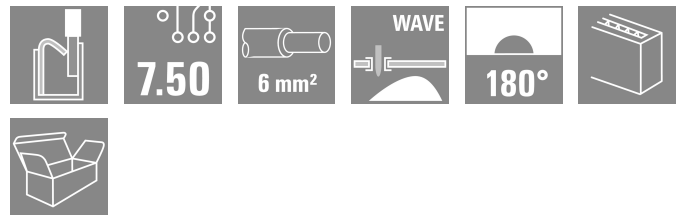
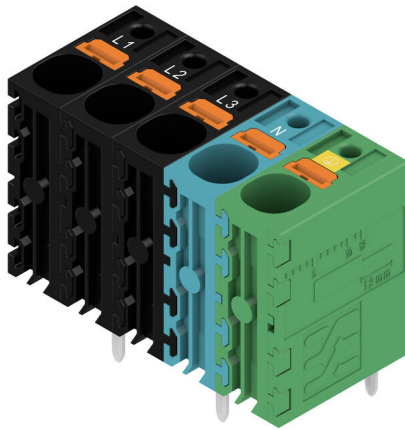


LLFS 7.50/05/180V 5.0SN BK BX SO**Weidmüller Interface GmbH & Co. KG**Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image

The sturdy, direct connection for extreme current and voltage requirements in all power electronics applications such as solar inverters, frequency converters, servo-controllers and power supplies.

General ordering data

Version	Printed circuit board terminals, 7.50 mm, Number of poles: 5, 180°, Solder pin length (l): 5 mm, tinned, black, PUSH IN without actuator, Clamping range, max. : 6 mm², Box
Order No.	2891920000
Type	LLFS 7.50/05/180V 5.0SN BK BX SO
GTIN (EAN)	4064675881490
Qty.	50 items
Product data	IEC: 1000 V / 41 A / 0.5 - 6 mm² UL: 600 V / 37 A / AWG 24 - AWG 8
Packaging	Box

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Technical data

Approvals

ROHS	Conform
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Dimensions and weights

Depth	18.5 mm	Depth (inches)	0.7283 inch
Height	29.15 mm	Height (inches)	1.1476 inch
Height of lowest version	24.15 mm	Width	46.8 mm
Width (inches)	1.8425 inch	Net weight	18.06 g

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

System parameters

Product family	OMNIMATE Power - series LL	Wire connection method	PUSH IN without actuator
Mounting onto the PCB	THT solder connection	Conductor outlet direction	180°
Pitch in mm (P)	7.50 mm	Pitch in inches (P)	0.295 "
Number of poles	5	Pin series quantity	1
Fitted by customer	No	Number of rows	1
Solder pin length (l)	5 mm	Solder pin dimensions	d = 1.5 mm
Solder eyelet hole diameter (D)	2 mm	Solder eyelet hole diameter tolerance (D)+ 0,1 mm	
Touch-safe protection acc. to DIN VDE 0470	IP 20	Touch-safe protection acc. to DIN VDE 57 106	Safe from finger touch
Protection degree	IP20		

Material data

Insulating material	Wemid (PA)	Colour	black
Colour of operational elements	orange	Colour chart (similar)	RAL 9011
Insulating material group	I	Moisture Level (MSL)	
UL 94 flammability rating	V-0	Contact material	Cu-alloy
Contact surface	tinned	Layer structure of solder connection	4...10 µm Sn matt
Storage temperature, min.	-40 °C	Storage temperature, max.	70 °C
Operating temperature, min.	-40 °C	Operating temperature, max.	120 °C

Conductors suitable for connection

Clamping range, min.	0.25 mm ²		
Clamping range, max.	6 mm ²		
Solid, min. H05(07) V-U	0.5 mm ²		
Solid, max. H05(07) V-U	6 mm ²		
Stranded, min. H07V-R	0.5 mm ²		
Flexible, min. H05(07) V-K	0.5 mm ²		
Flexible, max. H05(07) V-K	6 mm ²		
w. plastic collar ferrule, DIN 46228 pt 4, 0.25 mm ² min.			
w. plastic collar ferrule, DIN 46228 pt 4, 6 mm ² max.			
w. wire end ferrule, DIN 46228 pt 1, min.	0.25 mm ²		
w. wire end ferrule, DIN 46228 pt 1, max.	6 mm ²		
Clampable conductor	Cross-section for conductor connection	Type	fine-wired

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	nominal	0.5 mm ²
wire end ferrule	Stripping length	nominal 14 mm
	Recommended wire-end ferrule	H0.5/18 OR
Cross-section for conductor connection	Type	fine-wired
	nominal	1 mm ²
wire end ferrule	Stripping length	nominal 15 mm
	Recommended wire-end ferrule	H1.0/18 GE
Cross-section for conductor connection	Type	fine-wired
	nominal	1.5 mm ²
wire end ferrule	Stripping length	nominal 15 mm
	Recommended wire-end ferrule	H1.5/18D SW
	Stripping length	nominal 12 mm
	Recommended wire-end ferrule	H1.5/12
Cross-section for conductor connection	Type	fine-wired
	nominal	0.75 mm ²
wire end ferrule	Stripping length	nominal 14 mm
	Recommended wire-end ferrule	H0.75/18 W
Cross-section for conductor connection	Type	fine-wired
	nominal	2.5 mm ²
wire end ferrule	Stripping length	nominal 14 mm
	Recommended wire-end ferrule	H2.5/19D BL
	Stripping length	nominal 12 mm
	Recommended wire-end ferrule	H2.5/12
Cross-section for conductor connection	Type	fine-wired
	nominal	4 mm ²
wire end ferrule	Stripping length	nominal 12 mm
	Recommended wire-end ferrule	H4.0/12
	Stripping length	nominal 14 mm
	Recommended wire-end ferrule	H4.0/20D GR
Cross-section for conductor connection	Type	fine-wired
	nominal	6 mm ²
wire end ferrule	Stripping length	nominal 14 mm
	Recommended wire-end ferrule	H6.0/20 SW
	Stripping length	nominal 12 mm
	Recommended wire-end ferrule	H6.0/12

Reference text

Length of ferrules is to be chosen depending on the product and the rated voltage. The outside diameter of the plastic collar should not be larger than the pitch (P)

Rated data acc. to IEC

tested acc. to standard	IEC 60947-7-4	Rated current, min. number of poles (Tu=20°C)	41 A
Rated current, max. number of poles (Tu=20°C)	32 A	Rated current, min. number of poles (Tu=40°C)	38 A
Rated current, max. number of poles (Tu=40°C)	28 A	Rated voltage for surge voltage class / pollution degree II/2	1000 V
Rated voltage for surge voltage class / pollution degree III/2	1000 V	Rated voltage for surge voltage class / pollution degree III/3	1000 V

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Technical data

Rated impulse voltage for surge voltage 8 kV
class/ pollution degree II/2Rated impulse voltage for surge voltage 8 kV
class/ contamination degree III/3Rated impulse voltage for surge voltage 8 kV
class/ pollution degree III/2

Rated data acc. to CSA

Rated voltage (Use group B / CSA) 600 V

Rated voltage (Use group D / CSA) 600 V

Rated current (Use group C / CSA) 37 A

Rated voltage (Use group C / CSA) 600 V

Rated current (Use group B / CSA) 37 A

Rated current (Use group D / CSA) 5 A

Rated data acc. to UL 1059

Rated voltage (Use group B / UL 1059) 600 V

Rated voltage (Use group D / UL 1059) 600 V

Rated current (Use group C / UL 1059) 37 A

Wire cross-section, AWG, min. AWG 24

Rated voltage (Use group C / UL 1059) 600 V

Rated current (Use group B / UL 1059) 37 A

Rated current (Use group D / UL 1059) 5 A

Wire cross-section, AWG, max. AWG 8

Packing

Packaging Box

VPE width 210.00 mm

VPE length 220.00 mm

VPE height 49.00 mm

Type tests

Test: Durability of markings

Standard

IEC 60947-7-4 section 7.1.4 / 08.13

Test

mark of origin, type identification, type of material, pitch, durability, stripping length

Evaluation

available

Test: Clampable cross section

Standard

IEC 60999-1 section 7 and 9.1 / 11.99, IEC 60947-1 section 8.2.4.5.1 / 03.11

Conductor type

Type of conductor and conductor cross-section solid 0.5 mm²Type of conductor and conductor cross-section stranded 0.5 mm²Type of conductor and conductor cross-section solid 6 mm²Type of conductor and conductor cross-section stranded 6 mm²

Type of conductor and conductor cross-section AWG 24/19

Type of conductor and conductor cross-section AWG 24/1

Type of conductor and conductor cross-section AWG 10/1

Type of conductor and conductor cross-section AWG 10/19

Type of conductor and conductor cross-section H07V-K10

Evaluation

passed

Test for damage to and accidental loosening of conductors

Standard

IEC 60999-1 section 9.4 / 11.99, IEC 60999-1 section 9.5 / 11.99

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Technical data

Pull-out test	Requirement	0.3 kg	
	Conductor type	Type of conductor and conductor cross-section	H05V-K0.5
		Type of conductor and conductor cross-section	H05V-U0.5
	Evaluation	passed	
	Requirement	0,4 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-K1
		Type of conductor and conductor cross-section	H07V-U1
	Evaluation	passed	
	Requirement	0.7 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-K2.5
		Type of conductor and conductor cross-section	H07V-U2.5
	Evaluation	passed	
	Requirement	0.9 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-K4
		Type of conductor and conductor cross-section	H07V-U4.0
	Evaluation	passed	
	Requirement	1.4 kg	
	Conductor type	Type of conductor and conductor cross-section	H07V-K6
		Type of conductor and conductor cross-section	H07V-U6
	Evaluation	passed	
	Standard	DIN EN 60999-1 section 9.5 / 12.00	
	Requirement	≥20 N	
	Conductor type	Type of conductor and conductor cross-section	H05V-K0.5
		Type of conductor and conductor cross-section	H05V-U0.5
	Evaluation	passed	
	Requirement	≥50 N	
	Conductor type	Type of conductor and conductor cross-section	H07V-K2.5
		Type of conductor and conductor cross-section	H07V-U2.5
	Evaluation	passed	
	Requirement	≥60 N	
	Conductor type	Type of conductor and conductor cross-section	H07V-K4

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Technical data

	Type of conductor and conductor cross-section	H07V-U4.0
Evaluation	passed	
Requirement	≥80 N	
Conductor type	Type of conductor and conductor cross-section	H07V-K6
	Type of conductor and conductor cross-section	H07V-U6
Evaluation	passed	
Requirement	≥35 N	
Conductor type	Type of conductor and conductor cross-section	H07V-K1
	Type of conductor and conductor cross-section	H07V-U1
Evaluation	passed	

Important note

IPC conformity

Conformity: The products are developed, manufactured and delivered according international recognized standards and norms and comply with the assured properties in the data sheet resp. fulfill decorative properties in accordance with IPC-A-610 "Class 2". Further claims on the products can be evaluated on request.

Notes

- Additional variants 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.
- The test point can only be used as potential-pickup point.
- The single-position PCB terminal block can be used for voltages up to 1500 V (DC) and 1000 V (AC). The relevant device standard and the appropriate required clearances and creepage distances should be observed in the application
- Long term storage of the product with average temperature of 50 °C and maximum humidity 70%, 36 months

Classifications

ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	EC002643	ECLASS 14.0	27-46-01-01
ECLASS 15.0	27-46-01-01		

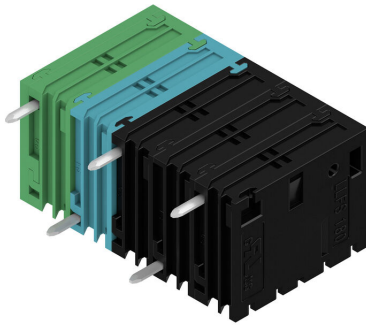
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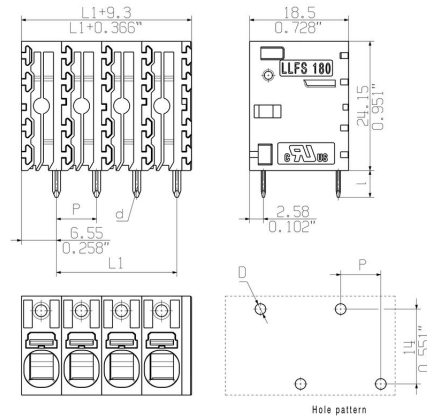
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Drawings

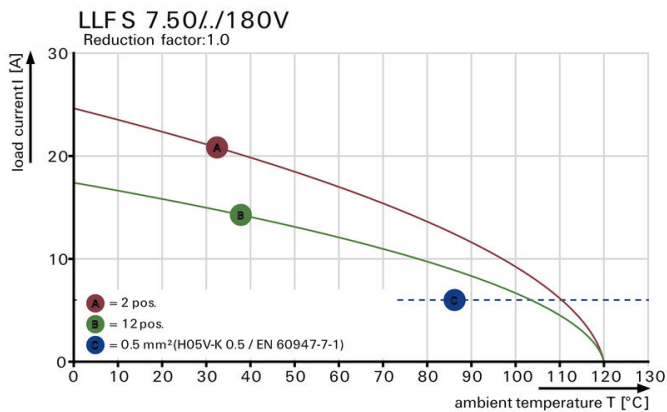
Product image



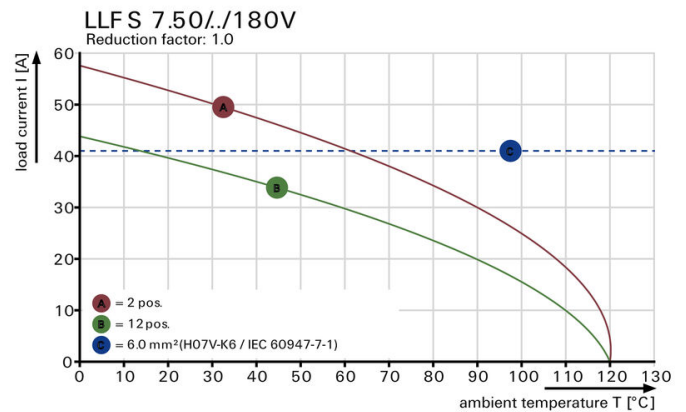
Dimensional drawing



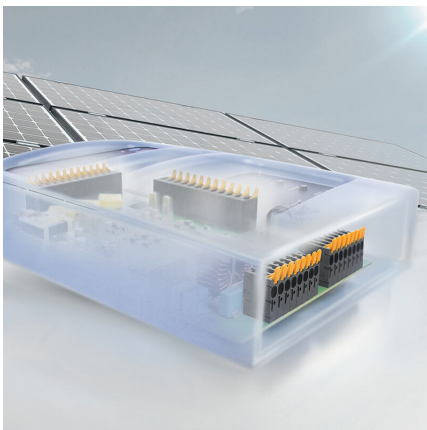
Derating curve



Derating curve

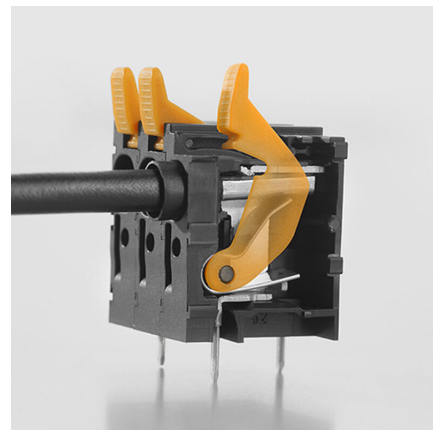


Product benefits



Power up to UL 600 V offset solder pins

Product benefits



Tool-free wiring Top contact security