OMNIMATE Power - series LXXX
LXXX 15.00/02/90 4.5SN BK BX

Weidmüller Interface GmbH & Co. KG
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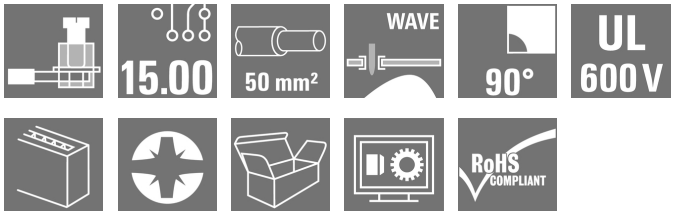

The high-current PCB connection for more power on board: 150 A / 1000 V with wires up to 50 mm², transmitted right to the PCB!

The LXXX 15.0 – with its proven steel clamping-yoke technology in a compact standard housing – integrates the latest market requirements for security, power density and miniaturization in power electronics. It connects these requirements into an efficient solution for the entire value-creation chain – including development, production, installation and maintenance.

The function and form of the application's connection method plays a key role. It influences the application's design, reliability, usability and costs. With the Substitution of
For example, with the replacement of complex constructions involving bolts or bus bars, the PCB can be transformed into a system platform that is both consistent and sustainable into the future – even for high-current applications.

The LXXX 15.0 reduces size and complexity while at the same time improving application integration. In so doing, it fulfils the requirements of power electronics better than the established mechanisms and connection elements.

General ordering data

Type	LXXX 15.00/02/90 4.5SN BK BX
Order No.	1047130000
Version	PCB terminal, 15.00 mm, No. of poles: 2, 90°, Solder pin length (l): 4.5 mm, tinned, Black, Clamping yoke connection, Clamping range, max. : 50 mm², Box
GTIN (EAN)	4032248784028
Qty.	20 pc(s).
Product data	IEC: 1000 V / 150 A / 0.5 - 50 mm² UL: 600 V / 127 A / AWG 20 - AWG 1
Packaging	Box

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Technical data

Dimensions and weights

Net weight	59 g

System parameters

Product family	OMNIMATE Power - series LXXX	Wire connection method	Clamping yoke connection
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	15 mm	Pitch in inches (P)	0.591 inch
No. of poles	2	Fitted by customer	No
Solder pin length (l)	4.5 mm	Solder pin dimensions	1.2 x 1.2 mm
Solder eyelet hole diameter (D)	1.6 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
Number of solder pins per pole	4	Screwdriver blade	1.2 x 6.5
Screwdriver blade standard	DIN 5264	Tightening torque, min.	2.5 Nm
Tightening torque, max.	4 Nm	Clamping screw	M 6
Stripping length	18 mm	L1 in mm	15 mm
L1 in inches	0.591 inch		

Material data

Insulating material	Wemid (PA)	Colour	Black
Colour chart (similar)	RAL 9011	Insulating material group	I
CTI	≥ 600	Insulation resistance	≥ 10^8 Ω
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of solder connection	1.5-3 µm Ni / 4-6 µm Sn matt
Storage temperature, min.	-25 °C	Storage temperature, max.	55 °C
Max. relative humidity during storage	80 %	Operating temperature, min.	-50 °C
Operating temperature, max.	120 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	120 °C		

Conductors suitable for connection

Clamping range, min.	0.5 mm²	Clamping range, max.	50 mm²
Wire connection cross section AWG, min.	AWG 20	Wire connection cross section AWG, max.	AWG 1
Solid, min. H05(07) V-U	0.5 mm²	Solid, max. H05(07) V-U	16 mm²
Stranded, min. H07V-R	6 mm²	Stranded, max. H07V-R	50 mm²
Flexible, min. H05(07) V-K	0.5 mm²	Flexible, max. H05(07) V-K	35 mm²
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm²	w. plastic collar ferrule, DIN 46228 pt 4, max.	35 mm²
w. wire end ferrule, DIN 46228 pt 1, min	0.5 mm²	w. wire end ferrule, DIN 46228 pt 1, max.	35 mm²

Rated data acc. to IEC

Rated current, min. no. of poles (Ta = 20°C)	150 A	Rated current, min. no. of poles (Ta = 40°C)	150 A
Rated voltage for surge voltage class / pollution degree II/2	1,000 V	Rated voltage for surge voltage class / pollution degree III/2	1,000 V
Rated voltage for surge voltage class / pollution degree III/3	1,000 V	Rated impulse voltage for surge voltage class/ pollution degree II/2	8 kV
Rated impulse voltage for surge voltage class/ pollution degree III/2	8 kV	Rated impulse voltage for surge voltage class/ contamination degree III/3	8 kV

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Technical data

Rated data acc. to CSA

Institute (CSA)		Certificate No. (CSA)	200039-1198743
Rated voltage (Use group B)	600 V	Rated voltage (Use group C)	600 V
Rated voltage (use group D)	600 V	Rated current (use group B)	127 A
Rated current (use group C)	127 A	Rated current (use group D)	5 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 1
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Rated data acc. to UL 1059

Institute (UR)		Certificate No. (UR)	E60693
Rated voltage (use group B)	600 V	Rated voltage (use group C)	600 V
Rated voltage (use group D)	600 V	Rated current (use group B)	127 A
Rated current (use group C)	127 A	Rated current (use group D)	5 A
Wire cross-section, AWG, min.	AWG 20	Wire cross-section, AWG, max.	AWG 1
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Classifications

ETIM 3.0	EC001284	ETIM 4.0	EC002643
ETIM 5.0	EC002643	ETIM 6.0	EC002643
eClass 6.2	27-26-11-01	eClass 7.1	27-44-04-01
eClass 8.1	27-44-04-01	eClass 9.0	27-44-04-01
eClass 9.1	27-44-04-01		

Notes

Notes	• Additional colours on request • Rated current related to rated cross-section & min. No. of poles. • Wire end ferrule without plastic collar to DIN 46228/1 • Wire end ferrule with plastic collar to DIN 46228/4 • P on drawing = pitch • Rated data refer only to the component itself. Clearance and creepage distances to other components are to be designed in accordance with the relevant application standards. • IP 20 from 16 mm² to 50 mm² • The test point can only be used as potential-pickup point.
IPC conformity	The products are developed, manufactured and delivered according to the internationally recognised IPC-A-610 standard, category "permissible". More extensive demands on the products can be evaluated on request.

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Approvals

Approvals	
ROHS	Conform

Downloads

Approval/Certificate/Document of Conformity	Declaration of the Manufacturer
Brochure/Catalogue	FL DRIVES EN MB DEVICE MANUF. EN FL DRIVES DE CAT 2 PORTFOLIOGUIDE EN FL APPL_INVERTER EN FL_BASE_STATION_EN FL ELEVATOR EN FL POWER SUPPLY EN FL 72H SAMPLE SER EN PO OMNIMATE EN
Engineering Data	EPLAN, WSCAD
Motion controllers white paper	Download Whitepaper
White Paper UL 600 V	Download Whitepaper

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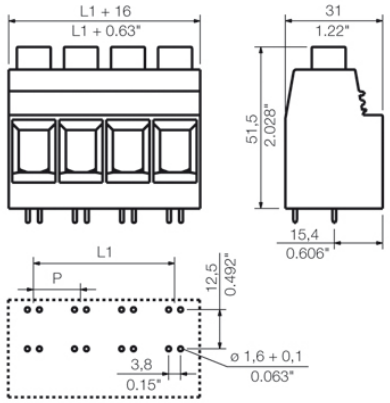
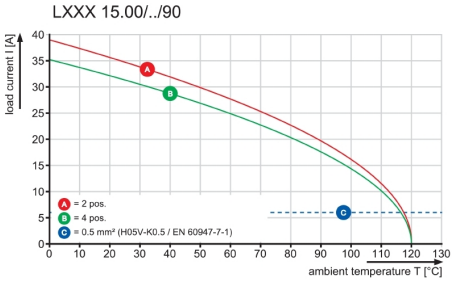
Drawings

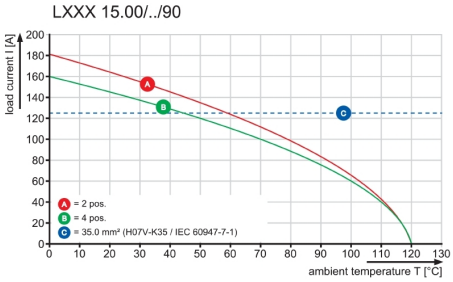
Dimensional drawing



Graph



Graph



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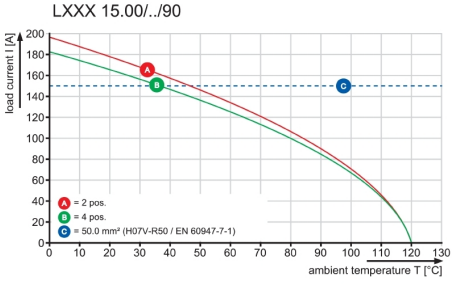

Wave Solder Profile

Recommended wave solderding profiles

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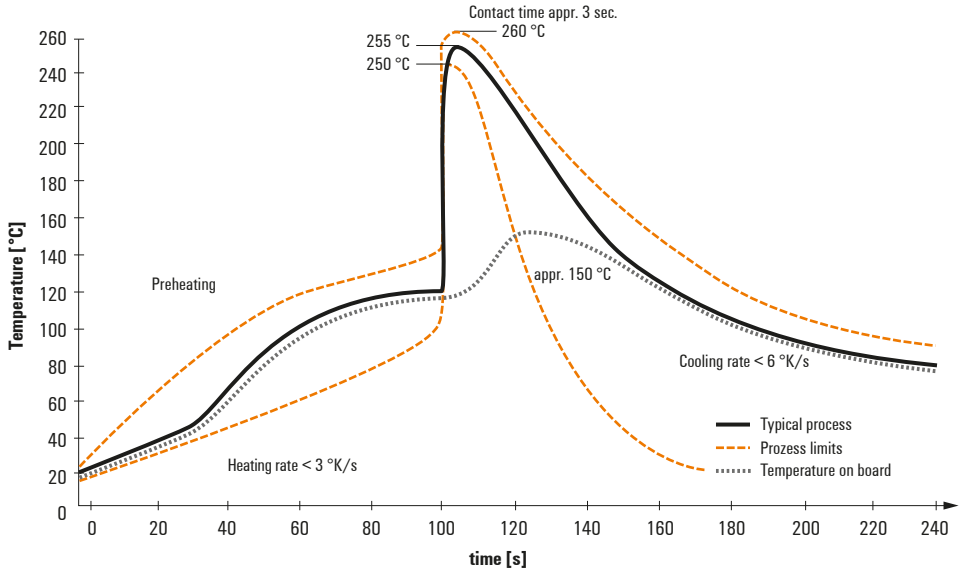
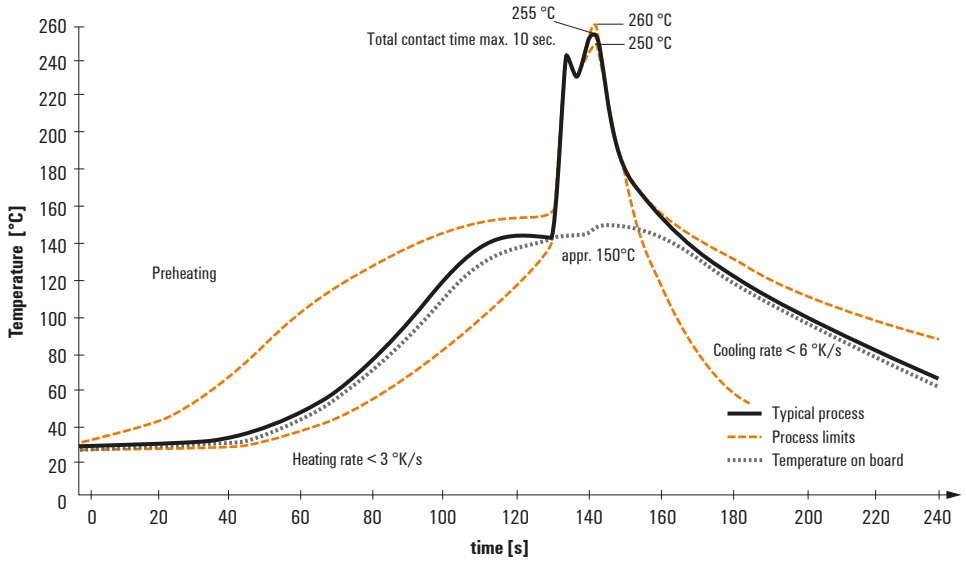
Single Wave:



Double Wave:



Wave soldering profiles

Wired connection elements should be processed in accordance with the DIN EN 61760-1 standard. We have included two recommendations for practical wave soldering profiles, with which Weidmüller PCB terminals and connectors are qualified.

When choosing a suitable profile for your application, the following factors also need to be considered:
- PCB thickness
- Proportion of Cu in the layers
- Single/double-sided assembly
- Product range
- Heating and cooling rates

The single and double wave profiles each indicate the recommended operating range, including the maximum soldering temperature of 260°C. In practice, the maximum soldering temperature is quite often well below the above maximum profile.