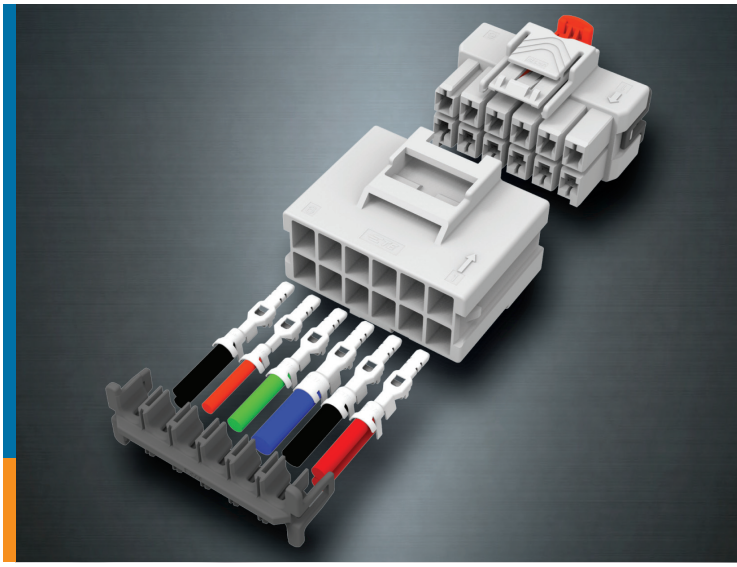
POWER TRIPLE LOCK CONNECTOR

Quick Reference Guide



POWER TRIPLE LOCK

SECURES CONNECTION IN 3 WAYS
Cap & Plug latch together
CPA - Connector Position Assurance
TPA - Terminal Position Assurance

4 KEYING & COLOR OPTIONS
Ensure correct assembly
Single audible “click” latch
with anti-snag ribs

150°C

3 HOUSING MATERIALS
Standard 105°C
High temperature up to 150°C
Glow wire

The new Power Triple Lock connector has been developed for improved power and signal applications. The connector has many added customer benefits for performance assurance.

For complete 3 in 1 reliability, the benefits include:

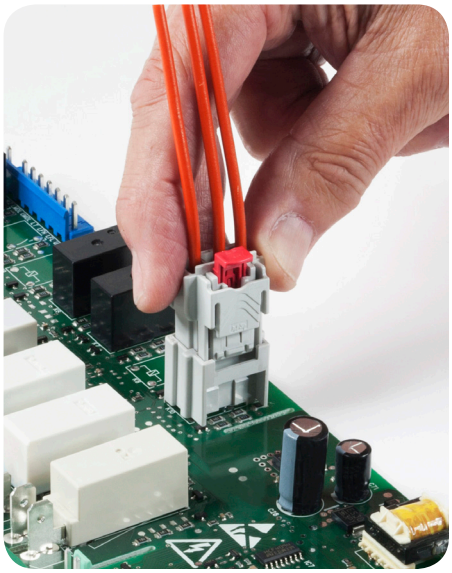
- Audible ‘lock’ latch provides positive feedback when Cap & Plug are mated, while the ribs surrounding the latch prevent wires from becoming snagged underneath the latch.
- Optional Connector Position Assurance (CPA) ensures that, once engaged, the Power Triple Lock connector cannot be mistakenly disengaged
- Optional Terminal Position Assurance (TPA) ensures that contacts are fully seated within the housing and provides an added measure against contact backout.

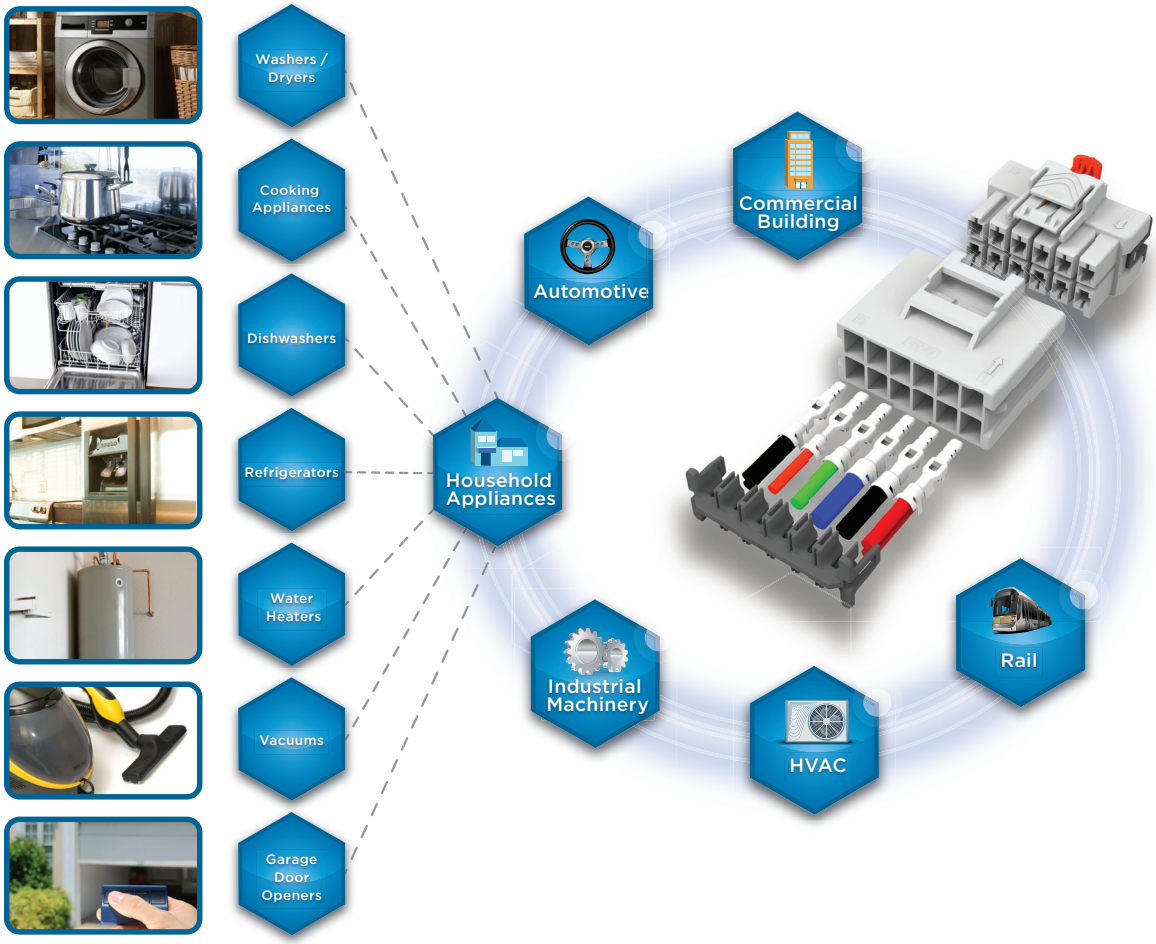
The Power Triple Lock connector is available in three levels of housing materials with keying/color code to prevent mis-mating on the assembly line:

- Standard 105°C - Natural, Purple, Blue, Yellow
- High temperature up to 150°C – Light Gray
- Glow wire – Dark Gray, Brown, Green, Orange

With a centerline space of 6.0mm, the reduced size of the Power Triple lock connector offers high performance with a functional design.

The Power Triple Lock connector has an extensive family line, ranging from free hanging and panel mount receptacles, and board mount headers to meet your everyday design needs.





ELECTRICAL

- Voltage rating: 600 VAC or VDC
- Current rating: Up to 20 A

MECHANICAL

- Position sizes:
  - Single row: 2, 3, 4, 5
  - Dual row: 2x3, 2x4, 2x5, and 2x6
  - Matrix: 3x3, 3x4, 3x5
- Centerline spacing: 6.0 mm
- Row-to-row spacing: 8.1 mm
- Operating temperature:
  - -55 to 105°C standard material
  - -55 to 150°C high temp material

SPECIFICATIONS

- Product specification: 108-106118
- Application specification: 114-106118
- Product specification (headers): 108-32090
- Application specification (headers): 114-32136

CONTACT WIRE SIZES

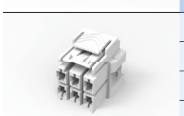
- 12 AWG (3.3mm^2)
- 14 AWG (2.1mm^2)
- 16-20 AWG (1.27-0.56mm^2)
- 22 AWG (0.34mm^2)
- 2x18 AWG (0.82mm^2)
- 2x20 AWG (0.56mm^2)

MATERIALS

- Housings: UL 94V-0
  - PBT standard (105°C)
  - High temperature (150°C)
  - Glow wire (750°C no flame) per IEC 60335-1
- Contacts: Tin-plated copper alloy

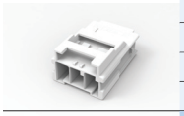
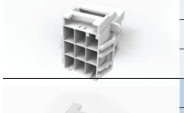
STANDARDS

c UL us UL recognized: E28476

Standard Temperature							
Product Image	Part Number	Type	Style	Size	Number of Positions	Temp Rating	Color
	1-1971771-2	Cap	Free Hanging	1 x 2	2	105	Natural
	1-1971771-3	Cap	Free Hanging	1 x 3	3	105	Natural
	1-1971771-4	Cap	Free Hanging	1 x 4	4	105	Natural
	1-1971771-7	Cap	Free Hanging	1 x 5	5	105	Natural
	1-1971774-3	Cap	Free Hanging	2 x 3	6	105	Natural
	1-1971774-4	Cap	Free Hanging	2 x 4	8	105	Natural
	1-1971774-5	Cap	Free Hanging	2 x 5	10	105	Natural
	1-1971774-6	Cap	Free Hanging	2 x 6	12	105	Natural
	1-1971874-3	Cap	Free Hanging	3 x 3	9	105	Natural
	1-1971874-4	Cap	Free Hanging	3 x 4	12	105	Natural
	1-1971874-7	Cap	Free Hanging	3 x 5	15	105	Natural
	1-1971773-2	Plug	Plug Housing	1 x 2	2	105	Natural
	1-1971773-3	Plug	Plug Housing	1 x 3	3	105	Natural
	1-1971773-4	Plug	Plug Housing	1 x 4	4	105	Natural
	1-1971773-7	Plug	Plug Housing	1 x 5	5	105	Natural
	1-1971776-3	Plug	Plug Housing	2 x 3	6	105	Natural
	1-1971776-4	Plug	Plug Housing	2 x 4	8	105	Natural
	1-1971776-5	Plug	Plug Housing	2 x 5	10	105	Natural
	1-1971776-6	Plug	Plug Housing	2 x 6	12	105	Natural
	1-1971876-3	Plug	Plug Housing	3 x 3	9	105	Natural
	1-1971876-4	Plug	Plug Housing	3 x 4	12	105	Natural
	1-1971876-7	Plug	Plug Housing	3 x 5	15	105	Natural
	1-1971772-2	Cap	Panel Mount	1 x 2	2	105	Natural
	1-1971772-3	Cap	Panel Mount	1 x 3	3	105	Natural
	1-1971772-4	Cap	Panel Mount	1 x 4	4	105	Natural
	1-1971772-7	Cap	Panel Mount	1 x 5	5	105	Natural
	1-1971775-3	Cap	Panel Mount	2 x 3	6	105	Natural
	1-1971775-4	Cap	Panel Mount	2 x 4	8	105	Natural
	1-1971775-5	Cap	Panel Mount	2 x 5	10	105	Natural
	1-1971775-6	Cap	Panel Mount	2 x 6	12	105	Natural
	1-1971875-3	Cap	Panel Mount	3 x 3	9	105	Natural
	1-1971875-4	Cap	Panel Mount	3 x 4	12	105	Natural
	1-1971875-7	Cap	Panel Mount	3 x 5	15	105	Natural
	1971777-2	TPA	Locking Plate	1 x 2	2	150	Black
	1971777-3	TPA	Locking Plate	1 x 3	3	150	Black
	1971777-4	TPA	Locking Plate	1 x 4	4	150	Black
	1971777-5	TPA	Locking Plate	1 x 5	5	150	Black
	1971778-3	TPA	Locking Plate	2 x 3	6	150	Black
	1971778-4	TPA	Locking Plate	2 x 4	8	150	Black
	1971778-5	TPA	Locking Plate	2 x 5	10	150	Black
	1971778-6	TPA	Locking Plate	2 x 6	12	150	Black
	1971789-1	CPA	Connector Position Assurance	NA	NA	150	Red

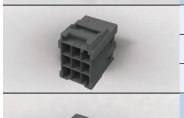
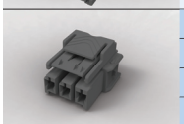
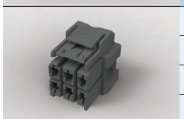
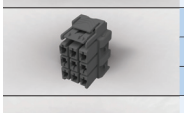
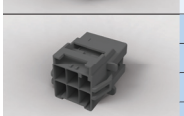
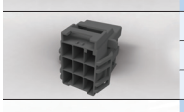
Note: Cap and plug part numbers listed above are for keying option A.

High Temperature

Product Image	Part Number	Type	Style	Size	Number of Positions	Temp Rating	Color
	9-1971771-2	Cap	Free Hanging	1 x 2	2	150	Light Gray
	5-1971771-3	Cap	Free Hanging	1 x 3	3	150	Light Gray
	5-1971771-4	Cap	Free Hanging	1 x 4	4	150	Light Gray
	5-1971771-7	Cap	Free Hanging	1 x 5	5	150	Light Gray
	5-1971774-3	Cap	Free Hanging	2 x 3	6	150	Light Gray
	5-1971774-4	Cap	Free Hanging	2 x 4	8	150	Light Gray
	5-1971774-5	Cap	Free Hanging	2 x 5	10	150	Light Gray
	5-1971774-6	Cap	Free Hanging	2 x 6	12	150	Light Gray
	5-1971874-3	Cap	Free Hanging	3 x 3	9	150	Light Gray
	5-1971874-4	Cap	Free Hanging	3 x 4	12	150	Light Gray
	5-1971874-7	Cap	Free Hanging	3 x 5	15	150	Light Gray
	9-1971773-2	Plug	Plug Housing	1 x 2	2	150	Light Gray
	5-1971773-3	Plug	Plug Housing	1 x 3	3	150	Light Gray
	5-1971773-4	Plug	Plug Housing	1 x 4	4	150	Light Gray
	5-1971773-7	Plug	Plug Housing	1 x 5	5	150	Light Gray
	5-1971776-3	Plug	Plug Housing	2 x 3	6	150	Light Gray
	5-1971776-4	Plug	Plug Housing	2 x 4	8	150	Light Gray
	5-1971776-5	Plug	Plug Housing	2 x 5	10	150	Light Gray
	5-1971776-6	Plug	Plug Housing	2 x 6	12	150	Light Gray
	5-1971876-3	Plug	Plug Housing	3 x 3	9	150	Light Gray
	5-1971876-4	Plug	Plug Housing	3 x 4	12	150	Light Gray
	5-1971876-7	Plug	Plug Housing	3 x 5	15	150	Light Gray
	5-1971772-2	Cap	Panel Mount	1 x 2	2	150	Light Gray
	5-1971772-3	Cap	Panel Mount	1 x 3	3	150	Light Gray
	5-1971772-4	Cap	Panel Mount	1 x 4	4	150	Light Gray
	5-1971772-7	Cap	Panel Mount	1 x 5	5	150	Light Gray
	5-1971775-3	Cap	Panel Mount	2 x 3	6	150	Light Gray
	5-1971775-4	Cap	Panel Mount	2 x 4	8	150	Light Gray
	5-1971775-5	Cap	Panel Mount	2 x 5	10	150	Light Gray
	5-1971775-6	Cap	Panel Mount	2 x 6	12	150	Light Gray
	5-1971875-3	Cap	Panel Mount	3 x 3	9	150	Light Gray
	5-1971875-4	Cap	Panel Mount	3 x 4	12	150	Light Gray
	5-1971875-7	Cap	Panel Mount	3 x 5	15	150	Light Gray
	1-1969688-2	Header	PC Board Mount	1 x 2	2	150	Light Gray
	1-1969688-3	Header	PC Board Mount	1 x 3	3	150	Light Gray
	1-1969688-4	Header	PC Board Mount	1 x 4	4	150	Light Gray
	1-1969688-5	Header	PC Board Mount	1 x 5	5	150	Light Gray
	1971777-2	TPA	Locking Plate	1 x 2	2	150	Black
	1971777-3	TPA	Locking Plate	1 x 3	3	150	Black
	1971777-4	TPA	Locking Plate	1 x 4	4	150	Black
	1971777-5	TPA	Locking Plate	1 x 5	5	150	Black
	1971778-3	TPA	Locking Plate	2 x 3	6	150	Black
	1971778-4	TPA	Locking Plate	2 x 4	8	150	Black
	1971778-5	TPA	Locking Plate	2 x 5	10	150	Black
	1971778-6	TPA	Locking Plate	2 x 6	12	150	Black
	1971789-1	CPA	Connector Position Assurance	NA	NA	150	Red

Note: Cap, plug and header part numbers listed above are for keying option A.

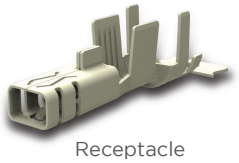
Glow Wire

Product Image	Part Number	Type	Style	Size	Number of Positions	Temp Rating	Color
	5-2232358-2	Cap	Free Hanging	1 x 2	2	105	Dark Gray
	5-2232358-3	Cap	Free Hanging	1 x 3	3	105	Dark Gray
	5-2232358-4	Cap	Free Hanging	1 x 4	4	105	Dark Gray
	5-2232358-7	Cap	Free Hanging	1 x 5	5	105	Dark Gray
	5-2232359-3	Cap	Free Hanging	2 x 3	6	105	Dark Gray
	5-2232359-4	Cap	Free Hanging	2 x 4	8	105	Dark Gray
	5-2232359-5	Cap	Free Hanging	2 x 5	10	105	Dark Gray
	5-2232359-6	Cap	Free Hanging	2 x 6	12	105	Dark Gray
	5-2232360-3	Cap	Free Hanging	3 x 3	9	105	Dark Gray
	5-2232360-4	Cap	Free Hanging	3 x 4	12	105	Dark Gray
	5-2232360-7	Cap	Free Hanging	3 x 5	15	105	Dark Gray
	5-2232265-2	Plug	Plug Housing	1 x 2	2	105	Dark Gray
	5-2232265-3	Plug	Plug Housing	1 x 3	3	105	Dark Gray
	5-2232265-4	Plug	Plug Housing	1 x 4	4	105	Dark Gray
	5-2232265-7	Plug	Plug Housing	1 x 5	5	105	Dark Gray
	5-2232266-3	Plug	Plug Housing	2 x 3	6	105	Dark Gray
	5-2232266-4	Plug	Plug Housing	2 x 4	8	105	Dark Gray
	5-2232266-5	Plug	Plug Housing	2 x 5	10	105	Dark Gray
	5-2232266-6	Plug	Plug Housing	2 x 6	12	105	Dark Gray
	5-2232357-3	Plug	Plug Housing	3 x 3	9	105	Dark Gray
	5-2232357-4	Plug	Plug Housing	3 x 4	12	105	Dark Gray
	5-2232357-7	Plug	Plug Housing	3 x 5	15	105	Dark Gray
	5-2232263-2	Cap	Panel Mount	1 x 2	2	105	Dark Gray
	5-2232263-3	Cap	Panel Mount	1 x 3	3	105	Dark Gray
	5-2232263-4	Cap	Panel Mount	1 x 4	4	105	Dark Gray
	5-2232263-7	Cap	Panel Mount	1 x 5	5	105	Dark Gray
	5-2232264-3	Cap	Panel Mount	2 x 3	6	105	Dark Gray
	5-2232264-4	Cap	Panel Mount	2 x 4	8	105	Dark Gray
	5-2232264-5	Cap	Panel Mount	2 x 5	10	105	Dark Gray
	5-2232264-6	Cap	Panel Mount	2 x 6	12	105	Dark Gray
	5-2232356-3	Cap	Panel Mount	3 x 3	9	105	Dark Gray
	5-2232356-4	Cap	Panel Mount	3 x 4	12	105	Dark Gray
	5-2232356-7	Cap	Panel Mount	3 x 5	15	105	Dark Gray
	1971777-2	TPA	Locking Plate	1 x 2	2	150	Black
	1971777-3	TPA	Locking Plate	1 x 3	3	150	Black
	1971777-4	TPA	Locking Plate	1 x 4	4	150	Black
	1971777-5	TPA	Locking Plate	1 x 5	5	150	Black
	1971778-3	TPA	Locking Plate	2 x 3	6	150	Black
	1971778-4	TPA	Locking Plate	2 x 4	8	150	Black
	1971778-5	TPA	Locking Plate	2 x 5	10	150	Black
	1971778-6	TPA	Locking Plate	2 x 6	12	150	Black
	1971789-1	CPA	Connector Position Assurance	NA	NA	150	Red

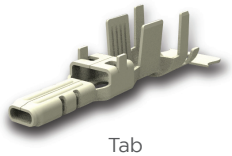
Note: Cap and plug part numbers listed above are for keying option A.

Receptacles, Tabs and Tools

Part Number	Type	Style	Wire Size	Temp Rating	Applicators US/EMEA only Atlantic Style	Applicators US/EMEA only Pacific Style	Applicators HDE AP Only	Hand Tool
1971779-1	Receptacle	std Receptacle	12AWG	105	2151741-1	2-2151741-1	1552992-2	2217268-1
1971781-1	Receptacle	std Receptacle	14AWG	105	2151742-1	2-2151742-1	1552993-2	2217266-1
1971783-1	Receptacle	std Receptacle	16-20AWG	105	2151743-1	2-2151743-1	1552994-2	2217208-1
1971785-1	Receptacle	std Receptacle	22AWG	105	2151744-1	2-2151744-1	1552995-2	2217267-1
1971787-1	Receptacle	std Receptacle	2x18AWG	105	2151745-1	2-2151745-1	1552996-2	2217266-1
1971237-1	Receptacle	std Receptacle	2x20AWG	105	2151746-1	2-2151746-1	1552511-2	2217267-1
1971780-1	Tab	std Tab	12AWG	105	2151741-1	2-2151741-1	1552992-2	2217268-1
1971782-1	Tab	std Tab	14AWG	105	2151742-1	2-2151742-1	1552993-2	2217266-1
1971784-1	Tab	std Tab	16-20AWG	105	2151743-1	2-2151743-1	1552994-2	2217208-1
1971786-1	Tab	std Tab	22AWG	105	2151744-1	2-2151744-1	1552995-2	2217267-1
1971788-1	Tab	std Tab	2x18AWG	105	2151745-1	2-2151745-1	1552996-2	2217266-1
1971238-1	Tab	std Tab	2x20AWG	105	2151746-1	2-2151746-1	1552511-2	2217267-1
1971779-2	Receptacle	HT 150°C Receptacle	12AWG	150	2151741-1	2-2151741-1	1552992-2	2217268-1
1971781-2	Receptacle	HT 150°C Receptacle	14AWG	150	2151742-1	2-2151742-1	1552993-2	2217266-1
1971783-2	Receptacle	HT 150°C Receptacle	16-20AWG	150	2151743-1	2-2151743-1	1552994-2	2217208-1
1971785-2	Receptacle	HT 150°C Receptacle	22AWG	150	2151744-1	2-2151744-1	1552995-2	2217267-1
1971787-2	Receptacle	HT 150°C Receptacle	2x18AWG	150	2151745-1	2-2151745-1	1552996-2	2217266-1
1971237-2	Receptacle	HT 150°C Receptacle	2x20AWG	150	2151746-1	2-2151746-1	1552511-2	2217267-1
1971780-2	Tab	HT 150°C Tab	12AWG	150	2151741-1	2-2151741-1	1552992-2	2217268-1
1971782-2	Tab	HT 150°C Tab	14AWG	150	2151742-1	2-2151742-1	1552993-2	2217266-1
1971784-2	Tab	HT 150°C Tab	16-20AWG	150	2151743-1	2-2151743-1	1552994-2	2217208-1
1971786-2	Tab	HT 150°C Tab	22AWG	150	2151744-1	2-2151744-1	1552995-2	2217267-1
1971788-2	Tab	HT 150°C Tab	2x18AWG	150	2151745-1	2-2151745-1	1552996-2	2217266-1
1971238-2	Tab	HT 150°C Tab	2x20AWG	150	2151746-1	2-2151746-1	1552511-2	2217267-1



Receptacle



Tab

FREQUENTLY ASKED QUESTIONS

Q1. What are the operating temperature requirements?

The new Power Triple Lock connector offers all V-0 materials, with standard product made from a PBT material, rated at 105°C. For high temperature applications, like cooking, materials are available for 150°C.

Q2. What is the benefit of choosing glow wire housings?

The Power Triple Lock connector offers glow wire housings that allow manufacturers of home appliances to comply with the IEC 60335-1 standard.

Q3. What are the current and voltage requirements for your application?

The Power Triple Lock connector has a maximum current rating of 20 amps per line and is rated for 600 VAC or VDC. Refer to product specification 108-106118 (plugs/receptacles) / 108-32090 (headers) for de-rating chart.

Q4. What are the wire size requirements?

The Power Triple Lock connector can accommodate single wire ranges from 12 AWG to 20 AWG, and double wires from 2X18 AWG to 2X20 AWG.

Q5. In what circuit count is the Power Triple Lock connector offered?

The Power Triple Lock connector is available from 2 to 15 positions, with both free hanging and panel mount housings; the printed circuit header version from 2 to 5 positions.

Q6. Do I need to use the Connector Position Assurance (CPA) device and the Terminal Position Assurance (TPA) device?

The CPA and TPA devices are offered for this Power Triple Lock connector as options. Many customers are now asking for these devices in some or all of their applications as added security to help ensure the connector halves remain together once mated and ensure contact retention in each circuit cavity.

Q7. Do you offer Terminal Position Assurance (TPA) devices for Matrix (3 row) housings?

Yes. The Matrix housings are designed to accept 1 single row and 1 dual row TPA.

Q8. What connector keying options are offered for the Power Triple Lock connector?

The Power Triple Lock connector is available in 4 keying options for all connector ranges. This means that the same position size connector can be used in different harnesses, but with different keying to prevent mismating.

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