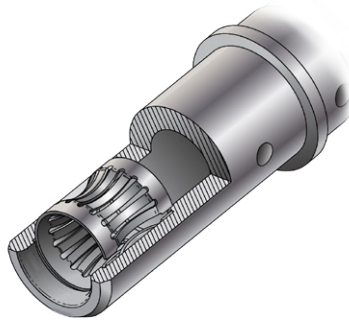


General Information and Technical Reference Contact Design, Current Rating

GENERAL INFORMATION



PowerTrip Socket Contact with LouverBand

PowerTrip Contacts

Series 970 socket contacts have a spring (“LouverBand”). Testing has demonstrated that LouverBand contacts have better mechanical and electrical performance compared to split-tine contacts. The spring provides multiple points of electrical contact, as opposed to a few “high spots” on a conventional four-finger contact. The LouverBand design offers low voltage drop for reduced temperature rise and higher current carrying capacity. The LouverBand spring has consistent, stable normal force, even when subjected to high mating cycles and temperature extremes.

“Last-Mate, First-Break” for Interlock Circuits

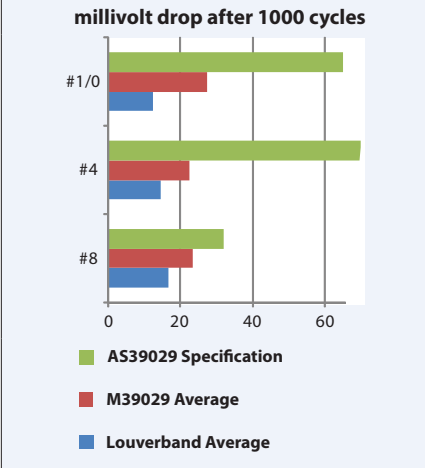
The Powertrip insert arrangements include layouts with size #12 and #16 contacts. These contacts are designed to mate only after the larger power contacts are mated. When connectors are uncoupled, the size #12 and #16 contacts separate before the power contacts are disengaged. These smaller contacts are typically used for safety interlock circuits.

Current Rating

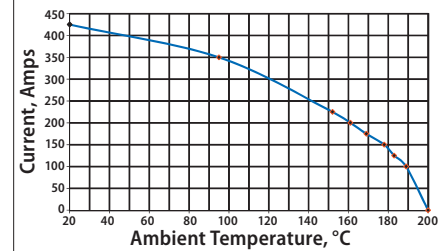
Powertrip contact resistance (voltage drop) is up to 60% lower than AS39029 limits. Temperature rise tests have demonstrated the LouverBand contact to generate less heat under load than conventional AS39029 contacts.

The maximum safe current load is dependent on a number of application-specific variables. The maximum current load is the combination of the electrical load and ambient conditions that do not exceed a maximum connector internal hot-spot temperature of +200 °C, the maximum operating temperature of the PowerTrip connector.

LOUVERBAND CONTACT RESISTANCE

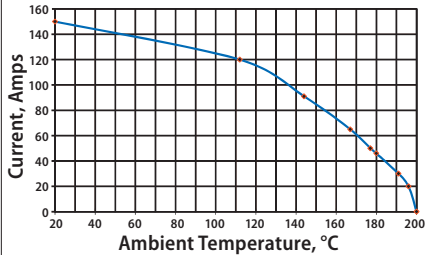


SIZE 1/0 CONTACT DE-RATING CURVE AND T-RISE



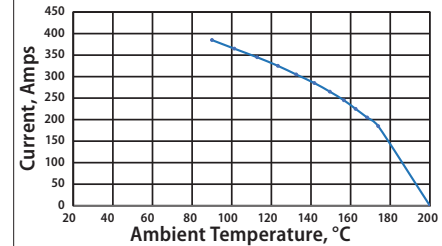
Current, A	T-Rise, °C	Current, A	T-Rise, °C
100	11	200	39
125	17	225	48
150	22	350	104
175	31	425	177

SIZE 8 CONTACT DE-RATING CURVE AND T-RISE



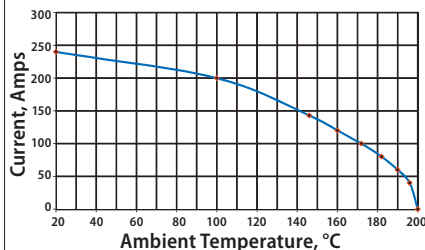
Current, A	T-Rise, °C	Current, A	T-Rise, °C
20	4	60	33
30	9	80	56
46	20	120	88
50	23	150	179

SIZE 2/0 CONTACT DE-RATING CURVE AND T-RISE



Current, A	T-Rise, °C	Current, A	T-Rise, °C
100	11	200	39
125	17	225	48
150	22	350	104
175	31	425	177

SIZE 4 CONTACT DE-RATING CURVE AND T-RISE



Current, A	T-Rise, °C	Current, A	T-Rise, °C
40	4	120	40
60	10	140	54
80	18	200	100
100	28	240	176