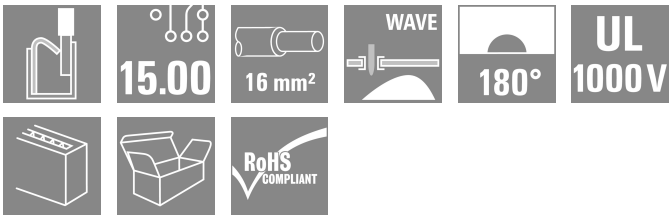
Data sheet

LUFS 15.00/04/180V 5.0SN BK BX

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com



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, 15.00 mm, Number of poles: 4, 180°, Solder pin length (l): 5 mm, black, PUSH IN without actuator, Clamping range, max. : 16 mm², Box
Order No.	2492230000
Type	LUFS 15.00/04/180V 5.0SN BK BX
GTIN (EAN)	4050118564723
Qty.	25 items
Product data	IEC: 1000 V / 101 A / 0.5 - 16 mm² UL: 600 V / 57 A / AWG 18 - AWG 4
Packaging	Box

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E60693

Dimensions and weights

Depth	24.7 mm	Depth (inches)	0.9724 inch
Height	36.3 mm	Height (inches)	1.4291 inch
Height of lowest version	31.3 mm	Width	56.58 mm
Width (inches)	2.2276 inch	Net weight	0.04 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 LU	Wire connection method	PUSH IN without actuator
Mounting onto the PCB	THT solder connection	Conductor outlet direction	180°
Pitch in mm (P)	15.00 mm	Pitch in inches (P)	0.591 "
Number of poles	4	Pin series quantity	1
Fitted by customer	No	Number of rows	1
Solder pin length (l)	5 mm	Solder pin dimensions	d = 1.2 mm, Octagonal
Solder eyelet hole diameter (D)	1.7 mm	Solder eyelet hole diameter tolerance (D)	+ 0,1 mm
Number of solder pins per pole	2	Screwdriver blade	0.8 x 4.0
Stripping length	18 mm	L1 in mm	45.00 mm
L1 in inches	1.772 "	Touch-safe protection acc. to DIN VDE 0470	IP20 plugged/ IP10 unplugged
Touch-safe protection acc. to DIN VDE 57 106	touch-safe with connected connectors from 6 mm²	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	Comparative Tracking Index (CTI)	≥ 600
Moisture Level (MSL)		UL 94 flammability rating	V-0
Contact material	Cu-alloy	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.	0.5 mm²
Clamping range, max.	16 mm²
Wire connection cross section AWG, min.	AWG 18
Wire connection cross section AWG, max.	AWG 4
Solid, min. H05(07) V-U	0.5 mm²
Solid, max. H05(07) V-U	16 mm²

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Stranded, min. H07V-R	10 mm²			
Stranded, max. H07V-R	16 mm²			
Flexible, min. H05(07) V-K	0.5 mm²			
Flexible, max. H05(07) V-K	16 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, min.	0.5 mm²			
w. plastic collar ferrule, DIN 46228 pt 4, max.	16 mm²			
w. wire end ferrule, DIN 46228 pt 1, min.	0.5 mm²			
w. wire end ferrule, DIN 46228 pt 1, max.	16 mm²			
Clampable conductor	Cross-section for conductor connection	Type	fine-wired	
		nominal	2.5 mm²	
	wire end ferrule	Stripping length	nominal	20 mm
		Recommended wire-end ferrule	H2,5/25D BL	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H2,5/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	4 mm²	
	wire end ferrule	Stripping length	nominal	20 mm
		Recommended wire-end ferrule	H4,0/26D GR	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H4,0/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	6 mm²	
	wire end ferrule	Stripping length	nominal	20 mm
		Recommended wire-end ferrule	H6,0/26 SW	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H6,0/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	10 mm²	
	wire end ferrule	Stripping length	nominal	21 mm
		Recommended wire-end ferrule	H10,0/28 EB	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H10,0/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	16 mm²	
	wire end ferrule	Stripping length	nominal	21 mm
		Recommended wire-end ferrule	H16,0/28 GN	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H16,0/18	
	Cross-section for conductor connection	Type	fine-wired	
		nominal	1.5 mm²	
	wire end ferrule	Stripping length	nominal	20 mm
		Recommended wire-end ferrule	H1,5/24 R	
		Stripping length	nominal	18 mm
		Recommended wire-end ferrule	H1,5/18	

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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

Rated current, min. number of poles (Tu=20°C)	101 A	Rated current, max. number of poles (Tu=20°C)	76 A
Rated current, min. number of poles (Tu=40°C)	76 A	Rated current, max. number of poles (Tu=40°C)	90.1 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	Rated impulse voltage for surge voltage class/ pollution degree II/2	6 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

Rated data acc. to CSA

Rated voltage (Use group B / CSA)	600 V	Rated voltage (Use group C / CSA)	600 V
Rated voltage (Use group D / CSA)	600 V	Rated current (Use group B / CSA)	57 A
Rated current (Use group C / CSA)	57 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 18	Wire cross-section, AWG, max.	AWG 4

Rated data acc. to UL 1059

Institute (cURus)	CURUS	Certificate No. (cURus)	E60693
Rated voltage (Use group B / UL 1059)	600 V	Rated voltage (Use group C / UL 1059)	600 V
Rated voltage (Use group D / UL 1059)	600 V	Rated voltage (Use group E / UL 1059)	1000 V
Rated current (Use group B / UL 1059)	57 A	Rated current (Use group C / UL 1059)	57 A
Rated current (Use group D / UL 1059)	5 A	Rated current (Use group E / UL 1059)	57 A
Wire cross-section, AWG, min.	AWG 18	Wire cross-section, AWG, max.	AWG 4
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

Packing

Packaging	Box	VPE length	268.00 mm
VPE width	168.00 mm	VPE height	45.00 mm

Type tests

Test: Durability of markings	Test	mark of origin, type identification, 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	H07V-U10
		Type of conductor and conductor cross-section	H07V-K10
		Type of conductor and conductor cross-section	H07V-U16
		Type of conductor and conductor cross-section	H07V-K16

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			Type of conductor and conductor cross-section	AWG 4/1
			Type of conductor and conductor cross-section	AWG 4/19
			Type of conductor and conductor cross-section	solid 0.5 mm²
			Type of conductor and conductor cross-section	solid 16 mm²
			Type of conductor and conductor cross-section	stranded 0.5 mm²
			Type of conductor and conductor cross-section	stranded 16 mm²
			Type of conductor and conductor cross-section	AWG 20/1
			Type of conductor and conductor cross-section	AWG 20/19
	Evaluation	passed		
Test for damage to and accidental loosening of conductors	Standard	IEC 60999-1 section 9.4 / 11.99		
	Requirement	0.3 kg		
	Conductor type		Type of conductor and conductor cross-section	AWG 20/1
			Type of conductor and conductor cross-section	AWG 20/19
			Type of conductor and conductor cross-section	AWG 4/7
			Type of conductor and conductor cross-section	H05V-U0.5
			Type of conductor and conductor cross-section	H05V-K0.5
	Evaluation	passed		
	Requirement	2.9 kg		
	Conductor type		Type of conductor and conductor cross-section	H07V-U16
			Type of conductor and conductor cross-section	H07V-K16
	Evaluation	passed		
	Requirement	4,5 kg		
	Conductor type		Type of conductor and conductor cross-section	AWG 4/19
	Evaluation	passed		
Pull-out test	Standard	IEC 60999-1 section 9.5 / 11.99		
	Requirement	≥20 N		
	Conductor type		Type of conductor and conductor cross-section	H05V-U0.5
			Type of conductor and conductor cross-section	H05V-K0.5

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Technical data

Evaluation	passed	
Requirement	≥30 N	
Conductor type	Type of conductor and conductor cross-section	AWG 20/1
	Type of conductor and conductor cross-section	AWG 20/19
Evaluation	passed	
Requirement	≥100 N	
Conductor type	Type of conductor and conductor cross-section	AWG 4/7
	Type of conductor and conductor cross-section	AWG 4/19
	Type of conductor and conductor cross-section	H07V-U16
	Type of conductor and conductor cross-section	H07V-K16
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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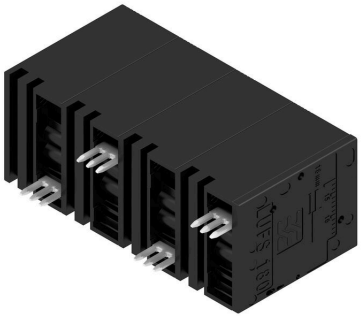
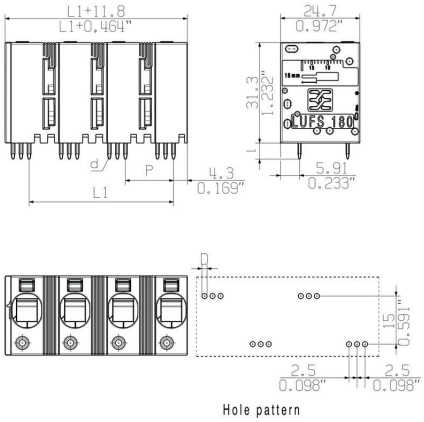
Drawings

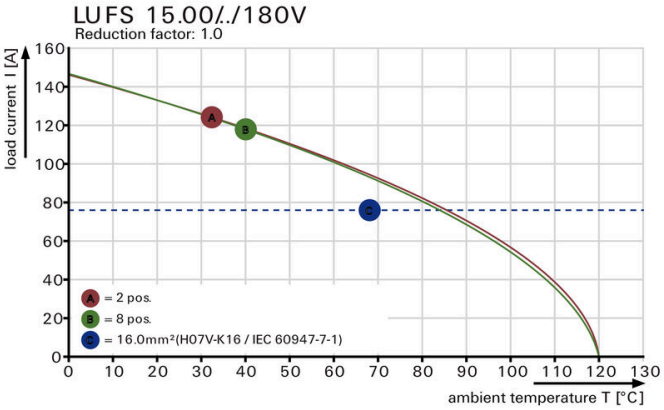
Product image



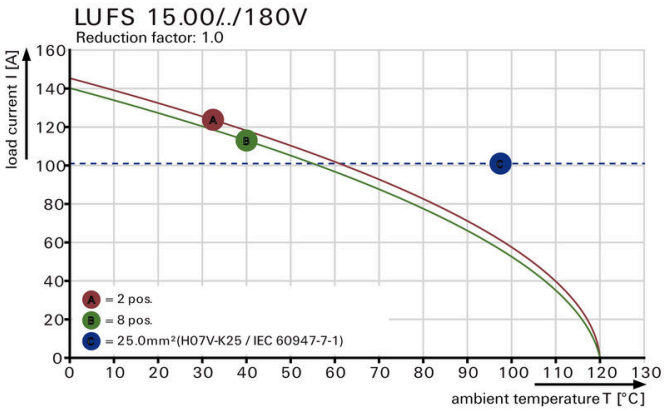
Dimensional drawing



Derating curve



Derating curve



Product benefits

Power up to UL 600 VOffset solder pins