Applicable standard		
Rating	Operating temperature range	-55 °C to +105°C (Note1)
	Operating humidity range	20% to 80% (Note2)
	Storage temperature range	-10 °C to +60°C (Note3)
	Storage humidity range	40% to 70% (Note3)
	Applicable connector	DF63-∗S-3.96C
	Voltage	AC/DC 630V

Current	Contact	AWG16	AWG18	AWG 20	AWG 22
	1	15A	13A	11A	9A
	2	14A	12A	10A	8A
	3	12A	10A	8A	7A

△1

	Rated Voltage	Rated Current	Overvoltage Category	IP-Degree
UL,C-UL	600V AC/DC	See above	-	-
TÜV	300V AC/DC	See above	Ⅱ	IP00

Specifications

Item	Test method	Requirements	QT	AT
Construction				
General examination	Visually and by measuring instrument.	According to drawing.	X	X
Marking	Confirmed visually.		X	X
Electric characteristics				
Contact resistance	20mV MAX, 1mA (DC or 1000Hz).	10 mΩ MAX.	X	–
Insulation resistance	500 V DC.	1000 MΩ MIN.	X	–
Voltage proof	1500 V AC for 1 min.	No flashover or breakdown.	X	–
Mechanical characteristics				
Mechanical operation	30 times insertion and extraction.	①Contact resistance: 20 mΩ MAX. ②No damage, crack or looseness of parts.	X	–
Vibration	Frequency 10 to 55 Hz, single amplitude 0.75 mm, at 10 cycles for 3 direction.	①No electrical discontinuity of 1 μs. ②No damage, crack or looseness of parts.	X	–
Shock	490 m/s^2 duration of pulse 11 ms at 3 times each for 3 both axial directions.	①No electrical discontinuity of 1 μs. ②No damage, crack or looseness of parts.	X	–
Environmental characteristics				
Damp heat (Steady state)	Exposed at 40 ± 2℃ , 90 to 95 %, 96 h. (After leaving the room temperature for 1-2h.)	①Contact resistance: 20 mΩ MAX. ②Insulation resistance: 500 MΩ MIN. ③No damage, crack or looseness of parts.	X	–
Rapid change of temperature	Temperature -55℃→ +85℃ Time 30min→ 30min Under 5 cycles. (The transferring time of the tank is 2 to 3 min) (After leaving the room temperature for 1 to 2h.)	①Contact resistance: 20 mΩ MAX. ②Insulation resistance: 1000 MΩ MIN. ③No damage, crack or looseness of parts.	X	–
Resistance to soldering heat	1) Automatic soldering （Flow） Soldered at solder temperature 260°c for in immersing duration 10s. 2)Manual soldering Soldering iron temperature :300℃ Soldering time :3s No strength on contact.	No deformation of case of excessive looseness of the terminals.	X	–
Solderability	Soldered at solder temperature 245°c for in immersing duration 5 s.	A new uniform coating of solder shall cover minimum of 95 % of the surface being immersed.	X	–

Remarks
Note 1: Include the temperature rising by current.
Note 2: No condensing
Note 3: Apply to the condition of long term storage for unused products before mounted on PCB.
After mounted on PCB, operation temperature and humidity range is applied for interim storage during transportation.

	Count	Description of revisions	Designed	Checked	Date
△1	1	DIS-H-00004240	TS.KUMAZAWA	SZ.ONO	20180925

Unless otherwise specified, refer to IEC 60512.	Approved	HS.OKAWA	20170915
	Checked	TS.FUKUSHIMA	20170915
	Designed	HT.SATO	20170915
	Drawn	MI.SAKIMURA	20170915

Note QT:Qualification Test AT:Assurance Test X:Applicable Test		Drawing no.	ELC-378594-00-00	
HRS	Specification sheet	Part no.	DF63M-∗P-3.96DS	
	Hirose electric co., ltd.	Code no.	CL680- △1	1/1

FORM HD0011-2-1