

#### Weidmüller Interface GmbH & Co. KG Klingenbergstraße 26

D-32758 Detmold Germany

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Similar to illustration

# 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 selfsnapping 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: 5, 90°, Solder pin length (I): 2.6 mm, tinned, black, Box
Order No.	2499890000
Туре	SV-SMT 7.62IT/05/90MSF5 2.6SN BK BX
GTIN (EAN)	4050118513318
Qty.	36 pc(s).
Product data	IEC: 1000 V / 41 A UL: 300 V / 40.5 A
Packaging	Box



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# **Technical data**

Dimensions	and	weights
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Depth	28.3 mm	Depth (inches)	1.114 inch
Height of lowest version	11.4 mm	Net weight	10 g
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	5	Number of solder pins per pole	2
Solder pin length (I)	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	38.1 mm
L1 in inches	1.8 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		Volume resistance	
0470	IP 20		2.00 mΩ
Tightening torque for screw flange, min.	0.2 Nm	Tightening torque for screw flange, max	. 0.3 Nm
Plugging cycles	25	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	Insulation strength	≥ 10 <sup>8</sup> Ω
Moisture Level (MSL)	3	UL 94 flammability rating	V-0
Contact material	Copper alloy	Contact surface	tinned
Layer structure of solder connection	13 μm Ni / 46 μm Sn matt	Layer structure of plug contact	13 µm Ni / 46 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

### Rated data acc. to IEC

tested acc. to standard		Rated current, min. number of poles	
	IEC 60664-1, IEC 61984	(Tu=20°C)	41 A
Rated current, max. number of poles		Rated current, min. number of poles	
(Tu=20°C)	41 A	(Tu=40°C)	41 A
Rated current, max. number of poles		Rated voltage for surge voltage class /	
(Tu=40°C)	41 A	pollution degree II/2	1,000 V
Rated voltage for surge voltage class /		Rated voltage for surge voltage class /	
pollution degree III/2	630 V	pollution degree III/3	630 V
Rated impulse voltage for surge voltage		Rated impulse voltage for surge voltage	
class/ pollution degree II/2	6 kV	class/ pollution degree III/2	6 kV
Rated impulse voltage for surge voltage		Short-time withstand current resistance	
class/ contamination degree III/3	6 kV		3 x 1s with 420 A



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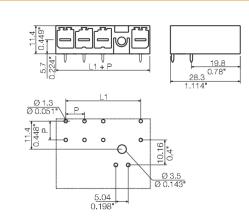
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# **Technical data**

Rated	data	acc.	to	UL	1059	

Approvals Approvals UL File Number Search Downloads	• Long term storage of the proc Carlos and the storage of the proc E60693	duct with average temperature of 50 °C and aver	age humidity 70%, 36 months
Approvals	c <b>RL</b> us		age humidity 70%, 36 months
			age humidity 70%, 36 months
Approvals	Long term storage of the proc	duct with average temperature of 50 °C and aver	age humidity 70%, 36 months
Approvals	Long term storage of the proc	duct with average temperature of 50 °C and aver	age humidity 70%, 36 months
	Long term storage of the proc	duct with average temperature of 50 °C and aver	age humidity 70%, 36 months
		omponent itself. Clearance and creepage distance in the relevant application standards.	es to other components are to
	• P on drawing = pitch		
	Rated current related to rated	cross-section & min. No. of poles.	
Notes	Additional colours on request	Class 2". Further claims on the products can be e	evaluated on request.
IPC conformity	standards and norms and comp	eveloped, manufactured and delivered according ly with the assured properties in the data sheet r	esp. fulfill decorative properties
Important note			
ECLASS 10.0	27-44-04-02	ECLASS 11.0	27-46-02-01
ECLASS 9.0	27-44-04-02	ECLASS 9.1	27-44-04-02
ETIM 6.0	EC002637	ETIM 7.0	EC002637
Classifications			
VPE width	130 mm	VPE height	33 mm
Packaging	Вох	VPE length	338 mm
Packing			
Reference to approval values	Specifications are maximum values, details - see approval certificate.		
Clearance distance, min.	6.9 mm	Creepage distance, min.	9.6 mm
Rated current (Use group C / UL 1059)		Rated current (Use group D / UL 1059)	10 A
Rated voltage (Use group D / UL 1059)		Rated voltage (Use group C / UL 1059) Rated current (Use group B / UL 1059)	40.5 A
		Detect volte are (line areas C / Lill 1050)	E60693 300 V
Rated voltage (Use group B / UL 1059)			

# Drawings

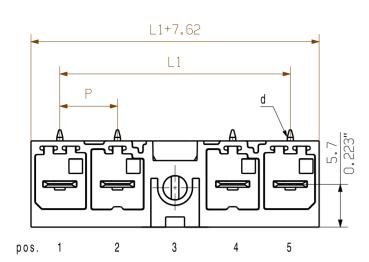


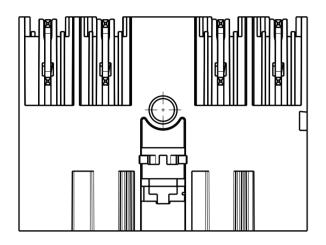


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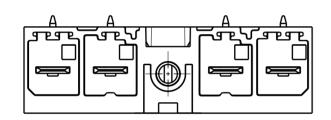
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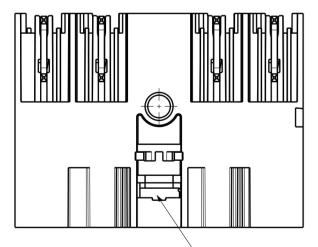
<u>SV-SMT 7.62IT/04/270MF3</u>





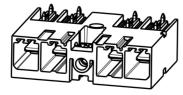
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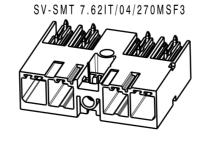
VKMU nur für MSF-Varianten / square nut only for MSF-variants SV-SMT 7.62IT/04/270MF2

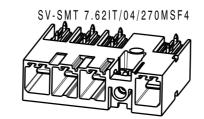
SV-SMT 7.62IT/04/270MF3



SV-SMT 7.62IT/04/270MSF2



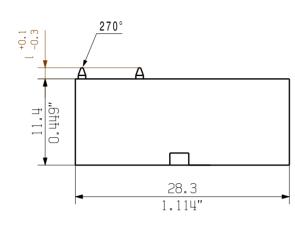


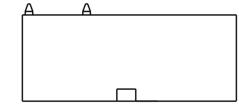


SV-SMT 7.62IT/04/270MF4



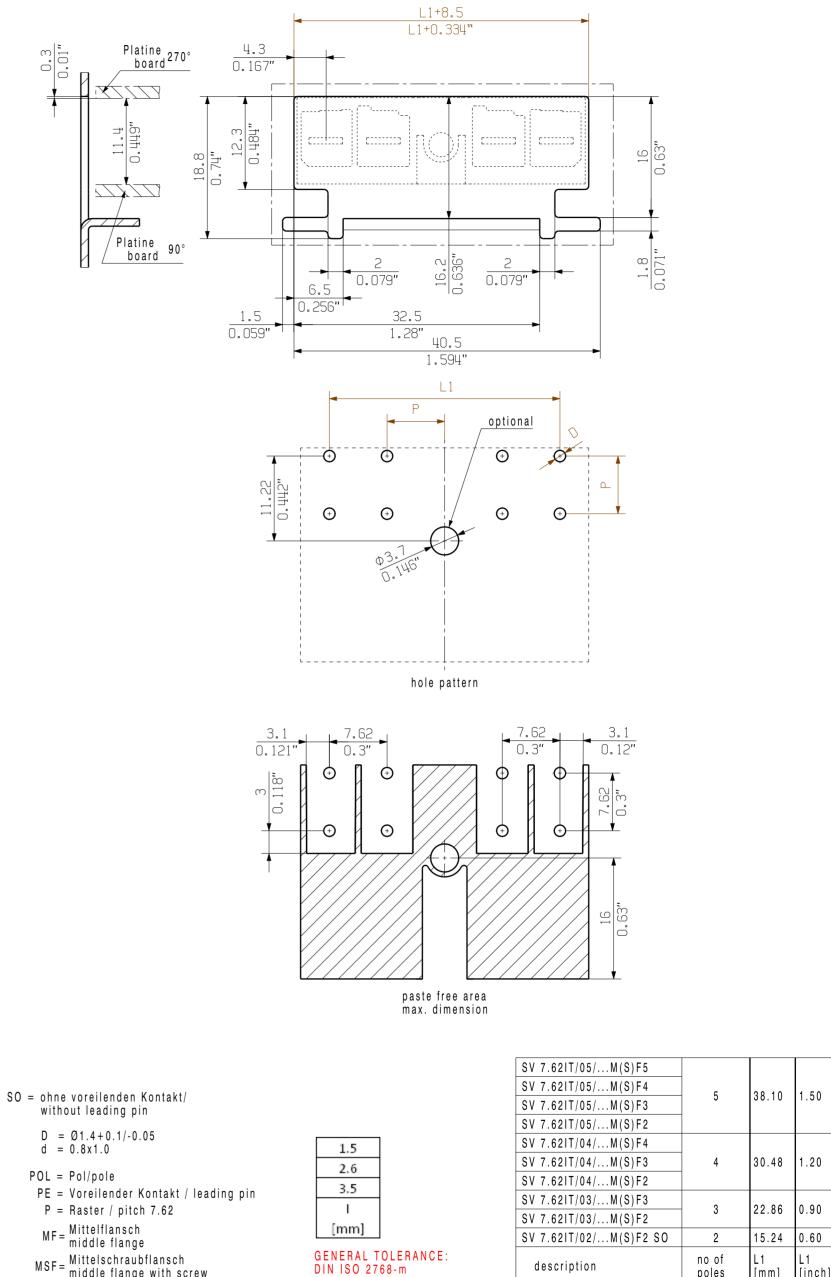






The English version is binding

PolPolPolPolMFPEPolPolPolMFPolPol



MSF = Mittelschraubflansch middle flange with screw

For the mounting of PCBs, it should be noted that the rated data relates only to the PCB components alone.

The neccessary creepage and clearance paths must be observed in connection with the respective applicant in accordance to IEC 664 / VDE 0110. The current-carrying capacity and pitch tolerance is to be determined according to DIN IEC 326 part 3 very fine.

Weidmüller PCB components are tested to the DIN EN 61984 standard, and are valid for its field of application. Provided that the components are used to the intended purpose, all requirements with respect to the occuring of electrical, mechanical, thermic and corrosive stress will be satisfied.

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		SV	7.62IT/05/	M(S)F3		5	30.10		Pol	Pol	MF	Pol	Pol	Pol			
		SV	7.62IT/05/	M(S)F2					PE	MF	Pol	Pol	Pol	Pol			
7		SV	7.62IT/04/	M(S)F4					Pol	Pol	Pol	MF	PE				
-		SV	7.62IT/04/	M(S)F3		4 30.48		.48 1.20	Pol	Pol	MF	Pol	Pol				
-		SV 7.62IT/04/M(S)							PE	MF	Pol	Pol	Pol				
-		SV	7.62IT/03/	M(S)F3		2	00.00	0.00	Pol	Pol	MF	PE					
		S۷	7.62IT/03/	M(S)F2		3	22.00	0.90	PE	MF	Pol	Pol					
		S۷	7.62IT/02/	M(S)F2	S0	2	15.24	0.60	Pol	MF	Pol						
TOLERANCE:			description			no of	L1	L1	1	2	3	4	5	6	7	8	9
2768-M			uescription			poles	[mm]	[inch]	position MF								
EC00002212				Prim PLM	Part	No.: 225880		Prim	ERP	Ра	rt N	0.:	249	9955	500	00	
	M a	v nos			63450 (4)												
First Issue Date	IVI C	x. 1103							Issue no.								
14.11.2016		Modifi	ication				<u> </u>		She	eet	16	;	o f	17	S	hee	ts
10			Date	Name													
Drawn 30.08.2019			30.08.2019	Helis, Maria	SV-SMT 7 62HP/IT/ /90/270												
Responsible Döhrer, Ka																	
1 Size: /	A2 App	roved	09.10.2019	Lang, Thomas													
Assembly					Prod	uct file: 74	07 BLF	7.50HP									
	1 Size: /	768-m     EC00002212     First Issue Date     14.11.2016     Dran     Res     1     Size: A2	SV     SV	SV 7.62IT/05/     SV 7.62IT/04/     SV 7.62IT/04/     SV 7.62IT/04/     SV 7.62IT/04/     SV 7.62IT/04/     SV 7.62IT/04/     SV 7.62IT/03/     SV 7.62IT/03/     SV 7.62IT/02/     SV 7.62IT/02/     description     EC00002212     .     First Issue Date     14.11.2016     Max. nos.     Pate     Drawn     30.08.2019     Responsible     1   Size: A2	TOLERANCE: 768-m   description   EC00002212   First Issue Date 14.11.2016   Max. nos.   Wee   Date   Name   Drawn   30.08.2019   Helis, Maria   Responsible   1 Size: A2	SV 7.62IT/05/M(S)F3     SV 7.62IT/05/M(S)F2     SV 7.62IT/04/M(S)F4     SV 7.62IT/04/M(S)F3     SV 7.62IT/04/M(S)F3     SV 7.62IT/04/M(S)F3     SV 7.62IT/03/M(S)F2     SV 7.62IT/03/M(S)F2     SV 7.62IT/03/M(S)F2     SV 7.62IT/03/M(S)F2     SV 7.62IT/02/M(S)F2     SV 7.62IT/02/M(S)	SV 7.62IT/05/M(S)F3     5       SV 7.62IT/05/M(S)F2     5       SV 7.62IT/04/M(S)F2     3       SV 7.62IT/04/M(S)F3     4       SV 7.62IT/04/M(S)F3     4       SV 7.62IT/04/M(S)F3     3       SV 7.62IT/03/M(S)F2     3       SV 7.62IT/03/M(S)F2     3       SV 7.62IT/03/M(S)F2     3       SV 7.62IT/02/M(S)F2     2       TOLERANCE:     description     no of poles       First Issue Date     Max. nos.     Medification       I     Max. nos.     Weidmüll       Drawn     30.08.2019     Helis, Maria       SV-     Döhrer, Karl     SV-       1     Size: A2     Approved     09.10.2019	SV 7.62IT/05/M(S)F3     5     38.10       SV 7.62IT/05/M(S)F3     SV 7.62IT/04/M(S)F2     30.48       SV 7.62IT/04/M(S)F3     4     30.48       SV 7.62IT/04/M(S)F3     4     30.48       SV 7.62IT/04/M(S)F3     4     30.48       SV 7.62IT/04/M(S)F3     3     22.86       SV 7.62IT/03/M(S)F2     3     22.86       SV 7.62IT/03/M(S)F2     3     22.86       SV 7.62IT/02/M(S)F2     2     15.24       description     no of poles     L1 [mm]       EC00002212     Max. nos.     Max. nos.     Weidmüller       Modification     Date     Name     SV-SMT 7.4       I Size: A2     Approved     09.10.2019     Lang. Thomas     N	SV 7.62IT/05/M(S)F3     5     38.10     1.50       SV 7.62IT/05/M(S)F2     SV 7.62IT/04/M(S)F2     4     30.48     1.20       SV 7.62IT/04/M(S)F3     4     30.48     1.20       SV 7.62IT/04/M(S)F3     3     22.86     0.90       SV 7.62IT/03/M(S)F2     3     22.86     0.90       SV 7.62IT/03/M(S)F2     3     22.86     0.90       SV 7.62IT/02/M(S)F2     2     15.24     0.60       Image: Addition     Max. nos.     No of poles     L1       Max. nos.     Max. nos.     Weidmüller     SV       Modification     Date     Name     SV-SMT 7.62HP/       Toze: A2     Approved     09.10.2019     Lang. Thomas     SV-SMT 7.62HP/	SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol       SV 7.621T/05/M(S)F2     SV 7.621T/04/M(S)F4     4     30.48     1.20     Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol     Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol     Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol     Pol       SV 7.621T/03/M(S)F3     3     22.86     0.90     Pol     PE       SV 7.621T/03/M(S)F3     3     22.86     0.90     PE       SV 7.621T/02/M(S)F2     2     15.24     0.60     Pol       SV 7.621T/02/M(S)F2     2     15.24     0.60     Pol       SV 7.621T/02/M(S)F2     2     15.24     0.60     Pol       SV 7.621T/02/M(S)F2     Prim PLM Part No.: 225880     Prim ERP       Max. nos.     Max. nos.     Weidmmüller     6       Drawn     30.08.2019     Helis, Maria     SV-SMT 7.62HP/IT/       STISTLEIST     MALE HEAD     StistLEIST	SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol       SV 7.621T/05/M(S)F2     SV 7.621T/04/M(S)F4     4     30.48     1.20     Pol Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol     Pol Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol     Pol Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol     Pol Pol       SV 7.621T/03/M(S)F3     3     22.86     0.90     Pol Pol     Pol Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol     Pol Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol Pol     Pel Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pel MF       SV 7.621T/02/M(S)F2     15.24     0.60     Pol MF       Inchi     Max. nos.     Negledmüller     Max.     pol       Max. nos.     Max. nos.     Maxe     SV-SMT 7.62HP/IT//     StistLeiste       Drawn     30.08.2019     Helis, Maria <td>SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF PE MF Pol       SV 7.621T/04/M(S)F4     30.48     1.20     Pol Pol MF PE MF Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF PE MF Pol       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF PE MF Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol MF PE MF Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol MF PE MF Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol       SV 7.621T/02/M(S)F2     2     15.24     0.60     Pol MF Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol       Gescription     no of poles     L1 [mm]     L1     1     2     3       First Issue Date     Max. nos.     Weidmüller     Steet 16     Steet 16       Drawn     30.08.2019     Helis, Maria     SV-SMT 7.62HP/IT//90/ STISTLEISTE     StiSTLEISTE       1     Size: A2     Approved     09.10.2019     Lang</td> <td>SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol MF Pol Pol MF       SV 7.621T/04/M(S)F4     SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol MF       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol MF       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF Pol Pol MF       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol MF Pol MF Pol Pol NF       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol Pol MF Pol Pol SV 7.621T/02/M(S)F2     3       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol Pol MF Pol Pol SV 7.621T/02/M(S)F2     3     4     30.48     1.20     Pol Pol MF Pol Pol Pol NF Pol Pol SV 7.621T/02/M(S)F2     3     3     22.86     0.90     Pol MF Pol Pol Pol NF Pol Pol SV 7.621T/02/M(S)F2     3     4     3     1     2     3     4     3     4     3     4     3     4     3     4     3     4     3     4     3     4     3     4     3     4</td> <td>SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol     Pel Pol Pol Pol       SV 7.621T/05/M(S)F2     SV 7.621T/04/M(S)F4     A     30.48     1.20     Pol Pol MF Pol Pol Pol     Pel Pol Pol MF Pe       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol Pol Pol     Pel Pol MF Pe       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pe     Pol Pol Pol MF Pe       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pel MF Pol Pol Pol     Pel Pol Pol MF Pe       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pel MF Pol Pol Pol     Pel Pol Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     Pol Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     Pol Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     Pol Pol       Max. nos.     Max. nos.     Prim PLM Part No.: 225880     Prim ERP Part No.: 245     Prawing no.       First Issue Date     Date     Name     Stort 7.62HP/IT//90/2</td> <td>SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol Pol Pol       SV 7.621T/05/M(S)F2     Pol Pol MF Pol Pol Pol Pol Pol     Pol Pol MF Pol Pol Pol     Pol Pol MF Pol Pol Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol Pol       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF Pol Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol MF Pol Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     1       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     1       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     1       Max. nos.     Max. nos.     Max. nos.     Prim PLM Part No.: 225880     Prim ERP Part No.: 249955       Ma</td> <td>SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol Pol       SV 7.621T/05/M(S)F2     SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     Pol       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF Pol Pol     Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol MF Pol Pol     Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol     Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol     Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol     Image: String pol       SV 7.621T/02/M(S)F2     2     15.24     0.60     Pol MF Pol     Image: String pol       SV 7.621T/02/M(S)F2     1     Prim PLM Part No.: 225880     Prim ERP Part No.: 24995500       Max. nos.     Max. nos.     Modification     Prim PLM Part No.: 225880     Prim ERP Part No.: 24995500       Drawing no.</td> <td>SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol     Pol Pol       SV 7.621T/04/M(S)F2     SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     0       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     0     0       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     0     0       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF Pol     0     0       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol MF Pol     0     0       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol     0     0       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol     0     0       SV 7.621T/02/M(S)F2     1     1.2     3.4     5.6     7.8       Gescription     no of poles     L1     L1     1.2     3.4     5.6     7.8       First Issue Date     Modification     Name     SV-SMT 7.6</td>	SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF PE MF Pol       SV 7.621T/04/M(S)F4     30.48     1.20     Pol Pol MF PE MF Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF PE MF Pol       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF PE MF Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol MF PE MF Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol MF PE MF Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol       SV 7.621T/02/M(S)F2     2     15.24     0.60     Pol MF Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol       Gescription     no of poles     L1 [mm]     L1     1     2     3       First Issue Date     Max. nos.     Weidmüller     Steet 16     Steet 16       Drawn     30.08.2019     Helis, Maria     SV-SMT 7.62HP/IT//90/ STISTLEISTE     StiSTLEISTE       1     Size: A2     Approved     09.10.2019     Lang	SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol MF Pol Pol MF       SV 7.621T/04/M(S)F4     SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol MF       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol MF       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF Pol Pol MF       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol MF Pol MF Pol Pol NF       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol Pol MF Pol Pol SV 7.621T/02/M(S)F2     3       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol Pol MF Pol Pol SV 7.621T/02/M(S)F2     3     4     30.48     1.20     Pol Pol MF Pol Pol Pol NF Pol Pol SV 7.621T/02/M(S)F2     3     3     22.86     0.90     Pol MF Pol Pol Pol NF Pol Pol SV 7.621T/02/M(S)F2     3     4     3     1     2     3     4     3     4     3     4     3     4     3     4     3     4     3     4     3     4     3     4     3     4	SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol     Pel Pol Pol Pol       SV 7.621T/05/M(S)F2     SV 7.621T/04/M(S)F4     A     30.48     1.20     Pol Pol MF Pol Pol Pol     Pel Pol Pol MF Pe       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol Pol Pol     Pel Pol MF Pe       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pe     Pol Pol Pol MF Pe       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pel MF Pol Pol Pol     Pel Pol Pol MF Pe       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pel MF Pol Pol Pol     Pel Pol Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     Pol Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     Pol Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     Pol Pol       Max. nos.     Max. nos.     Prim PLM Part No.: 225880     Prim ERP Part No.: 245     Prawing no.       First Issue Date     Date     Name     Stort 7.62HP/IT//90/2	SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol Pol Pol       SV 7.621T/05/M(S)F2     Pol Pol MF Pol Pol Pol Pol Pol     Pol Pol MF Pol Pol Pol     Pol Pol MF Pol Pol Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol Pol       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF Pol Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol MF Pol Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol Pol       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     1       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     1       SV 7.621T/02/M(S)F2 SO     2     15.24     0.60     Pol MF Pol     1       Max. nos.     Max. nos.     Max. nos.     Prim PLM Part No.: 225880     Prim ERP Part No.: 249955       Ma	SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol Pol       SV 7.621T/05/M(S)F2     SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     Pol       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     Pol       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF Pol Pol     Pol       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol MF Pol Pol     Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol     Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol     Pol       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol     Image: String pol       SV 7.621T/02/M(S)F2     2     15.24     0.60     Pol MF Pol     Image: String pol       SV 7.621T/02/M(S)F2     1     Prim PLM Part No.: 225880     Prim ERP Part No.: 24995500       Max. nos.     Max. nos.     Modification     Prim PLM Part No.: 225880     Prim ERP Part No.: 24995500       Drawing no.	SV 7.621T/05/M(S)F3     5     38.10     1.50     Pol Pol MF Pol Pol     Pol Pol       SV 7.621T/04/M(S)F2     SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     0       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     0     0       SV 7.621T/04/M(S)F3     4     30.48     1.20     Pol Pol MF Pol Pol     0     0       SV 7.621T/04/M(S)F3     3     22.86     0.90     Pol Pol MF Pol     0     0       SV 7.621T/03/M(S)F2     3     22.86     0.90     Pol Pol MF Pol     0     0       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol Pol MF Pol     0     0       SV 7.621T/02/M(S)F2     3     22.86     0.90     Pol MF Pol     0     0       SV 7.621T/02/M(S)F2     1     1.2     3.4     5.6     7.8       Gescription     no of poles     L1     L1     1.2     3.4     5.6     7.8       First Issue Date     Modification     Name     SV-SMT 7.6

## Wave Solder Profile

## **Recommended wave solderding profiles**

# Weidmüller 🟵

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**Double Wave:** 

Single 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.

## **Reflow Solder Profile**

## **Recommended reflow soldering profile**



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Time [sec]

### **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  $\leq +3$ 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  $\geq$  -6K/s solder is cured. Board and components cool down while avoiding cold cracks.