



## H.F Transmitter Type H 1200 (30 kW)

THE H 1200 is a 30 kW p.e.p linear-amplifier transmitter having a self-tuned final stage and untuned, wide-band amplifiers for the earlier stages. When the drive frequency is changed, the self-tuning system operates to provide the correct tuning and loading within about 20 seconds. The output tuning and loading servos remain in operation at all times to ensure accurate aerial matching in spite of changes in aerial impedance as a result of varying weather conditions.

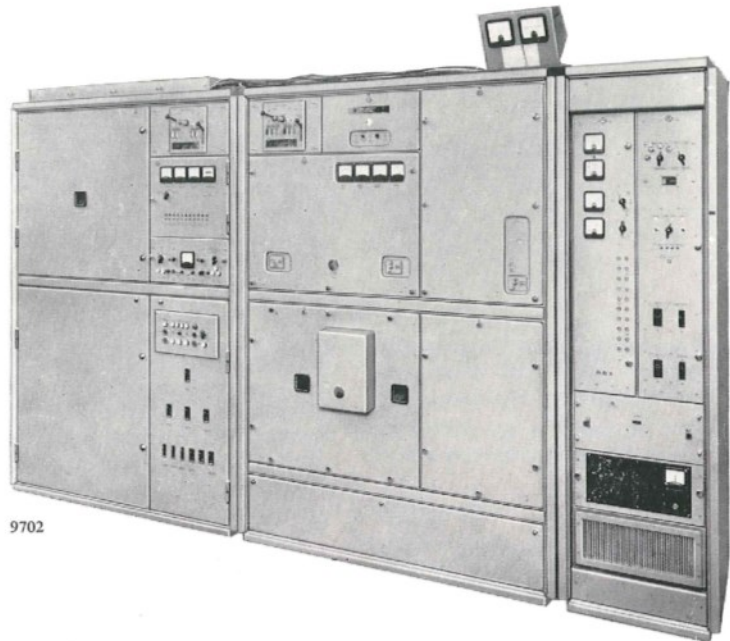
Only three variable tuning controls are used for matching the input to the final stage and tuning and loading the output circuit, thereby facilitating the adoption of fully automatic self-tuning techniques. In addition, the input level to the amplifier is automatically regulated. Maximum reliability is ensured by keeping the number of moving parts to a minimum.

The controls are operated by high-quality transistorized servo systems which derive their inputs from tuning and loading error detector circuits in the amplifier.

The power supplies incorporate the latest techniques in silicon rectifiers and air-cooled transformer design, enabling all power components to be incorporated within the transmitter and avoiding the necessity for special accommodation.

### Features

- Self-contained, no back or side access required.
- All supplies use compact silicon rectifier assemblies.
- Full feeder protection and output maintenance, with built-in directional coupler.
- Full extended control facilities available.



9702

### Data Summary

**Frequency range:** 4–27.5 Mc/s.

**Services:** i.s.b, s.s.b, f.s.k, f.s. duplex, c.w on/off (dependent on type of drive).

**Output power:** 30 kW p.e.p ( $\pm 0.5$  dB) on i.s.b, 20 kW ( $\pm 0.5$  dB) on c.w on/off and f.s. telegraphy without manual adjustments.

**Harmonic radiation:** No harmonic emission exceeds 50 mW. A low-pass filter fitted in the output feeder reduces the harmonics above 30 Mc/s.

**Output impedance:** 50  $\Omega$  unbalanced, max. v.s.w.r 2:1.

**Noise level:** (a) More than 30 dB below carrier level (carrier normally  $-26$  dB to  $-16$  dB relative to p.e.p) for components up to 200 c/s either side of carrier.

(b) More than 50 dB below p.e.p for all components of a single tone up to  $-6$  dB relative to p.e.p.

**Non-linear distortion:** All i.p.'s better than  $-36$  dB relative to either of two equal tones for any power level up to full p.e.p.

**Pilot carrier compression:** Less than 1 dB for any level of single frequency signal up to  $-6$  dB relative to p.e.p.

**Input from drive:** 25 mW minimum, 2 W maximum in 75  $\Omega$  at radiated frequency.

**Suitable drives:** H 1600 series (page 230).

**Power supply:** 380/440 V, 3-phase, 4-wire, 50 or 60 c/s. (as ordered).

**Power supply variation:** Except where station supplies are regulated to within  $\pm 1\%$ , the transmitter is supplied with an automatic voltage regulator which is normally set to accept mains variations of  $+6$  to  $-14\%$ .

**Power consumption:** Mark 65 kVA, space 26 kVA, i.s.b, 55 kVA at 0.93 power factor.

**Climatic conditions:**  $45^\circ\text{C}$  dry heat,  $40^\circ\text{C}$  at up to 90% humidity, maximum altitude 6000 ft. (1830 m).

### Dimensions:

Height	Width	Depth
7 ft.	12 ft.	2 ft. 6 in.
(213 cm)	(366 cm)	(76 cm)



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