

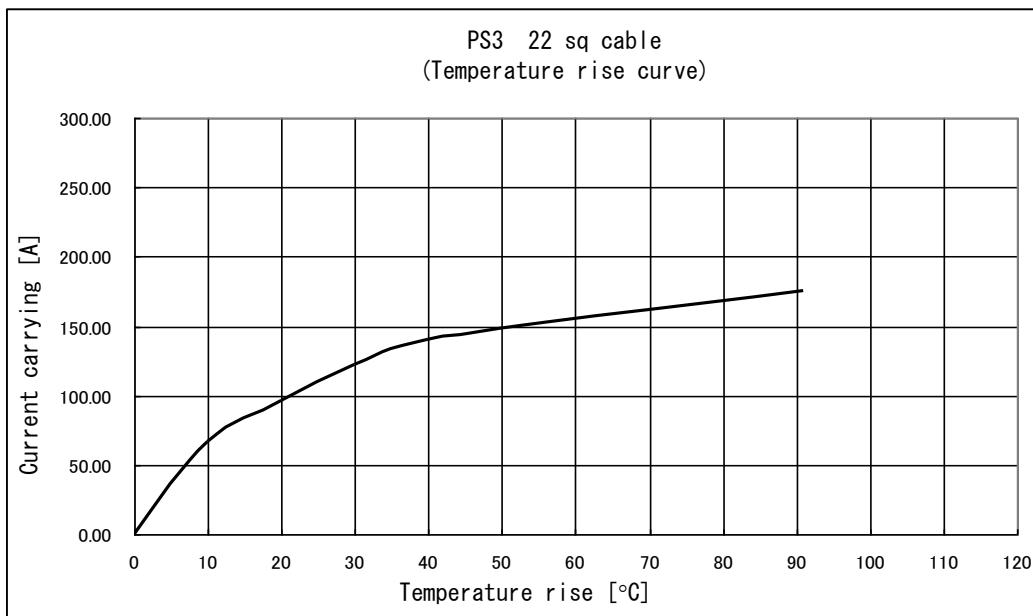
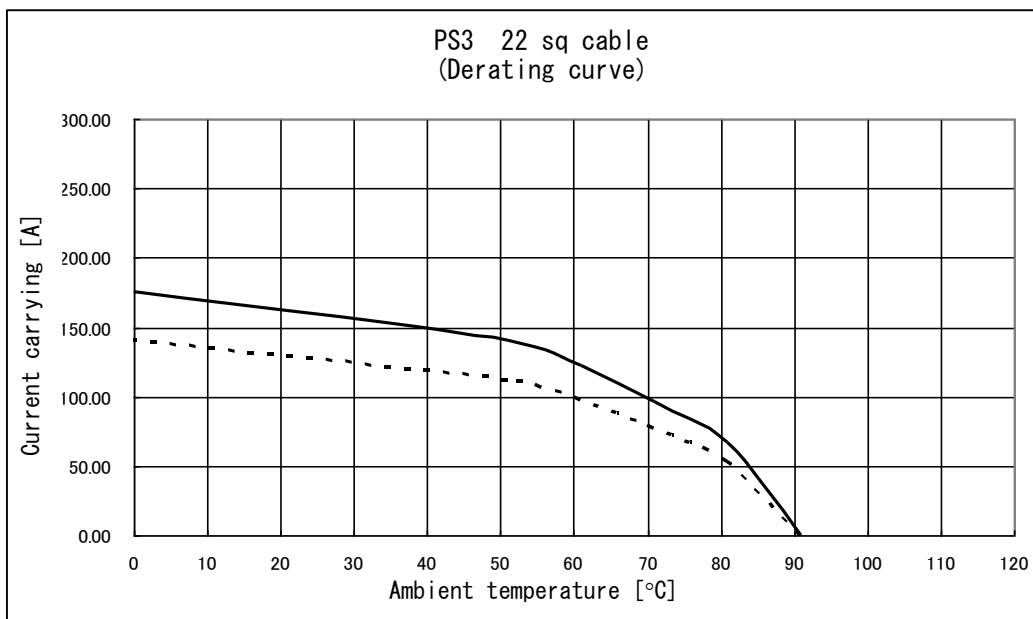
APPLICABLE STANDARD		UL, C-UL, TUV (Appendix 1)						
Rating	Operating Temperature Range	(Note 1) -40 °C to +105 °C (Included temperature rise caused by current-carrying)	Storage Temperature Range	(Note 2) -40 °C to +60 °C				
	Voltage	Power : (Appendix 1) Signal : AC,DC 250V	Applicable Wire	22sq(WL1, WL2, UL3832AWM) (AWG#3) (Appendix 1)				
			Current	Power: 100 A (200 A, max 2sec) (UL, C-UL, TUV) (Appendix 1) 125 A (Derating curve:25°C) (Appendix 2) Signal: 1 A				
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		Power:DC 1 A Signal:100 mA(DC OR 1000Hz)max		Power:0.3 mΩ max. Signal:60 mΩ max. (Note 3) (Assurance test is only signal)		X	X	
Insulation Resistance		250 V DC		5000 MΩ min.		X	—	
Voltage Proof		Power:2000 V AC. for 1 min. Signal:650 V AC. for 1 min.		No flashover or breakdown. (Assurance test is only signal)		X	X	
MECHANICAL CHARACTERISTICS								
Mating and Unmating Forces		Measured by applicable connector at a speed of 30 mm ± 3 mm/min.		Mating force : 98 N max. Unmating force : 98 N max.		X	—	
Mechanical Operation		100 times insertions and extractions at speed of 600 times/hour. (Signal part:30 times insertions and extractions)		①Contact resistance change:power 0.5 mΩ max. (Note 3) signal 40 mΩ max. ②No damage, crack and looseness of parts.		X	—	
Vibration		Frequency : 10 to 55 Hz, single amplitude 0.75 mm, at 5 min/cycle, 10 cycles each in 3 axis directions. 30 cycles in total.		①No electrical discontinuity of 10 μs. ②No damage, crack and looseness of parts.		X	—	
Shock		490 m/s ² duration of pulse 11 ms at 3 times for 3 both axial directions.				X	—	
ENVIRONMENTAL CHARACTERISTICS								
Rapid Change of Temperature		Temperature -40 → 105 °C Time 30 → 30 min Chamber transfer time is 2 to 3 min. Conduct 5 cycles of above cycles(mated) and exposed in the room temperature for 1 to 2 hours.		①Contact resistance change:power 0.5 mΩ max. (Note 3) signal 40 mΩ max. ②Insulation resistance : 1000 MΩ min. ③No damage,crack and looseness of parts.		X	—	
Humidity Life		After exposure at temperature 40±2 °C, humidity 90 to 95 %,for 96 h.(mated), exposed at room temperature for 1 to 2 hour.		①Contact resistance change:power 0.5 mΩ max. (Note 3) signal 40 mΩ max. ②Insulation resistance : 1000 MΩ min. ③No damage,crack and looseness of parts.		X	—	
Heat Resistance		After exposure at temperature 105±2 °C, humidity for 96 h(mated), exposed at room temperature for 1 to 2 hour.		①Contact resistance change:power 0.5 mΩ max. (Note 3) signal 40 mΩ max. ②Insulation resistance : 1000 MΩ min. ③No damage,crack and looseness of parts.		X	—	
	COUNT	DESCRIPTION OF REVISIONS		DESIGNED		CHECKED		DATE
△								
REMARK				APPROVED	TU. TANIGUCHI	20230130		
The above standard value indicates the performance of a compatible connector incorporating the compatible connector. Unless otherwise specified, refer to IEC 60512.				CHECKED	KG. OKITA	20230130		
				DESIGNED	MO. SHIMOYAMA	20230127		
				DRAWN	MO. SHIMOYAMA	20230127		
Note QT:Qualification Test AT:Assurance Test X:Applicable Test				DRAWING NO.		ELC-128237-11-00		
HRS	SPECIFICATION SHEET			PART NO.		PS3F-2RS/8S/10S(11)		
	HIROSE ELECTRIC CO., LTD.			CODE NO		CL0236-1055-4-11		△ 1/4

SPECIFICATIONS					
ITEM	TEST METHOD	REQUIREMENTS	QT	AT	
Cold Resistance	After exposure at -40±3 °C, 96 h. (mated) exposed at room temperatrur for 1 to 2 hour.	①Contact resistance change:power 0.5 mΩ max. (Note 3) signal 40 mΩ max. ②Insulation resistance : 1000 MΩ min. ③No damage.crack and looseness of parts.	X	—	
Corrosion Salt Mist	After exposure in 35±2°C, 5±1% salt water spray for 48±4 h(mated), washed with water, dried at normal temperature and humidity for 24 hours.	No heavy corrosion that lose function.	X	—	
<p>(Note 1) The product performance is guaranteed only in the themperture adequate people' s activities.</p> <p>(Note 2) Storage temperature range shows storage condition for unused products including packing materials. Follow the operating temperature range for storage condition after mounting. Storage period is six months UNOPENED.</p> <p>(Note 3) Contact resitance of signal parts are the vale that contains GT8E connector.</p>					
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					<div>△</div> 2/4

ATTACHMENT FIGURE																																	
<p style="text-align: center;">Appendix 1. Condition of safety standard(UL, C-UL, TUV STANDARD)</p> <p style="text-align: center;">This item got approved by safety standard(UL, C-UL, TUV STANDARD) under the condition of table 1 and table 2. Safety standard is different up to the applied rated voltage and current please see the table 1 and table 2.</p> <p style="text-align: center;">Table 1. UL, C-UL condition</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <th style="width: 50%;"></th> <th style="width: 50%;">Condition</th> </tr> <tr> <td>Current voltage (AC/DC)</td> <td>600V</td> </tr> <tr> <td>Current rating</td> <td>100A</td> </tr> <tr> <td>Cable</td> <td>22sq AWG#3 (*1)</td> </tr> <tr> <td>Creepage distance(*2)</td> <td>MIN:3.2mm</td> </tr> <tr> <td>Clearance distance(*2)</td> <td>MIN:3.2mm</td> </tr> </table> <p style="text-align: center;">Table 2. TUV conditon</p> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <th style="width: 40%;"></th> <th style="width: 60%;">Condition</th> </tr> <tr> <td>Current voltage (ac/dc)</td> <td>1000V</td> </tr> <tr> <td>Current rating</td> <td>100A (cable 22sq , AWG#3 *1)</td> </tr> <tr> <td>Over voltage category</td> <td>III</td> </tr> <tr> <td>Pollution degree</td> <td>3</td> </tr> <tr> <td>Creepage distance(*2)</td> <td>MIN:16mm</td> </tr> <tr> <td>Clearance distance(*2)</td> <td>MIN:8mm</td> </tr> <tr> <td>Insulation system</td> <td>Basic insulation (panel has the earth)</td> </tr> </table> <p style="margin-top: 20px;">*1 : As screws and crimp terminal attached with power contact have an impact on the creepage distance and the clearance distance, please use recommended screws and crimp terminals. In case you use cables other than following recommended screws and contacts, please be careful that the creepage distance and the clearance distance meet the standard of UL, C-UL, TUV.</p> <div style="margin-left: 40px; margin-top: 10px;"> <p>-Recommended screw : JIS B 1188 spring washer + cross recessed pan head screw with captive polished circular washer M6 X 12</p> <p>-Recommended crimp terminal Cable 22sq : JIS C 2805 R22-6</p> </div> <p style="margin-top: 20px;">*2: The coverage of the creepage distance and the clearance distance is as follows.</p> <div style="margin-left: 40px; margin-top: 5px;"> <p>-Between plus power supply contact and minus power supply contact</p> <p>-Between plus crimp terminal and minus crimp terminal</p> <p>-Between power contact and panel</p> <p>-Between crimp terminal and panel</p> <p>-Between screws (attacehd with power contact) and panel</p> </div>							Condition	Current voltage (AC/DC)	600V	Current rating	100A	Cable	22sq AWG#3 (*1)	Creepage distance(*2)	MIN:3.2mm	Clearance distance(*2)	MIN:3.2mm		Condition	Current voltage (ac/dc)	1000V	Current rating	100A (cable 22sq , AWG#3 *1)	Over voltage category	III	Pollution degree	3	Creepage distance(*2)	MIN:16mm	Clearance distance(*2)	MIN:8mm	Insulation system	Basic insulation (panel has the earth)
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ATTACHMENT FIGURE

Appendix 2. Derating curve (reference)



- 1 Derating curve takes manufacturing tolerances into consideration as well as uncertainties in temperature measurement and the measuring set up and is derived from the base curve multiplied by 0.8 calculation.
- 2 The value of rated current differs depending on the ambient temperature.
it is recommended to use the product within the derating curve zone.
- 3 Measurement method of derating curve is shown below.
 - Test specimen: PS3-2UP (11) (male contact)
PS3-2US (11) (female contact)
 - Test cable spec: 22 sq mm (AWG#3)
 - Test condition: turn on electricity under the static state and measure.
(Test report TR0236E-20255)

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

DRAWING NO.

ELC-128237-11-00



SPECIFICATION SHEET

PART NO.

PS3F-2RS/8S/10S (11)

HIROSE ELECTRIC CO., LTD.

CODE NO

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