

Applicable standard					
Rating	Operating temperature range	-55 °C to +105°C (Note1)	Storage temperature range	-10 °C to +60°C (Note3)	
	Operating humidity range	20% to 80% (Note2)	Storage humidity range	40% to 70% (Note3)	
	Applicable connector	DF63-3S-3.96C	Voltage	AC/DC 630V	
			Current	AWG #16 : 15A AWG #18 : 13A AWG #20 : 11A AWG #22 : 9A	
		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 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 2-3 min) (After leaving the room temperature for 1-2h.)		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 immersion , duration, 10 s. 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 immersion , duration, 5 s.		A new uniform coating of solder shall cover minimum of 95 % of the surface being immersed.	X -
Note 1: Include the temperature rising by current. Note 2: No condensing Note3: Apply to the condition of long term storage for unused products before mounted on PCB. After mounted on PCB board, operating temperature and humidity range is applied for interim storage during transportation.					
	Count	Description of revisions	Designed	Checked	Date
①	2	DIS-H-00004228	TS. KUMAZAWA	SZ. ONO	18. 09. 20
Remarks Unless otherwise specified, refer to IEC 60512.				Approved	HS. OKAWA
				Checked	TS. FUKUSHIMA
				Designed	TS. KUMAZAWA
				Drawn	TS. KUMAZAWA
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			Drawing no.	ELC-374389-01-00	
HRS	Specification sheet		Part no.	DF63M-2P-7. 92DS (01)	
	Hirose electric co., Ltd.		Code no.	CL680-0583-0-01	① 1/1