

OPTOTRONIC Intelligent – DALI NFC (SELV)

Linear constant current LED driver – Dimmable



Areas of application

- Linear lighting for office, education, industry, storage areas and retail
- Installation in emergency lighting systems according to IEC 61347-2-13, appendix J
- Suitable for luminaires of protection class I

Product family benefits

- Fully programmable via software (DALI Interface, NFC)
- Advanced luminaire/driver data (power, energy, operating hours...) for analytics
- DALI-2 certified incl. Parts 251, 252, 253
- Lifetime: up to 100,000 h (temperature at $T_C = 65\text{ °C}$, max. 10 % failure rate)
- High-quality dimming of 1...100 % by amplitude dimming
- Higher quality of light thanks to < 3% output ripple current
- Very high efficiency
- Very low standby power consumption: < 0.15 W *
- Fulfill safety requirement due to overload, overtemperature, Hot Plug protection

Product family datasheet

Product family features

- Line frequency: 0 Hz | 50 Hz | 60 Hz
- Versatile DALI window driver up to 50 W due to flexible output characteristic
- Supply voltage: 220...240 V
- Available with output current range: up to 1,400 mA
- Constant Lumen Output (CLO)
- Integrated customizable thermal management (Driver Guard)

Product family datasheet

Technical data

Electrical data

Product description	Nominal input voltage	Mains frequency	Input voltage AC	Input voltage DC	Current set
OTi DALI 25/220...240/700 NFC L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	DALI / NFC / Programmable
OTi DALI 35/220...240/1A0 NFC L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	DALI / NFC / Programmable
OTi DALI 50/220...240/1A4 NFC L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	DALI / NFC / Programmable
OTi DALI 80/220...240/2A1 NFC L	220...240 V	0/50/60 Hz	198...264 V	176...276 V	DALI / NFC / Programmable

Product description	Total harmonic distortion	Power factor λ	Efficiency in full-load	Device power loss	Inrush current
OTi DALI 25/220...240/700 NFC L	$\leq 10 \%$	042C...097	89 % ¹⁾	2.0 W	≤ 20 A
OTi DALI 35/220...240/1A0 NFC L	$\leq 10 \%$	061C...098	89 % ¹⁾	3.0 W	≤ 20 A
OTi DALI 50/220...240/1A4 NFC L	$\leq 10 \%$	072C...098	89 % ¹⁾	5.0 W	≤ 20 A
OTi DALI 80/220...240/2A1 NFC L	$\leq 10 \%$	0.83C...0.99	91 % ¹⁾	8.0 W	≤ 30 A

Product description	Max. ECG no. on circuit breaker 10 A (C)	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (B)	Max. ECG no. on circuit breaker 16 A (C)	Max. ECG no. on circuit breaker 25 A (B)
OTi DALI 25/220...240/700 NFC L	-	14	24	-	-
OTi DALI 35/220...240/1A0 NFC L	-	14	24	-	-
OTi DALI 50/220...240/1A4 NFC L	-	12	20	-	-
OTi DALI 80/220...240/2A1 NFC L	-	8	13	-	-

Product description	Surge capability (L/N-Ground)	Surge capability (L-N)	Nominal output voltage	U-OUT (working voltage)	Nominal output current
OTi DALI 25/220...240/700 NFC L	2 kV	1 kV	15...54 V	< 60 V	100...700 mA
OTi DALI 35/220...240/1A0 NFC L	2 kV	1 kV	15...54 V	< 60 V	200...1050 mA
OTi DALI 50/220...240/1A4 NFC L	2 kV	1 kV	15...54 V	< 60 V	400...1400 mA
OTi DALI 80/220...240/2A1 NFC L	2 kV	1 kV	20...54 V	< 60 V	600...2100 mA

Product description	Default output current	Output current tolerance	Output ripple current (100 Hz)
OTi DALI 25/220...240/700 NFC L	180 mA	$\pm 3 \%$	$\leq 3 \%$
OTi DALI 35/220...240/1A0 NFC L	350 mA	$\pm 3 \%$	$\leq 3 \%$
OTi DALI 50/220...240/1A4 NFC L	600 mA	$\pm 3 \%$	$\leq 3 \%$
OTi DALI 80/220...240/2A1 NFC L	600 mA	$\pm 3 \%$	$\leq 3 \%$

Product family datasheet

Product description	Output PSTLM	Output SVM	Nominal output power	Maximum output power
OTi DALI 25/220...240/700 NFC L	≤1	≤0.4	2...28 W	28 W
OTi DALI 35/220...240/1A0 NFC L	≤1	≤0.4	4...37 W	37 W
OTi DALI 50/220...240/1A4 NFC L	≤1	≤0.4	12...54 W	54 W
OTi DALI 80/220...240/2A1 NFC L	≤1	≤0.4	32...80 W	80 W

Product description	Galvanic isolation	Power loss in stand-by mode	Networked standby power
OTi DALI 25/220...240/700 NFC L	SELV	≤0.15 W	
OTi DALI 35/220...240/1A0 NFC L	SELV	≤0.15 W	
OTi DALI 50/220...240/1A4 NFC L	SELV	≤0.15 W	
OTi DALI 80/220...240/2A1 NFC L	SELV	≤0.15 W	≤0.19 W ¹⁾

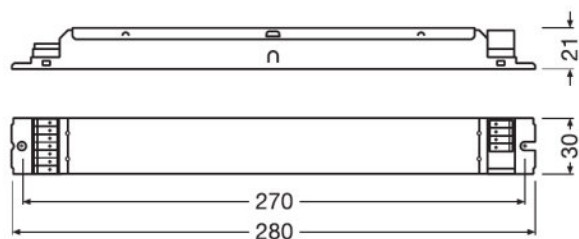
¹⁾ at 230 V, 50 Hz

Dimensions & weight

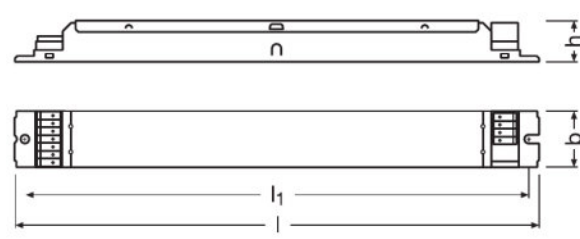
Product description	Mounting hole spacing, length	Product weight	Cable cross-section, input side	Cable cross-section, output side	Wire preparation length, input side
OTi DALI 25/220...240/700 NFC L	270.0 mm	20900 g	0.5...1.5 mm ²	0.5...1.5 mm ²	8.0...9.0 mm
OTi DALI 35/220...240/1A0 NFC L	270.0 mm	20900 g	0.5...1.5 mm ²	0.5...1.5 mm ²	8.0...9.0 mm
OTi DALI 50/220...240/1A4 NFC L	270.0 mm	20900 g	0.5...1.5 mm ²	0.5...1.5 mm ²	8.0...9.0 mm
OTi DALI 80/220...240/2A1 NFC L	350.0 mm	270.00 g	0.5...1.5 mm ²	0.5...1.5 mm ²	8.0...9.0 mm

Product description	Wire preparation length, output side	Width	Height	Length
OTi DALI 25/220...240/700 NFC L	8.0...9.0 mm	300 mm	210 mm	2800 mm
OTi DALI 35/220...240/1A0 NFC L	8.0...9.0 mm	300 mm	210 mm	2800 mm
OTi DALI 50/220...240/1A4 NFC L	8.0...9.0 mm	300 mm	210 mm	2800 mm
OTi DALI 80/220...240/2A1 NFC L	8.0...9.0 mm	30.0 mm	21.0 mm	360.0 mm

Product line drawing



OTi DALI 25/220...240/700 NFC L, OTi DALI 35/220...240/1A0 NFC L, OTi DALI 50/220...240/1A4 NFC L



OTi DALI 80/220...240/2A1 NFC L

Colors & materials

Product description	Casing material
OTi DALI 25/220...240/700 NFC L	Metal
OTi DALI 35/220...240/1A0 NFC L	Metal
OTi DALI 50/220...240/1A4 NFC L	Metal
OTi DALI 80/220...240/2A1 NFC L	Metal

Temperatures & operating conditions

Product description	Ambient temperature range	Maximum temperature at tc test point	Max.housing temperature in case of fault	Temperature range at storage
OTi DALI 25/220...240/700 NFC L	-25...+60 °C	75 °C	110 °C	-40...+85 °C
OTi DALI 35/220...240/1A0 NFC L	-25...+60 °C	75 °C	110 °C	-40...+85 °C
OTi DALI 50/220...240/1A4 NFC L	-25...+50 °C	75 °C	110 °C	-40...+85 °C
OTi DALI 80/220...240/2A1 NFC L	-25...+50 °C	75 °C	110 °C	-40...+85 °C

Product description	Permitted rel. humidity during operation
OTi DALI 25/220...240/700 NFC L	5...85 % ¹⁾
OTi DALI 35/220...240/1A0 NFC L	5...85 % ¹⁾

Product family datasheet

Product description	Permitted rel. humidity during operation
OTi DALI 50/220...240/1A4 NFC L	5...85 % ¹⁾
OTi DALI 80/220...240/2A1 NFC L	5...85 % ¹⁾

¹⁾ Maximum 56 days/year at 85 %

Lifespan

Product description	ECG lifetime
OTi DALI 25/220...240/700 NFC L	100000 / 50000 h
OTi DALI 35/220...240/1A0 NFC L	100000 / 50000 h
OTi DALI 50/220...240/1A4 NFC L	100000 / 50000 h
OTi DALI 80/220...240/2A1 NFC L	100000 / 50000 h

Additional product data

Product description	Encapsulated
OTi DALI 25/220...240/700 NFC L	No
OTi DALI 35/220...240/1A0 NFC L	No
OTi DALI 50/220...240/1A4 NFC L	No
OTi DALI 80/220...240/2A1 NFC L	No

Capabilities

Product description	Programming interface	Dimmable	Dimming interface	Dimming range
OTi DALI 25/220...240/700 NFC L	DALI, NFC	Yes	DALI-2 / Touch DIM / Touch DIM Sensor	1...100 %
OTi DALI 35/220...240/1A0 NFC L	DALI, NFC	Yes	DALI-2 / Touch DIM / Touch DIM Sensor	1...100 %
OTi DALI 50/220...240/1A4 NFC L	DALI, NFC	Yes	DALI-2 / Touch DIM / Touch DIM Sensor	1...100 %
OTi DALI 80/220...240/2A1 NFC L	DALI, NFC	Yes	DALI-2 / Touch DIM / Touch DIM Sensor	1...100 %

Product description	Dimming method	Overheating protection	Overload protection
OTi DALI 25/220...240/700 NFC L	Full analogue dimming	Automatic reversible	Automatic reversible
OTi DALI 35/220...240/1A0 NFC L	Full analogue dimming	Automatic reversible	Automatic reversible
OTi DALI 50/220...240/1A4 NFC L	Full analogue dimming	Automatic reversible	Automatic reversible
OTi DALI 80/220...240/2A1 NFC L	Full analogue dimming	Automatic reversible	Automatic reversible

Product description	Short-circuit protection	No-load proof	Intended for no-load operation	Max. cable length to lamp/LED module
OTi DALI 25/220...240/700 NFC L	Automatic reversible	Yes	No	2.0 m ¹⁾
OTi DALI 35/220...240/1A0 NFC L	Automatic reversible	Yes	No	2.0 m ¹⁾
OTi DALI 50/220...240/1A4 NFC L	Automatic reversible	Yes	No	2.0 m ¹⁾
OTi DALI 80/220...240/2A1 NFC L	Automatic reversible	Yes	No	2.0 m ¹⁾

Product family datasheet

Product description	Suitable for fixtures with prot. class	Suitable for emergency lighting	Type of connection, input side	Type of connection, output side
OTi DALI 25/220...240/700 NFC L	I	Yes	Push terminal	Push terminal
OTi DALI 35/220...240/1A0 NFC L	I	Yes	Push terminal	Push terminal
OTi DALI 50/220...240/1A4 NFC L	I	Yes	Push terminal	Push terminal
OTi DALI 80/220...240/2A1 NFC L	I	Yes	Push terminal	Push terminal

Product description	Constant lumen function	DALI-2 Energy Data	DALI-2 Diagnostic Data
OTi DALI 25/220...240/700 NFC L	Programmable	Yes	Yes
OTi DALI 35/220...240/1A0 NFC L	Programmable	Yes	Yes
OTi DALI 50/220...240/1A4 NFC L	Programmable	Yes	Yes
OTi DALI 80/220...240/2A1 NFC L		Yes	Yes

Product description	Number of channels
OTi DALI 25/220...240/700 NFC L	1
OTi DALI 35/220...240/1A0 NFC L	1
OTi DALI 50/220...240/1A4 NFC L	1
OTi DALI 80/220...240/2A1 NFC L	1

¹⁾ Output wires must be routed as close as possible to each other

Programming

Product description	Programming device	Box programming
OTi DALI 25/220...240/700 NFC L	DALI magic / NFC Scanner	Yes
OTi DALI 35/220...240/1A0 NFC L	DALI magic / NFC Scanner	Yes
OTi DALI 50/220...240/1A4 NFC L	DALI magic / NFC Scanner	Yes
OTi DALI 80/220...240/2A1 NFC L	DALI magic / NFC Scanner	

Programmable features

Product description	DALI-2 Luminaire Data	TouchDIM + Sensor
OTi DALI 25/220...240/700 NFC L	Yes	Yes
OTi DALI 35/220...240/1A0 NFC L	Yes	Yes
OTi DALI 50/220...240/1A4 NFC L	Yes	Yes
OTi DALI 80/220...240/2A1 NFC L	Yes	

Certificates & standards

Product description	Approval marks – approval	Standards	Type of protection
OTi DALI 25/220...240/700 NFC L	CE / EL / VDE-ENEC / EAC / CCC / BIS / RCM	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 62386/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61347	IP20
OTi DALI 35/220...240/1A0 NFC L	CE / EL / VDE-ENEC / EAC / CCC / BIS / RCM	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 62386/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61347	IP20
OTi DALI 50/220...240/1A4 NFC L	CE / EL / VDE-ENEC / EAC / CCC / BIS / RCM	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 62386/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61347	IP20
OTi DALI 80/220...240/2A1 NFC L	CE / EL / VDE-ENEC / EAC / CCC / BIS / RCM	Acc. to IEC 61347-1/Acc. to IEC 61347-2-13/Acc. to IEC 62384/Acc. to IEC 62386/Acc. to IEC 61000-3-2/Acc. to IEC 61000-3-3/Acc. to IEC 61347	IP20

Logistical data

Product description	Commodity code
OTi DALI 25/220...240/700 NFC L	85044083900
OTi DALI 35/220...240/1A0 NFC L	85044083900
OTi DALI 50/220...240/1A4 NFC L	85044083900
OTi DALI 80/220...240/2A1 NFC L	85044083900

Environmental information

Information according Art. 33 of EU Regulation (EC) 1907/2006 (REACH)

Product description	Date of Declaration	Primary Article Identifier	Candidate List Substance 1
OTi DALI 25/220...240/700 NFC L	21-04-2023	4062172074940	Lead
OTi DALI 35/220...240/1A0 NFC L	21-04-2023	4062172074964	Lead
OTi DALI 50/220...240/1A4 NFC L	21-04-2023	4062172074988	Lead
OTi DALI 80/220...240/2A1 NFC L	21-04-2023	4062172238656	Lead

Product family datasheet

Product description	CAS No. of substance 1	Safe Use Instruction	Declaration No. in SCIP database
OTi DALI 25/220...240/700 NFC L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	e0e4bc0f-d1cf-4ca2-b0e2-658cdea5b58e
OTi DALI 35/220...240/1A0 NFC L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	b69841e5-6d04-44fe-9877-8bb334af0e7a
OTi DALI 50/220...240/1A4 NFC L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	589fea0d-2309-4100-8b21-274fe23c079d
OTi DALI 80/220...240/2A1 NFC L	7439-92-1	The identification of the Candidate List substance is sufficient to allow safe use of the article.	3097318f-8f14-4ecd-a064-9b2069aefa4c

Application advice

For more detailed application information and graphics please see product datasheet.

Sales and Technical Support

— Sales and Technical Support www.osram.com

Download Data

File	
	User instruction OPTOTRONIC LED Power Supply
	Certificates OTI DALI 25 NFC L EAT AM31196 191219
	Certificates OTI DALI 25 NFC L INO AM31196 191219
	Certificates OTI DALI NFC L CB DE1 63040 100220
	Certificates OT ENEC 40038447 260623
	Certificates OT EMC 40044675 031022
	Declarations of conformity OTI DALI NFC L CE 4159050 110522
	Declarations of conformity OTI DALI NFC L UK DoC 4281121 110522

Product family datasheet

	CAD data OTI DALI NFC L IGS 030220
	CAD data OTI DALI NFC L STEP 030220
	CAD Data 2-dim OTI DALI NFC L CAD2PDF 030220
	CAD data 3-dim OTI DALI NFC L CAD3PDF 030220
	Certificates OTI DALI 35 NFC L EAT AM31194 191219
	Certificates OTI DALI 35 NFC L INO AM31194 191219
	Certificates OTI DALI 50 NFC L EAT AM31195 191219.
	Certificates OTI DALI 50 NFC L INO AM31195 191219
	User instruction OPTOTRONIC LED Power Supply
	Certificates OT ENEC 40038085 010322
	CAD data OTI DALI 80 NFC L IGS 271021
	CAD data OTI DALI 80 NFC L STEP 271021
	CAD Data 2-dim OTI DALI 80 NFC L CAD2PDF 271021
	CAD data 3-dim OTI DALI 80 NFC L CAD3PDF 271021

Ecodesign regulation information:

Intended for use with LED modules.

The forward voltage of the LED light source shall be within the defined operating window of the control gear in all operating conditions including dimming if applicable.

Separate control gear and light sources must be disposed of at certified disposal companies in accordance with Directive 2012/19/EU (WEEE) in the EU and with Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 in the UK. For this purpose, collection points for recycling centres and take-back systems (CRSO) are available from retailers or private disposal companies, which accept separate control gear and light sources free of charge. In this way, raw materials are conserved and materials are recycled.

Product family datasheet

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4062172074940	OTi DALI 25/220...240/700 NFC L	Shipping carton box 20	303 mm x 159 mm x 105 mm	5.06 dm ³	4307.00 g
4062172074964	OTi DALI 35/220...240/1A0 NFC L	Shipping carton box 20	303 mm x 159 mm x 105 mm	5.06 dm ³	4307.00 g
4062172074988	OTi DALI 50/220...240/1A4 NFC L	Shipping carton box 20	303 mm x 159 mm x 105 mm	5.06 dm ³	4307.00 g
4062172238656	OTi DALI 80/220...240/2A1 NFC L	Shipping carton box 20	385 mm x 160 mm x 100 mm	6.16 dm ³	5574.00 g

The mentioned product code describes the smallest quantity unit which can be ordered. One shipping unit can contain one or more single products. When placing an order, for the quantity please enter single or multiples of a shipping unit.

Disclaimer

Subject to change without notice. Errors and omission excepted. Always make sure to use the most recent release.