



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: 8, 90°, Solder pin length (I): 5 mm, tinned, black, PUSH IN with lever, Clamping range, max. : 6 mm², Box
Order No.	<u>2472140000</u>
Туре	LLF 7.50/08/90V 5.0SN BK BX
GTIN (EAN)	4050118550085
Qty.	30 items
Product data	IEC: 1000 V / 41 A / 0.5 - 6 mm <sup>2</sup> UL: 600 V / 35 A / AWG 24 - AWG 8
Packaging	Вох

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# **Technical data**

Approvals	Α	p	p	r	o	ν	a	ı	s
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Approvals	c <b>FL</b> *us
ROHS	Conform
UL File Number Search	<u>UL Website</u>
Certificate No. (cURus)	E60693

## **Dimensions and weights**

Depth	22.07 mm	Depth (inches)	0.8689 inch
Height	36.55 mm	Height (inches)	1.439 inch
Height of lowest version	31.55 mm	Width	61.8 mm
Width (inches)	2.4331 inch	Net weight	28.82 g

## **Environmental Product Compliance**

Compliant without exemption
No SVHC above 0.1 wt%

#### **System parameters**

Product family	OMNIMATE Power - series LL	Wire connection method	PUSH IN with lever
Mounting onto the PCB	THT solder connection	Conductor outlet direction	90°
Pitch in mm (P)	7.50 mm	Pitch in inches (P)	0.295 "
Number of poles	8	Pin series quantity	1
Fitted by customer	No	Number of rows	1
Solder pin length (I)	5 mm	Solder pin dimensions	d = 1.5 mm
Solder eyelet hole diameter (D)	2 mm	Solder eyelet hole diameter tolerance (I	D)+ 0,1 mm
Number of solder pins per pole	1	Stripping length	12 mm
L1 in mm	52.50 mm	L1 in inches	2.065 "
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 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	410 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 <sup>2</sup>
Clamping range, max.	6 mm <sup>2</sup>
Wire connection cross section AWG,	AWG 24
min.	
Wire connection cross section AWG,	AWG 8
max.	
Solid, min. H05(07) V-U	0.5 mm <sup>2</sup>
Solid, max. H05(07) V-U	6 mm <sup>2</sup>
Stranded, min. H07V-R	0.5 mm <sup>2</sup>

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Flexible, min. H05(07) V-K	0.5 mm <sup>2</sup>		
Flexible, max. H05(07) V-K	6 mm <sup>2</sup>		
v. plastic collar ferrule, DIN 46228 nin.	3 pt 4, 0.25 mm <sup>2</sup>		
v. plastic collar ferrule, DIN 46228 max.	B pt 4, 6 mm²		
v. wire end ferrule, DIN 46228 pt	1, 0.25 mm²		
w. wire end ferrule, DIN 46228 pt	1, 6 mm²		
lampable conductor	Cross-section for conductor connection	Type fine-wired	
ampuble conductor	Gross section for confidence commenter	nominal 0.5 mm <sup>2</sup>	
	wire end ferrule	Stripping length nominal 14 m	ım
		Recommended wire- H0,5/18 OR end ferrule	
	Cross-section for conductor connection	Type fine-wired	
		nominal 1 mm <sup>2</sup>	
	wire end ferrule	Stripping length nominal 15 m	ım
		Recommended wire- H1,0/18 GE end ferrule	
	Cross-section for conductor connection	Type fine-wired	
		nominal 1.5 mm <sup>2</sup>	
	wire end ferrule	Stripping length nominal 15 m	ım
		Recommended wire- H1,5/18D SW end ferrule	
		Stripping length nominal 12 m	ım
		Recommended wire- H1,5/12 end ferrule	
	Cross-section for conductor connection	Type fine-wired	
		nominal 0.75 mm <sup>2</sup>	
	wire end ferrule	Stripping length nominal 14 m	ım
		Recommended wire- H0,75/18 W end ferrule	
	Cross-section for conductor connection	Type fine-wired	
		nominal 2.5 mm <sup>2</sup>	
	wire end ferrule	Stripping length nominal 14 m	ım
		Recommended wire- H2,5/19D BL end ferrule	
		Stripping length nominal 12 m	ım
		Recommended wire- H2,5/12 end ferrule	
	Cross-section for conductor connection	Type fine-wired	
		nominal 4 mm <sup>2</sup>	
	wire end ferrule	Stripping length nominal 12 m	ım
		Recommended wire- H4,0/12 end ferrule	
		Stripping length nominal 14 m  Recommended wire- end ferrule  Recommended wire-	im
	Cross-section for conductor connection	Type fine-wired	
		nominal 6 mm <sup>2</sup>	
	wire end ferrule	Stripping length nominal 14 m	ım
		Recommended wire- H6,0/20 SW end ferrule	
		Stripping length nominal 12 m	ım
		Recommended wire- end ferrule	
Reference text	Length of ferrules is to be chosen depending diameter of the plastic collar should not be la	on the product and the rated voltage., The outs	side

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# **Technical data**

Rated	data	acc	tο	IFC
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tested acc. to standard	In accordance with IEC 60947-7-1	Rated current, min. number of poles $(Tu=20$ °C)	41 A
Rated current, max. number of poles (Tu=20°C)	35 A	Rated current, min. number of poles (Tu=40°C)	41 A
Rated current, max. number of poles (Tu=40°C)	30 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	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		

### 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)	35 A
Rated current (Use group C / CSA)	35 A	Rated current (Use group D / CSA)	5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 8

## 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 current (Use group B / UL 1059)	35 A
Rated current (Use group C / UL 1059)	35 A	Rated current (Use group D / UL 1059)	5 A
Wire cross-section, AWG, min.	AWG 24	Wire cross-section, AWG, max.	AWG 8
Reference to approval values	Specifications are maximum values, details - see approval certificate.		

## **Packing**

Packaging	Box	VPE length	215.00 mm
VPE width	210.00 mm	VPE height	48.00 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 solid 0.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 0.5 mm <sup>2</sup> and conductor cross-section	
		Type of conductor solid 6 mm <sup>2</sup> and conductor cross-section	
		Type of conductor stranded 6 mm <sup>2</sup> and conductor cross-section	
		Type of conductor AWG 24/19 and conductor cross-section	

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# **Technical data**

		Type of conductor AWG 24/1 and conductor cross-section
		Type of conductor AWG 10/1 and conductor cross-section
		Type of conductor AWG 10/19 and conductor cross-section
		Type of conductor H07V-K10 and conductor cross-section
	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
	Requirement	0.3 kg
	Conductor type	Type of conductor H05V-K0.5 and conductor cross-section
		Type of conductor H05V-U0.5 and conductor cross-section
	Evaluation	passed
	Requirement	0,4 kg
	Conductor type	Type of conductor H07V-K1 and conductor cross-section
		Type of conductor H07V-U1 and conductor cross-section
	Evaluation	passed
	Requirement	0.7 kg
	Conductor type	Type of conductor H07V-K2.5 and conductor cross-section
		Type of conductor H07V-U2.5 and conductor cross-section
	Evaluation	passed
	Requirement	0.9 kg
	Conductor type	Type of conductor H07V-K4 and conductor cross-section
		Type of conductor H07V-U4.0 and conductor cross-section
	Evaluation	passed
	Requirement	1.4 kg
	Conductor type	Type of conductor H07V-K6 and conductor cross-section
		Type of conductor H07V-U6 and conductor cross-section
	Evaluation	passed
Pull-out test	Standard	DIN EN 60999-1 section 9.5 / 12.00
	Requirement	≥20 N
	Conductor type	Type of conductor H05V-K0.5 and conductor cross-section
		Type of conductor H05V-U0.5 and conductor cross-section

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# **Technical data**

Evaluation	passed		
Requirement	≥50 N		
Conductor type	Type of conductor H07V-K2.5 and conductor cross-section		
	Type of conductor H07V-U2.5 and conductor cross-section		
Evaluation	passed	-	
Requirement	≥60 N		
Conductor type	Type of conductor H07V-K4 and conductor cross-section		
	Type of conductor H07V-U4.0 and conductor cross-section		
Evaluation	passed		
Requirement	≥80 N		
Conductor type	Type of conductor H07V-K6 and conductor cross-section		
	Type of conductor H07V-U6 and conductor cross-section		
Evaluation	passed		
Requirement	≥35 N		
Conductor type	Type of conductor H07V-K1 and conductor cross-section		
	Type of conductor H07V-U1 and conductor cross-section		
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

			<u>'</u>
ETIM 6.0	EC002643	ETIM 7.0	EC002643
ETIM 8.0	EC002643	ETIM 9.0	EC002643
ETIM 10.0	EC002643	ECLASS 9.0	27-44-04-01
ECLASS 9.1	27-44-04-01	ECLASS 10.0	27-44-04-01
ECLASS 11.0	27-46-01-01	ECLASS 12.0	27-46-01-01
ECLASS 13.0	27-46-01-01	ECLASS 14.0	27-46-01-01
ECLASS 15.0	27-46-01-01		

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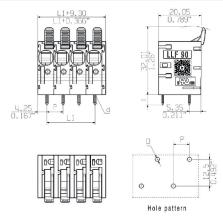
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# **Drawings**

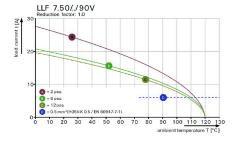
## **Product image**



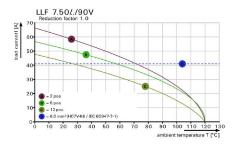
## **Dimensional drawing**



## **Derating curve**



## **Derating curve**



### **Product benefits**



Power up to UL 600 VOffset solder pins

### **Product benefits**



Tool-free wiringTop contact security



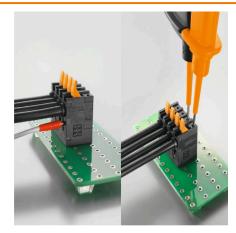
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# **Drawings**

### **Product benefits**



Maximum diagnosis flexibilityEasily accessible test point