



ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Lamp-Ballast Combinations

Rapid, Preheat and Preheat Start+ Ballasts

lamp type	lamp operation	lamps per ballast	ballast model	ballast form	page no.
GPHA357T5L	rapid start	1	S-E230.104	D	52
	rapid start	1	E230.204	F	53
GPHA357T6L	rapid start	1	S-E230.107	D	52
	rapid start	1	E230.207	F	53
GPHA843T5L	rapid start	1	E230.101	E	54
	rapid start	2	E230.205	G	56
	preheat start	1	E230.101 -PH	E-PH	57
	preheat start	2	E230.205 -PH	G-PH	59
GPHA843T6L	rapid start	1	E230.108	E	54
	rapid start	2	E230.208	G	56
	preheat start	1	E230.108 -PH	E-PH	57
	preheat start	2	E230.208 -PH	G-PH	59
GPHA1000T5L	rapid start	1	E230.101	E	54
	rapid start	2	E230.205	G	56
	preheat start	1	E230.101 -PH	E-PH	57
	preheat start	2	E230.205 -PH	G-PH	59
GPHA1000T6L	rapid start	1	E230.108	E	54
	rapid start	2	E230.208	G	56
	preheat start	1	E230.108 -PH	E-PH	57
	preheat start	2	E230.208 -PH	G-PH	59
GPHA1554T5L	preheat start	1	E230.101 -PH	E-PH	57
	preheat start	1	E230.101 -PH -SP	H-PH	58
	preheat start+	2	E230.201 -PH	I-PH	60
	preheat start+	1	R-E230.101 -PH	T	61
	preheat start+	2	R-E230.201 -PH	U	62
GPHA1554T6L	rapid start	1	E230.102	H	55
	preheat start	1	E230.102 -PH -SP	H-PH	58
	preheat start+	2	E230.202 -PH	I-PH	60
	preheat start+	1	R-E230.102 -PH	T	61
	preheat start+	2	R-E230.202 -PH	U	62
GPHHA357T6L	rapid start	1	E230.110	E	54
	rapid start	2	E230.210	G	56
	preheat start	1	E230.110 -PH	E-PH	57
	preheat start	2	E230.210 -PH	G-PH	59
GPHHA843T6L	rapid start	1	E230.110	E	54
	rapid start	2	E230.210	G	56
	preheat start	1	E230.110 -PH	E-PH	57
	preheat start	2	E230.210 -PH	G-PH	59
GPHHA1000T6L	rapid start	1	E230.110	E	54
	preheat start	1	E230.110 -PH	E-PH	57
	preheat start+	2	E230.211 -PH	I-PH	60
	preheat start+	1	R-E230.110 -PH	T	61
GPHHA1554T6L	rapid start	1	E230.103	H	55
	preheat start	1	E230.103 -PH	H-PH	58
	preheat start+	2	E230.203 -PH	I-PH	60
	preheat start+	1	R-E230.103 -PH	T	61
GPHHA1554T10L	preheat start+	1	R-EVG500W/5,5A -PH	V	63
	preheat start+	1	EVG500W/5,5A -PH	W	64



'preheat start+' types allow the optimal adaptation of lamp and ballast.
Ballasts for other lamp types are available on request.



ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Rapid Start

small and smart:

quick lamp start - easy handling



ballast form D

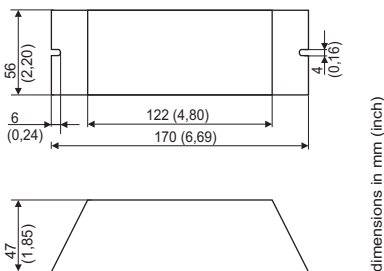
Features

- ⇒ electronic ballast for one-lamp operation
- ⇒ to be used with four-wire lamps
- ⇒ rapid start
for applications with less than one switch-on cycle per day
(otherwise preheat start ballasts are recommended)
- ⇒ equipped with active power factor correction
- ⇒ lamp status indication via LED indicators
 - green LED: lamp on
 - red LED: lamp fault
- ⇒ lamp status forwarding
 - potential free relay contacts for lamp on / lamp fault

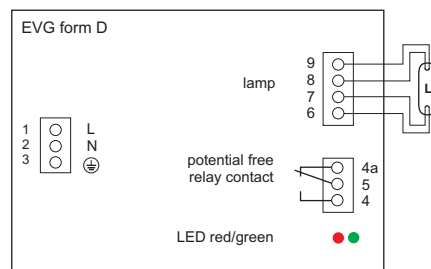
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHA357T5L	42	S-E230.104	50	0,25
GPHA357T6L	57	S-E230.107	68	0,32

mains voltage:	230V AC \pm 10%
mains frequency:	45...65Hz
efficiency:	> 90%
t_c-temperature:	max. 50°C
ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC
status indication:	operating status indicated - by LED: green = lamp on red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)
IP code:	IP20
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details
wire gauge:	0,5...1mm ² ; strip length: 8mm

Dimensions



Wiring diagram





ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Rapid Start

established and proven:
quick lamp start - easy handling



ballast form F

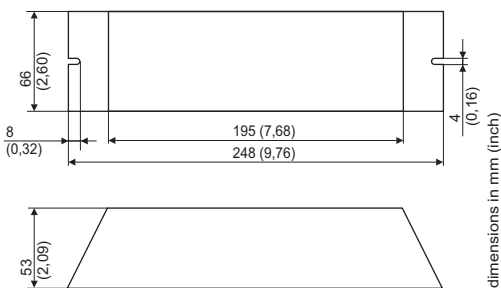
Features

- ⇒ electronic ballast for two-lamp operation
 - ballasts are operating even with only one lamp connected
- ⇒ to be used with four-wire lamps
- ⇒ rapid start for applications with less than one switch-on cycle per day (otherwise preheat start ballasts are recommended)
- ⇒ equipped with active power factor correction
- ⇒ lamp status indication via LED indicators
 - green LED: lamp on
 - red LED: lamp fault
- ⇒ lamp status forwarding
 - potential free relay contacts for lamp on / lamp fault

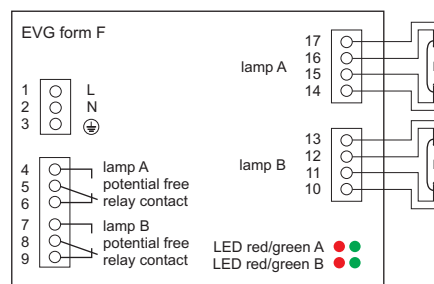
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHA357T5L	42	E230.204	100	0,5
GPHA357T6L	57	E230.207	136	0,66

mains voltage:	230V AC ± 10%
mains frequency:	45...65Hz
efficiency:	> 90%
t_c-temperature:	max. 50°C
ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC
status indication:	operating status indicated - by LED: green = lamp on red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)
IP code:	IP20
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details
wire gauge:	terminals 1-3, 10-17: 0,75...1,5mm ² strip length: 10...12mm terminals 4-9: 0,5...1mm ² ; strip length: 8mm

Dimensions



Wiring diagram





ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Rapid Start

established and proven:
quick lamp start - easy handling



ballast form E

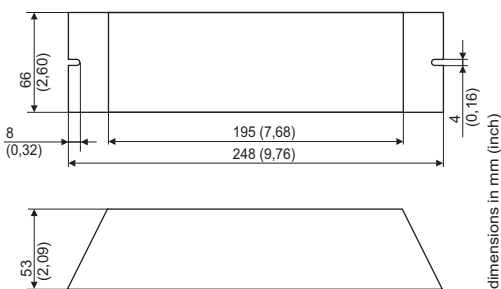
Features

- ⇒ electronic ballast for one-lamp operation
- ⇒ to be used with four-wire lamps
- ⇒ rapid start
for applications with less than one switch-on cycle per day
(otherwise preheat start ballasts are recommended)
- ⇒ equipped with active power factor correction
- ⇒ lamp status indication via LED indicators
 - green LED: lamp on
 - red LED: lamp fault
- ⇒ lamp status forwarding
 - potential free relay contacts for lamp on / lamp fault

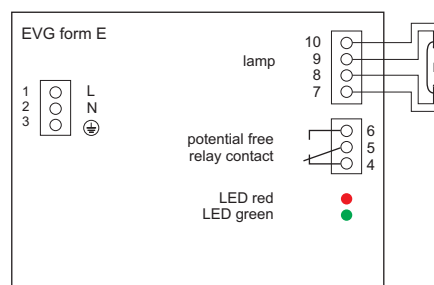
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHA843T5L	105	E230.101	118	0,53
GPHA1000T5L	127	E230.101	140	0,62
GPHA843T6L	127	E230.108	140	0,62
GPHA1000T6L	150	E230.108	164	0,74
GPHHA357T6L	65	E230.110	74	0,35
GPHHA843T6L	172	E230.110	180	0,79
GPHHA1000T6L	207	E230.110	218	0,96

mains voltage:	230V AC ± 10%
mains frequency:	45...65Hz
efficiency:	> 90%
t_c-temperature:	max. 50°C
ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC
status indication:	operating status indicated - by LED: green = lamp on red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)
IP code:	IP20
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details
wire gauge:	0,75...1,5mm ² ; strip length: 10...12mm

Dimensions



Wiring diagram





ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Rapid Start

established and proven:
quick lamp start - easy handling



ballast form H

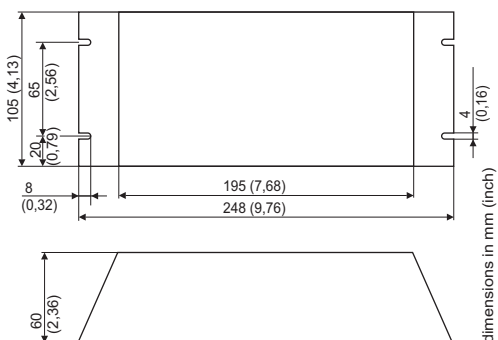
Features

- ⇒ electronic ballast for one-lamp operation
- ⇒ to be used with four-wire lamps
- ⇒ rapid start
for applications with less than one switch-on cycle per day
(otherwise preheat start ballasts are recommended)
- ⇒ equipped with active power factor correction
- ⇒ lamp status indication via LED indicators
 - green LED: lamp on
 - red LED: lamp fault
- ⇒ lamp status forwarding
 - potential free relay contacts for lamp on / lamp fault

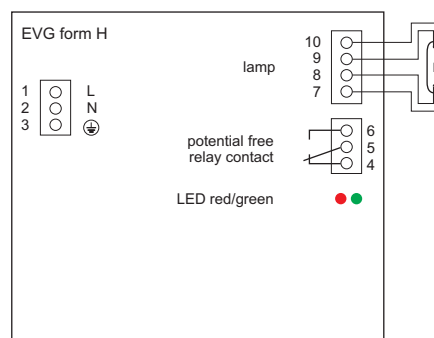
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHA1554T6L	240	E230.102	261	1,14
GPHHA1554T6L	320	E230.103	340	1,52

mains voltage:	230V AC \pm 10%
mains frequency:	45...65Hz
efficiency:	> 90%
t_c-temperature:	max. 50°C
ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC
status indication:	operating status indicated - by LED: green = lamp on red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)
IP code:	IP20
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details
wire gauge:	0,75...1,5mm ² ; strip length: 10...12mm

Dimensions



Wiring diagram





ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Rapid Start

established and proven:

quick lamp start - easy handling



ballast form G

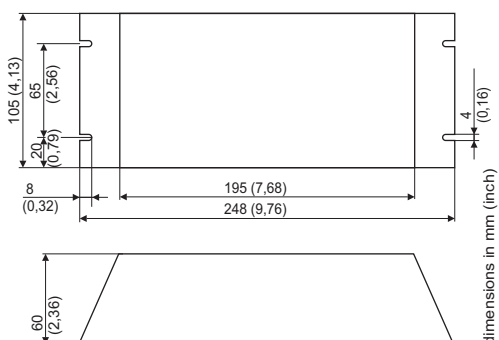
Features

- ⇒ electronic ballast for two-lamp operation
 - ballasts are operating even with only one lamp connected
- ⇒ to be used with four-wire lamps
- ⇒ rapid start
 - for applications with less than one switch-on cycle per day (otherwise preheat start ballasts are recommended)
- ⇒ equipped with active power factor correction
- ⇒ lamp status indication via LED indicators
 - green LED: lamp on
 - red LED: lamp fault
- ⇒ lamp status forwarding
 - potential free relay contacts for lamp on / lamp fault

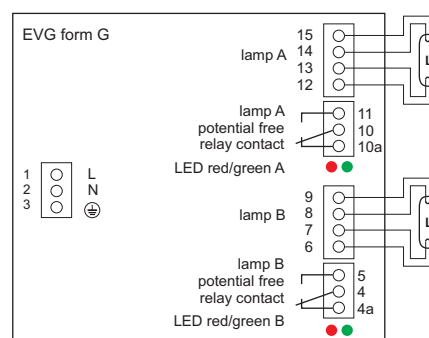
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHA843T5L	105	E230.205	236	1,04
GPHA1000T5L	127	E230.205	280	1,24
GPHA843T6L	127	E230.208	280	1,24
GPHA1000T6L	150	E230.208	328	1,48
GPHHA357T6L	65	E230.210	145	0,7
GPHHA843T6L	172	E230.210	360	1,64

mains voltage:	230V AC \pm 10%
mains frequency:	45...65Hz
efficiency:	> 90%
t_c-temperature:	max. 50°C
ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC
status indication:	operating status indicated - by LED: green = lamp on red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)
IP code:	IP20
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details
wire gauge:	0,75...1,5mm ² ; strip length: 10...12mm

Dimensions



Wiring diagram





ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Preheat Start

Filament preheating is good for lamp electrode life.

lamp friendly:
soft lamp start allows more on-/off cycles



ballast form E-PH

Features

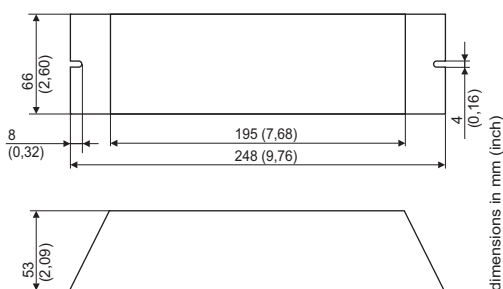
- ⇒ electronic ballast for one-lamp operation
- ⇒ to be used with four-wire lamps
- ⇒ preheat start for applications with more than one switch-on cycle per day
 - preheat values are fixed
- ⇒ equipped with active power factor correction
- ⇒ lamp status indication via LED indicators
 - green LED: lamp on
 - red LED: lamp fault
- ⇒ lamp status forwarding
 - potential free relay contacts for lamp on / lamp fault

lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]	preheat current [A]	preheat time [s]
GPHA843T5L	105	E230.101 -PH	118	0,53	1,5	5
GPHA1000T5L	127	E230.101 -PH	140	0,62	1,5	5
GPHA1554T5L	196	E230.101 -PH*	216	0,95	1,5	5
GPHA843T6L	127	E230.108 -PH	140	0,62	1,5	5
GPHA1000T6L	150	E230.108 -PH	164	0,74	1,5	5
GPHHA357T6L	65	E230.110 -PH	74	0,35	2,8	12
GPHHA843T6L	172	E230.110 -PH	180	0,79	2,8	12
GPHHA1000T6L	207	E230.110 -PH	218	0,96	2,8	12

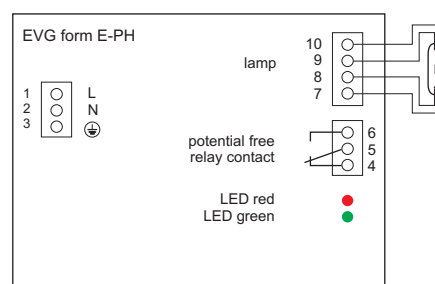
*forced cooling required

mains voltage:	230V AC \pm 10%
mains frequency:	45...65Hz
efficiency:	> 90%
t_c-temperature:	max. 50°C
ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC
status indication:	operating status indicated - by LED: green = lamp on red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)
IP code:	IP20
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details
wire gauge:	0,75...1,5mm ² ; strip length: 10...12mm

Dimensions



Wiring diagram





ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Preheat Start

Filament preheating is good for lamp electrode life.

lamp friendly:
soft lamp start allows more on-/off cycles



ballast form H-PH

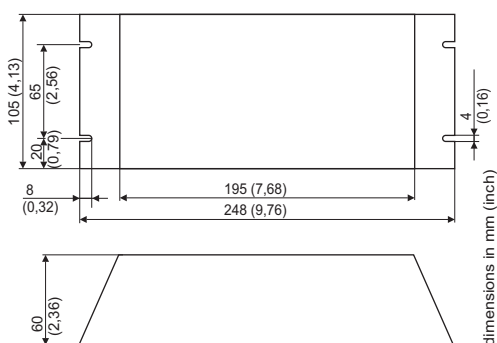
Features

- ⇒ electronic ballast for one-lamp operation
- ⇒ to be used with four-wire lamps
- ⇒ preheat start for applications with more than one switch-on cycle per day
 - preheat values are fixed
- ⇒ equipped with active power factor correction
- ⇒ lamp status indication via LED indicators
 - green LED: lamp on
 - green LED blinking: preheating
 - red LED: lamp fault
- ⇒ lamp status forwarding
 - potential free relay contacts for lamp on / lamp fault

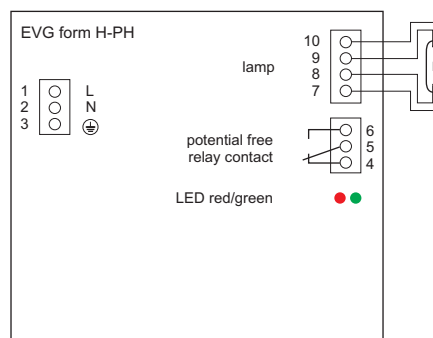
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]	preheat current [A]	preheat time [s]
GPHA1554T5L	196	E230.101 -PH -SP	216	0,95	1,5	5
GPHA1554T6L	240	E230.102 -PH -SP	261	1,14	1,5	5
GPHHA1554T6L	320	E230.103 -PH	320	1,52	2,8	12

mains voltage:	230V AC \pm 10%
mains frequency:	45...65Hz
efficiency:	> 90%
t_c-temperature:	max. 50°C
ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC
status indication:	operating status indicated - by LED: green = lamp on green blinking = preheating red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)
IP code:	IP20
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details
wire gauge:	0,75...1,5mm ² ; strip length: 10...12mm

Dimensions



Wiring diagram





ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Preheat Start

Filament preheating is good for lamp electrode life.

lamp friendly:
soft lamp start allows more on-/off cycles



ballast form G-PH

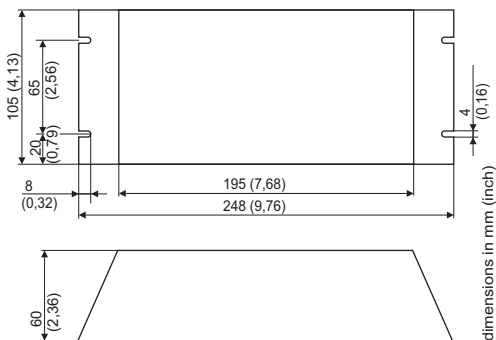
Features

- ⇒ electronic ballast for two-lamp operation
 - ballasts are operating even with only one lamp connected
- ⇒ to be used with four-wire lamps
- ⇒ preheat start for applications with more than one switch-on cycle per day
 - preheat values are fixed
- ⇒ equipped with active power factor correction
- ⇒ lamp status indication via LED indicators
 - green LED: lamp on
 - green LED blinking: preheating
 - red LED: lamp fault
- ⇒ lamp status forwarding
 - potential free relay contacts for lamp on / lamp fault

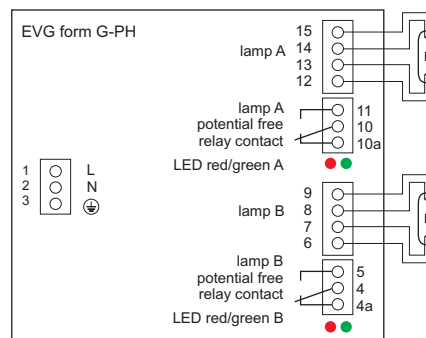
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]	preheat current [A]	preheat time [s]
GPHA843T5L	105	E230.205 -PH	236	1,04	1,5	5
GPHA1000T5L	127	E230.205 -PH	280	1,24	1,5	5
GPHA843T6L	127	E230.208 -PH	280	1,24	1,5	5
GPHA1000T6L	150	E230.208 -PH	328	1,48	1,5	5
GPHHA357T6L	65	E230.210 -PH	145	0,7	2,8	12
GPHHA843T6L	172	E230.210 -PH	360	1,64	2,8	12

mains voltage:	230V AC ± 10%
mains frequency:	45...65Hz
efficiency:	> 90%
t_c-temperature:	max. 50°C
ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC
status indication:	operating status indicated - by LED: green = lamp on red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)
IP code:	IP20
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details
wire gauge:	0,75...1,5mm ² ; strip length: 10...12mm

Dimensions



Wiring diagram





ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Preheat Start+

Filament preheating is good for lamp electrode life.

**innovative: flexible ballast parameters
for optimal lamp operation**



ballast form I-PH

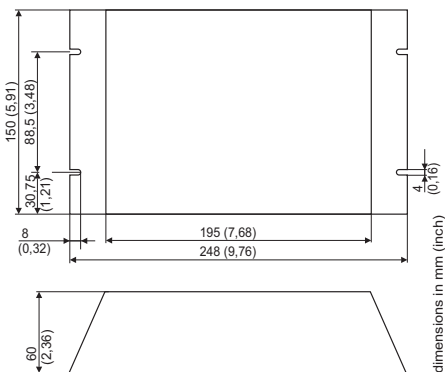
Features

- ⇒ electronic ballast for two-lamp operation
 - ballasts are operating even with only one lamp connected
- ⇒ to be used with four-wire lamps
- ⇒ preheat start+
 - lamp specific parameters can be adapted by customer
- ⇒ equipped with active power factor correction
- ⇒ microprocessor controlled ballast allows
 - classical stand-alone 'local' operation
 - remote controlled operation via RS485 bus
- ⇒ lamp/ballast status indication
 - via RS485 - protocols: ModBus, ZCON, ZEDsimple
 - via green and red LED
 - via potential free relay contacts for lamp on / lamp fault

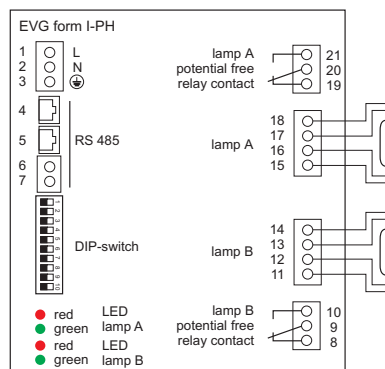
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHA1554T5L	196	E230.201 -PH	432	1,8
GPHA1554T6L	240	E230.202 -PH	520	2,38
GPHHA1554T6L	320	E230.203 -PH	680	3,04
GPHHA1000T6L	207	E230.211 -PH	440	2

mains voltage:	230V AC ± 10%	mains frequency:	45...65Hz
efficiency:	> 90%	IP code:	IP00
t_c-temperature:	max. 50°C	ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...120V AC; 50...500mA at 5...60V DC		
ballast control:	- local mode (stand alone operation): set ballast parameters (lamp current, preheat current, preheat time) via DIP switch	- remote control: set ballast parameters, start/stop ballast, monitor ballast/lamp state via RS485 bus	
communication protocol:	ZEDsimple, ModBus, ZCON (refer to 'Ballast Generals' for more information on ballast control)		
ballast function set:	current levels / preheat levels: 8 preheat enable/disable	preheat time range: - remote control via ZEDsimple: 1...12s, 15s, 18s, 20s - remote control via ModBus & ZCON: up to 255s - local control: 5s, 7s, 12s, 20s	
status indication:	operating status indicated - via RS485 according to the selected communication protocol - by LED: green = lamp on green blinking = preheating red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)		
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details		
wire gauge:	0,75...1,5mm ² ; strip length: 10...12mm		

Dimensions



Wiring diagram

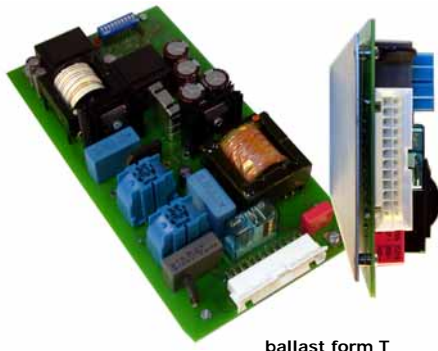




ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Preheat Start+

Filament preheating is good for lamp electrode life.

plug and play: optimal lamp operation
- efficient ballast handling



ballast form T

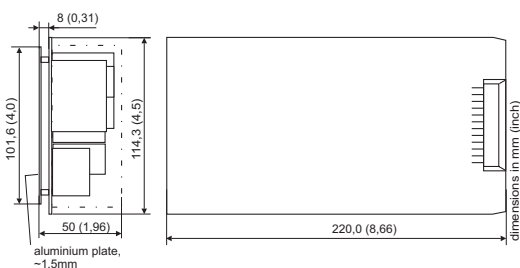
Features

- ⇒ electronic ballast for one-lamp operation
- ⇒ to be used with four-wire lamps
- ⇒ easy mounting in rack units - less space for more ballasts
- ⇒ preheat start+
 - lamp specific parameters can be adapted by customer
- ⇒ equipped with active power factor correction
- ⇒ microprocessor controlled ballast allows
 - classical stand-alone 'local' operation
 - remote controlled operation via RS485 bus
- ⇒ lamp/ballast status indication
 - via RS485 - protocols: ModBus, ZCON, ZEDsimple
 - via green and red LED
 - via potential free relay contacts for lamp on / lamp fault

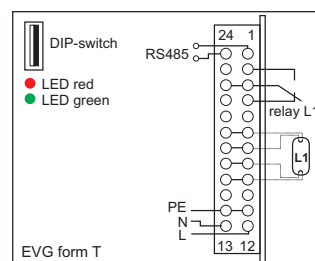
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHA1554T5L	196	R-E230.101 -PH	216	0,95
GPHA1554T6L	240	R-E230.102 -PH	261	1,14
GPHHA1000T6L	207	R-E230.110 -PH	218	0,96
GPHHA1554T6L	320	R-E230.103 -PH	340	1,52

mains voltage:	230V AC ± 10%	mains frequency:	45...65Hz
efficiency:	> 90%	IP code:	IP00
temperature:	see "Ballast Generals" for details		
relay contacts:	potential free, load: 50...500mA at 24...120V AC; 50...500mA at 5...60V DC		
ballast control:	- local mode (stand alone operation): set ballast parameters (lamp current, preheat current, preheat time) via DIP switch	- remote control: set ballast parameters, start/stop ballast, monitor ballast/lamp state via RS485 bus	
communication protocol:	ZEDsimple, ModBus, ZCON (refer to 'Ballast Generals' for more information on ballast control)		
ballast function set:	current levels / preheat levels: 8 preheat enable/disable	preheat time range: - remote control via ZEDsimple: 1...12s, 15s, 18s, 20s - remote control via ModBus & ZCON: up to 255s - local control: 5s, 7s, 12s, 20s	
status indication:	operating status indicated - via RS485 according to the selected communication protocol - by LED: green = lamp on green blinking = preheating red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)		
mounting restrictions:	rack mounting with forced cooling, see "Ballast Generals" for details recommendation for rack: Rack 6slot 220x114,3mm for 6 electronic ballasts, article code: 418-002 (see page 65)		
connections:	use MOLEX JUNIOR FIT connector (ZED 500-008) and 20 MINI FIT crimp contacts (ZED 500-018) (sold separately) recommendation for crimping: Tool Set SC-MK (see page 95)		
wire gauge:	1...1,5mm ² ; strip length: 3...3,5mm		

Dimensions



Wiring diagram



Accessories

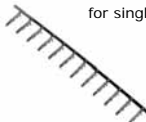
ZED 500-008
MOLEX JUNIOR FIT connector



ZED 500-007
1 MINI FIT crimp contact



ZED 500-017
12 MINI FIT crimp contacts
for single lamp ballasts



ZED 418-002
Rack6slot
220x114,3mm



ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Preheat Start+

Filament preheating is good for lamp electrode life.

plug and play: optimal lamp operation
- efficient ballast handling



ballast form U

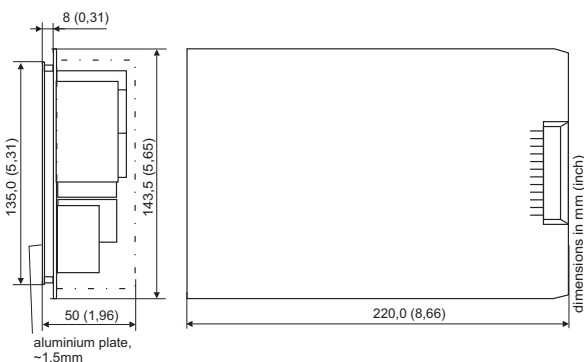
Features

- ↪ electronic ballast for two-lamp operation
 - ballasts are operating even with only one lamp connected
- ↪ to be used with four-wire lamps
- ↪ easy mounting in rack units - less space for more ballasts
- ↪ preheat start+
 - lamp specific parameters can be adapted by customer
- ↪ equipped with active power factor correction
- ↪ microprocessor controlled ballast allows
 - classical stand-alone 'local' operation
 - remote controlled operation via RS485 bus
- ↪ lamp/ballast status indication
 - via RS485 - protocols: ModBus, ZCON, ZEDsimple
 - via green and red LED
 - via potential free relay contacts for lamp on / lamp fault

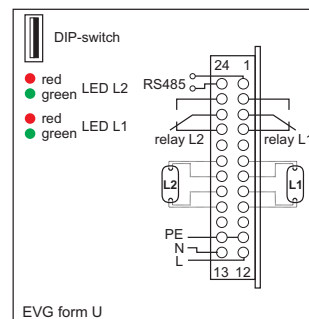
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHA1554T5L	196	R-E230.201 -PH	432	1,8
GPHA1554T6L	240	R-E230.202 -PH	520	2,38
GPHHA1000T6L	207	R-E230.211 -PH	440	2
GPHHA1554T6L	320	R-E230.203 -PH	680	3,04

mains voltage:	230V AC ± 10%	mains frequency:	45...65Hz
efficiency:	> 90%	IP code:	IPO0
temperature:	see "Ballast Generals" for details		
relay contacts:	potential free, load: 50...500mA at 24...120V AC; 50...500mA at 5...60V DC		
ballast control:	- local mode (stand alone operation): set ballast parameters (lamp current, preheat current, preheat time) via DIP switch	- remote control: set ballast parameters, start/stop ballast, monitor ballast/lamp state via RS485 bus	
communication protocol:	ZEDsimple, ModBus, ZCON (refer to 'Ballast Generals' for more information on ballast control)		
ballast function set:	current levels / preheat levels: 8 preheat enable/disable	preheat time range: - remote control via ZEDsimple: 1...12s, 15s ,18s , 20s - remote control via ModBus & ZCON: up to 255s - local control: 5s, 7s, 12s, 20s	
status indication:	operating status indicated - via RS485 according to the selected communication protocol - by LED: green = lamp on green blinking = preheating red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)		
mounting restrictions:	rack mounting with forced cooling, see "Ballast Generals" for details recommendation for rack: Rack 6slot 220x143,5mm for 6 electronic ballasts, article code: 418-003 (see page 65)		
connections:	use MOLEX JUNIOR FIT connector (ZED 500-008) and 20 MINI FIT crimp contacts (ZED 500-018) (sold separately) recommendation for crimping: Tool Set SC-MK (see page 95)		
wire gauge:	1...1,5mm ² ; strip length: 3...3,5mm		

Dimensions



Wiring diagram



Accessories

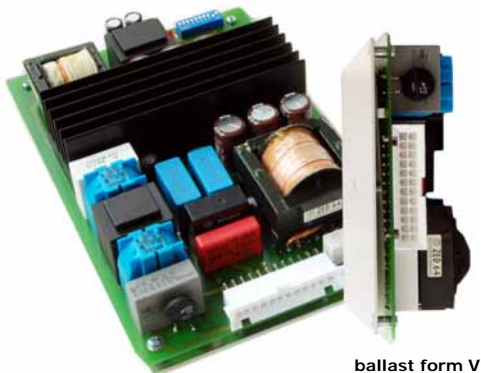




ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Preheat Start+

Filament preheating is good for lamp electrode life.

plug and play: optimal lamp operation
- efficient ballast handling



ballast form V

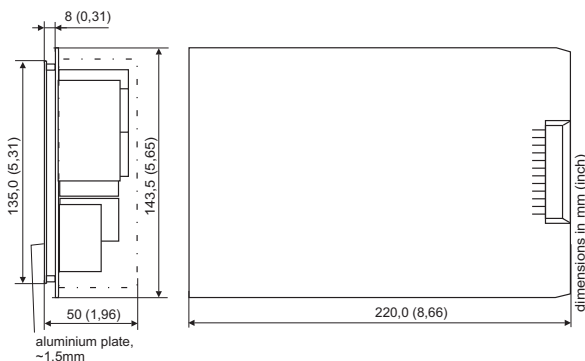
Features

- ↪ electronic ballast for one-lamp operation
- ↪ to be used with four-wire lamps
- ↪ easy mounting in rack units - less space for more ballasts
- ↪ preheat start+
 - lamp specific parameters can be adapted by customer
- ↪ equipped with active power factor correction
- ↪ microprocessor controlled ballast allows
 - classical stand-alone 'local' operation
 - remote controlled operation via RS485 bus
- ↪ lamp/ballast status indication
 - via RS485 - protocols: ModBus, ZCON, ZEDsimple
 - via green and red LED
 - via potential free relay contacts for lamp on / lamp fault

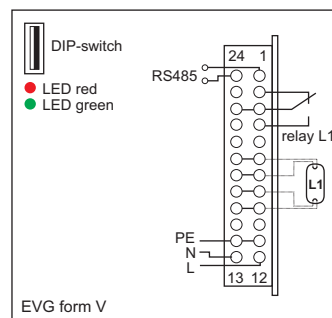
lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHHA1554T10L	500	R-EVG500W/5,5A -PH	550	max. 3

mains voltage:	230V AC ± 10%	mains frequency:	45...65Hz
efficiency:	> 90%	IP code:	IP00
temperature:	see "Ballast Generals" for details		
relay contacts:	potential free, load: 50...500mA at 24...230V AC; 50...500mA at 5...60V DC		
ballast control:	- local mode (stand alone operation): set ballast parameters (lamp current, preheat current, preheat time) via DIP switch	- remote control: set ballast parameters, start/stop ballast, monitor ballast/lamp state via RS485 bus	
communication protocol:	ZEDsimple, ModBus, ZCON (refer to 'Ballast Generals' for more information on ballast control)		
ballast function set:	current levels / preheat levels: 8 preheat enable/disable	preheat time range: - remote control via ZEDsimple: 1...12s, 15s, 18s, 20s - remote control via ModBus & ZCON: up to 255s - local control: 5s, 7s, 12s, 20s	
status indication:	operating status indicated - via RS485 according to the selected communication protocol - by LED: green = lamp on green blinking = preheating red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)		
mounting restrictions:	rack mounting with forced cooling, see "Ballast Generals" for details recommendation for rack: Rack 6slot 220x143,5mm for 6 electronic ballasts, article code: 418-003 (see page 65)		
connections:	use MOLEX JUNIOR FIT connector (ZED 500-008) and 20 MINI FIT crimp contacts (ZED 500-018) (sold separately) recommendation for crimping: Tool Set SC-MK (see page 95)		
wire gauge:	1...1,5mm ² ; strip length: 3...3,5mm		

Dimensions



Wiring diagram



Accessories



ZED 500-008
MOLEX JUNIOR FIT connector



ZED 500-007
1 MINI FIT crimp contact



ZED 500-017
12 MINI FIT crimp contacts
for single lamp ballasts



ZED 418-003
Rack6slot
220x143,5mm



ZED EVG - Electronic Ballasts 230V AC for LightSources Inc./LightTech Lamp Technology Ltd. Amalgam Lamps Preheat Start+

Filament preheating is good for lamp electrode life.

**innovative: flexible ballast parameters
for optimal lamp operation**



ballast form W

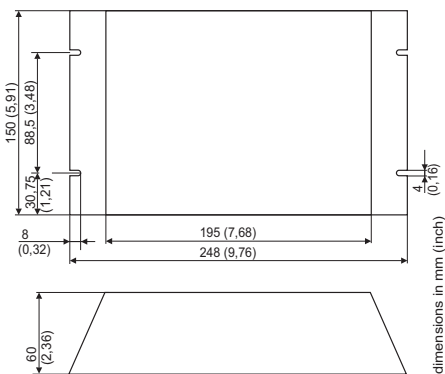
Features

- ↪ electronic ballast for one-lamp operation
- ↪ to be used with four-wire lamps
- ↪ preheat start+
 - lamp specific parameters can be adapted by customer
- ↪ equipped with active power factor correction
- ↪ microprocessor controlled ballast allows
 - classical stand-alone 'local' operation
 - remote controlled operation via RS485 bus
- ↪ lamp/ballast status indication
 - via RS485 - protocols: ModBus, ZCON, ZEDsimple
 - via green and red LED
 - via potential free relay contacts for lamp on / lamp fault

lamp type	lamp watts [W]	ballast models	ballast power [W]	ballast input current [A]
GPHHA1554T10L	500	EVG500W/5,5A -PH	550	max. 3

mains voltage:	230V AC ± 10%	mains frequency:	45...65Hz
efficiency:	> 90%	IP code:	IP00
t_c-temperature:	max. 50°C	ambient temperature:	0...40°C
relay contacts:	potential free, load: 50...500mA at 24...120V AC; 50...500mA at 5...60V DC		
ballast control:	- local mode (stand alone operation): set ballast parameters (lamp current, preheat current, preheat time) via DIP switch - remote control: set ballast parameters, start/stop ballast, monitor ballast/lamp state via RS485 bus		
communication protocol:	ZEDsimple, ModBus, ZCON (refer to 'Ballast Generals' for more information on ballast control)		
ballast function set:	current levels / preheat levels: 8 preheat enable/disable preheat time range: - remote control via ZEDsimple: 1...12s, 15s, 18s, 20s - remote control via ModBus & ZCON: up to 255s - local control: 5s, 7s, 12s, 20s		
status indication:	operating status indicated - via RS485 according to the selected communication protocol - by LED: green = lamp on green blinking = preheating red = lamp fault - by relay (refer to 'Ballast Generals' for more information on lamp status indication via relay)		
mounting restrictions:	upright, mains connector at bottom side, see 'Ballast Generals' for details		
wire gauge:	0,75...1,5mm ² ; strip length: 10...12mm		

Dimensions



Wiring diagram

