

The M0CVO HW-80HP

The HW-80HP is an Off Centre Fed Dipole designed to operate on 80m (3.5MHz) 40m (7MHz), 20m (14MHz) and 10m (28MHz) without an ATU and 60m, 15m and WARC Bands with an ATU. It will handle up to 400W CW or 500W PEP*. Having a feedpoint at 1/3 of the way along instead of halfway along gives a feedpoint impedance of between 300 and 400Ω. This is not ideal for modern day transceivers requiring an antenna with a 50Ω impedance. Therefore, a 4:1 current balun is added at the feedpoint to alter the impedance to something closer to the 50Ω required. This then allows the antenna to be fed using standard 50Ω coaxial cable such as RG8 or RG213.

The overall length of the antenna is 40.56m or 133'. It may be mounted horizontally, as a sloper, or as an inverted vee. If space is at a premium, it may also be 'bent' to fit in with little or no loss in performance. Best performance will be seen when mounted at least one quarter wave above the ground at the lowest frequency. It may be mounted lower if necessary but due to the varying nature of the ground below, the overall impedance and performance may be affected slightly.

Due to the length of this antenna and weight of the wire elements it is advisable to use the balun housing as a support for the antenna as well as the end insulators on the legs. However, as this is not always practicable sturdy strain relief rings are included here.

To reduce feedline losses, it is advisable to use a quality coaxial cable such as RG213. RG58 cable is thin and lightweight and overall, very lossy.

*** This power rating is for intermittent amateur (CW or SSB) use and not for AM broadcast or constant carrier data modes. For AM broadcast a much higher power BALUN is required.**