

CV Power supplies with DALI



Areas of application

- Cove lighting, wall washer, corridor, handrail
- Suitable for use in luminaires of protection class I and II

Product family benefits

- Intelligent power matching thanks to Smart power supply
- Slim form factor for mounting on the cove or in linear luminaires
- Minimized flicker thanks to high PWM frequency
- Suitable for installation in emergency lighting systems according to EN 60598-2-22
- Available as Tunable White version (DALI Device Type 8)
- DALI message detection "LED Module failure"
- IP rating: IP20

Product family features

- Dimmable via Touch DIM (if supported)
- LED driver whose output power can be shared arbitrarily among the 2 or 4 channels
- Dimming range: 0...100 %
- Line frequency: 0 Hz | 50 Hz | 60 Hz

Product family datasheet

Technical data

Electrical data

Product description	Nominal input voltage	Mains frequency	Input voltage AC	Total harmonic distortion	Power factor λ	ECG efficiency
OTi DALI 50/220...240/24 1...4 CH	220...240 V	50/60 Hz	198...264 V	< 5 %	> 0.95	92 %
OTi DALI 50/220...240/24 TW	220...240 V	50/60 Hz	198...264 V	< 5 %	0.98	92 %
OTi DALI 80/220...240/24 1...4 CH	220...240 V	50/60 Hz	198...264 V	< 5 %	> 0.95	93 %
OTi DALI 80/220...240/24 TW	220...240 V	50/60 Hz	198...264 V	< 5 %	0.98	93 %
OTi DALI 160/220...240/24 1-2 CH	220...240 V	50/60 Hz	198...264 V	< 5 %	0.99	93 %
OTi DALI 160/220...240/24 TW	220...240 V	50/60 Hz	198...264 V	< 5 %	0.99	93 %
OTi DALI 210/220-240/24 1-4 CH	230...240 V	50/60 Hz	198...264 V	< 5 %	> 0.95	93 %

Product description	Device power loss	Power loss in stand-by mode	Inrush current	Max. ECG no. on circuit breaker 10 A (B)	Max. ECG no. on circuit breaker 16 A (B)
OTi DALI 50/220...240/24 1...4 CH	5.0 W	0.3 W	43 A	9	15
OTi DALI 50/220...240/24 TW	4.4 W	0.36 W	43 A	9	15
OTi DALI 80/220...240/24 1...4 CH	6.2 W	0.3 W	48 A	6	10
OTi DALI 80/220...240/24 TW	6.0 W	0.36 W	48 A	6	10
OTi DALI 160/220...240/24 1-2 CH	11 W	0.36 W	69 A	5	8
OTi DALI 160/220...240/24 TW	11 W	0.36 W	69 A	5	8
OTi DALI 210/220-240/24 1-4 CH	18.4 W	<0.5 W	3.7 A	7	11

Product description	Max. ECG no. on circuit breaker 25 A (B)	Surge capability (L/N-Ground)	Surge capability (L-N)	Nominal output voltage
OTi DALI 50/220...240/24 1...4 CH	27	2 kV	1 kV	24 V ¹⁾
OTi DALI 50/220...240/24 TW	25		1 kV	24 V ¹⁾
OTi DALI 80/220...240/24 1...4 CH	18	2 kV	1 kV	24 V ¹⁾
OTi DALI 80/220...240/24 TW	16		1 kV	24 V ¹⁾
OTi DALI 160/220...240/24 1-2 CH	13		1 kV	24.2 V ¹⁾
OTi DALI 160/220...240/24 TW	13		1 kV	24 V ¹⁾
OTi DALI 210/220-240/24 1-4 CH	17	8 kV	6 kV	24.7 V ¹⁾

Product description	U-OUT (working voltage)	Nominal output power	Galvanic isolation	Galvanic isolation primary/secondary
OTi DALI 50/220...240/24 1...4 CH	24.2 V	50 W	SELV	3.75 kV
OTi DALI 50/220...240/24 TW	24.2 V	50 W	SELV	3.75 kV
OTi DALI 80/220...240/24 1...4 CH	24.2 V	80 W	SELV	3.75 kV
OTi DALI 80/220...240/24 TW	24.2 V	80 W	SELV	3.75 kV
OTi DALI 160/220...240/24 1-2 CH	24.2 V	160 W	SELV	3 kV
OTi DALI 160/220...240/24 TW	24.2 V	160 W	SELV	3 kV
OTi DALI 210/220-240/24 1-4 CH	24.7 V	210 W	SELV	3 kV

Product family datasheet

Product description	Input voltage DC	Max. ECG no. on circuit breaker 10 A (C)	Max. ECG no. on circuit breaker 16 A (C)	Output PWM frequency
OTi DALI 50/220...240/24 1...4 CH	176...276 V			
OTi DALI 50/220...240/24 TW	176...276 V			
OTi DALI 80/220...240/24 1...4 CH	176...276 V			
OTi DALI 80/220...240/24 TW	176...276 V			
OTi DALI 160/220...240/24 1-2 CH	176...276 V			
OTi DALI 160/220...240/24 TW	176...276 V			
OTi DALI 210/220-240/24 1-4 CH	176...276 V ²⁾	7	11	1k Hz

Product description	Output ripple Voltage (100 Hz)
OTi DALI 50/220...240/24 1...4 CH	
OTi DALI 50/220...240/24 TW	
OTi DALI 80/220...240/24 1...4 CH	
OTi DALI 80/220...240/24 TW	
OTi DALI 160/220...240/24 1-2 CH	
OTi DALI 160/220...240/24 TW	
OTi DALI 210/220-240/24 1-4 CH	< 5 %

¹⁾ DC voltage

²⁾ with external fuse

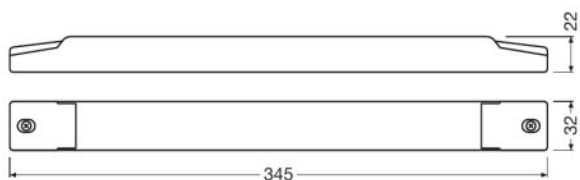
Dimensions & weight

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 50/220...240/24 1...4 CH	300.6 mm	191.00 g	0.5...2.5 mm ²	0.2...1.5 mm ²	6.0 mm
OTi DALI 50/220...240/24 TW	300.6 mm	191.00 g	0.75...2.5 mm ²	0.2...1.5 mm ²	5.0 mm
OTi DALI 80/220...240/24 1...4 CH	300.6 mm	191.00 g	0.5...2.5 mm ²	0.2...1.5 mm ²	6.0 mm
OTi DALI 80/220...240/24 TW	300.6 mm	191.00 g	0.75...2.5 mm ²	0.2...1.5 mm ²	5.0 mm
OTi DALI 160/220...240/24 1-2 CH	258.0 mm	380.00 g	0.5...2.5 mm ²	0.5...2.5 mm ²	6.0 mm
OTi DALI 160/220...240/24 TW	258.0 mm	380.00 g	0.5...2.5 mm ²	0.5...2.5 mm ²	6.0 mm
OTi DALI 210/220-240/24 1-4 CH	320.0 mm	1415.00 g	1.0 mm ²	1.5 mm ²	90 mm

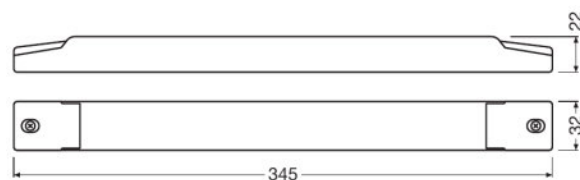
Product description	Wire preparation length, output side	Length	Width	Height	Mounting hole spacing, width
OTi DALI 50/220...240/24 1...4 CH	5.0 mm	346.0 mm	32.0 mm	22.0 mm	
OTi DALI 50/220...240/24 TW	5.0 mm	346.0 mm	32.0 mm	22.0 mm	
OTi DALI 80/220...240/24 1...4 CH	5.0 mm	346.0 mm	32.0 mm	22.0 mm	
OTi DALI 80/220...240/24 TW	5.0 mm	346.0 mm	32.0 mm	22.0 mm	
OTi DALI 160/220...240/24 1-2 CH	6.0 mm	300.0 mm	50.0 mm	35.0 mm	-
OTi DALI 160/220...240/24 TW	6.0 mm	300.0 mm	50.0 mm	35.0 mm	-
OTi DALI 210/220-240/24 1-4 CH	90 mm	330.0 mm	69.0 mm	37.0 mm	320.0 mm

Product family datasheet

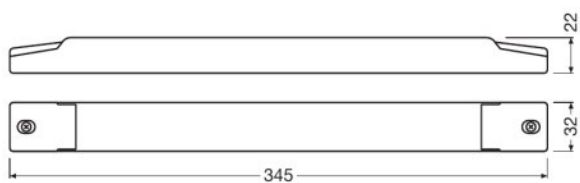
Product line drawing



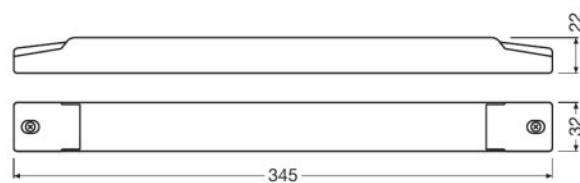
OTi DALI 50/220...240/24 1...4 CH



OTi DALI 50/220...240/24 TW

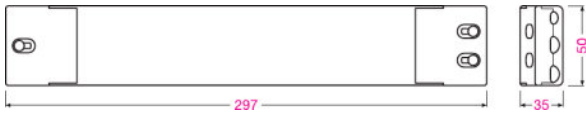


OTi DALI 80/220...240/24 1...4 CH

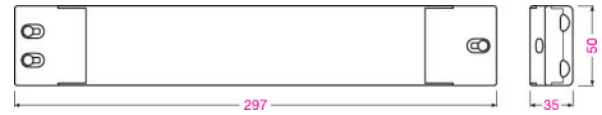


OTi DALI 80/220...240/24 TW

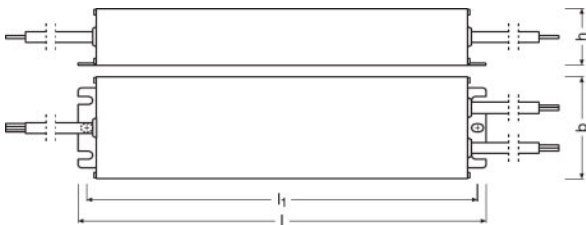
Product family datasheet



OTi DALI 160/220...240/24 1-2 CH



OTi DALI 160/220...240/24 TW



OTi DALI 210/220-240/24 1-4 CH

Product family datasheet

Colors & materials

Product description	Casing material
OTi DALI 50/220...240/24 1...4 CH	Plastic
OTi DALI 50/220...240/24 TW	Plastic
OTi DALI 80/220...240/24 1...4 CH	Plastic
OTi DALI 80/220...240/24 TW	Plastic
OTi DALI 160/220...240/24 1-2 CH	Plastic
OTi DALI 160/220...240/24 TW	Plastic
OTi DALI 210/220-240/24 1-4 CH	Aluminium

Temperatures & operating conditions

Product description	Ambient temperature range	Maximum temperature at tc test point	Max.housing temperature in case of fault	Permitted rel. humidity during operation
OTi DALI 50/220...240/24 1...4 CH	-20...+45 °C	70 °C	115 °C	5...85 % ¹⁾
OTi DALI 50/220...240/24 TW	-20...+45 °C	75 °C	115 °C	5...85 % ¹⁾
OTi DALI 80/220...240/24 1...4 CH	-20...+45 °C	85 °C	115 °C	5...85 % ¹⁾
OTi DALI 80/220...240/24 TW	-20...+45 °C	85 °C	115 °C	5...85 % ¹⁾
OTi DALI 160/220...240/24 1-2 CH	-20...+45 °C	90 °C	115 °C	5...85 % ¹⁾
OTi DALI 160/220...240/24 TW	-20...+45 °C	90 °C	120 °C	5...85 % ¹⁾
OTi DALI 210/220-240/24 1-4 CH	-20...+60 °C	85 °C	110 °C	5...85 % ¹⁾

¹⁾ Maximum 56 days/year at 85 %

Lifespan

Product description	ECG lifetime
OTi DALI 50/220...240/24 1...4 CH	50000 h ¹⁾
OTi DALI 50/220...240/24 TW	50000 h ²⁾
OTi DALI 80/220...240/24 1...4 CH	50000 h ³⁾
OTi DALI 80/220...240/24 TW	50000 h ⁴⁾
OTi DALI 160/220...240/24 1-2 CH	50000 h ⁵⁾
OTi DALI 160/220...240/24 TW	50000 h ⁵⁾
OTi DALI 210/220-240/24 1-4 CH	50000 h

¹⁾ At $T_{case} = 70^{\circ}C$ at T_c point / 10% failure rate

²⁾ $T_c = 70^{\circ}C$, 0.1% / 1,000 h failure rate

³⁾ At $T_{case} = 85^{\circ}C$ at T_c point / 10% failure rate

⁴⁾ $T_c = 85^{\circ}C$, 0.2% / 1,000 h failure rate

⁵⁾ $T_c = 90^{\circ}C$ - 0.2% / 1,000 h failure rate

Product family datasheet

Additional product data

Product description	Encapsulated
OTi DALI 50/220...240/24 1...4 CH	Yes
OTi DALI 50/220...240/24 TW	Yes
OTi DALI 80/220...240/24 1...4 CH	Yes
OTi DALI 80/220...240/24 TW	Yes
OTi DALI 160/220...240/24 1-2 CH	No
OTi DALI 160/220...240/24 TW	No
OTi DALI 210/220-240/24 1-4 CH	-

Capabilities

Product description	Dimmable	Dimming interface	Dimming range	Dimming method
OTi DALI 50/220...240/24 1...4 CH	Yes	DALI-2	0...100 %	Pulse Width Modulation
OTi DALI 50/220...240/24 TW	Yes	DALI	0...100 %	Pulse Width Modulation
OTi DALI 80/220...240/24 1...4 CH	Yes	DALI-2	0...100 %	Pulse Width Modulation
OTi DALI 80/220...240/24 TW	Yes	DALI	0...100 %	Pulse Width Modulation
OTi DALI 160/220...240/24 1-2 CH	Yes	DALI-2	0...100 %	Pulse Width Modulation
OTi DALI 160/220...240/24 TW	Yes	DALI	0...100 %	Pulse Width Modulation
OTi DALI 210/220-240/24 1-4 CH	Yes	DALI	0...100 %	Pulse Width Modulation

Product description	Overheating protection	Overload protection	Short-circuit protection	No-load proof
OTi DALI 50/220...240/24 1...4 CH	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTi DALI 50/220...240/24 TW	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTi DALI 80/220...240/24 1...4 CH	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTi DALI 80/220...240/24 TW	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTi DALI 160/220...240/24 1-2 CH	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTi DALI 160/220...240/24 TW	Automatic reversible	Automatic reversible	Automatic reversible	Yes
OTi DALI 210/220-240/24 1-4 CH	Automatic reversible	Automatic reversible	Automatic reversible	Yes

Product description	Suitable for fixtures with prot. class	Type of connection, output side	Number of channels
OTi DALI 50/220...240/24 1...4 CH	I / II	Screw terminal	4
OTi DALI 50/220...240/24 TW	I / II	Screw terminal	2
OTi DALI 80/220...240/24 1...4 CH	I / II	Screw terminal	4
OTi DALI 80/220...240/24 TW	I / II	Screw terminal	2
OTi DALI 160/220...240/24 1-2 CH	I / II	Screw terminal	2
OTi DALI 160/220...240/24 TW	I / II	Screw terminal	2
OTi DALI 210/220-240/24 1-4 CH	I	Wires	4

Product family datasheet

Certificates & standards

Product description	Approval marks – approval
OTi DALI 50/220...240/24 1...4 CH	CE / ENEC 10 / VDE / VDE-EMC / RCM / EAC / CCC / BIS
OTi DALI 50/220...240/24 TW	CE / ENEC 10 / VDE / VDE-EMC / RCM / EAC / CCC / BIS
OTi DALI 80/220...240/24 1...4 CH	CE / ENEC 10 / VDE / VDE-EMC / RCM / EAC / CCC / BIS
OTi DALI 80/220...240/24 TW	CE / ENEC 10 / VDE / VDE-EMC / RCM / EAC / CCC / BIS
OTi DALI 160/220...240/24 1-2 CH	EL / CCC / EAC / CE / ENEC 10 / VDE / EMC
OTi DALI 160/220...240/24 TW	EL / CCC / EAC / CE / ENEC 10 / VDE / EMC
OTi DALI 210/220-240/24 1-4 CH	BIS / CCC / CE / EAC / ENEC 10 / RCM / VDE / VDE-EMC

Product description	Standards	Protection class	Type of protection
OTi DALI 50/220...240/24 1...4 CH	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 62384/Acc. to EN 60598-2-22/Acc. to EN 62386/Acc. to EN 55015	II	IP20
OTi DALI 50/220...240/24 TW	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 62384/Acc. to EN 60598-2-22/Acc. to EN 62386	II	IP20
OTi DALI 80/220...240/24 1...4 CH	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 62384/Acc. to EN 60598-2-22/Acc. to EN 62386/Acc. to EN 55015	II	IP20
OTi DALI 80/220...240/24 TW	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 62384/Acc. to EN 60598-2-22/Acc. to EN 62386	II	IP20
OTi DALI 160/220...240/24 1-2 CH	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 62384/Acc. to EN 60598-2-22/Acc. to EN 62386	II	IP20
OTi DALI 160/220...240/24 TW	Acc. to EN 61347-1/Acc. to EN 61347-2-13/Acc. to EN 61547/Acc. to EN 61000-3-2/Acc. to EN 62384/Acc. to EN 60598-2-22/Acc. to EN 62386	II	IP20
OTi DALI 210/220-240/24 1-4 CH	Acc. to EN 61347-2-13/Acc. to EN 61547/Acc. to EN 55015/Acc. to EN 61000-3-2/Acc. to EN 61000-3-3/Acc. to EN 61347-1/Acc. to EN 62493	I	IP66/IP67

Product family datasheet

Logistical data

Product description	Temperature range at storage	Commodity code
OTi DALI 50/220...240/24 1...4 CH	-40...85 °C	850440829000
OTi DALI 50/220...240/24 TW	-40...85 °C	850440829000
OTi DALI 80/220...240/24 1...4 CH	-40...85 °C	850440829000
OTi DALI 80/220...240/24 TW	-40...85 °C	850440829000
OTi DALI 160/220...240/24 1-2 CH	-20...85 °C	850440829000
OTi DALI 160/220...240/24 TW	-25...85 °C	850440829000
OTi DALI 210/220-240/24 1-4 CH	-40...85 °C	850440829000

Equipment / Accessories

– Suitable for 24 V LED modules








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
 Product Datasheet OTi DALI 80220-24024 1-4 CH OTi DALI 50220-24024 1-4 CH (EN)
 Brochures 730792_Light is universal - Easy installation of efficient complete systems (DE)
 Brochures 730791_Light is universal - Easy installation of efficient complete systems (EN)
 Certificates 729875_OTi DALI 50220-24024 1-4 CH EATON Conformity
 Certificates 729877_OTi DALI 50220-24024 1-4 CH Inotec Conformity
 Certificates VDE ENEC Certificate 40043863

Product family datasheet

	Certificates VDE EMC Certificate 40038482
	Certificates CB Certificate
	Certificates CCC certificate 2017011002969504
	Certificates Certificate of Approval NSW27729
	Certificates VDE ENEC Certificate 40043863 appendix
	Declarations of conformity 729793_EC OTI DALI 50,8024
	CAD data 3-dim CAD data OTI DALI 5080
	User instruction OPTOTRONIC LED Power Supply
	Product Datasheet Datasheet OTI DALI 5080 24 TW
	Certificates 729876_OTi DALI 80220-24024 1-4 CH EATON Conformity
	Certificates 729878_OTi DALI 80220-24024 1-4 CH Conformity Inotec
	User instruction OPTOTRONIC LED Power Supply
	Product Datasheet OTI DALI 160220-24024 1-2 CH (EN)
	Certificates CB Test Certificate DE1-59703
	Certificates CEAG Certificate OTI DALI 1601-2 CH
	Certificates INOTEC Certificate OTI DALI 1601-2 CH
	Certificates Certificate NSW27729.1 OTI DALI 160_24
	Certificates CCC Certificate 2018171002002183
	Declarations of conformity 3584656 EU Declaration of Conformity (EN)
	CAD data 3-dim OTI DALI 160220-24024
	User instruction OPTOTRONIC LED Power Supply
	Product Datasheet Product Datasheet OTI DALI 160220-24024 TW
	User instruction OPTOTRONIC LED Power Supply

Product family datasheet



Declarations of conformity
EU Declaration of Conformity 2019 9C1 3772470 EN 00

Logistical Data

Product code	Product description	Packaging unit (Pieces/Unit)	Dimensions (length x width x height)	Volume	Gross weight
4052899452916	OTi DALI 50/220...240/24 1...4 CH	Shipping carton box 20	370 mm x 170 mm x 113 mm	7.11 dm ³	4034.00 g
4052899490772	OTi DALI 50/220...240/24 TW	Shipping carton box 20	370 mm x 170 mm x 116 mm	7.30 dm ³	4034.00 g
4052899452893	OTi DALI 80/220...240/24 1...4 CH	Shipping carton box 20	370 mm x 170 mm x 116 mm	7.30 dm ³	4034.00 g
4052899490758	OTi DALI 80/220...240/24 TW	Shipping carton box 20	370 mm x 170 mm x 113 mm	7.11 dm ³	3998.00 g
4052899986305	OTi DALI 160/220...240/24 1-2 CH	Shipping carton box 20	335 mm x 268 mm x 167 mm	14.99 dm ³	7918.00 g
4052899986312	OTi DALI 160/220...240/24 TW	Shipping carton box 20	335 mm x 268 mm x 167 mm	14.99 dm ³	7918.00 g
4062172032087	OTi DALI 210/220- 240/24 1-4 CH	Shipping carton box 6	380 mm x 262 mm x 201 mm	20.01 dm ³	9195.00 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.