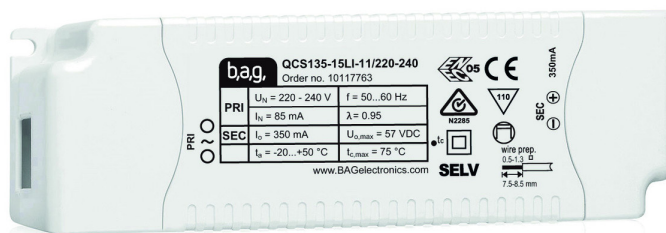




ZITARES QCS

SELV constant current control gear, 1-channel



3 YEARS WARRANTY

ECG versions

Model	Order number	Output current	Total power output
QCS135-15LI-11/220-240	10117763	1 x 350 mA	7 ... 15 W
QCS170-20LI-11/220-240	10117765	1 x 700 mA	11 ... 20 W
QCS150-28LI-11/220-240	10118438	1 x 500 mA	18 ... 28 W
QCS170-40LI-11/220-240	10118439	1 x 700 mA	22 ... 40 W
QCS150-25LI-20/220-240	10139484	1 x 500 mA	14 ... 25 W
QCS170-35LI-20/220-240	10139485	1 x 700 mA	19 ... 35 W
QCS1105-40LI-20/220-240	10139486	1 x 1050 mA	28 ... 40 W
QCS1105-50LI-20/220-240	10139487	1 x 1050 mA	28 ... 50 W
QCS1110-40LI-20/220-240	10139488	1 x 1100 mA	24 ... 40 W

Performance features

- Non-dimmable 1-channel ECG for constant current operation of LED modules
- SELV output voltage ≤ 60 VDC for simplified luminaire construction
- Very high efficiency of up to 88 % at maximum output load
- ECG extensively protected against abnormal operating conditions at the output, e.g. short-circuit, open circuit or overload
- Certified as thermally protected ECG
- Conformance with international regulations, regarding safety and operation, electromagnetic compatibility and immunity to interference
- Nominal service lifetime with a failure rate ≤ 10 %:
 30,000 h at $t_c = t_{c,max}$
 50,000 h at $t_c = t_{c,max} - 10K$

Applications



Office & Commercial



Shop

Markings





ZITARES QCS

SELV constant current control gear, 1-channel

General technical data

Mains voltage supply	
Rated voltage range	220 ... 240 [V]
Voltage range continuous AC	198 ... 264 [V]
Rated frequency	50 ... 60 [Hz]
Protection against voltage peaks	
Voltage peaks L - N	1 kV
Starting time	
Starting time max.	1 s
Total harmonic distortion	
Total harmonic distortion (max.)	20 %, at 100 % load
Output data	
Output current tolerance	+/- 10 %
Max. ripple output current (high frequency)	+/- 1 %
Max. ripple output current (low frequency)	+/- 22 %
Max. wire length to LED-module	2 m
Galvanic separation to mains input	yes, testing voltage 3.75 kV
Protection functions output side	
Overload operation	yes, limitation of the output voltage
Open-circuit operation	yes; output voltage max. 60 VDC (SELV)
Terminals	
Type	90° push-in terminal with key
Wire cross section	0,5 ... 1,5 mm ²
Wire stripping length	7,5 ... 8,5 mm
Thermally protected device	
Max. case temperature (acc to EN 61347-2-13/C5e)	110 ° C
Degree of protection	
IP protection class	IP 20



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Operation temperature

Model	Ambient (t_a)	Case ($t_{c,max}$)
QCS135-15LI...	-20 ... 50 °C	75 °C
QCS170-20LI...	-20 ... 50 °C	75 °C
QCS150-28LI...	-20 ... 50 °C	75 °C
QCS170-40LI...	-20 ... 50 °C	75 °C
QCS150-25LI...	-20 ... 50 °C	75 °C
QCS170-35LI...	-20 ... 50 °C	75 °C
QCS1105-40LI...	-20 ... 50 °C	75 °C
QCS1105-50LI...	-20 ... 50 °C	75 °C
QCS1110-40LI...	-20 ... 50 °C	75 °C

Lifetime

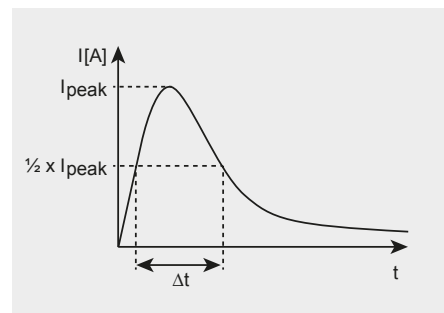
Lifetime	
Operation at $t_c = t_c \text{ max}$	30,000 h, failure rate $\leq 10 \%$
Operation at $t_c = t_c \text{ max} - 10 \text{ K}$	50,000 h, failure rate $\leq 10 \%$

Circuit breaker/starting current

Model	typ. $I_{peak}/\Delta t$	Number of ECGs on single-pole power circuit breakers (CB)				
		CB-Typ	10 A	16 A	20 A	25 A
QCS135-15LI...	3 A / 40,8 μs	B	78	125	156	195
		C	78	125	156	195
QCS170-20LI...	2,8 A / 44 μs	B	60	96	120	150
		C	60	96	120	150
QCS150-28LI...	15 A / 231 μs	B	45	73	90	112
		C	45	73	90	112
QCS170-40LI...	13,8 A / 206 μs	B	35	57	70	87
		C	35	57	70	87
QCS150-25LI...	4,16 A / 400 μs	B	20	32	40	50
		C	34	56	68	86
QCS170-35LI...	18 A / 400 μs	B	12	18	24	30
		C	20	32	40	50
QCS1105-40LI...	16 A / 350 μs	B	12	18	24	30
		C	20	32	40	50
QCS1105-50LI...	18,7 A / 370 μs	B	10	16	20	25
		C	17	28	34	43
QCS1110-40LI...	17,9 A / 350 μs	B	12	18	24	30
		C	20	32	40	50

- All specifications with $U_{mains} = 230 \text{ VAC}$, mains impedance = 1Ω
- With multi-pole power circuit breakers the max. number is reduced by 20 %.
- With power circuit breakers from different manufacturers the max. number may deviate; observe manufacturer specifications.
- For lighting groups the use of C circuit-breakers is generally recommended.

Typical sequence of current-time curves with switch-on





ZITARES QCS

SELV constant current control gear, 1-channel

Operating data

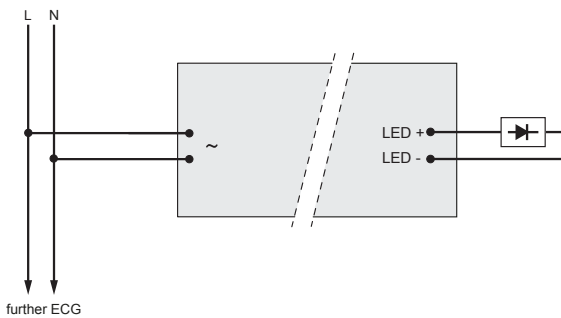
Model	Input current A	Input power W	Power factor	ECG efficiency %	Output current (default) mA	Output voltage VDC	Total power output W
QCS135-15LI...	0,09	20	0,95	83	1 x 350	21 ... 45	7 ... 15
QCS170-20LI...	0,11	25	0,95	85	1 x 700	16 ... 30	11 ... 20
QCS150-28LI...	0,14	33	0,95	88	1 x 500	36 ... 56	18 ... 28
QCS170-40LI...	0,20	47	0,96	88	1 x 700	32 ... 56	22 ... 40
QCS150-25LI...	0,13	30	0,95	88	1 x 500	27 ... 50	14 ... 25
QCS170-35LI...	0,18	42	0,95	88	1 x 700	27 ... 50	19 ... 35
QCS1105-40LI...	0,21	47	0,96	88	1 x 1050	27 ... 38	28 ... 40
QCS1105-50LI...	0,26	60	0,96	88	1 x 1050	27 ... 48	28 ... 50
QCS1110-40LI...	0,20	47	0,95	88	1 x 1100	22 ... 36	24 ... 40

- All specifications with 230 VAC nominal operation and 100 % load

ECG connection diagrams output

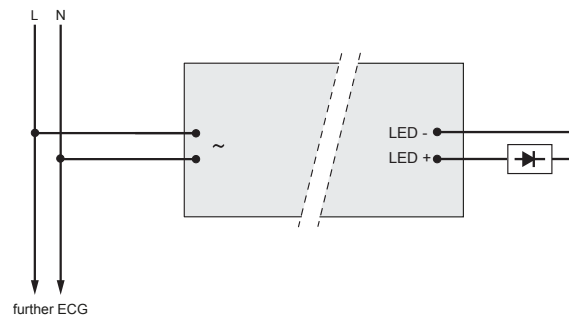
- Connection of ECG input and output side

QCS1...15LI QCS1...20LI



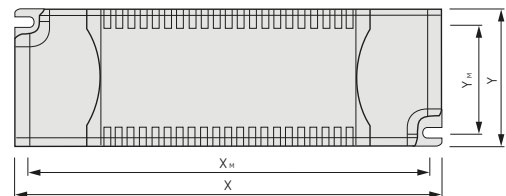
- Connection of ECG input and output side

QCS1...25LI QCS1...28LI QCS1...35LI
QCS1...40LI QCS1...50LI



ECG dimensions

Model	X	X _M	Y	Y _M	Z
	mm	mm	mm	mm	mm
QCS135-15LI...	135	126,4	41	32,4	29
QCS170-20LI...	135	126,4	41	32,4	29
QCS150-28LI...	165	156,4	41	32,4	33
QCS170-40LI...	165	156,4	41	32,4	33
QCS150-25LI...	135	126,4	41	32,4	29
QCS170-35LI...	165	156,4	41	32,4	33
QCS1105-40LI...	165	156,4	41	32,4	33
QCS1105-50LI...	165	156,4	41	32,4	33
QCS1110-40LI...	165	156,4	41	32,4	33





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Logistical data

Model	Order number	EAN (one piece)	Weight kg	ECG PU St.	Dimensions PU mm	Weight PU kg
QCS135-15LI-11/220-240	10117763	4046189033305	0,090	80	345 x 290 x 170	7,80
QCS170-20LI-11/220-240	10117765	4046189033329	0,107	80	345 x 290 x 170	9,00
QCS150-28LI-11/220-240	10118438	4046189033404	0,152	80	345 x 290 x 170	14,20
QCS170-40LI-11/220-240	10118439	4046189033411	0,175	80	345 x 290 x 170	14,80
QCS150-25LI-20/220-240	10139484	4046189036757	0,110	80	345 x 290 x 170	8,80
QCS170-35LI-20/220-240	10139485	4046189036764	0,335	40	345 x 290 x 170	8,40
QCS1105-40LI-20/220-240	10139486	4046189036771	0,335	40	345 x 290 x 170	8,60
QCS1105-50LI-20/220-240	10139487	4046189036894	0,335	40	345 x 290 x 170	8,60
QCS1110-40LI-20/220-240	10139488	4046189036788	0,335	40	345 x 290 x 170	8,60

Conformity to standards

EN 61347-1	Lamp controlgear - Part 1: General and safety requirements
EN 61347-2-13	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic control gear for LED modules
EN 62384	D.C. or A.C. supplied electronic control gear for LED modules - Performance requirements
EN 55015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
EN 61547	Equipment for general lighting purposes - EMC immunity requirements