

Revision:	Date:	Description:	Prepared:	Notes:	TENSILITY tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com
A	9/25/2020	Initial release	Verified:	RoHS compliant Function test: no open, no short circuit, no intermittent	
			Dimensions are in millimeters. Tolerances: X: ± 0.3 mm X.X: ± 0.1 mm X.XX: ± 0.05 mm	Description: Connector, dc jack, 3.5x1.1xL16.5 mm, brass nickel plated, molding style, 105 °C	Size: Part number: A 50-00674
					Scale: 4:1 Sheet 1 of 2

Ratings

Voltage: 48 V
Current: 6.0 A

Operating Temperature Range

-40 to 105 °C, relative humidity of 85% or less

Materials

1. Insulator: Nylon UL94 V-0, black
2. Center pin: C3604 brass, 2 µm nickel plated
3. Shell: C3604 brass, 2 µm nickel plated
4. Spring contact: Beryllium copper, 2 µm nickel plated

Electrical Requirements

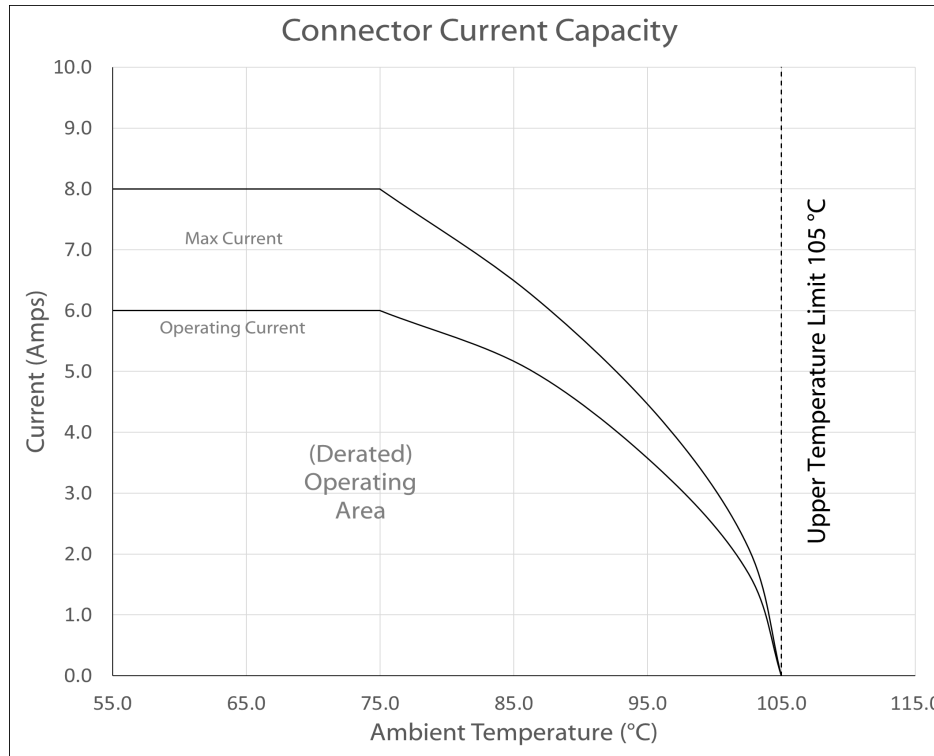
Dielectric strength: 1 min @ 500 Vac
Insulation resistance: 100 MΩ @ 500 Vdc
Contact resistance: 30 mΩ or less

Mechanical Requirements

Insertion force: 0.3-2.5 kgf
Withdrawal force: 0.3-2.5 kgf
Life cycle: 5000 mating cycles while maintaining 0.3 kgf min. insertion force, 0.2 kgf min. withdrawal force and less than 100 mΩ contact resistance.

Environmental Requirements

Heat test: 70 °C, relative humidity 70-85% for 96 hours while maintaining contact resistance: 100 mΩ or less, insulation resistance: 50 MΩ @ 500 Vdc, and without looseness or deformation
Humidity test: 40 °C, relative humidity 90-100% for 96 hours while maintaining dielectric strength: 1 min @ 500 Vac, insulation resistance: 50 MΩ @ 500 Vdc, and contact resistance: 100 mΩ or less
Salt spray test: 35±2 °C, relative humidity 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 mΩ.



Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings, mating cables, or other circuitry. Operating current curve (derated by 20% of maximum values) accounts for external factors, and manufacturing variation.

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