# fluorescentstarters

# and accessories







# **FLUORESCENT CAPACITORS**

Description	Carton Quantity
4MF rated capacitor	20
6MF rated capacitor	20
7.2MF rated capacitor	20
8MF rated capacitor	20
8.4MF rated capacitor	20
10MF rated capacitor	20
12MF rated capacitor	20
20MF rated capacitor	20
30MF rated capacitor	20
	4MF rated capacitor 6MF rated capacitor 7.2MF rated capacitor 8MF rated capacitor 8.4MF rated capacitor 10MF rated capacitor 12MF rated capacitor 20MF rated capacitor

• This is just a small selection of products available please ask for further details of products in this range

# **FLUORESCENT LAMPHOLDERS**

Catalogue Number	Description	Carton Quantity
260	T5 push on lampholder	200
263	T5 push on lampholder	200
282FAU	T5 fixed lampholder	200
282MAU	T5 sprung lampholder	200
345MAU	T8 sprung lampholder	200
345FAU	T8 fixed lampholder	200
142	T8 push on lampholder	200
43	T8 push on lampholder	200
403LR	G23 5-11W lampholder	200
682A	Terminal block	200
19	Snap fix starterholder	200
16AL	Snap fix starterholder	200
16V	Snap fix starterholder	200
V5013	G24 lampholder	200
V277B	Ring for V5013	200
V381	Cap for V5013	200

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# **FLUORESCENT STARTERS**

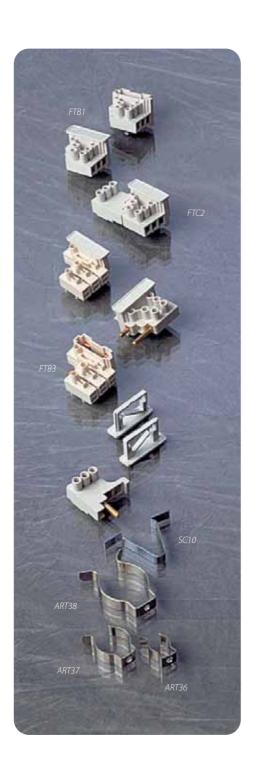


Catalogue Number	Description	Carton Quantity
FSU	4-80 Watt fluorescent starter	10
FS2	4-22 Watt single series fluorescent starter	10
FS125	100-125 Watt fluorescent starter	10

- Manufactured to BS EN 60155
- All starters are kitemarked

# **FLUORESCENT STARTER SPECIFICATIONS**

Lamp Type	Circuit	FSU	FS125	FS2
4 Watts 150mm	Single Twin Series	220/250V		110/130V 220/ 250V
6 Watts 225mm	Single Twin Series	220/250V		110/130V 220/ 250V
8 Watts 300mm	Single Twin Series	220/250V		110/130V 220/ 250V
13 Watts 525mm	Single	220/250V		
15 Watts 450mm	Single	220/250V		110/130V
	Twin Series			220/ 250V
16 Watts 360mm	Single	220/250V		110/130V
18/20 Watts 600mm	Single	220/250V		110/130V
	Twin Series			220/ 250V
22 Watts Circline	Single	220/250V		110/130V
30 Watts 900mm	Single	220/250V		
32 Watts Circline	Single	220/250V		
40 Watts 600mm	Single	220/250V		
	Twin Series			
36/40 Watts 1200mm	Single	220/250V		
85/80 Watts 1500mm	Single	220/250V	240/250V	
70/85 Watts 1800mm	Single	220/250V	240/250V	
100/125 Watts 2400mm	Single		240/250V	



# **FUSED TERMINAL BLOCKS**

Catalogue Number	Description	Carton Quantity
FTB1	Solid brass block with brass slotted head terminal screws. Mounted via the earth terminal with a plated steel pan head pozidrive screw and washer.	100
FTC2	Non-reversible solid brass male and female connectors, with brass slotted head terminal screws. Fixed half-mounter via the earth terminal with a plated steel pan head pozidri screw and washer	

Rating: 13 amps at 250V AC. 100°C maximum Material: Body and fuse carrier moulded in white polycarbonate Fuse type: 25mm (1") to BS1362 - not supplied Conductor size: (per terminal) 2x25mm² or 3x1.5mm²

### **FLUORESCENT TUBE CLIPS**

Catalogue Number	Description	Carton Quantity
ART 36	5/8" Fluorescent tube clip	200
ART 37	1/8" Fluorescent tube clip	200
ART 38	1.5" Fluorescent tube clip	200

# **FLUORESCENT SUSPENSION CLIPS**

Catalogue Description		Carton		
Number		Quantity		
SC10	Fluorescent suspension clip	200		



#### **PULSESTARTER EFS 120**

Lamp types: Linear fluorescent lamps from 450mm 15W to 600mm 20W, T8 (26mm)

or T12 (38mm) diameter.

16W 4 pin 2D lamps with GR 10q bases.

22W circular lamps

Supply voltage: 110-250V ac RMS 50/60 Hz Operating temperature:  $-30^{\circ}\text{C} + 75^{\circ}\text{C}$ 

Preheat: 2.8 seconds nominal at 25°C ambient. Sinusoidal

 $\mbox{H.V.}$  pulsing: Single pulse (1300V nominal) when striking healthy lamp in normal

room ambients.

Starter will supply additional pulses if lamp fails to conduct on first pulse (e.g in extremes of temperature, or in worn lamp situations).

Safety Shutdown: Within 3.5 seconds at 25°C ambient.



#### **PULSESTARTER EFS 120P**

Potted Pulsestarter

Technical details as EFS 120

BASEFA approved to BS4533 Section

102.51.1986

Temperature to 75oC

Complete with 6 inch tails

Description	Carton Quantity
Pulsestarter	10
Pulsestarter potted	10
	Pulsestarter



#### **PULSESTARTER EFS 600**

Lamp types: Linear fluorescent lamps from 900mm 30W to 2400mm 125W, T8 (26mm) or T12 (38mm) diameter.

(Excluding 2400mm 85W and 100W and 1500mm 115W - 140W sunbed lamps) 18W to 36W compact fluorescent lamps with 4 pin 2G11 and G24 bases.

28W and 38W 4 pin 2D lamps with GR 10q bases.

Supply voltage: 200-260V ac RMS 50/60 HZ

Operating temperature: -30°C + 75°C

Preheat: 2.3 seconds nominal at 25°C ambient. Sinusoidal

 $\mbox{H.V.}$  pulsing: Single pulse (1300V nominal) when striking healthy lamp in normal room ambients.

Starter will supply additional pulses if lamp fails to conduct on first pulse (e.g in extremes of temperature, or in worn lamp situations).

Safety Shutdown: Within 3 seconds at 25°C ambient.







#### **PULSESTARTER EFS 600P**

Potted Pulsestarter Technical details as EFS 600 BASEFA approved to BS4533 Section 102.51.1986 Temperature to 75oC Complete with 6 inch tails

Catalogue Number	Description	Carton Quantity
EFS600	Pulsestarter	10
EFS600P	Pulsestarter potted	10

# **PULSESTARTER EFS 300 RAPID START ELECTRONIC STARTER**

4-85W and 125W linear lamps T8/T12 Lamp types: 16-38w TC-DD 18-26w TC-DE/TE

24-36w TC-L 22-60w circular and U-tubes

Supply voltage: 200-260V AV 50/60 HZ single lamps

Operating temperature: 5°C TO + 75°C

Preheat: 0.3s nominal @ 20°C

H.V. pulsing: Single pulse 1500V maximum

Safety Shutdown: Within 1 second @ 20°C

Markings: CE

# **PULSESTARTER EFS 400 COLD START ELECTRONIC STARTER**

Lamp types: 18-65W linear lamps T8/T12

16-38w tc-dd, 18-26w TC-DE

24-36w tc-l 22-60w circular and U-tubes

Supply voltage: 200-260V AC 50/60 HZ single lamps

Operating temperature: 40 C to + 75°C

Preheat: 2.0S nominal @ 20°C

3.0S nominal @ -40°C

HV pulsing: Single pulse 1500V maximum

Safety shutdown: Within 2.5 seconds @ 20°C Within 3.5 seconds @ -40°C

Markings: CE and ENC 12

Catalogue	Description	Carton
Number		Quantity
EFS300	Rapid start	10
Catalogue Number	Description	Carton Quantity
FFS400	Cold start	10

#### **PULSESTARTER TECHNICAL SECTION**

More than 20 years research, development and production, provides the most reliably proven Electronic Starter for fluorescent lamps in the world.

Specified for many prestigious projects worldwide, the Pulsestarter has set international performance standards which are still to be equalled.

The Pulsestarter offers a number of advantages in relation to conventional devices:

- · Fully optimised electronic ignition sequence
- · Significantly extends standard lamp life
- · Improved lumen maintenance
- · Automatic failed lamp safety shut down
- · Automatic reset
- · Smooth no flicker starting
- · Low temperature starting
- · Long life performance

The Pulsestarter increases lamp life and therefore significantly reduces harmful mercury waste.

The Pulsestarter is environmentally friendly.

Pulsestarter was the world's first electronic starter to provide a fully optimised programmed strike mode for fluorescent lamps. It has been much refined since its conception in the 1980s.

T8 (26mm) lamps are more difficult to strike than their T12 (38mm) predecessors, and have less robust cathode assemblies. Cathode wear during starting is the limiting factor on tube life, and with the introduction of energy saving T8 lamps, this has increased.

When a tube reaches the end of its life, a lamp failure monitoring circuit shuts the starter down until the lamp is replaced - avoiding repeated attempts to strike failed or faulty lamps and preventing excessive heat build up in the control gear and intrusive flashing.

Although more costly than the unit it replaces, Pulsestarter offers in real terms a 70% reduction in fluorescent maintenance labour costs, as well as extending tube life by over 50%.

At the 7,500 hours nominal life quoted by most lamp manufacturers, the user can expect to have suffered 30% failures due to cathode damage. At this point the light output has fallen to only 90% of design lumens.

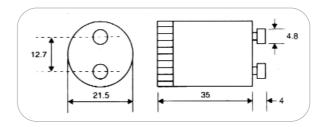
The Pulsestarter programme strike mode was developed to ensure that the new lamps delivered a real saving - and not just an energy saving which could be cancelled by increased maintenance costs.

Pulsestarter avoids the problem of cold striking by fully heating the cathodes to optimum operating temperature before applying a controlled striking pulse. Therefore wear during starting is virtually eliminated, and tube life is extended to the point where lumen deficiency determines replacement.

If the Pulsestarter had been fitted, the early cathode failures would have been eliminated, and the user could have chosen to relamp at a point when lamp output had fallen to a predetermined level. Typically, if 85% of design lumen output was considered the minimum acceptable level, the lamps could be changed at 15,000 hours. With Pulsestarter, the cathodes would still be functioning

Using solid state construction, Pulsestarter offers long life performance, and need not be replaced during planned lighting maintenance - saving the cost of replacement starter switches.

Our policy of achieving international approvals is your assurance of our consistent quality.



Canister to BSEN 60155: Nominal dimensions in millimetres

Canister and Base materials: Polycarbonate. VO rated

#### Pin material: Brass.

An encapsulated two wire connection version is also available. Baseefa approved to group two non-incentive (N) License No. 4204 U.

#### Circuits

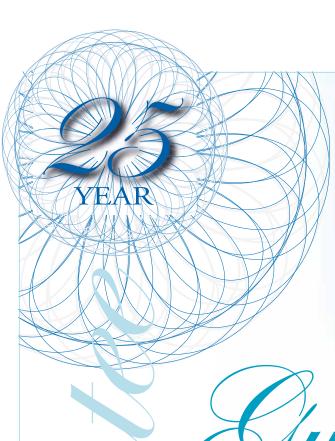
The circuit is optimised for use in standard lagging power factor switch start fluorescent circuits, and all of the parameters quoted relate to use in this configuration.

### **PULSESTARTER SPECIFICATIONS**

Lamp Wattage	Linear G13 T12	Linear G13 T8	Linear G5	Circular G10q	Compact TC-S G23	Compact TC-D/TC-TG24/GX24	Compact TC-L/F 2G11	TC-DD GR10Q
5					EFS120			
7					EFS120			
8			EFS120					
9					EFS120			
10						EFS600		EFS600
11					EFS600			
13			EFS600			EFS600		
15	EFS120							
16								EFS120
18	EFS120					EFS600	EFS600	
20		EFS120						
21								EFS600
22				EFS120				
24								
26							EFS600	
28								EFS600
30	EFS600	EFS600						
32				EFS600				
34						EFS600		
36	EFS600					EFS600		
38	EFS600							EFS600
40		EFS600						
58	EFS600							
60				EFS600				
65		FS600						
70	EFS600							
75		EFS600						
80		EFS600						
85		EFS600						
125		EFS600						

#### Notes:

- Pulsestarter is not recommended for use with lamps below 15W
- Pulsestarter is not compatible with 2400mm 100W T12 lamps
- EFS 120 is interchangeable with EFS 110 (unfused) and EFS 130 (VDE fused)
- EFS 600 is interchangeable with EFS 610 (unfused) and EFS 630 (VDE fused)





# 25 YEAR Suarantee

BG Electrical products are guaranteed against faulty materials and workmanship for a period of 25 years from date of delivery: products will be repaired or (at BG Electrical's discretion) replacements will be supplied or (at BG Electrical's discretion) a credit note will be issued. This guarantee is subject to BG Electrical's conditions of sale and in particular to the following conditions being met:

- Notification of any defect is given to BG Electrical as soon as reasonably practicable after becoming apparent, and the products then returned to BG Electrical.
- 2. The products have only been operated under normal operating conditions and have only been subject to normal use.
- 3. No work (other than normal and proper maintenance) has been carried out to the products without BG Electrical's prior written consent.
- 4. The products have been assembled or incorporated into other goods by a qualified and recognised electrician and only in accordance with any instructions issued by BG Electrical.
- 5. The defect has not arisen from an item manufactured or supplied by a person other than BG Electrical.

This guarantee does not affect any consumer statutory rights.