

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) : LV HR TRACK (series), SUPERFLAT (series), SUPERSLIM (series),
SUPERTRACK (series) and TWINFLAT (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, EN 61347-1:2015, EN 62384:2006 and EN 62384:2006/A1:2009
- an inspection of the production location according to CENELEC Operational Document CIG 021
- a certification agreement with the number 2033015

DEKRA hereby grants the right to use the ENEC certification mark.

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

This certificate is issued on 20 September 2018 and expires upon withdrawal of one of the above mentioned standards.

Certificate number: 81-105709

DEKRA Certification B.V.



drs. G.J. Zoetbrood
Managing Director



Susan Lehner
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)	: LV HR TRACK (series), SUPERFLAT (series), SUPERSLIM (series), SUPERTRACK (series) and TWINFLAT (series)
Type of load	: LED modules, power LED

Product data – type LV HR TRACK (series)

Primary voltage	: 12/24/48 V
Nature of supply	: direct current
Rated frequency	: 0 Hz
Primary current	: From 0,18 to 0,67 A
Working voltage U-OUT	: 48 V
Rated maximum temperature (tc)	: 90 °C
Classification	: integral

Product data – type SUPERFLAT (series) and TWINFLAT (series)

Primary voltage	: 220-240 V
Nature of supply	: alternate current
Rated frequency	: 50-60 Hz
Primary current	: From 0,1 to 0,26 A
Power factor	: From 0,95 to 0,97
Working voltage U-OUT	: From 49 to 59 V
Rated maximum temperature (tc)	: From 70 to 80 °C
Classification	: integral

Product data – type SUPERSLIM (series)

Primary voltage	: 220-240 V
Nature of supply	: alternate current
Rated frequency	: 50-60 Hz
Primary current	: 0,13 A
Power factor	: 0,95 for $P_o > 8$ W
Working voltage U-OUT	: 59 V
Ambient temperature	: From -25 to +50 °C
Rated maximum temperature (tc)	: From 80 to 90 °C
Classification	: built in, integral

Product data – type SUPERTRACK (series)

Primary voltage	: 220-240 V
Nature of supply	: alternate current
Rated frequency	: 50-60 Hz
Primary current	: 0,16 A
Power factor	: 0,97
Working voltage U-OUT	: 59 V
Rated maximum temperature (tc)	: 75 °C
Classification	: integral

TESTS**Test requirements**

EN 61347-2-13:2014

EN 61347-2-13:2014/A1:2017
EN 61347-1:2015
EN 62384:2006
EN 62384:2006/A1:2009

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. 2102663.50 and 2102663.60 are 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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21047 Saronno (VA), Italy

General product information:							
All models are electronic step-down controlgears, intended to supply high power Light Emitting Diodes or LED modules. The output has stabilized current (CC) according to the DIP switch selection; all models have SELV output. SUPERSLIM, SUPERFLAT SLIM, SUPERFLAT SLIM DALI are built-in type for ordinary luminaire; all other models are integral. SUPERFLAT CASAMBI, SUPERFLAT BLL and SUPERTRACK DALI are dimmable. Different commercial codes are used for different critical components; Kxxxx codes can replace the reference type.							
Primary voltage	220-240 V	(1) 195-250 V; (2) 195-255 V; (3) 207-250 V					
Nature of supply	Alternate current	Direct current					
Frequency of supply	50-60 Hz	0 Hz					
Type of thermal protection :	automatic resetting type (C.5.a type), 100 °C overheating protection for SUPERSLIM (IP54 case), 110 °C overheating protection for SUPERFLAT SLIM, SUPERFLAT SLIM DALI.						
Type	lin max (A)	λ	output current (mA)	Po max (W)	V _{omax} U _{out} (Vdc)	t _a (°C)	t _c (°C) (4)
SUPERSLIM (K2565)	0,13	0,95	350/400/	18/20/23	59	-25...50	90
SUPERSLIM OF (K2566)	0,16 (1)	(P>8 W)	450/500	/ 25		-	80
SUPERSLIM OFM (K2567)						-	80
SUPERFLAT SLIM (K2767)	0,14	0,95	350/400/	17/20/22	59	-25...45	90
SUPERFLAT SLIM OF or (K2768)	0,15 (3)	(P>8 W)	450/500	/ 25		-	80
SUPERFLAT SLIM DALI (K2741)						-25...45	90
SUPERFLAT SLIM DALI OF or (K2742)						-	80
SUPERFLAT OF (K2673)	0,2	0,95	700/750/	26/28/30	49	-	80
	0,21 (1)	(P>25 W)	800/850	/ 32			
SUPERFLAT I OF (K2A94)	0,2	0,97	525-900	22-36	59	-	75
	0,24 (2)	(P>13 W)	(step 25)				
TWINFLAT OF (K2881)	0,15	0,96	500/550/	19/20,5/	59	-	70
	0,16 (1)	(P>10 W)	600/650	22,5/24			
TWINFLAT I OF (K2A92)	0,16	0,96	550/600/	24/26,5/	59	-	70
	0,2 (2)	(P>14 W)	650/700	28,5/31			
TWINFLAT LC OF (K2882)	0,10	0,96	300/350/	11,5/13/	59	-	70
	0,11 (1)	(P>11 W)	400/440	15/16,5			
TWINFLAT LC I OF (K2A93)	0,12	0,96	350/400/	15,5/17,	59	-	70
	0,14 (2)	(P>10 W)	450/500	5 /20/22			
SUPERFLAT PRO OF (K2D15)	0,2	0,95	100-850	4-32	59	-	80
		(P>12 W)	(step 50)				
SUPERFLAT 675-1050 OF (K2D16), SUPERFLAT PRO HC OF (K2D17)	0,26	0,97	675-1050	27-40	59	-	80
SUPERFLAT BLL OF (K2A91), SUPERFLAT BLL AM OF (K2B29), SUPERFLAT BLL PIR OF (K2D13)	0,16	0,97	325-700	14-31		59	-
SUPERFLAT CASAMBI OF (K2D14)	0,2 (2)	(P>11 W)	(step 25)				
SUPERTRACK DALI OF (K2A90), SUPERTRACK DALI AM OF (K2B28)							

Notes: (1) Tested also in 176-276 V operational range and they can be used for centralized emergency installations (EN 50171 and EN 50172) in the rated 195-250 V. (2) Tested also in 176-280 V operational range and they can be used for centralized emergency installations (EN 50171 and EN 50172) in the rated 195-255 V. (3) Tested also in 186-275 V operational range and they can be used for centralized emergency installations (EN 50171 and EN 50172) in the rated 207-250 V. (4) The t_c point for integral models is measured on the metal cap of C₁₅ or C_{CE2} capacitor.

LV HR TRACK models are electronic controlgears, intended to supply high power Light Emitting Diodes or LED modules. All models are integral. 1-10V (local dimming) and DALI models are dimmable. Different commercial codes are used for different critical components; Kxxxx codes can replace the reference type.							
Primary voltage		12/24/48 V					
Nature of supply		Direct current					
Frequency of supply		0 Hz					
Type of thermal protection		automatic resetting type (C.5.a type)					
Type/s	PRI		SEC			t _c (°C) [3]	
	DC Vin (V)	max. lin (A)	Io rated (mA)	Vo (V)	Po rated (W)		Uout (V)
LV HR TRACK 357 OF or K2D18 [1]	12*	0,29	350	3-9* 3-20** 3-40***	[2]	48	90
	24**	0,47	500				
	48***	0,52	550				
		0,67	700				
LV HR TRACK 980 OF or K2D25 [1]	24	0,18	980	-	3	48	90
	48						
LV HR TRACK 900 OF or K2D26 [1]	24	0,35	900	-	6	48	90
	48						
LV HR TRACK 1-10V 357 OF or K2D19	48	0,29	350	-	13	48	90
		0,44	500		20		
		0,50	550		22		
		0,63	700		28		
LV HR TRACK 246 OF or K2D20 [1]	12* 24** 48***	0,25	250	3-9* 3-20** 3-40***	[2]	48	90
		0,38	400				
		0,43	450				
		0,56	600				
LV HR TRACK 1-10V 246 OF or K2D21	48	0,21	250	-	9	48	90
		0,37	400		16		
		0,41	450		18		
		0,54	600		24		
LV HR TRACK DALI 350 OF or K2D22	48	0,29	350	-	13	48	90
LV HR TRACK DALI 500 OF or K2D23	48	0,44	500	-	20	48	90
LV HR TRACK DALI 700 OF or K2D24	48	0,62	700	-	28	48	90
Notes: [1] – Controlgear with output current not-stabilised for all values of Vin. [2] – Output power is Io*Vo and Vo depends on the Vin value. [3] – The t _c point is measured on the case of U ₁ .							

Connections		LV HR TRACK models	Other models
Supply connection	PRI, N L	Connection device (0,34-0,75 mm ²)	Connection device (0,34-0,75 mm ²) for SUPERFLAT I OF, SUPERFLAT 675-1050 OF, SUPERFLAT SLIM, SUPERFLAT SLIM DALI, SUPERFLAT SLIM OF, SUPERFLAT SLIM DALI OF; 2 tails (H05V2-K) for other models.
Control (if present)	JP1, J2, J3A	Connection device (0,34-0,75 mm ²)	Terminal block (0,5-1,5 mm ²) for SUPERTRACK DALI OF; Connection device (0,34-0,75 mm ²) for SUPERFLAT SLIM DALI, SUPERFLAT SLIM DALI OF.
Load connection	SEC, J2, J3, J40, + -	Connection device (0,34-0,75 mm ²)	Connection device (0,34-0,75 mm ²) for SUPERFLAT I OF, SUPERFLAT 675-1050 OF, SUPERFLAT SLIM, SUPERFLAT SLIM DALI, SUPERFLAT SLIM OF, SUPERFLAT SLIM DALI OF; 2 tails (H05V2-K) for other models.

Additional information				
All models fulfil the requirements for: P/S for LED; short-circuit proof type; impulse withstand category II; Pollution degree 2 (Normal Pollution); Material group IIIa; the material of enclosure for SUPERSLIM and SUPERFLAT SLIM models was tested with favourable result for Glow-wire at temperature 850 °C. The case of SUPERSLIM is IP54.				
<i>INSULATION</i> (B= basic, S= supplementary, D= double or reinforced)	PRI	DALI (if present)	1-10 (if present)	SEC
PRI	-	B	-	D
DALI (if present)	B	-	-	S
1-10 (if present)	-	-	-	-
SEC	D	S	-	-
OF models (printed circuit boards and electrical components) do not have an enclosure; the heating tests have been performed using an enclosure as in Annex 11; they shall comply with the requirements of IEC 60598-1 when built into a luminaire. In the final application the connections shall be according to IEC or national deviations of the country where installed. Creepage distances and clearances for built-in models shall comply with the requirements of IEC/EN 60598-1 when the device is installed in the final application:				