

**SV-SMT 7.62IT/02/90MSF2 2.6SN BK RL****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**OMNIMATE Power for IT networks – scalable to 50 kVA****Tailor-made solutions for special requirements**

More standard-compliance means fewer compromises: OMNIMATE Power for IT networks has integrated features incorporated as standard across the range. This makes the design-in and approvals process simpler and makes them safer and more reliable in operation.

Results for the application and advantages for the user: unlimited use in 400-V IT systems and touch safety according to IEC 61800-5-1 (+ 5.5 mm). The self-snapping one-handed safety flange enables intuitive and safe usage. Operational reliability is guaranteed by the automatic interlock feature during the plug-in process. In conclusion: You need no additional device covering. The application-oriented design means that no compromises are necessary during the approval process.

**General ordering data**

Version	PCB plug-in connector, male header, Middle screw flange, THT/THR solder connection, 7.62 mm, Number of poles: 2, 90°, Solder pin length (l): 2.6 mm, tinned, black, Tape
Order No.	<a href="#">2545980000</a>
Type	SV-SMT 7.62IT/02/90MSF2 2.6SN BK RL
GTIN (EAN)	4050118556018
Qty.	110 pc(s).
Product data	IEC: 1000 V / 41 A UL: 300 V / 40.5 A
Packaging	Tape

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## Technical data

## Dimensions and weights

Depth	28.3 mm	Depth (inches)	1.114 inch
Height of lowest version	11.4 mm	Net weight	7.8 g

## Environmental Product Compliance

REACH SVHC	127-19-5 N,N-dimethylacetamide, 541-02-6 Decamethylcyclopentasiloxane, 540-97-6 Dodecamethylcyclohexasiloxane, 556-67-2 Octamethylcyclotetrasiloxane, 84-61-7 Dicyclohexyl phthalate
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## System specifications

Product family	OMNIMATE Power - series BV/SV 7.62HP	Type of connection	Board connection
Mounting onto the PCB	THT/THR solder connection	Pitch in mm (P)	7.62 mm
Pitch in inches (P)	0.3 inch	Outgoing elbow	90°
Number of poles	2	Number of solder pins per pole	2
Solder pin length (l)	2.6 mm	Solder pin length tolerance	+0.1 / -0.3 mm
Solder pin dimensions	0.8 x 1.0 mm	Solder eyelet hole diameter (D)	1.4 mm
Solder eyelet hole diameter tolerance (D)	+ 0.1 mm	L1 in mm	15.24 mm
L1 in inches	0.6 inch	Number of rows	1
Pin series quantity	1	Touch-safe protection acc. to DIN VDE 57 106	safe to back of hand above the printed circuit board
Touch-safe protection acc. to DIN VDE 0470	IP 20	Volume resistance	2.00 mΩ
Tightening torque for screw flange, min.	0.2 Nm	Tightening torque for screw flange, max.	0.3 Nm
Plugging force/pole, max.	12 N	Pulling force/pole, max.	7 N

## Material data

Insulating material	PA GF HT3	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	I
Comparative Tracking Index (CTI)	≥ 600	Moisture Level (MSL)	3
UL 94 flammability rating	V-0	Contact material	Copper alloy
Contact surface	tinned	Layer structure of solder connection	1...3 µm Ni / 4...6 µm Sn matt
Layer structure of plug contact	1...3 µm Ni / 4...6 µm Sn matt	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-50 °C
Operating temperature, max.	130 °C	Temperature range, installation, min.	-25 °C
Temperature range, installation, max.	130 °C		

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## Technical data

## Rated data acc. to IEC

tested acc. to standard

IEC 60664-1, IEC 61984

Rated current, max. number of poles  
(Tu=20°C)

41 A

Rated current, max. number of poles  
(Tu=40°C)

41 A

Rated voltage for surge voltage class /  
pollution degree III/2

630 V

Rated impulse voltage for surge voltage  
class/ pollution degree II/2

6 kV

Rated impulse voltage for surge voltage  
class/ contamination degree III/3

6 kV

Clearance, min.

6.9 mm

Rated current, min. number of poles  
(Tu=20°C)

41 A

Rated current, min. number of poles  
(Tu=40°C)

41 A

Rated voltage for surge voltage class /  
pollution degree II/2

1,000 V

Rated voltage for surge voltage class /  
pollution degree III/3

630 V

Rated impulse voltage for surge voltage  
class/ pollution degree III/2

6 kV

Short-time withstand current resistance

3 x 1s with 420 A

Creepage distance, min.

9.6 mm

## Rated data acc. to UL 1059

Institute (cURus)



Certificate No. (cURus)

E60693

Rated voltage (Use group B / UL 1059)

300 V

Rated voltage (Use group D / UL 1059)

300 V

Rated current (Use group C / UL 1059)

40.5 A

Clearance distance, min.

6.9 mm

Reference to approval values

Specifications are  
maximum values, details -  
see approval certificate.

Rated voltage (Use group C / UL 1059)

300 V

Rated current (Use group B / UL 1059)

40.5 A

Rated current (Use group D / UL 1059)

10 A

Creepage distance, min.

9.6 mm

## Packing

Packaging

Tape

VPE length

0

VPE width

0

VPE height

0

Tape depth (T2)

15.8 mm

Tape width (W)

56 mm

Tape pocket depth (K0)

15.3 mm

Tape pocket height (A0)

28.4 mm

Tape pocket width (B0)

39.06 mm

Tape pocket separation (P1)

36 mm

Tape hole separation (E)

1.75 mm

Tape pocket separation (F)

26.2 mm

Tape reel diameter Ø (A)

330 mm

Surface resistance

 $R_s = 10^9 - 10^{12} \Omega$ 

## Classifications

ETIM 6.0

EC002637

ETIM 7.0

EC002637

ETIM 8.0

EC002637

ECLASS 9.0

27-44-04-02

ECLASS 9.1

27-44-04-02

ECLASS 10.0

27-44-04-02

ECLASS 11.0

27-46-02-01

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****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	<ul style="list-style-type: none"><li>• Additional colours on request</li><li>• Rated current related to rated cross-section &amp; min. No. of poles.</li><li>• P on drawing = pitch</li><li>• 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.</li><li>• Long term storage of the product with average temperature of 50 °C and average humidity 70%, 36 months</li></ul>

**Approvals**

Approvals



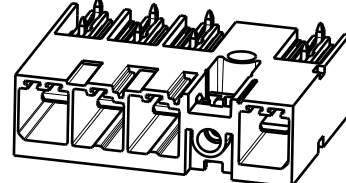
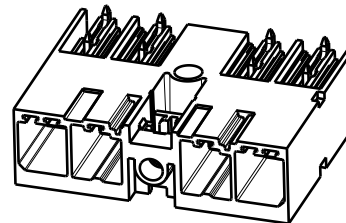
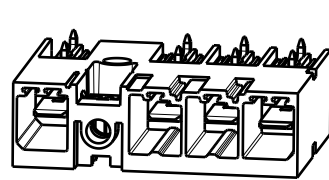
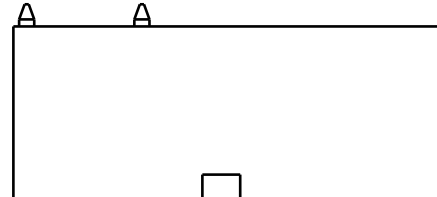
UL File Number Search




E60693

**Downloads**

Catalogues

[Catalogues in PDF-format](#)



	EC00002212	Max. nos.  Modification	Prim PLM Part No.: 225880		Prim ERP Part No.: 2499550000		
	First Issue Date 14.11.2016				<div> <div>63450</div> <div>           Drawing no. _____ Issue no. _____         </div> <div>           Sheet 16 of 17 sheets         </div> </div>		
		Date	Name	<div>SV-SMT 7.62HP/IT../90/270...</div> <div>STISTLEISTE</div> <div>MALE HEADER</div>			
		Drawn	30.08.2019				Helis, Maria
		Responsible					Döhner, Karl
Scale: 2:1	Size: A2	Approved	09.10.2019	Lang, Thomas	Product file: 7407 BLF 7.50HP		
Drawings Assembly							

## Recommended wave soldering profiles

**Weidmüller Interface GmbH & Co. KG**  
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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.

We reserve the right to make technical changes.

## Recommended reflow soldering profile

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## Reflow soldering profile

The perfect soldering profile for SMT Surface Mount Technology is one the most exiting question in SMT production. But there are more than one correct answer: The diagram of temperature-on-time is related to processing features of solder paste and to maximum load of components.

We have to consider the following parameters:

- Time for pre heating
- Maximum temperature
- Time above melting point
- Time for cooling
- Maximum heating rate
- Maximum cooling rate

We recommend a typical solder profile with associated process limits. With preheating components and board are prepared smoothly for the solder phase. Heating rate is typically  $\leq +3\text{K/s}$ . In parallel the solder paste is 'activated'. The time above melting point of 217°C the paste gets liquid and components and boards begin to connect. The maximum temperature of 245°C to 254°C should stay between 10 and 40 seconds. In the cooling phase at  $\geq -6\text{K/s}$  solder is cured. Board and components cool down while avoiding cold cracks.