

ATU 3100 HVST

HF Antenna Tuning Unit



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FEATURES

Output power	1 kW CW and PEP
Tuning	6000 frequencies memory Fast tuning algorithm (1 sec typ.) 25 msec tuning from memory BITE capability
Distance between transmitter and antenna	up to 50 m
Bypass function	Available
Chassis	Pressurized waterproof aluminium case with cooling ribs

GENERAL

The ATU 3100 HVST is a 1000 watt high quality remotely controlled antenna coupler, capable of providing efficient matching of whip antennas 23 ft. and longer (approx. length 7 m to 11 m) or wire antennas between approximately 49 ft. and 151 ft. (15 m to 46 m) to a 50 Ω transmission line, over the frequency range of 1.6 MHz to 30 MHz. In addition, the coupler may be used as a 'line flattener' to correct the VSWR of resonant antennas.

The coupler is controlled via the user menu of the ERX 3000 exciter/receiver of a HMK 3000 series transceiver.



Hagenuk Marinekommunikation

A company of the ATLAS ELEKTRONIK Group

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TECHNICAL DATA

Frequency range	1.6 MHz – 30 MHz
HF input power	1000 Watts CW / PEP \pm 1 dB
Tuning memory	3x 2000 channels
Input impedance	50 Ω
Tuning time	Typ. 4 sec (10 sec max.), 25 msec from memory
Tuning accuracy	1.5 VSWR, or better on 99.5 % of all operating frequencies
Tuning power	25 W to 45 W
Tuneable antennas	> 7 m whip: 3 MHz – 30 MHz > 11 m whip: 1.6 MHz to 2 MHz - 1000 W PEP/500 W CW 2 MHz to 30 MHz: 1000 W PEP/CW Long wire: 15 m – 45 m with long wire adapter
Circuit protection	RF input spark gap Control line lightning impulse
Duty cycle	Continuous
RF connector	N-type
Interfaces	Antenna Power supply & control RS 422
Cable length between TRX and ATU	50 m with recommended cable Others on request
Power supply (from TRX 3100)	28 VDC / max 5 A during tuning, max 2 A in idle mode

Environmental specifications	
Operating temp.	-30° C to + 65° C
Storage temp.	-55° C to + 85° C
Humidity	MIL-STD-810C, method 5071
Shock	MIL-STD-810C, method 516.2
Vibration	MIL-STD-810C, method 514.2
Dimensions	
Height	292 mm (without shock mounts)
Depth	989 mm (without ground strap, incl. insulator)
Width	500 mm
Weight	Approx. 56 kg
MTBF	> 12.000 hours (normal operation)
MTTR	< 60 min



Hagenuk
Marinekommunikation GmbH
Hamburger Chaussee 25
24220 Flintbek | Germany

Phone: +49 4347 714-101
Telefax: +49 4347 714-110
info@hmk.atlas-elektronik.com
www.hmk.atlas-elektronik.com

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