

CLIPSAL[®]

by **Schneider** Electric



Modena/Strato Compact Fluorescent Dimmer

8000
Series



Installation Instructions

REGISTERED DESIGN • REGISTERED PATENT

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1.0 Product Range

80E2CFLDM	CFL Dimmer, 220-240V a.c., 50Hz, 300W (80 Series Mechanism)
M8082E2CFLD	CFL Dimmer, 220-240V a.c., 50Hz, 300W (Modena 8000 Series)
S8082E2CFLD	CFL Dimmer, 220-240V a.c., 50Hz, 300W (Strato 8000 Series)

*Please note that these products are also available in other configurations and in a wide range of colours. For further information, please contact your nearest Clipsal Sales Representative.

2.0 Description

The Clipsal 8000 Series Compact Fluorescent Dimmer is a separately switched, modular dimming mechanism rated at 300W, and has been specifically designed for use with Dimmable Compact Fluorescent Lamps (CFLs).

Utilising Clipsal's patented Trailing Edge Dimming Technology, the Compact Fluorescent Dimmer has been optimised for control of energy efficient lighting, and incorporates a "Kick-Start" feature, intended to ignite the lamp and overcome CFL lamp strike limitations commonly experienced with traditional dimmers.

Offering considerable flexibility, the CFL Dimmer may also be used to control other types of loads, including incandescent lamps, 240V halogen or dichroic lamps, low voltage lighting using iron-core or electronic transformers.

3.0 Features






- Separately switched modular dimming mechanism.
- 300W Power Rating.
- Compatible with Dimmable CFL Loads.
- Kick start operation to ensure lamp ignites.
- Suitable for a wide range of other load types:

• Incandescent (tungsten filament) lamps	300W
• 240V Halogen / Dichroic Lamps	300W
• Low voltage downlights using electronic transformers	300W
• Low voltage downlights using iron-core transformers*	200W.
- ** Requires 31CAP Load Correction Device to be fitted.*
- Preset minimum brightness.
- Wall or architrave mounting options.
- Wide range of plate styles and colour variants available.
- Suitable for One-Way or Two-Way operation.
- Suitable for new installations or retro-fit applications.
- Inbuilt Over-Current and Over-Temperature protection.
- Full short circuit protection (!).
- Immune to high frequency (ripple) signal injection on mains supply.
- Fitted with suppressors to minimise radio frequency interference.
- Complies with Australian and International EMC Standards.

Please note that the 8000 Series Series Dimmer is immune to the effects of high frequency (ripple) signal injection on the mains voltage supply. These signals are commonly injected onto the mains by the supply authority for such applications as off-peak hot water switching and remote meter monitoring.

This Patented Australian design innovation ensures true flicker-free dimming operation.

4.0 Load Compatibility

LOAD SYMBOL	COMPATIBLE LOADS	80E2CFLDM
		COMPACT FLUORESCENT DIMMER
		300W
	Dimmable Compact Fluorescent Lamps - Self-Ballasted CFL Lamps - Separately Ballasted PL Lamps	✓
	Dimmable LED Lighting	✓
	Incandescent Lighting Halogen / Dichroic 240V Lamps	✓
	Low Voltage Halogen / Dichroic Lighting with Electronic Transformers	✓
	Low Voltage Halogen / Dichroic Lighting with Iron-Core Transformers (Maximum Load 200W, Requires 31CAP Load Correction Device to be fitted).	✓

IMPORTANT NOTES:

- Use only “dimmable” CFL/PL/LED Lamp types, compatible with phase control dimmers.
- Dimming performance may vary between lamp manufacturers.
- Some lamps may exhibit unexpected performance characteristics when cold. Dimming performance should improve once the lamp warms up.
- The maximum load rating is specified at 240V~, 25°C. Operation from elevated voltages or temperatures may cause the thermal protection circuitry to operate. Reduce the size of the connected load or use a different brand of lamp to prevent reoccurrence.
- In the case of significant overload, the thermal fuse may be blown, rendering the dimmer inoperable. This may occur if abnormal operating conditions are detected by the dimmer, even in the case where the lamp wattage does not exceed the dimmer rating. Reduce the size of the load or use a different brand lamp to prevent reoccurrence.
- Any number of Low Voltage Lighting Transformers can be used providing the total lamp wattage does not exceed the maximum load rating of the dimmer.
- Use only iron-core transformers compatible with electronic switches / phase controlled dimmers as recommended by the manufacturer.
- Mixed load types are permitted, though not recommended. Test thoroughly to ensure normal operation throughout the dimming range. Use at own risk.
- It is recommended that when using electronic transformers, each be loaded to at least 75% of its maximum rated load. This reduces the possibility of lamp flicker when dimming. Refer to the manufacturer's specifications for the transformer being used.

5.0 Incompatible Loads

This dimmer is not compatible for use non-dimmable linear or compact fluorescent lamps. Exercise care when using dimmable CFL/PL/LED load types. Use only lamps / ballasts that are compatible with phase angle control. Refer to the manufacturer's specifications for recommendations. Dimmer warranty is void when controlling incompatible load types as determined by Schneider Electric (Australia) Pty Ltd.

6.0 Installation Instructions

6.1 Wiring Details

1. Disconnect power to the relevant circuit at the main switchboard.
2. Remove existing switch from wall.
3. Connect the dimmer in accordance with the wiring diagrams shown on page 6.
4. Refit switch plate to wall.
5. Reconnect power.
6. Turn switch on and check satisfactory dimmer operation by turning control knob through full range.

6.2 Kick-Start Feature

The CFL Dimmer unit incorporates a "kick-start" feature to ensure that the CFL lamp ignites correctly. When necessary, the unit will kick-start to approximately 70% of maximum output brightness at turn on, before smoothly ramping to the set brightness level.

Note:

That when the dimmer is connected to other load types, the user may notice a brief "flash" at start-up. This will occur only when the set brightness is low at the time of turn on, and is a normal characteristic of the dimmer.

6.3 Minimum Brightness Settings

The minimum brightness level has been factory preset to suit most applications.

6.4 Multi-Gang Derating

For applications, where 8000 Series Dimmers are multi-ganged, derate the maximum load rating of the unit according to the derating table shown at right.

Number of Dimmers	Maximum Load per Dimmer
1	300W
2	200W
3	150W

6.5 Thermal Overload Protection Circuitry

The 8000 Series Dimmers incorporate two levels of thermal overload protection:

Thermal Overload Compensation

Automatically reduces lamp brightness should the dimmer be inadvertently overloaded. Primary defence against overload or short circuit. Resets automatically once overload conditions are corrected.

Thermal Cut-Out

The unit contains a non-resettable thermal fuse device, designed to blow in case of catastrophic circuit failure. This is a secondary protection measure, intended to operate as a backup in case of persistent or prolonged overload conditions. If the thermal cut-out fuse blows, then the dimmer will be rendered permanently inoperable and must be replaced.

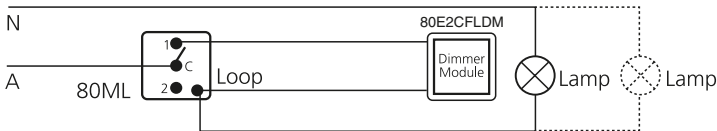
Any significant overload should be avoided in order to prevent damage to the load, fixed wiring of the installation or other hardware connected to the affected circuit.

6.6 Short Circuit Protection

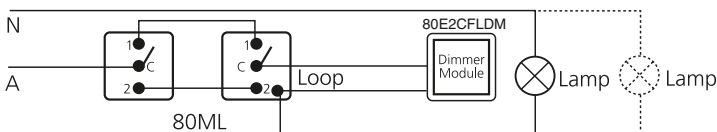
The 8000 Series Dimmers feature short circuit protection, designed to protect the dimmer under most abnormal operating conditions, and ensure the dimmer can survive in case of wiring fault, or catastrophic failure of the load.

7.0 Wiring Diagrams

7.1 One-Way Operation



7.2 Two-Way Operation










NOTE:

- If the unit is wired for Two-Way operation it can be switched ON or OFF from either location but the lamp brightness can only be adjusted from one location.
- Two or more dimmers **cannot** be connected in parallel or series to control the same load from two different locations.
- Dimmer mechanism wiring is NOT polarity sensitive.

It is illegal for persons other than an appropriately licensed electrical contractor or other persons authorised by legislation to work on the fixed wiring of any electrical installation. Penalties for conviction are severe!

8.0 Electrical Specifications

Parameter	Value	
Nominal Operating Voltage	220 - 240V a.c.	
Nominal Operating Frequency	50 Hz	
Maximum Load	300W Derate for multi-gang applications	
Minimum Load	5W	
Dimming Technique	Trailing Edge Phase Angle Control	
Compatible Loads		Dimmable Compact Fluorescent Lamps
		Dimmable LED Lighting
		Incandescent Lighting Halogen 240V Lamps
		Low Voltage Lighting with Electronic Transformers
		Low Voltage Lighting with Iron-Core Transformers (Maximum Load 200W, Requires 31CAP Load Correction Device to be fitted).
Incompatible Loads		Non-Dimmable Fluorescent / Compact Fluorescent Lighting
		Small Motor Loads
Operating Temperature Range	0 to 45°C	
Operating Humidity Range	10 to 90% R.H.	
Mounting Centres	84mm Australian Pattern Plate	
Shipping Weight	25g Dimmer Mechanism Only	
EMC Emission Compliance	AS/NZS CISPR15:2002	
Specifications Typical @ 240V a.c. 25°C		
No User Serviceable Parts Inside		

WARNING:

Operation at elevated temperatures or voltages may cause the thermal protection circuitry to operate. Decrease the size of the connected load to prevent re-occurrence.

9.0 Warranty Statement

1. The benefits conferred herein are in addition to, and in no way shall be deemed to derogate; either expressly or by implication, any or all other rights and remedies in respect to the Clipsal product, which the consumer has under the Commonwealth Competition and Consumer Act or any other similar State or Territory Laws.
2. The warrantor is Schneider Electric (Australia) Pty Ltd of 33-37 Port Wakefield Road, Gepps Cross, South Australia 5094. With registered offices in all Australian states.
3. This Clipsal product is guaranteed against faulty workmanship and materials for a period of two (2) years from the date of installation.
4. Schneider Electric (Australia) Pty Ltd reserves the right, at its discretion, to either repair free of parts and labour charges, replace or offer refund in respect to any article found to be faulty due to materials, parts or workmanship.
5. This warranty is expressly subject to the Clipsal product being installed, wired, tested, operated and used in accordance with the manufacturer's instructions.
6. All costs of a claim shall be met by Schneider Electric (Australia) Pty Ltd, however should the product that is the subject of the claim be found to be in good working order all such costs shall be met by the claimant.
7. When making a claim the consumer shall forward the Clipsal product to the nearest Clipsal by Schneider Electric office with adequate particulars of the defect within 28 days of the fault occurring. The product should be returned securely packed, complete with details of the date and place of purchase, description of load, and circumstances of malfunction.

Schneider Electric (Australia) Pty Ltd

Contact us: clipsal.com/feedback

clipsal.com

National Customer Care Enquiries:

Tel 1300 2025 25

Fax 1300 2025 56

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