

FEATURES AND SPECIFICATIONS



7.50mm (.295") Pitch Sabre™ Connector System UL 1950 Finger-Proof Rated

- 43178** Crimp Terminals, Male
- 43375** Crimp Terminals, Female
- 44441** Receptacles
- 43680** Plugs
- 46007** Right Angle Headers

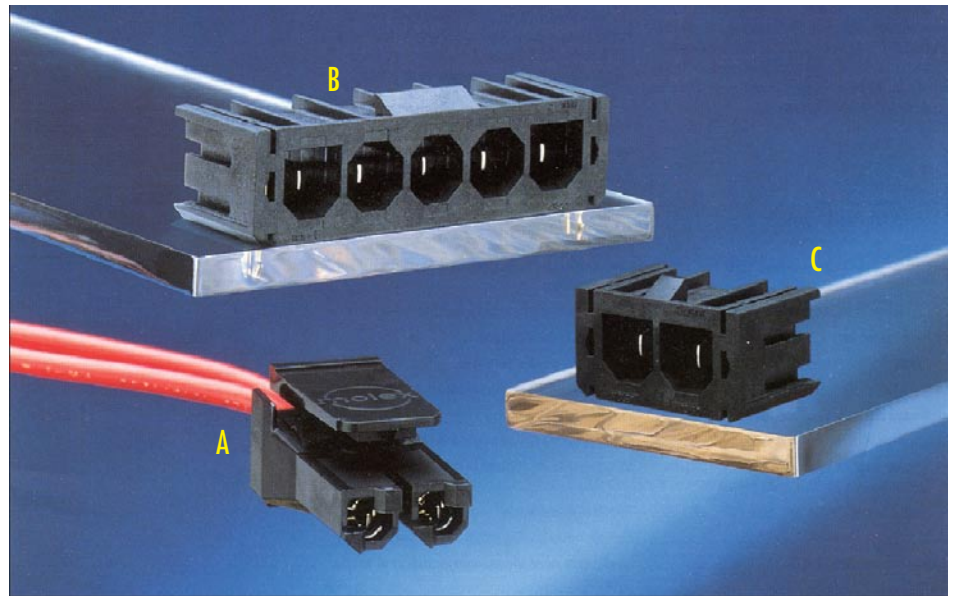
Eliminate dangerous risk of live-wire contact with Molex's new UL 1950 finger-proof rated Sabre connectors

Molex is expanding the existing Sabre product line with UL 1950 finger-proof rated crimp terminals, headers, receptacles and plugs for wire-to-wire or wire-to-board connector systems. These power connectors eliminate the possibility of a live circuit from coming in direct contact with human touch while connector halves are unmated. To meet this UL standard, the connector mating halves must pass a UL finger-probe test. Molex completed the following to ensure Sabre products meet the UL finger-probe test:

- Developed series 43178 male crimp terminals, with a shorter overall length as compared to existing terminals. The 43178 terminals are used with the 43680 plug housings.
- Developed series 46007 right-angle headers, with shorter male contacts as compared to the standard 43160 series right-angle header contacts.

The shortened male terminals are set farther back within the plug and header housings (insulators), out of the UL probe's reach. The existing Sabre receptacle and female terminal combination passed the UL probe test without any additional housing or crimp terminal enhancements.

For more information on Molex's extensive Sabre product family offering, please visit: www.molex.com/product/power/sabre.html.



A) Receptacle, Series 44441 B) 5 Circuit Right-Angle Header, Series 46007 C) 2 Circuit Right-Angle Header, Series 46007

SPECIFICATIONS

Reference Information

Packaging:

Bag: Receptacles, Plugs and Headers without PCB Metal Clip

Tray: Headers with PCB Metal Clip

UL File No.: Pending

CSA File No.: Pending

Designed In: Inches

Electrical

Voltage: 600V

Current: 18.0A max. using 14 AWG wire

Contact Resistance: 10 milliohms max.

Dielectric Withstanding Voltage: 5000V

Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Insertion Force: 8.9N (2.00 lbf) max.

Contact Retention to Housing: 89.0N (20.01 lbf) max.

Wire Pull-Out Force: 89.0N (20.01 lbf) max.

Mating Force: 13.3N (2.99 lbf) per circuit max.

Unmating Force: 2.2N (0.49 lbf) per circuit min.

Insertion Force to PCB: 22.2N (4.99 lbf) max.

Durability: 25 mating cycles

Physical

Housing Material and Flammability:

-Receptacles and Plugs- 6/6 Unfilled Polyamide UL 94V-0 or 94V-2

-Headers- 6/6 Unfilled Polyamide UL 94V-2 or 4/6 30% glass-filled Polyamide UL 94V-0

Crimp and Header Contact: Copper (Cu) Alloy

Crimp and Terminal Plating: Tin (Sn)

PCB Thickness: 1.57mm (.062"), 2.36mm (.093") and 3.18mm (.125")

Operating Temperature: -40 to +75°C



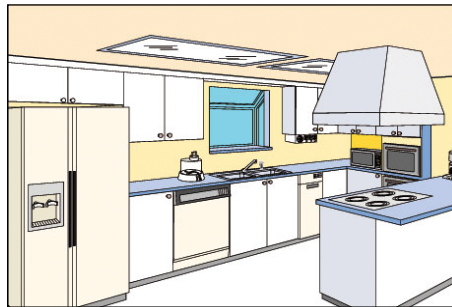
7.50mm (.295") Pitch Sabre™ Connector System UL 1950 Finger-Proof Rated

Features and Benefits

- Receptacles, plugs and headers meet UL 1950 finger-proof standard, eliminating chance of human touch with a live circuit in an unmated connector half
- Current rating up to 18.0A at 600V matches requirements for high-current and high-voltage applications
- Housings available in either UL 94V-0 or 94V-2 flammability ratings matching application safety flammability requirement
- Positive latch on receptacle housing reduces possibility of accidental disengagement with mating plug or header
- Anti-tangle latch on receptacle housing reduces possibility of accidental receptacle latch breakage during harness assembly
- Blade-terminal design has four points of electrical contact, providing a more reliable electrical connection than circular style terminals
- Metal clips are available on headers for 1.75mm (.062"), 2.36mm (.093") and 3.17mm (.125") PCB thicknesses, offering a reliable option to secure headers to common PCB thicknesses during solder processing

APPLICATIONS

- Retail security scanning systems
- Residential or commercial appliances
- HVAC equipment
- Computer servers
- Networking equipment
- Office equipment
- Fitness equipment
- Medical equipment





**7.50mm (.295") Pitch
Sabre™ Connector System
UL 1950 Finger-Proof Rated**

Crimp Terminals – Male (Series 43178) and Female (Series 43375)

Order No.	Wire Gauge (AWG)	Max. Insulation Diameter	Gender
43178-5002	18	3.30mm (.130")	Male
43178-6002	14-18 or double 18 AWG wire crimps	4.57mm (.180")	
43375-0001	14-18	3.30mm (.130")	Female
43375-1001	14-18 or double 18 AWG wire crimps	4.57mm (.180")	

Receptacles (Series 44441) and Plugs (Series 43680)

Circuits	Order No.				Wire Entry Angle
	Receptacle		Plug		
	UL 94V-2	UL 94V-0	UL 94V-2	UL 94V-0	
2	44441-1002	44441-2002	43680-1002	43680-2002	Vertical
3	44441-1003	44441-2003	43680-1003	43680-2003	Vertical
4	44441-1004	44441-2004	43680-1004	43680-2004	Vertical
5	44441-1005	44441-2005	43680-1005	43680-2005	Vertical
6	44441-1006	44441-2006	43680-1006	43680-2006	Vertical

Right-Angle Headers (Series 46007)

Circuits	Order No.	Housing Material	PC Tail Length	PCB Thickness	PCB Retention
2	46007-1102	4/6 30% glass-filled Polyamide, UL 94V-0	3.81mm (.150")	1.60mm (.062")	None
	46007-1302		5.33mm (.210")	2.36mm (.093") or 3.20mm (.125")	
	46007-3102		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5302		5.33mm (.210")	2.36mm (.093")	
	46007-7302		5.33mm (.210")	3.20mm (.125")	
	46007-1202	6/6 Unfilled Polyamide, UL 94V-2	3.81mm (.150")	1.60mm (.062")	None
	46007-1402		5.33mm (.210")	2.40mm (.093") or 3.20mm (.125")	
	46007-3202		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5402		5.33mm (.210")	2.40mm (.093")	
	46007-7402		5.33mm (.210")	3.20mm (.125")	
3	46007-1103	4/6 30% glass-filled Polyamide, UL 94V-0	3.81mm (.150")	1.60mm (.062")	None
	46007-1303		5.33mm (.210")	2.36mm (.093") or 3.20mm (.125")	
	46007-3103		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5303		5.33mm (.210")	2.36mm (.093")	
	46007-7303		5.33mm (.210")	3.20mm (.125")	
	46007-1203	6/6 Unfilled Polyamide, UL 94V-2	3.81mm (.150")	1.60mm (.062")	None
	46007-1403		5.33mm (.210")	2.40mm (.093") or 3.20mm (.125")	
	46007-3203		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5403		5.33mm (.210")	2.40mm (.093")	
	46007-7403		5.33mm (.210")	3.20mm (.125")	



**7.50mm (.295") Pitch
Sabre™ Connector System
UL 1950 Finger-Proof Rated**

Right-Angle Headers (Series 46007)

Circuits	Order No.	Housing Material	PC Tail Length	PCB Thickness	PCB Retention
4	46007-1104	4/6 30% glass-filled Polyamide, UL 94V-0	3.81mm (.150")	1.60mm (.062")	None
	46007-1304		5.33mm (.210")	2.36mm (.093") or 3.20mm (.125")	
	46007-3104		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5304		5.33mm (.210")	2.36mm (.093")	
	46007-7304		5.33mm (.210")	3.20mm (.125")	
	46007-1204	6/6 Unfilled Polyamide, UL 94V-2	3.81mm (.150")	1.60mm (.062")	None
	46007-1404		5.33mm (.210")	2.40mm (.093") or 3.20mm (.125")	
	46007-3204		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5404		5.33mm (.210")	2.40mm (.093")	
	46007-7404		5.33mm (.210")	3.20mm (.125")	
5	46007-1105	4/6 30% glass-filled Polyamide, UL 94V-0	3.81mm (.150")	1.60mm (.062")	None
	46007-1305		5.33mm (.210")	2.36mm (.093") or 3.20mm (.125")	
	46007-3105		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5305		5.33mm (.210")	2.36mm (.093")	
	46007-7305		5.33mm (.210")	3.20mm (.125")	
	46007-1205	6/6 Unfilled Polyamide, UL 94V-2	3.81mm (.150")	1.60mm (.062")	None
	46007-1405		5.33mm (.210")	2.40mm (.093") or 3.20mm (.125")	
	46007-3205		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5405		5.33mm (.210")	2.40mm (.093")	
	46007-7405		5.33mm (.210")	3.20mm (.125")	
6	46007-1106	4/6 30% glass-filled Polyamide, UL 94V-0	3.81mm (.150")	1.60mm (.062")	None
	46007-1306		5.33mm (.210")	2.36mm (.093") or 3.20mm (.125")	
	46007-3106		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5306		5.33mm (.210")	2.36mm (.093")	
	46007-7306		5.33mm (.210")	3.20mm (.125")	
	46007-1206	6/6 Unfilled Polyamide, UL 94V-2	3.81mm (.150")	1.60mm (.062")	None
	46007-1406		5.33mm (.210")	2.40mm (.093") or 3.20mm (.125")	
	46007-3206		3.81mm (.150")	1.60mm (.062")	Snap-in metal pin
	46007-5406		5.33mm (.210")	2.40mm (.093")	
	46007-7406		5.33mm (.210")	3.20mm (.125")	

Americas Headquarters
Lisle, Illinois 60532 U.S.A.
1-800-78MOLEX
amerinfo@molex.com

Asia Pacific North Headquarters
Yamato, Kanagawa, Japan
81-462-65-2324
feninfo@molex.com

Asia Pacific South Headquarters
Jurong, Singapore
65-6-268-6868
fesinfo@molex.com

European Headquarters
Munich, Germany
49-89-413092-0
eurinfo@molex.com

Corporate Headquarters
2222 Wellington Ct.
Lisle, IL 60532 U.S.A.
630-969-4550
Fax: 630-969-1352

www.molex.com/product/power/sabre.html