FMH3 S1/68V F1 B RL

Product image

OMNIMATE® - Board-to-Board connectors

Flexible engineering of compact devices

The use of future-proof contact systems, as well as the optimisation of manufacturing processes, are increasingly important in the development of efficient industrial devices, especially in the field of Industry 4.0. OMNIMATE® board-to-board connectors feature a 1.27 mm pitch and offer maximum flexibility due to different designs.

- Flexible device design - Industrial suitable density combined with high flexible connection combinations (Mezzanine, Mother-to-Daughter, Extender-card, Cable-to-Board)

- Automation-Ready - Developed for automatic assembly with high precise pin coplanarity and SMT-fixation

- Reliable contact - Up to 500 mating cycles due to industry suitable gold-surface (PdNi-Au)

- Process-Ready - High performance LCP material for reflow soldering

- Scalability - Different heights with high contact overlapping ensure various solutions from 12 – 80 poles.

- Robust miniaturisation - simple and safe connection even possible under unfavorable mating conditions – e.g. inclination or offset.

General ordering data

Version	PCB plug-in connector, male header, SMD solder connection, Pitch in mm (P): 1.27 mm, Number of poles: 68, 180°, Tape
Order No.	2747140000
Type	FMH3 S1/68V F1 B RL
GTIN (EAN)	4064675001201
Qty.	280 items
Product data	IEC: / 2.8 A UL: 150 V
Packaging	Tape

Creation date 31.12.2025 04:09:11 MEZ

FMH3 S1/68V F1 B RL

Technical data

Approvals

Approvals	(cURus logo)
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E92202

Dimensions and weights

Depth	7.4 mm	Depth (inches)	0.2913 inch
Height	9.1 mm	Height (inches)	0.3583 inch
Width	48.26 mm	Width (inches)	1.9 inch
Net weight	7.68 g		

Environmental Product Compliance

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

System specifications

Product family	OMNIMATE Signal - Board-to-Board	Type of connection	Board connection
Mounting onto the PCB	SMD solder connection	Pitch in mm (P)	1.27 mm
Pitch in inches (P)	0.050 "	Outgoing elbow	180°
Number of poles	68	Number of solder pins per pole	1
Coplanarity:	0.1 mm	Number of rows	1
Pin series quantity	2	Protection degree	IP20
Volume resistance	<25 mΩ	Plugging cycles	500
Plugging force/pole, max.	0.6 N	Pulling force/pole, max.	0.6 N

Material data

Insulating material	LCP	Colour	black
Colour chart (similar)	RAL 9011	Insulating material group	IIIa
Insulation resistance	$\geq 10^{10}\ \Omega$	Moisture Level (MSL)	1
UL 94 flammability rating	V-0	Contact base material	Copper alloy
Contact material	Cu-alloy	Contact surface	Gold over nickel
Layer structure of plug contact	≥ 2 µm Ni / ≥ 0.4 µm PdNi / ≥ 0.05 µm Au	Storage temperature, min.	-40 °C
Storage temperature, max.	70 °C	Operating temperature, min.	-55 °C
Operating temperature, max.	125 °C		

Rated data acc. to IEC

Rated current, min. number of poles (Tu=20°C)	2.8 A	Creepage distance, min.	0.4 mm
Clearance, min.	0.4 mm		

Rated data acc. to UL 1977

Reference to approval values	Specifications are maximum values, details - see approval certificate.	Rated voltage (UL 1977) (obsolete)	150 V

FMH3 S1/68V F1 B RL

Technical data

Packing

Packaging	Tape	VPE length	359.00 mm
VPE width	346.00 mm	VPE height	152.00 mm

Important note

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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	

Classifications
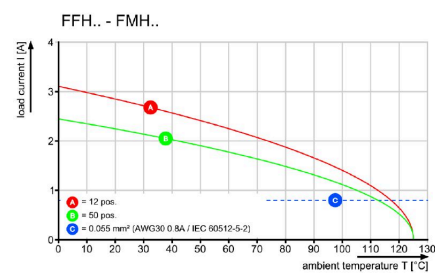
ETIM 8.0	EC002637	ETIM 9.0	EC002637
ETIM 10.0	EC002637	ECLASS 14.0	27-46-02-01
ECLASS 15.0	27-46-02-01		

FMH3 S1/68V F1 B RL

Drawings

Product image
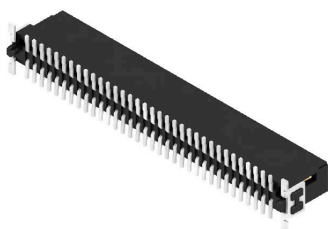
Dimensional drawing
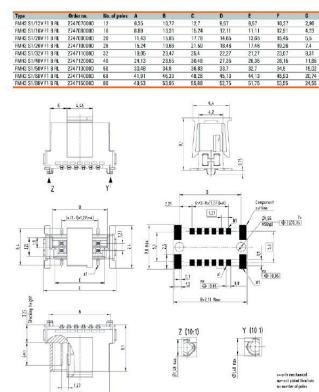
Detailed drawing

Derating curve

FMH3 S1/68V F1 B RL

Drawings

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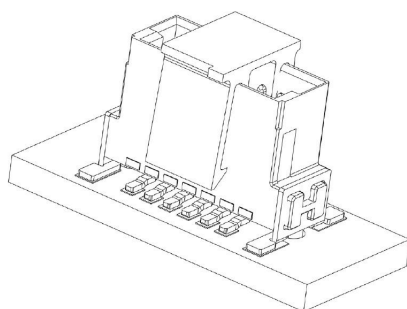
Extender-Board
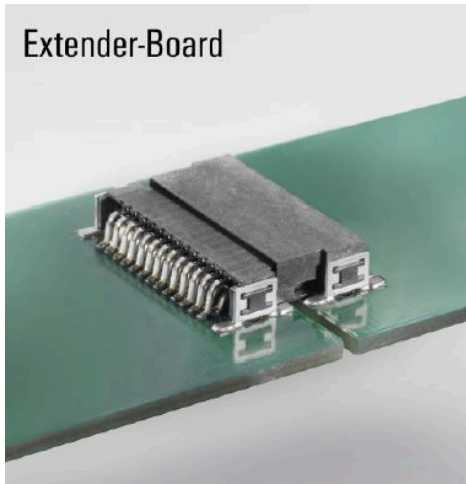
Mezzanine
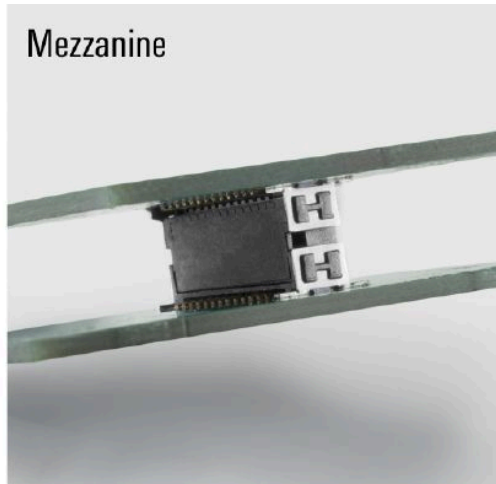
Mother-to-Daughter

Board-to-Wire