

# UltraStart™

## Programmed Start Ballasts For Linear Fluorescent Applications

A new generation of energy-saving ballasts to meet strict energy legislation.

### PARALLEL OPERATION BALLAST FOR EASY MAINTENANCE.

Programmed Start (PS) ballasts provide a “soft start” and significantly reduce the cathode degradation occurring from each start and increases lamp life significantly in frequently switched applications. These ballasts use a control circuit to apply very precise cathode heat to ensure that the cathodes have reached an optimum temperature during lamp starting. GE UltraStart™ T5 ballasts operate on parallel mode, meaning if one lamp goes out, others stay on. GE has developed a line of PS ballasts that have the benefits of PS with energy savings, fast starting and parallel operation convenience of instant start ballasts.



### T5 ULTRASTART™ FEATURE

- Fast startup (less than 0.7 seconds)
- Greater than 100,000 on/off cycles
- High-ballast efficiency (>90%)
- Parallel-series lamp connection
- Bi-level switching (dim from 4 lamps to 2 lamps)
- Low-profile, lightweight housing
- End of lamp life protection
- Ultra system warranty
- <10% THD, >0.98 PF
- 3-4x14W and 2x14-21-28-35W types



GE imagination at work

## APPLICATION AND PERFORMANCE SPECIFICATION

Product Code	Description	Lamp types
88679	BLS/E/2x14-21-28-35W	Electronic ballast for (2) F14T5HE, F21T5HE, F28T5HE; F35T5HE - primary configurations or (1) F14T5HE, F21T5HE, F28T5HE; F35T5HE or (2/1) F14T5WM, F21T5WM, F28T5WM; F35T5WM
88678	BLS/E/3-4x14W/T5	Electronic ballast for (3/4) F14T5HE; or (3/4) F14T5WM - primary configurations

- Line Voltage: 220-240 VAC single phase, +/- 10%, 50 Hertz
- Series/parallel Lamp Operation
- Auto Reset after Lamp Replacement
- Program (Rapid) Start
- Active Power Factor Correction
- End of Lamp Life Shutdown Circuitry

Product Code	Model	Line Volts	No. of Lamps	Lamp Type	Input Watts	Nominal Line Amps	Ballast Factor	Power Factor	Harmonic Total	Crest Factor	CELMA EEI=A2
88679	BLS/E/2x14-21-28-35W	230	2	F35T5HE	77.5	0.34	1.00	0.99	6.0%	1.52	YES
		230	2	F28T5HE	62.2	0.28	0.99	0.98	6.6%	1.51	YES
		230	2	F21T5HE	50.4	0.23	1.04	0.97	7.4%	1.60	YES
		230	2	F14T5HE	35.8	0.17	1.05	0.93	8.6%	1.62	YES
88678	BLS/E/3-4x14W	230	4	F14T5WM	59.1	0.26	1.00	0.99	6.2%	1.59	YES
		230	3	F14T5WM	46.1	0.20	1.02	0.98	7.1%	1.52	YES
		230	4	F14T5HE	63.5	0.28	1.02	0.99	6.2%	1.59	YES
		230	3	F14T5HE	49.5	0.22	1.04	0.98	6.8%	1.52	YES

### PERFORMANCE

- CELMA EEI= A2 Class efficiency with Lamps
- CE/EMV Mark, EMC compliance with CISPR15
- EN 60929, EN 60925 61000-2-3

### SAFETY

- SEMKO Safety and EMC
- EN 61347-1-2-3, EN 61000-3-3,
- EN 60929, EN 60925
- RoHS Compliant
- Inherent thermal protection
- No PCBs

Application	Product Code	
	88679	88678
Minimum Starting Temperature:	-15 °C, 14W lamp	-15 °C, 14W lamp
Maximum Ambient Temperature:	40°C	40°C
Maximum Case Temperature(tc):	75 °C	75 °C
Sound Rating:	Class A	Class A
Remote Mounting:	6 feet maximum full performance above10°C	6 feet maximum full performance above10°C
Connection :	WAGO 251-303 IDC CONNECTOR (input) WAGO 251-102 IDC CONNECTOR 3X (lamp)	WAGO 251-307 IDC CONNECTOR
Wire diameter:	0.5-1.5 mm <sup>2</sup>	0.5-0.75 mm <sup>2</sup>

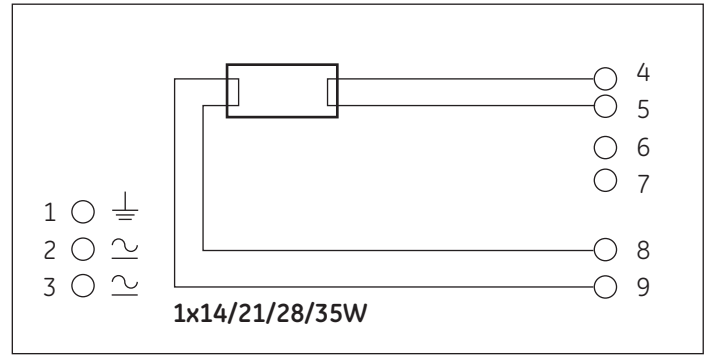
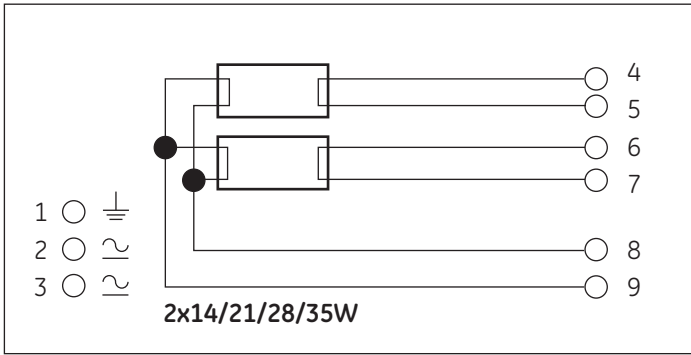
Physical Parameters	Product Code	
	88679	88678
Mounting Length:	346.8 mm	346.8 mm
Overall Length:	360mm	360mm
Mounting hole diameter:	4.2mm	4.2mm
Width:	30mm	30mm
Height:	26.5 mm	21.4 mm
Weight:	350g	300g
Carton Quantity:	10 pieces	10 pieces



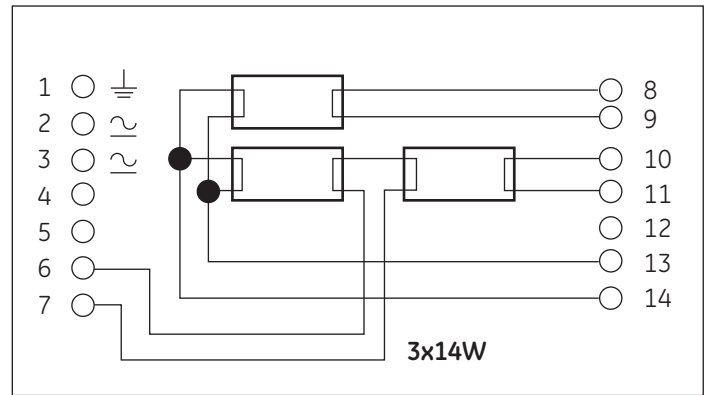
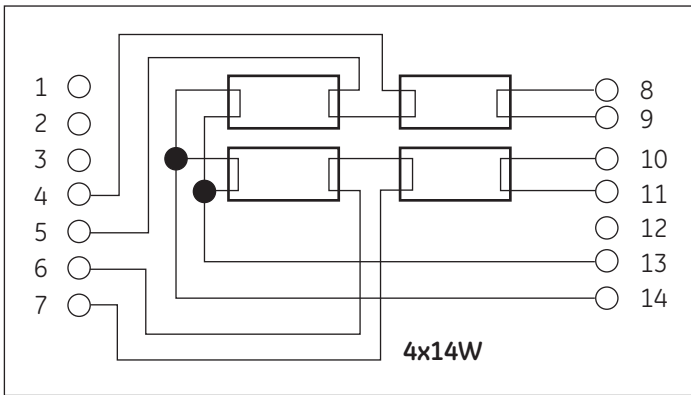
**WARRANTY:**

GE warrants to the purchaser that each electronic ballast will be free from defects in material or workmanship for a period of 5 years from date of manufacture when properly installed and under normal conditions of use.

**WIRING FOR BLS/E/2X14-21-28-35W**



**WIRING FOR BLS/E/3-4X14W**





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