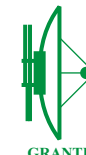


## HPA ... 230 Series Antenna Specifications

	HPA 0.3 S 230 SR	HPA 0.4 S 230 FR	HPA 0.6 S 230 FR	HPA 0.8 S 230 FR	HPA 1.2 S 230 FR	HPA 1.5 S 230 FR	HPA 1.8 S 230 FR
<b>Electrical Specification</b>							
Operating Frequency	21.200–23.600 GHz						
Diameter	0.3 m	0.4 m	0.6 m	0.8 m	1.2 m	1.5 m	1.8 m
Gain mid-band	34.5 dBi	37.3 dBi	40.3 dBi	42.5 dBi	46.0 dBi	47.9 dBi	49.5 dBi
Polarization	Linear Simplex (Horizontal or Vertical)						
Half-Power Beamwidth	2.9°	2.1°	1.5°	1.2°	0.8°	0.6°	0.5°
Return Loss	–17.7 dB	–17.7 dB	–17.7 dB	–17.7 dB	–17.7 dB	–17.7 dB	–17.7 dB
Front-to-Back Ratio	61 dB	63 dB	66 dB	70 dB	74 dB	75 dB	76 dB
Cross-Polar Discrimination	30 dB	30 dB	30 dB	32 dB	32 dB	32 dB	32 dB
Flange <sup>1</sup>	Upon Customer's Request						
<sup>1</sup> Standard waveguide flange or any ODU interface is available upon request.							
<b>Mechanical Specification</b>							
Net Weight <sup>2</sup>	10 kg	11 kg	14 kg	26 kg	48 kg	85 kg	146 kg
<sup>2</sup> Approximate weight (net weight depends on the required interface). Clamps, adjustment system (and side strut from 0.8 m diameter) are included.							
<b>Antenna Pointing Range</b>							
Azimuth <sub>fine</sub>	±20°	±20°	±20°	±20°	±15°	±5°	±5°
Elevation <sub>fine</sub>	±30°	±30°	±30°	±30°	±20°	±5°	±5°
<b>Material and Finish</b>							
Mount	Hot-Dip-Galvanized Steel						
Installation Hardware	Stainless Steel						
Feed	Aluminium						
<b>Environmental Specification</b>							
Operating Windspeed	120 km/h						
Survival Windspeed	220 km/h						
Ambient Temperature	±55°C						
<b>ETSI Standard</b>							
ETSI Range	3	3	3	3	3	3	3
ETSI Class	3	3	3	3	3	3	3



## HPA ... 230 Series Antenna Specifications

	HPA 0.3 D 230 SR	HPA 0.4 D 230 FR	HPA 0.6 D 230 FR	HPA 0.8 D 230 FR	HPA 1.2 D 230 FR	HPA 1.5 D 230 FR	HPA 1.8 D 230 FR
<b>Electrical Specification</b>							
Operating Frequency	21.200–23.600 GHz						
Diameter	0.3 m	0.4 m	0.6 m	0.8 m	1.2 m	1.5 m	1.8 m
Gain mid-band	34.5 dBi	37.3 dBi	40.3 dBi	42.5 dBi	46.0 dBi	47.9 dBi	49.5 dBi
Polarization	Linear Duplex (Horizontal and Vertical)						
Half-Power Beamwidth	2.9°	2.1°	1.5°	1.2°	0.8°	0.6°	0.5°
Return Loss	–17.7 dB	–17.7 dB	–17.7 dB	–17.7 dB	–17.7 dB	–17.7 dB	–17.7 dB
Front-to-Back Ratio	61 dB	63 dB	66 dB	70 dB	74 dB	75 dB	76 dB
Cross-Polar Discrimination	30 dB	30 dB	30 dB	32 dB	32 dB	32 dB	32 dB
Flange <sup>1</sup>	Upon Customer's Request						
<small><sup>1</sup> Circular waveguide with 10 mm diameter, or direct mounted Orthomode transducer with ODU interfaces and/or standard waveguide flanges. For more information about orthomode transducers please visit <a href="http://www.grante.hu/products/passives/OMT/index.html">http://www.grante.hu/products/passives/OMT/index.html</a></small>							
<b>Mechanical Specification</b>							
Net Weight <sup>2</sup>	10 kg	11 kg	14 kg	26 kg	48 kg	85 kg	146 kg
<small><sup>2</sup> Approximate weight (net weight depends on the required interfaces). Clamps, adjustment system (and side strut from 0.8 m diameter) are included.</small>							
<b>Antenna Pointing Range</b>							
Azimuth <sub>fine</sub>	±20°	±20°	±20°	±20°	±15°	±5°	±5°
Elevation <sub>fine</sub>	±30°	±30°	±30°	±30°	±20°	±5°	±5°
<b>Material and Finish</b>							
Mount	Hot-Dip-Galvanized Steel						
Installation Hardware	Stainless Steel						
Feed	Aluminium						
<b>Environmental Specification</b>							
Operating Windspeed	120 km/h						
Survival Windspeed	220 km/h						
Ambient Temperature	±55°C						
<b>ETSI Standard</b>							
ETSI Range	3	3	3	3	3	3	3
ETSI Class	3	3	3	3	3	3	3