



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		50 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 <sup>2</sup> 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)Solder bath method 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.		Such as impaired function ,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	
2	2	DIS-H-00005354		TO. KUROMATSU		SZ. ONO		20191008	
Unless otherwise specified, refer to IEC 60512.					Approved	HS. OKAWA		20180130	
					Checked	TS. FUKUSHIMA		20180130	
					Designed	TS. KUMAZAWA		20180130	
					Drawn	TS. KUMAZAWA		20180130	
Note QT:Qualification Test AT:Assurance Test X:Applicable Test				Drawing no.		ELC-378594-01-00			
	Specification sheet			Part no.		DF63M-*P-3. 96DS (01)			
	Hirose electric co., Ltd.			Code no.		CL680-		 1/1	