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APPLICABLE STANDARD		IP65		
RATING	Operating temperature range	-40°C to +105°C (Note1)	Storage temperature range	-55°C to +85°C (Note2)
	Voltage	AC 300 V , DC 300 V	—	—
	Current	12.5A / 1Pin AWG#18(UL1007)時 3A / 50Pin AWG#18(UL1007)時	Applicable cable	AWG#18 to AWG#22 (UL-STYLE : UL1007)

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.	5 mΩ MAX. (Signal and power contact)	X	-
		50 mΩ MAX. (Ground contact)	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 △1	Applicable connector. (Without the lock lever)	Insertion force : 98 N MAX. Withdrawal force : 14.7 N MIN.	X	-
Contact (Lance) Retention Forces △1	Apply axial pull out force at the speed rate of 25mm/min to the contact and mesure the force when the contact is pulled out.	29.4N MIN △1	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#18 : 89 N MIN. ② AWG#20 : 57.9 N MIN. ③ AWG#22 : 35.6 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.	① Change in contact resistance of Contacts : 10 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 axial 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 3 both axis for 3 times at 490 m/s² duration 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
△	5	DIS-E-00003614	TY.MIURA	TU.TANIGUCHI	20201201

REMARK

Above spesification shows the values in assembled condition with "PQ50W" series.
In case of using for other series of connector , the specification is based on each series.
Unless otherwise specified , refer to IEC 60512(JIS C 5402) △1

APPROVED	RI.TAKAYASU	20130205
CHECKED	NM.NISHIMATSU	20130205
DESIGNED	TS.SAKAIZAWA	20130205
DRAWN	TS.SAKAIZAWA	20130205

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

DRAWING NO. ELC4-127530-00

HRS	SPECIFICATION SHEET	PART NO.	PQ50WS-25S-UNIT	
	HIROSE ELECTRIC CO., LTD.	CODE NO.	CL0236-2022-0-00 △	1/3

FORM HD0011-2-1

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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.	① Change in contact resistance of contacts : 10 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.	① Change in contact resistance of contacts : 10 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.	① Change in contact resistance of contacts : 10 mΩ MAX. ② Insulation resistance : 1000 MΩ MIN. ③ No damage. Crack and looseness of parts.	X	-
Humidity	Exposed at 60 °C ± 2 °C, 93±3 %, 96 h, and combine the applicable connectors.	① Change in contact resistance of contacts : 10 mΩ MAX. ② Insulation resistance : 1000 MΩ MIN. (After it drier) ③ No damage. Crack and looseness of parts.	X	-
Mixed Flowing Gus	Exposed in SO_2 10 ppm, H_2S 3 ppm, 70 to 80 %, 24 h, and combine the Applicable connectors.	No heavy corrosion ruin the function. Change in contact resistance of contacts : 10 mΩ MAX. (contacts, shell)	X	-
Corrosion Salt Mist	Exposed in 5 % salt water spray for 48 h, and combine the applicable connectors.	No heavy corrosion ruin the function. Change in contact resistance of contacts : 10 mΩ MAX. (contacts, shell)	X	-

(Note1) 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.

(Note2) Packing materials are not included.

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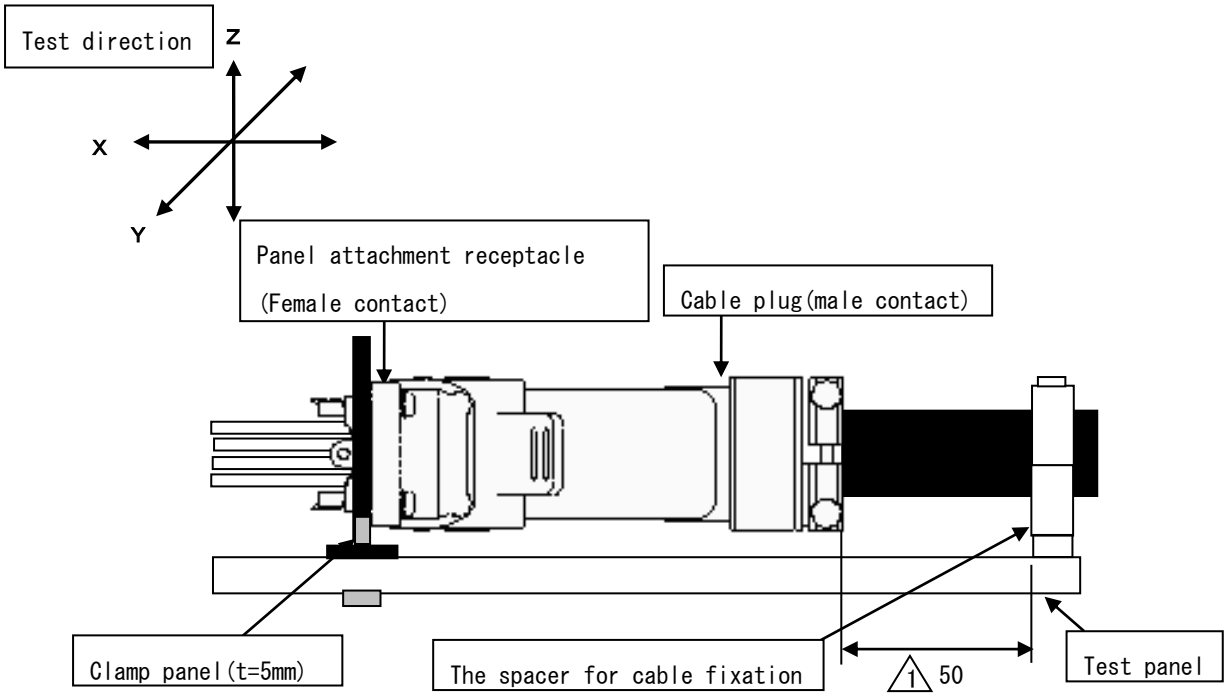
APPENDED FIGURE

A cable plug (Male contact) and a panel attachment receptacle (Female contact)
Vibration Test Method



Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.	ELC4-127530-00		
HRS	SPECIFICATION SHEET	PART NO.	PQ50WS-25S-UNIT		
	HIROSE ELECTRIC CO., LTD.	CODE NO	CL0236-2022-0-00	1	3/3

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