VS Lighting Solutions for Professional Appliances

For Professional Appliances

LED Solutions for Professional Ovens and Refrigerators

Lampholders for Professional Ovens and Steam Ovens

Electronic Converters and Magnetic Transformers for Low-voltage Halogen Lamps

Electronic and Magnetic Ballasts for Fluorescent Lamps

Vossloh-Schwabe

Vossloh-Schwabe is not merely a provider of top-quality system solutions for the lighting industry, but above all makes a competent and innovative contribution to setting market trends in the field of lighting for professional appliances.

Employing approx. 1000 people in more than 20 countries, Vossloh-Schwabe is represented all over the world. As a subsidiary of the Japanese Panasonic Group, VS can draw on extensive resources for R&D as well as for international expansion activities. A highly motivated workforce, comprehensive market knowledge, profound industry expertise as well as eco-awareness and environmental responsibility show Vossloh-Schwabe to be a reliable partner for the provision of optimum and cost-effective lighting solutions. Vossloh-Schwabe's dedication to delivering superior quality is reflected in its ISO 9001 certification.

CUSTOMISED SOLUTIONS

Your project, our solution

We collaborate with our customers and pay attention to their needs in order to develop customised lighting solutions. Whether the task involves the realisation of a single LED module or the creation of a turnkey system, our advanced R&D departments ensure the wishes of our customers come true.

R&D – ideas take shape

Our R&D departments are constantly engaged in testing new materials and innovative technologies in order to offer cutting-edge solutions to create optimum lighting conditions. Using product ideas provided by our customers as a basis, our R&D teams design bespoke solutions that suit the given requirements, that can later be finessed into detailed features and ultimately guide the implementation process to create the customised product.

One stop, one shop – In-house creation of complete products

We offer complete solutions that are made entirely within the Vossloh-Schwabe Group using perfectly matched components with very high efficiency ratings.

In-house photometric testing

All necessary photometric test can be carried out at VS. Cutting-edge equipment is used to measure all optical, chromatic and radiometric values as well as to carry out thermal simulations. These kinds of thermal and optical simulations can help to gear the development of a lighting solution to suit the respective customer specific applications at a very early stage in the planning process. The continuous monitoring process during every single project development step allows us to ensure top quality standards.

Know-how and global presence at your disposal

Using our experience and expertise, we carefully assist our customers – from first prototype production straight through to the final product. In addition, our consolidated production processes make for a highly flexible manufacturing service, enabling anything from just a few pieces right up to a mass production. Moreover, our widespread global presence reflects the importance we attach to staying close to both our customers and the market, which allows us to provide first-class customer and highly efficient logistics services.

www.vossloh-schwabe.com

OVERVIEW OF PICTOGRAMS

The following overview of all used pictograms in this catalogue should support you to find the right meaning:

Application field

For ovens

For refrigerators

Assembly information

Cut-out in mm (f.e. Ø 35.5 mm)

Safety information

IP protection (f.e. IP20)

SELV (Safety Extra Low Voltage)

Protection class I

Protection class II

Short-circuit protection

Overload protection

Overtemperature protection

Protection against "no load" operation

RFI suppressed

Dimming and control information

Phase-cut dimmable

Contents

LEDSpots for Professional Ovens

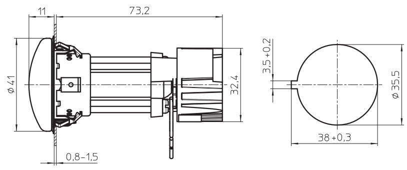
For cut-outs Ø 35.5 mm or 67.5x25.5 mm

Colour rendering:	$R_a > 80$
Fixing for	
Extreme O:	click-in
Extreme Revo:	snap-in clips

Extreme O

For cavity lighting

Lens material:	borosilicate glass
Beam angle:	160°
Colour temperatures:	3000 K or 4500 K
t_c max.:	110 °C
Leads:	Si
Packaging unit:	45 pcs.



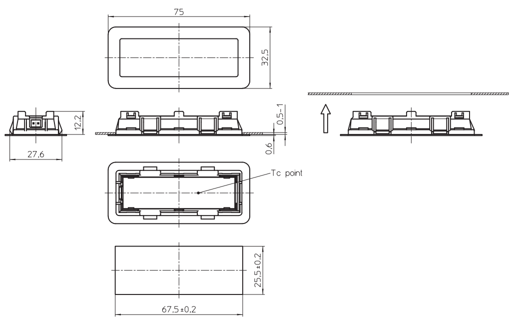
Type	Typ. lumen	Forward current (mA)	Forward voltage (V)	Power consumption (W)
LO 001 700 mA	150	–	2.98	2.1

Tolerances of electrical and optical data: ± 10%
The values contained in this data sheet can change due to technical innovations.
Any such changes will be made without separate notification.

Extreme Revo

For door lighting

Lens material:	PC
Beam angle:	60°
Colour temperatures:	3000 K or 4000 K
t_c max.:	110 °C
Leads:	PVC
Packaging unit:	162 pcs.



Type	Typ. lumen	Forward current (mA)	Forward voltage (V)	Power consumption (W)
LCH035 12 V	125	110	–	1.3
LCH038 24 V	130	55	–	1.3

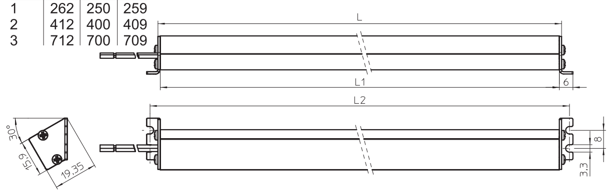
Tolerances of electrical and optical data: ± 10%
The values contained in this data sheet can change due to technical innovations.
Any such changes will be made without separate notification.

LED Line for Professional Ovens

Fixing plate

Colour rendering:	R_a > 80
Fixing:	screw mounting plate

Mod	L mm	L1 mm	L2 mm
1	262	250	259
2	412	400	409
3	712	700	709



Extreme L

For door lighting

Lens material:	PC
Beam angle:	120°
Colour temperatures:	3000 K or 4000 K
t_c max.:	110 °C
Leads:	PVC
Packaging unit:	20 pcs.

Type	Typ. lumen	Forward current (mA)	Forward voltage (V)	Power consumption (W)
Extreme-L-250 12 V	145	270	–	3.2
Extreme-L-400 12 V	200	450	–	5.4
Extreme-L-700 12 V	365	810	–	9.7

Tolerances of electrical and optical data: ± 10%
The values contained in this data sheet can change due to technical innovations.
Any such changes will be made without separate notification.

LED Line for Professional Refrigerators

Fixing plate

Colour rendering:	$R_a > 80$
Fixing:	screw mounting plate

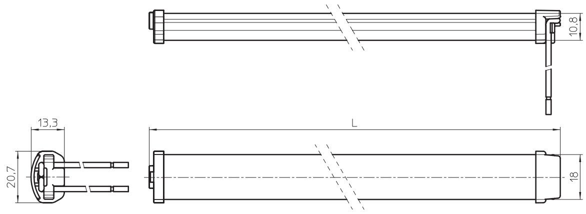
IP20

REFRIGERATORS

Cryo

For upright and shelf lighting

Lens material:	PC
Beam angle:	120°
Colour temperatures:	5700 K
Ambient temperature:	–20 to 40 °C
Packaging unit:	20 pcs.



Type	Typ. lumen	Forward current (mA)	Forward voltage (V)	Power consumption (W)
CRYO-P-600HE 24 V	275	90	–	2.1
CRYO-P-1200HE 24 V	550	180	–	4.2

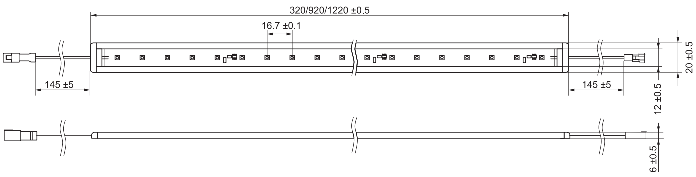
Tolerances of electrical and optical data: ± 10%
The values contained in this data sheet can change due to technical innovations.
Any such changes will be made without separate notification.

LED Line for Professional Refrigerators

Fixing plate

Colour rendering: $R_a > 80$
Fixing: screw mounting plate

IP66



AluLED

For canopy and shelf lighting

Lens material: silicone
Beam angle: 120°
Colour temperatures: 2700 K, 3000 K, 4500 K, 6000 K
Ambient temperature: –30 to 85 °C
Packaging unit: 20 pcs.

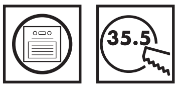
Type	Typ. lumen	Forward current (mA)	Forward voltage (V)	Power consumption (W)
AluLED-320-6000-II Fully Coated 24 V	280	140	–	3.4
AluLED-920-6000-II Fully Coated 24 V	840	420	–	10.1
AluLED-1220-6000-II Fully Coated 24 V	1120	560	–	13.5

Tolerances of electrical and optical data: ± 10%
The values contained in this data sheet can change due to technical innovations.
Any such changes will be made without separate notification.

Lampholders for Professional Ovens

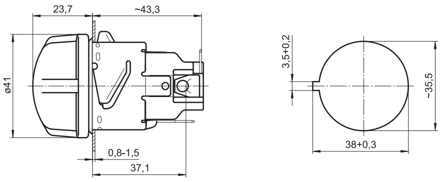
For cut-out 35.5 mm

Nominal rating E14, G9:	2/250
Nominal rating G4:	10/24
Contacts:	earth spade connector 6.3x0.8
Fixing:	click-in

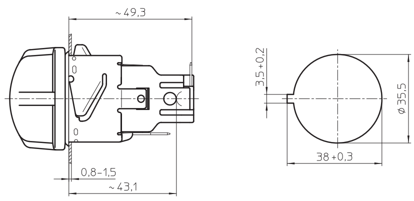


E14 Lampholders

Temperature rating:	T300
Housing material:	porcelain
Lamp:	15 W
Lens:	soda-lime glass
Connection:	spade connectors
Packaging unit:	250 pcs.
Type:	**51212**

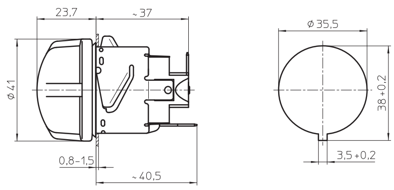


Temperature rating:	T300
Housing material:	porcelain
Lamp:	25 W
Lens:	soda-lime glass
Connection:	spade connectors
Packaging unit:	200 pcs.
Type:	**51211**

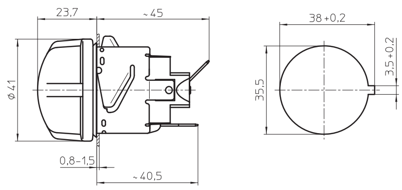


G9 Lampholders

Temperature rating:	T350
Housing material:	steatite
Lamp:	25 W/40 W
Lens:	soda-lime glass
Connection:	spade connectors
Packaging unit:	96 pcs.
Type:	**33850**

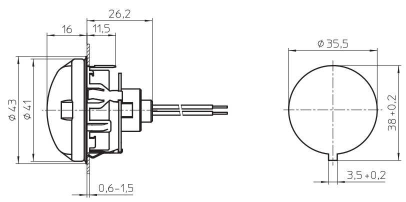


Temperature rating:	T300
Housing material:	porcelain
Lamp:	25 W/40 W
Lens:	soda-lime glass
Connection:	spade connectors
Packaging unit:	96 pcs.
Type:	**33855**



G4 Lampholders

Temperature rating:	T300
Housing material:	porcelain
Lamp:	20 W
Leads:	PTFE
Packaging unit:	200 pcs.
Type:	**32797**

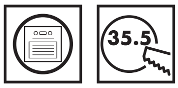


STEAM OVENS

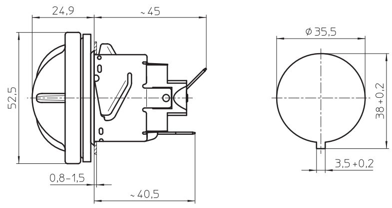
Lampholders for Professional Steam Ovens

For cut-out 35.5 mm

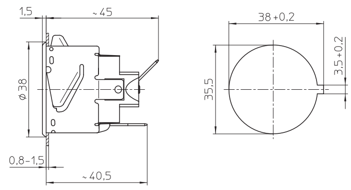
Nominal rating G9:	2/250
Nominal rating G4:	10/24
Contacts:	earth spade connector 6.3x0.8
Fixing:	click-in



Mounted lampholder with gasket and glass



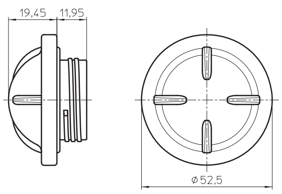
Single G9 lampholder base



Available Lampholder Types

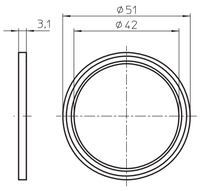
Suitable for lampholders					
Type	Base	Material	T-rating	Connection	Lamp
33850	G9	steatite	T350	spade connectors	25 W / 40 W
33855	G9	porcelain	T300	spade connectors	25 W / 40 W
32797	G4	porcelain	T300	leads	20 W

Accessories



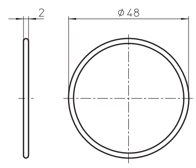
Pagoda glass

Material:	borosilicate glass
Fixing:	screw
Type:	**94052**



O-ring housing

Material:	PTFE
Type:	**98092**

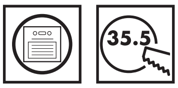


O-ring gasket

Material:	high-temperature silicone
Type:	**98093**

Accessories for Lampholders for Professional Ovens

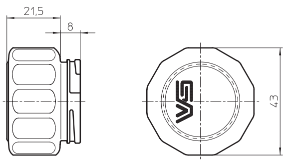
For cut-out 35.5 mm



Accessories

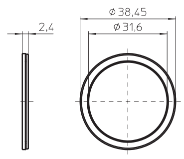
Flat glass

Material:	soda-lime glass
Fixing:	bayonet
Compatible with	
E14 lampholders:	64327, 51212, 51211
G9 lampholders:	33850, 33855
Type:	**94091**



Silicone gasket

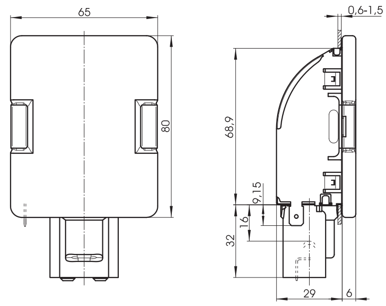
Material:	high-temperature silicone
Compatible with	
E14 lampholders:	64340, 64350, 64327, 51212, 51211
G9 lampholders:	33850, 33855
G4 lampholdesr:	32797
Type:	**98094**



Lampholders for Professional Ovens

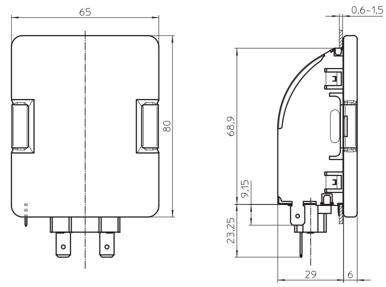
For cut-out 55x70 mm

Nominal rating E14, G9: 2/250
Contacts: earth spade connector 6.3x0.8
Reflector: aluminium plated steel
Fixing: click-in



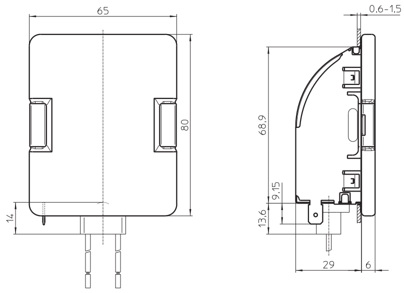
E14 Lampholders

Temperature rating:	T300
Housing material:	porcelain
Lamp:	25 W
Lens:	borosilicate glass
Connection:	spade connectors
Packaging unit:	70 pcs.
Type:	**51250**

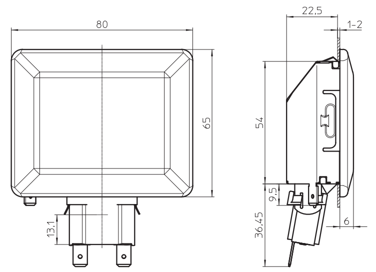


G9 Lampholders

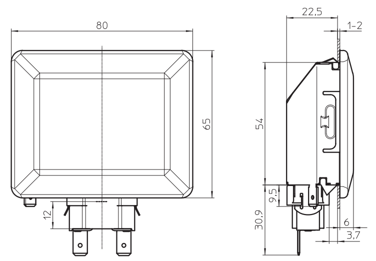
Temperature rating:	T350
Housing material:	steatite
Lamp:	25 W/40 W
Lens:	borosilicate glass
Connection:	spade connectors
Packaging unit:	70 pcs.
Type:	**33840**



Temperature rating:	T350
Housing material:	steatite
Lamp:	25 W/40 W
Lens:	borosilicate glass
Leads:	PTFE
Packaging unit:	70 pcs.
Type:	**33940**



Temperature rating:	T350
Housing material:	steatite
Lamp:	25 W/40 W
Lens:	borosilicate glass
Connection:	spade connectors
Packaging unit:	70 pcs.
Type:	**33880**

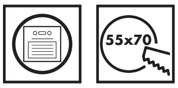


Temperature rating:	T350
Housing material:	steatite
Lamp:	25 W/40 W
Lens:	borosilicate glass
Connection:	spade connectors
Packaging unit:	75 pcs.
Type:	**33885**

Lampholders for Professional Ovens

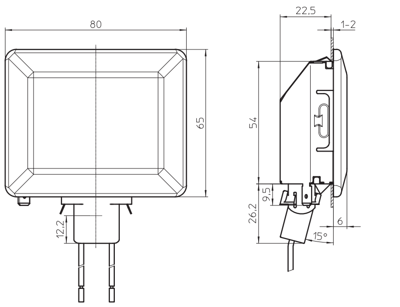
For cut-out 55x70 mm

Nominal rating G9:	2/250
Nominal rating G4:	10/24
Contacts:	earth spade connector 6.3x0.8
Reflector:	aluminium plated steel
Fixing:	click-in



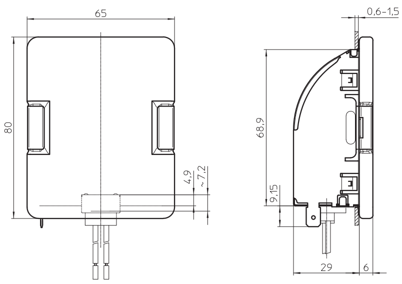
G9 Lampholders

Temperature rating:	T350
Housing material:	steatite
Lamp:	25 W/40 W
Lens:	borosilicate glass
Leads:	PTFE
Packaging unit:	75 pcs.
Type:	**33980**



G4 Lampholders

Temperature rating:	T300
Housing material:	porcelain
Lamp:	20 W
Lens:	borosilicate glass
Leads:	PTFE
Packaging unit:	36 pcs.
Type:	**32775**

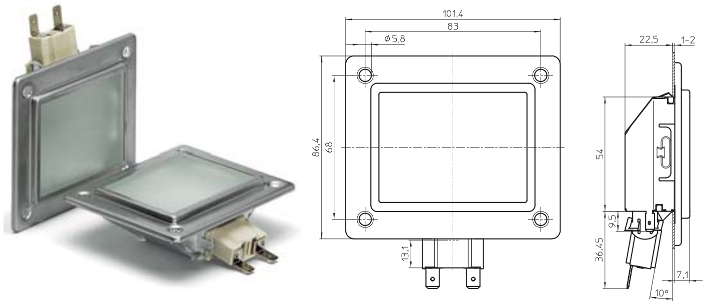


Lampholders and Accessories for Professional Steam Ovens

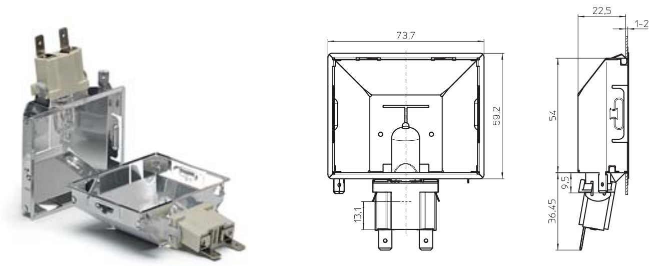
For cut-out 55x70 mm

Nominal rating E14, G9:	2/250
Nominal rating G4:	10/24
Contacts:	earth spade connector 6.3x0.8
Fixing:	click-in

Mounted lampholder with frame, gasket and glass



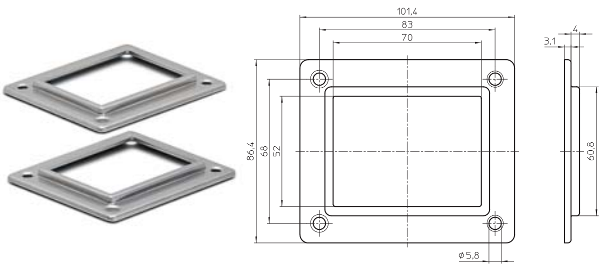
Single G9 lampholder base



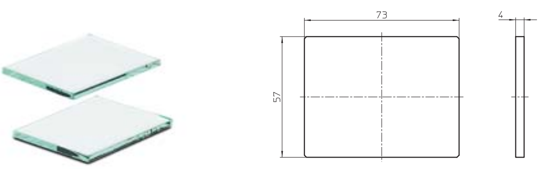
Available Lampholder Types

Suitable for lampholders					
Type	Base	Material	T-rating	Connection	Lamp
51250	E14	porcelain	T300	spade connectors	25 W
33840	G9	steatite	T350	spade connectors	25 W / 40 W
33940	G9	steatite	T350	leads	25 W / 40 W
33880	G9	steatite	T350	spade connectors	25 W / 40 W
33885	G9	steatite	T350	spade connectors	25 W / 40 W
33980	G9	steatite	T350	leads	25 W / 40 W
32775	G4	porcelain	T300	leads	20 W

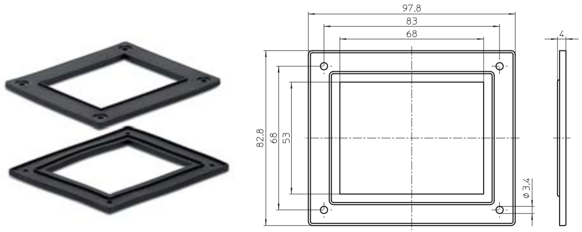
Accessories



Metal frame
Material: CrNi
Type: 93195



Flat glass
Material: borosilicate glass
Type: 94090



Silicone gasket
Material: high-temperature silicone
Type: 98090

Lampholders and Accessories for Professional Steam Ovens

STEAM OVENS

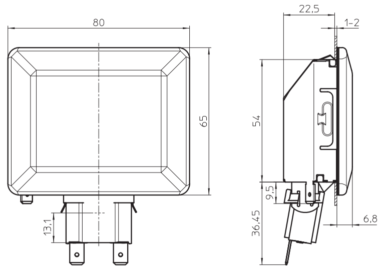
For cut-out 55x70 mm

Nominal rating G9:	2/250
Contacts:	earth spade connector 6.3x0.8
Fixing:	click-in

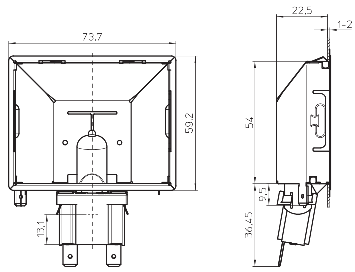
Available Lampholder Types

Suitable for lampholders					
Type	Base	Material	T-rating	Connection	Lamp
33880	G9	steatite	T350	spade connectors	25 W / 40 W
33885	G9	steatite	T350	spade connectors	25 W / 40 W
33980	G9	steatite	T350	leads	25 W / 40 W

Mounted lampholder with gasket and glass



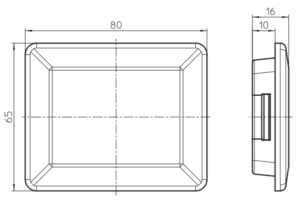
Single G9 lampholder base



Accessories

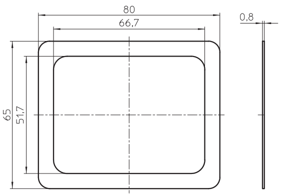
Cover glass

Material:	borosilicate glass
Type:	**94037**



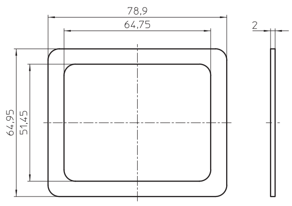
Silicone gasket

Material:	high-temperature silicone
Type:	**98091**



Accessories for Lampholders for Professional Ovens

For cut-out 55x70 mm



Accessories

Lytherm gasket for pyrolytic ovens

Material:	lytherm
Compatible with	
E14 lampholders:	51250, 33840, 33940
Type:	**98095**

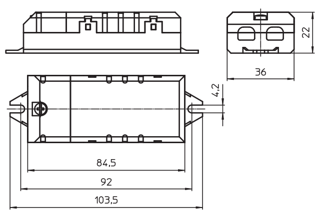
Independent Electronic Converters – LiteLine

Electronic safety converters for low-voltage halogen incandescent lamps 12 V

Suitable for installation in furniture and on combustible surfaces

Casing:	heat-resistant polyamide
Mains frequency:	50–60 Hz
Power factor:	> 0.95
Efficiency:	≥ 94%
Connection:	screw terminals 2.5 mm² (EST 60/12.635 primary: 4 mm²)
Quantity of terminals:	1x2-poles primary 1x2-poles secondary with integrated cord grip

A



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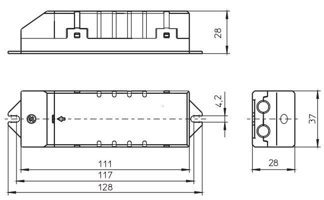

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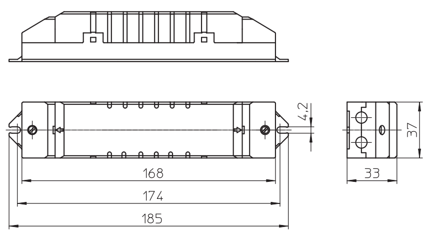


Ref. No.	Type	Capacity range W	Voltage (V) 50–60 Hz prim. (± 10%)	secondary	Nominal current A	Ambient temperature t_a °C	Max. casing temperature t_c °C	Drawing	Dimensions LxWxH mm	Weight g
186173	EST 60/12.635	10–60	220–240	10.2–12	0.258–0.260	–20 to 45	85	A	103.5x36x22	70
186072	EST 70/12.380	20–70	230–240	11.3–11.7	0.30–0.31	–20 to 45	70	B	128x37x28	85
186077	EST 105/12.381	20–105	230–240	11.2–11.7	0.435–0.445	–20 to 40	85	B	128x37x28	95
186098	EST 150/12.622	50–150	230–240	11.2–11.6	0.595–0.605	–20 to 45	85	C	185x37x33	175

TRANSFORMERS

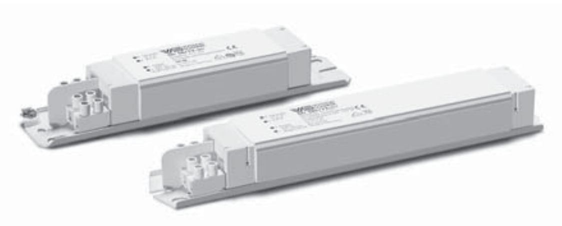
Super-thin Electromagnetic Built-in Transformers 20–105 VA

Electromagnetic safety transformers for low-voltage halogen incandescent lamps 12 V

For these transformers without thermal cut-out, a slow-acting fuse should be installed in the wiring on site.

Casing:	vacuum-impregnated with polyester resin
Connection:	screw terminals 0.5–2.5 mm²

IP20



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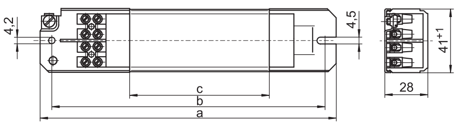

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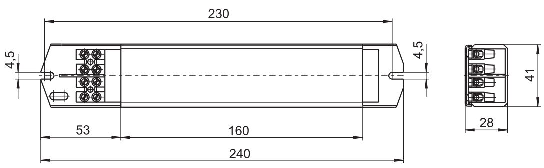


Ref. No.	Type	Capacity range W	Voltage/frequency V, Hz primary	secondary	Ambient temperature t_a °C	Drawing	Dimensions a mm	b mm	c mm	Weight kg	Primary fuse AT
500843	STr 50/12.207	35–50	220, 50–60	11.5	40/B	A	175	165	83	0.73	0.250
161781	STr 20/12.306	15–20	230, 50–60	11.5	60/B	A	155	140	63	0.55	0.125
161757	STr 50/12.301	35–50	230, 50–60	11.5	50/B	A	195	180	92	0.80	0.250
507181	STr 50/12.342	35–50	230, 50–60	11.5	40/B	A	175	165	83	0.73	0.250
179604	STr 60/12.338	40–60	230, 50–60	11.5	50/F	A	195	180	92	0.80	0.315
170002	STr 105/12.311	60–105	230, 50–60	11.5	30/F	B	240	230	160	1.33	0.500
169830	STr 50/12.401	35–50	240, 50–60	11.5	45/B	A	195	180	92	0.80	0.250
502592	STr 50/12.422	35–50	240, 50–60	11.5	40/B	A	175	165	83	0.73	0.250
169125	STr 105/12.406	60–105	240, 50–60	11.5	50/H	B	240	230	160	1.33	0.500
525791	STr 50/12.109	35–50	127, 60	11.5	40/F	A	155	140	63	0.55	0.500

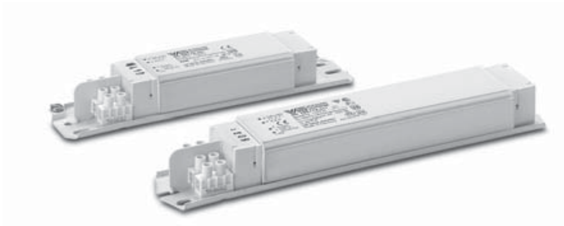
Super-thin Electromagnetic Built-in Transformers with Thermal Cut-out 20–105 VA

Electromagnetic safety transformers for low-voltage halogen incandescent lamps 12 V

Casing:	vacuum-impregnated with polyester resin
Connection:	screw terminals 0.5–2.5 mm^2
Temperature switch:	with self-holding protection against overheating, no primary fuse necessary

TRANSFORMERS

IP20



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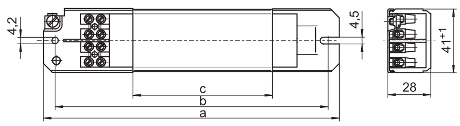

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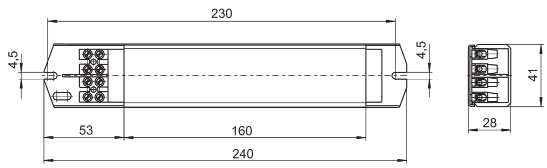


Ref. No.	Type	Capacity range W	Voltage/frequency V, Hz primary	secondary	Ambient temperature t_a °C	Drawing	Dimensions a mm	b mm	c mm	Weight kg
161860	STr 20/12.306	15–20	230, 50–60	11.5	60/B	A	155	140	63	0.55
179444	STr 50/12.337	35–50	230, 50–60	11.5	50/F	A	175	165	83	0.73
170091	STr 50/12.301	35–50	230, 50–60	11.5	50/B	A	195	180	92	0.80
179608	STr 60/12.338	40–60	230, 50–60	11.5	50/F	A	195	180	92	0.80
169747	STr 105/12.311	60–105	230, 50–60	11.5	45/F	B	240	230	160	1.33
169748	STr 50/12.401	35–50	240, 50–60	11.5	45/B	A	195	180	92	0.80
161935	STr 105/12.406	60–105	240, 50–60	11.5	50/H	B	240	230	160	1.33
537403	STr 50/12.109	35–50	127, 60	11.5	40/F	A	155	140	63	0.55

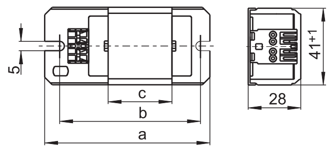
CFL BALLASTS

Standard Ballasts 5–16 W, 230/240 V

For compact fluorescent lamps

Casing:	vacuum-impregnated with polyester resin
Connection:	push-in terminal for leads 0.5–1 mm²; for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5
Winding temperature:	tw 130

IP20



Ref. No.	Type	Voltage/ frequency V, Hz	For lamps Output W	Type	Base	Current mA	Dimensions a mm	b mm	c mm	Weight kg	Δt/Δtan. K	Energy efficiency	Capacitor CP µF	Current mA
163694	L 7/9/11.307*	230, 50	5	TC-S	G23	180	85	75	34	0.32	60/85	B2	2.0	50
			7	TC-S	G23	175	85	75	34	0.32	60/85	B2	2.0	50
			9	TC-S	G23	170	85	75	34	0.32	60/85	B1	2.0	60
			11	TC-S	G23	155	85	75	34	0.32	60/85	B1	2.0	80
562658	LNN 9/11.015	230, 50	9	TC-S	G23	170	155	140	92	0.80	15/40	**A2**	2.0	60
			11	TC-S	G23	155	155	140	92	0.80	15/40	**A2**	2.0	60
163711	LN 13.313*	230, 50	2x5	TC-S	G23	180	85	75	34	0.32	55/80	B2	2.0	70
			2x7	TC-S	G23	160	85	75	34	0.32	55/80	B2	2.0	70
			2x9	TC-S	G23	140	85	75	34	0.32	55/80	B2	2.0	80
			10	TC-D	G24d-1	190	85	75	34	0.32	55/80	B2	2.0	70
			10	TC-DD	GR10q	180	85	75	34	0.32	55/80	B2	2.0	70
			13	TC-D/TC-T	G24d-1/GX24d-1	175	85	75	34	0.32	55/80	B2	2.0	80
169647	LN 13.805*	230, 50	2x5	TC-S	G23	180	85	75	34	0.32	50/85	B1	2.0	70
			2x7	TC-S	G23	160	85	75	34	0.32	50/85	B1	2.0	70
			2x9	TC-S	G23	140	85	75	34	0.32	50/85	B1	2.0	70
			10	TC-D	G24d-1	190	85	75	34	0.32	50/85	B1	2.0	70
			10	TC-DD	GR10q	180	85	75	34	0.32	50/85	B1	2.0	70
			13	TC-D/TC-T	G24d-1/GX24d-1	175	85	75	34	0.32	50/85	B1	2.0	80
564190	LNN 13.044	230, 50	2x7	TC-S	G23	160	155	140	92	0.80	25/40	**A2**	2.0	80
			2x9	TC-S	G23	140	155	140	92	0.80	25/40	**A2**	2.0	80
			13	TC-D/TC-T	G24d-1/GX24d-1	175	155	140	92	0.80	25/40	**A2**	2.0	80
163730	LN 16.316*	230, 50	16	TC-DD	GR8/GR10q	195	85	75	34	0.32	60/125	B1	2.0	100
164335	L 7/9/11.411	240, 50	5	TC-S	G23	180	85	75	34	0.32	60/85	B2	2.0	50
			7	TC-S	G23	175	85	75	34	0.32	60/85	B2	2.0	50
			9	TC-S	G23	170	85	75	34	0.32	60/85	B1	2.0	60
			11	TC-S	G23	155	85	75	34	0.32	60/85	B1	2.0	80
164342	LN 13.413	240, 50	2x5	TC-S	G23	180	85	75	34	0.32	60/90	B2	2.0	70
			2x7	TC-S	G23	160	85	75	34	0.32	60/90	B2	2.0	70
			2x9	TC-S	G23	140	85	75	34	0.32	60/90	B2	2.0	80
			10	TC-D	G24d-1	190	85	75	34	0.32	60/90	B2	2.0	70
			10	TC-DD	GR10q	180	85	75	34	0.32	60/90	B2	2.0	70
			13	TC-D/TC-T	G24d-1/GX24d-1	175	85	75	34	0.32	60/90	B1	2.0	80
164358	LN 16.417	240, 50	16	TC-DD	GR8/GR10q	195	85	75	34	0.32	60/130	B1	2.0	100

* Ballasts without CE marking for replacements or markets outside of the EU

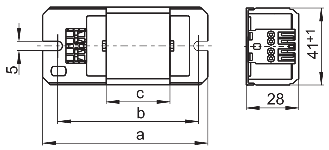
Standard Ballasts 5–13 W, 220 V

For compact fluorescent lamps

Casing:	vacuum-impregnated with polyester resin
Connection:	push-in terminal for leads 0.5–1 mm²; for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5
Winding temperature:	tw 130

IP20

CFL BALLASTS



Ref. No.	Type	Voltage/ frequency V, Hz	For lamps Output W	Type	Base	Current mA	Dimensions a mm	b mm	c mm	Weight kg	Δt/Δtan. K	Energy efficiency	Capacitor CP µF	Current mA
163305	L 7/9/11.207	220, 60	5	TC-S	G23	180	85	75	34	0.32	35/65	–	2.0	70
			7	TC-S	G23	175	85	75	34	0.32	35/65	–	2.0	70
			9	TC-S	G23	170	85	75	34	0.32	35/65	–	2.0	70
			11	TC-S	G23	155	85	75	34	0.32	35/65	–	2.0	80
520992	L 13.210	220, 60	2x5	TC-S	G23	180	85	75	34	0.32	45/80	–	2.0	90
			2x7	TC-S	G23	160	85	75	34	0.32	45/80	–	2.0	90
			2x9	TC-S	G23	140	85	75	34	0.32	45/80	–	2.0	90
			10	TC-D	G24d-1	190	85	75	34	0.32	45/80	–	2.0	80
			10	TC-DD	GR10q	180	85	75	34	0.32	45/80	–	2.0	80
			13	TC-D/TC-T	G24d-1/GX24d-1	165	85	75	34	0.32	45/80	–	2.0	110

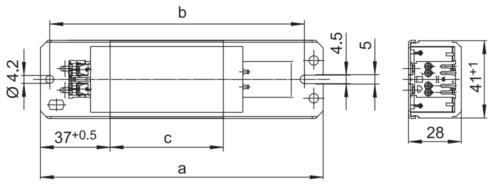
CFL BALLASTS

Standard Ballasts 18–58 W, 230 V

For compact fluorescent lamps

Casing:	vacuum-impregnated with polyester resin
Connection:	push-in terminal for leads 0.5–1 mm²; for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5
Winding temperature:	tw 130

IP20



Ref. No.	Type	Voltage/ frequency V, Hz	For lamps Output W	Type	Base	Current mA	Dimensions a mm	b mm	c mm	Weight kg	Δt/Δtan. K	Energy efficiency	Capacitor CP µF	Current mA
163763	LN 18I.319*	230, 50	18	TC-D/TC-T	G24d-2/GX24d-2	220	85	75	34	0.32	60/140	B1	2.0	110
508922	LN 18I.940*	230, 50	18	TC-D/TC-T	G24d-2/GX24d-2	220	85	75	34	0.32	50/120	B1	2.0	110
564192	LNN 18I.046	230, 50	18	TC-D/TC-T	G24d-2/GX24d-2	220	232.5	220	160	1.35	15/30	**A2**	2.0	110
530941	LN 18.131*	230, 50	18	TC-F/TC-L	2G10/2G11	370	150	140	60	0.55	55/95	B2	4.5	120
			18	T-U	2G13	370	150	140	60	0.55	55/95	B2	4.5	120
			26	TC-D/TC-T	G24d-3/GX24d-3	325	150	140	60	0.55	55/95	B1	3.5	140
			28	TC-DD	GR8/GR10q	320	150	140	60	0.55	55/95	B1	3.5	150
164572	LN 18.510*	230, 50	18	TC-F/TC-L	2G10/2G11	370	155	140	92	0.80	40/65	B1	4.5	120
			28	TC-DD	GR8/GR10q	320	155	140	92	0.80	40/65	B1	3.5	150
534621	L 18.934*	230, 50	18	TC-F/TC-L	2G10/2G11	370	150	140	45	0.43	70/150	–	4.5	120
			18	T-U	2G13	370	150	140	45	0.43	70/150	–	4.5	120
			24	TC-F/TC-L	2G10/2G11	345	150	140	45	0.43	70/150	–	4.5	150
			26	TC-D/TC-T	G24d-3/GX24d-3	325	150	140	45	0,43	70/150	–	3,5	140
			28	TC-DD	GR8/GR10q	320	150	140	45	0.43	70/150	–	3.5	150
532155	LN 2x18.135*	230, 50	2x18	TC-F/TC-L	2G10/2G11	400	150	140	45	0.43	65	B1	4.0	210
564189	LNN 2X18.043	230, 50	2x18	TC-F/TC-L	2G10/2G11	400	150	135	60	0.55	40/160	**A2**	4.0	210
534490	LN 24/26.804*	230, 50	24	TC-F/TC-L	2G10/2G11	345	150	140	60	0.55	55/110	B2	4.5	150
509502	LN 26.813*	230, 50	26	TC-D/TC-T	G24d-3/GX24d-3	325	110	100	45	0.41	55/145	B2	3.5	140
164680	LN 30.530*	230, 50	22	T-R	G10q	400	155	140	92	0.80	45/65	B2	4.5	200
527191	LN 36.130*	230, 50	36	TC-F/TC-L	2G10/2G11	430	150	140	60	0.55	50/140	B2	4.5	210
535977	L 36.132*	230, 50	36	TC-F/TC-L	2G10/2G11	430	150	140	45	0.43	65	–	4.5	210
			36/40	T-U/T-R	2G13/G10q	430	150	140	45	0.43	65	–	4.5	210
			38	TC-DD	GR10q	430	150	140	45	0.43	65	–	4.5	210
529029	LN 36.149*	230, 50	36	TC-F/TC-L	2G10/2G11	430	150	140	60	0.55	55/150	B2	4.5	210
			36/40	T-U/T-R	2G13/G10q	430	150	140	60	0.55	55/150	B2	4.5	210
			38	TC-DD	GR10q	430	150	140	60	0.55	55/150	B2	4.5	210
164590	LN 36.511*	230, 50	36	TC-F/TC-L	2G10/2G11	430	155	140	92	0.80	35/95	B1	4.5	210
169779	LN 36.570*	230, 50	32	T-R	G10q	450	155	140	92	0.80	35/90	B2	4.0	220
			36	TC-F/TC-L	2G10/2G11	430	155	140	92	0.80	35/90	B1	4.5	210
			36/40	T-U/T-R	2G13/G10q	430	150	140	92	0.80	35/90	B1	4.5	210
			38	TC-DD	GR10q	430	155	140	92	0.80	35/90	B1	4.5	210
508186	LN 58.116*	230, 50	58	T-U	2G13	670	190	180	92	0.80	55/160	B2	7.0	320
169389	LN 58.568*	230, 50	58	T-U	2G13	670	233	220	160	1.31	35/95	B1	7.0	320
509349	LN 58.990*	230, 50	58	T-U	2G13	670	190	180	110	0.95	50/130	B2	7.0	320

* Ballasts without CE marking for replacements or markets outside of the EU

Standard Ballasts 18–58 W, 240 V

For compact fluorescent lamps

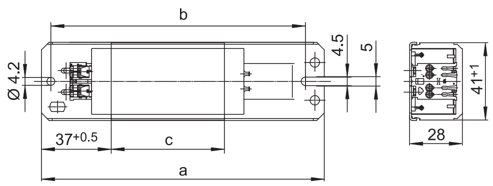
Casing: vacuum-impregnated with polyester resin

Connection: push-in terminal for leads 0.5–1 mm²; for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5

Winding temperature: tw 130

IP20

CFL BALLASTS



Ref. No.	Type	Voltage/	For lamps				Dimensions			Weight	Δt/Δtan.	Energy	Capacitor	
		frequency	Output	Type	Base	Current	a	b	c			efficiency	CP	Current
		V, Hz	W			mA	mm	mm	mm	kg	K		μF	mA
533043	LN 18.162	240, 50	18	TC-F/TC-L	2G10/2G11	370	150	140	60	0.55	60/110	B2	4.5	120
			18	T-U	2G13	370	150	140	60	0.55	60/110	B2	4.5	120
			24	TC-F/TC-L	2G10/2G11	345	150	140	60	0.55	60/110	B2	4.5	150
			26	TC-D/TC-T	G24d-3/GX24d-3	325	150	140	60	0.55	60/110	B1	4.5	150
			28	TC-DD	GR8/GR10q	320	150	140	60	0.55	60/110	B1	3.5	150
164353	LN 18I.418	240, 50	18	TC-D/TC-T	G24d-2/GX24d-2	220	85	75	34	0.28	60/130	B1	2.0	110
164566	LN 18.507	240, 50	18	TC-F/TC-L	2G10/2G11	370	155	140	92	0.80	35/60	B1	4.5	120
			18	T-U	2G13	370	155	140	92	0.80	35/60	B1	4.5	120
			24	TC-F/TC-L	2G10/2G11	345	155	140	92	0.80	35/60	B1	4.5	150
534627	L 18.936*	240, 50	18	TC-F/TC-L	2G10/2G11	370	150	140	45	0.43	70/140	–	4.5	120
			18	T-U	2G13	370	150	140	45	0.43	70/140	–	4.5	120
			24	TC-F/TC-L	2G10/2G11	345	150	140	45	0.43	70/140	–	4.5	150
			28	TC-DD	GR8/GR10q	320	150	140	45	0.43	70/140	–	3.5	150
535778	LN 2x18.135	240, 50	2x18	TC-F/TC-L	2G10/2G11	400	150	140	45	0.43	65	B1	4.0	210
547145	LN 21.293	240, 50	21	TC-DD	GR10q	260	105	95	45	0,41	55	B1	3,0	120
545405	LN 26.238	240, 50	26	TC-D/TC-T	G24d-3/GX24d-3	325	105	95	45	0.41	55/145	B2	3.5	140
527196	LN 36.201	240, 50	2x18	TC-F/TC-L	2G10/2G11	400	150	140	60	0.55	55/140	B1	4.0	210
			36	TC-F/TC-L	2G10/2G11	430	155	140	60	0.55	55/140	B2	4.5	210
			36/40	T-U/T-R	2G13/G10q	430	150	140	60	0.55	55/140	B2	4.5	210
			38	TC-DD	GR10q	430	150	140	60	0.55	55/140	B2	4.5	210
164555	LN 36.505	240, 50	2x18	TC-F/TC-L	2G10/2G11	400	155	140	92	0.80	40/95	B1	4.0	210
			32	T-R	G10q	450	155	140	92	0.80	40/95	B1	4.0	220
			36	TC-F/TC-L	2G10/2G11	430	155	140	92	0.80	40/95	B1	4.5	210
			36/40	T-U/T-R	2G13/G10q	430	155	140	92	0.80	40/95	B1	4.5	210
164438	L 36/40.443*	240, 50	36	TC-F/TC-L	2G10/2G11	430	150	140	60	0.55	65/155	–	4.5	210
			36/40	T-U/T-R	2G13/G10q	430	150	140	60	0.55	65/155	–	4.5	210
			38	TC-DD	GR10q	430	150	140	60	0.55	65/155	–	4.5	210
164560	LN 58.506	240, 50	58	T-U	2G13	670	233	220	160	1.31	35/85	B1	7.0	320
507936	LN 58.192	240, 50	58	T-U	2G13	670	190	180	110	0.95	50/150	B2	7.0	320
534252	LN 58.722	240, 50	58	T-U	2G13	670	190	180	92	0.80	60/180	B2	7.0	320

* Ballasts without CE marking for replacements or markets outside of the EU

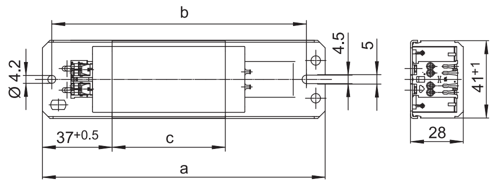
CFL BALLASTS

Standard Ballasts 18–58 W, 220 V

For compact fluorescent lamps

Casing:	vacuum-impregnated with polyester resin
Connection:	push-in terminal for leads 0.5–1 mm²; for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5
Winding temperature:	tw 130

IP20



Ref. No.	Type	Voltage/ frequency V, Hz	For lamps Output W	Type	Base	Current mA	Dimensions a mm	b mm	c mm	Weight kg	Δt/Δtan. K	Energy efficiency	Capacitor CP µF	Current mA
164779	L 18I.602	220, 60	18	TC-D/TC-T	G24d-2/GX24d-2	220	85	75	34	0.32	45/110	–	2.0	110
528582	L 18.121	220, 60	18	TC-F/TC-L	2G10/2G11	370	150	140	45	0.43	65/145	–	4.0	150
			18	T-U	2G13	370	150	140	45	0.43	65/145	–	4.0	150
			24	TC-F/TC-L	2G10/2G11	345	150	140	45	0.43	65/145	–	4.0	190
			26	TC-D/TC-T	G24d-3/GX24d-3	325	150	140	45	0.43	65/145	–	3.0	160
532149	L 18.121	220, 60	18	TC-F/TC-L	2G10/2G11	370	110	100	45	0.42	65/145	–	4.0	150
			18	T-U	2G13	370	110	100	45	0.42	65/145	–	4.0	150
			24	TC-F/TC-L	2G10/2G11	345	110	100	45	0.42	65/145	–	4.0	190
			26	TC-D/TC-T	G24d-3/GX24d-3	325	110	100	45	0.42	65/145	–	3.0	160
			28	TC-DD	GR8/GR10q	320	110	100	45	0.42	65/145	–	3.0	155
538801	L 18.249	220, 60	18	TC-F/TC-L	2G10/2G11	370	150	140	34	0.32	75/140	–	4.0	150
			18	T-U	2G13	370	150	140	34	0.32	75/140	–	4.0	150
			24	TC-F/TC-L	2G10/2G11	345	150	140	34	0.32	75/140	–	4.0	190
			26	TC-D/TC-T	G24d-3/GX24d-3	325	150	140	34	0.32	75/140	–	3.0	160
			28	TC-DD	GR8/GR10q	320	150	140	34	0.32	75/140	–	3.0	155
534624	L18.933	220, 50	18	TC-F/TC-L	2G10/2G11	370	150	140	45	0.43	70/160	–	4.5	120
			18	T-U	2G13	370	150	140	45	0.43	70/160	–	4.5	120
			24	TC-F/TC-L	2G10/2G11	345	150	140	45	0.43	70/160	–	4.5	150
			26	TC-D/TC-T	G24d-3/GX24d-3	325	150	140	45	0.43	70/160	–	3.5	140
			28	TC-DD	GR8/GR10q	320	150	140	45	0.43	70/160	–	3.5	150
509373	L 36.120	220, 60	2x18	TC-F/TC-L	2G10/2G11	400	150	140	45	0.43	60/170	–	4.0	210
			36	TC-F/TC-L	2G10/2G11	430	150	140	45	0.43	60/170	–	4.0	210
			36/40	T-U/T-R	2G13/G10q	430	150	140	45	0.43	60/170	–	4.0	220
			38	TC-DD	GR10q	430	150	140	45	0.43	60/170	–	4.0	220
530252	L 36.158	220, 50	2x18	TC-F/TC-L	2G10/2G11	400	150	140	45	0.43	65	–	4.0	210
			36	TC-F/TC-L	2G10/2G11	430	150	140	45	0.43	65	–	4.5	210
			36/40	T-U/T-R	2G13/G10q	430	150	140	45	0.43	65	–	4.5	210
			38	TC-DD	GR10q	430	150	140	45	0.43	65	–	4.5	210
164828	L 58.625	220, 50	58	T-U	2G13	670	190	180	92	0.80	55/155	–	7.0	320
164870	L 58.657	220, 60	58	T-U	2G13	670	195	180	92	0.80	55/140	–	6.0	320

FL BALLASTS

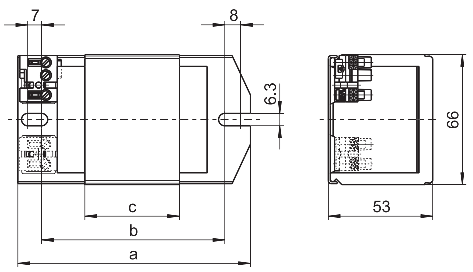
Super Low-loss Ballasts 8–65 W, 230 V

For fluorescent lamps

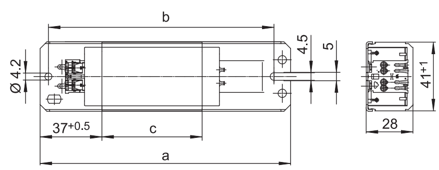
Casing:	vacuum-impregnated with polyester resin
Connection:	push-in terminal for leads 0.5–1 mm²
Winding temperature:	tw 130
Energy efficiency:	A2, minimum EU energy efficiency requirements as of 2017

IP20

A 53x66 mm



B 28x41 mm



Ref. No.	Type	Voltage/ frequency V, Hz	For lamps Output W	Type	Base	Current mA	Draw-ing	Dimensions a mm	b mm	c mm	Weight kg	Δt/Δtan. K	Energy efficiency	Capacitor CP µF	Current mA
564190	LNN 13.044	230, 50	2x8	T5 (T16)	G5	155	B	155	140	92	0.80	25/40	**A2**	2.0	80
			13	T5 (T16)	G5	165	B	155	140	92	0.80	25/40	**A2**	2.0	80
564192	LNN 18I.046	230, 50	18	T8 (T26)/T12 (T38)	G13	370	B	232.5	220	160	1.35	15/30	**A2**	2.0	110
560657	LNN 18.645	230, 50	18/20	T8 (T26)/T12 (T38)	G13	370	A	130	105	64	1.80	10/20	**A2**	4.5	120
564189	LNN 2X18.043	230, 50	2x18/20	T8 (T26)/T12 (T38)	G13	400	B	150	135	60	0.55	40/160	**A2**	4.0	210
564191	LNN 30.045	230, 50	2x15	T8 (T26)	G13	340	B	232.5	220	160	1.35	25/40	**A2**	4.0	185
			30	T8 (T26)	G13	365	B	232.5	220	160	1.35	25/40	**A2**	4.5	180
560659	LNN 36.646	230, 50	2x18/20	T8 (T26)/T12 (T38)	G13	400	A	108	90	36	1.10	25/70	**A2**	4.0	210
			36/40	T8 (T26)/T12 (T38)	G13	430	A	108	90	36	1.10	25/70	**A2**	4.0	120
560664	LNN 36.648	230, 50	2x18/20	T8 (T26)/T12 (T38)	G13	400	B	232.5	220	160	1.35	25/40	**A2**	4.5	210
			36/40	T8 (T26)/T12 (T38)	G13	430	B	232.5	220	160	1.35	25/40	**A2**	4.5	210
560661	LNN 58.647	230, 50	58/65	T8 (T26)/T12 (T38)	G13	670	A	108	90	36	1.10	30/110	**A2**	7.0	320
560665	LNN 58TD.649*	230, 50	58/65	T8 (T26)/T12 (T38)	G13	670	B	232.5	220	160	1.35	20/40	**A2**	7.0	320

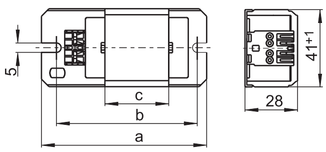
FL BALLASTS

Standard Ballasts 4–13 W 230/240/220 V

For fluorescent lamps

Casing:	vacuum-impregnated with polyester resin
Connection:	push-in terminal for leads 0.5–1 mm²; for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5
Winding temperature:	tw 130

IP20



Ref. No.	Type	Voltage/ frequency V, Hz	For lamps Output W	Type	Base	Current mA	Dimensions a mm	b mm	c mm	Weight kg	Δt/Δtan. K	Energy efficiency	Capacitor CP µF	Current mA
163683	L 4/6/8.304*	230, 50	4	T5 (T16)	G5	170	85	75	34	0.32	55/85	B2	2.0	40
			2x4	T5 (T16)	G5	155	85	75	34	0.32	55/85	B1	2.0	50
			6	T5 (T16)	G5	160	85	75	34	0.32	55/85	B1	2.0	50
			8	T5 (T16)	G5	145	85	75	34	0.32	55/85	B1	2.0	60
163711	LN 13.313*	230, 50	2x6	T5 (T16)	G5	175	85	75	34	0.32	55/80	B1	2.0	65
			2x8	T5 (T16)	G5	155	85	75	34	0.32	55/80	B1	2.0	85
			13	T5 (T16)	G5	165	85	75	34	0.32	55/80	B1	2.0	80
564190	LNN 13.044	230, 50	2x8	T5 (T16)	G5	155	155	140	92	0.80	25/40	**A2**	2.0	80
			13	T5 (T16)	G5	165	155	140	92	0.80	25/40	**A2**	2.0	80
164326	L 4/6/8.404	240, 50	4	T5 (T16)	G5	170	85	75	34	0.32	55/80	B2	2.0	40
			2x4	T5 (T16)	G5	155	85	75	34	0.32	55/80	B1	2.0	50
			6	T5 (T16)	G5	160	85	75	34	0.32	55/80	B1	2.0	50
			8	T5 (T16)	G5	145	85	75	34	0.32	55/80	B1	2.0	60
164342	LN 13.413	240, 50	2x6	T5 (T16)	G5	175	85	75	34	0.32	60/90	B1	2.0	65
			2x8	T5 (T16)	G5	155	85	75	34	0.32	60/90	B1	2.0	85
			13	T5 (T16)	G5	165	85	75	34	0.32	60/90	B1	2.0	80
532644	L 4/6/8.218	220, 60	4	T5 (T16)	G5	170	85	75	34	0.32	60/80	–	2.0	40
			2x4	T5 (T16)	G5	155	85	75	34	0.32	60/80	–	2.0	50
			6	T5 (T16)	G5	160	85	75	34	0.32	60/80	–	2.0	50
			8	T5 (T16)	G5	145	85	75	34	0.32	60/80	–	2.0	60
520992	L 13.210	220, 60	2x6	T5 (T16)	G5	175	85	75	34	0.32	45/80	–	2.0	65
			2x8	T5 (T16)	G5	155	85	75	34	0.32	45/80	–	2.0	85
			13	T5 (T16)	G5	165	85	75	34	0.32	45/80	–	2.0	80

* Ballasts without CE marking for replacements or markets outside of the EU

Standard Ballasts 14–65 W, 230 V

For fluorescent lamps

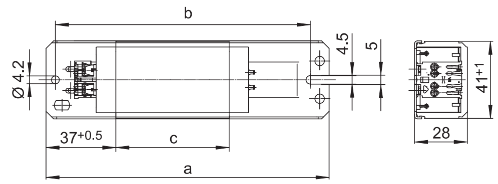
Casing: vacuum-impregnated with polyester resin

Connection: push-in terminal for leads 0.5–1 mm²; for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5

Winding temperature: tw 130

IP20

FL BALLASTS



Ref. No.	Type	Voltage/ frequency	For lamps Output	Type	Base	Current	Dimensions a	b	c	Weight	Δt/Δtan.	Energy efficiency	Capacitor CP	Current
		V, Hz	W			mA	mm	mm	mm	kg	K		μF	mA
163861	LN 15.329*	230, 50	15	T8 (T26)	G13	310	150	140	60	0.55	50/80	B2	3.5	120
163730	LN 16.316*	230, 50	16	T8 (T26)	G13	200	85	75	34	0.32	60/125	B1	2.0	90
530941	LN 18.131*	230, 50	18/20	T8 (T26)/T12 (T38)	G13	370	150	140	60	0.55	55/95	B2	4.5	120
164572	LN 18.510*	230, 50	14	T8 (T26)	G13	395	155	140	92	0.80	40/65	B2	4.5	150
			18/20	T8 (T26)/T12 (T38)	G13	370	155	140	92	0.80	40/65	B1	4.5	120
534621	L 18.934*	230, 50	18/20	T8 (T26)/T12 (T38)	G13	370	150	140	45	0.43	70/150	–	4.5	120
532155	LN 2x18.135*	230, 50	2x18/20	T8 (T26)/T12 (T38)	G13	400	150	140	45	0.43	65	B1	4.0	210
564189	LNN 2X18.043	230, 50	2x18/20	T8 (T26)/T12 (T38)	G13	400	150	135	60	0.55	40/160	**A2**	4.0	210
164013	L 25.346*	230, 50	25	T12 (T38)	G13	290	150	140	60	0.55	45/80	B1	3.5	130
169645	LN 30.801*	230, 50	2x15	T8 (T26)	G13	340	150	140	60	0.55	55/110	B2	4.0	185
			30	T8 (T26)	G13	365	150	140	60	0.55	55/110	B2	4.5	180
564191	LNN 30.045	230, 50	2x15	T8 (T26)	G13	340	232.5	220	160	1.35	25/40	**A2**	4.0	185
			30	T8 (T26)	G13	365	232.5	220	160	1.35	25/40	**A2**	4.5	180
164033	L 30.347*	230, 50	2x15	T8 (T26)	G13	340	150	140	60	0.55	60/150	–	4.0	185
527191	LN 36.130*	230, 50	36/40	T8 (T26)/T12 (T38)	G13	430	150	140	60	0,55	50/140	B2	4.5	210
529029	LN 36.149*	230, 50	36/40	T8 (T26)/T12 (T38)	G13	430	150	140	60	0.55	55/150	B2	4.5	210
			38	T8 (T26)	G13	430	150	140	60	0.55	55/150	B2	4.5	210
164590	LN 36.511*	230, 50	36/40	T8 (T26)/T12 (T38)	G13	430	155	140	92	0.80	35/95	B1	4.5	210
			38	T8 (T26)	G13	430	155	140	92	0.80	35/95	B1	4.5	210
169779	LN 36.570*	230, 50	36/40	T8 (T26)/T12 (T38)	G13	430	155	140	92	0.80	35/90	B1	4.5	210
			38	T8 (T26)	G13	430	155	140	92	0.80	35/90	B1	4.5	210
535977	L 36.132*	230, 50	36/40	T8 (T26)/T12 (T38)	G13	430	150	140	45	0.43	65	–	4.5	210
			38	T8 (T26)	G13	430	150	140	45	0.43	65	–	4.5	210
538072	L 36I.342*	230, 50	36-1	T8 (T26)	G13	556	195	180	110	0.87	50/120	B2	6.5	250
169389	LN 58.568*	230, 50	58/65	T8 (T26)/T12 (T38)	G13	670	233	220	160	1.31	35/95	B1	7.0	320
508186	LN 58.116*	230, 50	58/65	T8 (T26)/T12 (T38)	G13	670	190	180	92	0.80	55/160	B2	7.0	320
509349	LN 58.990*	230, 50	58/65	T8 (T26)/T12 (T38)	G13	670	190	180	110	0.95	50/130	B2	7.0	320
169658	L 58.718*	230, 50	58/65	T8 (T26)/T12 (T38)	G13	670	190	180	92	0.80	60/170	–	7.0	320

* Ballasts without CE marking for replacements or markets outside of the EU

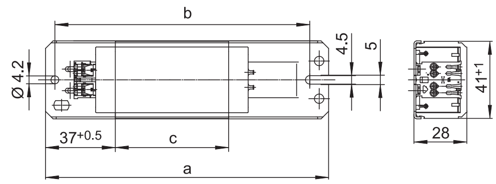
FL BALLASTS

Standard Ballasts 15–65 W 240/220 V

For fluorescent lamps

Casing:	vacuum-impregnated with polyester resin
Connection:	push-in terminal for leads 0.5–1 mm²; for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5
Winding temperature:	tw 130

IP20



Ref. No.	Type	Voltage/ frequency V, Hz	For lamps Output W	Type	Base	Current mA	Dimensions a mm	b mm	c mm	Weight kg	Δt/Δtan. K	Energy efficiency	Capacitor CP µF	Current mA
164358	LN 16.417	240, 50	16	T8 (T26)	G13	200	85	75	34	0.32	60/130	B1	2.0	90
			36/40	T8 (T26)/T12 (T38)	G13	430	150	140	60	0.55	65/155	–	4.5	210
			38	T8 (T26)	G13	430	150	140	60	0.55	65/155	–	4.5	210
533043	LN 18.162	240, 50	18/20	T8 (T26)/T12 (T38)	G13	370	150	140	60	0.55	60/110	B2	4.5	120
164566	LN 18.507	240, 50	18/20	T8 (T26)/T12 (T38)	G13	370	155	140	92	0.80	35/60	B1	4.5	120
534627	L 18.936*	240, 50	18/20	T8 (T26)/T12 (T38)	G13	370	150	140	45	0.43	70/140	–	4.5	120
535778	LN 2x18.135	240, 50	2x18/20	T8 (T26)/T12 (T38)	G13	400	150	140	45	0.43	65	B1	4.0	210
533067	LN 30.806	240, 50	2x15	T8 (T26)	G13	340	150	140	60	0.55	55/130	B2	4.0	185
			30	T8 (T26)	G13	365	150	140	60	0.55	55/130	B2	4.5	180
527196	LN 36.201	240, 50	2x18/20	T8 (T26)/T12 (T38)	G13	400	150	140	60	0.55	55/140	B1	4.0	210
			36/40	T8 (T26)/T12 (T38)	G13	430	150	140	60	0.55	55/140	B2	4.5	210
			38	T8 (T26)	G13	430	150	140	60	0.55	55/140	B2	4.5	210
164555	LN 36.505	240, 50	2x18/20	T8 (T26)/T12 (T38)	G13	400	155	140	92	0.80	40/95	B1	4.0	210
			36/40	T8 (T26)/T12 (T38)	G13	430	155	140	92	0.80	40/95	B1	4.5	210
			38	T8 (T26)	G13	430	155	140	92	0.80	40/95	B1	4.5	210
164560	LN 58.506	240, 50	58/65	T8 (T26)/T12 (T38)	G13	670	233	220	160	1.31	35/85	B1	7.0	320
507936	LN 58.192	240, 50	58/65	T8 (T26)/T12 (T38)	G13	670	190	180	110	0.95	50/150	B2	7.0	320
534252	LN 58.722	240, 50	58/65	T8 (T26)/T12 (T38)	G13	670	190	180	92	0.80	60/180	B2	7.0	320
533650	LN 75.170	240, 50	70/75	T8 (T26)/T12 (T38)	G13	670	190	180	110	0.95	50/150	B2	6.0	320
534624	L 18.933	220, 50	18/20	T8 (T26)/T12 (T38)	G13	370	150	140	45	0.43	70/160	–	4.5	120
530252	L 36.158	220, 50	2x18/20	T8 (T26)/T12 (T38)	G13	430	150	140	45	0.43	65	–	4.0	210
			36/40	T8 (T26)/T12 (T38)	G13	430	150	140	45	0.43	65	–	4.5	210
530252	L 36.158	220, 50	38	T8 (T26)	G13	430	150	140	45	0.43	65	–	4.5	210
164828	L 58.625	220, 50	58/65	T8 (T26)/T12 (T38)	G13	670	190	180	92	0.80	55/155	–	7.0	320
537744	L 15.007	220, 60	15	T8 (T26)	G13	310	150	140	45	0.43	55/80	–	3.0	120
528582	L 18.121	220, 60	18/20	T8 (T26)/T12 (T38)	G13	370	150	140	45	0.43	65/145	–	4.0	190
532149	L 18.121	220, 60	18/20	T8 (T26)/T12 (T38)	G13	370	110	100	45	0.42	65/145	–	4.0	190
538801	L 18.149	220, 60	18/20	T8 (T26)/T12 (T38)	G13	370	150	140	34	0.32	75/140	–	4.0	190
537750	L 30.006	220, 60	2x15	T8 (T26)	G13	350	150	140	45	0.43	60/120	–	4.0	185
				T8 (T26)	G13	365	150	140	45	0.43	60/120	–	4.0	180
509373	L 36.120	220, 60	2x18/20	T8 (T26)/T12 (T38)	G13	430	150	140	45	0.43	60/170	–	4.0	220
			36/40	T8 (T26)/T12 (T38)	G13	430	150	140	45	0.43	60/170	–	4.0	220
			38	T8 (T26)	G13	430	150	140	45	0.43	60/170	–	4.0	230
164870	L 58.657	220, 60	58/65	T8 (T26)/T12 (T38)	G13	670	195	180	92	0.80	55/140	–	6.0	320

* Ballasts without CE marking for replacements or markets outside of the EU

Electronic Built-in Ballasts

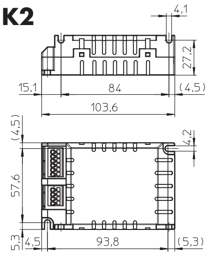
ELXc – Warm start for compact fluorescent lamps

Constant power consumption

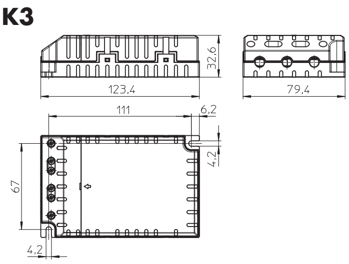
Casing:	heat-resistant polyamide
Power factor:	> 0.96
DC voltage for operation:	176–264 V
for ignition:	198–264 V
Connection:	push-in terminals with lever opener 0.5–1.5 mm²
Fixing:	brackets for screws M4 for lateral or base mounting
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down:	approved acc. to EN 61347 Test 2

IP20


K2



K3



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Energy efficiency	System Output W	Luminous factor (%)
188589	ELXc 128.869	220–240	22	T-R5	2GX13	1 x 22.0	K2	–20 to 50	max. 70	A2 BAT	25.0	96.7
			24	TC-F/-L	2G10/2G11	1 x 22.5	K2	–20 to 50	max. 70	A2	25.0	95.8
			28	TC-DD	GR10q	1 x 26.0	K2	–20 to 50	max. 70	A2 BAT	32.0	98.1
188700	ELXc 142.872*	220–240	18	TC-F/-L	2G10/2G11	1 x 16.0	K2	–20 to 50	max. 65	A2 BAT	18.0	102.0
			2x18	TC-F/-L	2G10/2G11	2 x 16.0	K2	–20 to 50	max. 65	A2 BAT	34.0	98.0
			22	T-R5	2GX13	1 x 22.0	K2	–20 to 50	max. 65	A2 BAT	26.0	103.0
			24	TC-F/-L	2G10/2G11	1 x 22.0	K2	–20 to 50	max. 65	A2 BAT	27.0	105.0
			2x24	TC-F/-L	2G10/2G11	2 x 22.0	K2	–20 to 50	max. 65	A2 BAT	47.0	102.0
			26	TC-DEL/-TEL	G24q-3/GX24q-3	1 x 24.0	K2	–20 to 50	max. 65	A2 BAT	26.0	104.0
			2x26	TC-DEL/-TEL	G24q-3/GX24q-3	2 x 24.0	K2	–20 to 50	max. 65	A2 BAT	53.0	105.0
			32	TC-TEL	GX24q-3	1 x 32.0	K2	–20 to 50	max. 65	A2 BAT	33.0	102.0
			36	TC-F/-L	2G10/2G11	1 x 32.0	K2	–20 to 50	max. 65	A2 BAT	34.0	105.0
			38	TC-DD	GR10q	1 x 36.0	K2	–20 to 50	max. 65	A2 BAT	38.0	95.0
			40	TC-L	2G11	1 x 40.0	K2	–20 to 50	max. 65	A2 BAT	43.0	99.0
			40	T-R5	2GX13	1 x 40.0	K2	–20 to 50	max. 65	A2 BAT	41.0	96.0
			42	TC-TEL	GX24q-4	1 x 42.0	K2	–20 to 50	max. 65	A2 BAT	45.0	99.0
188680	ELXc 155.378*	220–240	55	TC-L	2G11	1 x 55.6	K3	–20 to 50	max. 70	A2 BAT	60.0	102.4
			55	T-R5	2GX13	1 x 55.6	K3	–20 to 50	max. 70	A2 BAT	60.0	101.2
			60	T-R5	2GX13	1 x 60.6	K3	–20 to 50	max. 70	A2	66.0	109.5
			80	TC-L	2G11	1 x 80.5	K3	–20 to 50	max. 70	A2 BAT	88.0	101.3

* ELXc 142.872, 155.378 have a second earth terminal to ground the luminaires for example

CFL BALLASTS

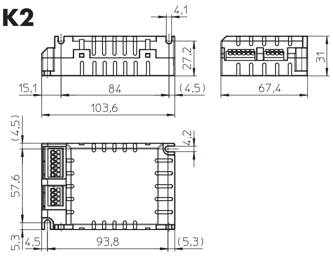
Electronic Built-in Ballasts

ELXc – Warm start for compact fluorescent lamps

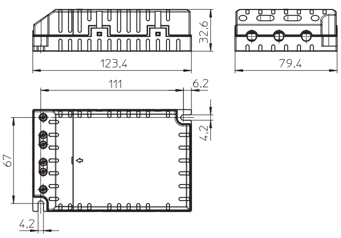
Constant power consumption

Casing:	heat-resistant polyamide
Power factor:	> 0.96
DC voltage for operation:	176–264 V
for ignition:	198–264 V (ELXc 242.837: DC voltage cannot be reduced to 176 V)
Connection:	push-in terminals with lever opener 0.5–1.5 mm²
Fixing:	brackets for screws M4 for lateral or base mounting
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down:	approved acc. to EN 61347 Test 2

K2



K3



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Energy efficiency	System Output W	Luminous factor (%)
188698	ELXc 213.870*	220–240	9	TC-SEL	2G7	1 x 8.0	K2	–20 to 50	max. 65	A2 BAT	10.7	102.9
			2x9	TC-SEL	2G7	2 x 8.0	K2	–20 to 50	max. 65	A2 BAT	19.4	102.9
			10	TC-DEL	G24q-1	1 x 9.5	K2	–20 to 50	max. 65	A2 BAT	10.9	99.2
			2x10	TC-DEL	G24q-1	2 x 9.5	K2	–20 to 50	max. 65	A2 BAT	20.5	98.8
			11	TC-SEL	2G7	1 x 11.0	K2	–20 to 50	max. 65	A2 BAT	14.7	110.1
			2x11	TC-SEL	2G7	2 x 11.0	K2	–20 to 50	max. 65	A2 BAT	27.9	116.1
			13	TC-DEL/-TEL	G24q-1/GX24q-1	1 x 12.5	K2	–20 to 50	max. 65	A2 BAT	15.0	102.9
			2x13	TC-DEL/-TEL	G24q-1/GX24q-1	2 x 12.5	K2	–20 to 50	max. 65	A2 BAT	28.1	110.9
188699	ELXc 218.871*	220–240	18	TC-DEL/-TEL	G24q-2/GX24q-2	1 x 16.5	K2	–20 to 50	max. 65	A2 BAT	21.0	104.8
			2x18	TC-DEL/-TEL	G24q-2/GX24q-2	2 x 16.5	K2	–20 to 50	max. 65	A2 BAT	38.0	100.7
188643	ELXc 242.837*	220–240	2x18	TC-F/-L	2G10/2G11	2 x 16.0	K3	–20 to 50	max. 65	A2 BAT	35.0	104.3
			22+40	T-R5	2GX13	1 x 22+40	K3	–20 to 50	max. 65	A2 BAT	68.0	100.0
			2x22	T-R5	2GX13	2 x 22.0	K3	–20 to 50	max. 65	A2 BAT	48.5	105.8
			2x24	TC-F/-L	2G10/2G11	2 x 22.0	K3	–20 to 50	max. 65	A2 BAT	48.5	106.2
			2x26	TC-DEL/-TEL	G24q-3/GX24q-3	2 x 24.0	K3	–20 to 50	max. 65	A2 BAT	53.0	106.1
			2x32	TC-TEL	GX24q-3	2 x 32.0	K3	–20 to 50	max. 65	A2 BAT	70.5	104.8
			2x36	TC-F/-L	2G10/2G11	2 x 32.0	K3	–20 to 50	max. 65	A2 BAT	70.5	101.8
			2x38	TC-DD	GR10q	2 x 36.0	K3	–20 to 50	max. 65	A2 BAT	79.2	101.3
			2x40	TC-L	2G11	2 x 40.0	K3	–20 to 50	max. 65	A2 BAT	88.0	101.3
			2x40	T-R5	2GX13	2 x 40.0	K3	–20 to 50	max. 65	A2 BAT	88.0	101.1
			2x42	TC-TEL	GX24q-4	2 x 43.0	K3	–20 to 50	max. 65	A2 BAT	94.5	100.6

* ELXc 213.870, 218.871, 242.837 have a second earth terminal to ground the luminaires for example

Independent Electronic Ballasts

ELXc – Warm start for compact fluorescent lamps

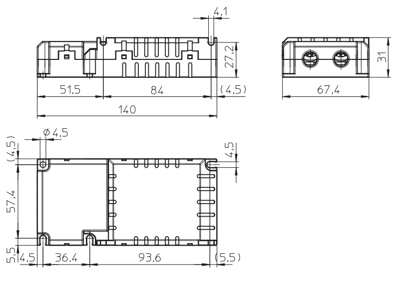
Constant power consumption

Casing:	heat-resistant polyamide (K2, K3), heat-resistant polycarbonate (K2.1)
Power factor:	> 0.96 or 0.98 (K2.1)
DC voltage for operation:	176–264 V
for ignition:	198–264 V
Connection:	push-in terminals with lever opener 0.5–1.5 mm²
Fixing:	brackets for screws M4 for lateral or base mounting
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down:	approved acc. to EN 61347 Test 2

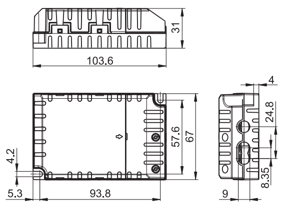
IP20

CFL BALLASTS

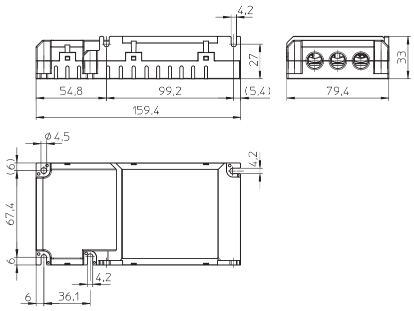
K2 with cord grip



K2.1 with cord grip



K3 with cord grip



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Energy efficiency	System Output W	Luminous factor (%)
188590	ELXc 128.869	220–240	22	T-R5	2GX13	1 x 22.0	K2	–20 to 50	max. 70	A2 BAT	25.0	96.7
			24	TC-F/-L	2G10/2G11	1 x 22.5	K2	–20 to 50	max. 70	A2	25.0	95.8
			28	TC-DD	GR10q	1 x 26.0	K2	–20 to 50	max. 70	A2 BAT	32.0	98.1
188714	ELXc 142.872	220–240	18	TC-F/-L	2G10/2G11	1 x 16.0	K2	–20 to 50	max. 65	A2 BAT	18.0	102.0
			2x18	TC-F/-L	2G10/2G11	2 x 16.0	K2	–20 to 50	max. 65	A2 BAT	34.0	98.0
			22	T-R5	2GX13	1 x 22.0	K2	–20 to 50	max. 65	A2 BAT	26.0	103.0
			24	TC-F/-L	2G10/2G11	1 x 22.0	K2	–20 to 50	max. 65	A2 BAT	27.0	105.0
			2x24	TC-F/-L	2G10/2G11	2 x 22.0	K2	–20 to 50	max. 65	A2 BAT	47.0	102.0
			26	TC-DEL/-TEL	G24q-3/GX24q-3	1 x 24.0	K2	–20 to 50	max. 65	A2 BAT	26.0	104.0
			2x26	TC-DEL/-TEL	G24q-3/GX24q-3	2 x 24.0	K2	–20 to 50	max. 65	A2 BAT	53.0	105.0
			32	TC-TEL	GX24q-3	1 x 32.0	K2	–20 to 50	max. 65	A2 BAT	33.0	102.0
			36	TC-F/-L	2G10/2G11	1 x 32.0	K2	–20 to 50	max. 65	A2 BAT	34.0	105.0
			38	TC-DD	GR10q	1 x 36.0	K2	–20 to 50	max. 65	A2 BAT	38.0	95.0
			40	TC-L	2G11	1 x 40.0	K2	–20 to 50	max. 65	A2 BAT	43.0	99.0
			40	T-R5	2GX13	1 x 40.0	K2	–20 to 50	max. 65	A2 BAT	41.0	96.0
			42	TC-TEL	GX24q-4	1 x 42.0	K2	–20 to 50	max. 65	A2 BAT	45.0	99.0
188681	ELXc 155.378	220–240	55	TC-L	2G11	1 x 55.6	K3	–20 to 50	max. 70	A2 BAT	60.0	102.4
			55	T-R5	2GX13	1 x 55.6	K3	–20 to 50	max. 70	A2 BAT	60.0	101.2
			60	T-R5	2GX13	1 x 60.6	K3	–20 to 50	max. 70	A2	66.0	109.5
			80	TC-L	2G11	1 x 80.5	K3	–20 to 50	max. 70	A2 BAT	88.0	101.3

* Without cover cap on cord grip = built-in version

CFL BALLASTS

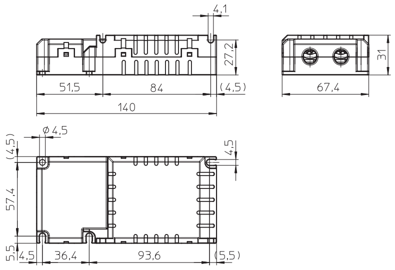
Independent Electronic Ballasts

ELXc – Warm start for compact fluorescent lamps

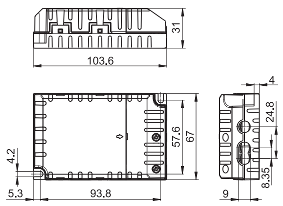
Constant power consumption

Casing:	heat-resistant polyamide (K2, K3), heat-resistant polycarbonate (K2.1)
Power factor:	> 0.96 or 0.98 (K2.1)
DC voltage for operation:	176–264 V
for ignition:	198–264 V
Connection:	push-in terminals with lever opener 0.5–1.5 mm²
Fixing:	brackets for screws M4 for lateral or base mounting
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down:	approved acc. to EN 61347 Test 2

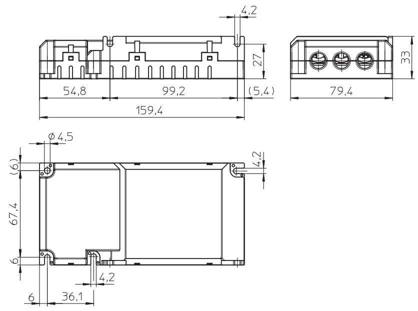
K2 with cord grip



K2.1 with cord grip



K3 with cord grip



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Energy efficiency	System Output W	Luminous factor (%)
188712	ELXc 213.870	220–240	9	TC-SEL	2G7	1 x 8.0	K2	–20 to 50	max. 65	A2 BAT	10.7	102.9
			2x9	TC-SEL	2G7	2 x 8.0	K2	–20 to 50	max. 65	A2 BAT	19.4	102.9
			10	TC-DEL	G24q-1	1 x 9.5	K2	–20 to 50	max. 65	A2 BAT	10.9	99.2
			2x10	TC-DEL	G24q-1	2 x 9.5	K2	–20 to 50	max. 65	A2 BAT	20.5	98.8
			11	TC-SEL	2G7	1 x 11.0	K2	–20 to 50	max. 65	A2 BAT	14.7	110.1
			2x11	TC-SEL	2G7	2 x 11.0	K2	–20 to 50	max. 65	A2 BAT	27.9	116.1
			13	TC-DEL/-TEL	G24q-1/GX24q-1	1 x 12.5	K2	–20 to 50	max. 65	A2 BAT	15.0	102.9
			2x13	TC-DEL/-TEL	G24q-1/GX24q-1	2 x 12.5	K2	–20 to 50	max. 65	A2 BAT	28.1	110.9
188713	ELXc 218.871	220–240	18	TC-DEL/-TEL	G24q-2/GX24q-2	1 x 16.5	K2	–20 to 50	max. 65	A2 BAT	21.0	104.8
			2x18	TC-DEL/-TEL	G24q-2/GX24q-2	2 x 16.5	K2	–20 to 50	max. 65	A2 BAT	38.0	100.7
183040	ELXc 226.878	220–240	26	TC-DEL/-TEL	G24q-3/GX24q-3	1 x 24.0	K2.1	–20 to 55	max. 65	A2 BAT	28.0	104.0
			2x26	TC-DEL/-TEL	G24q-3/GX24q-3	2 x 24.0	K2.1	–20 to 55	max. 65	A2 BAT	50.0	101.0
183108*	ELXc 226.878	220–240	26	TC-DEL/-TEL	G24q-3/GX24q-3	1 x 24.0	K2.1	–20 to 55	max. 65	A2 BAT	28.0	104.0
			2x26	TC-DEL/-TEL	G24q-3/GX24q-3	2 x 24.0	K2.1	–20 to 55	max. 65	A2 BAT	50.0	101.0

* Without cover cap on cord grip = built-in version

Electronic Built-in Ballasts

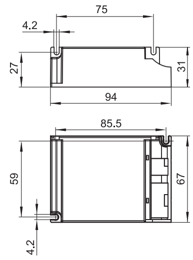
ELXc – ECO EffectLine
Warm Start for Compact Fluorescent Lamps

Casing:	PC, white
Power factor:	> 0.95
Mains voltage:	198–264 V
Connection:	push-in terminals 0.5–1.5 mm²
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down:	approved acc. to EN 61347 Test 1

IP20

CFL BALLASTS

K1.1



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Energy efficiency	System Output W	Luminous factor (%)
183134	ELXc 118.879	220–240	18	TC-DEL/-TEL	G24q-2/GX24q-2	1 x 16.5	K1.1	−10 to 50	max. 70	A2	19.5	100
183136	ELXc 218.881	220–240	2x18	TC-DEL/-TEL	G24q-2/GX24q-2	2 x 16.5	K1.1	−15 to 50	max. 75	A2	38.0	100
183135	ELXc 126.880	220–240	26	TC-DEL/-TEL	G24q-3/GX24q-3	1 x 24.0	K1.1	−10 to 50	max. 75	A2	28.0	100
183137	ELXc 226.882	220–240	2x26	TC-DEL/-TEL	G24q-3/GX24q-3	2 x 24.0	K1.1	−15 to 50	max. 80	A2	53.5	100

CFL BALLASTS

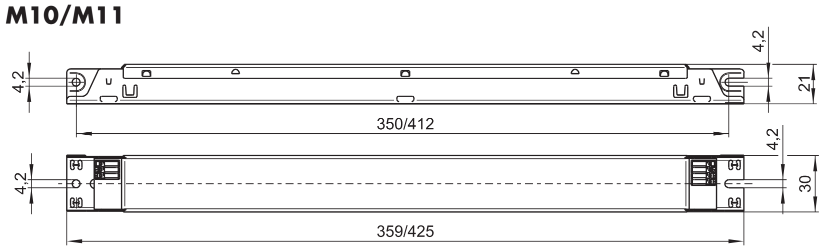
Electronic Built-in Ballasts

ELXc – Warm start for TC-F, TC-L lamps

Casing:	metal
Power factor:	> 0.96
DC voltage for operation:	176–264 V
for ignition:	198–264 V (ELXc 180.866, 280.538: DC voltage cannot be reduced to 176 V)
Connection:	push-in terminals 0.5–1 mm², for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down:	approved acc. to EN 61347 Test 2

IP20

M10/M11



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Energy efficiency	System Output W	Luminous factor (%)
188140	ELXc 140.862	220–240	18	TC-F/-L	2G10/2G11	1 x 16.0	M10	−15 to 55	max. 70	A2	19.0	109.0
			24	TC-F/-L	2G10/2G11	1 x 22.0	M10	−15 to 55	max. 70	A2	27.0	109.0
			36	TC-F/-L	2G10/2G11	1 x 32.0	M10	−15 to 55	max. 70	A2	35.0	101.0
			40	TC-L	2G11	1 x 40.0	M10	−15 to 55	max. 70	A2	46.0	104.0
188144	ELXc 180.866	220–240	55	TC-L	2G11	1 x 55.0	M10	−15 to 55	max. 70	A2 BAT	62.0	107.3
			80	TC-L	2G11	1 x 80.0	M10	−15 to 55	max. 70	A2 BAT	87.0	97.6
188616	ELXc 240.863	220–240	2x18	TC-F/-L	2G10/2G11	2 x 16.0	M10	−15 to 55	max. 70	A2 BAT	35.0	105.3
			2x24	TC-F/-L	2G10/2G11	2 x 22.0	M10	−15 to 55	max. 70	A2 BAT	51.0	106.8
			2x36	TC-F/-L	2G10/2G11	2 x 32.0	M10	−15 to 55	max. 70	A2 BAT	71.0	98.7
			2x40	TC-L	2G11	2 x 40.0	M10	−15 to 55	max. 70	A2 BAT	89.0	103.6
188618	ELXc 254.865	220–240	2x55	TC-L	2G11	2 x 50.0	M10	−15 to 50	max. 70	A2 BAT	112.0	92.9
188619	ELXc 280.538	220–240	2x55	TC-L	2G11	2 x 55.0	M11	−15 to 50	max. 70	A2 BAT	120.0	100.0
			2x80	TC-L	2G11	2 x 80.0	M11	−15 to 50	max. 70	A2 BAT	175.0	100.0

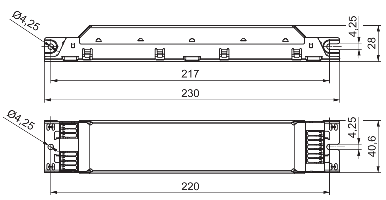
Electronic Built-in Ballasts

ELXc – Warm Start for T5 and T8 Lamps

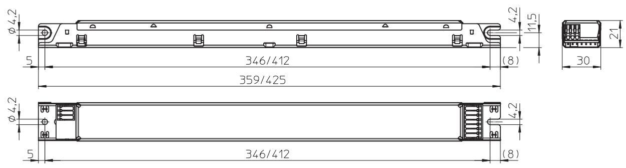
Casing:	metal
Power factor:	≥ 0.95
DC voltage for operation:	176–264 V
for ignition:	198–264 V (ELXc 135.856, 235.857, 149.858, 154.864, 180.866, 280.538: DC voltage cannot be reduced to 176 V)
Connection:	push-in terminals 0.5–1 mm², for the automatic luminaire wiring IDC terminals for leads H05V-U 0.5
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down for T5:	approved acc. to EN 61347 Test 2
EOL shut down for T8	

IP20

M8



M10/M11



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Energy efficiency	System Output W	Luminous factor (%)
188093	ELXc 135.856	220–240	14	T5	G5	1 x 14.0	M10	–15 to 55	max. 70	A2 BAT	17.0	110.7
			21	T5	G5	1 x 21.0	M10	–15 to 55	max. 70	A2 BAT	24.0	107.4
			28	T5	G5	1 x 28.0	M10	–15 to 55	max. 70	A2 BAT	32.0	104.9
			35	T5	G5	1 x 35.0	M10	–15 to 55	max. 70	A2 BAT	39.5	102.7
188140	ELXc 140.862	220–240	24	T5	G5	1 x 22.5	M10	–15 to 55	max. 70	A2 BAT	27.0	114.0
			39	T5	G5	1 x 38.0	M10	–15 to 55	max. 70	A2 BAT	43.0	107.0
188095	ELXc 149.858	220–240	49	T5	G5	1 x 49.0	M10	–15 to 55	max. 70	A2 BAT	54.0	102.5
188142	ELXc 154.864	220–240	54	T5	G5	1 x 54.0	M10	–15 to 55	max. 65	A2 BAT	59.0	101.1
188144	ELXc 180.866	220–240	80	T5	G5	1 x 80.0	M10	–15 to 55	max. 70	A2 BAT	87.0	97.6
188094	ELXc 235.857	220–240	2x14	T5	G5	2 x 14.0	M10	–15 to 55	max. 70	A2 BAT	33.4	107.0
			2x21	T5	G5	2 x 21.0	M10	–15 to 55	max. 70	A2 BAT	50.2	110.6
			2x28	T5	G5	2 x 28.0	M10	–15 to 55	max. 70	A2 BAT	60.6	106.2
			2x35	T5	G5	2 x 35.0	M10	–15 to 55	max. 70	A2 BAT	74.5	102.5
188616	ELXc 240.863	220–240	2x24	T5	G5	2 x 22.5	M10	–15 to 55	max. 70	A2 BAT	51.0	107.4
			2x39	T5	G5	2 x 38.0	M10	–15 to 55	max. 70	A2 BAT	82.0	97.9
188617	ELXc 249.859	220–240	2x49	T5	G5	2 x 49.0	M10	–15 to 50	max. 70	A2 BAT	113.0	106.6
188618	ELXc 254.865	220–240	2x54	T5	G5	2 x 54.0	M10	–15 to 50	max. 70	A2 BAT	119.0	106.0
188619	ELXc 280.538	220–240	2x80	T5	G5	2 x 80.0	M11	–15 to 50	max. 70	A2 BAT	175.0	97.2
188438	ELXc 414.868	220–240	3x14	T5	G5	3 x 14.0	M8	–15 to 55	max. 70	A2 BAT	48.0	105.4
			4x14	T5	G5	4 x 14.0	M8	–15 to 55	max. 70	A2 BAT	63.0	102.3
183039	ELXc 424.223	220–240	3x24	T5	G5	3 x 22.5	M8	–15 to 55	max. 75	A2 BAT	78.0	103.7
			4x24	T5	G5	4 x 22.5	M8	–15 to 55	max. 75	A2 BAT	101.7	103.5
188595	ELXc 336.214	220–240	3x36	T8	G13	3 x 32.0	M8	–15 to 50	max. 65	A2 BAT	105.0	99.4
188744	ELXc 418.204	220–240	3x18	T8	G13	3 x 16.0	M8	–15 to 55	max. 70	A2 BAT	56.0	100.8
			4x18	T8	G13	4 x 16.0	M8	–15 to 55	max. 70	A2 BAT	71.5	98.9

FL BALLASTS

Electronic Built-in Ballasts

ELXc EffectLine – Warm Start for T5 and T8 Lamps

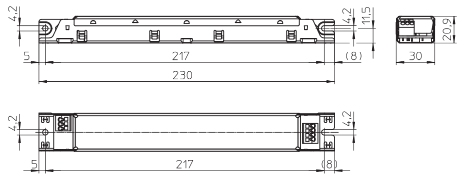
Casing:	metal
Power factor:	≥ 0.95
DC voltage for operation:	176–264 V
for ignition:	198–264 V (not possible for T8)
Connection:	push-in terminals with lever opener 0.5–1 mm²
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down for T5:	approved acc. to EN 61347 Test 2
EOL shut down for T8	

ELXc EffectLine II – Warm start for T8 lamps

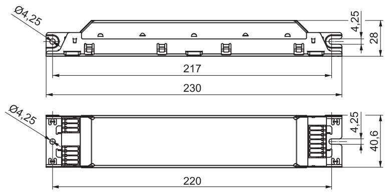
DC voltage for operation:	176–264 V (DC voltage can be reduced to 176 V for 2 hours
for ignition:	198–264 V
Connection:	push-in terminals with lever opener 0.5–1.5 mm²

IP20

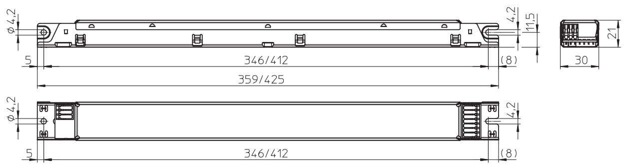
M6



M8



M10/M11



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Energy efficiency	System Output W	Luminous factor (%)
ELXc EffectLine												
188921	ELXc 135.220	220–240	14	T5	G5	1 x 14.3	M6	−15 to 55	max. 70	A2 BAT	17.0	104.8
			21	T5	G5	1 x 20.4	M6	−15 to 55	max. 70	A2 BAT	23.3	106.9
			28	T5	G5	1 x 26.7	M6	−15 to 55	max. 70	A2 BAT	29.9	107.5
			35	T5	G5	1 x 32.6	M6	−15 to 55	max. 70	A2 BAT	36.5	103.0
188922	ELXc 235.221	220–240	2x14	T5	G5	2 x 14.3	M10	−15 to 55	max. 70	A2 BAT	34.5	101.9
			2x21	T5	G5	2 x 21.4	M10	−15 to 55	max. 70	A2 BAT	48.3	104.9
			2x28	T5	G5	2 x 28.7	M10	−15 to 55	max. 70	A2 BAT	62.1	109.0
			2x35	T5	G5	2 x 35.6	M10	−15 to 55	max. 70	A2 BAT	78.2	100.8
188704	ELXc 136.207	220–240	18	T8	G13	1 x 16.0	M8	−20 to 55	max. 60	A2 BAT	18.4	105.0
			36	T8	G13	1 x 32.0	M8	−20 to 55	max. 60	A2 BAT	35.4	97.0
188705	ELXc 236.208	220–240	2x18	T8	G13	2 x 16.0	M8	−20 to 50	max. 60	A2 BAT	35.2	106.0
			2x36	T8	G13	2 x 32.0	M8	−20 to 50	max. 60	A2 BAT	69.7	98.0
188706	ELXc 158.209	220–240	58	T8	G13	1 x 50.0	M8	−20 to 50	max. 60	A2 BAT	52.6	106.0
188707	ELXc 258.210	220–240	2x58	T8	G13	2 x 50.0	M8	−20 to 50	max. 65	A2	109.9	105.0
ELXc EffectLine II												
188912	ELXc 136.216	220–240	18	T8	G13	1 x 16.0	M8	−20 to 55	max. 65	A2 BAT	19.8	105.7
			36	T8	G13	1 x 32.0	M8	−20 to 55	max. 65	A2 BAT	34.4	97.5
188914	ELXc 158.218	220–240	58	T8	G13	1 x 50.0	M8	−20 to 60	max. 65	A2 BAT	56.0	100.8
188913	ELXc 236.217	220–240	2x18	T8	G13	2 x 16.0	M8	−20 to 60	max. 70	A2 BAT	38.0	101.6
			2x36	T8	G13	2 x 32.0	M8	−20 to 60	max. 70	A2 BAT	71.9	110.6
188915	ELXc 258.219	220–240	2x58	T8	G13	2 x 50.0	M8	−20 to 55	max. 70	A2	110.0	101.0

Electronic Built-in Ballasts

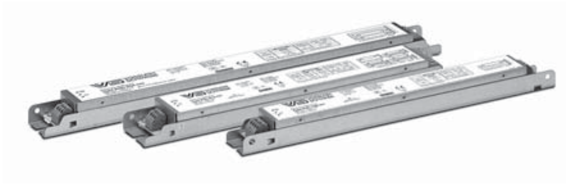
ELXc New EffectLine – Warm Start for T5 Lamps

Automatic restart after lamp has been changed

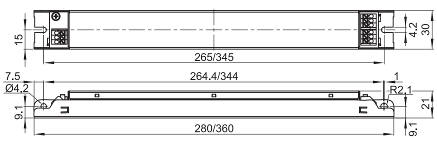
Casing:	metal
Connection:	push-in terminals with lever opener 0.5–1 mm²
Switching frequency:	for lighting systems with high switching frequency (> 5/day)
EOL shut down:	approved acc. to EN 61347 Test 1

IP20

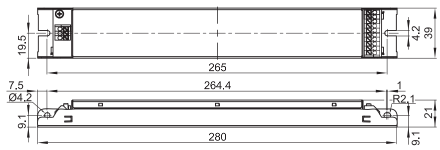
FL BALLASTS



M7.1 / M10.2



M7.2



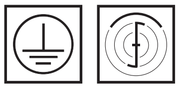
Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption	Casing	Ambient temperature t_a °C	Casing temperature t_c °C	Power factor	Energy efficiency	System Output W	Luminous factor (%)
183113	ELXc 135.231	220–240	14	T5 HE	G5	1 x 14.0	M7.1	0 to 50	max. 75	> 0.90	EEI=A2	16,5	100
			21	T5 HE	G5	1 x 21.0	M7.1	0 to 50	max. 75	> 0.92	EEI=A2	24,0	100
			28	T5 HE	G5	1 x 28.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	32,0	100
			35	T5 HE	G5	1 x 35.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	38,0	100
183111	ELXc 228.229	220–240	14	T5 HE	G5	1 x 14.0	M7.1	0 to 50	max. 75	> 0.90	EEI=A2	16,5	100
			2x14	T5 HE	G5	2 x 14.0	M7.1	0 to 50	max. 75	> 0.92	EEI=A2	31,0	100
			21	T5 HE	G5	1 x 21.0	M7.1	0 to 50	max. 75	> 0.90	EEI=A2	24,0	100
			2x21	T5 HE	G5	2 x 21.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	47,5	100
			28	T5 HE	G5	1 x 28.0	M7.1	0 to 50	max. 75	> 0.92	EEI=A2	31,0	100
			2x28	T5 HE	G5	2 x 28.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	61,0	100
183114	ELXc 235.232	220–240	2x35	T5 HE	G5	2 x 35.0	M10.2	0 to 50	max. 75	> 0.95	EEI=A2	74,0	100
183112	ELXc 328.230	220–240	2x28	T5 HE	G5	2 x 28.0	M7.2	0 to 50	max. 75	> 0.95	EEI=A2	61,0	100
			3x28	T5 HE	G5	3 x 28.0	M7.2	0 to 50	max. 75	> 0.95	EEI=A2	94,0	100
183109	ELXc 414.227	220–240	3x14	T5 HE	G5	3 x 14.0	M7.2	0 to 50	max. 75	> 0.95	EEI=A2	48,0	100
			4x14	T5 HE	G5	4 x 14.0	M7.2	0 to 50	max. 75	> 0.95	EEI=A2	63,0	100
183116	ELXc 149.234	220–240	49	T5 HO	G5	1 x 49.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	51,0	100
183119	ELXc 180.237	220–240	80	T5 HO	G5	1 x 80.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	86,0	100
183115	ELXc 239.233	220–240	24	T5 HO	G5	1 x 24.0	M7.1	0 to 50	max. 75	> 0.90	EEI=A2	28,0	100
			2x24	T5 HO	G5	2 x 24.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	53,5	100
			39	T5 HO	G5	1 x 39.0	M7.1	0 to 50	max. 75	> 0.92	EEI=A2	43,5	100
			2x39	T5 HO	G5	2 x 39.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	83,0	100
183117	ELXc 249.235	220–240	2x49	T5 HO	G5	2 x 49.0	M10.2	0 to 50	max. 75	> 0.95	EEI=A2	108,0	100
183118	ELXc 254.236	220–240	54	T5 HO	G5	1 x 54.0	M7.1	0 to 50	max. 75	> 0.92	EEI=A2	58,0	100
			2x54	T5 HO	G5	2 x 54.0	M7.1	0 to 50	max. 75	> 0.95	EEI=A2	113,0	100
183110	ELXc 424.228	220–240	3x24	T5 HO	G5	3 x 24.0	M7.2	0 to 50	max. 75	> 0.95	EEI=A2	76,0	100
			4x24	T5 HO	G5	4 x 24.0	M7.2	0 to 50	max. 75	> 0.95	EEI=A2	100,0	100

Electronic Built-in Ballasts

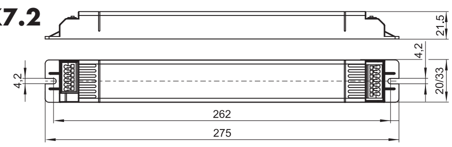
ELXc ECO EffectLine – Warm Start for T5 and T8 Lamps

Casing:		PC, white
DC voltage	for operation:	176–264 V
	for ignition:	198–264 V (not possible for T8)
Connection:		push-in terminals with lever opener 0.5–1.5 mm²
Switching frequency:		for lighting systems with high switching frequency (> 5/day)
EOL shut down for T5:		approved acc. to EN 61347 Test 1
EOL shut down for T8		

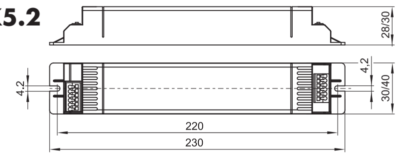
IP20



K7.1 / K7.2



K5.1 / K5.2



Ref. No.	Type	Voltage AC 50, 60 Hz V ±10%	For lamps Output W	Type	Base	Power consumption (W)	Casing	W mm	H mm	Ambient temperature t_a °C	Casing temperature t_c °C	Power factor	Energy efficiency	System Output W	Luminous factor (%)
183122	ELXc 114.238	220–240	14	T5 HE	G5	1 x 14.8	K7.1	20	21.5	0 to 50	max. 75	> 0.95	A2	17.0	100
183123	ELXc 128.239	220–240	28	T5 HE	G5	1 x 28.5	K7.1	20	21.5	0 to 50	max. 75	> 0.95	A2	31.5	100
183124	ELXc 214.240	220–240	2x14	T5 HE	G5	2 x 14.5	K7.2	33	21.5	0 to 50	max. 75	> 0.95	A2	33.0	100
183125	ELXc 228.241	220–240	2x28	T5 HE	G5	2 x 26.5	K7.2	33	21.5	0 to 50	max. 75	> 0.95	A2	59.0	95
183126	ELXc 414.242	220–240	4x14	T5 HE	G5	4 x 14.0	K5.2	40	30	0 to 50	max. 75	> 0.95	A2	64.0	100
183127	ELXc 118.243	220–240	18	T8	G13	1 x 15.5	K5.1	30	28	–15 to 50	max. 70	> 0.95	A2	18.5	98
183128	ELXc 136.244	220–240	36	T8	G13	1 x 30.5	K5.1	30	28	–15 to 50	max. 70	> 0.96	A2	34.0	95
183129	ELXc 158.245	220–240	58	T8	G13	1 x 48.0	K5.1	30	28	–15 to 50	max. 70	> 0.96	A2	53.5	96
183130	ELXc 218.246	220–240	2x18	T8	G13	2 x 15.5	K5.1	30	28	–15 to 50	max. 70	> 0.96	A2	35.0	98
183131	ELXc 236.247	220–240	2x36	T8	G13	2 x 31.0	K5.2	40	30	–15 to 50	max. 70	> 0.98	A2	68.0	97
183132	ELXc 258.248	220–240	2x58	T8	G13	2 x 49.5	K5.2	40	30	–15 to 50	max. 80	> 0.98	A2	107.0	100
183133	ELXc 418.249	220–240	4x18	T8	G13	4 x 15.5	K5.2	40	30	–15 to 50	max. 70	> 0.98	A2	69.0	97

Technical Details

Conductors for installations

All conductors must be selected to suit the lighting application conditions (see table) in terms of material, cross-section and insulation. Testing these conductors under worst case conditions is essential as the commonly occurring high temperatures considerably reduce the conductivity of the conductor and hence its current-carrying capacity.

Insulation	Conductor Material	Cross-section mm^2	Mains voltage V	Max. temperature °C
PVC	Cu/Cu tin-plated	0.35	300	105
SI	Cu tin-plated	0.75	300	180
FEP	Cu tin-plated	0.75	300	180
PTFE	Cu nickel-plated	0.75	500	250
PTFE	Cu nickel-plated	1	500	250
PTFE	Ni	1	500	250
PTFE	Ni	1.5	500	250

For consultation only

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Headquartered in Germany, Vossloh-Schwabe has been a member of the global Panasonic group since 2002 and counts as a technology leader within the lighting sector. Top-quality, high-performance products form the basis of the company's success.

Vossloh-Schwabe's extensive product portfolio covers all lighting components: LED systems with matching control gear units and state-of-the-art control systems (LiCS) as well as electronic and magnetic ballasts and lampholders.

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