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APPLICABLE STANDARD				
RATING	OPERATING TEMPERATURE RANGE	① -40°C TO +105°C	STORAGE TEMPERATURE RANGE	② -55°C TO +85°C
	VOLTAGE	AC 600 V , DC 600 V	—	—
	CURRENT	AWG#16(UL1015) 20pos. : 6 A	APPLICABLE CABLE	AWG#16 TO AWG#18 (UL-STYLE : UL1007 , UL1015)

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
ELECTRICAL CHARACTERISTICS				
CONTACT RESISTANCE	100 mA (DC OR 1000 Hz) MAX.	③ 10 mΩ MAX. (CONTACT SPACING)	X	-
		③ 50 mΩ MAX. (SHELL SPACING)	X	-
INSULATION RESISTANCE	500 V DC.	5000 MΩ MIN.	X	-
VOLTAGE PROOF	2200 V AC. FOR 1 min.	NO FLASHOVER OR BREAKDOWN.	X	-
MECHANICAL CHARACTERISTICS				
CONTACT INSERTION AND WITHDRAWAL FORCES	APPLICABLE CONTACT.	INSERTION FORCE : 3 N MAX. WITHDRAWAL FORCE : 1 N MIN.	X	-
CONNECTOR INSERTION AND WITHDRAWAL FORCES	APPLICABLE CONNECTOR.	INSERTION FORCE : 98 N MAX. WITHDRAWAL FORCE : 14.7 N MIN.	X	-
CONTACT (LANCE) RETENTION FORCES	PULL A TERMINAL BY 49 N (1 min.) FROM TERMINAL AREA.	① CONTACTS SHOULD BE RETAINED. ② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-
CONDUCTOR PRESSURE BONDING FORCES	CRIMP THE CABLE ONLY AT THE CONDUCTOR, AND RETENTION FORCE SHALL EXCEED THE SPECIFICATION WHEN PULL FORCE IS APPLIED.	① AWG#16 : 147 N MIN. ② AWG#18 : 98 N MIN.	X	-
CABLE CLAMP STRENGTH	APPLY PULL FORCE OF 98 N IN MATING DIRECTION FOR A MINUTE.	① CONTACTS SHOULD BE RETAINED. ② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-
MECHANICAL OPERATION	500 TIMES INSERTIONS AND EXTRACTIONS.	③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 20 mΩ MAX. ② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-
VIBRATION	FREQUENCY : 10 TO 55 Hz, SINGE AMPLITUDE 0.75 mm, AT 2 h, FOR 3 DIRECTIONS. (REFERENCE FOR APPENDED FIGURE)	① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-
SHOCK	IN OPPOSITE DIRECTIONS OF EACH 6 DIMENSION AXIS FOR 3 TIMES AT 490 m/s ² DURAECTIONS OF PULSE 11 ms.	① NO ELECTRICAL DISCONTINUITY OF 10 μs. ② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-

COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
0				

REMARK ABOVE SPESIFICATION SHOWS THE VALUES IN ASSEMBLED CONDITION WITH APPLICABLE CRIMP CONTACTS. Unless otherwise specified, refer to JIS C 5402.	APPROVED	KN. ICHIKAWA	10.09.28
	CHECKED	KN. ICHIKAWA	10.09.28
	DESIGNED	TY. MIURA	10.09.28
	DRAWN	TF. HIGASHIYAMA	10.09.27

Note QT:Qualification Test AT:Assurance Test X:Applicable Test DRAWING NO. ELC4-127025-00

HRS	SPECIFICATION SHEET	PART NO.	PQ50-20S-DS		
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL236-2015-5-00	△	1/3

SPECIFICATIONS

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
ENVIRONMENTAL CHARACTERISTICS				
RAPID CHANGE OF TEMPERATURE	TEMPERATURE -55 → 15 TO 35 → 105 → 15 TO 35 °C TIME 30 → 2 TO 3 → 30 → 2 TO 3 min. UNDER 5 CYCLES.	③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 20 mΩ MAX. ② NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-
HEAT RESISTANCE	EXPOSED AT 105 °C ± 2 °C, 96 h, AND COMBINE THE APPLICABLE CONNECTORS.	③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 20 mΩ MAX. ② INSULATION RESISTANCE : 1000 MΩ MIN. ③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-
COLD RESISTANCE	EXPOSED AT -55 °C ± 2 °C, 96 h, AND COMBINE THE APPLICABLE CONNECTORS.	③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 20 mΩ MAX. ② INSULATION RESISTANCE : 1000 MΩ MIN. (AFTER IT DRIER) ③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-
HUMIDITY	EXPOSED AT 60 °C ± 2 °C, 90 TO 95 %, 96 h, AND COMBINE THE APPLICABLE CONNECTORS.	③ ① CHANGE IN CONTACT RESISTANCE OF CONTACTS : 20 mΩ MAX. ② INSULATION RESISTANCE : 1000 MΩ MIN. ③ NO DAMAGE. CRACK AND LOOSENESS OF PARTS.	X	-
MIXED FLOWING GAS	EXPOSED IN SO ₂ 10 ppm, H ₂ S 3 ppm, 70 TO 80 %, 24 h, AND COMBINE THE APPLICABLE CONNECTORS.	NO HEAVY CORROSION RUIN THE FUNCTION.	X	-
CORROSION SALT MIST	EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h, AND COMBINE THE APPLICABLE CONNECTORS.	NO HEAVY CORROSION RUIN THE FUNCTION.	X	-

① ① THE PRODUCT PERFORMANCE IS GUARANTEED ONLY IN THE TEMPERATURE ADEQUATE PEOPLE'S ACTIVITIES.
② INCLUDE TEMPERATURE RISE CAUSED BY CURRENT-CARRYING.
③ SPECIFICATIONS FOR ASSEMBLED ITEM WITH APPLICABLE HOUSING.

② PACKING MATERIALS ARE NOT INCLUDED.

③ CABLE CONDUCTOR RESISTANCE IS NOT INCLUDED.

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DRAWING NO.

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HRS

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CODE NO

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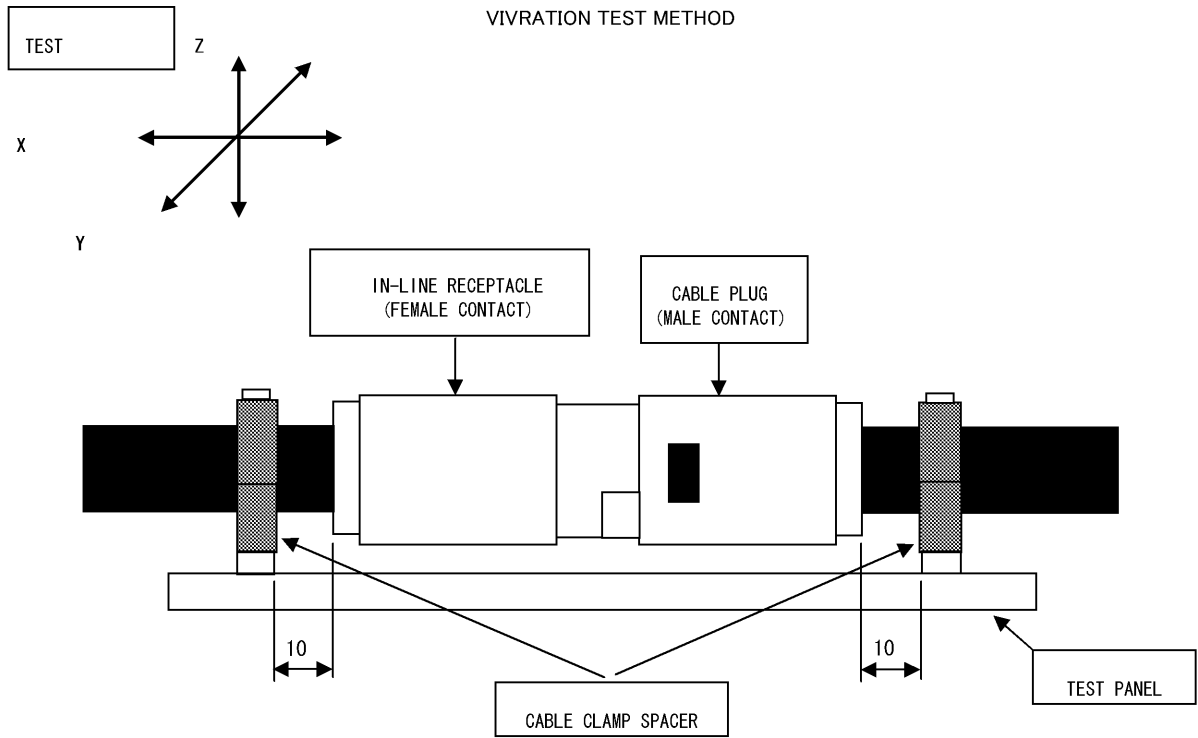


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APPENDED FIGURE

A CABLE PLUG (MALE CONTACT) AND AN IN-LINE RECEPTACLE (FEMALE CONTACT)

VIVRATION TEST METHOD



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