




APPLICABLE STANDARD						
Rating	Operating Temperature Range ⁽²⁾	-40°C to +105°C	Storage Temperature Range	-10°C to +60°C		
	Voltage	AC, DC 1000 V	—	—		
	Current ⁽¹⁾	13A(ambient temperature 25°C)	Applicable Cable	Φ7.4~8.2		
SPECIFICATIONS						
ITEM		TEST METHOD		REQUIREMENTS	QT	AT
CONSTRUCTION						
General Examination		Examined visually and with a measuring instrument.		According to the drawing.	X	X
Marking		Confirmed visually.			X	X
ELECTRICAL CHARACTERISTICS						
Contact Resistance	Measured at DC 1A.		5 mΩ MAX.	X	X	
Insulation Resistance	Measured at 500 V DC.		5000 MΩ MIN.	X	X	
Voltage Proof	2200 V AC applied for 1 min.		No flashover or breakdown.	X	X	
Impulse Voltage Proof	Subjected to a standard waveform of 15kV in mated condition (1.2/50μs waveform, applied in both positive and negative polarities 3 times each).		No flashover or breakdown.	X	—	
MECHANICAL CHARACTERISTICS						
Contact Insertion and Extraction Forces	Measured with a φ1.57±0.003 steel gauge.		Insertion and extraction forces: 0.5 N MIN.	X	—	
Mating and Unmating Forces	Measured with an applicable connector.		Mating and unmating forces: 100 N MAX.	X	—	
Contact Retention Force	Subjected to a 20N force from the wiring side.		No movement of contact.	X	—	
Mechanical Operation	Mated and unmated 500 times.		Contact resistance: 10 mΩ MAX.	X	—	
Vibration	Frequency: 10 Hz to 55 to 10 Hz every cycle (5 min per cycle) Single amplitude: 0.75 mm Performed over 10 cycles in each of three mutually perpendicular directions.		1) No electrical discontinuity of more than 10 μs. 2) No damage, cracks or looseness of parts.	X	—	
Shock	Acceleration: 490 m/s ² , Half sine wave pulses of 11 ms. Performed 3 times in each of three mutually perpendicular directions.		1) No electrical discontinuity of more than 10 μs. 2) No damage, cracks or looseness of parts.	X	—	
ENVIRONMENTAL CHARACTERISTICS						
Rapid Change of Temperature	Temperature: -40 → R/T ⁽³⁾ → +105 → R/T °C Time: 30 → 2 to 3 → 30 → 2 to 3 min for 5 cycles.		1) Insulation resistance: 500 MΩ MIN. 2) No damage, cracks or looseness of parts.	X	—	
Damp Heat, Steady State	Subjected to a temperature of +40°C, at a humidity of 90 to 95% for 96 hours.		1) Insulation resistance: 50 MΩ MIN. (At high humidity) 2) Insulation resistance: 500 MΩ MIN. (When dry) 3) No damage, cracks or looseness of parts.	X	—	
Corrosion Salt Mist ⁽⁴⁾	Subjected to 5% salt spray for 48h.		No heavy corrosion which impairs functionality.	X	—	
Dry Heat	Subjected to +105°C for 96h.		No damage, cracks or looseness of parts.	X	—	
Cold	Subjected to -40°C for 96h.		No damage, cracks or looseness of parts.	X	—	
Sealing ⁽⁴⁾	Subjected to a depth of 2 m for 14 days.		No water penetration to the inside of the connector.	X	—	
Air Tightness ⁽⁴⁾	17.6kPa applied to the inside of the connector for 0.5min.		No air bubbles from the inside of the connector.	X	—	
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE	
		DIS-A-00065601				
NOTES			APPROVED	TP. KOMATSU	20220301	
(1) The above specifications show the values in assembled condition with applicable crimp contacts. (applicable crimp contact:HR41A-SC-111)			CHECKED	EJ. KUNII	20220301	
(2) Including temperature rise due to current carrying.			DESIGNED	SH. KOYAMA	20220228	
(3) R/T : Room Temperature.						
(4) Corrosion salt mist, sealing and airtightness are tested in mated condition with an applicable connector.			DRAWN	SH. KOYAMA	20220228	
Unless otherwise specified, refer to IEC 60512 (JIS C 5402).						
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-118480-81-00	
	SPECIFICATION SHEET		PART NO.	HR41A-17WBPAE-5SC (81)		
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL0141-0223-9-81	 1/1	