

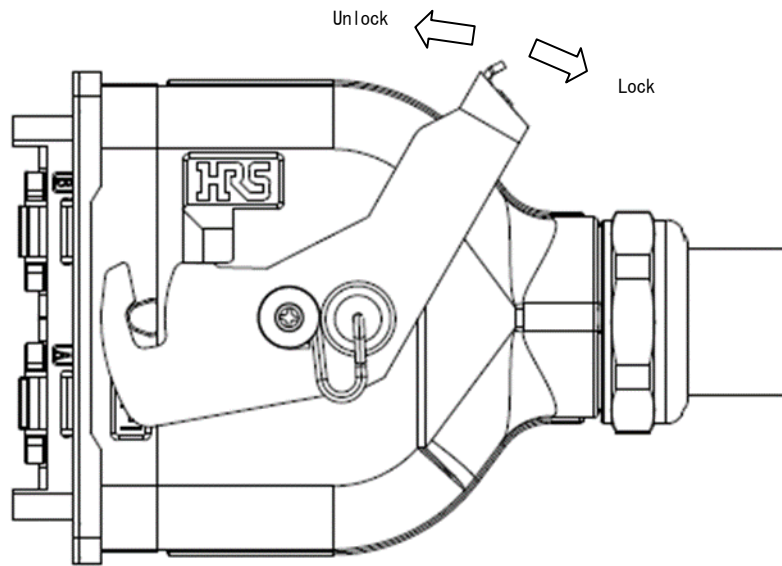
Applicable Standard					
Rating	Operating Temperature Range	Note.1 -55°C to +105°C	Storage Temperature Range	Note.2 -55°C to +85°C	
	Voltage	AC 600 V, DC 600 V	—	—	
	Current	19.0 A/pin (AWG#14) Conduct specified current to a single pin of contacts.	Applicable Cable	AWG#14 TO AWG#22 (UL-STYLE:UL1007,1015)	
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.	Note.3 5 mΩ max. (contact spacing)		X	-
		Note.3 50 mΩ max. (shell spacing)		X	-
Insulation Resistance	500 V DC.	5000 MΩ min.		X	-
Voltage Proof	3310 V AC. for 1 min.	No flashover or breakdown.		X	-
Temperature Rise	Conduct specified current to a single pin. Current carried:19.0A/pin (AWG#14)		Max.30°C increase from ambient temperature.	X	-
MECHANICAL CHARACTERISTICS					
Contact Insertion and Withdrawal Forces	Measure with the contact pair.		Insertion force : 3.0 N max. Withdrawal force : 1.0 N min.	X	-
Connector Insertion and Withdrawal Forces	Measure with the lock lever released (all contacts are assembled)		Insertion force : 150 N max. Withdrawal force : 50 N min.	X	-
Contact (Lance) Retention Forces	Apply axial pull out force at the speed rate of 25mm/min to the terminal, and measure the force when the terminal is pull out.		68.6 N min.	X	-
COUNT	DESCRIPTION OF REVISIONS		DESIGNED	CHECKED	DATE
REMARK Above spesification shows the values in assembled condition with “PQ50WA(2 unit integrated type)” series.In case of using for other series of connector,the specification is based on each series. Unless otherwise specified, refer to IEC 60512.			APPROVED	MN. KENJO	20190408
			CHECKED	TU. TANIGUCHI	20190407
			DESIGNED	TY. MIURA	20190406
			DRAWN	TY. MIURA	20190406
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.		ELC-129680-00-00
	SPECIFICATION SHEET		PART NO.	PQ50WA-25P-UNIT	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL236-2121-0-00	1/3

SPECIFICATIONS					
ITEM		TEST METHOD	REQUIREMENTS	QT	AT
MECHANICAL CHARACTERISTICS					
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#14 ② AWG#16 ③ AWG#18 ④ AWG#20 ⑤ AWG#22	① 222.6 N Min ② 133.5 N Min ③ 89.0 N Min ④ 57.9 N Min ⑤ 35.6 N Min		X	-
Lock Strength	Apply 98 N pull force for 1 minutes to the plug in mating axial direction with locked condition.	No damage, crack and looseness of parts.		X	-
Lever Operation Force	Measure the lever operation force for lock/unlock.	Lock : 205.8 N max. Unlock : 205.8 N max.		X	-
Cable Clamp Strength	Apply pull force of 98N in mating direction for a minute.	① Contacts should be retained. ② No damage, crack and looseness of parts.		X	-
Mechanical Operation	100 times insertions and extractions.	Note.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, single amplitude 0.75 mm, at 2 h, for 3 directions. (reference for appended figure 2)	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 durations of pulse 11 ms.	① No electrical discontinuity of 10 μs. ② No damage, crack and looseness of parts.		X	-
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.	Note.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.	Note.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 ± 3 °C, 96 h, and combine the applicable connectors.	Note.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	-
Humidity	Exposed at 60 °C ± 2 °C, 90 to 95 %, 96 h, and combine the applicable connectors.	Note.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	-
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	-
Dust/Splash Protection	Follow IEC60529 tests and combine the applicable connectors.	IP65 (IEC60529) min protected to avoid dust intrusion. No harmful effect from direct water splash from any directions.		X	-
REMARK					
Note.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.					
Note.2 Packing materials are not included.					
Note.3 Cable conductor resistance is not included.					
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HRS	SPECIFICATION SHEET		PART NO.	PQ50WA-25P-UNIT	
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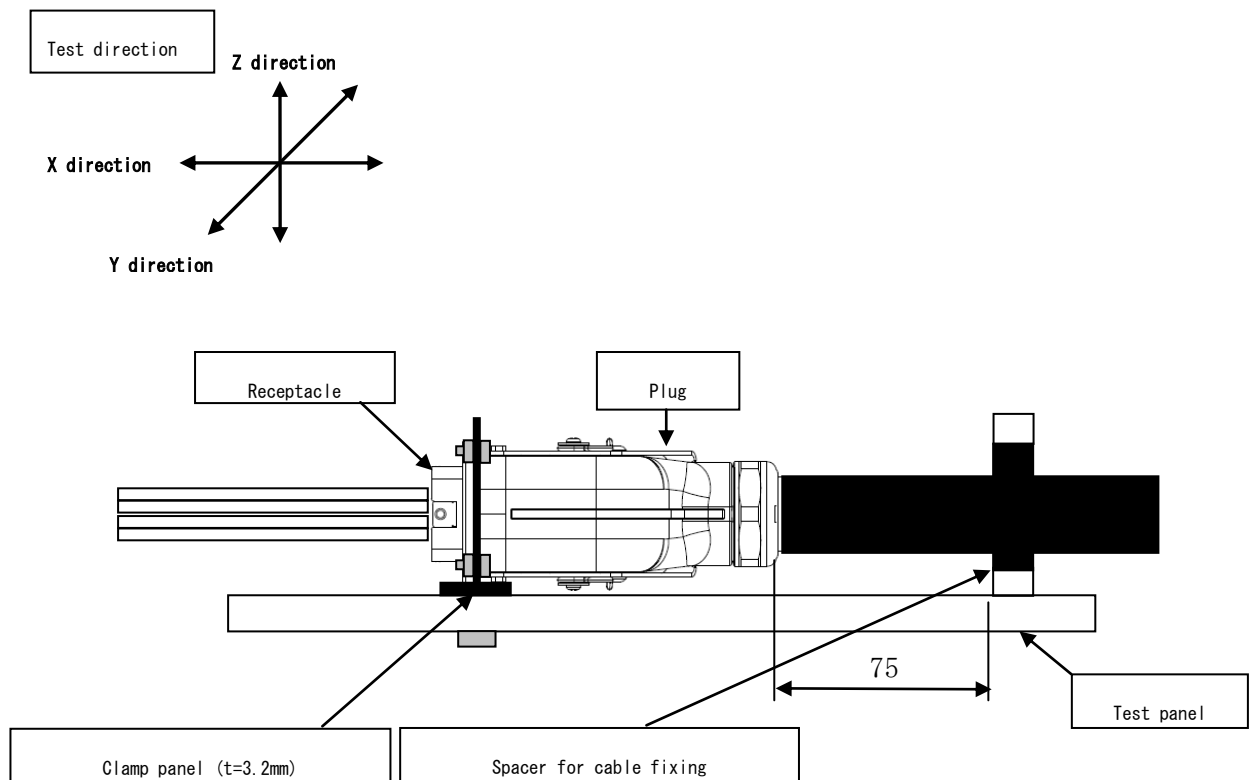
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APPENDED FIGURE

Appended figure 1. lever operation force



Appended figure 2. vibration test method diagram(side view).



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