

APPLICABLE STANDARD				
Rating	Operating Temperature Range	-25°C to +85°C	Storage Temperature Range	-10°C to +60°C
	Voltage	AC 100 V, DC 140 V	Wire Size	24 to 28 AWG Insulation outside diameter $\phi$ 1.15 MAX
	Current	2A	Applicable Cable	$\phi$ 9.5 $\pm$ 0.2
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	Contact shall be measured at DC 1A.	20 m $\Omega$ MAX.	X	-
	Ground shall be measured at DC 20A.	100 m $\Omega$ MAX.	X	-
Insulation Resistance	Measured at 100 V DC.	1000 M $\Omega$ MIN.	X	-
Voltage Proof	300 V AC applied for 1 min.	No breakdown.	X	-
MECHANICAL CHARACTERISTICS				
Contact Insertion and Extraction Forces	Measured with a $\phi$ 0.53 $\pm$ 0.003 steel gauge.	Insertion and extraction forces: 0.15 N MIN.	X	-
Connector Insertion and Withdrawal Forces	Measured with an applicable connector. (With lock)	Insertion and withdrawal forces : 70 N MAX.	X	-
Mechanical Operation	Mated and unmated 100 times.	Contact resistance: 20 m $\Omega$ MAX.	X	-
Vibration	Frequency: 10 Hz to 500 to 10 Hz every cycle Single amplitude: 0.75 mm, Acceleration 100m/s <sup>2</sup> Performed over 10 cycles in each of t3 mutually perpendicular directions.	1) No electrical discontinuity of more than 10 $\mu$ s. 2) No damage, cracks or looseness of parts.	X	-
Shock	Acceleration: 500 m/s <sup>2</sup> , Half sine wave pulses of 11 ms. Performed 3 times in each of 3 mutually perpendicular directions.	1) No electrical discontinuity of more than 10 $\mu$ s. 2) No damage, cracks or looseness of parts.	X	-
Contact Retention Force	Applying a pull force the wire after the applicable crimped contact is assembled the body.	20 N MIN.	X	-
ENVIRONMENTAL CHARACTERISTICS				
Damp Heat, Steady State	Subjected to a temperature of +40°C, at a humidity of 90 to 95% for 96 hours.	1) Insulation resistance: 5M $\Omega$ MIN. (At high humidity) 2) Insulation resistance: 50 M $\Omega$ MIN. (When dry) 3) No damage, cracks or looseness of parts.	X	-
Rapid Change of Temperature	Temperature: -55 $\rightarrow$ R/T <sup>(1)</sup> $\rightarrow$ +85 $\rightarrow$ R/T °C Time: 30 $\rightarrow$ 2 to 3 $\rightarrow$ 30 $\rightarrow$ 2 to 3 min for 5 cycles.	1) Insulation resistance: 1000 M $\Omega$ MIN. 2) No damage, cracks or looseness of parts.	X	-
Corrosion Salt Mist	Subjected to 5% salt spray for 48 hours.	No heavy corrosion which impairs functionality. (compatibility)	X	-
Dry Heat	Subjected to +85°C for 96 hours.	No damage, cracks or looseness of parts.	X	-
Cold	Subjected to -55°C for 96 hours.	No damage, cracks or looseness of parts.	X	-
Sealing <sup>(2)</sup>	Subjected to a depth of 1.8 m for 48 hours.	No water penetration into the connector.	X	-
Air Tightness <sup>(2)</sup>	40 kPa of air pressure applied to the inside of the mated connector for 30 seconds.	No air bubbles emitted from the inside of the connector.	X	-
Oil Resisting <sup>(2)</sup>	Subjected in cutting oil for 48 hours.	No oil penetration into the connector.	X	-
COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
0				
NOTES		APPROVED	TP. KOMATSU	20240618
(1) R/T : Room Temperature		CHECKED	HY. KOBAYASHI	20240617
(2) Sealing and Air Tightness and Oil Resistaing are tested in mated condition with an applicable connector.		DESIGNED	HY. KISHI	20240614
(3) With compliant crimp terminals " HR22-SC1-221" installed.		DRAWN	HY. KISHI	20240614
Unless otherwise specified, refer to IEC 60512. (JIS C 5402)				
Note	QT:Qualification Test AT:Assurance Test X:Applicable Test	DRAWING NO.	ELC-396046-00-01	
<b>HRS</b>	SPECIFICATION SHEET	PART NO.	HR22K-12WBP-20SC	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL0122-1001-0-00	1/1