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 In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

APPLICABLE STANDARD					
RATING	OPERATING TEMPERATURE RANGE	-55°C TO + 105°C (NOTE 1)		STORAGE TEMPERATURE RANGE	-10°C TO + 60°C (NOTE 3)
	OPERATING HUMIDITY RANGE	20% TO 80% (NOTE 2)		STORAGE HUMIDITY RANGE	40% TO 70% (NOTE 3)
	VOLTAGE	1000V AC/DC		APPLICABLE CONNECTOR	DF60-*EP-10.16C(##) DF60R-*EP-10.16C
	CURRENT (*1)	AWG10	40A	APPLICABLE CABLE	AWG 10 TO 12
	AWG12	31A			
	RATED VOLTAGE	RATED CURRENT		OVERVOLTAGE CATEGORY	IP- DEGREE
UL	600V AC/DC	AWG10:55A/AWG12:45A (AT AMBIENT TEMP. 25°C) (NOTE 5)		—	—
C-UL	600V AC/DC	SEE ABOVE(*1) (TEMP. RISE UP 30°C MAX)		—	—
TÜV	600V AC/DC	SEE ABOVE(*1)		III	IP00
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
ELECTRIC CHARACTERISTICS					
CONTACT RESISTANCE MILLIVOLT LEVEL METHOD		DC6V MAX, 1A		2mΩ MAX.	X —
MECHANICAL CHARACTERISTICS					
MECHANICAL OPERATION		30TIMES INSERTIONS AND EXTRACTIONS.		① CONTACT RESISTANCE: 2mΩ MAX. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X —
VIBRATION		FREQUENCY 10 TO 500 Hz, TOTAL AMPLITUDE 1.5 mm, Acceleration of 98 m/s <sup>2</sup> , AT 2 h, FOR 3 DIRECTIONS.		① NO ELECTRICAL DISCONTINUITY OF 1μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS..	X —
SHOCK		490 m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS.		① NO ELECTRICAL DISCONTINUITY OF 1μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS..	X —
CRIMP TENSILE STRENGTH		APPLY WIRE TENSILE STRENGTH TO CAULKING AREA AXIALLY UNTIL LOOSEN OR BROKEN.		270N MIN	X —
ENVIRONMENTAL CHARACTERISTICS					
DAMP HEAT (STEADY STATE)		EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h.		① CONTACT RESISTANCE: 2mΩ MAX. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X —
RAPID CHANGE OF TEMPERATURE		TEMPERATURE -55°C → +85°C TIME 30min → 30min UNDER 25 CYCLES. (THE TRANSFERRING TIME OF THE TANK IS 2-3 min) (AFTER LEAVING THE ROOM TEMPERATURE FOR 1-2h.)		① CONTACT RESISTANCE: 2mΩ MAX. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X —
DRY HEAT		EXPOSED AT 105 ± 2°C, 250h (AFTER LEAVING THE ROOM TEMPERATURE FOR 1-2h.)		① CONTACT RESISTANCE: 2mΩ MAX. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS.	X —
Remarks					
Note1: Include the temperature rising by current.					
Note2: No condensing.					
Note3: Apply to the condition of long term storage for unused products before PCB on board . After mounted on PCB board , operating temperature and humidity range is applied for interim storage during transportation.					
	COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
△					
Unless otherwise specifid , refer to IEC 60512.				APPROVED	HS. OKAWA 17. 02. 07
				CHECKED	TS. FUKUSHIMA 17. 02. 07
				DESIGNED	TS. KUMAZAWA 17. 02. 07
				DRAWN	TS. KUMAZAWA 17. 02. 07
Note QT:Qualification Test AT:Assurance Test X:Applicable Test			DRAWING NO.	ELC-345697-07-00	
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	DF60-1012PCA (07)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL680-3049-3-07	△ 1/7

(Note 4) Derating curve takes manufacturing tolerances into consideration as well as uncertainties in temperature measurement and the measuring set up and is derived from the basic curve multiplied by 0.8 calculation.

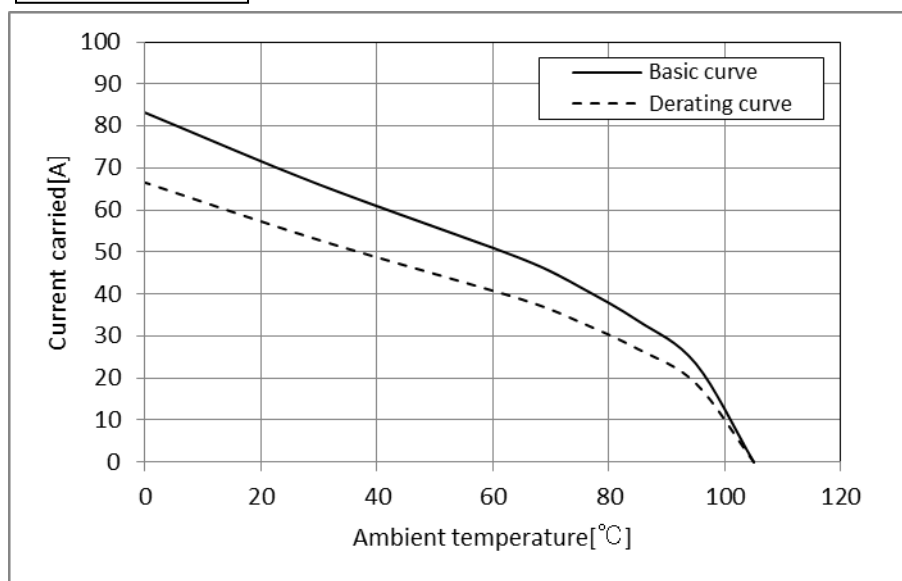
(Note 5) The value of rated current differs depending on the ambient temperature. It is recommended to use the product within the derating curve zone.

(Note 6) Measurement method of derating curve is shown below.

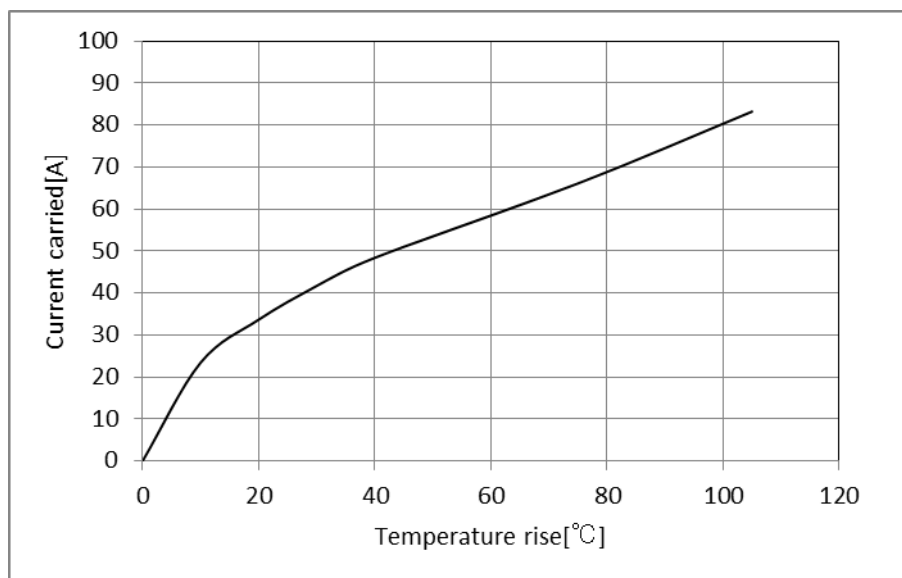
- Test specimen: Unused DF60-2P-10.16DS(27).  
Unused DF60-2S-10.16C  
Unused DF60-1012SCFA
- Test cable spec: AWG 10
- Test condition: Turn on electricity under the static state and measure.  
(Test report # TR680E-20773)

[Reference]

Derating curve



Temperature rise curve



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

DRAWING NO.

ELC-345697-07-00



SPECIFICATION SHEET

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DF60-1012PCA (07)

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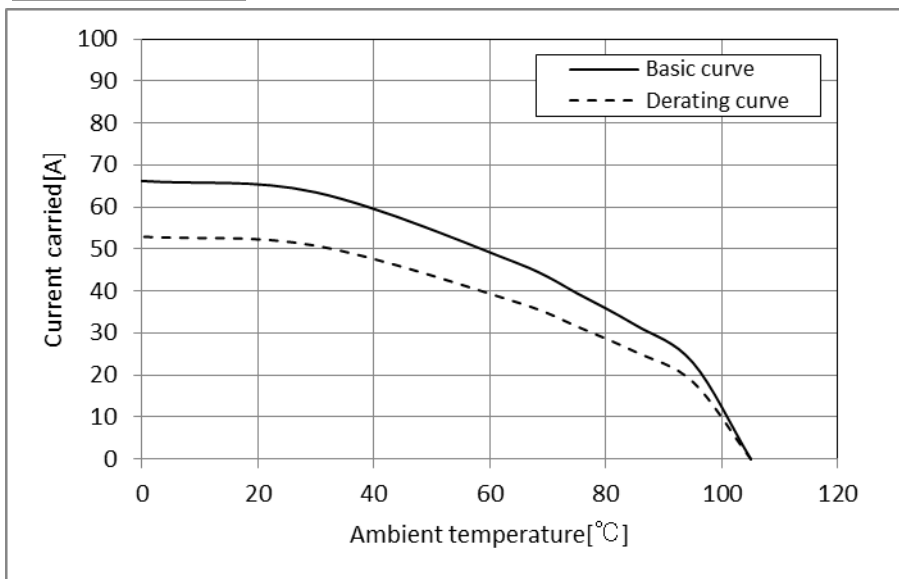
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(Note 7) Measurement method of derating curve is shown below.

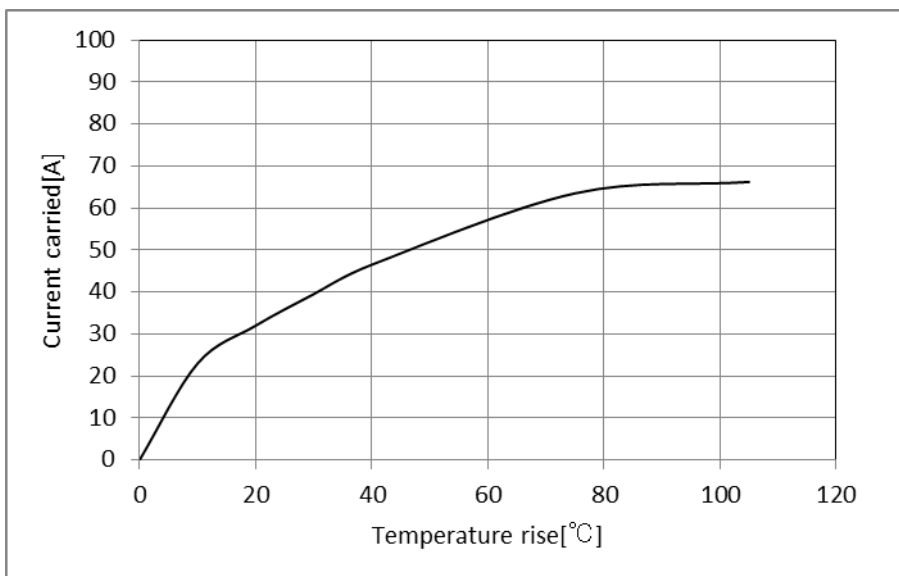
- Test specimen: Unused DF60-3P-10.16DS(27).  
Unused DF60-3S-10.16C  
Unused DF60-1012SCFA
- Test cable spec: AWG 10
- Test condition: Turn on electricity under the static state and measure.  
(Test report # TR680E-20802)

[Reference]

Derating curve



Temperature rise curve



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

DRAWING NO.

ELC-345697-07-00



SPECIFICATION SHEET

PART NO.

DF60-1012PCA (07)

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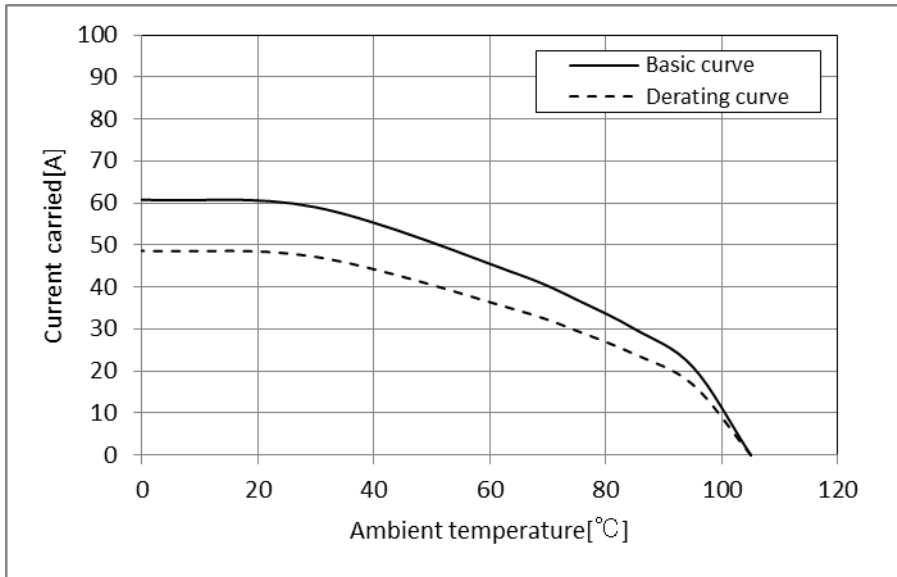
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(Note 8) Measurement method of derating curve is shown below.

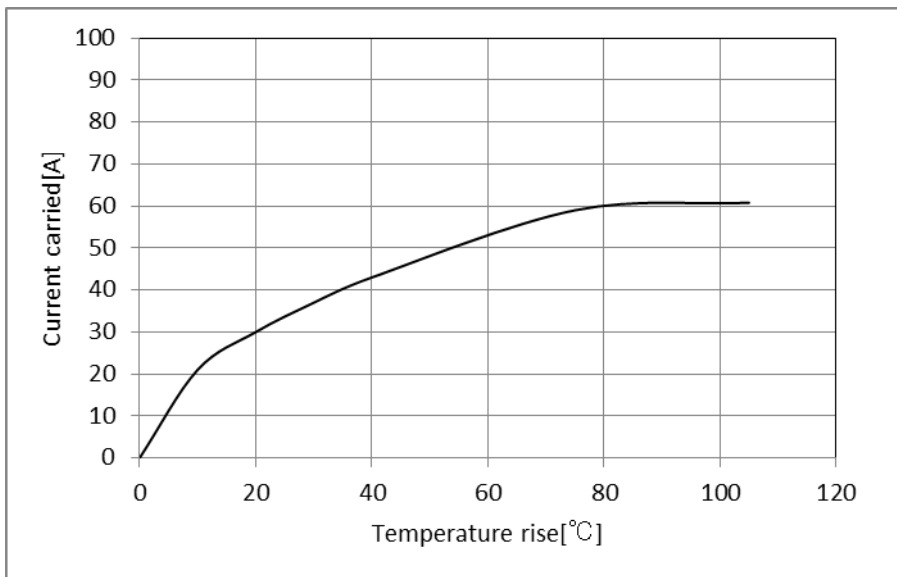
- Test specimen: Unused DF60-6P-10.16DS(27).  
                   Unused DF60-6S-10.16C  
                   Unused DF60-1012SCFA
- Test cable spec: AWG 10
- Test condition: Turn on electricity under the static state and measure.  
 (Test report # TR680E-20802)


[Reference]

**Derating curve**



**Temperature rise curve**



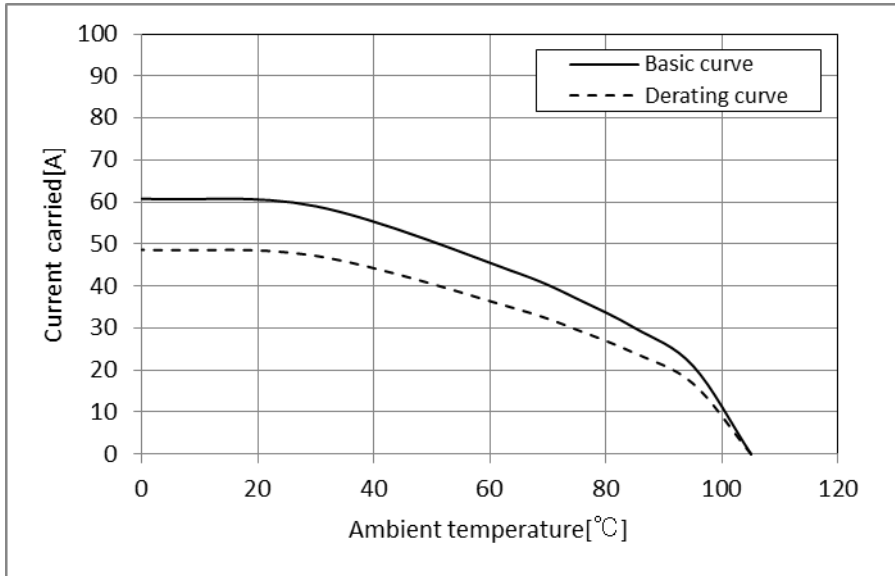
Note QT:Qualification Test AT:Assurance Test X:Applicable Test		DRAWING NO.		ELC-345697-07-00	
<b>HRS</b>	SPECIFICATION SHEET		PART NO.	DF60-1012PCA (07)	
	HIROSE ELECTRIC CO., LTD.		CODE NO.	CL680-3049-3-07	 4/7

(Note 9) Measurement method of derating curve is shown below.

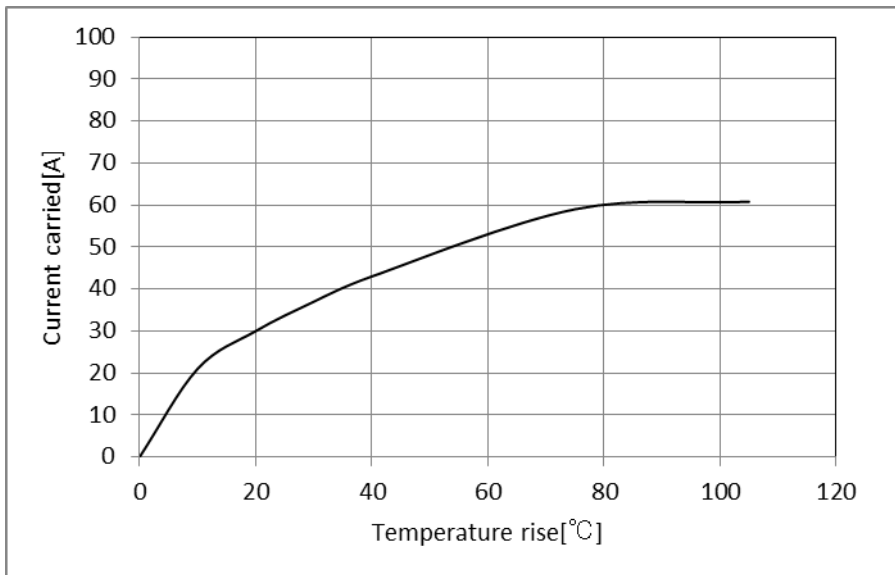
- Test specimen: Unused DF60-1P-10.16DS(27).  
                   Unused DF60-1S-10.16C  
                   Unused DF60-1012SCFA
- Test cable spec: AWG 12
- Test condition: Turn on electricity under the static state and measure.  
 (Test report # TR680E-20802)

[Reference]

Derating curve



Temperature rise curve



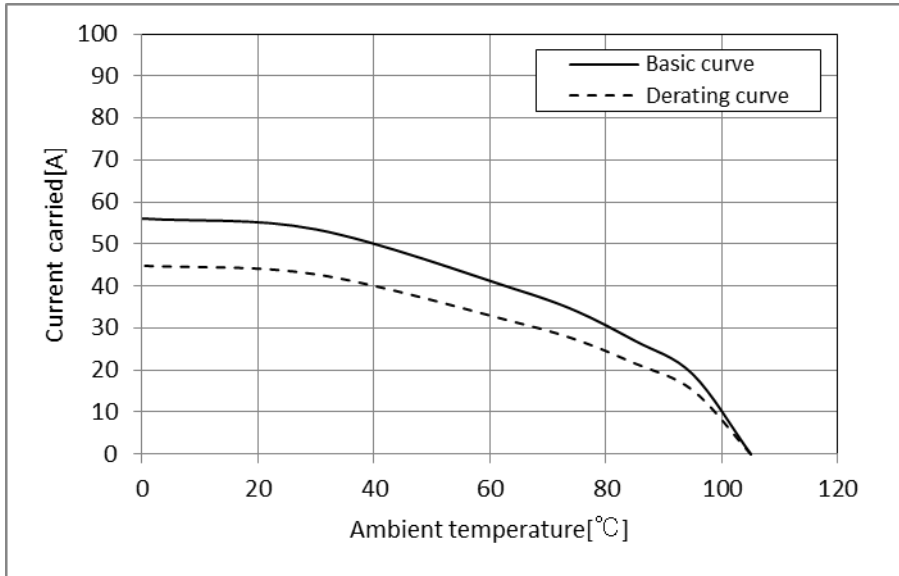
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(Note 10) Measurement method of derating curve is shown below.

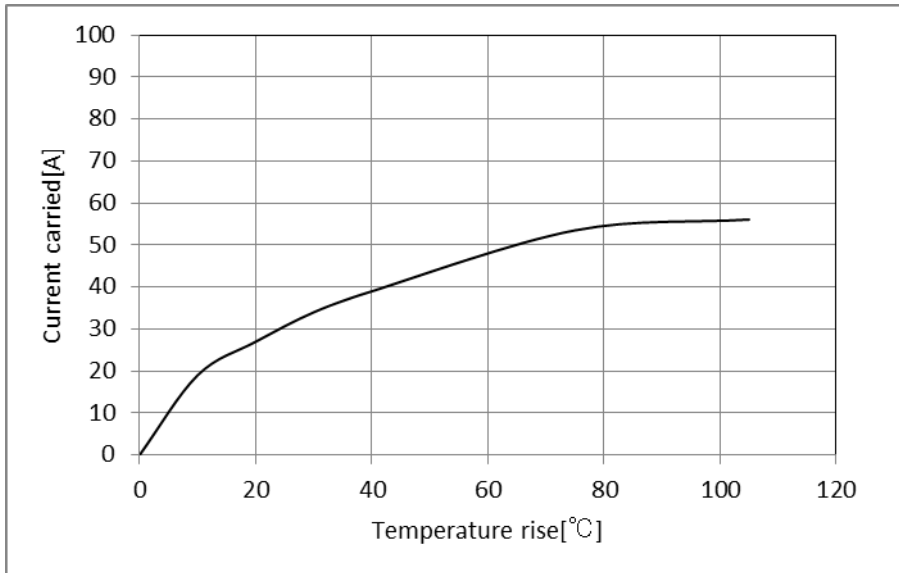
- Test specimen: Unused DF60-3P-10.16DS(27)  
                   Unused DF60-3S-10.16C  
                   Unused DF60-1012SCFA
- Test cable spec: AWG 12
- Test condition: Turn on electricity under the static state and measure.  
 (Test report # TR680E-20802)

[Reference]

Derating curve



Temperature rise curve



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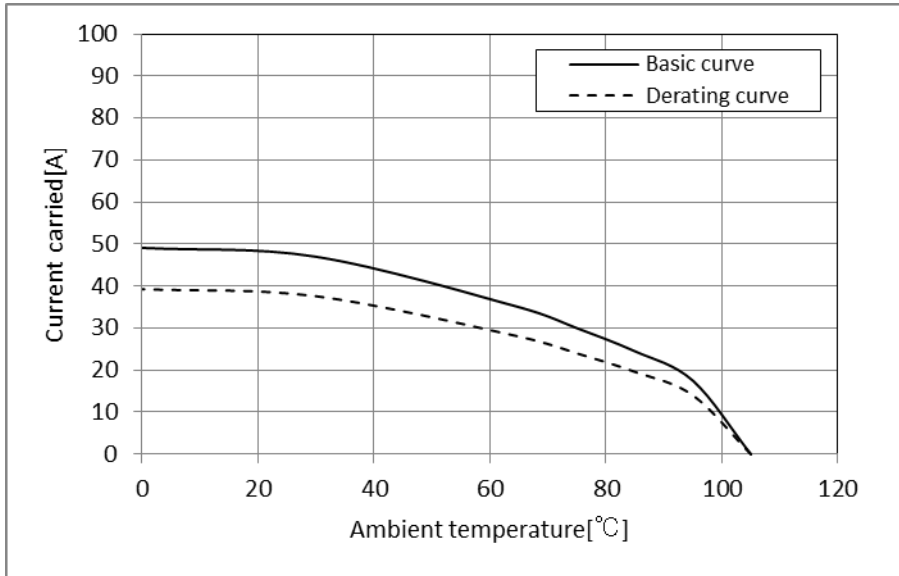
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(Note 11) Measurement method of derating curve is shown below.

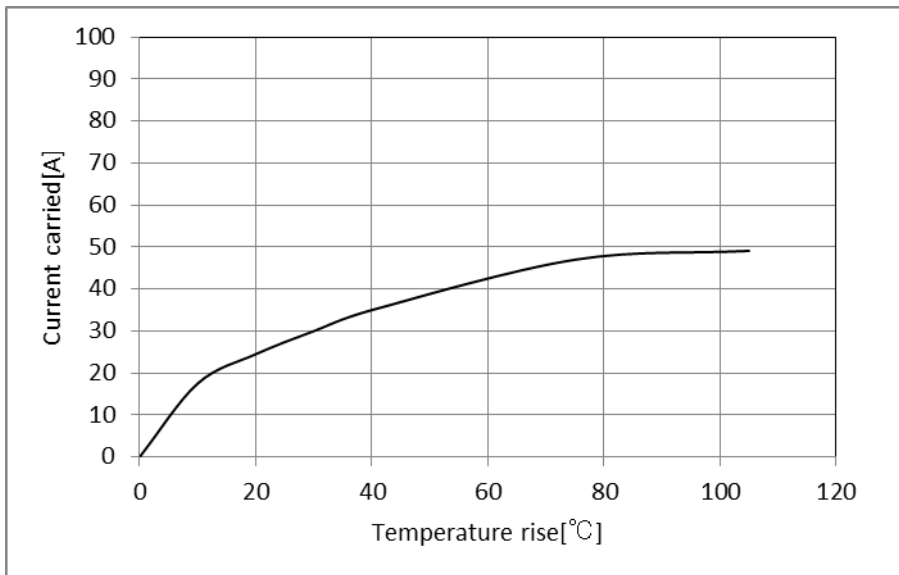
- Test specimen: Unused DF60-6P-10.16DS(27).  
                   Unused DF60-6S-10.16C  
                   Unused DF60-1012SCFA
- Test cable spec: AWG 12
- Test condition: Turn on electricity under the static state and measure.  
 (Test report # TR680E-20802)

[Reference]

Derating curve



Temperature rise curve



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