

**PREMIER**33 Series, 100:125:160kVA UPS System

General information:

| <b>POWER (kVA)</b>                           |                      | <b>100</b>                              | <b>125</b> | <b>160</b> |
|--|----------------------|---|------------|------------|
| UPS typology                                 |                      | ON LINE – Double Conversion             |            |            |
| Nominal output power @ P.F. 0.8              | (kVA)                | 100                                     | 125        | 160        |
| Nominal output power @ P.F. 1                | (kW)                 | 80                                      | 100        | 128        |
| Efficiency AC ÷ AC                           | (%)                  | >92                                     | >92        | >92        |
| Heat dissipation at nominal load and voltage | (kW)                 | 6.9                                     | 8.7        | 11.1       |
|  | (kcal)               | 5934                                    | 7482       | 9546       |
| UPS ambient temperature                      | (°C)                 | 0 ~ +40                                 |            |            |
| BATTERY ambient temperature                  | (°C)                 | 0 ~ +25                                 |            |            |
| UPS storage temperature                      | (°C)                 | -10 ~ +70                               |            |            |
| BATTERY storage temperature                  | (°C)                 | -10 ~ +60                               |            |            |
| Relative humidity non condensing             | (%)                  | <95                                     |            |            |
| Altitude                                     | (m)                  | <1000 (Above See Level)                 |            |            |
| Power de-rating for altitude > 1000mt        |                      | According "IEC 62040"                   |            |            |
| Ventilation                                  |                      | FORCED                                  |            |            |
| Requested cooling air volume                 | (m <sup>3</sup> /h)  | 2500                                    | 2500       | 3300       |
| Audible noise level (according IEC 62040)    |                      | <59 dB                                  |            |            |
| Protection degree                            |                      | IP 20                                   |            |            |
| Standard battery type lead acid              | (N° cells)           | 192                                     | 192        | 192        |
| Immunity                                     |                      | According to "EN 50091-2"<br>(CE label) |            |            |
| Paint  |                      | RAL 9001                                |            |            |
| Accessibility                                |                      | Front and top access for service        |            |            |
| Static load without battery                  | (kg/m <sup>2</sup> ) | 1302                                    | 1367       | 1450       |
| Input/output cable connection                |                      | Bottom Side (Top optional)              |            |            |
| Transport                                    |                      | Base provided for forklift handling     |            |            |
| Transport mechanical stress                  |                      | According to "IEC 62040"                |            |            |
| Design standard                              |                      | According to "IEC 62040"                |            |            |
| Free contact interface                       |                      | On request                              |            |            |
| Serial communication interface               |                      | RS232-RS485 (SNMP-Option)               |            |            |
| Parallel configuration                       |                      | To increase output power up to 6 UPS    |            |            |



Rectifier:

| <b>POWER (kVA)</b>  | <b>100</b>                        | <b>125</b> | <b>160</b> |
|---|-----------------------------------|------------|------------|
| Nominal Input Voltage (Vac)   | 380 ~ 415 +/- 10% (Selectable)    |            |            |
| Input Frequency ( Hz)   | 50 ~ 60 +/- 5%                    |            |            |
| Input Power Factor (@ 380Vac)   | ~0.8                              | ~0.8       | ~0.8       |
| DC Output Voltage Accuracy (%)  | +/- 1                             |            |            |
| DC Output Voltage Ripple (With battery connected) (% rms)                         | < 1                               |            |            |
| Total harmonic distortion rejected into the mains (%)                             | <30                               | <30        | <30        |
| Battery Recharging Characteristic   | IU (DIN 41773)                    |            |            |
| Battery Temperature Voltage Compensation  | On Request                        |            |            |
| Maximum Recharging Current @ nominal load (A)                                     | 40                                | 40         | 50         |
| Rectifier Bridge Type   | Three Phase Full bridge rectifier |            |            |
| Input protection  | Extra fast fuses                  |            |            |
| Nominal Current Absorbed from Mains (@ nominal load and Battery charge) (A)       | 160                               | 200        | 256        |
| Maximum Current Absorbed from Mains (@ nom. load and max. recharging current) (A) | 200                               | 250        | 325        |

Inverter:

| <b>POWER (kVA)</b>   | <b>100</b>  | <b>125</b> | <b>160</b> |
|--|---|------------|------------|
| Inverter Bridge  | IGBT (High Frequency Comm.)   |            |            |
| Nominal Output Power @ P.F. 0.8 (kVA)  | 100   | 125        | 160        |
| Nominal Output Power @ P.F. 1 (kW)   | 80  | 100        | 128        |
| Nominal Output Voltage (Vac)   | 380 ~ 415 (Selectable)  |            |            |
| Output Voltage Stability (%)   |   |            |            |
| - Static (Balanced Load)   | +/- 1   |            |            |
| - Static (Unbalanced load 100%)  | +/- 2   |            |            |
| - Dynamic (Step Load 0~100%~0)   | +/- 5   |            |            |
| - Output Volt. Recovery Time (after step load)   | Within 40 msec  |            |            |
| Phase Angle (°el)  |   |            |            |
| - Balanced Load  | +/- 1   |            |            |
| - 100% Unbalanced Load   | +/- 2   |            |            |
| Output Frequency (Hz)  | 50 – 60 (Selectable)  |            |            |
| Output Frequency Stability (Hz)  |   |            |            |
| - Free Running Quartz Oscillator   | +/- 0.001   |            |            |
| - Inverter Sync. with Mains  | +/- 2 (Adjustable)  |            |            |
| Nominal Output Current (A)   |   |            |            |
| - @ P.F. 0.8   | 145   | 181        | 231        |
| - @ P.F. 1   | 116   | 145        | 185        |
| Overload Capability (%)  | 125% for 10 min<br>150% for 1min<br>200% for 100 ms                         |            |            |
| Short Circuit Current (A)  | 232   | 290        | 370        |
| Short Circuit Characteristic   | Elect. short circuit protection, current limited at 2 times nominal current |            |            |
| Selectivity  | Within ½ cycle (Fuse gl 20% In)   |            |            |
| Output Waveform  | Sinusoidal  |            |            |
| Output Harmonic Distortion (%)   |   |            |            |
| - Linear Load  | <2  |            |            |
| - Non Linear Load  | <5  |            |            |
| Crest Factor   | 3:1   |            |            |
| Max. DC current absorbed from inverter during battery discharge (A) ( @ 326Vdc and NP) | 261   | 325        | 418        |

## By-pass

|                                      |       |  |
|--------------------------------------|-------|--|
| Automatic Static By-Pass             |       | Electronic Thyristor Switch  |
| Nominal Voltage                      | (Vac) | 380 ~ 415 (Selectable) +/-10%  |
| Nominal Frequency                    | (Hz)  | 50 ~ 60 (Selectable) +/-5  |
| Transfer Inverter ÷ Static By-Pass   |       | In case of :<br>-Test inverter<br>-Inverter failure<br>-Input inv. Volt. out of limit<br>-Output inv. volt. out of limit |
| Retransfer Static By-Pass ÷ Inverter |       | Automatic or Manual (Selectable)<br>Block on mains after 6 commutations<br>in 2 minutes                                  |
| Overload Capability                  |       | -150% Continuously<br>-200% For 1 minute   |
| Manual By-Pass                       |       | With electric security and<br>without interruption   |

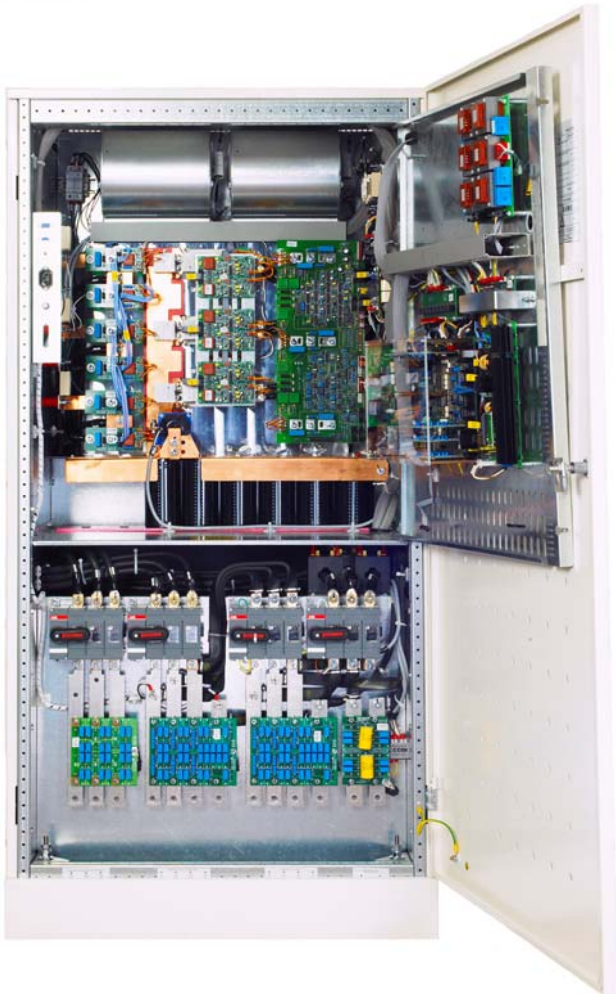
## Alarms, Controls and Signals:

On the "System control panel":

- Synoptic diagram showing: power flow, circuit breaker status and alarms
- Battery test indicator
- LCD display
- Keyboard

Options:

1. Free contact remote alarms
2. SNMP Adaptor
3. Parallel configuration
4. Battery Temperature Voltage Compensation



- ◇ Online double conversion technology
- ◇ Digital Signal Processor implementing full digital control
- ◇ High quality output power, provided under any condition of input power and loads
- ◇ Complete filtering of main power noise
- ◇ Stable output frequency, independent from input frequency
- ◇ Full access from the front and top for maintenance
- ◇ Integrated advanced self-diagnostic program
- ◇ Step-by-step procedures described on the LCD display for ease of use
- ◇ Results of electrical measurement, alarm, work condition, event log and battery state are displayed real time on the LCD front panel
- ◇ Mimic flow display to show the operating status of the UPS
- ◇ Battery test included as standard
- ◇ Parallel redundant configurations of up to six units

Dimensions:

815 Width, 820 Depth, 1670 Height (mm)

Weight:

100kVA=640kg

125kVA=730kg

160kVA=800kg

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