

# DATA SHEET

## 500 MHz, 800 kW Klystron Type Philips YK-1304

DESY-MHFe, Vers. 1.0

March 2005

Typ: YK-1304  
 Hersteller: **Philips, Hamburg, Germany**

### Technical Data:

|                                     | unit              | min. | nom.   | max. |
|-------------------------------------|-------------------|------|--------|------|
| Power Output                        | kW                | 800  |        |      |
| Beam Voltage                        | kV                |      | 75     |      |
| Beam Current                        | A                 |      |        | 18   |
| Mod. Anode Voltage                  | kV                |      |        | 55   |
| Frequency                           |                   |      | 499.67 |      |
| 1 dB Bandwidth                      | MHz               |      | +/-1   |      |
| Saturated Gain                      | dB                | 40   |        |      |
| Efficiency                          | %                 | 60   |        |      |
| Collector Coolant Flow              | m <sup>3</sup> /h | 42   |        |      |
| Body 1 Coolant Flow                 | m <sup>3</sup> /h | 0.6  | 0.9    |      |
| Body 2 Coolant Flow                 | m <sup>3</sup> /h | 1.2  | 1.5    |      |
| Output Window Cooling (Air)         | m <sup>3</sup> /h | 90   |        |      |
| Electron Gun Cooling (Air)          | m <sup>3</sup> /h | 90   |        |      |
| <b>Electromagnet:</b>               |                   |      |        |      |
| Gun Coil Current                    | A                 |      |        | 3    |
| Gun Coil Voltage                    | V                 |      |        | 15   |
| Main Coil Current                   | A                 | 8    |        | 12   |
| Main Coil Voltage                   | V                 |      |        | 200  |
| <b>Size with Accessories:</b>       |                   |      |        |      |
| Length                              | mm                |      | 1600   |      |
| Width                               | mm                |      | 1600   |      |
| Height                              | mm                |      | 4000   |      |
| Weight (Tube)                       | kg                |      | 400    |      |
| Weight (Mounting Frame with Magnet) | kg                |      | 900    |      |

