Applicable standard					
Rating	Operating temperature range ⚠2	-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-*S-3.96C	Voltage	AC/DC 630V	
	Applicable cable	AWG#16 to 18	Current	AWG#16	15 A
	Insulation Diameter	Φ2.1 to 3.2 mm		AWG#18	13 A

	Rated Voltage	Rated Current	Overvoltage Category	IP-Degree
UL,C-UL	600V AC/DC	See above	-	-
TÜV	300V AC/DC	See above	-	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	–
Mechanical characteristics				
Contact insertion and extraction forces	□1.14±0.002 mm by steel gauge.	Insertion force 12.0 N MAX. Extraction force 0.3 N MIN.	X	–
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.		X	–
Shock	490 m/s^2 duration of pulse 11 ms at 3 times each for 3 both axial directions.		X	–
Environmental characteristics				
Damp heat (Steady state)	Exposed at 40 ± 2℃ , 90 to 95 %, 96 h. (After leaving the room temperature for 1 to 2h.)	①Contact resistance: 20 mΩ MAX. ②No 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.)		X	–

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 PCB on board. After PCB on board, operating temperature and humidity range is applied for interim storage during transportation.

	Count	Description of revisions	Designed	Checked	Date
⚠2	1	DIS-H-00002332	MI.SAKIMURA	TS.FUKUSHIMA	16.11.29

Remarks			
	Approved	HK.UMEHARA	15.03.27
	Checked	HK.UMEHARA	15.03.27
	Designed	YK.YAMAGUCHI	15.03.26
Unless otherwise specified, refer to IEC 60512.	Drawn	YK.YAMAGUCHI	15.03.26

Note QT:Qualification test AT:Assurance test X:applicable test	Drawing No.	ELC-362604-00-00	
HRS Specification sheet	Part No.	DF63-1618SCFA	
Hirose electric co., Ltd.	Code No.	CL680-0540-0-00	⚠2 1/1

FORM HD0011-2-1