

# Product data sheet *Imagine*

## HES92020 Thyristor Dimmer

The Imagine HES92020 rack mounted dimmer contains two identical leading edge thyristor dimmers within a moulded case and is designed as an exchangeable module for fitting into ESR dimmer cabinets. The dimmer is for use with incandescent lamps and low voltage lamps via wire-wound transformers. It is suitable for use with electronic transformers, if transformer manufacturer approves use. With convection cooling the maximum load is 10 A per channel and increases to 20 A per channel when fan cooled. The dimmer is provided with a three-digit LED display, normally indicating the current output level and four push buttons for manual operation and address setting.

### Key Features

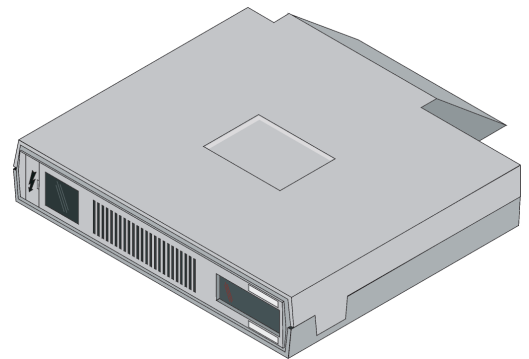
- Full dimmer status feedback via SDIM control bus permitting full system monitoring.
- Current and temperature monitoring with automatic load reduction in critical states and shut-off under extreme conditions.
- Override input for a switching contact to allow the channels to be set to a pre-programmed level inconjunction with lighting router only.

### Installation Notes

- The dimmer module is specifically designed to be fitted into the ESR dimmer rack stacker unit.
- Analogue control connections (if any) are via a connector on the right hand side of the module. Power connections are made using terminal screws under the terminal cover on the left-hand side of the front of the dimmer. All other connections are made at the rear of the dimmer unit via a plug-in connector.

### Power Connection Table

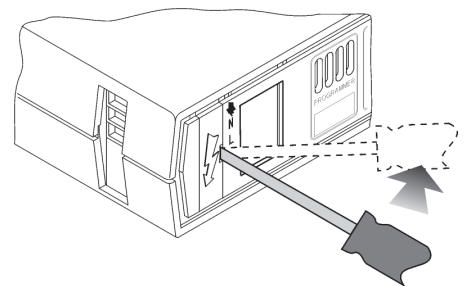
Dimmer module	Distribution Panel
Terminal $\perp$	Earth
Terminal N.	Neutral
Terminal LA.	Ch 1 live feed from MCB.
Terminal LB.	Ch 2 live feed from MCB.
Terminal CHA.	Ch 1 Relay output terminal
Terminal CHB.	Ch 2 Relay output terminal



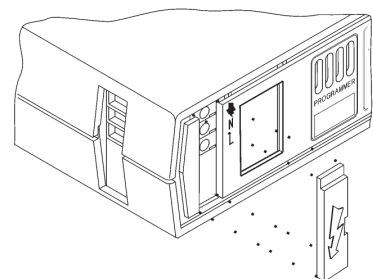
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### Connections

- 1 Removing the power terminal cover



- 1a



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### Technical Data

#### Electrical Input

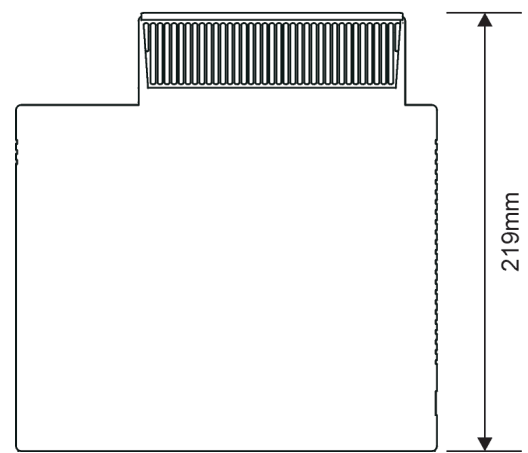
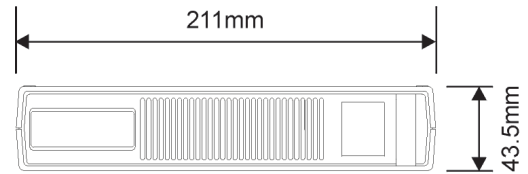
Mains: 180 - 260 V AC, 45 - 65 Hz (90 - 130 V AC to order)  
 Power Consumption: 3 W at zero output  
 35 W both dimmers loaded to 10 A  
 100 W both dimmers loaded to 20 A

#### Electrical Output

Maximum Output: Input voltage less 2.5 V at input frequency  
 Maximum Current: 10 A Each dimmer, convection cooled  
 20 A Paired dimmers, convection cooled  
 20 A Each dimmer, forced ventilation  
 40 A Paired dimmers, forceventilation

Dimming Curve	HES92020
0	Non dimming (for switched loads)
1	Tungsten Linear
2	Tungsten Square
3	Tungsten 'S'-Law
4	2 Wire Fluorescent with start pulse
5	2-Wire Fluorescent
6	Cold Cathode
7	Custom
8	3-Wire Fluorescent

### Dimensions



### Control Inputs/Outputs

Digital: RS485 S-DIM protocol  
 (Level and fade time)  
 Analogue: 0...+10 V (Level)

### Operating Conditions

Ambient Temperature: 0...+40° C  
 Auto Cutback: 70° C internal temperature  
 Auto Shutdown: 90° C internal temperature  
 Relative Humidity: 90% max, non-condensing  
 Storage Temperature: -10°C...+70°C

### Mechanical Data

Case: ABS polycarbonate blend two-part moulding,  
 130°C Vicat UL94-V0 (Halogen Free)  
 IP Rating: 30  
 Isolation: 4 kV  
 Net weight: 1.5 kg  
 Shipping weight: 1.6 kg

### Conformity & Standards

Emission: EN 50 081  
 Immunity: EN 50 082  
 RFI: EN 55 014

### Safety

Safety: EN 60 950  
 IP Rating: 30  
 Isolation: 4 kV  
 UL File No: EN191962

### Connections

#### Analogue Connections

