

## FLEXIBLE RF CABLE

### HCAAY-50-12 (1/2")



#### CONSTRUCTION MATERIALS

Inner Conductor	Copper-Clad Aluminum Wire
Dielectric	Physical Foam Polyethylene
Outer Conductor	Corrugated Copper Tube
Jacket	Black PE

#### PHYSICAL DIMENSIONS

Inner Conductor Diameter	4.80 mm
Dielectric Diameter	12.30 mm
Outer Conductor Diameter	13.80 mm
Diameter Over Jacket	15.70 mm

#### MECHANICAL SPECIFICATIONS

Minimum Bending Radius	
Single Bending	50 mm
Repeated Bending	125 mm
Minimum Number of Bends	15
Tensile Strength	1100 N (247 lb)

#### ENVIRONMENTAL SPECIFICATIONS

Storage Temperature	-55 °C ~ +85 °C
Installation Temperature	-40 °C ~ +60 °C
Operation Temperature	-55 °C ~ +85 °C

#### ELECTRICAL SPECIFICATIONS

Capacitance	76.0 pF/m (23.2 pF/ft)
Impedance	50 ± 1 Ω
Velocity	88%
RF Peak Voltage	1.60 kV
Peak Power Rating	40 kW
Cut-off Frequency	8.8 GHz
Shielding Effectiveness > 10MHz	> 120 dB
Insulation Resistance	5000 MΩ•km
VSWR	
0.8~1.0 GHz	≤ 1.10
1.7~2.4 GHz	≤ 1.10

#### PERFORMANCE

Frequency MHz	Attenuation		Average Power Rating (kW)
	dB/100 m	dB/100 ft	
100	2.15	0.66	3.94
150	2.67	0.81	3.17
200	3.08	0.94	2.75
280	3.73	1.14	2.27
450	4.70	1.43	1.80
800	6.35	1.94	1.33
900	6.75	2.06	1.25
1000	7.20	2.19	1.18
1500	9.05	2.76	0.95
1800	9.90	3.02	0.86
2000	10.05	3.06	0.81
2200	11.10	3.38	0.77
2400	11.60	3.54	0.75
2500	11.95	3.64	0.73
3000	13.20	4.02	0.65

#### Standard Conditions:

For Attenuation: VSWR 1.0, Cable temperature 20 °C (68 °F)

For Average Power: VSWR 1.0, Ambient temperature 40 °C (104 °F)

Inner Conductor temperature 100 °C (212 °F). No solar loading.