





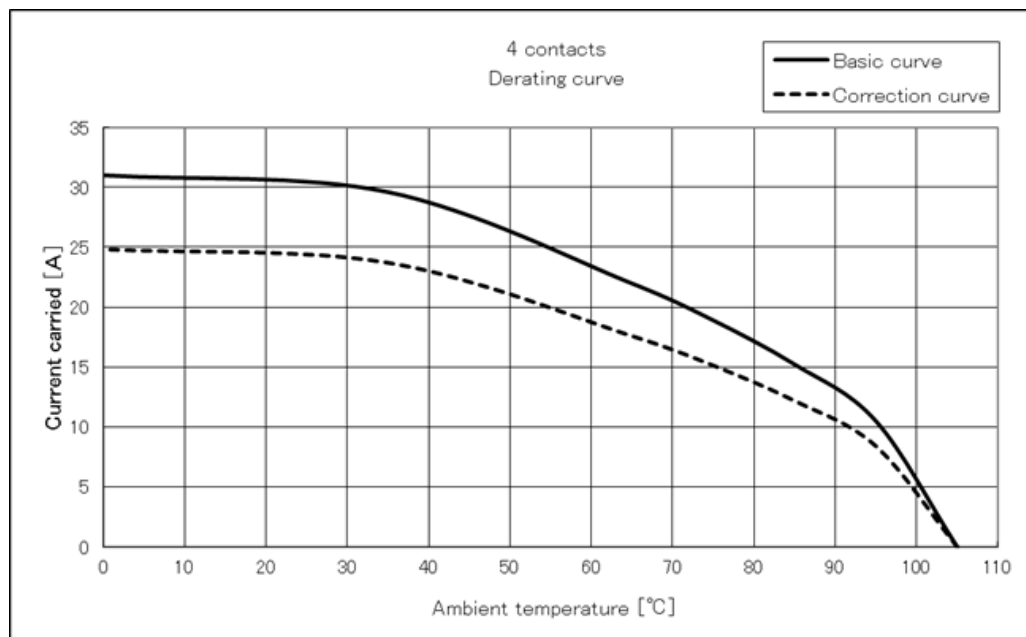


APPLICABLE STANDARD						
Rating	Operating Temperature Range ⁽²⁾	-40°C to +105°C	Storage Temperature Range	-10°C to +60°C		
	Voltage	AC 30 V , DC 42 V	Applicable Cable	Power : AWG#14 to 16 Signal : AWG#22 to 24		
	Current ⁽¹⁾⁽⁶⁾ 	Power : 24 A(Ambient Temperature 25°C) Signal : 1 A	Insulation diameter	Power : φ 2.6 to 3.0 Signal : φ 1.4 to 1.6		
SPECIFICATIONS						
ITEM		TEST METHOD		REQUIREMENTS	QT	AT
CONSTRUCTION						
General Examination		Examined visually and with a measuring instrument.		According to the drawing.	X	X
Marking		Confirmed visually.			X	X
ELECTRICAL CHARACTERISTICS						
Contact Resistance		Measured at DC 1A.		10 mΩ MAX. (Power contact) 15 mΩ MAX. (Signal contact)	X	X
Insulation Resistance		Measured at 500 V DC.		1000 MΩ MIN.	X	X
Voltage Proof		600 V AC applied for 2 min.		No flashover or breakdown.	X	X
MECHANICAL CHARACTERISTICS						
Contact Insertion and Extraction Forces		Measured with a φ ____ steel gauge.		Insertion and extraction forces: — N MIN.	—	—
Mating and Unmating Forces 		Measured with an applicable connector. (Excluding lock mechanism.)		Mating and unmating forces: 60 N MAX.	X	—
Mechanical Operation		Mated and unmated 30 times.		Contact resistance: 10 mΩ MAX. (Power contact) 15 mΩ MAX. (Signal contact)	X	—
Vibration		Frequency: 10 Hz to 55 to 10 Hz every cycle (5 min per cycle) Single amplitude: 0.75 mm Performed over 10 cycles in each of three mutually perpendicular directions.		1) No electrical discontinuity of more than 10 μs. 2) No damage, cracks or looseness of parts.	X	—
Shock		Acceleration: 500 m/s ² , Half sine wave pulses of 11 ms. Performed 3 times in each of three mutually perpendicular directions.		1) No electrical discontinuity of more than 10 μs. 2) No damage, cracks or looseness of parts.	X	—
ENVIRONMENTAL CHARACTERISTICS						
Damp Heat, Steady State		Subjected to a temperature of +40 °C, at a humidity of 90 to 95 % for 96 hours.		1) Insulation resistance: 10 MΩ MIN. (At high humidity) 2) Insulation resistance: 100 MΩ MIN. (When dry) 3) No damage, cracks or looseness of parts.	X	—
Rapid Change of Temperature		Temperature: -40 → R/T ⁽⁴⁾ → +105 → R/T ⁽⁴⁾ °C Time: 30 → 2 to 3 → 30 → 2 to 3 min for 5 cycles.		1) Insulation resistance: 100 MΩ MIN. 2) No damage, cracks or looseness of parts.	X	—
Corrosion Salt Mist ⁽³⁾		Subjected to 5 % salt spray for 48 h.		No heavy corrosion which impairs functionality.	X	—
Dry Heat		Subjected to +105 °C for 96 h.		No damage, cracks or looseness of parts.	X	—
Cold		Subjected to -40 °C for 96 h.		No damage, cracks or looseness of parts.	X	—
Sealing(IPX7) ⁽³⁾ (JIS C 0920:2003)		Subjected to a depth of 1 m for 0.5 h.		No water penetration to the inside of the connector.	X	—
Air Tightness ⁽³⁾		17.6kPa applied to the inside of the connector for 0.5min.		No air bubbles from the inside of the connector.	X	—
Sealing(IPX6) ⁽³⁾ (JIS C 0920:2003) 		100L/min fountain water in all directions from a distance of 3m,3min		No water penetration to the inside of the connector.	X	—
	COUNT	DESCRIPTION OF REVISIONS		DESIGNED	CHECKED	DATE
	2	DIS-C-00009416		SH. KOYAMA	EJ. KUNII	20211215
REMARK						
Notes (1) The above specifications show the values in assembled condition with applicable contacts (BH12-P-213,BH12-P1-213). (2) Including temperature rise due to current carrying. (3) Corrosion salt mist, sealing and airtightness are tested in mated condition with an applicable connector. (4) R/T : Room Temperature.				APPROVED	YH. YAMADA	20200128
				CHECKED	HN. TANAKA	20200128
				DESIGNED	SH. KOYAMA	20200128
				DRAWN	SH. KOYAMA	20200128
Unless otherwise specified, refer to IEC 60512 (JIS C 5402).						
Note QT:Qualification Test AT:Assurance Test X:Applicable Test				DRAWING NO.		ELC-390463-00-00
	SPECIFICATION SHEET			PART NO.	BH12WRA-4P	
	HIROSE ELECTRIC CO., LTD.			CODE NO.	CL0140-0013-0-00	 2/2



[Reference]





Notes (5) The derating curve is derived from the basic curve multiplied by the derating factor of 0.8.

(6) The value of rated current varies with the ambient temperature.

It is recommended to use the product within the derating curve zone.

(7) The measurement method of the derating curve is shown below.

- Test specimen: This product, unused prior to testing.
 - Test cable conductor cross sectional area : Power···AWG#14 (2.0mm²), Signal···AWG#22 (0.3mm²)
 - Test condition: Power supplied while the specimen is in a stationary state and then measured.
- (For details, please refer to the examination report number TR140E-20045.)

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