




Applicable standard										
Rating	Operating temperature range	-55 °C to +105°C (Note1)			Current	Contact	AWG16	AWG18	AWG 20	AWG 22
	Operating humidity range	20% to 80% (Note2)				1	15A	13A	11A	9A
	Storage temperature range	-10 °C to +60°C (Note3)				2	14A	12A	10A	8A
	Storage humidity range	40% to 70% (Note3)				3	12A	10A	8A	7A
	Applicable connector	DF63-*S-3.96C								
	Voltage	AC/DC 630V								
		Rated Voltage	Rated Current	Overvoltage Category	IP-Degree					
UL,C-UL		600V AC/DC	See above	-	-					
TUV		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 μ s. 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 μ s. ②No damage, crack or looseness of parts.					X	-
Environmental characteristics										
Damp heat (Steady state)	Exposed at 40 ± 2°C , 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°C → +85°C 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°C 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	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		