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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	30 mΩ MAX.	X	X
	CONTACT SHALL BE MEASURED AT DC —— A	—— mΩ MAX.	—	—
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 LOCKING DEVICE WITH LOCK.	INSERTION AND WITHDRAWAL FORCES : 50 N MAX.	X	—
MECHANICAL OPERATION	1000 TIMES INSERTIONS AND EXTRACTIONS.	CONTACT RESISTANCE: 60 mΩ MAX.	X	—
		——— RESISTANCE: ——— mΩ MAX.	—	—
VIBRATION	FREQUENCY 10 TO 55 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	IN OPPOSITE DIRECTIONS OF EACH 3 DIMENSION ALAXIS FOR 3 TIMES AT 490 m/s^2 DURATION OF PULSE 11 ms.	① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	—
BREAKING STRENGTH	MAX 30N SHALL BE APPLIED TP CABLE IN UP AND DOWN, LEFT AND RIGHT DIRECTIONS WHEN MATED	NO BREAKAGE OF CONNECTOR.	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 MΩMIN. ② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	—
CORROSION SALT MIST	EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h.	NO HEAVY CORROSION.	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, + 380 ± 10 ℃ ,FOR IMMERSION DURATION, 3^{+1}_{0} s.	NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.	X	–
SOLDERABILITY	SOLDERED AT SOLDER TEMPERATURE, + 350 ± 10 ℃ FOR IMMERSION DURATION, 2 TO 3 s.	SOLDER SURFACE TO BE FREE FROM PIN-HOLE, NO WETTING AND OTHER DEFECTS.	X	–
SEALING (2)	EXPOSED AT A DEPTH OF 1m FOR 0.5 h.	NO WATER PENETRATION INSIDE CONNECTOR.	X	—
AIRTIGHTNESS (2)	APPLY AIR PRESSURE 17.6 kPa FOR 0.5min TO INSIDE CONNECTOR	NO AIR BUBBLES INSIDE CONNECTOR	X	—

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
A					

REMARK

NOTES(1) R/T : ROOM TEMPERATURE

(2)SEALING AND AIRTIGHTNESS SHALL BE TESTED BY APPLCIABLE CONNECTOR.

Unless otherwise specified, refer to IEC 60512.(JIS C 5402)

APPROVED	HY.KOBAYASHI	18.03.16
CHECKED	HY.KOBAYASHI	18.03.16
DESIGNED	DS.MATSUNE	18.03.16
DRAWN	DS.MATSUNE	18.03.16

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

DRAWING NO. ELC-113454-31-00

HRS

SPECIFICATION SHEET

HIROSE ELECTRIC CO., LTD.

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

CODE NO. CL130-1017-9-31 A 1/1

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