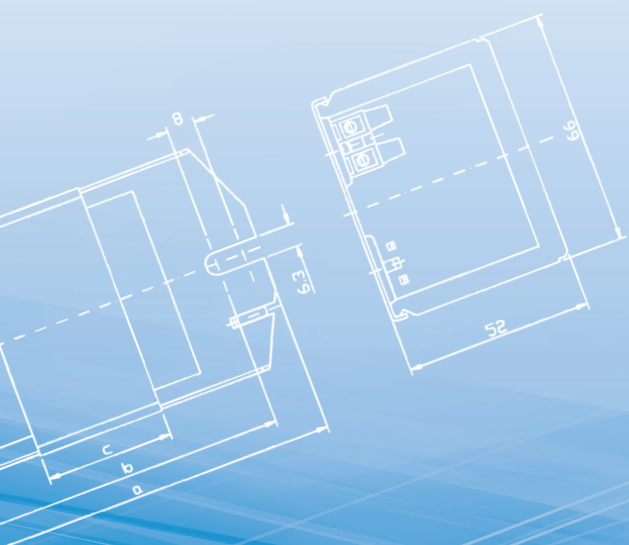
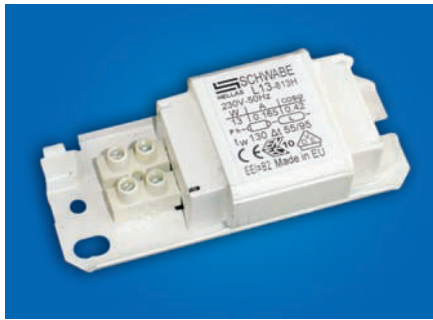


**SCHWABE HELLAS S.A.**  
MANUFACTURER OF ELECTROTECHNICAL DEVICES

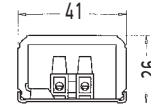
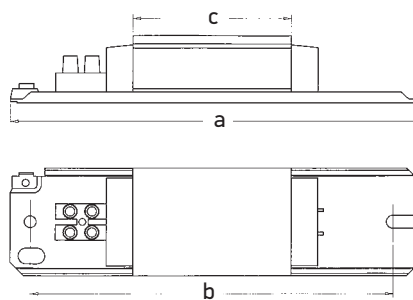


# SERIES L-26 BALLASTS FOR COMPACT FLUORESCENT LAMPS

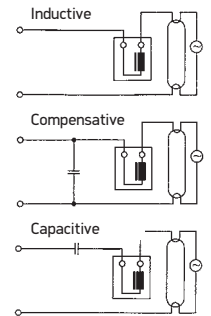
120V - 220V - 230V - 240V  
50,60Hz  
5W - 26W



EN 61347-1:2015, EN 61347-2-9:2013, EN 60923:2005,  
EN60923:2005/A1:2006  
EN 55015:2013, EN 61547:2009, EN 50581:2012  
IEC 61347 (Protection)  
IEC 62384 (Working Method)  
ISO 9001:2015 / ISO 14001:2015



CONNECTIONS:



LAMPS



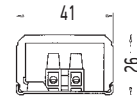
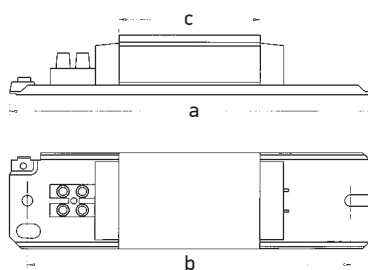
BALLAST							LAMP				CAPACITOR
TYPE	V/HZ	a (mm)	b (mm)	WEIGHT (Kg)	$\Delta t/\Delta t_{an}$ (°C)	cos $\phi$	POWER (W)	CURRENT (A)	TYPE	BASE	Cop $\mu F \pm 10\%$
L5/7/9/11-811H	230/50	100*	85	0,32	55/80	0,30	1X5	0,180	TC-S	G23	2,0
							1X7	0,180	TC-S	G23	
							1X9	0,170	TC-S	G23	
							1X11	0,155	TC-S	G23	
L13-813H	230/50	100*	85	0,32	40/95	0,42	1X13	0,165	TC-D /TC-T	G24d-1	2,0
							1X10		TC-D	G24d-1	
							2X5		TC-S	G23	
							2X7		TC-S	G23	
							2X9		TC-S	G23	
L16-816H	230/50	100*	85	0,32	60/125	0,47	1X16	0,2	TC-DD	GR8/GR10q	2,0
L18-803H	230/50	100*	85	0,32	50/145	0,48	1X18	0,22	TC-D /TC-T	G24d-2	2,0
L26-826H	230/50	155	140	0,52	55/125	0,44	1X26	0,315	TC-D /TC-T	G24d-3	3,5

# SERIES L-26 BALLASTS FOR FLUORESCENT LAMPS

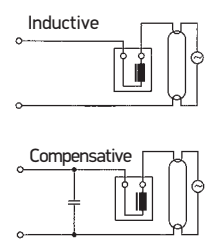
120V - 220V - 230V - 240V  
50,60Hz  
4W - 65W



EN 61347-1:2015, EN 61347-2-9:2013, EN 60923:2005,  
EN60923:2005/A1:2006  
EN 55015:2013, EN 61547:2009, EN 50581:2012  
IEC 61347 (Protection)  
IEC 62384 (Working Method)  
ISO 9001:2015 / ISO 14001:2015



CONNECTIONS:



LAMPS



BALLAST							LAMP				CAPACITOR
TYPE	V/HZ	a (mm)	b (mm)	WEIGHT (Kg)	$\Delta t/\Delta t_{an}$ (°C)	cos $\phi$	POWER (W)	CURRENT (A)	TYPE	BASE	Cop $\mu F \pm 10\%$
L4/6/8-808H	230/50	100*	85	0,32	55/85	0,26	1X4	0,170	T5	G5	2,0
							1X6	0,160	T5	G5	
							1X8	0,155	T5	G5	
							2X4		T5	G5	
L13-813H	230/50	100*	85	0,32	40/95	0,42	2X6	0,165	T5	G5	2,0
L18-823H	230/50	155	140	0,52	60/110	0,34	1X18	0,37	T8	G13	4,5
L20-823H	230/50	155	140	0,52	60/110	0,34	1X20	0,37	T12	G13	4,5
L36-843H	230/50	155	140	0,52	55/155	0,50	1X36	0,43	T8/TC-F/TC-L	G13	4,5
L18-801H	230/50	155	140	0,52	65/120	0,34	1X18	0,37	T8	G13	4,5
L58-863H	230/50	195**	180	0,85	55/145	0,49	1X58	0,670	T8	G13	7,0

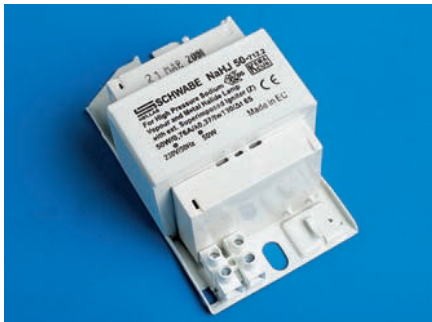
\*Other voltages and frequencies are available on request.

\*\*Automatic (push-in) terminals are available on request.

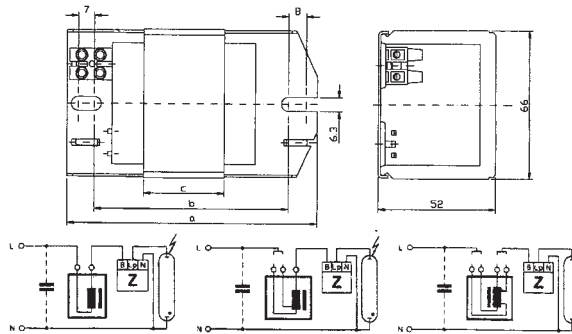
\*Also available with base 85mm.

## SERIES Q-66 BALLASTS FOR HIGH PRESSURE SODIUM VAPOUR & METAL HALIDE LAMPS

220V - 230V - 240V  
50,60Hz  
35W - 400W



EN 61347-1:2015, EN 61347-2-9:2013, EN 60923:2005,  
EN60923:2005/A1:2006  
EN 55015:2013, EN 61547:2009, EN 50581:2012  
IEC 61347 (Protection)  
IEC 62384 (Working Method)  
ISO 9001:2015 / ISO 14001:2015



**LAMPS**

- RX 7s
- Fc-2
- E-40
- E-27
- E-40
- PG-12
- G-12
- PG-12
- RX-7s
- Fc-2
- E-40
- E-40
- E-27
- E-40

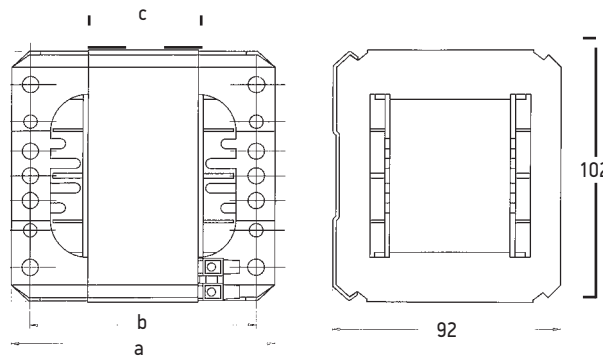
BALLAST							LAMP				CAPACITOR
TYPE	V/HZ	a (mm)	b (mm)	Δt (°C)	cosφ	WEIGHT (Kg)	POWER (W)	CURRENT (A)	TYPE	CAP	CP μF±10%
NAHJ35-711.1	230/50	112	68	60	0,40	0,9	35	0,53	HS/HI	E27/G12	6
NAHJ50-712.2	230/50	112	86	65	0,37	1,1	50	0,76	HS	E27/G12	9
NAHJ70-713.4	230/50	112	48	70	0,37	1,4	70	1,00	HS/HI	E24/G12	12
NAHJ100-714.5	230/50	145	120	65	0,42	1,6	100	1,20	HS/HI	E27/G12	12
NAHJ150-715.6	230/50	145	120	70	0,41	2	150	1,80	HS/HI	E27/G12	20
NAHJ250-716.8	230/50	180	155	80	0,40	2,9	250	3,00	HS/HI	E40	32
J400-710.8	230/50	180	155	80	0,43	2,9	400	3,50	HI	E40	50

## SERIES Q-102 BALLASTS FOR HIGH PRESSURE SODIUM VAPOUR & METAL HALIDE LAMPS

220V - 230V - 240V  
50,60Hz  
250W - 2000W



EN 61347-1:2015, EN 61347-2-9:2013, EN 60923:2005,  
EN60923:2005/A1:2006  
EN 55015:2013, EN 61547:2009, EN 50581:2012  
IEC 61347 (Protection)  
IEC 62384 (Working Method)  
ISO 9001:2015 / ISO 14001:2015



**LAMPS**

- E-27
- E-27
- E-40
- E-27
- E-40
- RX7S
- BY 22d

BALLAST							LAMP				CAPACITOR
TYPE	V/HZ	a (mm)	b (mm)	Δt (°C)	cosφ	WEIGHT (Kg)	POWER (W)	CURRENT (A)	TYPE	CAP	CP μF±10%
NAHJ250-515.3	230/50	133	120	70	0,39	3,56	250	3,00	HS/HI	E40	32
NAHJ400-557.6	230/50	148	135	70	0,43	5,2	400	4,45	HS/HI	E40	50
NAHJ600-519.9	230/50	173	160	70	0,44	6,8	600	6,20	HS	E40	65
J1000-553.13	230/50	248	233	75	0,47	11,2	1000	9,50	HI	E40	90
NAH1000-514.13	230/50	248	233	75	0,42	11,2	1000	10,3	HS/HI	E40	60
J2000-592.14 Z	380-400/50	248	233	80	0,52	13,6	2000	10,3	HI	E40	60
J2000-592.14 Z	380-400/50	248	233	80	0,52	13,6	2000	8,8	HI	E40	60

\*Other voltages and frequencies are available on request. \*\*Automatic (push-in) terminals are available on request.

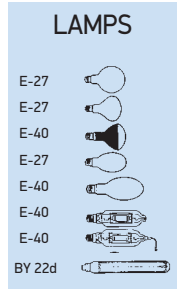
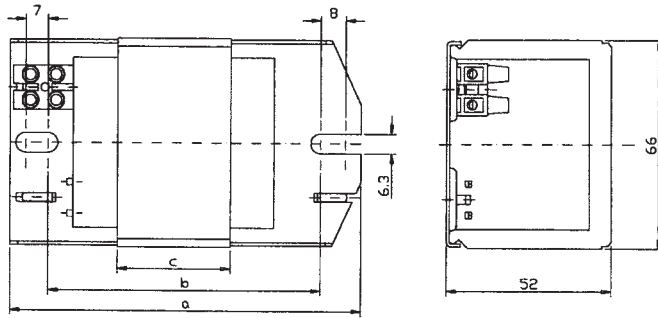
\*\*\*Available also with thermal cut-out with automatic reset.

## SERIES Q-66 BALLASTS FOR HIGH PRESSURE MERCURY LAMPS

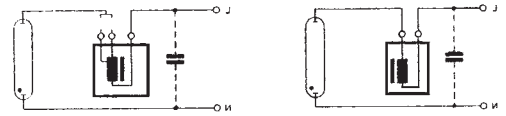
220V - 230V - 240V  
50,60Hz  
50W - 400W



EN 61347-1:2015, EN 61347-2-9:2013, EN 60923:2005,  
EN60923:2005/A1:2006  
EN 55015:2013, EN 61547:2009, EN 50581:2012  
IEC 61347 (Protection)  
IEC 62384 (Working Method)  
ISO 9001:2015 / ISO 14001:2015



CONNECTIONS:



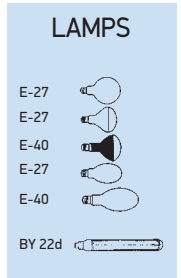
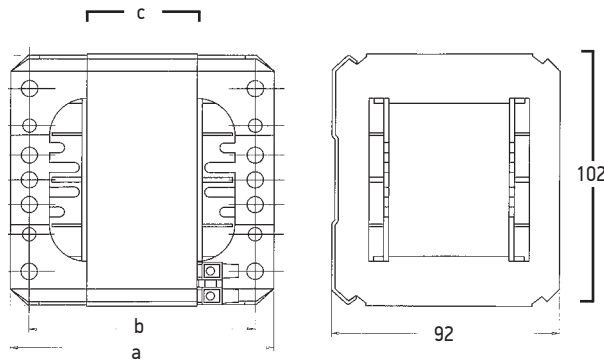
BALLAST							LAMP				CAPACITOR
TYPE	V/HZ	a (mm)	b (mm)	Δt (°C)	cosφ	WEIGHT (Kg)	POWER (W)	CURRENT (A)	TYPE	CAP	CP μF±10%
Q50-611.1	230/50	112	86	65	0,44	0,9	50	0,61	HM	E27	7
Q80-612.1	230/50	112	86	70	0,44	0,9	50	0,80	HM	E27	8
Q125-613.4	230/50	112	86	60	0,52	1,4	125	1,15	HM	E27	12
Q250-614.6	230/50	145	120	75	0,56	2	250	2,13	HM	E40	18
Q400-615.8	230/50	180	110	75	0,56	2,9	400	3,25	HM	E40	30

## SERIES Q-102 BALLASTS FOR HIGH PRESSURE MERCURY LAMPS

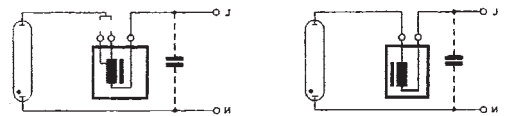
220V - 230V - 240V  
50,60Hz  
250W - 1000W



EN 61347-1:2015, EN 61347-2-9:2013, EN 60923:2005,  
EN60923:2005/A1:2006  
EN 55015:2013, EN 61547:2009, EN 50581:2012  
IEC 61347 (Protection)  
IEC 62384 (Working Method)  
ISO 9001:2015 / ISO 14001:2015



CONNECTIONS:



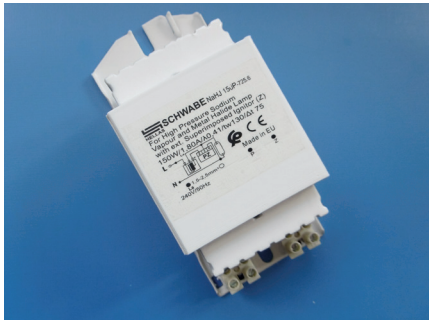
BALLAST							LAMP				CAPACITOR
TYPE	V/HZ	a (mm)	b (mm)	Δt (°C)	cosφ	WEIGHT (Kg)	POWER (W)	CURRENT (A)	TYPE	CAP	CP μF±10%
Q250-414.1	230/50	105	70	65	0,54	2,8	250	2,13	HM	E40	18
Q400-415.3	230/50	113	100	65	0,56	3,9	400	3,25	HM	E40	30
Q1000-417.7	230/50	173	160	70	0,59	9,7	1000	7,5	HM	E40	60

\*Other voltages and frequencies are available on request. \*\*Automatic (push-in) terminals are available on request.

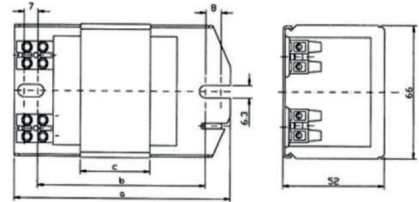
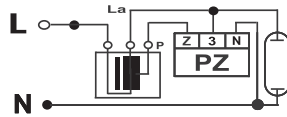
\*\*\*Available also with thermal cut-out with automatic reset.

## PULSER SERIES Q-66 BALLASTS FOR HIGH PRESSURE SODIUM VAPOUR & METAL HALIDE LAMPS

220V - 230V - 240V  
50Hz  
50W - 250W



Shape 52x66mm  
Vacuum impregnated with polyester resin  
Screw terminals: 2,5 mm<sup>2</sup>  
tw 130, Protection class I



EN 61347-1:2015, EN 61347-2-9:2013, EN 60923:2005,  
EN60923:2005/A1:2006  
EN 55015:2013, EN 61547:2009, EN 50581:2012  
IEC 61347 (Protection)  
IEC 62384 (Working Method)  
ISO 9001:2015/ ISO 14001:2015



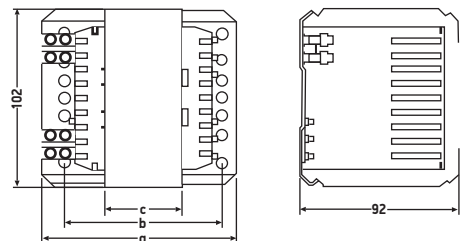
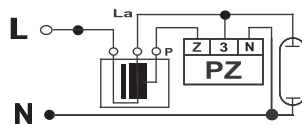
BALLAST	LAMP		NOMINAL CURRENT (A)	Cos φ	TEMPERATURE		DIMENSIONS	
	TYPE	POWER (W)			tw (°C)	Δt	A (mm)	B (mm)
NAHJ 50P-712.2	HS/HI	50	0,76	0,37	130	65	112	86
NAHJ 70P-713.4	HS/HI	70	1,00	0,37	130	70	112	86
NAHJ 100P-714.5	HS/HI	100	1,20	0,41	130	65	112	86
NAHJ 150P-715.6	HS/HI	150	1,80	0,40	130	70	145	120
NAHJ 250P-716.8	HS/HI	250	3,00	0,40	130	80	180	155

## PULSER SERIES Q-102 BALLASTS FOR HIGH PRESSURE SODIUM VAPOUR & METAL HALIDE LAMPS

220V - 230V - 240V  
50Hz  
250W - 1000W



Shape 92x102mm  
Vacuum impregnated with polyester resin  
Screw terminals: 2,5 mm<sup>2</sup>  
tw 130, Protection class I



EN 61347-1:2015, EN 61347-2-9:2013, EN 60923:2005,  
EN60923:2005/A1:2006EN 55015:2013, EN 61547:2009, EN 50581:2012  
IEC 61347 (Protection)  
IEC 62384 (Working Method)  
ISO 9001:2015/ ISO 14001:2015



BALLAST	LAMP		NOMINAL CURRENT (A)	Cos φ	TEMPERATURE		DIMENSIONS	
	TYPE	POWER (W)			tw (°C)	Δt	A (mm)	B (mm)
NAHJ 250P-515.3	HS/HI	250	3,00	0,39	130	70	133	120
NAHJ 400P-577.6	HS/HI	400	4,45	0,43	130	70	148	135
NAHJ 1000P-514.13	HS/HI	1000	10,3	0,42	130	75	248	233

\*Other voltages and frequencies are available on request. \*\*Automatic (push-in) terminals are available on request.

\*\*\*Available also with thermal cut-out with automatic reset.

# ELECTRONIC IGNITORS FOR DISCHARGE LAMPS FOR FLUORESCENT, MERCURY AND SODIUM LIGHTING INSTALLATIONS

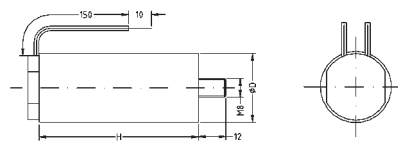


TECHNICAL DATA	CD 400 4K	CD 400 4KT	CD 400 4KP	TECHNICAL DATA	Z 1000M	Z 2000M
Approved mains voltage [V]	198 (207)1...264	198 (207)1...264	198 (207)1...264	Approved mains voltage [V]	198...264V	342...457V
Approved mains frequency [Hz]	50/60	50/60	50/60	Approved mains frequency [Hz]	50/60	50/60
Max. continuous lamp current [A]	4.6	4.6	4.6	Max. continuous lamp current [A]	10.3A	11.3A
Connecting terminal [mm <sup>2</sup> ]	2.5	2.5	2.5	Connecting terminal [mm <sup>2</sup> ]	6	4
Response / cut out voltage [V]	≤198(207) 1 / ≥170	≤198(207) 1 / ≥170	≤198(207) 1 / ≥170	Response / cut out voltage [V]	≤198 / ≥170V	≤342 / ≥300V
Ignition voltage [kV]	3.5...5.0	3.5...5.0	3.5...5.0	Ignition voltage [kV]	4.0...5.0	3.5...5.0KV
Timer ignition time [s]	1190 [900] 1s	1190 [900] 1s	1190 [900] 1s	Timer ignition time [s]		
Phase position [°el]	60...90/240...270	60...90/240...270	60...90/240...270	Phase position [°el]	60...90/240...270	60...90/240...270
Tc A/B	70°C / 105°C	70°C / 105°C	70°C / 105°C	Tc A/B		
Pulses per cycle	≥6	≥6	≥6	Pulses per cycle	≥4	≥4
Approved load capacity [pF]	20...100	20...100	20...100	Approved load capacity [pF]	20...200PF	20...100PF
Internal losses	<3W@4,6A <2W @3,0A <1W@1,8A	<3W@4,6A <2W @3,0A <1W@1,8A	<3W@4,6A <2W @3,0A <1W@1,8A	Internal losses at 25°C ambient temperature [W]	<4W @10.3A	<6W@ 11.3A
Internal heating	<32W@4,6A <15W@3,0A <5W@1,8A	<32W@4,6A <15W@3,0A <5W@1,8A	<32W@4,6A <15W@3,0A <5W@1,8A	Temperature rise at 25°C ambient temperature [K]	<30K@10.3A	<35K@ 11.3A
Max. housing temperature tc [°C]	105	105	105	Max. housing temperature [°C]	105	105
Ambient temp. t(u) [°C]	-30...+70°C @4.6A -30...+70°C @3.0A -30...+95°C @1.8A	-30...+70°C @4.6A -30...+70°C @3.0A -30...+95°C @1.8A	-30...+70°C @4.6A -30...+70°C @3.0A -30...+95°C @1.8A	Approved ambient temp. t(u) [°C]	-20...+85	-20...+65@ 11.3A
Weight [g]	150	150	150	Weight [kgpr]	0.27	0.52
protection rating against solid objects and liquids	IP 20	IP 20	IP 20	protection rating against solid objects and liquids	IP 20	IP 20

## CAPACITORS FOR FLUORESCENT MERCURY AND SODIUM LIGHTING INSTALLATIONS



Single-phase metallized polypropylene capacitors for fluorescent, mercury and sodium lighting installations with parallel connection.



### CONSTRUCTION

- Housing:**
- Round, self extinguishing plastic (polypropylene or polycarbonate) containers.
  - Hermetically sealed with a plastic cover on which terminals or insulated leads are fixed. For insulated leads, capacitor is equipped with an additional top cover ultrasonically welded.
- Fixing:**
- M8 stud. -Cip in.
- Terminations:**
- Terminals for soldering or cable lugs.
  - Single (A) or dual (B) blade tags 1/4" wide, 12.5 mm long.
  - Flexible insulated leads (C).
  - Rigid leads (D).
  - Up to 18µ. F - 150 mm length.
  - Up to 18µ. F - 200 mm length. (other lengths available).
  - Double insulated flexible wire (E).
- Discharge Resistor:**
- Internal discharge resistor can be supplied upon request.

### TECHNICAL FEATURES

- Designed to improve the power factor in fluorescent, mercury and sodium lighting installations. These self-healing M.P.P. capacitors are available from 1 µf to 50 µf.
- Operating Temperature Range:** -25°C to 80°C.
- Capacitance Tolerance:** ± 10% (other tolerances available).
- Operating Voltages:** Parallel capacitors - Un-250V A.C.
- Frequency:** 50-60 Hz.
- A.C. Test voltage:** 2 Un - 2 sec.
- Loss Factor:** (TgΦ at Vn/50Hz) < 15x10<sup>-4</sup>
- Approvals:** marks ENEC, CE.



According to EN 61048 & EN 61049

SELECTION TABLE	
Capacitance in µF	Dimensions φD x H (mm)
1	28x54
1,5	28x54
2	28x54
2,5	28x54
3	28x54
4	32x54
5	35x54
6	35x54
7	28x67
8	32x67
9	32x67
10	32x67
12	36x67
14	36x67
15	36x67
16	36x92
18	36x92
20	36x92
25	40x92
30	40x92
35	40x92
40	45x92
45	45x92
50	50x93
60	50x95

\*Available also at 400V upon request.

**ELECTRONIC BALLASTS FOR T8 LAMPS (220-240V / 50-60 Hz):**

1x14-15-18W  
1x18W  
2x18W  
3x18W / 4x18W  
1x36W  
2x36W  
1x58W  
2x58W  
2x54-55-58W  
1x80W MULTI LAMP (T5:1X29-39-49-54-80W & T5:1X14-24-28-35W & T8:1X80W)

**ELECTRONIC BALLASTS FOR T5 LAMPS (220-240V / 50-60 Hz):**

1x13,14W  
1x14,21,28,35W  
2x14,21,28,35W  
1x22-24W  
1x24W  
2x24W  
3x24W  
4x24W  
1x39W  
2x39W  
1x49W  
2x49W  
1x54W  
1x80W  
2x80W

**ELECTRONIC BALLASTS FOR COMPACT FLUORESCENT LAMPS (220-240V / 50-60 Hz):**

PL 2x13W  
PL 2x18W  
PL 2x26W

**ELECTRONIC BALLASTS FOR SODIUM AND METAL HALIDE LAMPS (220-240V / 50-60 Hz):**

NAHJ 1x50W  
NAHJ 1x70W  
NAHJ 1x100W  
NAHJ 1x150W  
NAHJ 1x250W

**ELECTRONIC TRANSFORMERS TR 12V**

TR DSET 60W/12V  
TR DSET 105W/12V  
TR ETD 60W/12V DIMMABLE

**DIMMABLE 1-10V ELECTRONIC BALLASTS FOR T8 LAMPS (220-240V / 50-60 Hz):**

1x18W  
2x18W  
1x25W  
1x30W  
1x36W  
2x36W  
1x58W  
2x58W

**DIMMABLE 1-10V ELECTRONIC BALLASTS FOR T8 LAMPS (220-240V / 50-60 Hz):**

1x21,39W  
2x21,39W  
1x24,39W  
2x24,39W  
2x35,49,80W  
1x49W  
1x14,24W  
2x14,24W  
1x54W  
2x54W  
1x80W (1X80W:T5 & 1X55-80W:TC-L)  
2x80W

**DIMMABLE 1-10V ELECTRONIC BALLASTS FOR COMPACT LAMPS (220-240V / 50-60 Hz):**

1x18W TC-L, TC-F  
1x24W TC-L, TC-F  
2x26W TC-DE, TC-TE  
2x42W TC-DE, TC-TE  
2x32W TC-DE, TC-TE  
1x36W TC-L, TC-TE  
1x40W TC-L, TC-TE  
2x18W TC-L, TC-F  
2x24W TC-L, TC-F  
2x36W TC-L, TC-F  
2x40W TC-L  
1x55W TC-L  
2x55W TC-L

# COMPANY PROFILE

**SCHWABE HELLAS S.A.** was established in 1974 in Athens, Greece. Today the Company which is a major manufacturing concern located in two EU countries Greece and Bulgaria, specializes in the production of Ballasts for Fluorescent Lamps, High Pressure Mercury, M. Halide and Sodium Vapour Lamps as well as Transformers for Low Voltage Halogen Lamps.

Our long experience in production is being applied today in our brand new plant which is based in south Bulgaria. The new factory, **ASTRON LIGHTING SOLUTIONS** is today our main production plant and is exclusively authorized by us to produce magnetic ballasts and all the full range of Schwabe branded products, under our quality assurance, supervision and know how.

Moreover, in this plant we develop and expand new series of products, LED fixtures for indoor and outdoor lighting, as well as ignitors and capacitors.

Our group of companies apply their own quality management system according to ISO 9001:2015 and ISO 14001:2015, according to the high qualified European Standards and fulfil all the quality requirements so as to be certified by VDE and KEMA quality institutions.

The guarantee of the **Schwabe** name in the high quality Ballast market and the continuous development of technology have resulted in reliable products which has meant that the company has acquired a steady and growing share of the international market.



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