



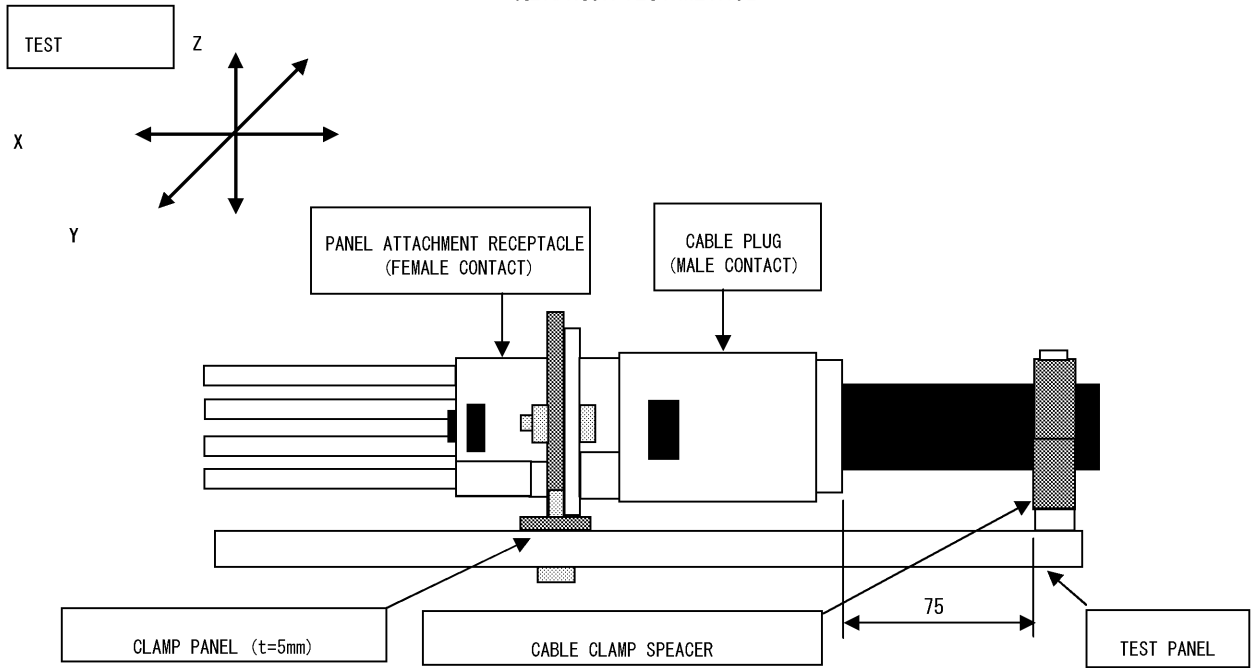
APPLICABLE STANDARD						
RATING	OPERATING TEMPERATURE RANGE	<div>1</div> -40°C TO +105°C	STORAGE TEMPERATURE RANGE	<div>2</div> -55°C TO +85°C		
	VOLTAGE	AC 600 V , DC 600 V	—	—		
	CURRENT	AWG#16(UL1015) 20pos. : 6 A	APPLICABLE CABLE	AWG#16 TO AWG#18 (UL-STYLE : UL1007 , UL1015)		
SPECIFICATIONS						
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.	<div>3</div> 10 mΩ MAX. (CONTACT SPACING)		X	-	
		<div>3</div> 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	APPRICABLE CONTACT.	INSERTION FORCE : 3 N MAX. WITHDRAWAL FORCE : 1 N MIN.		X	-	
CONNECTOR INSERTION AND WITHDRAWAL FORCES	APPRICABLE 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.	<div>3</div> 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 <sup>2</sup> DURATIONS 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	
<div>Q</div>						
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.		ELC4-127021-00	
<div>HRS</div>	SPECIFICATION SHEET		PART NO.	PQ50-20P		
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL236-2011-4-00	<div>△</div>	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 GUS	EXPOSED IN SO <sub>2</sub> 10 ppm, H <sub>2</sub> S 3 ppm, 70 TO 80 %, 24 h, AND COMBINE THE APPLICABLE CONNECTORS.	NO HEAVY CORROSIN RUIN THE FUNCTION.	X	-	
CORROSION SALT MIST	EXPOSED IN 5 % SALT WATER SPRAY FOR 48 h, AND COMBINE THE APPLICABLE CONNECTORS.	NO HEAVY CORROSIN RUIN THE FUNCTION.	X	-	
<div>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.</div> <div>② PACKING MATERIALS ARE NOT INCLUDED.</div> <div>③ CABLE CONDUCTOR RESISTANCE IS NOT INCLUDED.</div>					
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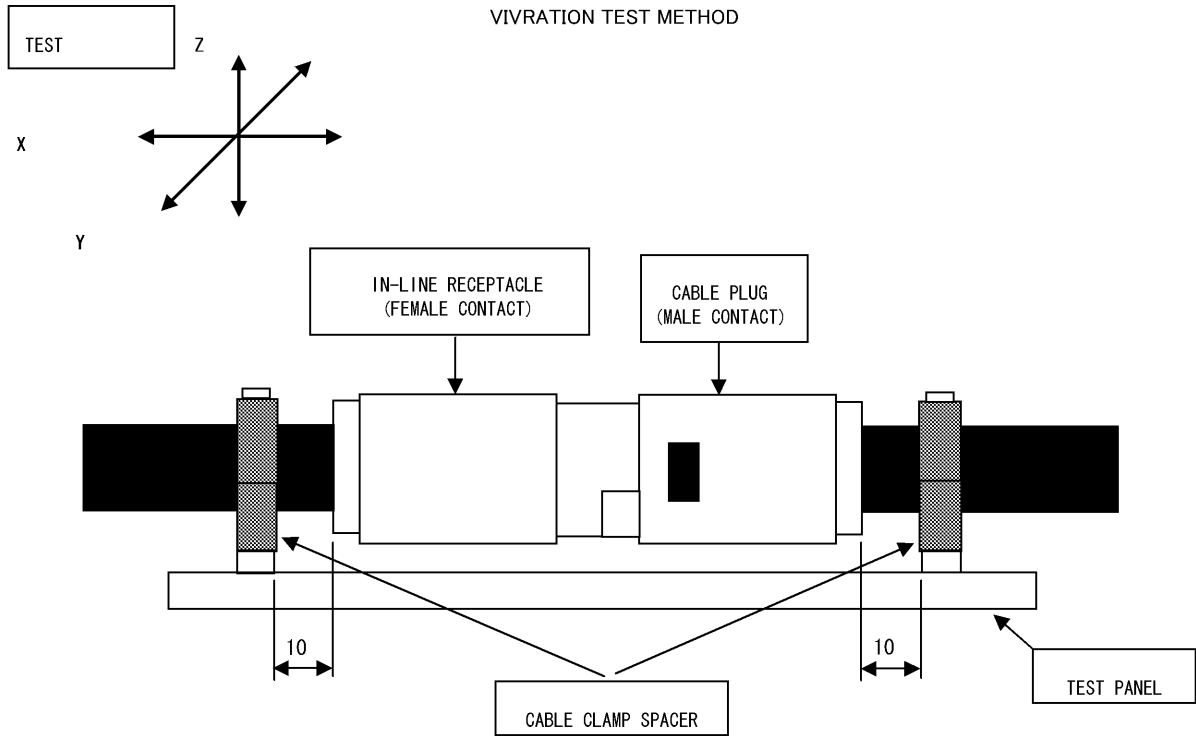
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In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPENDED FIGURE

A CABLE PLUG (MALE CONTACT) AND A PANEL ATTACHMENT RECEPTACLE (FEMALE CONTACT)  
VIBRATION TEST METHOD



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



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3/3