

SIEMENS

**100 kW Short Wave
Broadcast Transmitter**



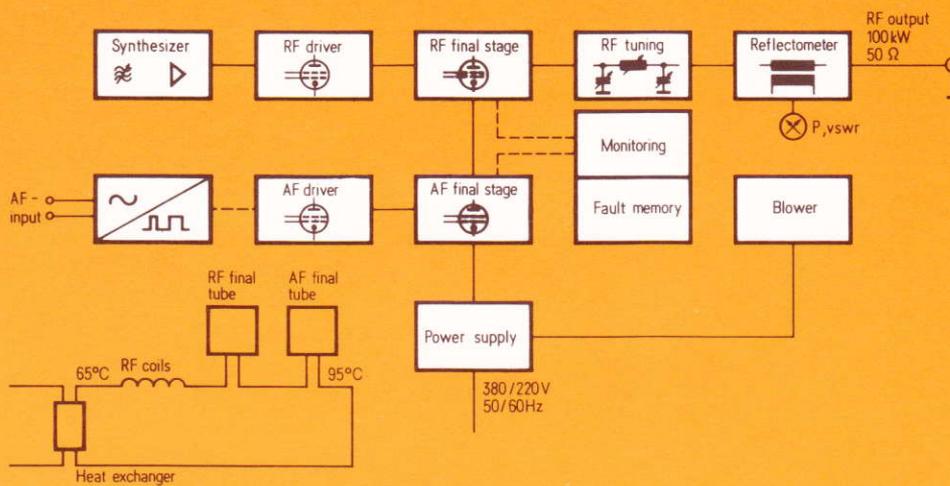
The Siemens HF transmitter type WR Send 100 k-04 with amplitude modulation operates with a carrier power of 100 kW. Being equipped with a synthesizer, it can be tuned to any frequency within the broadcasting bands of the frequency range. The technical data and the safety precautions comply essentially with the standards of CCIR and ARD.

Features:

- Power tubes cooled by vapor condensation
- Pulse duration modulation, PDM (without modulation transformer)
- Automatic re-start in case of interference
- Fault memory
- Logical monitoring
- Power reduction for operation
- Utilisation of silicon semiconductors in the prestages, blocking devices and power supplies
- RF measuring outputs and demodulator
- Crosspointer instrument for RF output power and VSWR
- Removable trolley-like stages
- Small dimensions
- Simple installation and operation
- Easy maintenance
- Provided for remote control

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Block Diagram

Technical Data

Frequency range (i.e. all broadcasting bands within the frequency range of)	3, 2 to 17, 9 MHz or 4, 75 to 26, 1 MHz
Frequency stability	± 5 Hz
Power output	100 kW
Power reduction	to 50 kW
Carrier shift	4% or less with 90% modulation at 1000 Hz
RF harmonic radiation	less than 50 mW
Type of transmission	A 3 E (Amplitude modulation, broadcasting, double-side band, band-width 9 or 20 kHz)
Output impedance	50 Ohms unbalanced
VSWR	less than 1 : 2
Audio input	600 and 2000 Ohms balanced
Input level	-4... +10 dBm
Audio frequency response	60... 100 Hz +2/-3 dB 100... 4000 Hz ± 1 dB 4000... 5000 Hz ± 2 dB
Audio frequency distortion	less than 3% at 60... 5000 Hz with 80% modulation
Modulation capability	100%: 100... 3000 Hz; 80%: 60... 10000 Hz
Noise (unweighted)	50 dB or better
Noise (weighted)	60 dB or better
Power supply	three phases 380/220 V $\pm 10\%$, 50 Hz $\pm 5\%$
Max. power consumption	270 kVA (100% modulation)
Cos φ	0.9 or better
Total efficiency	$\geq 55\%$
Tubes	2 tetrodes RS 2054 SK 3 tetrodes YL 1050
Dimensions (W \times H \times D)	4.0m \times 2.0m \times 1.8m (transmitter) 0.8m \times 2.0m \times 1.8m (HT transformer)

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