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	20 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 RETENSION FORCE	APPLYING A PULL FORCE THE WIRE AFTER THE APPLICABLE CRIMPED CONTACT IS ASSEMBLED WITH THE BODY.	20 N MIN.	X	—
CONNECTOR INSERTION AND WITHDRAWAL FORCES	MEASURED BY APPLICABLE CONNECTOR.	INSERTION AND WITHDRAWAL FORCES LOCKING DEVICE WITH UNLOCK :70N MAX.	X	—
MECHANICAL OPERATION	100 TIMES INSERTIONS AND EXTRACTIONS.	CONTACT RESISTANCE: 20 mΩ MAX.	X	—
VIBRATION	FREQUENCY: 10 TO 500 (Hz), SINGLE AMPLITUDE 0.75 mm, 98 m/s^2 DIRECTIONS AT 2 h, FOR 3 DIRECTIONS.	①NO ELECTRICAL DISCONTINUITY OF 10μs. ②NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	—
SHOCK	490 m/s^2 DIRECTIONS OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS.	①NO ELECTRICAL DISCONTINUITY OF10μs. ②NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.	X	—
ENVIRONMENTAL CHARACTERISTICS				
DAMP HEAT (STEADY STATE)	EXPOSED AT 40 ℃, 90 TO 95 %, 96 h.	①INSULATION RESISTANCE: 5 MΩ MIN (AT HIGH HUMIDITY). ②INSULATION RESISTANCE: 50 MΩ MIN (AT DRY). ③NO 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.	①INSULATION RESISTANCE: 1000 MΩMIN. ②NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	—
CORROSION SALT MIST	EXPOSED IN 5 % SALT WATER SPRAY FOR 48h.	NO HEAVY CORROSIN RUIN 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	—
SEALING	EXPOSED AT A DEPTH OF 1.8 m FOR 48 h.	NO WATER PENETRATION INSIDE CONNECTOR.	X	—
AIRTIGHTNESS	APPLY AIR PRESSURE 40 kPa FOR 30 s TO INSIDE CONNECTOR.	NO AIR BUBBLES INSIDE CONNECTOR.	X	—

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠1					

REMARK

NOTE 1. (1)R/T:ROOM TEMPERATURE.
2. ABOVE SPECIFICATIONS SHOWS THE VALVE IN ASSEMBLED CONDITION WITH APPLICABLE CRAMP CONTACT.
3. SEALING AND AIRTIGHTNESS (AND OIL RESISTING)SHALL BE TESTED UNDER MATED CONDITION WITH AN APPLICABLE CONNECTOR.

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

APPROVED	HY.KOBAYASHI	18.02.22
CHECKED	HY.KOBAYASHI	18.02.22
DESIGNED	HY.KISHI	18.02.21
DRAWN	MK.INOUE	18.02.06

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

DRAWING NO. ELC-116688-31-00

HRS	SPECIFICATION SHEET	PART NO.	HR22-12WTLP-20PC(31)	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL122-0064-9-31 ⚠0	1/1

FORM HD0011-2-1