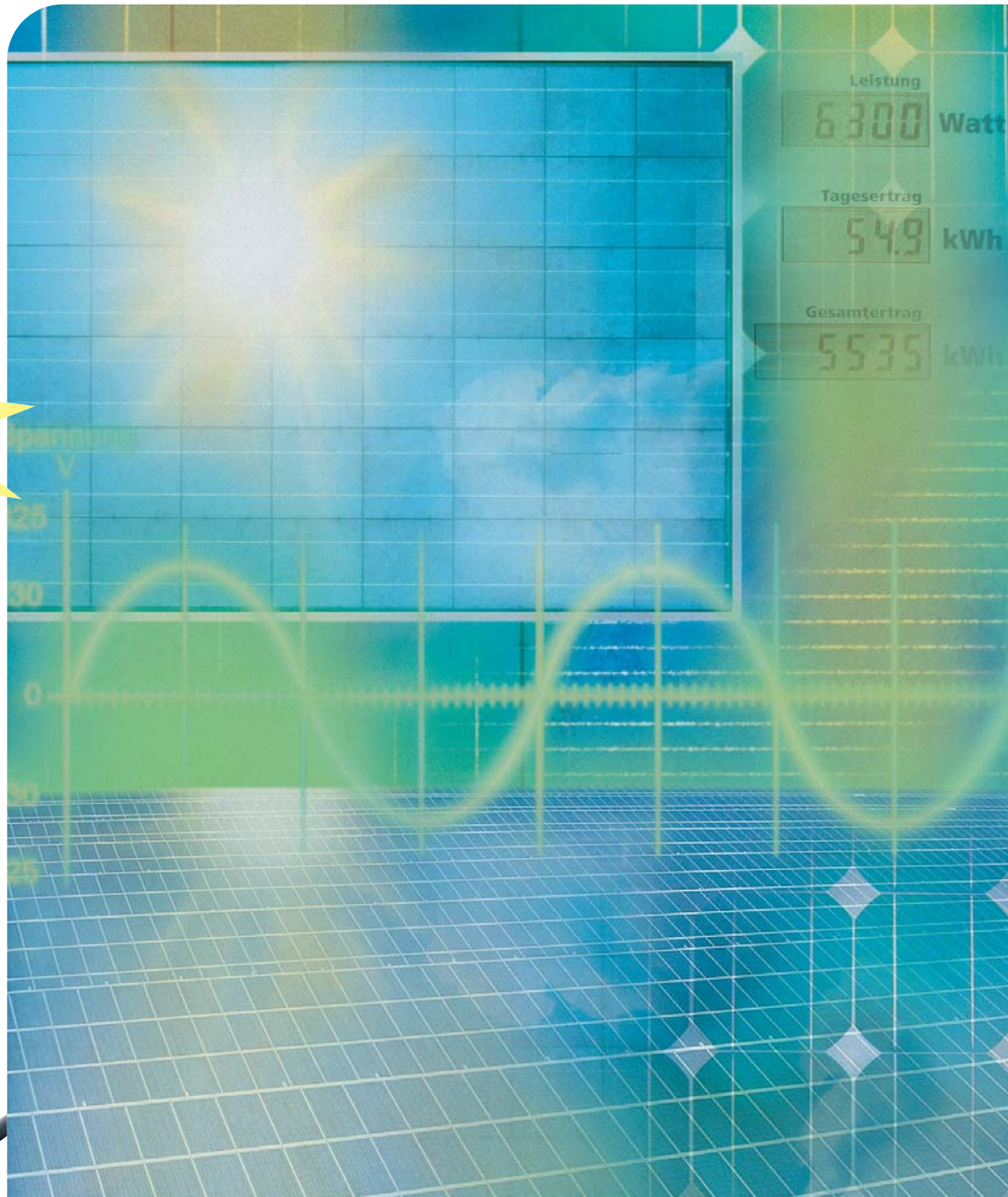


**Overmolded
connectors
make the
difference!**



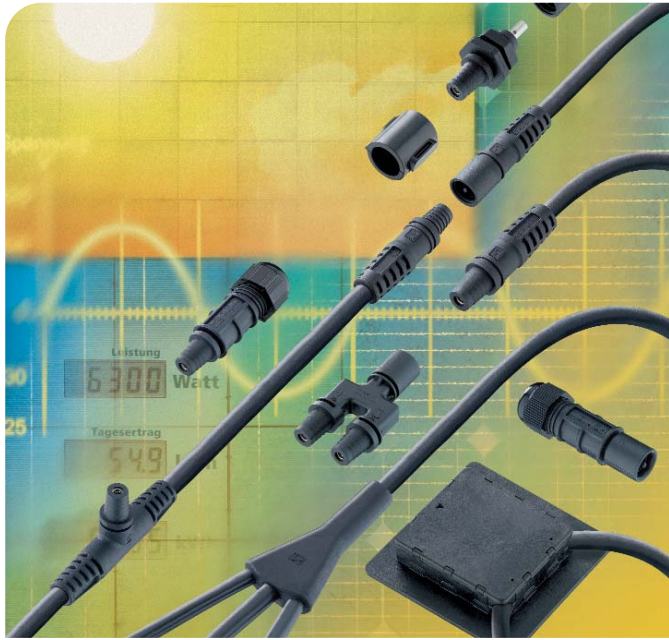
Wiring Solutions for Photovoltaic Power Systems

Standard Product Range and Customized Solutions for

- Module Producers
- Component Producers
- Installers and System Integrators

LC3®

LC4®



Wiring system LC3®

- sleek and slim
- optional locking according to NEC 2008 NFPA 70
- connectors, cables and junction boxes
- industrially pre-assembled, overmolded and tested
- field-attachable versions also available



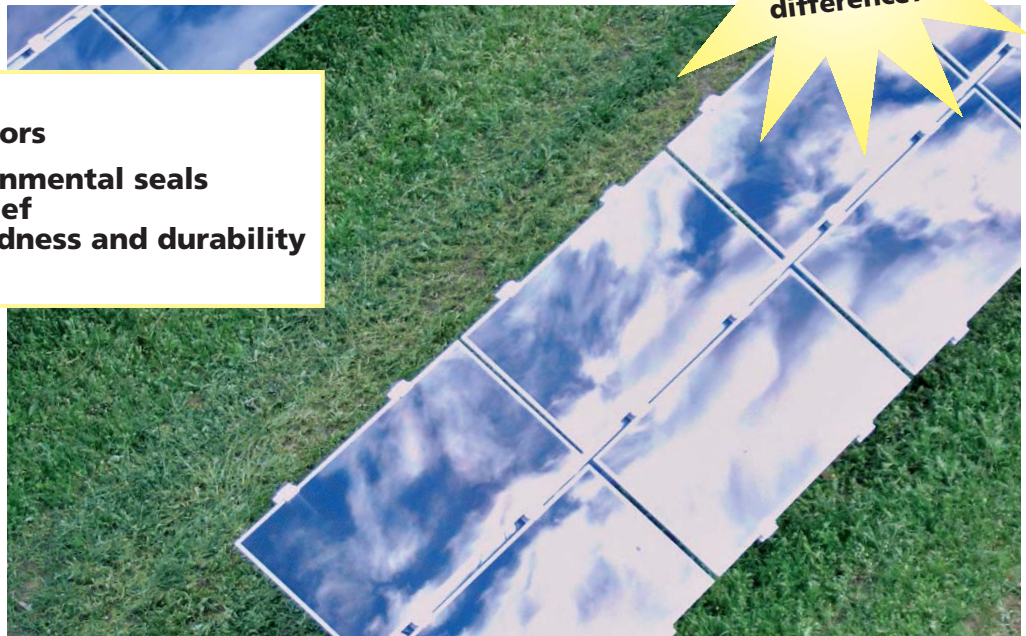
Wiring system LC4®

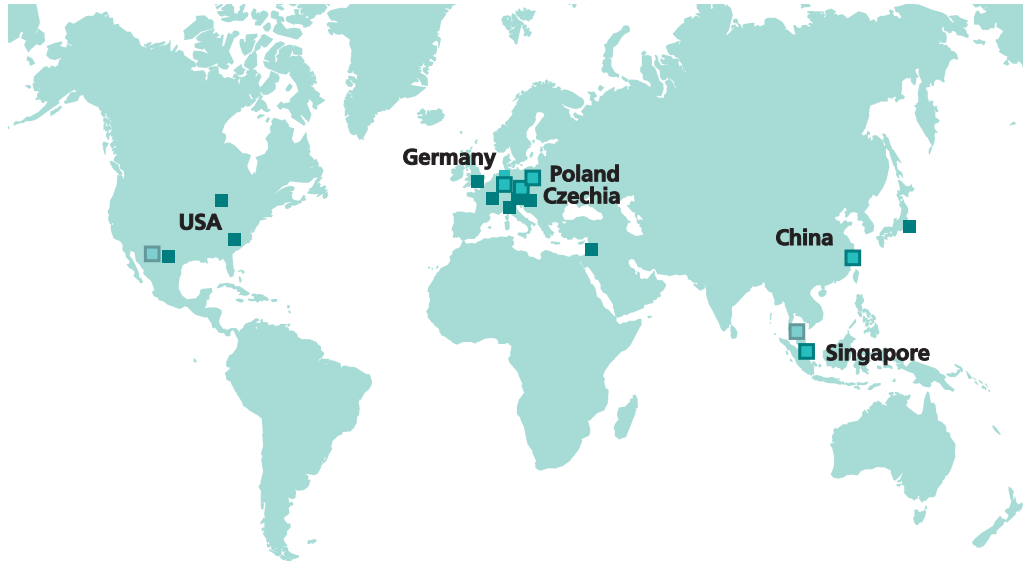
- with integrated locking
- alternatively to be unlocked either manually or only with a tool, according to NEC 2008 NFPA 70
- connectors, cables and junction boxes
- industrially pre-assembled, overmolded and tested
- field-attachable versions also available

**Overmolded
connectors
make the
difference!**

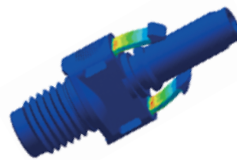
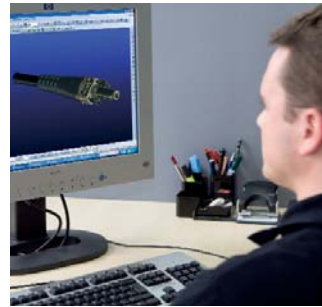
Overmolded connectors

- outstanding environmental seals
- excellent strain relief
- unsurpassed ruggedness and durability

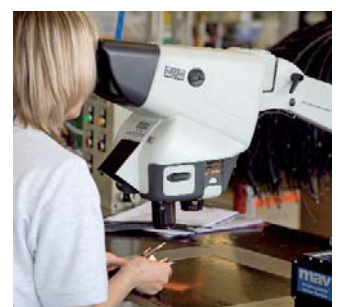
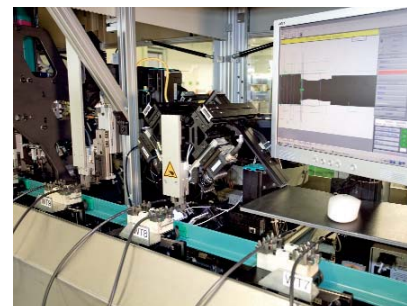




- production and service
- service



- strong platform for global operations
- bundled know-how from various markets and branches worldwide
- interdisciplinary, international teams for a comprehensive support
- quick and flexible partner for nationally and globally acting customers

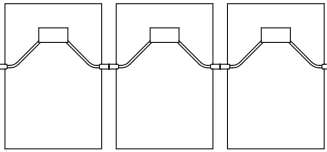


Junction boxes

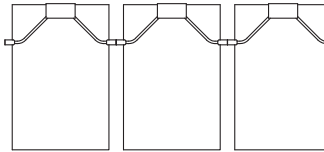


for crystalline modules
2-6 terminal clamps
0-5 diodes

two-pole junction boxes, for ribbons fed through the **back plane of the module**, optionally with diode



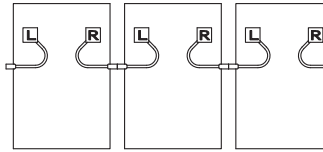
two-pole junction boxes, for ribbons fed over the **edge of the module**, optionally with diode



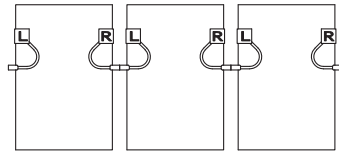
for thin film modules



single-pole junction boxes, for ribbons fed through the **back plane of the module**



single-pole junction boxes, for ribbons fed over the **edge of the module**



Cables



2.5 mm²
AWG 14

4.0 mm²
AWG 12

6.0 mm²
AWG 10

- standard cables
- cables according to specific markets' needs, i.e. for America, Europe, Asia, or multistandard
- the ideal solution: pre-assembled cables with overmolded connectors

Connectors

System LC3®

- sleek and slim
- optional locking according to NEC 2008 NFPA 70



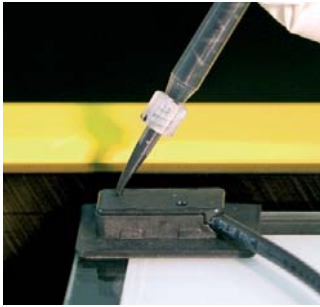
System LC4®

- with integrated locking
- alternatively to be unlocked manually or only with a tool, acc. to NEC 2008 NFPA 70



Overmolded connectors make the difference!

Solutions for module producers



Inventux Technologies AG

Module junction technology

Features

- special direct contacting inside the junction boxes, without soldering
- very flat junction box designs
- for crystalline or thinfilm modules
- single-pole and two-pole versions
- to be mounted on the back side or on the edge
- with self-adhesive pad or for gluing
- sealing by means of potting
- either with the slim LC3® connectors (optional locking) or with the new LC4® connectors with integrated locking
- overmolded connectors: outstanding environmental seals, excellent strain relief, unsurpassed ruggedness and durability

Benefits

- fast, easy to automate and secure connecting processes inside the junction boxes
- minimized contact resistance
- minimized cable lengths with single-pole junction boxes
- optimized for automatic assembly
- contracted dimensions of the junction boxes allow for high packaging density of the modules
- permanently reliable system operation
- minimized attendance and servicing expenditure
- the best solution available for each module type
- all from one source, available worldwide
- system meets international requirements, including NEC 2008 NFPA 70
- customized solutions at any time



juwi solar GmbH



Solar-Fabrik AG

Lumberg Connect
customized solutions®
customized solutions®

Interface from the outside

Receptacles of **system LC3®**

- optional locking according to NEC 2008 NFPA 70

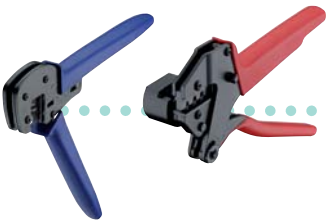


Receptacles of **system LC4®**

- with integrated locking
- alternatively to be unlocked manually or only with a tool, acc. to NEC 2008 NFPA 70



manual crimp tools



cables: standard or customized



crimp machines for cost-effective production of higher volumes



Internal wiring

- screw terminal blocks
- connectors with insulation displacement technology (IDT)
- connectors with screw clamp technology
- connectors with crimp technology
- indirect, two-part connectors
- direct connectors for the circuit board edge
- for discrete stranded wires or flat cables
- pitches from 1.27 mm (.050") up to 10.0 mm (.394")
- for load currents up to 15 A/630 V AC
- I/O interfaces including RJ45 and USB
- circular connectors up to IP 68

For the internal wiring of the components, Lumberg offers a wide range of solutions, all from one source.

for

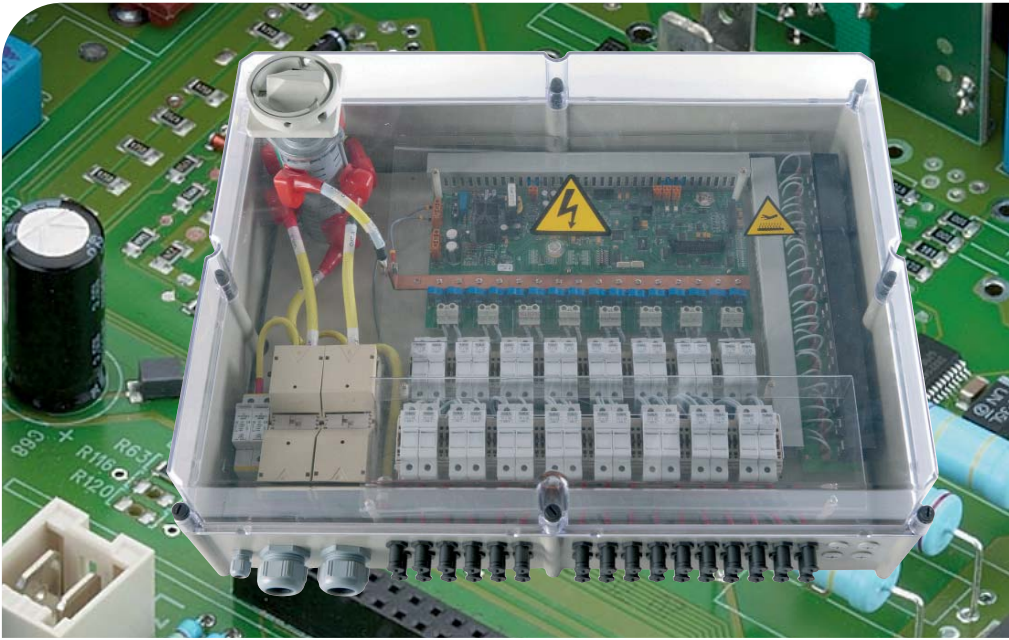
- inverters
- generator isolation housings
- combiner boxes
- auxiliary components



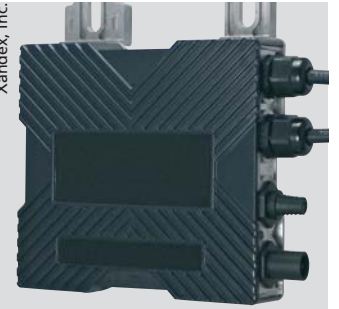
Detailed information about these connector systems can be found in additional Lumberg catalogs and on the Internet.



Solutions for inverter and component producers



Xandex, Inc.



Ingeteam, S.A.

From the field into the housing – and within the housing ...

Features

- photovoltaic receptacles as the interface
- highest protection degree IP 68
- rugged and durable
- alternatively from the LC3® system (optional locking) or from the new LC4® system with integrated locking
- protective caps for transport and spare receptacles
- connector systems and terminal blocks for the internal wiring
- proven a billionfold in various industries

Benefits

- permanently reliable system operation
- fast and easy to assemble
- proven connector systems from one source: into the housing and within the housing
- many systems designed for automated processing
- available worldwide
- customized solutions



Sunways AG



Diehl AKO Stiftung & Co. KG



Lumberg Connect
 customized solutions®
 customized solutions®

Wiring of solar power plants: industrially pre-assembled, overmolded, tested

Photovoltaic array harnesses LC3®

- ready-to-plug: industrially pre-assembled
- industrially tested
- type T or type X
- with the sleek and slim LC3® connectors
- optional locking according to NEC 2008 NFPA 70

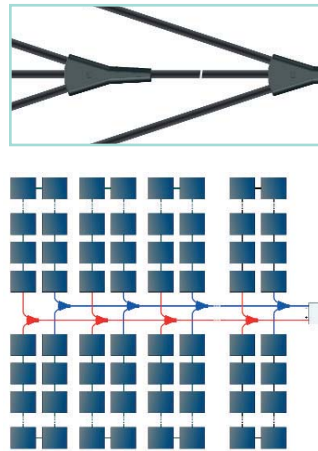
Photovoltaic array harnesses LC4®

- ready-to-plug: industrially pre-assembled
- industrially tested
- type T or type X
- with the new LC4® connectors
- with integrated locking, alternatively to be unlocked manually or only with a tool, acc. to NEC 2008 NFPA 70

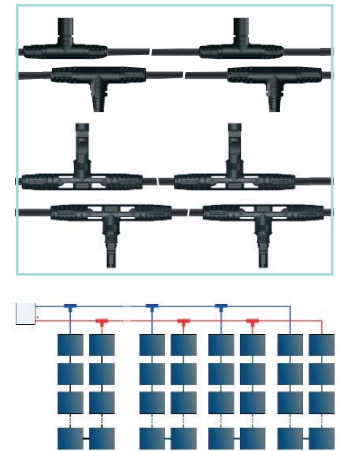


Phoenix Solar AG

Type X



Type T



Components and auxiliaries for on-site assembly

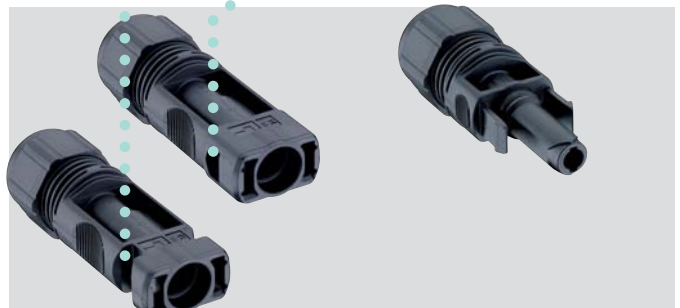
Field-attachable connectors from **system LC3®**

- optional locking according to NEC 2008 NFPA 70



Field-attachable connectors from **system LC4®**

- with integrated locking
- alternatively to be unlocked manually or only with a tool, acc. to NEC 2008 NFPA 70



crimp tool with exchangeable inserts



cables: standard or customized



crimp tool: only one tool for all wire sections



Solutions for installers and system integrators



Some of the world's largest solar power plants are wired with Lumberg components. These plants (right) combine 700,000 resp. 550,000 thinfilm modules.



Juwi solar GmbH



Wire faster and more effectively

Features

- photovoltaic array harnesses: everything is pre-assembled and ready-to-plug
- harnesses 100 % tested
- overmolded connectors: outstanding environmental seals, excellent strain relief, unsurpassed ruggedness and durability
- extremely sturdy: overmolded connector often even stronger than the cable
- either with the slim LC3® connectors (optional locking) or with the new LC4® connectors with integrated locking
- highest protection degree IP 68
- halogen-free
- UV and ozone-resistant

Benefits

- up to 30 % shorter installation time
- permanently reliable system operation
- minimized attendance and servicing expenditure
- no lengthy crimping on-site when using pre-assembled and overmolded harnesses
- ideal wiring strategy for every application: overmolded solution is pre-assembled and tested, field-attachable solution available for home run cables
- system meets international requirements, including NEC 2008 NFPA 70
- all from one source, available worldwide
- standard and customized solutions

Phoenix Solar AG



PVStrom GmbH & Co. KG



Solarpark Rodenäs GmbH



Inventux Technologies AG



Lumberg Connect
 customized solutions®
 customized solutions®



**LC3-JC
LC4-JC**

JC = Junction boxes for Crystalline modules

Photovoltaic junction boxes LC3® and LC4® for crystalline modules

page **12**



**LC3-JT
LC4-JT**

JT = Junction boxes for Thinfilm modules

Photovoltaic junction boxes LC3® and LC4® for thinfilm modules, single-pole and two-pole, for ribbons fed trough the back plane of the module or over the edge of the module

page **13**



**LC3-AM
LC4-AM**

AM = Cable Assemblies, Modular harnesses

Photovoltaic connecting cables LC3® and LC4®, with over-molded connector at one end

page **16**

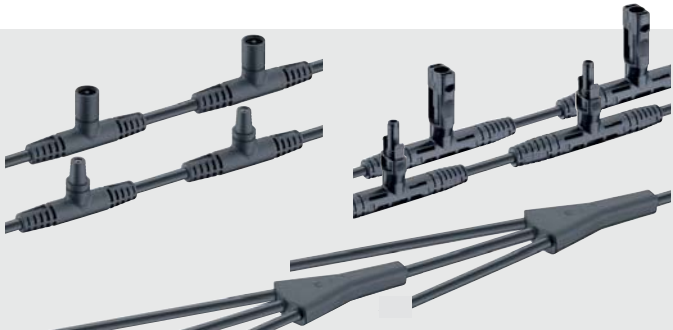


**LC3-AM
LC4-AM**

AM = Cable Assemblies, Modular harnesses

Photovoltaic connecting cables LC3® and LC4®, with over-molded connectors at both ends
Adapter cables LC3® to LC4®

page **16**



**LC3-AT - LC3-AX
LC4-AT - LC4-AX**

AT = Cable Assemblies, T-type/X-type array harnesses

Photovoltaic array harnesses LC3® and LC4®, type T and type X, pre-assembled **according to customer's specification**

page **18**



**LC3-CP
LC4-CP**

CP = Connector Parts

Photovoltaic connectors LC3® and LC4®, field-attachable, with crimp contacts

page **22**



LC3-CP
LC4-CP

CP = Connector Parts

Photovoltaic chassis receptacles LC3® and LC4®, for front mounting, with crimp contacts

page **24**



LC3-CP

CP = Connector Parts

Photovoltaic Y-connectors LC3®

page **26**



LC3-CX
LC4-CX

CX = Connector auXiliaries

Protective caps LC3® and LC4®

page **26**



LC3-CX
LC4-CX

CX = Connector auXiliaries

Unmating preventer LC3® (optional locking)

Unlocking tool LC4®

page **26**



LC3-CX
LC4-CX

CX = Connector auXiliaries

Processing tools and machines LC3® and LC4®

Photovoltaic cable, without connectors

Installer toolbox

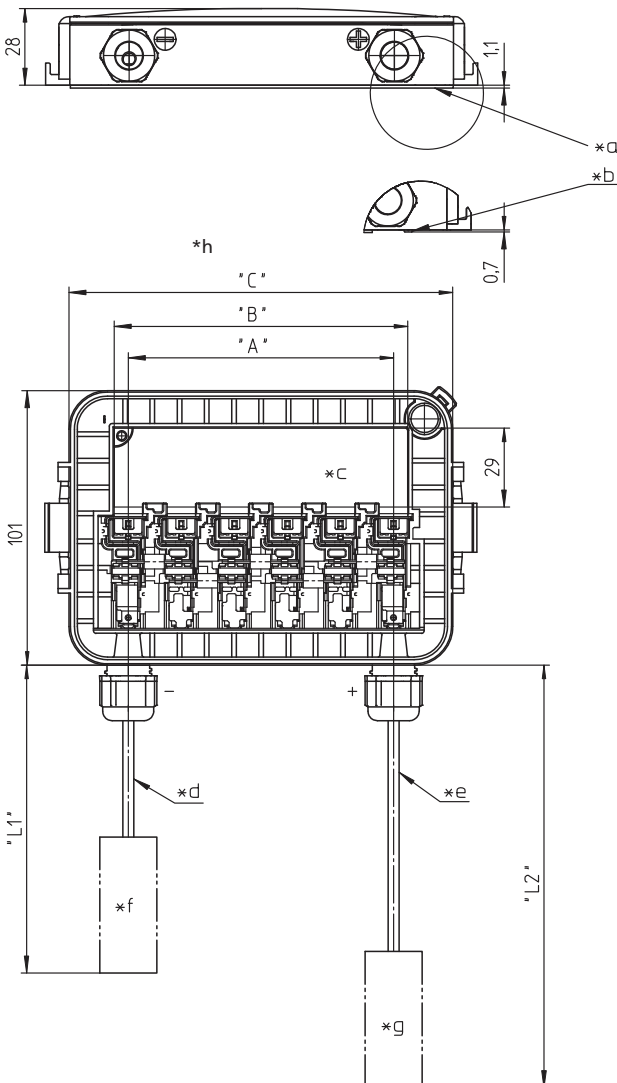
page **27**

Features

- overmolded connectors: outstanding environmental seals, excellent strain relief, unsurpassed ruggedness and durability
- LC3® with optional locking, LC4® with integrated locking according to NEC 2008 NFPA 70
- highest protection degree IP 68
- halogen-free, UV and ozone-resistant
- two options: pre-assembled, overmolded and tested or field-attachable
- standard product range and customized solutions

Benefits

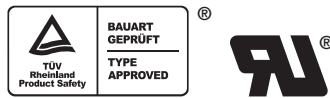
- permanently reliable system operation
- minimized attendance and servicing expenditure
- no lengthy crimping on-site when using pre-assembled and overmolded harnesses
- ideal wiring strategy for every application: overmolded solution is industrially pre-assembled and tested, field-attachable solution available complimentary
- system meets international requirements, including NEC 2008 NFPA 70



LC3-JC
LC4-JC

Photovoltaic junction box for crystalline modules¹, with connecting cables and overmolded connectors (alternatively LC3® or LC4®) with bend protection, with 2–6 spring clamps and 0–5 diodes, for ribbons fed through the back plane of the module, mounting with self-adhesive pad or by means of glue, cover for automatic assembly

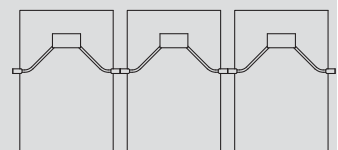
1. Temperature range	-40 °C/+85 °C (+125 °C upper limit temperature)
2. Materials	halogen-free, UV-resistant
Housing/cover	m-PPE, 5 VA according to UL 94
Contact	CuNiSi, tinned
Cap nut	m-PPE, 5 VA according to UL 94
Cable clamp	PPE/PS, V0 according to UL 94
Seal	NBR
Pressure compensation seal	PTFE
Adhesive foil	PE
Further data	see LC3-AM/LC4-AM
3. Mechanical data	
Tightening torque cap nut	3.5–4 Nm
Mating with	photovoltaic connectors LC3/LC4
Further data	see LC3-AM/LC4-AM
Protection degree (junction box)	IP 65
Connectable contact ribbons²	
Width	≤ 10 mm
Thickness	≤ 0.1 mm
4. Electrical data (at T_{amb} 20 °C)	
Rated current ³	20 A
Rated voltage ⁴	1000 V DC (UL 600 V DC)
Overvoltage category ³	III (8 kV)
Material group ⁴	I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance ⁴ between cable connections	≥ 15.9 mm
Creepage distance ⁴ between all other live parts	≥ 12.7 mm
Creepage distance ⁴ between live parts and touchable surfaces	≥ 32.0 mm
Clearance ⁴ between cable connections	≥ 15.9 mm
Clearance ⁴ between all other live parts	≥ 9.5 mm
Clearance ⁴ between live parts and touchable surfaces	≥ 32.0 mm
Insulation resistance	> 10 GΩ
Protective class	II
¹	according to application class A of IEC 61730-1/UL 1703
²	connection of other ribbons on request
³	without diode
⁴	according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



- *a self-adhesive pad option
- *b spacer option for fixation by means of glue
- *c Assembly hole for contact ribbons, view without cover
- *d left connecting cable for negative pole (-): see either LC3-AM or LC4-AM
- *e right connecting cable for positive pole (+): see either LC3-AM or LC4-AM
- *f left overmolded connector: LC3-AM resp. LC4-AM
- *g right overmolded connector: LC3-AM resp. LC4-AM
- *h modular design; measure "C" max. 141 mm (with 6 clamps)

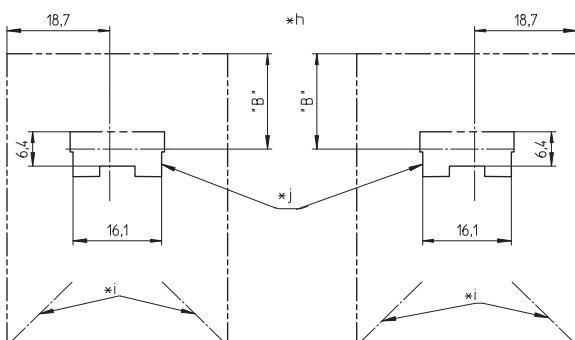
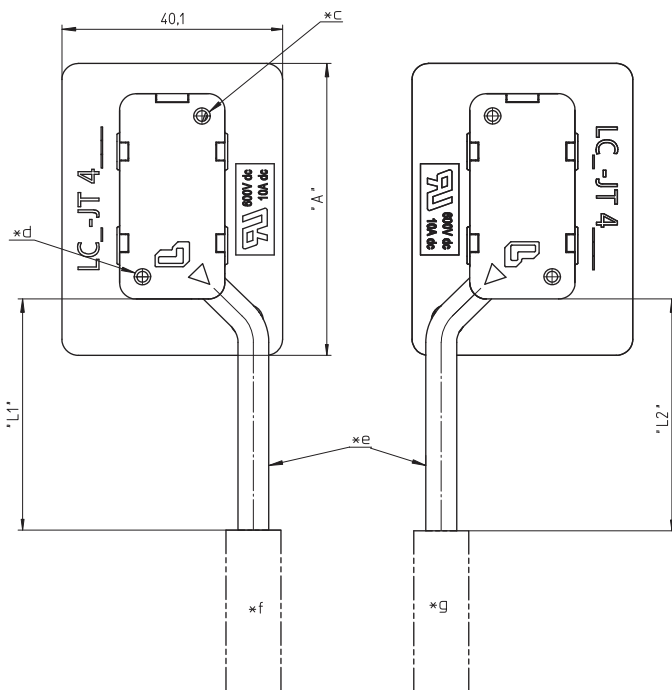
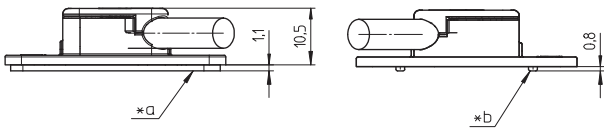
Wiring diagram

Two-pole junction boxes, for ribbons fed through the back plane of the module



Designation

LC3-JC	details upon request
LC4-JC	details upon request



LC3-JT 4...
LC4-JT 4...

Photovoltaic junction boxes for thin film modules¹, single-pole, with connecting cables and overmolded connectors (alternatively LC3® or LC4®) with bend protection, for ribbons fed **through the back plane** of the module, mounting with self-adhesive pad or by means of glue, for potting, cover for automatic assembly

1. Temperature range	-40 °C/+85 °C (+140 °C upper limit temperature)
2. Materials	UV-resistant
Housing/cover	PET GF, 5 VA according to UL 94
Contact	XCrNi
Crimp bushing	Cu, tinned
Potting compound	on request
Self-adhesive pad	on request
3. Mechanical data	
Mating with	photovoltaic connectors LC3/LC4
Further data	see LC3-AM/LC4-AM
Protection degree (junction box)	IP 65
Connectable contact ribbons	
Width	≤ 6 mm
Thickness	≤ 0.1 mm
4. Electrical data (at T_{amb} 20 °C)	
Rated current	10 A at T _{amb} 85 °C
Rated voltage ²	1000 V DC
Overvoltage category	III (8 kV)
Material group ²	IIIA (IEC)/2 (UL) (CTI ≥ 250)
Creepage distance between contact and touchable surface	≥ 20 mm
Clearance between contact and touchable surface	≥ 20 mm
Insulation resistance	> 10 GΩ
Protective class	II

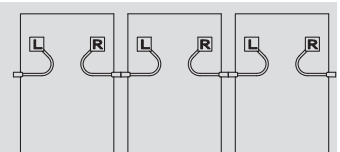
¹ according to application class A of IEC 61730-1/UL 1703
² according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



- *a option with self-adhesive pad
- *b spacer option for fixation by means of glue
- *c potting hole
- *d deaerator hole
- *e connecting cables: see either LC3-AM or LC4-AM, section 2.5 mm² (AWG 14) or 4.0 mm² (AWG 12)
- *f left overmolded connector: LC3-AM resp. LC4-AM
- *g right overmolded connector: LC3-AM resp. LC4-AM
- *h schematic diagrams of bottom of housing, with ribbon feed-through (alternative options)
- *i cable exit alternatively on right or left side
- *j opening in bottom of housing for ribbon feed-through

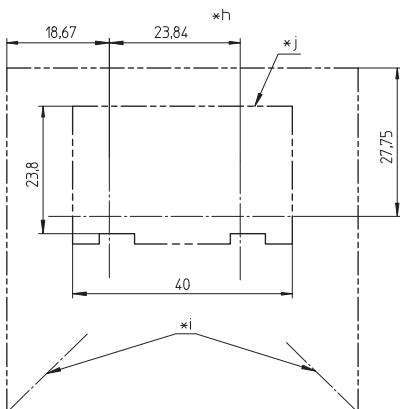
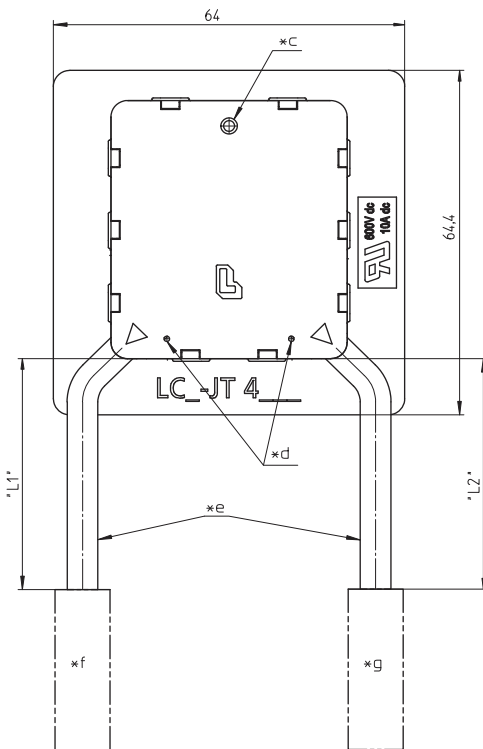
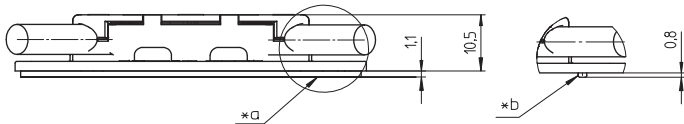
Wiring diagram

Single pole junction boxes, for ribbons fed through the back plane of the module



Designation

LC3-JT 4...	details upon request
LC4-JT 4...	details upon request

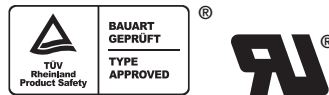


LC3-JT 4...
LC4-JT 4...

Photovoltaic junction boxes for thin film modules¹, two-pole, with connecting cables and overmolded connectors (alternatively LC3® or LC4®) with bend protection, with or without diode, for ribbons fed **through the back plane** of the module, mounting with self-adhesive pad or by means of glue, for potting, cover for automatic assembly

1. Temperature range	-40 °C/+85 °C (+140 °C upper limit temperature)
2. Materials	UV-resistant
Housing/cover	PET GF, 5 VA according to UL 94
Contact	XCrNi, tinned
Crimp bushing	Cu, tinned
Potting compound	on request
Self-adhesive pad	on request
3. Mechanical data	
Mating with	photovoltaic connectors LC3/LC4
Further data	see LC3-AM/LC4-AM
Protection degree (junction box)	IP 65
Connectable contact ribbons	
Width	≤ 6 mm
Thickness	≤ 0.1 mm
4. Electrical data (at T_{amb} 20 °C)	
Rated current	10 A at T _{amb} 85 °C
Rated voltage ²	1000 V DC
Overvoltage category	III (8 kV)
Material group ²	IIIa (IEC)/2 (UL) (CTI ≥ 250)
Creepage distance between contact and touchable surface	≥ 20 mm
Clearance between contact and touchable surface	≥ 15.9 mm
Insulation resistance	> 10 GΩ
Protective class	II

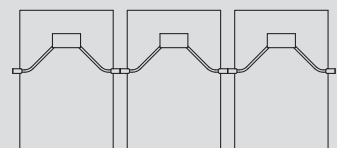
¹ according to application class A of IEC 61730-1/UL 1703
² according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



- *a option with self-adhesive pad
- *b spacer option for fixation by means of glue
- *c potting hole
- *d deaerator holes
- *e connecting cables: see either LC3-AM or LC4-AM, section 2.5 mm² (AWG 14) or 4.0 mm² (AWG 12)
- *f left overmolded connector: LC3-AM resp. LC4-AM
- *g right overmolded connector: LC3-AM resp. LC4-AM
- *h schematic diagram of bottom of housing, with ribbon feed-through
- *i cable exits
- *j opening in bottom of housing for ribbon feed-through

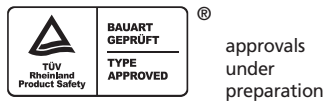
Wiring diagram

Two-pole junction boxes, for ribbons fed through the back plane of the module



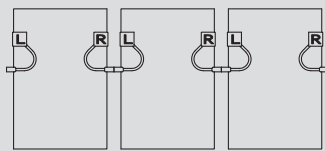
Designation

LC3-JT 4...	details upon request
LC4-JT 4...	details upon request



Wiring diagram

Single pole junction boxes, for ribbons fed over the edge of the module



Designation

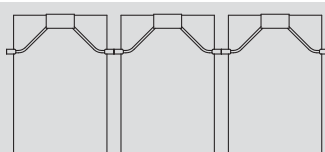
LC3-JT 4... details upon request
LC4-JT 4... details upon request



approvals under preparation

Wiring diagram

Two-pole junction boxes, for ribbons fed over the edge of the module



Designation

LC3-JT 4... details upon request
LC4-JT 4... details upon request

LC3-JT 4...

LC4-JT 4...

Photovoltaic junction boxes for thin film modules¹, single-pole, with connecting cables and overmolded connectors (alternatively LC3® or LC4®) with bend protection, for ribbons fed **over the edge** of the module, mounting by means of glue, for potting, cover for automatic assembly

1. Temperature range	-40 °C/+85 °C (+140 °C upper limit temperature)
2. Materials	UV-resistant
Housing/cover	PET GF, 5 VA according to UL 94
Contact	XCrNi
Crimp bushing	Cu, tinned
Potting compound	on request
Self-adhesive pad	on request
3. Mechanical data	
Mating with	photovoltaic connectors LC3/LC4
Further data	see LC3-AM/LC4-AM
Protection degree (junction box)	IP 65
Connectable contact ribbons	
Width	≤ 6 mm
Thickness	≤ 0.1 mm
4. Electrical data (at T_{amb} 20 °C)	
Rated current	10 A at T _{amb} 85 °C
Rated voltage ²	1000 V DC
Overvoltage category	III (8 kV)
Material group ²	IIIa (IEC)/2 (UL) (CTI ≥ 250)
Creepage distance between contact and touchable surface	≥ 20 mm
Clearance between contact and touchable surface	≥ 20 mm
Insulation resistance	> 10 GΩ
Protective class	II

¹ according to application class A of IEC 61730-1/UL 1703

² according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A

LC3-JT 4...

LC4-JT 4...

Photovoltaic junction boxes for thin film modules¹, two-pole, with connecting cables and overmolded connectors (alternatively LC3® or LC4®) with bend protection, with or without diode, for ribbons fed **over the edge** of the module, mounting with self-adhesive pad or by means of glue, for potting, cover for automatic assembly

1. Temperature range	-40 °C/+85 °C (+140 °C upper limit temperature)
2. Materials	UV-resistant
Housing/cover	PET GF, 5 VA according to UL 94
Contact	XCrNi, tinned
Crimp bushing	Cu, tinned
Potting compound	on request
Self-adhesive pad	on request
3. Mechanical data	
Mating with	photovoltaic connectors LC3/LC4
Further data	see LC3-AM/LC4-AM
Protection degree (junction box)	IP 65
Connectable contact ribbons	
Width	≤ 6 mm
Thickness	≤ 0.1 mm
4. Electrical data (at T_{amb} 20 °C)	
Rated current	10 A at T _{amb} 85 °C
Rated voltage ²	1000 V DC
Overvoltage category	III (8 kV)
Material group ²	IIIa (IEC)/2 (UL) (CTI ≥ 250)
Creepage distance between contact and touchable surface	≥ 20 mm
Clearance between contact and touchable surface	≥ 15.9 mm
Insulation resistance	> 10 GΩ
Protective class	II

¹ according to application class A of IEC 61730-1/UL 1703

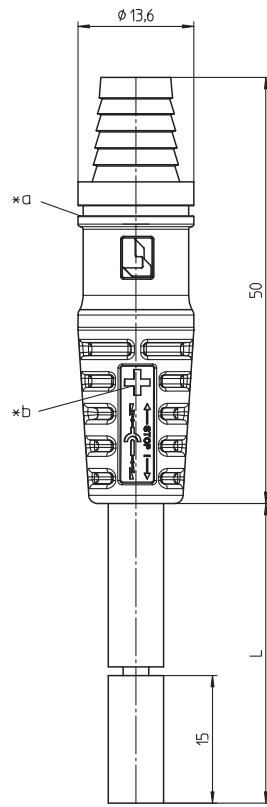
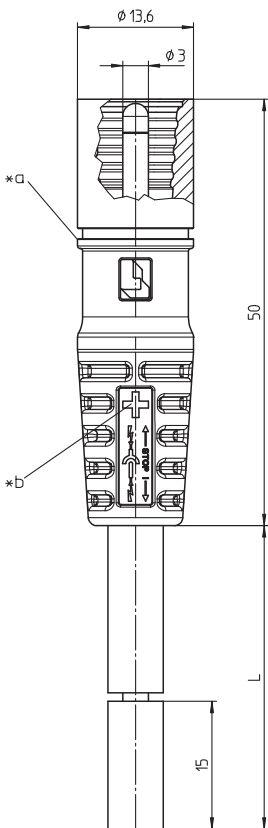
² according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



LC3-AM 00



LC3-AM 01



*a recess for optional unmating preventer LC3-CX 90 according to NEC 2008 NFPA 70

*b marking + on LC3-AM ...-1
marking - on LC3-AM ...-2

LC3-AM 00
LC3-AM 01
LC3-AM 6...

Photovoltaic connecting cables, with overmolded connectors, with bend protection

LC3-AM 00: with plug and open end

LC3-AM 01: with socket and open end

LC3-AM 60: with two plugs

LC3-AM 61: with two sockets

LC3-AM 62: with plug and socket

LC3-AM 650: with LC3 plug and LC4 plug⁵

LC3-AM 651: with LC3 socket and LC4 socket⁵

LC3-AM 652: with LC3 plug and LC4 socket⁵

LC3-AM 655: with LC3 socket and LC4 plug⁵

1. Temperature range -40 °C/+85 °C
(+110 °C upper limit temperature)

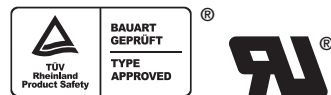
2. Materials
Insulating body/housing TPU, V0 according to UL 94
Contact pin/bush CuZn, pre-nickel and tinned
Contact protection (plugs only) PA, V0 according to UL 94
Sleeve (sockets only) CuZn, nickel

3. Mechanical data
Insertion force¹ ≤ 89 N
Withdrawal force¹ ≥ 89 N
Mating cycles¹ 50
Mating with photovoltaic connectors LC3
Protection degree² IP 68

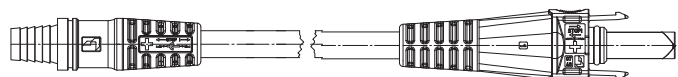
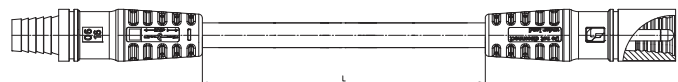
Connected conductor
Photovoltaic cable, double-insulated, technical data on request
Section alternatively 2.5 mm² (AWG 14)
4.0 mm² (AWG 12)
6.0 mm² (AWG 10)

4. Electrical data (bei T_{amb} 20 °C)
Contact resistance^{1,3} ≤ 5.0 mΩ
Rated current¹ 22 A at T_{amb} 85 °C, 2.5 mm² (AWG 10)
35 A at T_{amb} 85 °C, 4.0 mm² (AWG 12)
40 A at T_{amb} 85 °C, 6.0 mm² (AWG 10)
Rated voltage⁴ 1000 V DC
Overvoltage category⁴ III (8 kV)
Material group⁴ I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance ≥ 12.5 mm
Clearance ≥ 12.5 mm
Insulation resistance > 10 GΩ

¹ measured with a proper counterpart
² 1 m/24 h, only in mated condition with a proper counterpart
³ IP X8 requirements under agreement between manufacturer and user
⁴ only connectors without cable
⁵ according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A
adapter cables LC3 to LC4, for technical data of LC4 connectors see LC4-AM



LC3-AM 62



LC3-AM 651

Designation

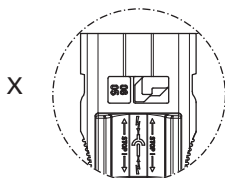
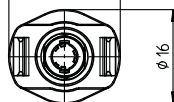
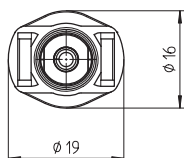
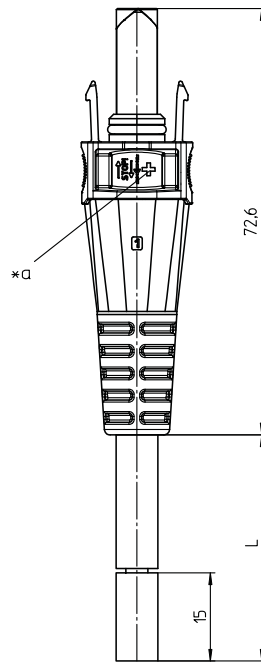
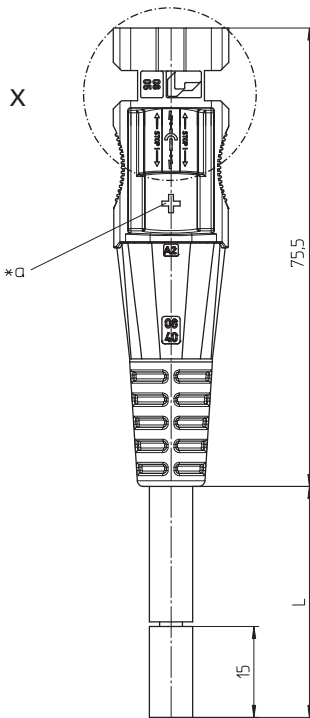
LC3-AM ...

details upon request



LC4-AM 00

LC4-AM 01



LC4-AM 00 IT

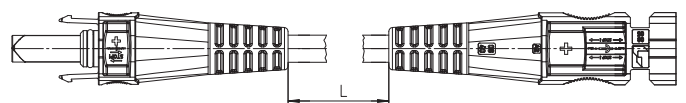
LC4-AM 00
LC4-AM 01
LC4-AM 6...

Photovoltaic connecting cables, with overmolded connectors, integrated locking and bend protection
LC4-AM 00: with plug and open end
LC4-AM 01: with socket and open end
LC4-AM 60: with two plugs
LC4-AM 61: with two sockets
LC4-AM 62: with plug and socket
LC3-AM 650: with LC3 plug and LC4 plug⁶
LC3-AM 651: with LC3 socket and LC4 socket⁶
LC3-AM 652: with LC3 plug and LC4 socket⁶
LC3-AM 655: with LC3 socket and LC4 plug⁶

- 1. Temperature range** -40 °C/+85 °C (+110 °C upper limit temperature)
 - 2. Materials**
Insulating body/housing: halogen-free, UV-resistant m-PPE, V0 according to UL 94
Contact pin/bush: CuNiSi, tinned
Tubular rivet: CuZn
Sealing (sockets only): NBR
 - 3. Mechanical data**
Insertion force¹: ≤ 20 N
Withdrawal force¹: ≥ 10 N
Retaining force of locking latches²: ≥ 90 N
Mating cycles: 50
Mating with photovoltaic connectors LC4
Protection degree³: IP 68
Connected conductor
Photovoltaic cable, double-insulated, technical data on request
Section alternatively: 2.5 mm² (AWG 14), under preparation
4.0 mm² (AWG 12)
6.0 mm² (AWG 10)
 - 4. Electrical data (at T_{amb} 20 °C)**
Contact resistance⁴: ≤ 5.0 mΩ
Rated current²: 30 A at T_{amb} 85 °C, 4.0 mm² (AWG 12)
30 A at T_{amb} 85 °C, 6.0 mm² (AWG 10)
Rated voltage⁵: 1000 V DC
Overvoltage category⁵: III (8 kV)
Material group⁵: I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance: ≥ 28.2 mm
Clearance: ≥ 28.2 mm
Insulation resistance: > 10 GΩ
- ¹ measured with a polished steel gauge, nominal thickness 4.0 mm
² measured with a proper counterpart
³ 1 m/24 h, only in mated condition with a proper counterpart
⁴ IP X8 requirements under agreement between manufacturer and user measured with a proper counterpart, only connectors without cable
⁵ according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A
⁶ adapter cables LC3 to LC4, for technical data of LC3 connectors see LC3-AM



LC4-AM 62



Designation

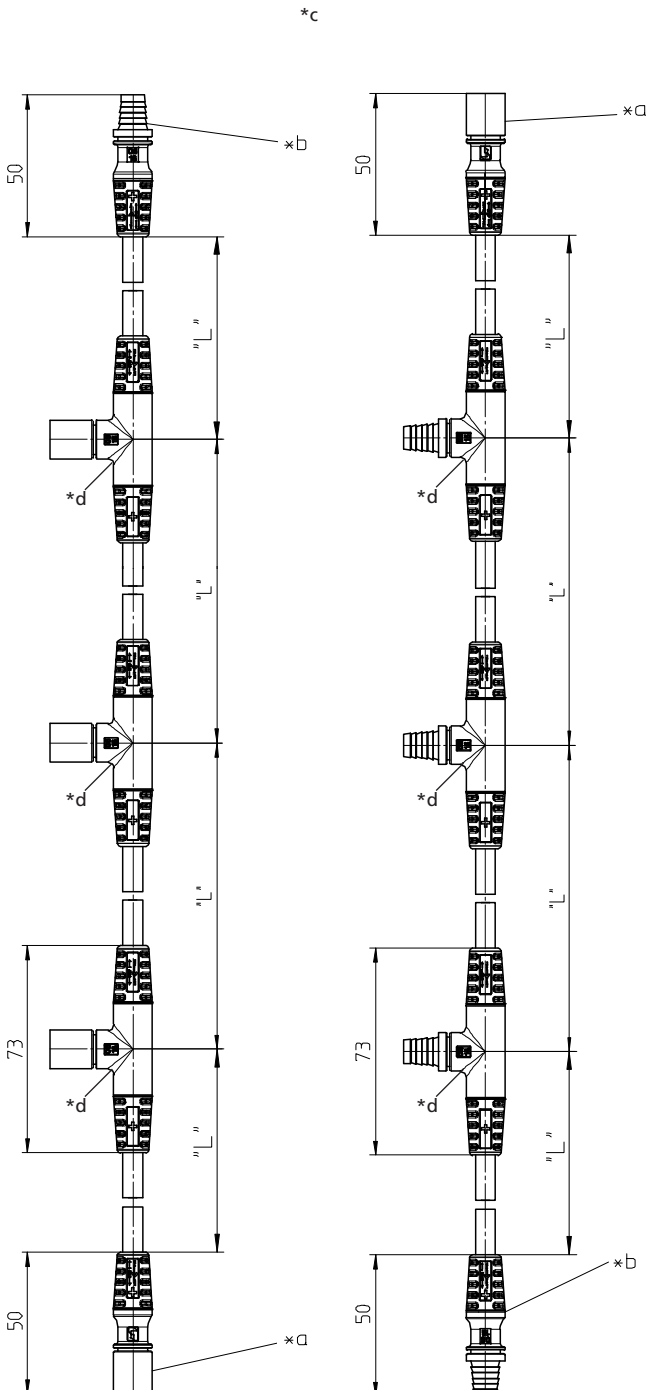
LC4-AM ...

details upon request

*a marking + on LC4-AM ...-1
marking - on LC4-AM ...-2

LC3®

LC4®

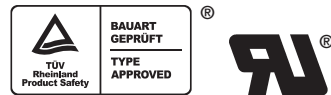


LC3-AT

Photovoltaic array harness, type T, with overmolded connector or branches with bend protection, total length, number of branches and distance between branches (plugs or sockets) according to customer's specification

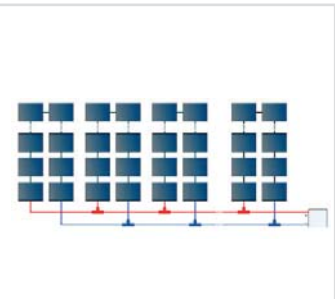
- 1. Temperature range** -40 °C/+85 °C
(+110 °C upper limit temperature)
- 2. Materials** halogen-free, UV-resistant
Insulating body/housing TPU, V0 according to UL 94
Contact sheet CuSn, tinned
Further data see LC3-AM
- 3. Mechanical data**
Mating with photovoltaic connectors LC3
Protection degree¹ IP 68
Further data see LC3-AM
Connected conductor
Photovoltaic cable, double-insulated, technical data on request
Section 4.0 mm² (AWG 12) or 6.0 mm² (AWG 10)
- 4. Electrical data (at T_{amb} 20 °C)**
Contact resistance² ≤ 5.0 mΩ
Rated current³ 35 A at T_{amb} 85 °C
Rated voltage⁴ 1000 V DC
Overvoltage category⁴ III (8 kV)
Material group⁴ I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance ≥ 12.5 mm
Clearance ≥ 12.5 mm
Insulation resistance > 10 GΩ

- ¹ 1 m/24 h, only in mated condition with a proper counterpart
- ² IP X8 requirements under agreement between manufacturer and user
- ³ measured with a proper counterpart, only connectors without cable
- ⁴ maximum current value for the whole component, measured with a proper counterpart according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



Photovoltaic array harnesses: wiring diagram type T

Interconnection of module tables with complete, overmolded harnesses – pre-assembled at the customer's specification

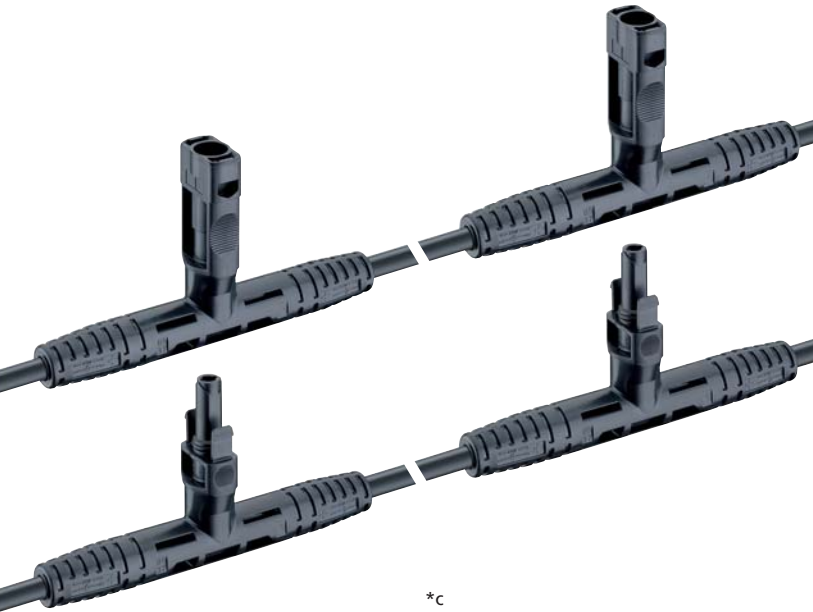


- *a plug LC3-AM 00
- *b socket LC3-AM 01
- *c configuration examples
- *d T-branch

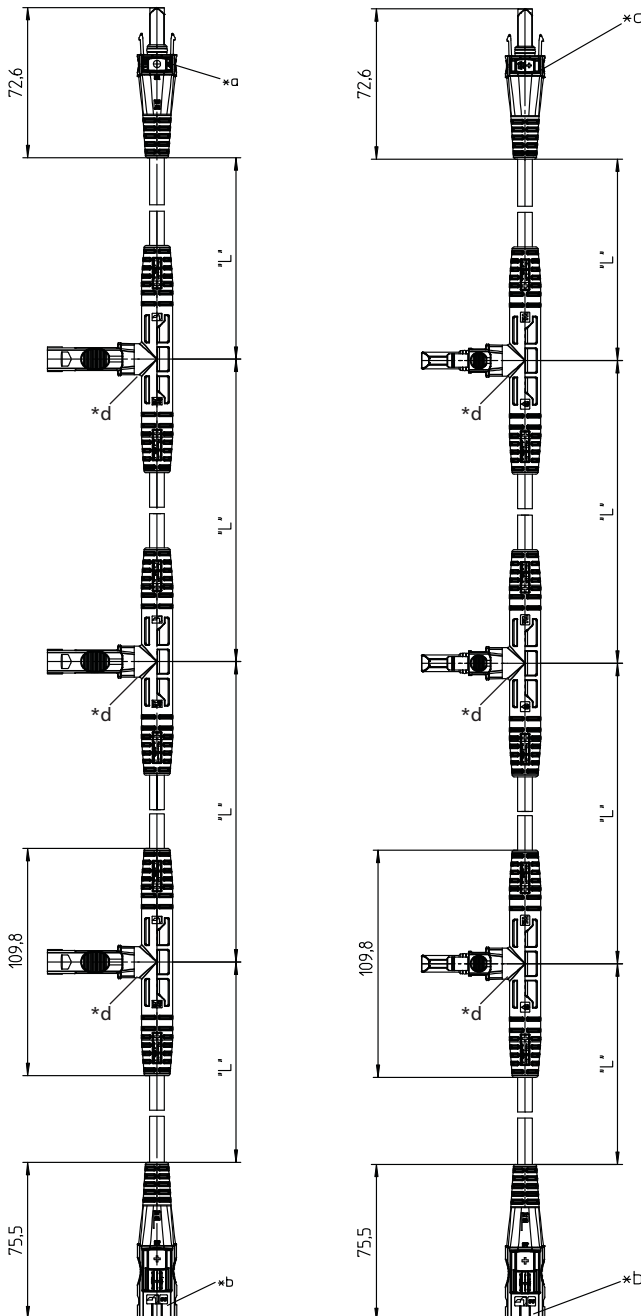
Designation

LC3-AT ...

details upon request



*c



LC4-AT

Photovoltaic array harness, type T, with overmolded connect- or branches with integrated locking and bend protection, total length, number of branches and distance between branches (plugs or sockets) **according to customer's specification**

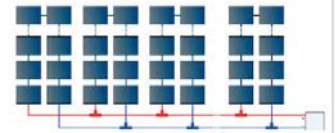
- 1. Temperature range** -40 °C/+85 °C
(+110 °C upper limit temperature)
 - 2. Materials** halogen-free, UV-resistant
Insulating body/housing PPE/PS, V0 according to UL 94
Further data see LC4-AM
 - 3. Mechanical data**
Mating with photovoltaic connectors LC4
Protection degree¹ IP 68
Further data see LC4-AM
Connected conductor
Photovoltaic cable, double-insulated, technical data on request
Section 4.0 mm² (AWG 12) or
6.0 mm² (AWG 10)
 - 4. Electrical data** (at T_{amb} 20 °C)
Contact resistance² ≤ 5.0 mΩ
Rated current³ 35 A at T_{amb} 85 °C
Rated voltage⁴ 1000 V DC
Overvoltage category⁴ III (8 kV)
Material group⁴ I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance ≥ 12.5 mm
Clearance ≥ 12.5 mm
Insulation resistance > 10 GΩ
- ¹ 1 m/24 h, only in mated condition with a proper counterpart
² IP X8 requirements under agreement between manufacturer and user
³ measured with a proper counterpart, only connectors without cable
⁴ maximum current value for the whole component according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



approvals
under preparation

Photovoltaic array harnesses: wiring diagram type T

Interconnection of module tables with complete, overmolded harnesses – pre-assembled at the customer's specification



- *a socket LC4-AM 01
- *b plug LC4-AM 00 IT
- *c configuration examples
- *d T-branch

Designation

LC4-AT ...

details upon request

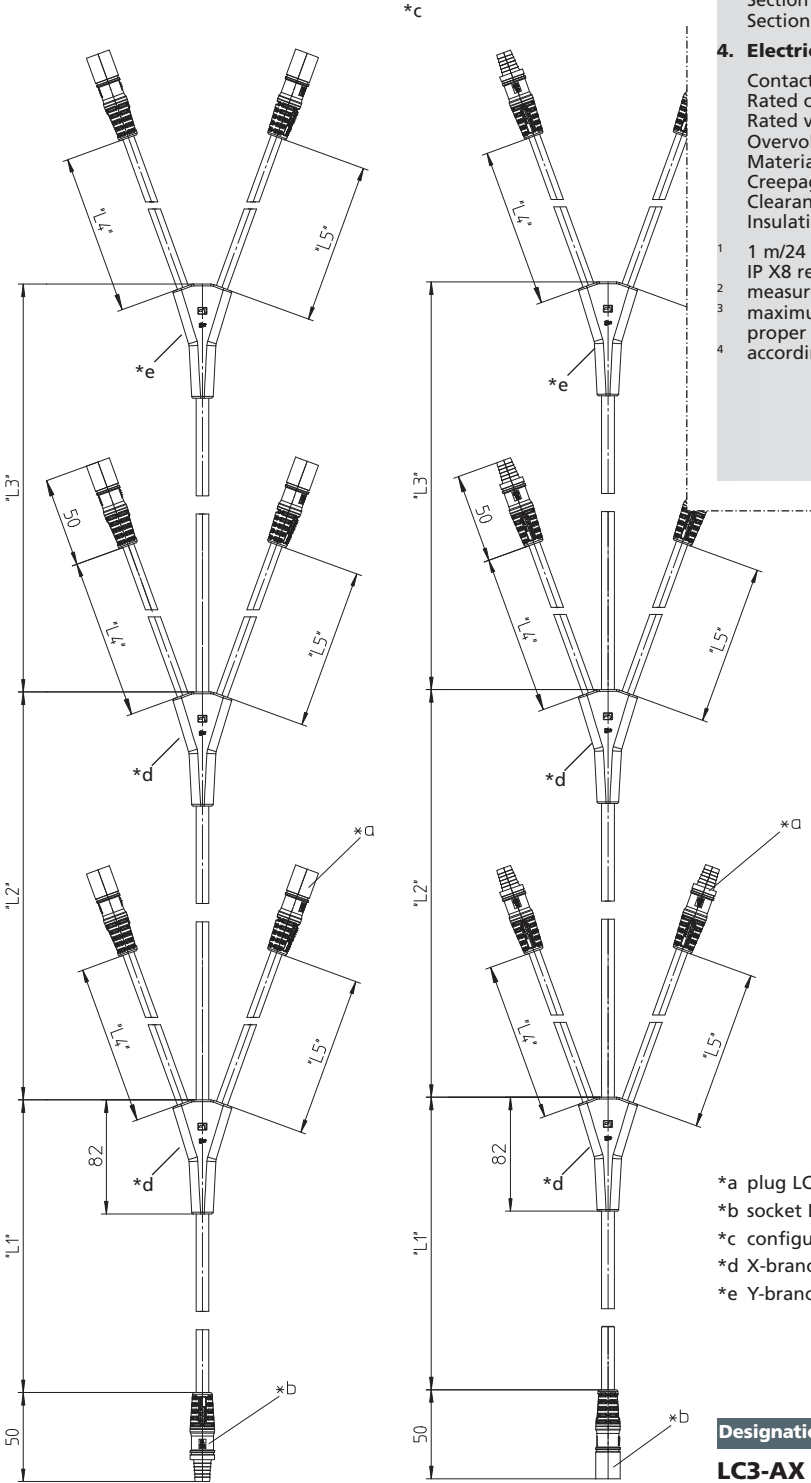


LC3-AX

Photovoltaic array harness, type X, with overmolded cable branches and connectors with bend protection, total length, number of branches and distance between branches (plugs or sockets) **according to customer's specification**

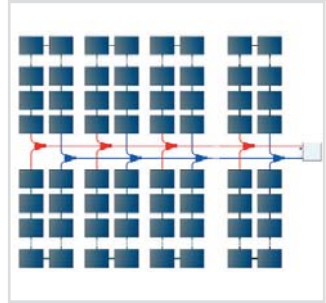
- 1. Temperature range** -40 °C/+85 °C
(+110 °C upper limit temperature)
- 2. Materials** halogen-free, UV-resistant
Insulating body/housing TPU, V0 according to UL 94
Further data see LC3-AM
- 3. Mechanical data**
Mating with photovoltaic connectors LC3
Protection degree¹ IP 68
Further data see LC3-AM
Connected conductor
Photovoltaic cable, double-insulated, technical data on request
Section main cable 6.0 mm² (AWG 10)
Section branch cable 4.0 mm² (AWG 12)
- 4. Electrical data (at T_{amb} 20 °C)**
Contact resistance² ≤ 5.0 mΩ
Rated current³ 40 A at T_{amb} 85 °C
Rated voltage⁴ 1000 V DC
Overvoltage category⁴ III (8 kV)
Material group⁴ I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance ≥ 12.5 mm
Clearance ≥ 12.5 mm
Insulation resistance > 10 GΩ

¹ 1 m/24 h, only in mated condition with a proper counterpart
² IP X8 requirements under agreement between manufacturer and user
³ measured with a proper counterpart, only connectors without cable
⁴ maximum current value for the whole component, measured with a proper counterpart according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



Photovoltaic array harnesses: wiring diagram type X

Interconnection of module tables with complete, overmolded harnesses – pre-assembled at the customer's specification



- *a plug LC3-AM 00
- *b socket LC3-AM 01
- *c configuration examples
- *d X-branch
- *e Y-branch

additional approvals under preparation

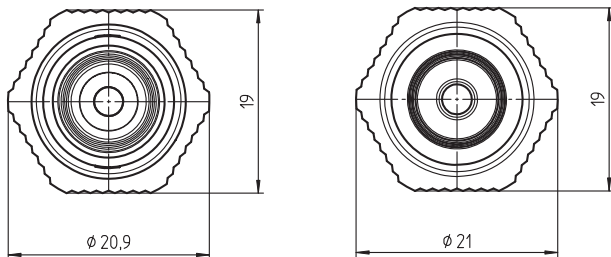
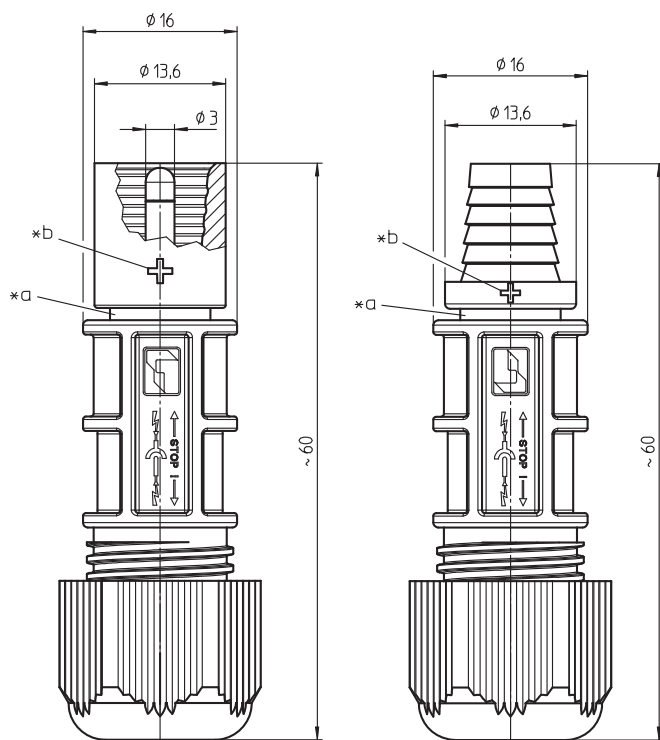
Designation
LC3-AX ... details upon request



LC3-CP 30



LC3-CP 31



*a recess for optional unmating preventer LC3-CX 90 according to NEC 2008 NFPA 70

*b marking + on LC3-CP ...-1, - bei LC3-CP ...-2

LC3-CP 30
LC3-CP 31

Photovoltaic connector, field-attachable, with crimp contact
LC3-CP 30: plug
LC3-CP 31: socket

1. Temperature range -40 °C/+85 °C
(+110 °C upper limit temperature)

2. Materials halogen-free, UV-resistant
Insulating body/housing TPU, V0 according to UL 94
Contact pin/bush CuZn, pre-nickel and tinned
Contact protection (plugs only) PA, V0 according to UL 94
Sleeve (sockets only) CuZn, nickel
Cap nut PA, V0 according to UL 94
Seal NBR

3. Mechanical data
Insertion force¹ ≤ 89 N
Withdrawal force¹ ≥ 89 N
Mating cycles¹ 50
Tightening torque cap nut² 2–3 Nm
Mating with photovoltaic connectors LC3
Protection degree³ IP 68

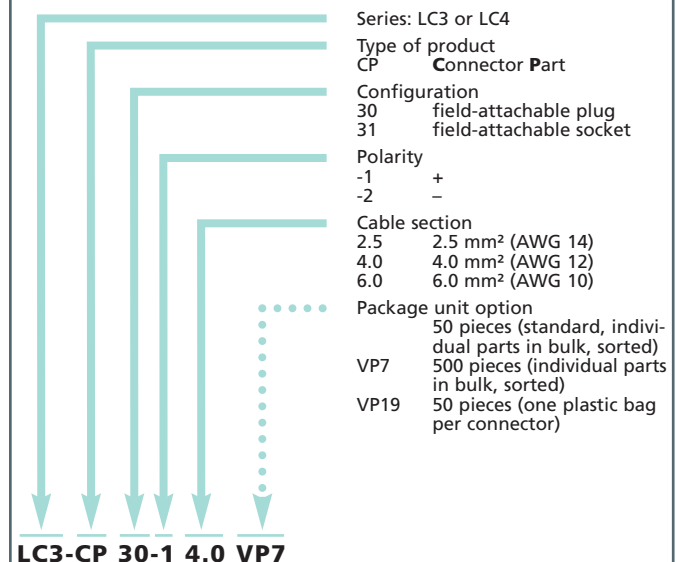
Connectable conductors crimp terminal
Photovoltaic cable, double-insulated⁴
Section LC3-CP ... 2.5 2.5 mm² (AWG 14)
Section LC3-CP ... 4.0 4.0 mm² (AWG 12)
Section LC3-CP ... 6.0 6.0 mm² (AWG 10)
Cable diameter 4–8 mm
Approved cables on the Internet site www.lumberg.com

4. Electrical data (at T_{amb} 20 °C)
Contact resistance¹ ≤ 5.0 mΩ
Rated current¹ LC3-CP ... 2.5 22 A at T_{amb} 85 °C
Rated current¹ LC3-CP ... 4.0 35 A at T_{amb} 85 °C
Rated current¹ LC3-CP ... 6.0 40 A at T_{amb} 85 °C
Rated voltage⁵ 1000 V DC
Overvoltage category⁵ III (8 kV)
Material group⁵ I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance ≥ 12.5 mm
Clearance ≥ 12.5 mm
Insulation resistance > 10 GΩ

¹ measured with a proper counterpart
² strain relief test according to TÜV specification ensured by use of cable according to Lumberg specification
³ 1 m/24 h, only in mated condition with a proper counterpart
⁴ IP X8 requirements under agreement between manufacturer and user wire construction preferably according to IEC 60228 class 5, otherwise crimp connection must be tested
⁵ according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



Composition of type designation



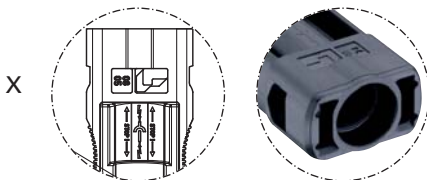
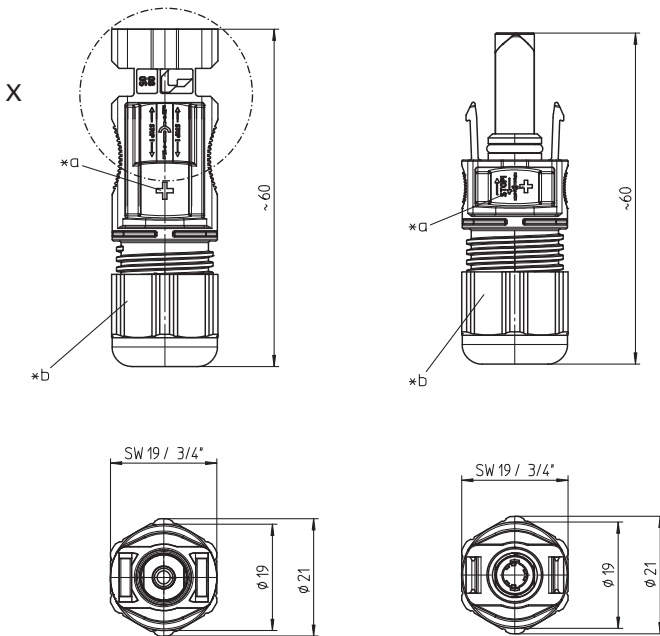
Standard packaging: individual parts in bulk, sorted in plastic bags of 50 pieces, in a cardboard box



LC4-CP 30



LC4-CP 31



LC4-CP 30 IT

*a marking + on LC4-CP ...-1, - bei LC4-CP ...-2
*b hexagonal nut

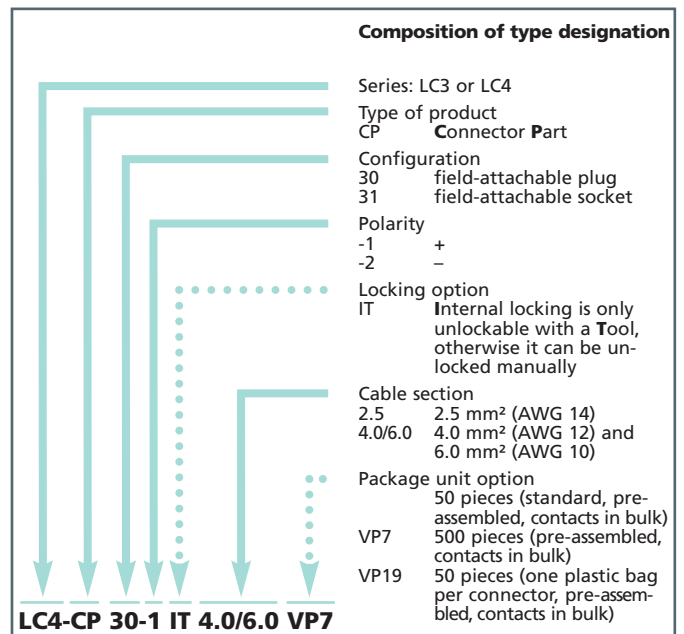
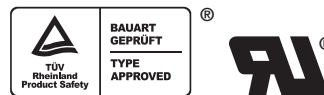
Standard packaging: pre-assembled, contacts in bulk, sorted in plastic bags of 50 pieces, in a cardboard box

LC4-CP 30
LC4-CP 31

Photovoltaic connector, field-attachable, with integrated locking and crimp contact

LC4-CP 30: plug
LC4-CP 31: socket

- 1. Temperature range** -40 °C/+85 °C
(+110 °C upper limit temperature)
 - 2. Materials** halogen-free, UV-resistant
Insulating body/housing m-PPE, V0 according to UL 94
Contact pin/bush CuNiSi, tinned
Seal NBR
Cap nut PC, V1 according to UL 94
 - 3. Mechanical data**
Insertion force¹ ≤ 20 N
Withdrawal force¹ ≥ 10 N
Retaining force of locking latches² ≥ 90 N
Mating cycles² 50
Tightening torque cap nut 3.5–4.5 N
Mating with photovoltaic connectors LC4
Protection degree³ IP 68
Connectable conductors crimp terminal
Photovoltaic cable, double-insulated⁴
Section LC4-CP ... 2.5 2.5 mm² (AWG 14)
Section LC4-CP ... 4.0/6.0 4.0 mm² (AWG 12), 6.0 mm² (AWG 10)
Cable diameter 6.2–7.8 mm
Approved cables on the Internet site www.lumberg.com
 - 4. Electrical data** (at T_{amb} 20 °C)
Contact resistance² ≤ 5.0 mΩ
Rated current² LC4-CP ... 2.5 22 A at T_{amb} 85 °C
Rated current² LC4-CP ... 4.0/6.0 30 A at T_{amb} 85 °C
Rated voltage⁵ 1000 V DC (UL 600 V DC)
Overvoltage category⁵ III (8 kV)
Material group⁵ I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance ≥ 28.2 mm
Clearance ≥ 28.2 mm
Insulation resistance > 10 GΩ
- ¹ measured with a polished steel gauge, nominal thickness 4.0 mm
² measured with a proper counterpart
³ only in mated condition with a proper counterpart
⁴ IP X8 requirements under agreement between manufacturer and user
wire construction preferably according to IEC 60228 class 5, otherwise crimp connection must be tested
⁵ according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A

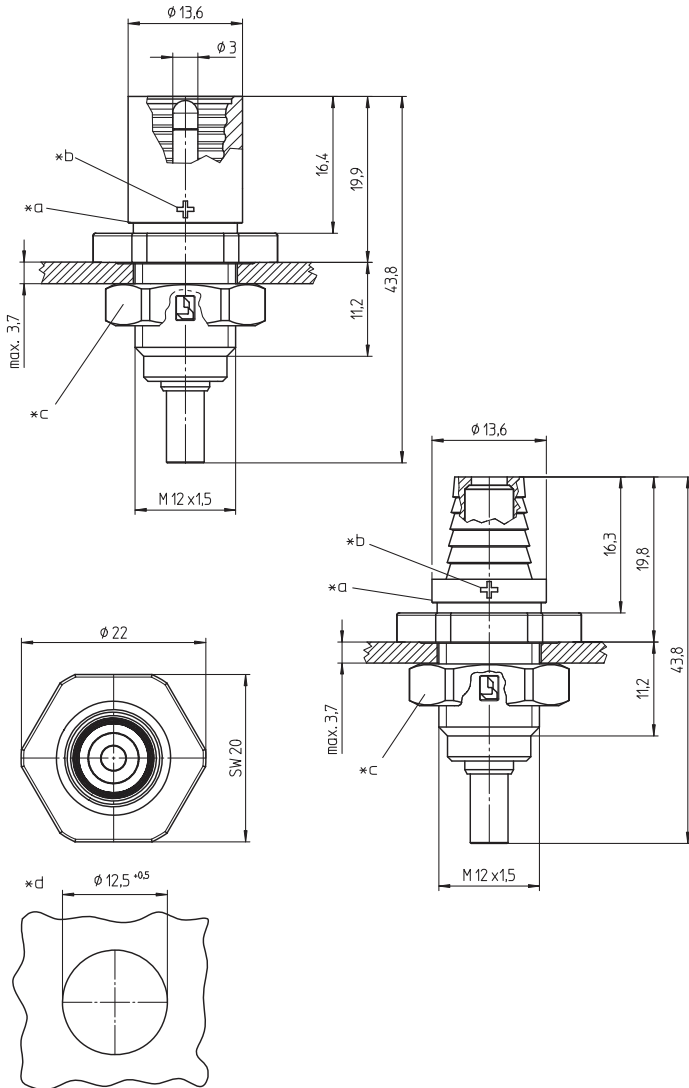




LC3-CP 10



LC3-CP 11



LC3-CP 10
LC3-CP 11

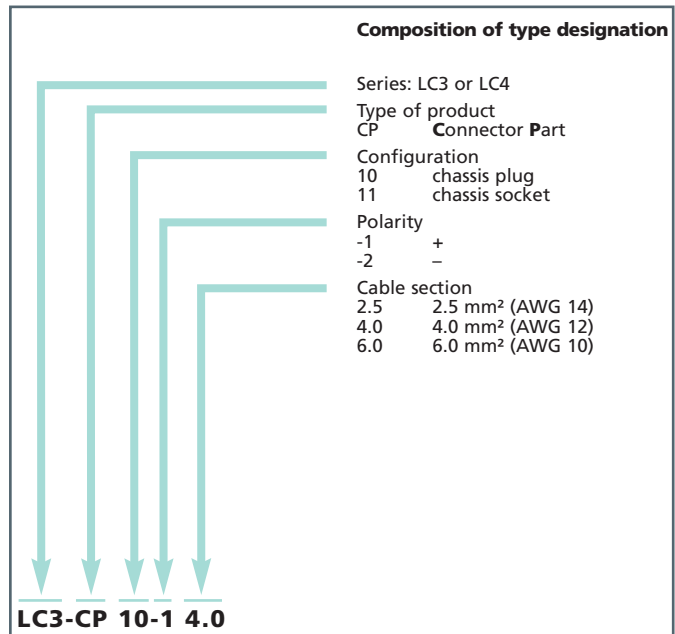
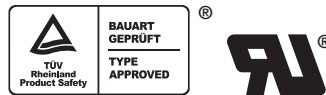
Photovoltaic chassis receptacle, with crimp contact, for front mounting

LC3-CP 10: plug

LC3-CP 11: socket

- Temperature range** -40 °C/+85 °C
(+110 °C upper limit temperature)
- Materials** halogen-free, UV-resistant
Insulating body/housing TPU, V0 according to UL 94
Contact pin/bush CuZn, pre-nickel and tinned
Contact protection (plugs only) PA, V0 according to UL 94
Sleeve (sockets only) CuZn, nickel
Hexagonal nut PA GF
- Mechanical data**
Insertion force¹ ≤ 89 N
Withdrawal force¹ ≥ 89 N
Mating cycles¹ 50
Mating with photovoltaic connectors LC3
Protection degree² IP 68
Connectable conductors crimp terminal stranded wire³
Section LC3-CP 10-... 2.5 2.5 mm² (AWG 14)
Section LC3-CP 10-... 4.0 4.0 mm² (AWG 12)
Section LC3-CP 10-... 6.0 6.0 mm² (AWG 10)
- Electrical data (at T_{amb} 20 °C)**
Contact resistance¹ ≤ 5.0 mΩ
Rated current¹ LC3-CP ... 2.5 22 A at T_{amb} 85 °C
Rated current¹ LC3-CP ... 4.0 35 A at T_{amb} 85 °C
Rated current¹ LC3-CP ... 6.0 40 A at T_{amb} 85 °C
Rated voltage⁴ 1000 V DC
Overvoltage category⁴ III (8 kV)
Material group⁴ I (IEC)/0 (UL) (CTI ≥ 600)
Creepage distance ≥ 12.5 mm
Clearance ≥ 12.5 mm
Insulation resistance > 10 GΩ

¹ measured with a proper counterpart
² 1 m/24 h, only in mated condition with a proper counterpart
³ IP X8 requirements under agreement between manufacturer and user wire construction preferably according to IEC 60228 class 5, otherwise crimp construction must be tested
⁴ according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



*a recess for optional unmating preventer LC3-CX 90 according to NEC 2008 NFPA 70

*b marking + on LC3-CP ...-1, - bei LC3-CP ...-2

*c nut enclosed separately

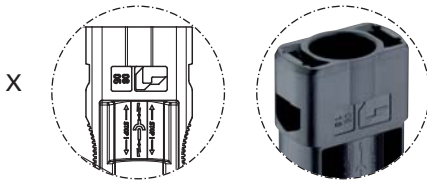
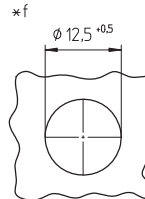
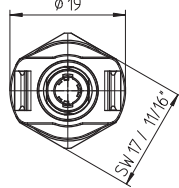
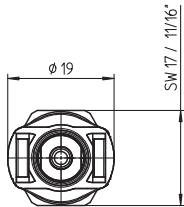
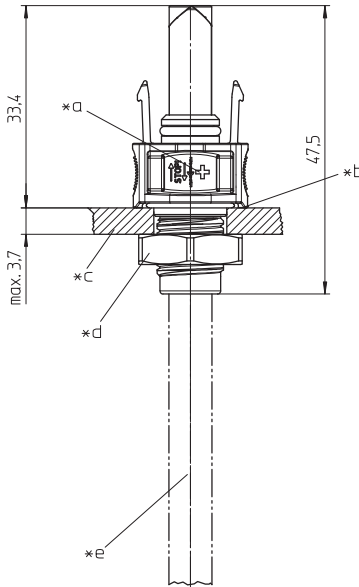
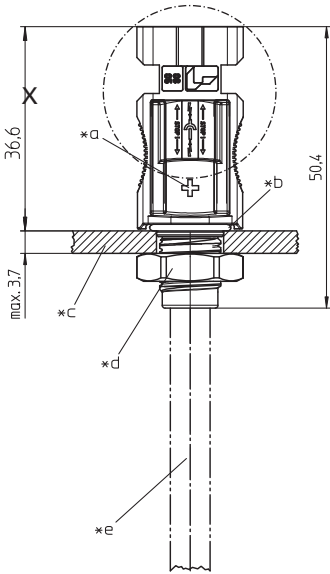
*d port

Package unit: 100 pieces in a cardboard box



LC4-CP 10

LC4-CP 11



LC4-CP 10 IT

- *a marking + on LC4-CP ...-1, - bei LC4-CP ...-2
- *b sealing
- *c chassis panel
- *d nut enclosed separately
- *e cable with mounted contact to be inserted into the housing after crimping process*
- *f port

Standard packaging: individual parts in bulk, sorted in plastic bags of 100 pieces, in a cardboard box

LC4-CP 10
LC4-CP 11

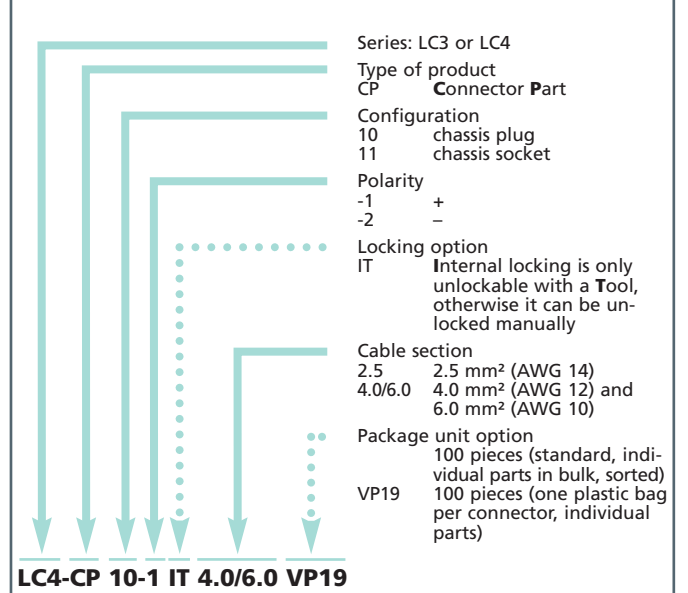
Photovoltaic chassis receptacle, with integrated locking and crimp contact, for front mounting

LC4-CP 10: plug
LC4-CP 11: socket

1. Temperature range	-40 °C/+85 °C (+110 °C upper limit temperature)
2. Materials	halogen-free, UV-resistant
Insulating body/housing	m-PPE, V0 according to UL 94
Contact pin/bush	CuNiSi, tinned
Seal	NBR
Hexagonal nut	PA GF, V0 according to UL 94
3. Mechanical data	
Insertion force ¹	≤ 20 N
Withdrawal force ¹	≥ 10 N
Retaining force of locking latches ²	≥ 90 N
Mating cycles ²	50
Mating with	photovoltaic connectors LC4
Protection degree ³	IP 68
Connectable conductors crimp terminal stranded wire⁴	
Section LC4-CP ... 2.5	2.5 mm ² (AWG 14)
Section LC4-CP ... 4.0/6.0	4.0 mm ² (AWG 12), 6.0 mm ² (AWG 10)
4. Electrical data (at T_{amb} 20 °C)	
Contact resistance ²	≤ 5.0 mΩ
Rated current ² LC4-CP ... 2.5	22 A at T _{amb} 85 °C
Rated current ² LC4-CP ... 4.0/6.0	30 A at T _{amb} 85 °C
Rated voltage ⁵	1000 V DC (UL 600 V DC)
Overvoltage category ⁵	III (8 kV)
Material group ⁵	I (IEC/0 (UL) (CTI ≥ 600)
Creepage distance	≥ 28.2 mm
Clearance	≥ 28.2 mm
Insulation resistance	> 10 GΩ
¹	measured with a polished steel gauge, nominal thickness 4.0 mm
²	measured with a proper counterpart
³	only in mated condition with a proper counterpart
⁴	IP X8 requirements under agreement between manufacturer and user
⁵	wire construction preferably according to IEC 60228 class 5, otherwise crimp connection must be tested according to DIN EN 60664/IEC 60664 resp. according to ANSI/UL 746A



Composition of type designation





LC3-CP 20

LC3-CP 21



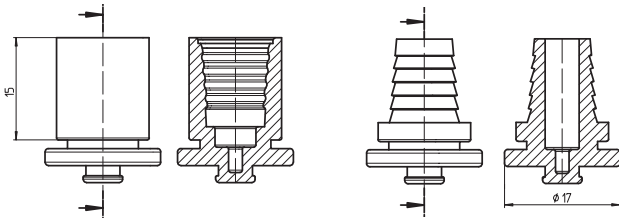
Designation	Description	Polarity
LC3-CP 20-1	socket-plug-plug	+
LC3-CP 20-2	socket-plug-plug	-
LC3-CP 21-1	plug-socket-socket	+
LC3-CP 21-2	plug-socket-socket	-

Package unit: 100 pieces in a cardboard box



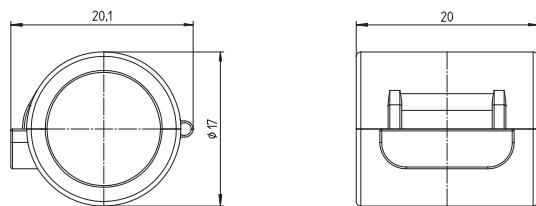
LC3-CX 91

LC3-CX 92



Designation	Description
LC3-CX 91	for sockets
LC3-CX 92	for plugs

Package unit: 100 pieces in a cardboard box



Designation	Description
LC3-CX 90	unmating preventer

Package unit: 100 pieces in a cardboard box

LC3-CP 20
LC3-CP 21

Photovoltaic Y-connector
 LC3-CP 20: socket-plug-plug
 LC3-CP 21: plug-socket-socket

- Temperature range** -40 °C/+85 °C
(+110 °C upper limit temperature)
 - Materials**
 Insulating body/housing: TPU, V0 according to UL 94
 Contact pin/bush: CuZn, pre-nickeled and tinned
 Contact protection: PA, V0 according to UL 94
 Sleeve: CuZn, nickeled
 Contact sheet: CuZn, nickeled
 - Mechanical data**
 Protection degree¹: IP 68
 further data see: LC3-CP 10
 - Electrical data** (at T_{amb} 20 °C)
 Rated current²: 35 A at T_{amb} 85 °C
 further data see: LC3-CP 10
- ¹ 1 m/24 h, only in mated condition with a proper counterpart
 IP X8 requirements under agreement between manufacturer and user
² measured with a proper counterpart

LC3-CX 91
LC3-CX 92

Protective cap for photovoltaic connectors LC3
 LC3-CX 91: for sockets
 LC3-CX 92: for plugs

- Material** halogen-free, UV-resistant
 TPU, V0 according to UL 94

LC3-CX 90

Unmating preventer, can be used with photovoltaic connectors LC3 as an optional locking according to NEC 2008 NFPA 70

- Material** halogen-free, UV-resistant
 PA



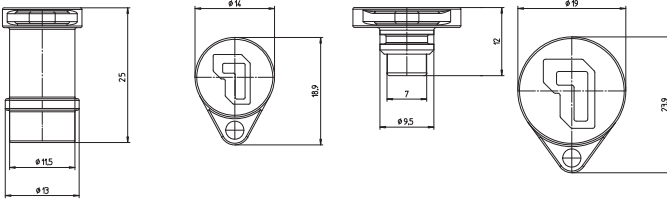
Designation	Description
LC4-CX 94	installer toolbox



LC4-CX 91



LC4-CX 92



Designation	Description
LC4-CX 91	for sockets
LC4-CX 92	for plugs

Package unit: 100 pieces in a cardboard box



Designation	Description
LC4-CX 93	unlocking tool, wrench

LC4-CX 94

Installer toolbox for the photovoltaic building site, empty, with convenient partitioning for connector storage, crimp tools and additional material

LC4-CX 91 LC4-CX 92

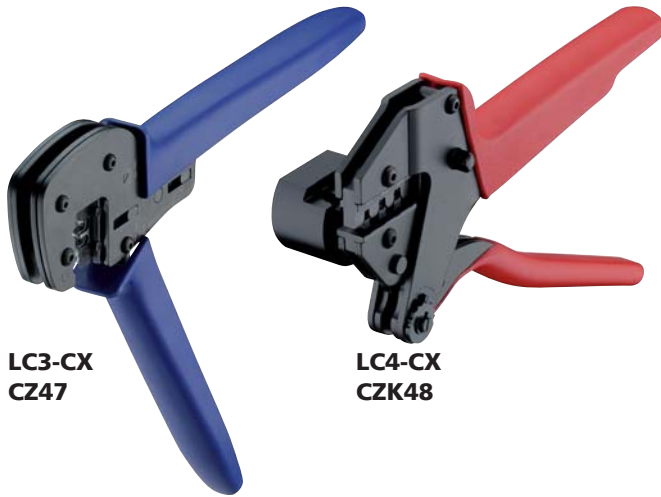
Protective cap for photovoltaic connectors LC4
LC4-CX 91: for sockets
LC4-CX 92: for plugs

1. Materials

Cap	PPE/PS
Seal	NBR

LC4-CX 93

Unlocking tool for photovoltaic connectors LC4 IT, also wrench for field-attachable connectors and chassis receptacles LC3-CP and LC4-CP



LC3-CX
CZ47

LC4-CX
CZK48

LC3-CX CZ47-2.5
LC3-CX CZ47-4
LC3-CX CZ47-6
LC4-CX CZK48

Manual crimp tool for termination of photovoltaic connectors LC3/LC4 with crimp contacts, with stripper

1. Range of applications

LC3-CX CZ... photovoltaic connectors LC3
LC4-CX CZ... photovoltaic connectors LC4

Connectable conductors crimp terminal

Photovoltaic cable, double-insulated¹
LC3-CX CZ47-2.5 photovoltaic cable 2.5 mm² (AWG 14)
LC3-CX CZ47-4 photovoltaic cable 4.0 mm² (AWG 12)
LC3-CX CZ47-6 photovoltaic cable 6.0 mm² (AWG 10)
LC4-CX CZK48 all three

2. Features

Application low-volume production, installation, repair
Stroke capacity ca 240/h
Optional features LC3-CX CZ...: exchangeable processing tools for other sections

3. Dimensions

Dimensions (H x W x D)
LC3-CX CZ47 45 mm x 80 mm x 270 mm
LC3-CX CZ47 50 mm x 95 mm x 205 mm
Weight ca 0.7 kg

¹ wire construction preferably according to IEC 60228 class 5, otherwise crimp connection must be tested



picture similar

LC3-CX CM47

LC4-CX CM48

under preparation

Processing machine for termination of photovoltaic connectors LC3/LC4 with crimp contacts

1. Range of applications

LC3-CX CM... photovoltaic connectors LC3
LC4-CX CM... photovoltaic connectors LC4

Connectable conductors crimp terminal

Photovoltaic cable, double-insulated¹
photovoltaic cable 2.5 mm²* (AWG 14)
4.0 mm² (AWG 12)
6.0 mm² (AWG 10)

2. Features

Application middle and high-volume production
Machine cycle ca 1 s
Stroke capacity ca 600/h
- Integrated counter
- Stroke release by security foot switch
- Fast and easy changing of crimp tool without adjusting
- Optional features: * processing tool for section 2.5 mm² (AWG 14)

3. Dimensions and supply data

Dimensions (HxWxD) LC3-CX CM47 290 mm x 270 mm x 390 mm
Weight LC3-CX CM47 ca 13 kg
Electric power supply 230 V/50 Hz

¹ wire construction preferably according to IEC 60228 class 5, otherwise crimp connection must be tested



2.5 mm² (AWG 14) 4.0 mm² (AWG 12) 6.0 mm² (AWG 10)



Designation	Description
LC3-CX 96 ...	details upon request

Package unit: 1000 m on reel

LC3-CX 96

Photovoltaic cable, single-pole, double-insulated stranded wire

Series	Designation	Obsolete Designation	Page	Series	Designation	Obsolete Designation	Page
LC3 (47)	LC3-AM 00	4700	16	LC4 (48)	LC4-AM 00		17
LC3 (47)	LC3-AM 01	4701	16	LC4 (48)	LC4-AM 01		17
LC3 (47)	LC3-AM 60	4760	16	LC4 (48)	LC4-AM 60		17
LC3 (47)	LC3-AM 61	4761	16	LC4 (48)	LC4-AM 61		17
LC3 (47)	LC3-AM 62	4762	16	LC4 (48)	LC4-AM 62		17
LC3 (47)	LC3-AM 650		16	LC4 (48)	LC4-AM 650		17
LC3 (47)	LC3-AM 651		16	LC4 (48)	LC4-AM 651		17
LC3 (47)	LC3-AM 652		16	LC4 (48)	LC4-AM 652		17
LC3 (47)	LC3-AM 655		16	LC4 (48)	LC4-AM 655		17
LC3 (47)	LC3-AT	8476	18	LC4 (48)	LC4-AT		19
LC3 (47)	LC3-AX	8470, 8471	20	LC4 (48)	LC4-AX		21
LC3 (47)	LC3-CP 10	4710	24	LC4 (48)	LC4-CP 10		25
LC3 (47)	LC3-CP 11	4711	24	LC4 (48)	LC4-CP 11		25
LC3 (47)	LC3-CP 20	4720	26	LC4 (48)	LC4-CP 30		23
LC3 (47)	LC3-CP 21	4721	26	LC4 (48)	LC4-CP 31		23
LC3 (47)	LC3-CP 30	4730	22	LC4 (48)	LC4-CX 91		27
LC3 (47)	LC3-CP 31	4731	22	LC4 (48)	LC4-CX 92		27
LC3 (47)	LC3-CX 90	4790	26	LC4 (48)	LC4-CX 93		27
LC3 (47)	LC3-CX 91	4791	26	LC4 (48)	LC4-CX 94		27
LC3 (47)	LC3-CX 92	4792	26	LC4 (48)	LC4-CX CM48		28
LC3 (47)	LC3-CX 96	4796	28	LC4 (48)	LC4-CX CZK48		28
LC3 (47)	LC3-CX CM47	CM47	28	LC4 (48)	LC4-JC		12
LC3 (47)	LC3-CX CZ47-2.5		28	LC4 (48)	LC4-JT 4...		13
LC3 (47)	LC3-CX CZ47-4	CZ47-4	28				
LC3 (47)	LC3-CX CZ47-6	CZ47-6	28				
LC3 (47)	LC3-JC		12				
LC3 (47)	LC3-JT 4...		13				

LC3®
LC4®

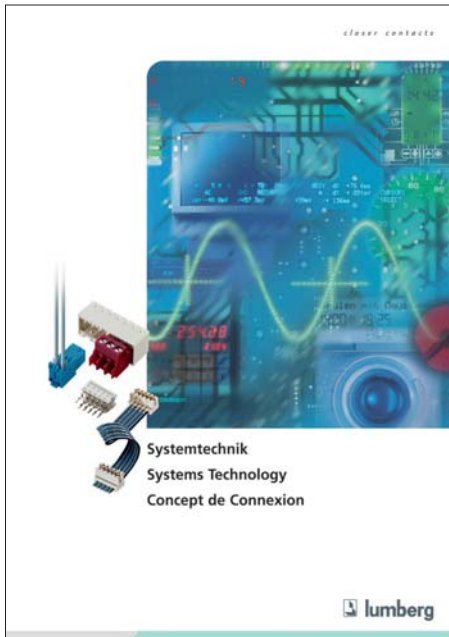
Important notice

Lumberg products can be used according to the characteristics specified in the data sheet. Beyond that, all applicable regulations, standards and directives for the use of these products and for the intended application must be obeyed by the user. It is the user's responsibility to ensure the appropriateness of a chosen Lumberg product for the intended application.

Connector systems with crimp technology require suitable cables and accurate processing. In order to assure safe function of the connectors they must be processed with Lumberg harnessing equipment and according to Lumberg harnessing instructions. On the Internet (www.lumberg.com) a choice of "approved cables" is available for every connector type.

Due to continuous development of Lumberg products, serving technical progress, the descriptions and data provided hereafter are for information only and subject to change without notice.

We will be pleased to discuss your detailed requirements.



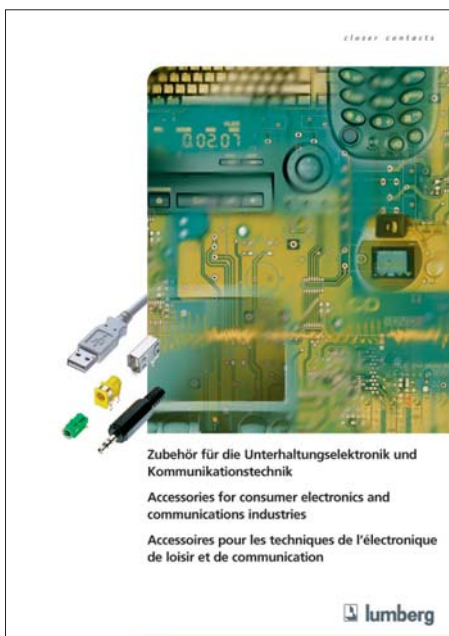
Systems Technology

- connector systems with insulation displacement, screw clamp technology and crimp technology
- pitches from 1.27 mm up to 5.08 mm (.050" up to .200")
- connectors according to RAST 2.5 and RAST 5 standard
- Micromodul™, Minimodul™, Multimodul™ and others



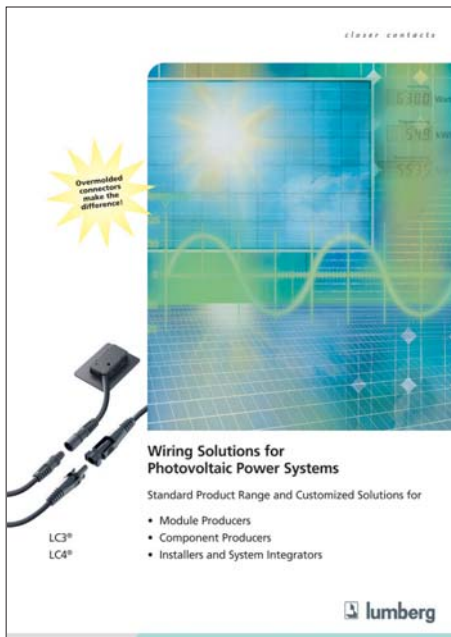
Connection Technology

- circular connectors with threaded joint according to IEC 60130-9
- IP 40 up to IP 68
- connectors for 3G/4G mobile radio networks, according to AISG
- terminal blocks with screw clamp, spring clamp and insulation displacement technology
- pitches from 3.5 mm up to 10.0 mm (0.138" up to 0.394")



Consumer Electronics and Communications

- circular connector series:
 - miniature connectors
 - DIN connectors
 - Jack connectors
 - RCA connectors
 - Power supply connectors
- rectangular connector series: I/O interfaces such as
 - IEEE 1394b and IDB-1394 connectors
 - IEEE 1394 connectors
 - USB connectors
 - modular connectors



Photovoltaics

- innovative wiring solutions for direct current circuits in solar power systems
- with overmolded connectors: industrially pre-assembled and tested, ready-to-plug
- junction boxes for crystalline and thinfilm modules, cable assemblies, array harnesses and connectors
- IP 68
- series: LC3® and LC4®



Tools and Harnessing Machines

- tooling for processing connectors
- insulation displacement, crimp and piercing technology
- manual, semi-automatic and fully automatic solutions

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