

Oct.1.2018 Copyright 2018 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
 In case that the application demands a high level of reliability, such as automotive,
 please contact a company representative for further information.

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	_____	_____	
	CURRENT	2 A	APPLICABLE CABLE	_____	
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	CONTACT SHALL BE MEASURED AT DC 1 A	10 mΩ MAX.	X	X	
INSULATION RESISTANCE	100 V DC.	1000 MΩ MIN.	X	X	
VOLTAGE PROOF	300 V AC. FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	X	
MECHANICAL CHARACTERISTICS					
CONTACT INSERTION AND WITHDRAWAL FORCES	_____ BY STEEL GAUGE.	INSERTION AND WITHDRAWAL FORCES : _____	X	-	
CONNECTOR INSERTION AND WITHDRAWAL FORCES	MEASURED BY APPLICABLE CONNECTOR.	INSERTION AND WITHDRAWAL FORCES LOCKING DEVICE WITH LOCK : 70 N MAX.	X	-	
MECHANICAL OPERATION	1000 TIMES INSERTIONS AND EXTRACTIONS.	CONTACT RESISTANCE: 15 mΩ MAX.	X	-	
VIBRATION	FREQUENCY: 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, _____ m/s ² AT 2h, FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	-	
SHOCK	490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	-	
ENVIRONMENTAL CHARACTERISTICS					
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 °C, 90 TO 95 %, 96 h.	① INSULATION RESISTANCE: 5 MΩ MIN (AT HIGH HUMIDITY). ② INSULATION RESISTANCE: 50 MΩ MIN (AT DRY). ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	-	
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55 → R/T ⁽¹⁾ → +85 → R/T °C TIME 30 → 10 TO 15 → 30 → 10 TO 15 min UNDER 5 CYCLES.	① INSULATION RESISTANCE: 1000 MΩ MIN. . ② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	-	
CORROSION SALT MIST	EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.	NO HEAVY CORROSION RUIN THE FUNCTION.	X	-	
DRY HEAT	EXPOSED AT + 85 °C, 96 h.	NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	-	
COLD	EXPOSED AT - 55 °C, 96 h.	NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	-	
RESISTANCE TO SOLDERING HEAT	SOLDER TEMPERATURE, + 380±10°C, FOR SOLDERING DURATION, 3 TO 4 s.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	-	
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, + 350±10°C FOR SOLDERING DURATION, 2 TO 3 s.	WETTING ON SOLDER SURFACE, NO SOLDER CLUSTER.	X	-	
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
	①				
REMARK			APPROVED	EJ. KUNII	15. 09. 29
NOTE (1) R/T : ROOM TEMPERATURE			CHECKED	EJ. KUNII	15. 09. 29
			DESIGNED	TP. KOMATSU	15. 09. 29
Unless otherwise specified, refer to IEC 60512.			DRAWN	TP. KOMATSU	15. 09. 29
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-010386-78-78
HRS	SPECIFICATION SHEET		PART NO.	HR10A-10P-12P (78)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL110-0401-7-78	1/1