| APPLICA                        | BLE S                       | TANDARD                   |   |                                  |                              |  |                           |                        |                        |          |           |              |
|--------------------------------|-----------------------------|---------------------------|---|----------------------------------|------------------------------|--|---------------------------|------------------------|------------------------|----------|-----------|--------------|
| OPERATING<br>TEMPERATURE RANGE |                             | -55°C T(                  | ) +105°C  | (NOTE 1)                         | STORA<br>TEMPE               |  | RANGE                     | GE -10°C TO +60°C (NOT |                        |          |           |              |
| RATING                         | OPERATING<br>HUMIDITY RANGE |                           | 20% TO 80% (NOTE 2)   |                                  |                              | ORAGE<br>MIDITY RANGE  |                           | 40% TO 70% (NO         |                        | OTE 3    | 3)        |              |
|                                | VOLTA                       | VOLTAGE                   |   | ΙΟΟΟΥ Δ(:/1)(:                   |                              |  | ABLE                      |                        | AWG8 T                 | O AWG1   | 2         |              |
|                                | CURRE                       | NT (*1) /1\               | AWG8 45A  |                                  | APPLIC<br>CONTA              | ABLE   | 1                         | DF60-8PC (F) A (0      | 07)                    |          |           |              |
|                                |                             |                           | AWG10 35A   |                                  | 35A                          | CONTAC   |                           |                        | DF60-1012PC (F) A (07) |          |           |              |
|                                |                             |                           | AWG12   |                                  | 28A                          |  |                           |                        | DF60A-8PC(F)A          |          |           |              |
| $\triangle$                    |                             | RATED VOLTA               | GE  | RATED CURRENT                    |                              |  |                           | OVERVOL                | TAGE CATEGORY          | IP-      | DEGRI     | EE           |
| UL                             |                             | 600V AC/DO                | AWG8:65A/AWG10:55A/AWG12:40<br>(AT AMBIENT TEMP.25°C) (NOTE |                                  |                              |  | _                         |                        |                        | _        | <u> </u>  |              |
| C-UL                           |                             | 600V AC/DO                | OC SEE ABOVE(*1)(TEMP. RISE UP 30                           |                                  |                              | O°CMAX)  | ) –                       |                        |                        |          |           |              |
| TÜV                            |                             | 600V AC/DO                | ;   | SEE ABOVE (*1)                   |                              |  |                           | ш                      |                        |          | IP00      |              |
|                                |                             |                           |   | SP                               | ECIFIC.                      | <u>ATIO</u>  | <u>NS</u>                 |                        |                        |          |           | 1            |
|                                | EM                          |                           | Т   | EST METH                         | IOD                          |  |                           | REC                    | QUIREMENTS             |          | QT        | AT           |
| CONSTR<br>GENERAL EX           |                             | •                         | ' AND BY ME   | EASHRING IN                      | NSTRUMENT.                   |  | ACCO                      | RDING TO               | DRAWING                |          | Х         | Tv           |
| MARKING                        |                             |                           | ED VISUALL  |                                  | TO THOME IT                  |  | 1,000                     | NO TO                  | DIO WING.              |          | X         | X            |
| ELECTR                         | IC CH                       | ARACTERIS                 | STICS   |                                  |                              |  |                           |                        |                        |          | ı         |              |
| INSULATION<br>RESISTANC        | E                           |                           | 00V DC.   |                                  |                              | 1000MΩ MIN.  |                           |                        | Х                      | _        |           |              |
| VOLTAGE P                      | ROOF                        | 3000V                     | 3000V AC FOR 1 min.   |                                  |                              | NO FLASHOVER OR BREAKDOWN.   |                           |                        | Х                      | _        |           |              |
|                                |                             | CHARACTE                  |   |                                  |                              |  |                           |                        |                        |          |           |              |
| VIBRATION                      |                             |                           |   |                                  | L AMPLITUDE<br>h, FOR 3 DIRE |  | ① NO E                    | AMAGE, CRA             | CK OR LOOSENESS O      | F PARTS  | . X       | _            |
| SHOCK 490                      |                             |                           | m/s <sup>2</sup> DURATION OF PULSE 11 ms AT 3 TIMES FOR 3   |                                  |                              | ① NO DAMAGE, CRACK OR LOOSENESS OF PARTS.  |                           |                        | _                      |          |           |              |
| ENVIRO                         | NMEN                        | TAL CHAR                  |   | STICS                            |                              |  |                           |                        |                        |          | 1 ^       |              |
| DAMP HEAT<br>(STEADY S         | Γ                           |                           |   |                                  | TO 95 %, 96 l                | h.   | _                         |                        | ESISTANCE: 1000M:      |          | S. X      | _            |
| RAPID CHA<br>TEMPERAT          | -                           |                           | TEMPERATURE -55°C→ +85°C TIME 30min→ 30min                  |                                  |                              | <ol> <li>INSULATION RESISTANCE: 1000MΩ MIN.</li> <li>NO DAMAGE, CRACK OR LOOSENESS OF PARTS</li> </ol> |                           |                        | X                      |          |           |              |
| TEWI ERAT                      | OKL                         | UNDER                     | 25 CYCLES   | S.                               |                              |  | ∠ NO                      | DAMAGE, CR             | ACK OR LOOSENESS (     | JF PARTS | 5. 7.     |              |
|                                |                             | Ι'                        |   |                                  | TANK IS 2-3 mi               | ,  |                           |                        |                        |          |           |              |
| DRY HEAT                       |                             | EXPOSE                    | D AT 105  | ± 2°C, 250                       |                              |  | _                         |                        | ESISTANCE: 1000Ms      |          | . X       | -            |
|                                |                             |                           |   |                                  |                              |  |                           |                        |                        |          |           | -            |
|                                |                             |                           |   |                                  |                              |  |                           |                        |                        |          |           |              |
|                                |                             |                           |   |                                  |                              |  |                           |                        |                        |          |           |              |
|                                |                             |                           |   |                                  |                              |  |                           |                        |                        |          |           |              |
| Remarks                        |                             |                           |   |                                  |                              |  |                           |                        |                        |          |           | <u> </u>     |
| Note1: Include                 |                             | erature rising by cu      | rrent.  |                                  |                              |  |                           |                        |                        |          |           |              |
|                                | o the cond                  | dition of long term s     | •   | •                                |                              |  |                           |                        |                        |          |           |              |
|                                |                             | n PCB board , ope         |   |                                  | midity range is a            |  |                           | torage during          |                        |          | T 54      |              |
| COUN 6                         | 11                          | DESCRIPTION DIS-          | JN OF RE  |                                  |                              | TS. KUN  |                           |                        | TS. FUKUSHIMA          |          | +         | ATE<br>01.06 |
| Unless otherwise specifid, ref |                             |                           |   |                                  |                              | 13. 101  | IAZAIIA                   | APPROVE                |                        | IA       |           | )1. 19       |
|                                |                             |                           |   |                                  |                              |  |                           | CHECKE                 | _                      |          |           | )1. 17       |
|                                |                             |                           |   |                                  |                              |  |                           | DESIGNE                | D TS. KUMAZAV          | WA       | 15. 0     | )1. 17       |
|                                |                             |                           |   |                                  |                              |  |                           | DRAWN                  | TS. KUMAZAV            |          |           | )1. 17       |
| Note QT:Q                      | ualificati                  | on Test AT:As             | surance Te  | surance Test X:Applicable Test D |                              |  | RAWING NO. ELC-344821-15- |                        |                        | 5-00     | )         |              |
| HS.                            |                             | SPECIFI                   | CATIO   | N SHEE                           | T                            | PAR1   | NO.                       |                        | DF60-2EP-10. 1         | 6C (15   | )         |              |
|                                |                             | HIROSE ELECTRIC CO., LTD. |   |                                  | .TD.                         | CODE   | ODE NO. CL680-3025-5-15   |                        |                        |          | $\Lambda$ | 1/4          |



(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.

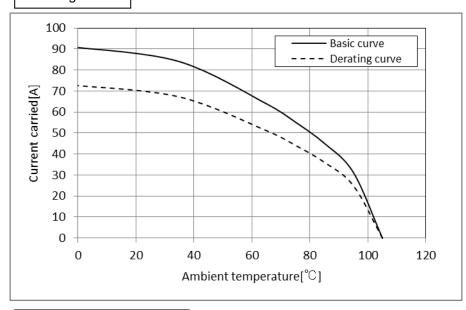
It is recommended to use the product within the derating curve zone.

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

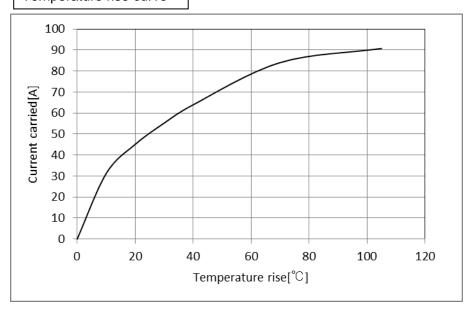
- Test specimen:Unused DF60-2P-10.16DS(27).
   Unused DF60-2S-10.16C
   Unused DF60-8SCFA
- Test cable spec:AWG 8
- Test condition: Turn on electricity under the static state and measure.
   (Test report # TR680E-20766)

### [Reference]

# Derating curve



### Temperature rise curve



| Note QT:Q | ualification Test AT:Assurance Test X:Applicable Test | DRAWIN   | IG NO.               | ELC-344821-15-00 |   |     |
|-----------|---|----------|----------------------|------------------|---|-----|
| HS.       | SPECIFICATION SHEET                                   | PART NO. | DF60-2EP-10. 16C(15) |                  |   |     |
|           | HIROSE ELECTRIC CO., LTD.                             | CODE NO. | CL680                | 0-3025-5-15      | Λ | 2/4 |

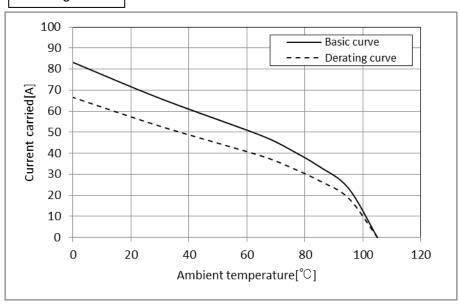
 $\Lambda$ 

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

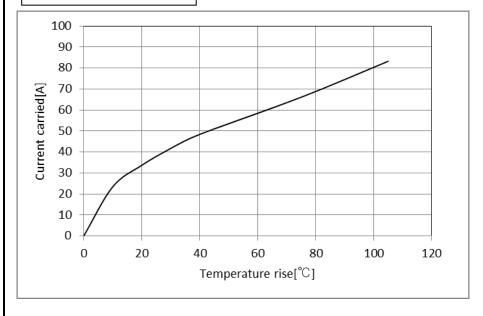
- Test specimen:Unused DF60-2P-10.16DS(27).
   Unused DF60-2S-10.16C
   Unused DF60-1012SCFA
- Test cable spec:AWG 10
- Test condition: Turn on electricity under the static state and measure.
   (Test report # TR680E-20773)

## [REFERENCE]

## Derating curve



#### Temperature rise curve



| Note QT:Qu | ualification Test AT:Assurance Test X:Applicable Test | DRAWIN   | IG NO. | ELC-344821-15-00     |          |     |
|------------|---|----------|--------|----------------------|----------|-----|
| HS.        | SPECIFICATION SHEET                                   | PART NO. | DF     | DF60-2EP-10. 16C(15) |          |     |
| 1.0        | HIROSE ELECTRIC CO., LTD.                             | CODE NO. | CL680  | 0-3025-5-15          | $\Delta$ | 3/4 |

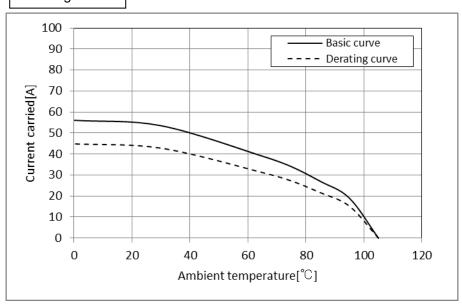


(Note 8) Measurement method of derating curve is shown below.

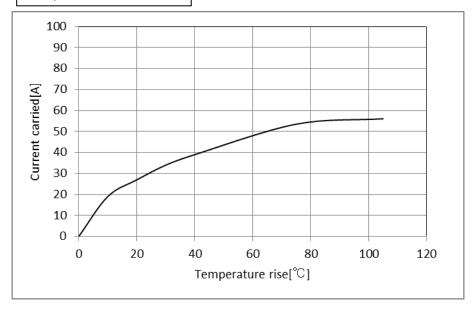
- Test specimen:Unused DF60-3P-10.16DS(27).
   Unused DF60-3S-10.16C
   Unused DF60-1012SCFA
- Test cable spec:AWG 12
- Test condition: Turn on electricity under the static state and measure. (Test report # TR680E-20802)

[REFERENCE]

# Derating curve



### Temperature rise curve



| Note QT:Q | ualification Test AT:Assurance Test X:Applicable Test | DRAWIN   | IG NO. | ELC-344821-15-00     |          |     |
|-----------|---|----------|--------|----------------------|----------|-----|
| HS.       | SPECIFICATION SHEET                                   | PART NO. | DF     | DF60-2EP-10. 16C(15) |          |     |
|           | HIROSE ELECTRIC CO., LTD.                             | CODE NO. | CL680  | 0-3025-5-15          | $\Delta$ | 4/4 |