

Customer :

Date of Issue : 11-Aug-10

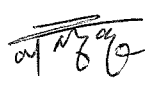


# SPECIFICATION

## *(for Approval)*

|           |                              |
|-----------|------------------------------|
| Commodity | HIGH VOLTAGE POWER CAPACITOR |
| Rating    | 4.16kV 3Φ 50Hz 300kvar       |
| Spec No.  | PH - 4749                    |
| DWG No.   | KH - 4749                    |

|          |  |
|----------|--|
| Approved |  |
|          |  |

 **SAMWHA CAPACITOR CO.,LTD.**

| Prepared  | Checked   | Approved   |
|---|---|--|
| <br>2010.08.11 | <br>9/11 |  |

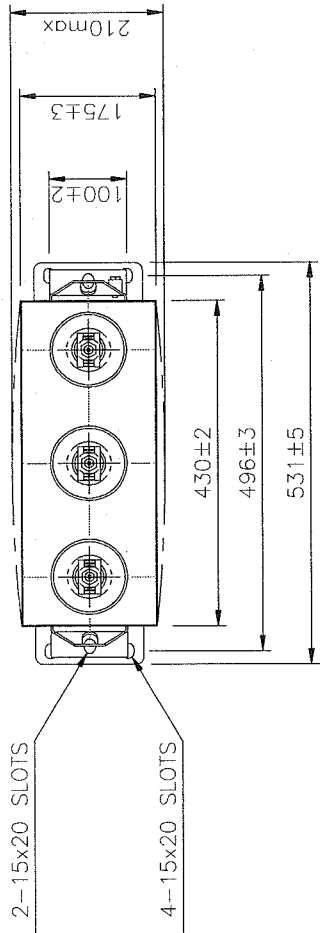
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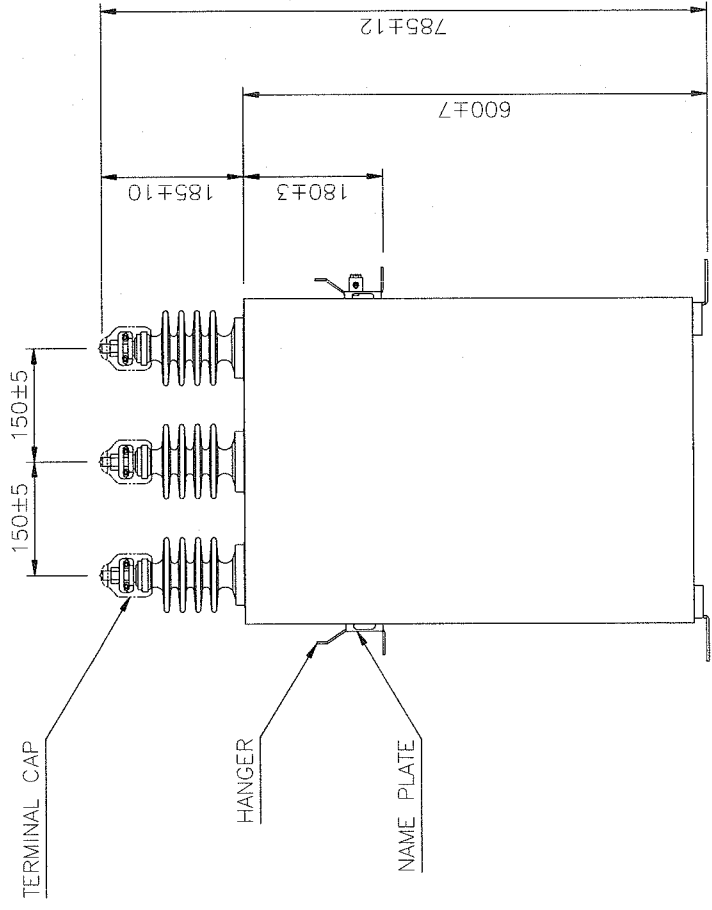
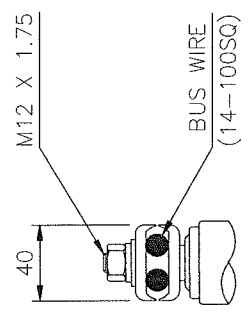
Facsimile : 031 - 339 - 0413

| SPECIFICATION                  | UNIT CAPACITOR  | 1 / 1 |
|--------------------------------|---|-------|
| 1. SCOPE                       | : HIGH VOLTAGE POWER CAPACITOR  |       |
| 2. USE                         | : FOR POWER FACTOR CORRECTION AND VOLTAGE REGULATION  |       |
| 3. USUAL SERVICE CONDITION     | : MAX. 1000 METERS ABOVE SEA LEVEL<br>: -25°C ~ +45°C<br>(AVERAGE AMBIENT TEMPERATURE FOR A PERIOD OF 24HOURS : BELOW +35°C, 1YEAR : BELOW +25°C) |       |
| 1) ALTITUDE                    |   |       |
| 2) AMBIENT TEMPERATURE         |   |       |
| 4. LOCATION                    | : INDOOR/OUTDOOR  |       |
| 5. TYPE                        | : TAF - T45300R   |       |
| 6. RATING OF CAPACITOR UNIT    |   |       |
| 1) LINE VOLTAGE                | : 4.16 [kV]   |       |
| 2) RATED VOLTAGE               | : 4.16 [kV]   |       |
| 3) RATED CAPACITY              | : 300 [kvar]  |       |
| 4) RATED CAPACITANCE           | : 55.2 [uF]   |       |
| 5) RATED CURRENT               | : 41.6 [A]  |       |
| 6) FREQUENCY                   | : 50 [Hz]   |       |
| 7) PHASE                       | : 3 [Φ]   |       |
| 7. PERFORMANCES                |   |       |
| 1) CAPACITANCE TOLERANCE       | : FROM -5% ~ +10% OF THE RATED VALUE (AT 20°C)  |       |
| 2) WITHSTANDING VOLTAGE TEST   |   |       |
| ① BETWEEN TERMINALS            | : 8.3 [kVAC], 10 SEC OR 16.6 [kVDC], 10 SEC   |       |
| ② BETWEEN TERMINALS AND CASE   | : 20 [kVAC], 10 SEC   |       |
| ③ IMPULSE (1.2 x 50μs)         | : 60 kV BIL   |       |
| 3) MAXIMUM PERMISSIBLE VOLTAGE | : 110% OF THE RATED VOLTAGE   |       |
| 4) MAXIMUM PERMISSIBLE CURRENT | : 130% OF THE RATED CURRENT   |       |
| 5) CAPACITOR LOSS              | : BELOW 0.02% (IN STABILITY STATE)  |       |
| 6) TEMPERATURE RISE            | : BELOW 30DEG (AT 35°C, RATED VOLTAGE)  |       |
| 7) SEALING TEST                | : NO OIL LEAKS WHEN HEATING A CAPACITOR IN A THERMOSTATIC BATCH OF 65°C UNTIL A CONSTANT TEMPERATURE IS REACHED                                   |       |
| 8) BUILTIN DISCHARGE RESISTOR  | : VOLTAGE DECREASES TO BELOW 75V IN 10 MINUTES WHEN DISCONNECTED FROM POWER SOURCE  |       |
| 8. THE OTHERS                  |   |       |
| 1) PAINTING COLOR              | : MUNSELL 5Y7/1   |       |
| 2) IMPREGNATION                | : CAPACITOR OIL (NON P.C.B)   |       |
| 3) WEIGHT                      | : < 61 [kg]   |       |
| 4) BUSHING                     | : 3 BUSHING (75kV. BIL)   |       |
| 5) CREEPAGE DISTANCE           | : 190.5 [mm]  |       |
| 9. REFERENCE STANDARD          | : IEC 60871-1   |       |

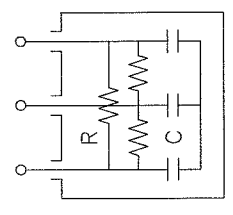




TERMINAL DETAIL



INNER CONNECTION



C : CAPACITOR  
R : RESISTOR

EARTH TERMINAL  
(22SQ max)

- \* Weight : <61kg
- \* Insulation level : 20kV/60kV. BIL
- \* Bushing insulation Level : 75kV. BIL
- \* Ambient Temperature : -25 °C ~ +45 °C

|              |  |  |         |          |            |               |
|--------------|--|--|---------|----------|------------|---------------|
| NAME OF PART | HIGH VOLTAGE POWER CAPACITOR<br>(4.16kV 3Φ 50Hz 300kvar) |  | SCALE   | N/S      | DIM        | mm            |
| DESIGN       | 2010.08.11   |  | CHECKED | APPROVED | PROJECT NO | DATE          |
|              |  |  |         |          | PH - 4749  | AUG, 11, 2010 |
|              |  |  |         |          | ITEM NO    |               |
|              |  |  |         |          | DRAW No.   |               |
|              |  |  |         |          | KH - 4749  |               |

| REVISION | SYMBOL | ITEMS | REASON | DATE | CHECK |
|----------|--------|-------|--------|------|-------|
|          |        |       |        |      |       |
|          |        |       |        |      |       |
|          |        |       |        |      |       |
|          |        |       |        |      |       |