FEATURES AND SPECIFICATIONS

Mini-Fit Plus HCS™ (High-Current System) 4.20mm (.165") Pitch

45750 Female Crimp Terminal
46012 Male Crimp Terminal
46014 Single-Row Vertical Header
46015 Dual-Row Vertical Header
46011 Dual-Row Vertical BMI Header
46010 Dual-Row Vertical Board Receptacle

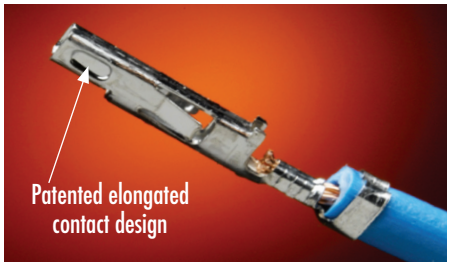
The Mini-Fit Plus HCS™ crimp terminals, headers and receptacles deliver up to 13.0A with extended durability for higher-current, mid-range power applications, without increasing design footprints

Mini-Fit Plus HCS male and female crimp terminals are produced from a proprietary, high-current alloy, providing enhanced high-performance current-carrying capability. The Mini-Fit Plus HCS product family consists of crimp terminals, headers and PCB receptacles; 13.0A per circuit can be achieved using 16 AWG wire.

The female contacts feature a patented, elongated dimple design to provide more contact area and a longer contact wipe over standard Mini-Fit terminals. Mini-Fit Plus HCS terminals can be used with all existing Mini-Fit® plug and receptacle housings. In addition, all standard Mini-Fit right-angle headers (Series 5569, 42404, 43810, 46991) are inherently HCS compatible, as they feature a solid-pin construction which is designed to handle high current. For more information on Molex's extensive Mini-Fit product offering, visit www.molex.com/product/minifit.html.

Features and Benefits

- Crimp terminals produced from a proprietary, high-current alloy and is rated up to 13.0A per circuit
- Terminals feature a patented, elongated dimple design which provides longer wipe lengths and increased contact area over standard Mini-Fit terminals
- 100 mating cycles with gold plating; 75 mating cycles with tin plating achieved which is ideal for applications requiring a high number of mating cycles
- Available in wire-to-wire, wire-to-board and board-to-board configurations which can be used in multiple applications
- Mini-Fit Plus HCS male and female crimp terminals are used with existing Mini-Fit receptacle and plug housings and new crimp housings are not required
- Crimp terminals are compatible with existing Molex crimp tooling and no new tooling is required



Mini-Fit Plus HCS Female Crimp Terminal

SPECIFICATIONS

Specifications – Female and Male Terminals

Reference Information
Packaging: Reel or bag

Mechanical
Contact Insertion Force: 1.54kg (3.40 lb) max.
Contact Retention to Housing: 3.0kg (6.61 lb) min.
Wire Pull-out Force: 6.0kg (13.23 lb) min.
Mating Force: Tin (Sn) — 11.1N (2.5 lbf) max.
Gold (Au) — 4.4 N (1.0lbf) max
Normal Force: Tin (Sn) — 200g min.
Gold (Au) — 50g min.
Durability: Tin (Sn) — 75 cycles
Gold (Au) — 100 cycles

Physical
Contact: High-Current Copper (Cu) Alloy
Plating: Contact Area – 100µ" Tin (Sn) or 30µ" Gold (Au)
Underplating – 50µ" Nickel (Ni)
Wire Range: 16, 18, 20 AWG
Insulation Range: 3.10mm (.122") max.
Strip Length: 2.99 to 3.51mm (.118 to .138")
Operating Temperature: -40 to +105° C

Electrical
Voltage: 600V
Current: See "Current Chart" right
Current Interruption: 8.0A max. at 24V

Specifications – Headers

Reference Information
Packaging: Bag or Tray
UL File No.: E29179
CSA File No.: 1068385

Electrical
Voltage (max.): 600V
Current (max.): See "Current Chart" below

Physical
Housing: Nylon, UL 94V-0
Contact: High-Current Copper (Cu) Alloy
Plating: Contact Area – 100µ" Tin (Sn) or 30µ" Gold (Au)
Underplating – 50µ" Nickel (Ni)
Operating Temperature: -40 to +105°C

Mechanical
Durability: Tin (Sn) — 75 cycles
Gold (Au) — 100 cycles

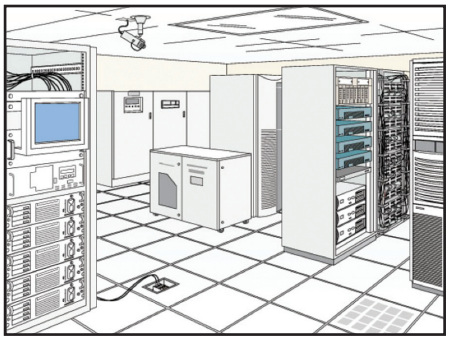
Current Chart

Wire Size (AWG)	Single-Row Circuit Size			Dual-Row Circuit Size				
	3	4	5	2	4,6	8,10,12	14,16,18	20,22,24
16	13.0A	12.5A	12.0A	13.0A	12.0A	10.5A	10.0A	9.5A
18	11.0A	10.5A	10.0A	11.0A	10.0A	8.0A	8.0A	8.0A
20	9.5A	9.0A	8.5A	9.5A	8.0A	7.5A	7.0A	7.0A

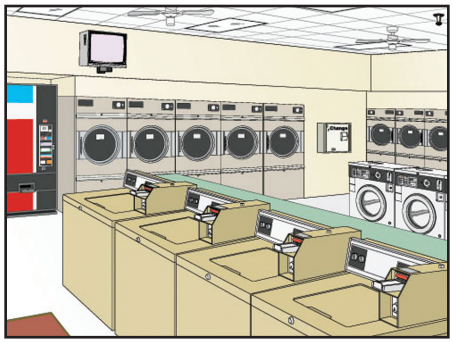
APPLICATIONS

Mini-Fit Plus HCS™ (High-Current System) 4.20mm (.165") Pitch

- Desktop/tower computer
- Power supplies
- Telecommunications
  - Hubs
  - Servers
- Industrial
- Medical
- Appliance
- Marine and recreational
- Military Commercial Off-the-Shelf (COTS)
- Mid-range power applications



Server and Storage Room



Laundry Equipment (washers and dryers)

ORDERING INFORMATION

Crimp Terminals

Order No.				Plating	Wire Size (AWG)	Insulation Range
Female		Male				
Reel	Bag	Reel	Bag			
45750-3111	45750-3112	46012-3141	46012-3142	Tin	16	2.20 to 3.15mm (.087 to .124")
45750-1111	45750-1112	46012-1141	46012-1142		18 to 20	1.65 to 2.95mm (.065 to .116")
45750-3211	45750-3212	46012-3241	46012-3242	Select Gold	16	2.20 to 3.15mm (.087 to .124")
45750-1211	45750-1212	46012-1241	46012-1242		18 to 20	1.65 to 2.95mm (.065 to .116")

Dual-Row PCB Receptacles

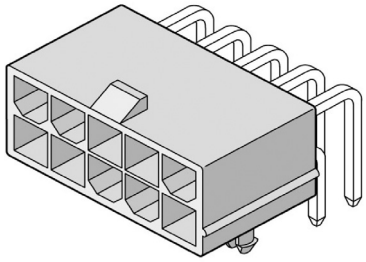
Order No.				Circuit Size
Tin Plated		Select Gold Plated (30µ")		
94V-2	94V-0	94V-2	94V-0	
46010-0411	46010-0421	46010-0412	46010-0422	4
46010-0611	46010-0621	46010-0612	46010-0622	6
46010-1011	46010-1021	46010-1012	46010-1022	10
46010-1411	46010-1421	46010-1412	46010-1422	14
46010-1811	46010-1821	46010-1812	46010-1822	18
46010-2411	46010-2421	46010-2412	46010-2422	24

Dual-Row BMI (Blind Mating Interface) Vertical Headers

Order No.				Circuit Size
Tin Plated		Select Gold Plated (30µ")		
94V-2	94V-0	94V-2	94V-0	
46011-0400	46011-0402	46011-0401	46011-0403	4
-	46011-0602	-	46011-0603	6
46011-1000	46011-1002	46011-1001	46011-1003	10
46011-1400	46011-1402	46011-1401	46011-1403	14
46011-1800	46011-1802	46011-1801	46011-1803	18
46011-2400	46011-2402	46011-2401	46011-2403	24

Dual-Row Vertical Headers

Order No.			Circuit Size
Tin Plated		Select Gold Plated (30µ")	
94V-2	94V-0	94V-0	
46015-0207	46015-0203	46015-0208	2
46015-0407	46015-0403	46015-0408	4
46015-0607	46015-0603	46015-0608	6
46015-0807	46015-0803	46015-0808	8
46015-1007	46015-1003	46015-1008	10
46015-1207	46015-1203	46015-1208	12
46015-1407	46015-1403	46015-1408	14
46015-1607	46015-1603	46015-1608	16
46015-1807	46015-1803	46015-1808	18
46015-2007	46015-2003	46015-2008	20
46015-2207	46015-2203	46015-2208	22
46015-2407	46015-2403	46015-2408	24



Mini-Fit® right-angle headers are inherently considered HCS capable due to the solid-pin construction

www.molex.com/product/Mini-Fit_Plus_HCS.html