Jun.1.2024 Copyright 2024 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

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.	①NO ELECTRICAL DISCONTINUITY OF 10 μs. ②NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	—
SHOCK	490 m/s² 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(3)	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 ℃, 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(1) → +85 → R/T ℃ 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 ℃ , 96 h.	NO DAMAGE,CRACK AND LOOSENESS OF PARTS.	X	—
COLD	EXPOSED AT - 55 ℃ , 96 h.	NO DAMAGE,CRACK AND LOOSENESS OF PARTS.	X	—
RESISTANCE TO SOLDERING HEAT	SOLDER TEMPERATURE, + 350±10℃, 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℃ 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
A					

REMARK NOTE (1) R/T : ROOM TEMPERATURE

Unless otherwise specified, refer to IEC 60512(JIS C5402).

APPROVED	HY.KOBAYASHI	18.02.26
CHECKED	HY.KOBAYASHI	18.02.26
DESIGNED	DS.MATSUNE	18.02.24
DRAWN	AI.NISHIYAMA	18.02.22

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO. ELC-113453-31-00

HRS

SPECIFICATION SHEET

HIROSE ELECTRIC CO., LTD.

PART NO. HR30-7R-12P(31)

CODE NO. CL130-1016-6-31 ⚠1 1/1

FORM HD0011-2-1