

CERTIFICATE

Issued to:
Applicant:
TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

Licensee:
TCI Telecomunicazioni Italia Srl
Via Parma 14
21047 Saronno (VA), Italy

Product : Electronic controlgear for LED modules
Trade name(s) : TCI or TN101
Type(s)/model(s) : SIRIO (series), VST (series), ST2 (series)

The product and any acceptable variation thereto is specified in the Annex to this certificate and the documents therein referred to.

DEKRA hereby declares that the above-mentioned product has been certified on the basis of:

- a type test according to the standard EN 61347-2-13:2014, EN 61347-2-13:2014/A1:2017 and EN 61347-1:2015
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2033016

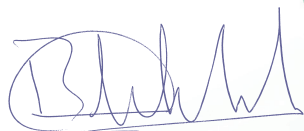
DEKRA hereby grants the right to use the KEMA-KEUR certification mark.

The KEMA-KEUR certification mark may be applied to the product as specified in this certificate for the duration of the KEMA-KEUR certification agreement and under the conditions of the KEMA-KEUR certification agreement.

This certificate is issued on 4 October 2019 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-110533

DEKRA Certification B.V.



B.T.M. Holtus
Managing Director



M. Triulzi
Certification Manager

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SPECIFICATION OF THE CERTIFIED PRODUCT**Product data**

Product	: Electronic controlgear for LED modules
Trade name(s)	: TCI or TN101
Type(s)/model(s)	: DARK 150W 24V, DC 130W 24V ST2, DC 130W 24V ST2 CLII, DC 130W 24V VST, DC 130W 24V VST BI, DC 130W 24V VST II, DC 130W 24V VST OF, DC 150W 24V ST2, DC 150W 24V ST2 CLII, DC 150W 24V VST, DC 150W 24V VST BI, DC 150W 24V VST II, DC 150W 24V VST OF, DC 50W 48V ST2, DC 50W 48V ST2 CLII, DC 50W 48V VST, DC 50W 48V VST BI, DC 50W 48V VST II, DC 50W 48V VST OF, DC 70W 12V ST2, DC 70W 12V ST2 CLII, DC 70W 12V VST, DC 70W 12V VST BI, DC 70W 12V VST II, DC 70W 12V VST OF, DC 70W 24V ST2, DC 70W 24V ST2 CLII, DC 70W 24V VST, DC 70W 24V VST BI, DC 70W 24V VST II, DC 70W 24V VST OF, DC 70W 48V ST2, DC 70W 48V ST2 CLII, DC 70W 48V VST, DC 70W 48V VST BI, DC 70W 48V VST II, DC 70W 48V VST OF, SIRIO 100, SIRIO 100/700 ST2, SIRIO 100 BI, SIRIO 100 OF, SIRIO 108/400 BILEVEL ST2, SIRIO 108/400 ST2, SIRIO 121/450 BILEVEL ST2, SIRIO 121/450 ST2, SIRIO 135/500 BILEVEL ST2, SIRIO 135/500 ST2, SIRIO 145/550 BILEVEL ST2, SIRIO 145/550 ST2, SIRIO 150/200-700, SIRIO 150/200-700 BI, SIRIO 150/200-700 BILEVEL, SIRIO 150/200-700 BILEVEL BI, SIRIO 150/200-700 BILEVEL OF, SIRIO 150/200-700 FP, SIRIO 150/200-700 FP BI, SIRIO 150/200-700 FP OF, SIRIO 150/200-700 OF, SIRIO 150/300-1050, SIRIO 150/300-1050 BILEVEL, SIRIO 150/300-1050 BILEVEL BI, SIRIO 150/300-1050 BILEVEL OF, SIRIO 150/300-1050 FP OF, SIRIO 150/300-1050 OF, SIRIO 150/600 BILEVEL ST2, SIRIO 150/600 ST2, SIRIO 150/650 BILEVEL ST2, SIRIO 150/650 ST2, SIRIO 150/700 BILEVEL ST2, SIRIO 150/700 ST2, SIRIO 27/250 ST2, SIRIO 35/250 ST2, SIRIO 41/350 ST2, SIRIO 46/400 ST2, SIRIO 50/350 ST2, SIRIO 51/450 ST2, SIRIO 54/200 BILEVEL ST2, SIRIO 54/200 ST2, SIRIO 56/400 ST2, SIRIO 59/500 ST2, SIRIO 62/450 ST2, SIRIO 65/550 ST2, SIRIO 67/250 BILEVEL ST2, SIRIO 67/250 ST2, SIRIO 70/500 ST2, SIRIO 70/600 ST2, SIRIO 77/550 ST2, SIRIO 80/300 BILEVEL ST2, SIRIO 80/300 ST2, SIRIO 82/700 ST2, SIRIO 84/600 ST2, SIRIO 94/350 BILEVEL ST2, SIRIO 94/350 ST2, SIRIO SIRIO 150/300-1050 BI, SIRIO SIRIO 150/300-1050 FP and SIRIO SIRIO 150/300-1050 FP BI
Primary voltage	: 220-240 V
Nature of supply	: alternate or direct current
Rated frequency	: 0/50-60 Hz
Power factor	: From 0,95 to 0,98
Working voltage U-OUT	: From 120 to 290 V for output constant current
Type of load	: LED modules, power LED
Type of thermal protection	: From 100 to 110
Classification	: Independent, Built-in or Integral

Product data – type DC 130W 24V ST2, DC 130W 24V ST2 CLII, DC 130W 24V VST, DC 130W 24V VST BI, DC 130W 24V VST II and DC 130W 24V VST OF

Primary current : 0,64 A
Rated maximum temperature (tc) : From 70 to 80 °C
Output constant voltage : 24 V

Product data – type DARK 150W 24V, DC 150W 24V ST2, DC 150W 24V ST2 CLII, DC 150W 24V VST, DC 150W 24V VST BI, DC 150W 24V VST II and DC 150W 24V VST OF

Primary current : 0,71 A
Rated maximum temperature (tc) : From 75 to 80 °C
Output constant voltage : 24 V

Product data – type DC 50W 48V ST2, DC 50W 48V ST2 CLII, DC 50W 48V VST, DC 50W 48V VST BI, DC 50W 48V VST II and DC 50W 48V VST OF

Primary current : 0,26 A
Rated maximum temperature (tc) : From 70 to 80 °C
Output constant voltage : 48 V

Product data – type DC 70W 12V ST2, DC 70W 12V ST2 CLII, DC 70W 12V VST, DC 70W 12V VST BI, DC 70W 12V VST II and DC 70W 12V VST OF

Primary current : 0,36 A
Rated maximum temperature (tc) : From 70 to 80 °C
Output constant voltage : 12 V

Product data – type DC 70W 24V ST2, DC 70W 24V ST2 CLII, DC 70W 24V VST, DC 70W 24V VST BI, DC 70W 24V VST II and DC 70W 24V VST OF

Primary current : 0,36 A
Rated maximum temperature (tc) : From 70 to 80 °C
Output constant voltage : 24 V

Product data – type DC 70W 48V ST2, DC 70W 48V ST2 CLII, DC 70W 48V VST, DC 70W 48V VST BI, DC 70W 48V VST II and DC 70W 48V VST OF

Primary current : 0,36 A
Rated maximum temperature (tc) : From 70 to 80 °C
Output constant voltage : 48 V

Product data – type SIRIO 100, SIRIO 100 BI and SIRIO 100 OF

Primary current : 0,5 A
Rated maximum temperature (tc) : From 75 to 80 °C
Output constant current : From 250 to 700 mA

Product data – type SIRIO 150/200-700, SIRIO 150/200-700 BI, SIRIO 150/200-700 BILEVEL, SIRIO 150/200-700 BILEVEL BI, SIRIO 150/200-700 BILEVEL OF, SIRIO 150/200-700 FP, SIRIO 150/200-700 FP BI, SIRIO 150/200-700 FP OF and SIRIO 150/200-700 OF

Primary current : 0,77 A
Rated maximum temperature (tc) : 80 °C
Output constant current : From 200 to 700 mA

Product data – type SIRIO SIRIO 150/300-1050 BI, SIRIO SIRIO 150/300-1050 FP, SIRIO SIRIO 150/300-1050 FP BI, SIRIO 150/300-1050, SIRIO 150/300-1050 BILEVEL, SIRIO 150/300-1050 BILEVEL BI, SIRIO 150/300-1050 BILEVEL OF, SIRIO 150/300-1050 FP OF and SIRIO 150/300-1050 OF

Primary current : 0,77 A
Rated maximum temperature (tc) : 80 °C
Output constant current : From 300 to 1050 mA

Product data – type SIRIO 100/700 ST2, SIRIO 27/250 ST2, SIRIO 35/250 ST2, SIRIO 41/350 ST2, SIRIO 46/400 ST2, SIRIO 50/350 ST2, SIRIO 51/450 ST2, SIRIO 56/400 ST2, SIRIO 59/500 ST2, SIRIO 62/450 ST2, SIRIO 65/550 ST2, SIRIO 70/500 ST2, SIRIO 70/600 ST2, SIRIO 77/550 ST2, SIRIO 82/700 ST2 and SIRIO 84/600 ST2

Primary current : From 0,16 to 0,5 A
Rated maximum temperature (tc) : 75 °C
Output constant current : From 250 to 700 mA

Product data – type SIRIO 108/400 BILEVEL ST2, SIRIO 108/400 ST2, SIRIO 121/450 BILEVEL ST2, SIRIO 121/450 ST2, SIRIO 135/500 BILEVEL ST2, SIRIO 135/500 ST2, SIRIO 145/550 BILEVEL ST2, SIRIO 145/550 ST2, SIRIO 150/600 BILEVEL ST2, SIRIO 150/600 ST2, SIRIO 150/650 BILEVEL ST2, SIRIO 150/650 ST2, SIRIO 150/700 BILEVEL ST2, SIRIO 150/700 ST2, SIRIO 54/200 BILEVEL ST2, SIRIO 54/200 ST2, SIRIO 67/250 BILEVEL ST2, SIRIO 67/250 ST2, SIRIO 80/300 BILEVEL ST2, SIRIO 80/300 ST2, SIRIO 94/350 BILEVEL ST2 and SIRIO 94/350 ST2

Primary current : From 0,28 to 0,77 A
Rated maximum temperature (tc) : 80 °C
Output constant current : From 200 to 700 mA

TESTS

Test requirements

EN 61347-2-13:2014
EN 61347-2-13:2014/A1:2017
EN 61347-1:2015

Test result

The test results are laid down in DEKRA test file 350033600.

Additional information

For specific Model/Type electrical rating refer to following pages.

DEKRA test report No. 2102813.50 is laid down in DEKRA test file 350033600; they contain test results and critical component list.

Conclusion

The examination proved that all requirements were met.

Factory location

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Via Parma 14
21047 Saronno (VA), Italy

General product information: The devices are isolating controlgears for LED modules. The devices have a stabilized output current with values depending on the selection of the DIP switch (S1/S50). The DIP switch options are detailed both in the technical specification and in the labels. The SIRIO xxx/yyy ST2 have a case IP67, fixed value of S50 (xxx=27-100 W; yyy=0,25-0,7 A) or S1 (xxx=54-150 W; yyy=0,2-0,7 A) and without NTC/Vaux features. The models can be dimmable by analogical signals (1...10V). The output load can have LED number corresponding to Vout/Pout, but Iin, t_a and t_c are related to max. Pout (100% dimming, if present). NTC port (if present) is for the thermal protection of LED module; Vaux (if present) is for auxiliary fan for the cooling of LED module.

Type/s	Primary voltage	Primary Current [A]	Power Factor	Secondary Power [W]	Secondary current [mA]	Vomax Uout [V]	t _a [°C]	t _c [°C]	Thermal Protection	Classification [9]
SIRIO 100 or K2446	220-240 V (0/50-60 Hz) [1]	0,50 [2]	0,95 [3]	27-100	250-700 [4]	120 160 [5]	-40..55	75	100 °C [7]	IND, II, IP20
SIRIO 100 BI or K2447										BI
SIRIO 100 OF or K2455							-	80 [7]	-	INT
SIRIO xxx/yyy ST2 or K2448		0,16-0,5 [2]		xxx: 27-100	yyy: 250-700 [4]		-40..55	75	100 °C [8]	IND, II, IP67
SIRIO 150/200-700 or K2449	220-240 V (50-60 Hz)	0,77 [2]		54-150	200-700 [4]	290	-40..55 [6]	80	110 °C [8]	IND, II, IP20
SIRIO 150/200-700 BI or K2450									BI	
SIRIO 150/200-700 OF or K2492			-	80 [7]	-		INT			
SIRIO xxx/yyy ST2 or K2451		0,28-0,77 [2]	xxx: 54-150	yyy: 200-700 [4]	-40..55 [6]	80	110 °C [8]	IND, II, IP67		
SIRIO 150/200-700 BILEVEL or K2452		0,77 [2]	54-150	200-700 [4]	-40..55 [6]	80	110 °C [8]	IND, II, IP20		
SIRIO 150/200-700 BILEVEL BI or K2453									BI	
SIRIO 150/200-700 BILEVEL OF or K2493								-	80 [7]	-
SIRIO xxx/yyy BILEVEL ST2 or K2454		0,28-0,77 [2]	xxx: 54-150	yyy: 200-700 [4]	- 40..55 [6]	80	110 °C [8]	IND, II, IP67		
SIRIO 150/200-700 FP or K2657		0,77 [2]	54-150	200-700 [4]	- 40..55 [6]	80	110 °C [8]	IND, II, IP20		
SIRIO 150/200-700 FP BI or K2659									BI	
SIRIO 150/200-700 FP OF or K2660	-							80 [7]	-	INT
SIRIO 150/300-1050 or K2649	0,77 [2]		50-150	300-1050 [4]	180	- 40..55 [6]	80	110 °C [8]	IND, II, IP20	
SIRIO 150/300-1050 BI or K2651										BI
SIRIO 150/300-1050 OF or K2652									-	80 [7]
SIRIO 150/300-1050 BILEVEL or K2653						- 40..55 [6]	80	110 °C [8]	IND, II, IP20	
SIRIO 150/300-1050 BILEVEL BI or K2655										BI
SIRIO 150/300-1050 BILEVEL OF or K2656									-	80 [7]

SIRIO 150/300-1050 FP or K2661							- 40..55 [6]	80	110 °C [8]	IND, II, IP20
SIRIO 150/300-1050 FP BI or K2663										BI
SIRIO 150/300-1050 FP OF or K2664							-	80 [7]	-	INT

Notes: [1] – The RED ON/OFF function can't operate with d.c. voltage; the products were tested also in 198-264 V operational range according to IEC 61347-2-13:2014 and they can be used for centralized emergency installations (EN 50171 and EN 50172) in the rated 220-240 V; I_{dc} max=0,54 A. [2] – Maximum value at maximum load according to DIP switch selection (see labels); for SIRIO xxx/yyy ST2, SIRIO xxx/yyy BILEVEL ST2 it is setted at the value within the rated range according to the xxx selection. [3] – Value at P>25 W (34 W for 300-1050 models).. [4] – Output parameter where the product is declared as “stabilized”; the value is according to DIP switch selection (see labels); SIRIO xxx/yyy ST2, SIRIO xxx/yyy BILEVEL ST2 are setted at one fixed value within the rated range. [5] – U_{out}=120 V with S50 pin 1=ON: the product is not SELV rated, but evaluations for SELV requirement have been performed. [6] – The product must be mounted on a dissipating surface, otherwise the maximum limit for t_a decreases 10 °C. [7] – Measured on the top of C₁₄ capacitor. [8] – The products have an overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of EN 60598-1:04 ("F" triangle marking), EN 60598-1:2015. [7] – IND=Independent, II=class II, BI=built-in, INT=integral.

The VST and ST2 models are SELV controlgears for LED modules. The devices have a stabilized output voltage. I_{in}, t_a and t_c are related to max. secondary power.

Type/s	Primary voltage	Primary Current [A]	Power Factor	Secondary Power [W]	Secondary Voltage [V]	t _a [°C]	t _c [°C]	Thermal Protection	Classification [5]	
DC 150W 24V ST2 or K2023	220-240 V (50-60 Hz)	0,71 [2]	0,98	150	24	-40..45	75	100 °C [4]	IND, I, IP67	
DC 150W 24V ST2 CLII or K2773									IND, II, IP67	
DC 150W 24V VST or K2024 or DARK 150W 24V									IND, I, IP67	
DC 150W 24V VST II or K2231									IND, II, IP67	
DC 150W 24V VST BI or K2025									BI	
DC 150W 24V VST OF or K2089						-	80 [3]	-	INT	
DC 130W 24V ST2 or K2665		0,64 [2]	0,98	130		-20..45	70	100 °C [4]	IND, I, IP67	
DC 130W 24V ST2 CLII or K2774									IND, II, IP67	
DC 130W 24V VST or K2266							75		IND, I, IP20	
DC 130W 24V VST II or K2667									IND, II, IP20	
DC 130W 24V VST BI or K2668									BI	
DC 130W 24V VST OF or K2669						-	80 [3]	-	INT	
DC 70W 48V ST2 or K2113	220-240 V (0/50-60 Hz) [1]	0,36 [2]	0,97	70	48	-40..45	70	100 °C [4]	IND, I, IP67	
DC 70W 48V ST2 CLII or K2775									IND, II, IP67	
DC 70W 48V VST or K2112									IND, I, IP20	
DC 70W 48V VST II or K2232									IND, II, IP20	
DC 70W 48V VST BI or K2111									BI	
DC 70W 48V VST OF or K2114						-	80 [3]	-	INT	
DC 70W 24V ST2 or K2109	220-240 V (0/50-60 Hz)	0,36 [2]	0,97	70	24	-40..45	70	100 °C [4]	IND, I, IP67	
DC 70W 24V ST2 CLII or K2776									IND, II, IP67	

DC 70W 24V VST or K2108	[1]								IND, I, IP20
DC 70W 24V VST II or K2233									IND, II, IP20
DC 70W 24V VST BI or K2107									BI
DC 70W 24V VST OF or K2110	220-240 V (0/50-60 Hz) [1]	0,36 [2]	0,98	70	12	-40..45	80 [3]	100 °C [4]	INT
DC 70W 12V ST2 or K2026									IND, I, IP67
DC 70W 12V ST2 CLII or K2777									IND, II, IP67
DC 70W 12V VST or K2021									IND, I, IP20
DC 70W 12V VST II or K2234									IND, II, IP20
DC 70W 12V VST BI or K2022									BI
DC 70W 12V VST OF or K2106									INT
DC 50W 48V ST2 or K2104	220-240 V (0/50-60 Hz) [1]	0,26 [2]	0,97	50	48	-40..45	80 [3]	100 °C [4]	IND, I, IP67
DC 50W 48V ST2 CLII or K2778									IND, II, IP67
DC 50W 48V VST or K2103									IND, I, IP20
DC 50W 48V VST II or K2235									IND, II, IP20
DC 50W 48V VST BI or K2102									BI
DC 50W 48V VST OF or K2105									INT

Notes: [1] – The frequency of primary voltage is 50-60 Hz for all models; the products were tested also in 176-275 V operational range according to IEC 61347-2-13:2014 and they can be used for centralized emergency installations (EN 50171 and EN 50172) in the rated 195-250 V; Idc max=0,45 A (70 W models); Idc max=0,32 A (50 W models). [2] – Maximum value at maximum load (see labels). [3] – Measured on the top of C₇ capacitor. [4] – The products have an overheating protection (C.5.a type) and comply with temperature limit of clause 4.16.2 of EN 60598-1:04 ("F" triangle marking), EN 60598-1:2015. [5] - IND=Independent, I=class I, II=class II, BI=built-in, INT=integral.

Models	SIRIO xxx/yyy ST2, SIRIO xxx/yyy BILEVEL ST2	Other SIRIO 100 models	Other SIRIO 150 models	Other SIRIO FP models	DC 150W 24V ST2, DC 130W 24V ST2, DC 70W 48V ST2, DC 70W 24V ST2, DC 70W 12V ST2, DC 50W 48V ST2, DC 50W 24V ST2, DC 50W 12V ST2	DC 150W 24V ST2 CLII, DC 130W 24V ST2 CLII, DC 70W 48V ST2 CLII, DC 70W 24V ST2 CLII, DC 70W 12V ST2 CLII, DC 50W 48V ST2 CLII, DC 50W 24V ST2 CLII, DC 50W 12V ST2 CLII	Other VST models
Connection to supply (PRI)	4x 0,75- 1 mm ² tails	0,75 (0,08 for BI)-2,5 mm ² screwless terminals			3x 1 mm ² tails	2x 1 mm ² tails	0,75-2,5 mm ² screwless terminals (0,5-2,5 mm ² for built-in type)
Connection to RED ON/OFF (if present)	4x 0,75- 1 mm ² tails	0,08-2,5 mm ² screwless terminals			-		-
Connection to NTC, Vaux (if present)	4x 0,75- 1 mm ² tails	0,2-1,5 mm ² screw terminals	0,5-1,5 mm ² screwless terminals	0,5-1,5 mm ² screwless terminals	-		-
Connection to 1-10V control (if present)	4x 0,75- 1 mm ² tails	0,5-1,5 mm ² screwless terminals			-		-

Connection to DALI control (if present)	-	-	-	0,5-1,5 mm ² screwless terminals	-	-
Connection to load (OUTPUT LED)	4x 0,75-1 mm ² tails	0,5-1,5 mm ² screwless terminals			2x 2 mm ² tails	0,5-2,5 mm ² screwless terminals

Additional information

All models with the enclosure fulfil the requirements for: Impulse withstand category II; Pollution degree 2 (Normal Pollution); Material group IIIa; protection against output short circuit. The material of enclosure was tested for Glow-wire at temperature of 850-960 °C (750-850 °C for IP67 models) with favourable result. The conformal coating (if present) increases the protection against electrostatic discharge, humidity and dust.

INSULATION B=Basic; S=Supplementary; D=Double/Reinforced	PRI	RED ON/OFF (if present)	NTC and Vaux (if present)	DALI (if present)	1-10V (if present)	SEC, OUTPUT LED
PRI	-	B	S (SIRIO 200-700) D (other models)	D	D	S (SIRIO 200-700) D (other models)
RED ON/OFF (if present)	B	-	D	D	D	D
NTC and Vaux (if present)	S (SIRIO 200-700) D (other models)	D	-	S	S (SIRIO 200-700) D (other models)	-
DALI (if present)	D	D	S	-	S	S
1-10V (if present)	D	D	S (SIRIO 200-700) D (other models)	S	-	S (SIRIO 200-700) D (other models)
SEC, OUTPUT LED	S (SIRIO 200-700) D (other models)	D	-	S	S (SIRIO 200-700) D (other models)	-

The OF models have been tested in the same enclosure of built-in models, the safety evaluations must be repeated if they will be assembled in a final luminaire with different enclosure. The creepage distances, clearances and connections of control gears in the final application shall be according to IEC 60598-1 or national deviations of the country where installed in the final application:

MODELS:	INSULATION:	Between active parts and the bottom surface of enclosure	Between active parts and external side of enclosure
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SIRIO 100, SIRIO 150/200-700, SIRIO xxx/yyy ST2, SIRIO 150/200-700 BILEVEL, SIRIO 150/200-700, SIRIO 150/200-700 BILEVEL, SIRIO xxx/yyy BILEVEL ST2, SIRIO 150/200-700 FP, SIRIO 150/300-1050, SIRIO 150/300-1050 BILEVEL, SIRIO 150/300-1050 FP, DC 150W 24V VST, DC 150W 24V VST II, DC 130W 24V VST, DC 130W 24V VST II, DC 70W 48V VST, DC 70W 48V VST II, DC 70W 24V VST, DC 70W 24V VST II, DC 70W 12V VST, DC 70W 12V VST II, DC 50W 48V VST, DC 50W 48V VST II, DC 50W 24V VST, DC 50W 24V VST II, DC 50W 12V VST, DC 50W 12V VST II, DC 150W 24V ST2, DC 130W 24V ST2, DC 70W 48V ST2, DC 70W 24V ST2, DC 70W 12V ST2, DC 50W 48V ST2, DC 150W 24V ST2 CLII, DC 130W 24V ST2 CLII, DC 70W 48V ST2 CLII, DC 70W 24V ST2 CLII, DC 70W 12V ST2 CLII, DC 50W 48V ST2 CLII, DC 50W 24V ST2 CLII, DC 50W 12V ST2 CLII	double	double
SIRIO 100 BI, SIRIO 150/200-700 BI, SIRIO 150/200-700 BILEVEL BI, SIRIO 150/200-700 FP BI, SIRIO 150/300-1050 BI, SIRIO 150/300-1050 BILEVEL BI, SIRIO 150/300-1050 FP BI, DC 150W 24V VST BI, DC 130W 24V VST II, DC 70W 48V VST BI, DC 70W 24V VST BI, DC 70W 12V VST BI, DC 50W 48V VST BI, DC 50W 24V VST BI, DC 50W 12V VST BI	double	-
SIRIO 100 OF, SIRIO 150/200-700 OF, SIRIO 150/200-700 BILEVEL OF, SIRIO 150/200-700 FP OF, SIRIO 150/300-1050 OF, SIRIO 150/300-1050 BILEVEL OF, SIRIO 150/300-1050 FP OF, DC 150W 24V VST OF, DC 130W 24V VST OF, DC 70W 48V VST OF, DC 70W 24V VST OF, DC 70W 12V VST OF, DC 50W 48V VST OF, DC 50W 24V VST OF, DC 50W 12V VST OF	-	-
The following models are suitable for direct mounting on normally flammable surfaces (EN 60598-1:2015, VDE 0710 T14 for "MM" triangle marking) only for values (most unfavorable) up to t_a or the following t_c value:		Max. t_c (°C)
DC 150W 24V ST2, DC 150W 24V ST2 CLII, DC 150W 24V VST, DC 150W 24V VST II, DC 130W 24V ST2, DC 130W 24V ST2 CLII, DC 130W 24V VST, DC 130W 24V VST II, DC 70W 24V ST2, DC 70W 24V ST2 CLII, DC 70W 48V ST2, DC 50W 48V ST2, DC 50W 24V ST2, DC 70W 48V ST2 CLII, DC 50W 48V ST2 CLII, DC 50W 24V ST2 CLII, DC 70W 24V VST, DC 70W 24V VST II, DC 70W 48V VST, DC 70W 48V VST II, DC 50W 24V VST, DC 50W 24V VST II, DC 50W 48V VST, DC 50W 48V VST II, DC 70W 12V ST2, DC 70W 12V ST2 CLII, DC 50W 12V ST2, DC 50W 12V ST2 CLII, DC 70W 12V VST, DC 70W 12V VST II, DC 50W 12V VST, DC 50W 12V VST II		rated t_c
Independent are suitable for centralized emergency installations (par. 22.19 of EN 60598-2-22) for any S1 or S50 selections up to the following load; the BI models have similar behavior but shall be verified in the final application.		
SIRIO 150/200-700 BILEVEL, SIRIO 150/200-700, SIRIO 150/200-700 BILEVEL, SIRIO xxx/yyy BILEVEL ST2, SIRIO 150/200-700 FP, SIRIO 150/300-1050, SIRIO 150/300-1050 BILEVEL, SIRIO 150/300-1050 FP, DC 150W 24V VST, DC 150W 24V VST II, DC 130W 24V VST, DC 130W 24V VST II, DARK 150W 24V		100 W

DC 70W 48V VST, DC 70W 48V VST II, DC 70W 24V VST, DC 70W 24V VST II, DC 70W 12V VST, DC 70W 12V VST II, DC 50W 48V VST, DC 50W 48V VST II, DC 50W 24V VST, DC 50W 24V VST II, DC 50W 12V VST, DC 50W 12V VST II, DC 150W 24V ST2, DC 130W 24V ST2, DC 70W 48V ST2, DC 70W 24V ST2, DC 70W 12V ST2, DC 50W 48V ST2, DC 50W 24V ST2, DC 50W 12V ST2, DC 150W 24V ST2 CLII, DC 130W 24V ST2 CLII, DC 70W 12V ST2 CLII, DC 70W 24V ST2 CLII, DC 70W 48V ST2 CLII, DC 50W 12V ST2 CLII, DC 50W 24V ST2 CLII, DC 50W 48V ST2 CLII	50 W
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