APPLICABLE STANDARD				
RATING	Operating Temperature Range	−40 ℃ TO +105 ℃ (Note 1) (Included temperature rise caused by current-carrying)	Storage Temperature Range	−40 ℃ TO +60 ℃ (Note 2)
	Voltage	Power: 1000 V Signal: AC,DC 250 V	Current	Power: 150A 210A(Derating curve:25℃) (Appendix 1) Signal: 1A ※The Rating Current for each applicable wire size can be found in table 3.
	Applicable Wire	14sq to 50sq (AWG#5 to AWG#1/0)		

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 CHARACTEREISTICS				
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: 137.2 N MAX.	X	—
		Unmating force: 137.2 N MAX.	X	—
Mechanical Operation	100 times insertions and extractions at a speed of 600 times/hour. (GT8E of signal part: 30 times insertions and extractions)	① Contact resistance change:Power 0.5 mΩ MAX. Signal 40 mΩ MAX. (Note 3) ② No damage, crack and looseness of parts.	X	—
Vibration	Frequency: 10 to 55 Hz, singe amplitude 0.75 mm, at 5 min/cycle, 10 cycles each in 3 axial directions. 30 cycles in total.	① No electrical discontinuity of 10 μs. ② No damage, crack and looseness of parts.	X	—
Shock	490 m/s² duration of pulse 11 ms for 3 times in 3 both axial directions.		X	—
ENVIRONMENTAL CHARACTERISTICS				
Rapid Change of Temperature	Temperature −40 → 105 ℃ 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.	① Contact resistance change:Power 0.5 mΩ MAX. Signal 40 mΩ MAX. (Note 3) ② Insulation resistance: 1000 MΩ MIN. ③ No damage, crack and looseness of parts.	X	—
Humidity Life	After exposure at temperature 40±2 ℃, humidity 90 to 95 %, for 96 h (mated), exposed at room temperatrure for 1 to 2 hour.	① Contact resistance change:Power 0.5 mΩ MAX. Signal 40 mΩ MAX. (Note 3) ② Insulation resistance: 1000 MΩ MIN. ③ No damage, crack and looseness of parts.	X	—
Heat Resistance	After exposure at temperature 105±2 ℃, humidity for 96 h (mated), exposed at room temperatrure for 1 to 2 hour.	① Contact resistance change:Power 0.5 mΩ MAX. Signal 40 mΩ MAX. (Note 3) ② Insulation resistance: 1000 MΩ MIN. ③ No damage, crack and looseness of parts.	X	−

	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
⚠	1	DIS-E-00000869	TA.TORIHARA	AH.KODAMA	17.04.14

REMARK

(Note 1) The operation temperature includes the temperature rise by current carrying.
(Note 2) Storage temperature range shows storage condition for unused products including packing materials. Follow the operating temperature range for storage condition after mounting.
(Note 3) Contact resitance of signal parts are the value that contains GT8E connector.

Unless otherwise specified, refer to IEC 60512.

APPROVED	RI.TAKAYASU	15.12.244
CHECKED	NM.NISHIMATSU	15.12.244
DESIGNED	WR.YAMADA	15.12.222
DRAWN	WR.YAMADA	15.12.22

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

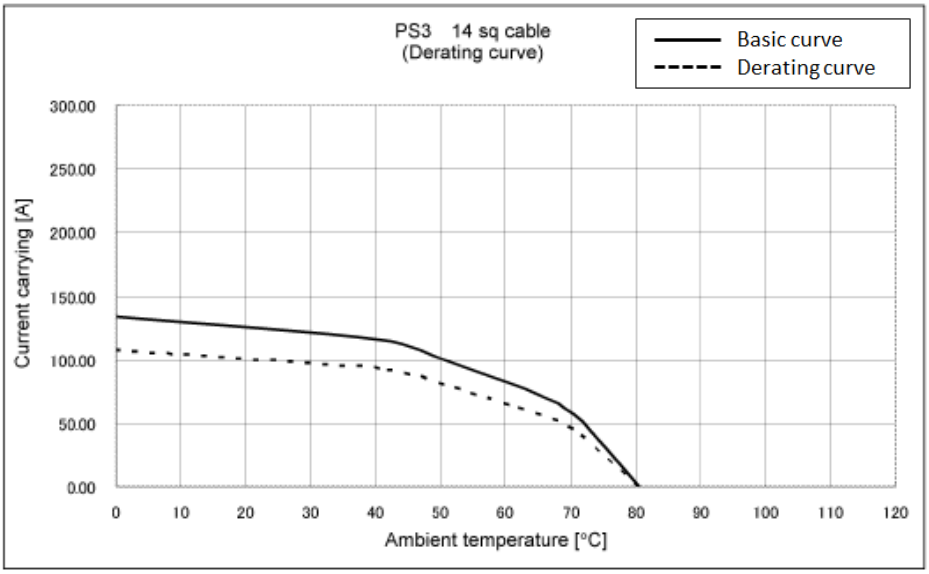
HRS	SPECIFICATION SHEET	DRAWING NO.	ELC-129145-00-00	
		PART NO.	PS3-2US/12S/16S-FA	
	HIROSE ELECTRIC CO., LTD.	CODE NO	CL236-1079-0-00	⚠ 1/7

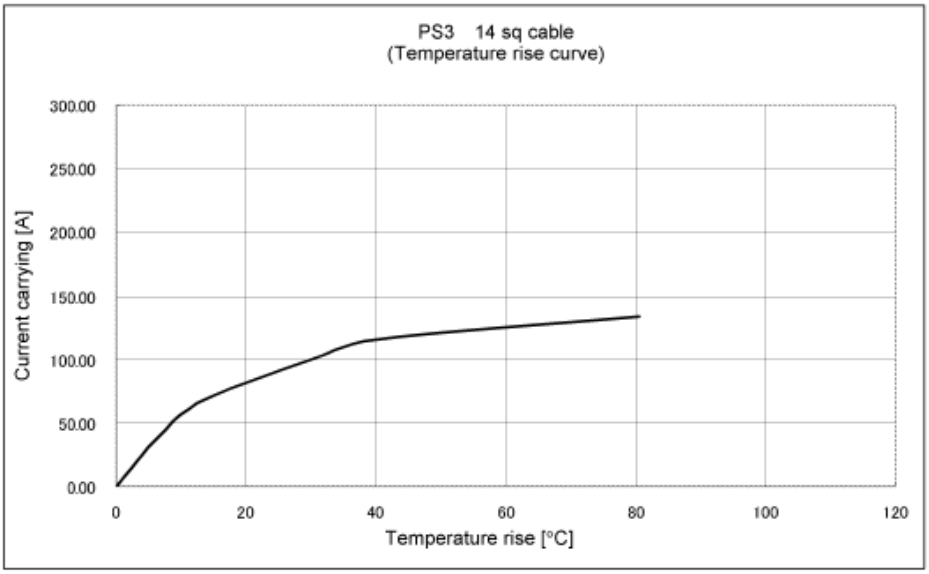
⚠ DIS-E-00000869 Inscription changes regarding Rating Current and others.

ITEM	TEST METHOD	REQUIREMENTS	QT	AT
ENVIRONMENTAL CHARACTERISTICS				
Cold Resistance	After exposure at −40±3 °C, 96 h (mated) exposed at room temperatrur for 1 to 2 hour.	① Contact resistance change:Power 0.5 mΩ MAX. Signal 40 mΩ MAX. (Note 3) ② Insulation resistance: 1000 MΩ MIN. ③ No 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	—

Appendix 1. Derating curve (reference)

i. 14 sq cable





Note 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 : PS3-2US(female contact side connector, using the same contacts as the here handled PS3-2US/12S/16S-FA)
PS3-2UP(male contact side connector)

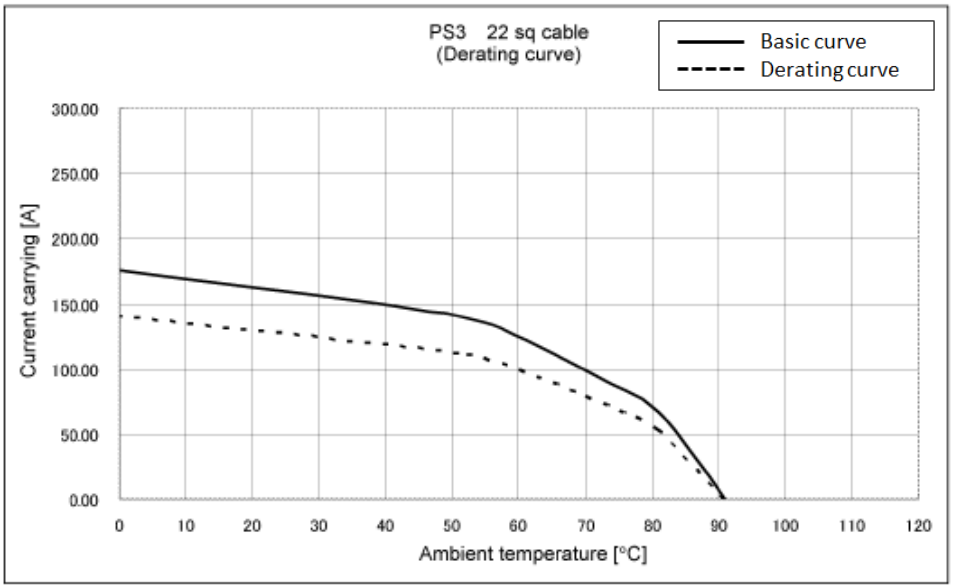
-Test cable spec : 14 mm^2 (AWG#5)

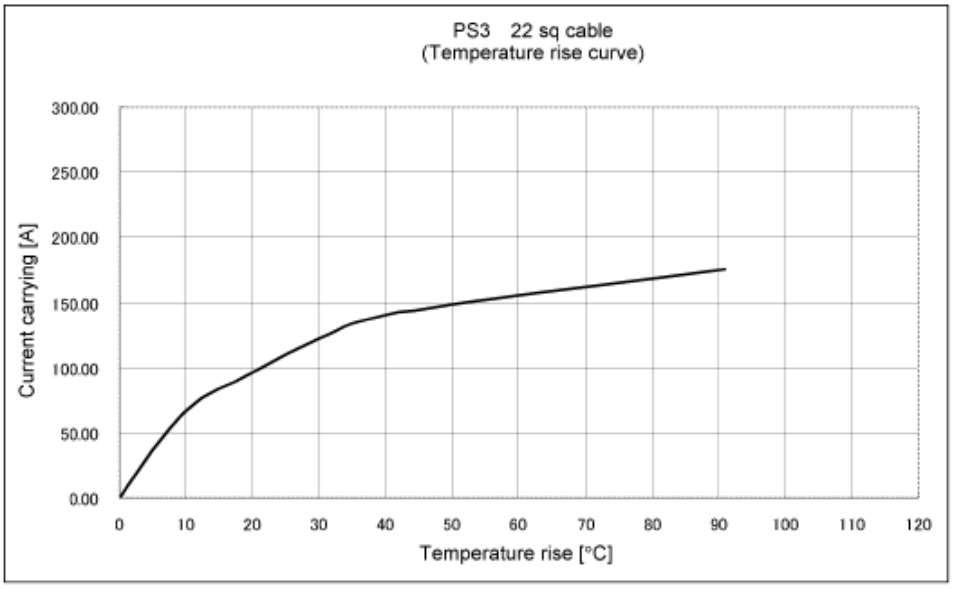
-Test condition : Turn on electricity under the static state and measure.

(Test report # TR0236E-20255)

Appendix 1. Derating curve (reference)

ii. 22 sq cable





Note 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 : PS3-2US(female contact side connector, using the same contacts as the here handled PS3-2US/12S/16S-FA)
PS3-2UP(male contact side connector)

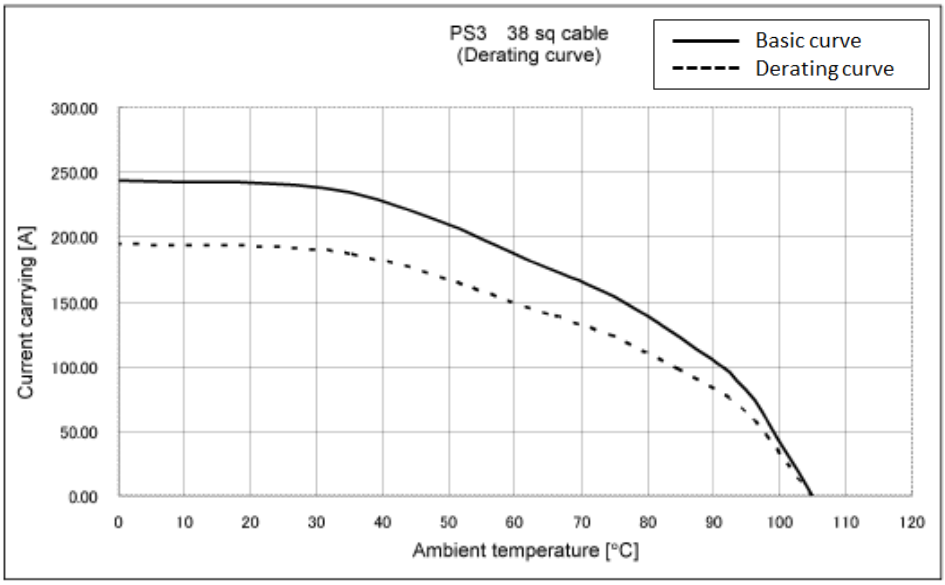
-Test cable spec : 22 mm^2 (AWG#3)

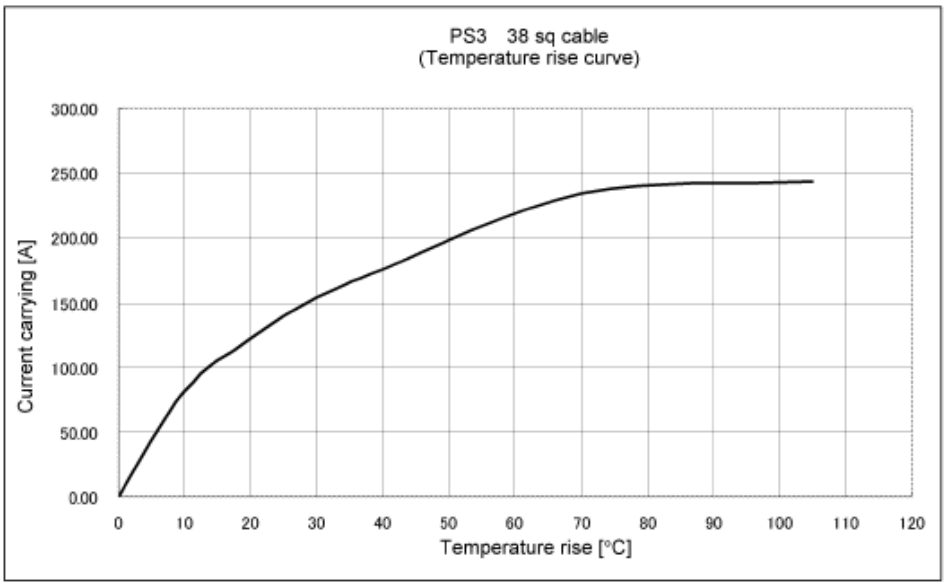
-Test condition : Turn on electricity under the static state and measure.

(Test report # TR0236E-20255)

Appendix 1. Derating curve (reference)

iii. 38 sq cable





Note 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 : PS3-2US(female contact side connector, using the same contacts as the here handled PS3-2US/12S/16S-FA)
PS3-2UP(male contact side connector)

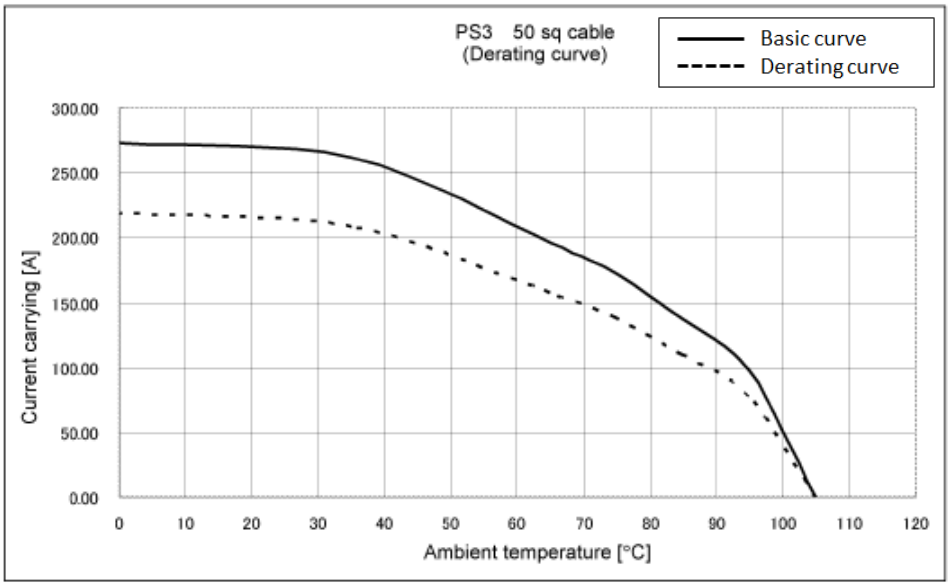
-Test cable spec : 38 mm^2 (AWG#1)

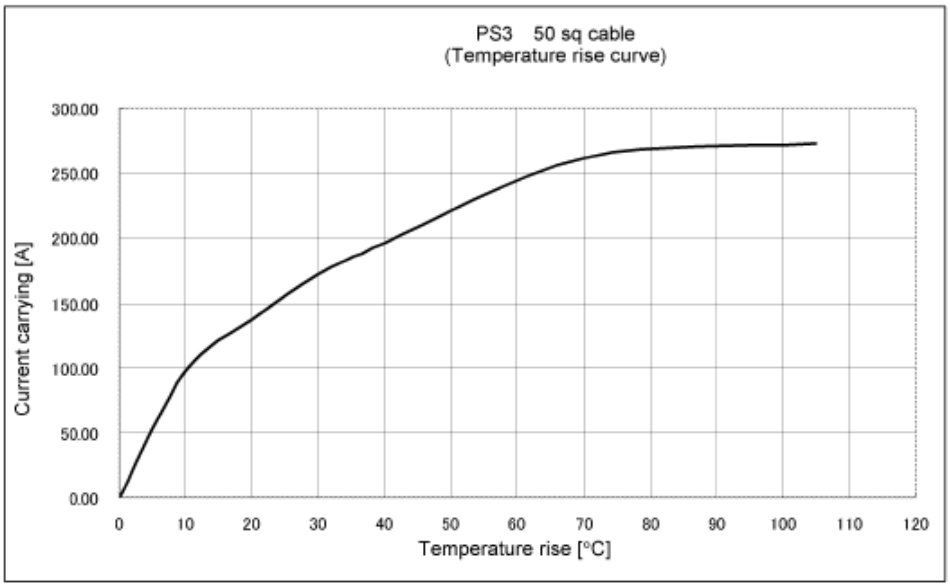
-Test condition : Turn on electricity under the static state and measure.

(Test report # TR0236E-20255)

Appendix 1. Derating curve (reference)

iv. 50 sq cable





Note 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 : PS3-2US(female contact side connector, using the same contacts as the here handled PS3-2US/12S/16S-FA)
PS3-2UP(male contact side connector)

-Test cable spec : 50 mm^2 (AWG#1/0)

-Test condition : Turn on electricity under the static state and measure.

(Test report # TR0236E-20255)

Table 3. List of the rated current for each applicable wire size.

COMPANY INTERN STANDARD / Applicable wire	Derataing curve Ambient temperature 25℃ (Appendix 1)
14mm², AWG#5	100A
22mm², AWG#3	125A
38mm², AWG#1	190A
50mm², AWG#1/0	210A