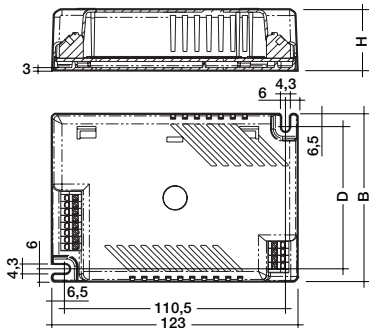


Combined electronic ballast and emergency lighting module
TC-DD compact fluorescent lamps

PC DD COMBO 220-240 V 50/60 Hz



Description:

Warm start fixed output, combined electronic high frequency ballasts and emergency lighting modules for compact fluorescent lamps.

Features:

Operation

- Pre-heat start in normal operation
- AC operation of lamps
- Deep discharge protection
- Regulated electronic charging circuit

Easy to Use

- Lightweight one piece unit
- Small size
- Simplified wiring
- No compatibility issues
- Push wire terminals
- Emergency testing by isolating only the unswitched supply

Safe and Reliable

- Automated manufacture using SMD and radial insertion
- Designed and manufactured to ISO 9001

- Complies with European Standards: EN 55015: 2006 + A1: 2007 (EMC/Emitted RFI)
EN 61547 (EMC/Immunity)
EN 61000.3.2 (EMC/Supply Harmonics)
EN 61347-2-7 (Safety)
EN 61347-2-3 (Safety)
EN 60925 (Performance)
EN 60929 (Performance)
Relevant clauses of EN 60598.2.22
- ENEC and BSI approved. CE marked

3 h duration - Nicd 4.0 Ah D Cells

Lamp		Ballast											
watt-age W	type	type number	article	LxWxH centres D mm	fixing kg	weight power W	circuit power W	lamp current A	supply (approx.)	power factor range °C	temperature	battery	
1x28	TC-DD	PC 1x28/34 DD COMBO	220-240V 50/60 Hz	89899633	123x79x31	66.5	0.15	26	17	0.12	0.92	+0 □ +50	Accu Ni-Cd 4A/4B

Accu Nicd 4.0 Ah D Cells

type	article number	type	number of cells	Charge indicator	article number
Accu Ni-Cd 4A	89895961	stick	4	LED EM green (supplied separately)	89899605
Accu Ni-Cd 4B	89895977	side by side	4	High brightness green also available	

Technical data:

Ambient temperature range
0°C to +50°C

Maximum case temperature (measured
at designated tc point) +75°C

Ingress Protection IP20
Vibration test IEC 68-2-64 Fh
Bump test IEC 68-2-29 Eb
Humidity IEC 68-2-30
Flash Testing not recommended

High Voltage Insulation Testing (no
flashover or breakdown must occur):
Up to 500 V DC between the phase and
neutral conductors connected together
and the earth.

Normal operation:

Rated mains supply voltage	220–240 V
Mains frequency	50/60 Hz
Earth leakage current	< 0.5 mA
Minimum lamp starting temperature	-15°C
Lamp operating frequency	> 42 kHz
Ballast lumen factor	75 %
Light output variation over rated voltage range	± 2 %
Recharge period	24 hours
Nominal charge current	210 mA
Can be used with high brightness charge indicators (LEDs)	

Mechanical details:

Case manufactured from polycarbonate.

LED charge indicator

- Green
- Mounting hole 6.5 mm dia
- Length of LED lead 750 mm (Bezel supplied fitted to LED)

Battery leads

- Quantity: 1 red and 1 black
- Length : 1300 mm
- Wire type: 0.5 mm² solid conductor
- Insulation temperature rating: 90°C

Termination 1

Push on 4.8 mm receptacle to suit battery spade
fitted with insulating cover

Termination 2

9 mm stripped insulation

Restarting after lamp replacement:

Note: Before servicing luminaires the mains supply should always be disconnected.

If faulty lamps are changed with the mains connected they will restart automatically
provided an interval of 2 seconds is left after removal.

Lamp starting (normal operation):

Type of start: Pre-heat
Starting time: 2 seconds
Number of starts: circa 20,000

Emergency light output factor:

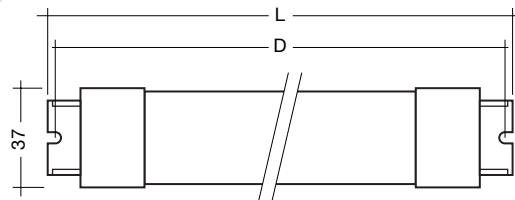
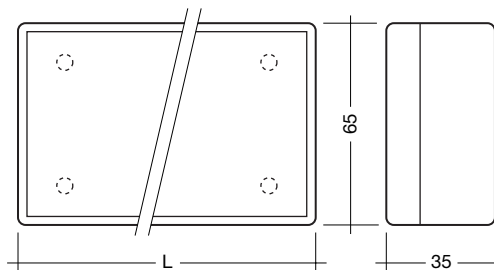
Ballast	BLF
PC 1x28/34 DD COMBO 220-240V 50/60Hz	12 %

Emergency operation:

Battery design voltage	1.2 V per cell
Nominal discharge current (3 Hr. unit)	1.1 A
Minimum lamp starting temperature	0°C

Batteries:

Case temperature range (to ensure 4 years life)	0°C to +55°C
Storage life (in temperate conditions)	4 years

Batteries (stick):**Batteries (side by side):**

Type	length L (mm)	fixing centres D (mm)	weight (g)
Accu Ni-Cd 4A	277	263	530
Accu Ni-Cd 4B	130	40x66	530

Electrical connections:

The combined unit must be connected to earth through the appropriate termination.

Terminal block type:

Push wire only with release mechanism

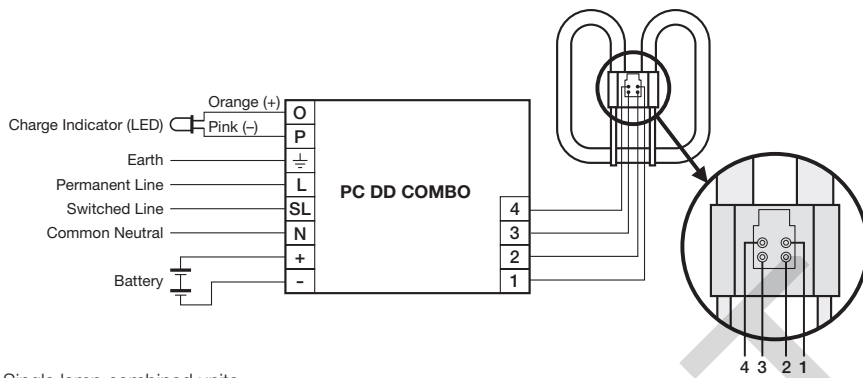
Terminal block capacity

0.5 to 1.5 mm² solid conductor

Wire strip length:

8.5 to 9.5 mm

Keep all leads as short as possible, maximum length 0.5 m



Single lamp combined units

Batteries:

Connection method: 4.8 x 0.5 mm spade welded to end of cell

For the stick batteries this connection is accessible after the battery end caps have been fitted.

To inhibit inverter operation, only disconnect the batteries by removing the connector from the battery spade tags.

Miniature circuit breakers (MCBs):

The maximum number of these electronic ballasts that may be used with miniature circuit breakers (MCBs). These quantities are based on single pole MCBs. For multi-pole MCBs derate by 20%.

Service life:

Service life at maximum case temperature of +75 °C measured at designated tc point: 50,000 hours.

CE marking:

The combined units are CE marked for compliance with the low voltage directive. Certificates of compliance are available to allow luminaires to be CE marked for compliance with the EMC directive.

Packing quantities:

PC DD COMBO: 25 pieces/carton

LED green: 25 pieces/bag
200 pieces/carton

Accu Ni-Cd: 25 pieces/carton

Type	Number of electronic ballasts					
	Type C MCB rating			Type B MCB rating		
	10 A	16 A	20 A	10 A	16 A	20 A
PC 1x28/34 DD COMBO 220-240V 50/60 Hz	24	36	44	12	18	22