

# Totalpad KIOSK SUBSTATIONS



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|                           |              |            |
|---------------------------|--------------|------------|
| <b>PRODUCT DATA SHEET</b> | Revised      | 2          |
|                           | Document No. | 904 - 0084 |

ETEL's Totalpad is designed to minimise the total cost of owning a distribution substation. Totalpad is a complete kiosk or 'package' substation, consisting of a ring main unit, transformer and optional LV fuse frame in one compact outdoor enclosure.

Installation is simple: the complete kiosk is lowered onto a concrete plinth, and the HV and 415V connections made. The ring main unit is connected to the transformers HV windings in-factory, so that no customer interconnection is required.

Totalpad offers a swift method of supplying a low cost berm substation with maximum flexibility and minimum ongoing maintenance.

*An example general arrangement drawing, utilising two popular RMU brands, can be found on the reverse of this brochure.*



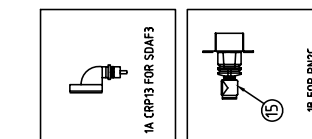
## FEATURES

- Customer specified Oil/SF6/Vacuum ring main unit
- All HV switches and brands considered
- Compact size with high performance
- Minimum installation costs
- Minimum maintenance costs
- High level of protection from internal arc
- Full automation options

## TECHNICAL SPECIFICATIONS

|                                     |   |
|-------------------------------------|---|
| <b>Core Type</b>                    | : Distributed Gap Wound Core, Core Type Transformers                                    |
| <b>Electrical Steel Type</b>        | : Cold Rolled, Grain Oriented, Silicon steel Sheets.                                    |
| <b>Tank Sealing</b>                 | : Hermetically sealed.  |
| <b>Oil Type</b>                     | : Oil filled to BS148 and AS1767  |
| <b>KVA sizes available</b>          | : 100, 150, 200, 300, 500, 750, 1000, 1250, 1500 3 Phase                                |
| <b>HV Volts</b>                     | : 11000, 22000 and 33000  |
| <b>LV Volts</b>                     | : 415 - 240 as standard (others available)  |
| <b>Connection</b>                   | : Dyn11 as standard (others available)  |
| <b>HV Tappings</b>                  | : +5% to -7.5% up to 300kVA<br>+2.5% to -10% 500kVA & above<br>Tapping is steps of 2.5% |
| <b>Oil / Winding Rises</b>          | : 60 / 65°C   |
| <b>BIL / Power Frequency Levels</b> | : 95kVpeak / 28kVrms<br>150kVpeak / 50kVrms   |
| <b>Maximum Operating Pressure</b>   | : 35kPA   |

| ITEM | DESCRIPTION                                      |
|------|--|
| 1    | 11kV RINGMAIN UNIT, TYPE RNCC OR SDAF3           |
| 2    | OTHERS AVAILABLE ON REQUEST                      |
| 1A   | HV BUSHING CRP3 FOR SDAF3                        |
| 1B   | HV CABLE BOX BUSHING FOR RNCC                    |
| 3    | LV BUSHING 415V ESAA No 72 (FOR 100,200,300KVA)  |
| 4    | LV BUSHING 415V ESAA No 73 (FOR 500,750,1000KVA) |
| 5    | LV FUSE DISCONNECT (SWITHROAD OPTIONAL)          |
| 6    | MD AMMETERS (OPTIONAL)                           |
| 7    | STREET LIGHTING RPPLE CONTROL (OPTIONAL)         |
| 8    | TAPSWITCH HANDLE & LOCKING BRACKET               |
| 9    | RAIING PLATE (POSITIONED INSIDE LV DOOR)         |
| 10   | OIL GAUGE  |
| 11   | LIFTING LUG -L-SFF, REMOVABLE                    |
| 12   | EARTH STUD WITH STAINLESS STEEL                  |
| 13   | COILING FIRST (WHERE APPLICABLE)                 |
| 14   | HV DOOR ALLEN KEY BOLT & RUBBER PLUG             |
| 15   | LOCKWOOD NIGHTLATCH (OPTIONAL EXTRA)             |
| 16   | DRAIN VALVE (OPTIONAL EXTRA)                     |
| 17   | INSULATION BOOTS, FOR RNCC                       |
| 18   | HINGED ACCESS COVER FOR SDAF3 UNIT               |
| 19   | RADIATOR COVER (OPTIONAL)                        |

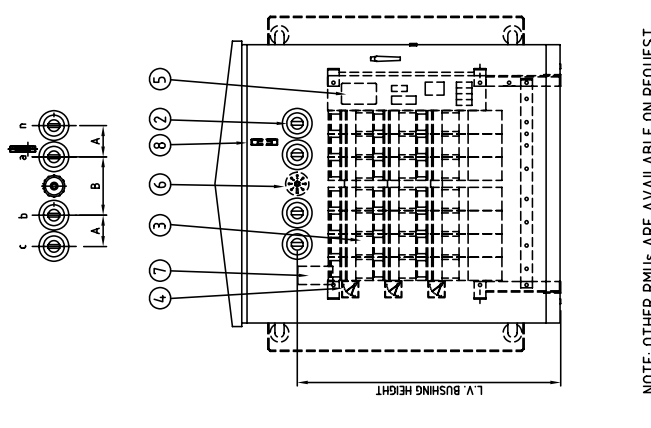
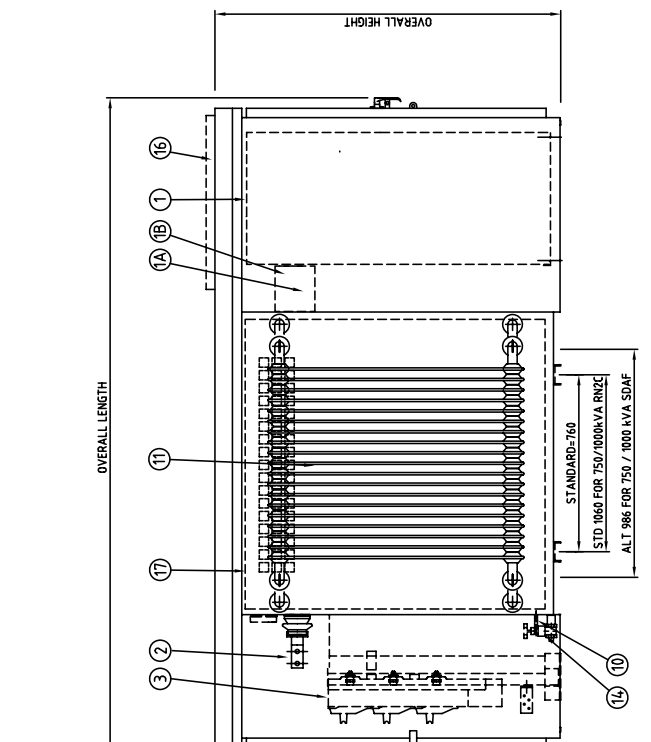
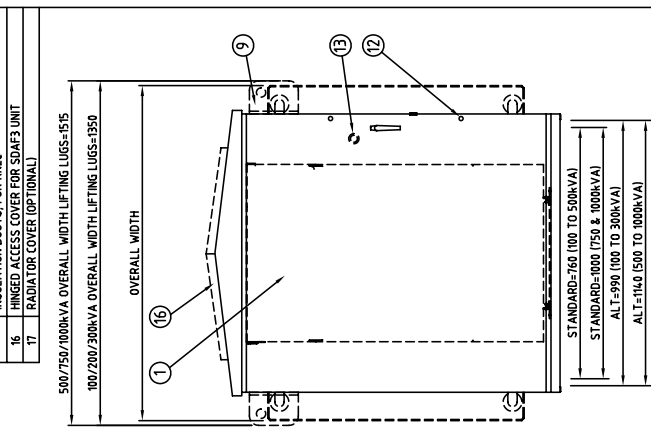


| SDAF3 EXTENDED HEIGHT RING MAIN UNIT |     | SWITCHEAR MASS (KG) | DIM "A" mm | DIM "B" mm |
|--------------------------------------|-----|---------------------|------------|------------|
| 100                                  | 275 | 370                 | 1180       | 200        |
| 200                                  | 350 | 550                 | 1470       | 200        |
| 300                                  | 390 | 715                 | 1750       | 200        |
| 500                                  | 550 | 1000                | 2390       | 250        |
| 750                                  | 765 | 1340                | 2815       | 250        |
| 1000                                 | 690 | 1720                | 3285       | 250        |

| RNCC RING MAIN UNIT |     | TRANSFORMER MASS (KG) | OVERALL HEIGHT | LV BUSHING HEIGHT | DIM "A" mm | DIM "B" mm |
|---------------------|-----|-----------------------|----------------|-------------------|------------|------------|
| 100                 | 385 | 400                   | 1250           | 300               | 115        | 200        |
| 200                 | 350 | 550                   | 1470           | 300               | 115        | 200        |
| 300                 | 390 | 715                   | 1775           | 300               | 115        | 200        |
| 500                 | 550 | 1100                  | 2450           | 300               | 150        | 250        |
| 750                 | 730 | 1440                  | 3020           | 300               | 135        | 250        |
| 1000                | 690 | 1720                  | 3300           | 300               | 135        | 250        |

| RNCC RING MAIN UNIT |     | TRANSFORMER MASS (KG) | OVERALL HEIGHT | LV BUSHING HEIGHT | DIM "A" mm | DIM "B" mm |
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| 1000                | 690 | 1720                  | 3300           | 300               | 135        | 250        |



NOTE: OTHER RMUs ARE AVAILABLE ON REQUEST

|                           |              |
|---------------------------|--------------|
| <b>ETEL</b>               |              |
| Distribution Transformers |              |
| DRAWING No.               | 039.904.0404 |
| REV                       | A            |

PROPOSED GENERAL ARRANGEMENT  
100kVA - 1000kVA PADMOUNT PACKAGE SUBSTATION  
INCORPORATING RNCC & SDAF3 EXT RINGMAIN UNITS

| REV | DESCRIPTION | DRAWN      | DATE     | APPD. | DRAWN | DATE |
|-----|-------------|------------|----------|-------|-------|------|
|     |             | VIRGLIO S. | 10/11/08 |       |       |      |
|     |             | CHECKED    | NILESH   |       |       |      |
|     |             | DATE       | 10/11/08 |       |       |      |
|     |             | SCALE      | 1=20     |       |       |      |
|     |             | TOLERANCE  | +/- 2mm  |       |       |      |