x40x21	70	11.0	15.0	A3	
10	TC-DEL	PC 1x5-16 W Basic 220-240 V 50/60/0 Hz	24138830	80x40x21	70	8.5	11.5	A3	
13	TC-DEL	PC 1x5-16 W Basic 220-240 V 50/60/0 Hz	24138830	80x40x21	70	12.0	15.5	A3	
13	TC-TEL	PC 1x5-16 W Basic 220-240 V 50/60/0 Hz	24138830	80x40x21	70	11.5	15.5	A3	
10	TC-DD	PC 1x4-13 W Basic 220-240 V 50/60/0 Hz	24138831	80x40x21	70	9.0	11.5	A3	
16	TC-DD	PC 1x5-16 W Basic 220-240 V 50/60/0 Hz	24138830	80x40x21	70	14.0	18.0	A3	
18	TC-TEL	PC 1x18 W Basic 220-240 V 50/60/0 Hz	24138829	80x40x21	70	15.0	19.0	A3	
18	TC-DEL	PC 1x18 W Basic 220-240 V 50/60/0 Hz	24138829	80x40x21	70	15.5	19.0	A3	
26	TC-TEL	PC 1x26 W Basic 220-240 V 50/60/0 Hz	22176208	80x40x21	70	21.0	24.5	A2	
26	TC-DEL	PC 1x26 W Basic 220-240 V 50/60/0 Hz	22176208	80x40x21	70	20.5	24.0	A2	
28*	TC-DD	PC 1x26 W Basic 220-240 V 50/60/0 Hz	22176208	80x40x21	70	21.5	25.0	A2	

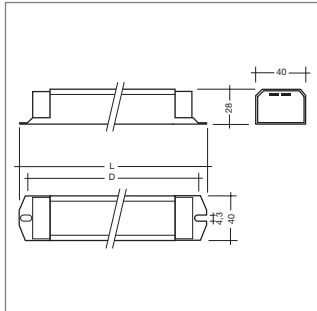
*For enclosed luminaires to fulfil the requirement of circuit power ≤ 25 W according to EN 61000-3-2. For AC operation only

Electronic Ballasts - 2D Compact Lamps

PC DD PRO 28-55W 220-240V 50/60/0Hz, non dimmable

TC-DD
EN 61347-2-3 (EN 60928), EN60929
EN 61347-2-7 (EN 60924), EN 60925
EN 61000-3-2, EN 61547, EN 55015
acc. VDE 0108

Lamp		Ballast						
wattage W	length mm	type	article	length L mm	fixing centres D mm	lamp power W	circuit power W	
28	202	PC 1x28 DD PRO	89895964	154	140	25.4	28.7	
38	202	PC 1x38 DD PRO	89895965	154	140	34.6	39.7	
55	202	PC 1x55 DD PRO	89895967	154	140	53.0	60.0	

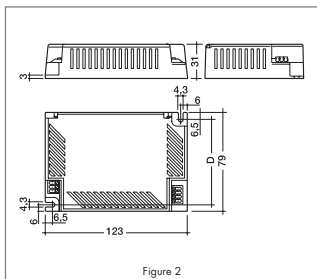
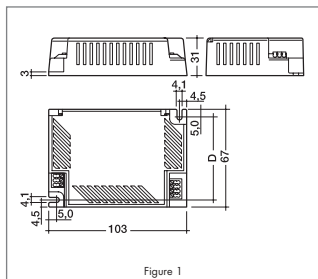


Electronic Ballasts - Compact Lamps

PC PRO 1/9-70W 220-240V 50/60/0Hz

T5c TC-F TCL TC-SEL
TC-DEL TC-TEL
EN 55015, EN 55022, EN 60925
EN 60929, EN 61000-3-2, EN 61347-2-3
EN 61347-2-4,
EN 61547 in accordance with VDE 0108
IEC 68-2-64 Fh, IEC 68-2-29 Eb
IEC 68-2-30

Lamp		Ballast						
wattage W	type	type	article	LxWxH mm	fixing centres D mm	lamp power W	circuit power W	Celma class EEI
1x9	TC-SEL	PC 1/9/11 TCS PRO	22176027	103x67x31	57.5	6.8	10.2	A2
1x11	TC-SEL	PC 1/9/11 TCS PRO	22176027	103x67x31	57.5	10.0	14.1	A2
1x10	TC-DEL	PC 1/10/13 TCD PRO	22088899	103x67x31	57.5	9.5	12.0	A3
1x13	TC-DEL	PC 1/9/11 TCS PRO	22176027	103x67x31	57.5	11.2	15.8	A3
1x13	TC-DEL	PC 1/10/13 TCD PRO	22088899	103x67x31	57.5	12.5	15.0	A3
1x18	TC-DEL	PC 1/18 TCD PRO	22088906	103x67x31	57.5	16.5	19.5	A3
1x26	TC-DEL	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	24	26.5	A2
1x13	TC-TEL	PC 1/9/11 TCS PRO	22176027	103x67x31	57.5	11.2	15.8	A3
1x13	TC-TEL	PC 1/10/13 TCD PRO	22088899	103x67x31	57.5	12.5	15.0	A3
1x18	TC-TEL	PC 1/18 TCD PRO	22088906	103x67x31	57.5	16.5	19.5	A3
1x26	TC-TEL	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	24	26.5	A2
1x32	TC-TEL	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	32	34.5	A2
1x42	TC-TEL	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	42	46.0	A2
1x57	TC-TEL	PC 1/57/70 TCT PRO	22088915	123x79x31	66.5	57.5	60.5	A2
1x70	TC-TEL	PC 1/57/70 TCT PRO	22088915	123x79x31	66.5	70	75.0	A2
1x22	T5c	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	22.3	25.4	A2
1x40	T5c	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	40.0	43.0	A2
1x18	TCL	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	16.0	18.5	A2
1x24	TCL	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	22.0	25.5	A2
1x18	TC-F	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	16.0	18.5	A2
1x24	TC-F	PC 1/26/32/42 TCT PRO	22088329	103x67x31	57.5	22.0	25.5	A2



Electronic Ballasts - Compact Lamps

PC PRO 2/9-42W 220-240V 50/60/0Hz

T5c TC-F TC-L TC-SEL

TC-DEL TC-TEL

EN 55015, EN 55022, EN 60925

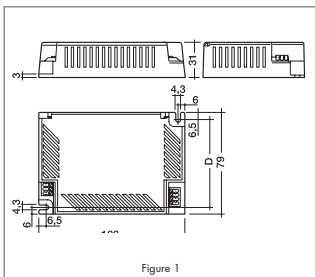
EN 60929, EN 61000-3-2, EN 61347-2-3

EN 61347-2-4,

EN 61547 in accordance with VDE 0108

IEC 68-2-64 Fh, IEC 68-2-29 Eb

IEC 68-2-30



Lamp		Ballast							
wattage W	type	type	article	LxWxH mm	fixing centres D mm	lamp power W	circuit power W	Celma class EEI	
2x9	TC-SEL	PC 2/9/11 TCS PRO	22176028	123x79x31	66.5	7.2	18.3	A2	
2x11	TC-SEL	PC 2/9/11 TCS PRO	22176028	123x79x31	66.5	10.5	26.1	A2	
2x10	TC-DEL	PC 2/10/13 TCD PRO	22088921	123x79x31	66.5	19.0	21.5	A2	
2x13	TC-DEL	PC 2/9/11 TCS PRO	22176028	123x79x31	66.5	12.4	29.5	A2	
2x13	TC-DEL	PC 2/10/13 TCD PRO	22088921	123x79x31	66.5	25.0	28.0	A2	
2x18	TC-DEL	PC 2/18 TCD PRO	22088937	123x79x31	66.5	33.0	37.5	A2	
2x26	TC-DEL	PC 2/26/32 TCT PRO	22088943	123x79x31	66.5	48.0	51.0	A2	
2x13	TC-TEL	PC 2/9/11 TCS PRO	22176028	123x79x31	66.5	12.4	29.5	A2	
2x13	TC-TEL	PC 2/10/13 TCD PRO	22088921	123x79x31	66.5	25.0	28.0	A2	
2x18	TC-TEL	PC 2/18 TCD PRO	22088937	123x79x31	66.5	33.0	37.5	A2	
2x26	TC-TEL	PC 2/26/32 TCT PRO	22088943	123x79x31	66.5	48.0	51.0	A2	
2x32	TC-TEL	PC 2/26/32 TCT PRO	22088943	123x79x31	66.5	64.0	68.0	A2	
2x32	TC-TEL	PC 2/32/42 TCT PRO	22088959	123x79x31	66.5	64.0	68.0	A2	
2x42	TC-TEL	PC 2/32/42 TCT PRO	22088959	123x79x31	66.5	84.0	89.0	A2	
2x22	T5c	PC 2/26/32 TCT PRO	22088943	123x79x31	66.5	44.6	49.3	A2	
22+40	T5c	PC 2/32/42 TCT PRO	22088959	123x79x31	66.5	62.3	68.7	A2	
2x40	T5c	PC 2/32/42 TCT PRO	22088959	123x79x31	66.5	80.0	82.3	A2	
2x18	TC-L	PC 2/26/32 TCT PRO	22088943	123x79x31	66.5	32.0	34.2	A2	
2x24	TC-L	PC 2/26/32 TCT PRO	22088943	123x79x31	66.5	44.0	50.2	A2	
2x18	TC-F	PC 2/26/32 TCT PRO	22088943	123x79x31	66.5	32.0	34.2	A2	
2x24	TC-F	PC 2/26/32 TCT PRO	22088943	123x79x31	66.5	44.0	50.2	A2	

Electronic Ballasts for industrial applications - Linear lamps T5, T8

PC INDUSTRY T5 49-80W 220-240V 50/60/0Hz, PC INDUSTRY T8 36-58W 220-240V 50/60/0Hz

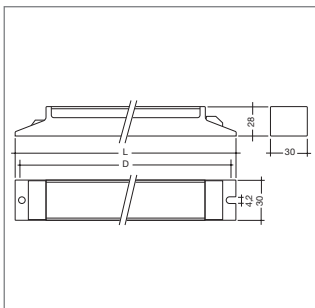
T5 T8

EN 55015, EN 55022, EN 60925

EN 60929, EN 60598, EN 50082-2

EN 61000-3-2, EN 61347-2-3


EN 61547 in accordance with VDE 0108

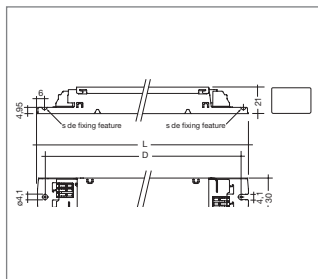


Lamp		Ballast						
wattage W	type	type	article	length L mm	fixing centres D mm	circuit power W	lamp power W	
1x49	T5	PC 1/49 T5 INDUSTRY 220-240 V 50/60/0 Hz	86458039	456	445	56.0	49.0	
2x49	T5	PC 2/49 T5 INDUSTRY 220-240 V 50/60/0 Hz	86458040	456	445	107.0	98.0	
1x54	T5	PC 1/54 T5 INDUSTRY 220-240 V 50/60/0 Hz	86458041	456	445	60.0	54.0	
2x54	T5	PC 2/54 T5 INDUSTRY 220-240 V 50/60/0 Hz	86458042	456	445	115.0	106.5	
1x80	T5	PC 1/80 T5 INDUSTRY 220-240 V 50/60/0 Hz	86458043	456	445	88.0	80.0	
2x80	T5	PC 2/80 T5 INDUSTRY 220-240 V 50/60/0 Hz	86458044	456	445	172.0	160.0	
1x36	T8	PC 1/36 T8 INDUSTRY 220-240 V 50/60/0 Hz	86458035	456	445	36.5	32.0	
2x36	T8	PC 2/36 T8 INDUSTRY 220-240 V 50/60/0 Hz	86458036	456	445	74.5	64.0	
1x58	T8	PC 1/58 T8 INDUSTRY 220-240 V 50/60/0 Hz	86458037	456	445	55.5	50.0	
2x58	T8	PC 2/58 T8 INDUSTRY 220-240 V 50/60/0 Hz	86458038	456	445	108.0	100.0	

Electronic Ballasts - Linear lamps T5, 16mm and compact lamps TC-L

PC T5 PRO LP 14-35W 220-240V 50/60/0Hz, HE

→ T5 ← TC-L
EN 61000-3-2,
EN 61547 in acc. with VDE 0108
IEC 68-2-64 Fh, IEC 68-2-29 Eb
IEC 68-2-30 




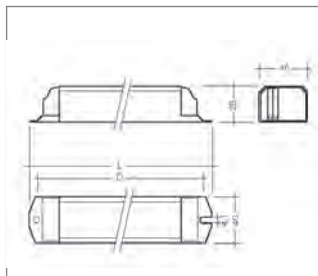
Lamp		Ballast							
wattage W	type	type	article	length L mm	fixing centres D mm	lamp power W	circuit power W*	Celma class EEI	
1x14	T5	PC 1/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176096	280	270	14.0	16.0	A2	
2x14	T5	PC 2/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176097	360	350	28.0	31.0	A2	
1x21	T5	PC 1/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176096	280	270	20.6	22.5	A2	
2x21	T5	PC 2/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176097	360	350	41.2	45.5	A2	
1x28	T5	PC 1/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176096	280	270	27.9	30.5	A2	
2x28	T5	PC 2/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176097	360	350	55.8	61.0	A2	
1x28	TC-L	PC 1/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176096	280	270	25.8	29.0	A2	
2x28	TC-L	PC 2/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176097	360	350	49.7	54.5	A2	
1x35	T5	PC 1/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176096	280	270	35.5	38.5	A2	
2x35	T5	PC 2/14-21-28-35 T5 Pro lp 220-240 V 50/60/0 Hz	22176097	360	350	71.0	76.5	A2	

*Measured according to EN 50294

Electronic Ballasts - Linear Lamps T8, 26mm

PC T8 PRO 18-70W 220-240V 50/60/0Hz

→ T8
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							
wattage W	length mm	type	article	length mm	fixing centres D mm	lamp power W	circuit power W*	Celma class EEI	
1x18	590	PC 1/18 T8 PRO 220-240V 50/60/0Hz	22176005	234	220	16	18.5	A2	
2x18	590	PC 2/18 T8 PRO 220-240V 50/60/0Hz	22176008	234	220	32	36.5	A2	
3x18	590	PC 3/18 T8 PRO 220-240V 50/60/0Hz	22088146	234	220	48	54.5	A2	
4x18	590	PC 4/18 T8 PRO 220-240V 50/60/0Hz	22088152	234	220	64	73.0	A2	
1x30	900	PC 1/30 T8 PRO 220-240V 50/60/0Hz	22176077	234	220	24	28.0	A2	
2x30	900	PC 2/30 T8 PRO 220-240V 50/60/0Hz	22176078	234	220	50	56.0	A2	
1x36	1200	PC 1/36 T8 PRO 220-240V 50/60/0Hz	22176006	234	220	32	35.5	A2	
2x36	1200	PC 2/36 T8 PRO 220-240V 50/60/0Hz	22176009	234	220	64	72.0	A2	
3x36	1200	PC 3/36 T8 PRO 220-240V 50/60/0Hz	22176075	360	350	96	110.0	A3	
1x58	1500	PC 1/58 T8 PRO 220-240V 50/60/0Hz	22176007	234	220	50	54.5	A2	
2x58	1500	PC 2/58 T8 PRO 220-240V 50/60/0Hz	22176010	234	220	100	107.0	A2	
1x70	1800	PC 1/70 T8 PRO 220-240V 50/60/0Hz	22088357	234	220	60	68.0	A2	
2x70	1800	PC 2/70 T8 PRO 220-240V 50/60/0Hz	22088341	360	350	120	130.0	A2	

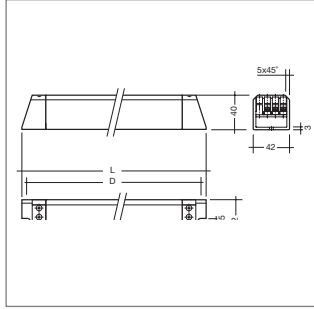
*Measured according to EN 50294

Explosion-proof electronic ballast - EX fluorescent lamps

PCX E101 18-58W 220-240V 50/60Hz, non dimmable



→ T8
EN 60079-0, EN 60079-5
EN 60079-7 : 2003  EEI = A2

Lamp		Ballast						
wattage W	length mm	type	article	length mm	fixing centres D mm	lamp power W	circuit power W	
18	590	PCX 1x18 E101 220-240 V 50/60 Hz	86450646	359	347	16	19.0	
18	590	PCX 2x18 E101 220-240 V 50/60 Hz	86450671	359	347	32	36.0	
36	1200	PCX 1x36 E101 220-240 V 50/60 Hz	86450652	359	347	32	36.0	
36	1200	PCX 2x36 E101 220-240 V 50/60 Hz	86450687	359	347	64	68.2	
58	1500	PCX 1x58 E101 220-240 V 50/60 Hz	86450665	359	347	50	55.3	



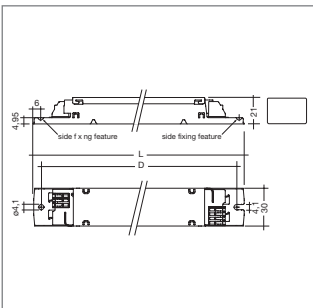
Electronic Ballasts - Linear lamps T5, T8 and compact lamps TC-L

PC T5 PRO Ip 24-80W 220-240V 50/60/0Hz, H0

→ T5 → T8 → TC-L
EN 55015, EN 55022, EN 61347-2-4
EN 61347-2-3, EN 60925, EN 60929
EN 61000-3-2,
EN 61547 in acc. with VDE 0108
IEC 68-2-64 Fh, IEC 68-2-29 Eb
IEC 68-2-30  


Lamp		Ballast						
wattage W	type	type	article	length L mm	fixing centres D mm	lamp power W	circuit power W*	Celma class EEI
1x24	T5	PC 1/24 T5 PRO Ip 220-240 V 50/60/0 Hz	22176164	280	270	22.5	25.7	A2
1x24	TC-L	PC 1/24 T5 PRO Ip 220-240 V 50/60/0 Hz	22176164	280	270	22.0	24.9	A2
2x24	T5	PC 2/24 T5 PRO Ip 220-240 V 50/60/0 Hz	22176168	360	350	22.5	48.8	A2
2x24	TC-L	PC 2/24 T5 PRO Ip 220-240 V 50/60/0 Hz	22176168	360	350	22.0	48.8	A2
1x39	T5	PC 1/39 T5 PRO Ip 220-240 V 50/60/0 Hz	22176165	280	270	38.0	40.4	A2
2x39	T5	PC 2/39 T5 PRO Ip 220-240 V 50/60/0 Hz	22176166	360	350	76.0	83.4	A2
1x49	T5	PC 1/49 T5 PRO Ip 220-240 V 50/60/0 Hz	22176139	280	270	49.2	52.5	A2
2x49	T5	PC 2/49 T5 PRO Ip 220-240 V 50/60/0 Hz	22176099	360	350	98.4	107.0	A2
1x54	T5	PC 1/54 T5 PRO Ip 220-240 V 50/60/0 Hz	22176140	280	270	54.1	57.5	A2
2x54	T5	PC 2/54 T5 PRO Ip 220-240 V 50/60/0 Hz	22176100	360	350	108.2	114.5	A2
1x55	TC-L	PC 1/54 T5 PRO Ip 220-240 V 50/60/0 Hz	22176140	280	270	55.0	59.0	A2
2x55	TC-L	PC 2/54 T5 PRO Ip 220-240 V 50/60/0 Hz	22176100	360	350	108.2	114,5	A2
1x80	T5	PC 1/80 T5 PRO Ip 220-240 V 50/60/0 Hz	22176167	360	350	79.8	85.8	A2

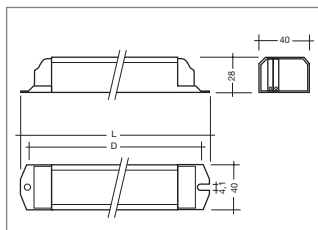
*Measured according to EN 50294



Explosion ballasts - Linear lamps and compact lamps

PC TCL PRO 18-55W 220-240V 50/60Hz, single lamp and twin lamp

T8	TC-L
EN 55015, EN 55022, EN 61347-2-4	
EN 60925, EN 61347-2-3, EN 60929	
EN 6100-3-2	
EN 61547 in acc. with VDE 0108	
IEC 68-2-64 Fh, IEC 68-2-29 Eb	
IEC 68-2-30 	




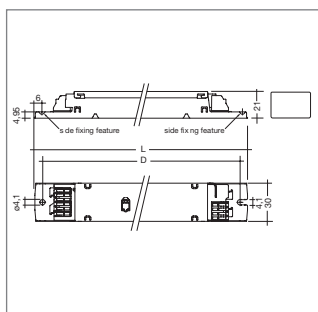
Lamp		Ballast							
wattage W	type	type	article	length L mm	fixing centres D mm	lamp power W	circuit power W*	Celma class EEI	
1x18	TC-L	PC 1/18/24 TCL PRO 220-240V 50/60/0Hz	22176068	234	220	16	18.5	A3	
2x18	TC-L	PC 2/18/24 TCL PRO 220-240V 50/60/0Hz	22176069	234	220	32	36.0	A2	
1X24	TC-L	PC 1/18/24 TCL PRO 220-240V 50/60/0Hz	22176068	234	220	22	25.0	A3	
2x24	TC-L	PC 2/18/24 TCL PRO 220-240V 50/60/0Hz	22176069	234	220	44	49.0	A2	
1X36	TC-L	PC 1/36 TCL PRO 220-240V 50/60/0Hz	22088398	234	220	32	36.0	A2	
2x36	TC-L	PC 2/36 TCL PRO 220-240V 50/60/0Hz	22088401	234	220	64	72.5	A3	
1X38	T8	PC 1/36 TCL PRO 220-240V 50/60/0Hz	22088398	234	220	32	36.0	A2	
2x38	T8	PC 2/36 TCL PRO 220-240V 50/60/0Hz	22088401	234	220	64	72.5	A3	
1x40	TC-L	PC 1/40 TCL PRO 220-240V 50/60/0Hz	22088410	234	220	40	46.0	A3	
2x40	TC-L	PC 2/40 TCL PRO 220-240V 50/60/0Hz	22088426	234	220	80	88.0	A2	
1x55	TC-L	PC 1/55 TCL PRO 220-240V 50/60/0Hz	22088432	234	220	55	61.0	A2	
2x55	TC-L	PC 2/55 TCL PRO 220-240V 50/60/0Hz	22088448	360	350	110	120.0	A2	

*Measured according to EN 50294

Electronic Ballasts for dimming to 1% - Linear lamps T5, 16mm high efficiency

PCA T5 ECO Ip 14-35W 220-240V 50/60/0Hz, dimmable

T5
EN 55015, EN 55022, EN 60929
EN 61000-3-2, EN 61347-2-3
EN 61547 suitable for emergency installations according to EN 50172




Lamp		Ballast						
wattage W	length mm	type	article	length mm	fixing centres D mm	lamp power W*	circuit power W*	
14	549	PCA 1/14 T5 ECO Ip 220/240V 50/60/0Hz	22089436	360	350	14	16.8	
2x14	549	PCA 2/14 T5 ECO Ip 220/240V 50/60/0Hz	22089442	360	350	2x14	33.4	
21	849	PCA 1/21 T5 ECO Ip 220/240V 50/60/0Hz	22089414	360	350	21	23.4	
2x21	849	PCA 2/21 T5 ECO Ip 220/240V 50/60/0Hz	22089420	360	350	2x21	46.0	
28	1149	PCA 1/28 T5 ECO Ip 220/240V 50/60/0Hz	22089392	360	350	28	31.4	
2x28	1149	PCA 2/28 T5 ECO Ip 220/240V 50/60/0Hz	22089405	360	350	2x28	61.3	
35	1449	PCA 1/35 T5 ECO Ip 220/240V 50/60/0Hz	22089370	360	350	35	38.6	
2x35	1449	PCA 2/35 T5 ECO Ip 220/240V 50/60/0Hz	22089386	425	415	2x35	75.5	

* valid at 100% light output

Electronic Ballasts for dimming to 1% - Linear lamps T5, 16mm high output

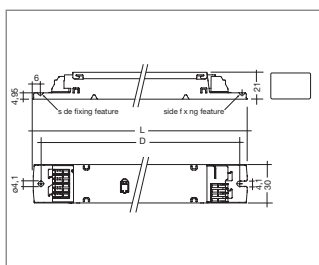
PCA T5 ECO Ip 24-80W 220-240V 50/60/0Hz, dimmable

⇒ T5

EN 55015, EN 55022, EN 60929

EN 61000-3-2, EN 61347-2-3

EN 61547 suitable for emergency installations according to EN 50172



Lamp		Ballast						
wattage W	length mm	type	article	length mm	fixing centres D mm	lamp power W*	circuit power W*	
24	549	PCA 1/24 T5 ECO Ip 220-240V 50/60/0Hz	22089521	360	350	23	26.7	
2x24	549	PCA 2/24 T5 ECO Ip 220-240V 50/60/0Hz	22089537	360	350	2x23	53.4	
39	849	PCA 1/39 T5 ECO Ip 220-240V 50/60/0Hz	22089506	360	350	38	41.3	
2x39	849	PCA 2/39 T5 ECO Ip 220-240V 50/60/0Hz	22089515	425	415	2x38	83.6	
49	1449	PCA 1/49 T5 ECO Ip 220-240V 50/60/0Hz	22089483	360	350	49	54.0	
2x49	1449	PCA 2/49 T5 ECO Ip 220-240V 50/60/0Hz	22089499	425	415	2x49	106.1	
54	1149	PCA 1/54 T5 ECO Ip 220-240V 50/60/0Hz	22089461	360	350	54	59.7	
2x54	1149	PCA 2/54 T5 ECO Ip 220-240V 50/60/0Hz	22089477	425	415	2x54	117.9	
80	1449	PCA 1/80 T5 ECO Ip 220-240V 50/60/0Hz	22089458	425	415	80	86.3	
2x80	1449	PCA 2/80 T5 ECO Ip 220-240V 50/60/0Hz	22176054	425	415	2x80	167.0	

* valid at 100% light output

Electronic Ballasts for dimming to 1% - Linear lamps T5, 16mm high efficiency

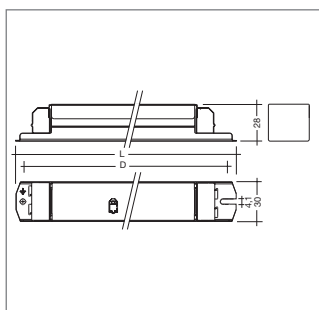
PCA T5 EXCEL one4all Ip 14-35W 220-240V 50/60/0Hz, dimmable

⇒ T5

EN 55015, EN 55022, EN 60929

EN 61000-3-2, EN 61347-2-3

EN 61547 in accordance with VDE 0108




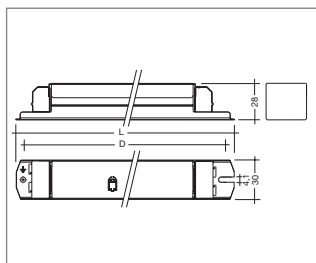
Lamp		Ballast						
wattage W	length mm	type	article	length mm	fixing centres D mm	lamp power W*	circuit power W*	
14	549	PCA 1/14 T5 EXCEL 220/240V 50/60/0Hz	22084884	360	350	14	17.8	
2x14	549	PCA 2/14 T5 EXCEL 220/240V 50/60/0Hz	22084890	360	350	2x14	35.6	
21	849	PCA 1/21 T5 EXCEL 220/240V 50/60/0Hz	22084907	360	350	21	25.1	
2x21	849	PCA 2/21 T5 EXCEL 220/240V 50/60/0Hz	22084916	360	350	2x21	47.7	
28	1149	PCA 1/28 T5 EXCEL 220/240V 50/60/0Hz	22084540	360	350	28	32	
2x28	1149	PCA 2/28 T5 EXCEL 220/240V 50/60/0Hz	22084556	360	350	2x28	61	
35	1449	PCA 1/35 T5 EXCEL 220/240V 50/60/0Hz	22084569	360	350	35	38	
2x35	1449	PCA 2/35 T5 EXCEL 220/240V 50/60/0Hz	22084575	360	350	2x35	75	

* valid at 100% light output

Electronic Ballasts for dimming to 1% - Linear lamps T5, 16mm high output

PCA T5 EXCEL one4all Ip 24-80W 220-240V 50/60/0Hz, dimmable

⇒ T5
 EN 55015, EN 55022, EN 60929
 EN 61000-3-2, EN 61347-2-3
 EN 61547 suitable for emergency
 installations according to VDE 0108





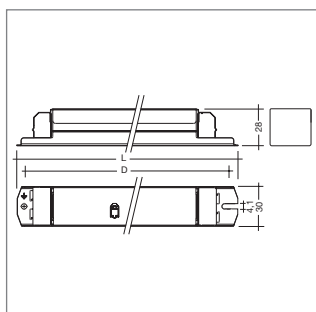
Lamp		Ballast						
wattage W	length mm	type	article	length mm	fixing centres D mm	lamp power W*	circuit power W*	
24	549	PCA 1/24 T5 EXCEL 220-240V 50/60/0Hz	22084922	360	350	24	25.8	
2x24	549	PCA 2/24 T5 EXCEL 220-240V 50/60/0Hz	22084938	360	350	2x24	51.5	
39	849	PCA 1/39 T5 EXCEL 220-240V 50/60/0Hz	22084944	360	350	39	44.4	
2x39	849	PCA 2/39 T5 EXCEL 220-240V 50/60/0Hz	22084950	360	350	2x39	90.7	
54	1149	PCA 1/54 T5 EXCEL 220-240V 50/60/0Hz	22084581	360	350	54	60	
2x54	1149	PCA 2/54 T5 EXCEL 220-240V 50/60/0Hz	22084597	360	350	2x54	116	
80	1449	PCA 1/80 T5 EXCEL 220-240V 50/60/0Hz	22084963	360	350	80	89.5	

* valid at 100% light output

Electronic Ballasts for dimming to 1% - Linear lamps

PCA ECO 18-58W 220-240V 50/60/0Hz, dimmable

⇒ T8
 EN 55015, EN 55022, EN 60929
 EN 61000-3-2, EN 61347-2-3
 EN 61547 in accordance with VDE 0108




Lamp		Ballast						
wattage W	length mm	type	article	length mm	fixing centres D mm	lamp power W*	circuit power W*	
18	590	PCA 1/18 ECO 220-240V 50/60/0Hz	22085406	360	350	16	20.8	
2x18	590	PCA 2/18 ECO 220-240V 50/60/0Hz	22085415	360	350	2x16	39.6	
30	900	PCA 1/30 ECO 220-240V 50/60/0Hz	22086116	360	350	25	30.1	
2x30	900	PCA 2/30 ECO 220-240V 50/60/0Hz	22086122	360	350	2x25	58	
36	1200	PCA 1/36 ECO 220-240V 50/60/0Hz	22085421	360	350	32	36.5	
2x36	1200	PCA 2/36 ECO 220-240V 50/60/0Hz	22085437	360	350	2x32	70.4	
38	1200	PCA 1/38 ECO 220-240V 50/60/0Hz	22087002	360	350	32	37.3	
2x38	1200	PCA 2/38 ECO 220-240V 50/60/0Hz	22087011	360	350	2x32	71.1	
58	1500	PCA 1/58 ECO 220-240V 50/60/0Hz	22085443	360	350	50	56	
2x58	1500	PCA 2/58 ECO 220-240V 50/60/0Hz	22084837	360	350	100	111	

* valid at 100% light output

Electronic Ballasts for dimming to 1% - Linear lamps

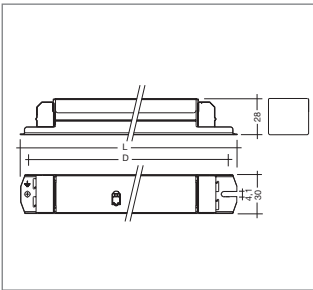
PCA EXCEL one4all 18-58W 220-240V 50/60/0Hz, dimmable

T8

EN 55015, EN 55022, EN 60929

EN 61000-3-2, EN 61347-2-3

EN 61547 in accordance with VDE 0108



Lamp		Ballast						
wattage W	length mm	type	article	length mm	fixing centres D mm	lamp power W*	circuit power W*	
18	590	PCA 1/18 EXCEL 220-240V 50/60/0Hz	22085245	360	350	16	20.8	
2x18	590	PCA 2/18 EXCEL 220-240V 50/60/0Hz	22085251	360	350	2x16	39.6	
30	900	PCA 1/30 EXCEL 220-240V 50/60/0Hz	22086092	360	350	25	30.1	
2x30	900	PCA 2/30 EXCEL 220-240V 50/60/0Hz	22086107	360	350	2x25	58	
36	1200	PCA 1/36 EXCEL 220-240V 50/60/0Hz	22085264	360	350	32	36.5	
2x36	1200	PCA 2/36 EXCEL 220-240V 50/60/0Hz	22085270	360	350	2x32	70.4	
38	1200	PCA 1/38 EXCEL 220-240V 50/60/0Hz	22087027	360	350	32	37.3	
2x38	1200	PCA 2/38 EXCEL 220-240V 50/60/0Hz	22087033	360	350	2x32	71.1	
58	1500	PCA 1/58 EXCEL 220-240V 50/60/0Hz	22085286	360	350	50	56	
2x58	1500	PCA 2/58 EXCEL 220-240V 50/60/0Hz	22084608	360	350	100	111	

* valid at 100% light output

Electronic Ballasts for dimming to 3% - Linear lamps T5 circline

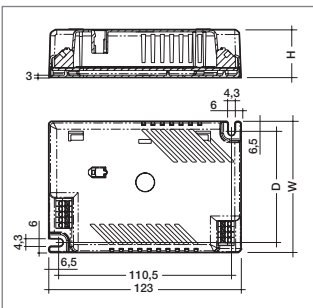
PCA T5c EXCEL one4all Ip 22-55W 220-240V 50/60/0Hz, dimmable

T5 Circline

EN 55015, EN 55022, EN 60929

EN 61000-3-2, EN 61347-2-3

EN 61547 in accordance with VDE 0108






Lamp		Ballast						
wattage W	type	type	article	LxWxH mm	fixing centres D mm	lamp power W*	circuit power W*	
22	T5c	PCA 1/22 T5c EXCEL one4all 220-240V	22086881	123x79x31	66.5	22	26.1	
40	T5c	PCA 1/40 T5c EXCEL one4all 220-240V	22086904	123x79x31	66.5	40	45.5	
55	T5c	PCA 1/55 T5c EXCEL one4all 220-240V	22086929	123x79x31	66.5	55	61.0	

* valid at 100% light output

Electronic Ballasts for dimming to 3% - Compact lamps

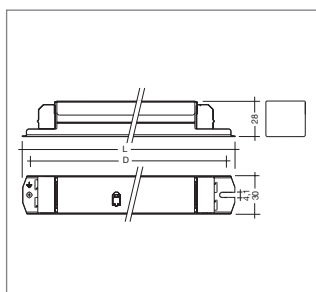
PCA TCL ECO 18-80W 220-240V 50/60/0Hz, dimmable

 TCL  TC-F
EN 55015, EN 55022, EN 60929
EN 61000-3-2, EN 61347-2-3
EN 61547 in accordance with VDE 0108







Lamp		Ballast						
wattage W	type	type	article	length mm	fixing centres D mm	lamp power W*	circuit power W*	
2x18	TC-L	PCA 2/18 TCL ECO 220-240V 50/60/0Hz	22086856	360	350	2x15	42	
2x24	TC-L	PCA 2/24 TCL ECO 220-240V 50/60/0Hz	22086875	360	350	2x22	52	
36	TC-L/TC-F	PCA 1/36 TCL ECO 220-240V 50/60/0Hz	22085507	360	350	32	37.5	
2x36	TC-L/TC-F	PCA 2/36 TCL ECO 220-240V 50/60/0Hz	22085516	360	350	2x32	74	
40	TC-L	PCA 1/40 TCL ECO 220-240V 50/60/0Hz	22085522	360	350	38	43	
2x40	TC-L	PCA 2/40 TCL ECO 220-240V 50/60/0Hz	22085538	360	350	2x38	87.9	
55	TC-L	PCA 1/55 TCL ECO 220-240V 50/60/0Hz	22085544	360	350	55	61.5	
2x55	TC-L	PCA 2/55 TCL ECO 220-240V 50/60/0Hz	22085550	360	350	2x55	118.9	
80	TC-L	PCA 1/80 TCL ECO 220-240V 50/60/0Hz	22088990	360	350	80	90	

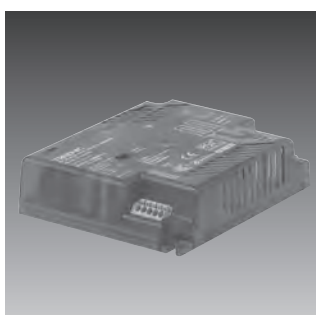
* valid at 100% light output



Electronic Ballasts for dimming to 3% - Compact lamps

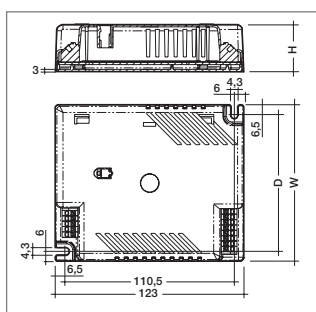
PCA TCL EXCEL c one4all 18-24W 220-240V 50/60/0Hz, dimmable

 TCL  TC-F
EN 55015, EN 55022, EN 60929
EN 61000-3-2, EN 61347-2-3
EN 61547 in accordance with VDE 0108




Lamp		Ballast						
wattage W	type	type	article	length mm	fixing centres D mm	lamp power W*	circuit power W*	
18	TC-L/TC-F	PCA 1/18 TCL EXCEL c 220-240V	22085309	123x79x31	66.5	15	21	
2x18	TC-L/TC-F	PCA 2/18 TCL EXCEL c 220-240V	22085318	123x102x31	89.5	2x15	42	
24	TC-L/TC-F	PCA 1/24 TCL EXCEL c 220-240V	22085324	123x79x31	66.5	22	27	
2x24	TC-L/TC-F	PCA 2/24 TCL EXCEL c 220-240V	22085330	123x102x31	89.5	2x22	52	

* valid at 100% light output



Electronic Ballasts for dimming to 3% - Compact lamps

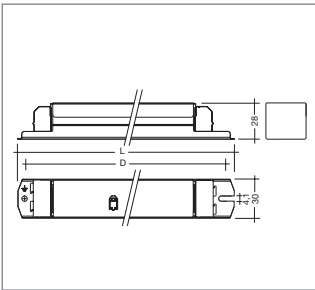
PCA TCL EXCEL c one4all 18-80W 220-240V 50/60/0Hz, dimmable

- TC-L TC-F
- EN 55015, EN 55022, EN 60929
- EN 61000-3-2, EN 61347-2-3
- EN 61547 in accordance with VDE 0108
- CE



Lamp		Ballast						
wattage W	type	type	article	length L mm	fixing centres D mm	lamp power W*	circuit power W*	
2x18	TCL	PCA 2/18 TCL EXCEL 220-240V 50/60/0Hz	22086840	360	350	2x15	42	
2x24	TCL	PCA 2/24 TCL EXCEL 220-240V 50/60/0Hz	22086869	360	350	2x22	52	
36	TC-L/TC-F	PCA 1/36 TCL EXCEL 220-240V 50/60/0Hz	22085346	360	350	32	37.5	
2x36	TC-L/TC-F	PCA 2/36 TCL EXCEL 220-240V 50/60/0Hz	22085352	360	350	2x32	74	
40	TCL	PCA 1/40 TCL EXCEL 220-240V 50/60/0Hz	22085365	360	350	38	43	
2x40	TCL	PCA 2/40 TCL EXCEL 220-240V 50/60/0Hz	22085371	360	350	2x38	87.9	
55	TCL	PCA 1/55 TCL EXCEL 220-240V 50/60/0Hz	22085387	360	350	55	61.5	
2x55	TCL	PCA 2/55 TCL EXCEL 220-240V 50/60/0Hz	22085393	360	350	2x55	118.9	
80	TCL	PCA 1/80 TCL EXCEL 220-240V 50/60/0Hz	22089004	360	350	80	90	

* valid at 100% light output



Emergency lighting modules - T5, T8, TC-DD, TC-L, TC-SEL, TC-DEL, TC-TEL linear and compact lamps

EM Basic 230-240V 50/60Hz

- T5 T8 TC-DD
- TC-L TC-SEL TC-DEL
- TC-TEL
- CE RoHS

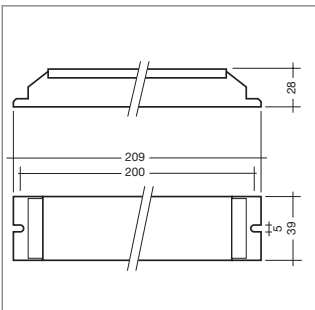
Description

Emergency lighting modules with 3 hour duration. Five pole technology = 4 pole changeover and a delayed action relay for switching the mains supply to ensure compatibility with all electronic ballasts. Versions fitted with a Test Switch allow emergency operation of the single emergency luminaire to be tested by operating the push button test switch. High temperature Nickel Cadmium batteries.



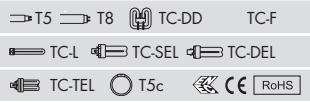
EM BASIC 3h - NiCd 4.0 Ah D cells

type	article	number of cells
EM 33A BASIC 230-240 V 50/60 Hz	89818556	3
EM 33B BASIC 230-240 V 50/60 Hz	89818655	3
EM 33C BASIC 230-240 V 50/60 Hz	89800000	3
EM 34A BASIC 230-240 V 50/60 Hz	89818557	4
EM 34B BASIC 230-240 V 50/60 Hz	89818662	4
EM 35A BASIC 230-240 V 50/60 Hz	89818581	5
EM 35B BASIC 230-240 V 50/60 Hz	89818667	5
EM 35C BASIC 230-240 V 50/60 Hz	89800001	5
EM 35D BASIC 230-240 V 50/60 Hz	89899621	5
EM 36A BASIC 230-240 V 50/60 Hz	89818654	6



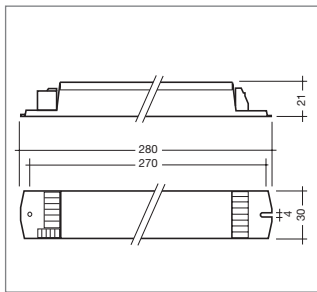
Low profile emergency lighting modules - T5, T8, TC-DD, TC-F, TC-L, TC-SEL, TC-DEL, TC-TEL, T5c linear and compact lamps

EM Basic Ip 220-240V 50/60Hz



EM BASIC Ip 3 h duration - NiCd 4.0 Ah D cells or NiMh 4.0 Ah Cs cells

type	article	number of cells
EM 34 BASIC Ip	89899761	4
EM 35 BASIC Ip	89899762	5
EM 36 BASIC Ip	89899763	6



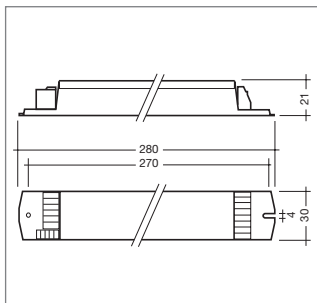
Emergency lighting modules with self test facility - T5, T8, TC-DD, TC-F, TC-L linear and compact lamps

EM Selftest 220-240V 50/60Hz



EM SELFTEST 3 h duration - NiCd 4.0 Ah D cells or NiMh 4.0 Ah Cs cells

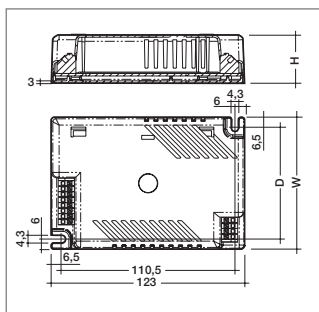
type	article	number of cells
EM 34 ST	89899680	4
EM 35 ST	89899681	5
EM 36 ST	89899682	6



Combined electronic ballasts and emergency lighting modules for compact fluorescent lamps

PC CFL Combo 220-240V 50/60Hz

TD-DD TC-DEL TC-TEL



Lamp		Ballast						
wattage W	type	type	article	LxWxH mm	fixing centres D mm	lamp power W	circuit power W	
10	TC-DEL	PC 1x10/13-33 TC COMBO	89899648	123x79x31	66.5	10	15	
2x10	TC-DEL	PC 2x10/13-33 TC COMBO	89899649	123x102x31	89.5	2x10	27	
13	TC-DEL/TEL	PC 1x10/13-33 TC COMBO	89899648	123x79x31	66.5	13	19	
2x13	TC-DEL/TEL	PC 2x10/13-33 TC COMBO	89899649	123x102x31	89.5	2x13	36	
18	TC-DEL/TEL	PC 1x18-34 TC COMBO	89899650	123x79x31	66.5	18	24	
2x18	TC-DEL/TEL	PC 2x18-34 TC COMBO	89899651	123x102x31	89.5	2x18	44	
26	TC-DEL/TEL	PC 1x26/32-35 TC COMBO	89899641	123x79x31	66.5	26	32	
2x26	TC-DEL/TEL	PC 2x26-35 TC COMBO	89899642	123x102x31	89.5	2x26	60	
32	TC-TEL	PC 1x26/32-35 TC COMBO	89899641	123x79x31	66.5	32	38	
2x32	TC-TEL	PC 2x32-35 TC COMBO	89899652	123x102x31	89.5	2x32	75	
42	TC-TEL	PC 1x26/32/42-36 TC COMBO	89899745	123x79x31	166.5	42	50	
2x42	TC-TEL	PC 2x32/42-36 TC COMBO	89899746	123x102x31	89.5	2x42	100	
57	TC-TEL	PC 1x57-36 TC COMBO	89899653	123x102x31	89.5	57	66	
16	TC-DD	PC 1x16-33 DD COMBO	89899816	123x79x31	66.5	15	20	
28	TC-DD	PC 1x28-34 DD COMBO	89899633	123x79x31	66.5	17	26	
28	TC-DD	PC 1x28-34 HO DD COMBO	89899654	123x79x31	66.5	25	34	
28	TC-DD*	PC 1x28-33 DD COMBO	89899798	123x79x31	66.5	17	26	
28	TC-DD*	PC 1x28-33 HO DD COMBO	89899799	123x79x31	66.5	25	34	
38	TC-DD*	PC 1x38-34 DD COMBO	89899655	123x79x31	66.5	35	43	
38	TC-DD	PC 1x38-35 DD COMBO	89899769	123x79x31	66.5	35	44	

* Biac non amalgam only

THORN

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