

LSS



PowerDim

The LSS PowerDim is a mobile, decentralized dimmer with up to six Dim/NonDim and six NonDim circuits with an electrical power spectrum of 3 kVA or 5 kVA and an optional power switch. The dimmer can optionally be controlled with Ethernet or DMX and support fully RDM. The LSS PowerDim has a switchable base load, adjustable fade-in / fade-out times and dimming values, 8Bit/16Bit control, 16 internal dimmer curves and an electric bypass circuit for the dimmer circuits at full load. Each phase is monitored for current and can be automatically switched off if there is an overload. The LSS PowerDim is installed in an anodised aluminium extrusion profile, whose unique thermal conductivity allows for fan less convection cooling. The dimmer can be equipped with all standard plug connectors.

Performance specifications:

- Up to 6 Dim/NonDim circuits
- Up to 6 NonDim circuits
- 3 kVA / 5 kVA electric power per circuit
- Power conversion 3 kVA / 5 kVA via DMX-address, under full load and without removing connector
- Bypass circuit for reducing the power dissipation of the dimmer circuits at maximum load
- 8Bit/16Bit control
- Internal switchable base load
- 16 internal dimmer curves
- Adjustable fade-in / fade-out times
- Internal current measurement (single phase / sum) incl. voltage & frequency monitoring, automatic switch-off adjustable
- Control via Ethernet or DMX
- Control unit includes Ethernet / DMX node, remote configurable
- Useable as RDM proxy
- Housed in anodized aluminum extrusion profile
- Fanless cooling via housing

Technical Specifications:

PowerDim Processor

Generals

Display	Text display with 20x4 characters and white background lighting
Indication	3 LEDs: 1x Power Supply, 1x Error, 1x Network
Diagnosis Indication	Rotary display of various device parameters during operation
Monitoring display	Various displays of events, settings and data traffic and merging
Controlling	8Bit/16Bit, manually adjustable
Circuit monitoring	Overload protection with single phase monitoring, manual adjustment of the max. Load per phase and max. Total load
Behaviour at over temperature	- Warning and shutdown - Thresholds manually adjustable
Operation	Local: Menu control with encoder and menu display Remote: Configuration via ConfigCore

Interfaces

DMX	DMX-Out: 2x 5pin XLR DMX-In: 1x 5pin XLR, HTP DMX-THRU: 1x 5pin XLR (ISOLATED according to ANSI E1.11 A1)
Ethernet	1x RJ45 10/100 Mbit/s, Range and duplex mode manually adjustable
Supported network protocols	sACN ANSI E1.31 R2018, sACN-DD, RDM-Net ANSI E1.33 (2019), Art-Net 4, AVAB-IPX, AVAB-UDP, ShowNet

Dimmer

Operating modes	- Phase fired dimmer for all light bulbs, halogen lamps and conventional transformers - Switchover for electronic ballasts with manually adjustable switching points - "Always-On" at direct rated power
Dimmer curves	- Setting individually or „one for all“ - switchable base load - 8Bit/16Bit control - 16 dimmer curves - Adjustable fade-in/fade-out times - Adjustable min. and max. dim values - Off, Hold and adjustable backup-level for lost data receiving

PowerDim

Relays

Switching Voltage	max. 440 V AC	
Switching Current	AC3-Operation ($\cos\varphi=0,45$)	
	According to DIN EN 60 947-4-1	16 A/230 V AC
	AC1-Operation ($\cos\varphi=0,8$)	
Switching Capacity	According to DIN EN 60947-4-1	16/20 A/230 V AC
	Fluorescent lamp load	
	According to DIN EN 60669-1	16/20 A/250 V AC (220 μ F)
Lifetime	Minimum switching capacity	100 mA/12 V AC 100 mA/24 V AC 7 mA/24 V AC
	Maximum switching capacity	13 kVA
Lifetime	Mechanical:	$>10^6$
	Electrical (DIN IEC 60947-4-1):	
	AC1 (240 V/ $\cos\varphi=0,8$):	$>10^5$
	AC3 (240 V/ $\cos\varphi=0,45$):	$> 3 \times 10^4$

Connectors electrical supply

Depending on the performance data, the feed is via Harting connectors 400 V/35 A or 400 V/63 A.

Connectors Load

- Connector 3-pin + Ground (230 – 400 V/10 A) for heat resistors in fluorescent lamps
- Connector 4-pin + Ground (230 – 400 V/10 A) for heat resistors in fluorescent lamps
- MultiCore Connector 6-pin + Ground (400 – 690 V/35 A) for 3x5 kVA
- MultiCore Connector 16-pin +Ground (250 V/16 A) for 3x3 kVA
- CEE 7/x (230 V/16 A) 2-pin + Ground (253 V/16 A) for 3 kVA
- ILuCon DBS 2-pin + Ground (230 V/16 A) for 3 kVA
- ILuCon DBS 2-pin + Ground (230 V/26 A) for 5 kVA

The type, size and number of connections for the supply of headlamps can be adapted to specific projects. However, they are subject to the legal requirements and the physical conditions.

Device current protection

All load connections are fused with MCB or RCBO.

Electrical characteristics

Loss of the dimmable circuits at 100% output and rated load	5 kVA:	<65 W
	2,5 kVA	<35 W
Rise-time	180 μ s	
Minimum load	Not necessary	

General

EMV-Standards	EN 55022, class B, FCC part 15, level B
Electrical supply	400 V/50 Hz
Current consumption	Max. 50 A per phase
Operation temperature	0 °C - 60 °C
RoHS	Conform
Material	Aluminum
Design	Duct
Installation position	Horizontal or vertical
Color	Black anodized
Dimensions (L x H x D in mm)	1604 x 210 x 250 single device The PowerDim is adjustable to longer lengths.
Weight	Depending on size and assembly, single device 47 kg

Order numbers

Number	Description
L02011-11	6x 3 kVA Dim/NonDim on CEE7/x, Supply 400 V/32 A
L02011-12	6x 3 kVA Dim/NonDim on CEE7/x and parallel MultiCore, power supply 400 V/32 A
L02011-13	6x 3 kVA Dim/NonDim on MultiCore, power supply 400 V/32 A
L02011-14	6x 3 kVA Dim/NonDim & 6x 3 kVA NonDim on CEE7/x, power supply 400 V/32 A
L02011-15	6x 3 kVA Dim/NonDim & 6x 3 kVA NonDim on CEE7/x and MultiCore, power supply 400 V/32 A
L02011-16	6x 3 kVA Dim/NonDim & 6x 3 kVA NonDim on MultiCore, power supply 400 V/32 A
L02011-17	6x 3 kVA Dim/NonDim & 6x 3 kVA NonDim on Terminal bus, power supply 400 V/32 A
L02011-18	6x 3 kVA Dim/NonDim & 6x 3 kVA NonDim auf on CEE7/x and heat resitors in fluorescent lamps, power supply 400 V/32 A
L02011-31	6x 5 kVA Dim/NonDim on DBS, power supply 400 V/63 A
L02011-32	6x 5 kVA Dim/NonDim on DBS and parallel MuliCore, power supply 400 V/63 A
L02011-51	6x 3 kVA / 5 kVA Dim/NonDim & 6x 3 kVA NonDim on DBS/CEE7/x, switchable, power supply 400 V/63 A
L02011-52	6x 3 kVA / 5 kVA Dim/NonDim & 6x 3 kVA NonDim on DBS/CEE7/x and parallel MultiCore, switchable, power supply 400 V/63 A