



APPLICABLE STANDARD					
RATING	OPERATING TEMPERATURE RANGE	-25 °C TO +85 °C	STORAGE TEMPERATURE RANGE	-10 °C TO +60 °C	
	VOLTAGE	AC 30 V , DC 42 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	15 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 : — N MIN.	—	—
CONNECTOR INSERTION AND WITHDRAWAL FORCES		MEASURED BY APPLICABLE CONNECTOR.	INSERTION AND WITHDRAWAL FORCES LOCKING DEVICE WITH UNLOCK : — N MAX. LOCKING DEVICE WITH LOCK : 50 N MAX.	X	—
MECHANICAL OPERATION		1000 TIMES INSERTIONS AND EXTRACTIONS.	CONTACT RESISTANCE: 30 mΩ MAX.	X	—
VIBRATION		FREQUENCY: 10 → 55 → 10 (Hz) (1CYC,5min), SINGLE AMPLITUDE 0.75 mm, AT 10 CYC, FOR 3 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	—
SHOCK		490 m/s <sup>2</sup> DIRECTIONS OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS.	① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	—
BREAKING STRENGTH <sup>(3)</sup>		MAX 30N SHALL BE APPLIED TO CABLE IN UP AND DOWN, LEFT AND RIGHT DIRECTIONS WHEN MATED.	NO BREAKAGE MAX 30N.	X	—
ENVIRONMENTAL CHARACTERISTICS					
DAMP HEAT (STEADY STATE)		EXPOSED AT 40 °C, 90 TO 95 %, 96 h.	① INSULATION RESISTANCE: 10 MΩ MIN (AT HIGH HUMIDITY). ② INSULATION RESISTANCE: 100 MΩ MIN (AT DRY). ③ NO DAMAGE, CRACK AND LOOSENESS OF PARTS.	X	—
RAPID CHANGE OF TEMPERATURE		TEMPERATURE -55→ R/T <sup>(1)</sup> → +85 → R/T °C TIME 30 → 10 TO 15 → 30 → 10 TO 15 min UNDER 5 CYCLES.	① INSULATION RESISTANCE: 100 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 RUINS 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, + 350±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	—
SEALING		EXPOSED AT A DEPTH OF 1 m FOR 0.5 h.	NO WATER PENETRATION INSIDE CONNECTOR.	X	—
AIRTIGHTNESS		APPLY AIR PRESSURE 17.6kPa FOR 0.5min TO INSIDE CONNECTOR.	NO AIR BUBBLES INSIDE CONNECTOR.	X	—
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
①					
REMARK NOTE (1) R/T : ROOM TEMPERATURE			APPROVED	HY. KOBAYASHI	18.02.26
			CHECKED	HY. KOBAYASHI	18.02.26
			DESIGNED	DS. MATSUNE	18.02.24
			DRAWN	AI. NISHIYAMA	18.02.22
Unless otherwise specified, refer to IEC 60512(JIS C5402).					
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-113453-31-00
	SPECIFICATION SHEET		PART NO.	HR30-7R-12P (31)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL130-1016-6-31	 1/1