

# DATA SHEET

## SOLID STATE RADIO FREQUENCY GENERATOR

**GRP 13,56 MHz AND GHP 27,12 MHz**  
**SERIAL**  
**035KE 06KE 12KE 24KE**

2008



\*All designs, specifications and availabilities of products and services presented in this document may be subject to change without notice

## GRP AND GHP SERIAL



GHP 035 KE



GHP 24 KE



GHP 12 KE

These sets of GRP and GHP serial are radio frequency transistorised and quartz-oscillator generators. Their features in power stability and spectral quality intend them essentially for the supply of high Q applicators. They show a good stability, which allow them to be coupled on voltage dependant loads (plasma, tube amplifier excitation ...).

They can be used for applications as various as low and atmospheric pressure plasmas or the heat treatment by dielectric loss in industrial or research field.

### GENERAL FEATURES

Each function on/off and analog (0-10V) are available for full remote.

Buttons, state LED and digital display (forward power and reflected power) are on the front panel

### **Display**

The following display items showed up on the front face generator :

- « ready » light
- « radio frequency defect » light (reflected power limitation - power supply defect)
- « external defect » light (connection on reactor door, etc.)
- « water flow - temperature defect » light
- forward power level indication on digital panel meter
- reflected power level indication on digital panel meter
- « radio frequency ON » light
- « local mode power control » light

**Control**

The generator control items on the front face of the equipment are :

- « radio frequency ON » switch
- « radio frequency OFF » switch
- output power control potentiometer (10-turns on request)

**PROTECTION / SAFETY**

The different generator supervision and protective systems are the following :

**1 Reflected power**

A forward power limitation system acts as soon as the reflected power level comes to 10% of the maximum forward power. The radio frequency defect light turns on while an alarm rings if reflected power goes up to maximum value.

**2 Cooling of the set**

Transistors and power resistors are linked to water cooled heat sinks. Thermal and flow switches protect power parts against lack of water.

**3 Electronics and electric circuits**

Besides the respect of regulations and standards regarding the realisation of electric sets, you'll find there :

- power supply's protective system through fuse or other current break
- each amplifier is protected through current sensor

## GRP AND GHP SERIAL

GRP SERIAL (13,56 MHz)

GHP SERIAL (27,12 MHz)

|  | GRP 035KE                           | GRP 06KE | GRP 12KE | GRP 24KE     |  |
|--|-------------------------------------|----------|----------|--------------|--|
|  | GHP 035KE                           | GHP 06KE | GHP 12KE | GHP 24KE     |  |
| MAINS (to specify at the order)                      | 208V – 240V - 400V / 50 Hz or 60 Hz |          |          |              |  |
| NETWORK CONSUMPTION (in KVA)                         | 0.7                                 | 1.4      | 2.8      | 4.2          |  |
|  | ONE-PHASE                           |          |          | THREE PHASES |  |
| TRANSMITTER FREQUENCY STABILITY                      | <10 <sup>-5</sup>                   |          |          |              |  |
| POWER STABILITY                                      | better than 1 %                     |          |          |              |  |
| OUTPUT POWER ON 50 Ohm LOAD                          | 350W                                | 600W     | 1200W    | 2400W        |  |
| RIPPLE AT MAXIMUM POWER                              | < 0.5%                              |          |          |              |  |
| COAXIAL STANDARD OF RADIO FREQUENCY OUTPUT CONNECTOR | N                                   | N        | N        | HN           |  |
| COOLING  | WATER                               | WATER    | WATER    | WATER        |  |
| YIELD (l/h) MINI                                     | 60                                  | 80       | 150      | 250          |  |
| Height (1U=45mm)                                     | 4U                                  | 4U       | 8U       | 10U          |  |
| Width (mm)   | 19"                                 | 19"      | 19"      | 19"          |  |
| Depth (mm)   | 560                                 | 560      | 560      | 560          |  |
| WEIGHT (kg)  | 35                                  | 50       | 70       | 90           |  |