

# 3" Hi-Power Coaxial Cable Sets for Nuclear & Hi-Energy use

11KW CW @700MHz, 16KW CW @ 350MHz, uses High Quality 3-1/8" Connectors

3-1/8 inch RF Cable Sets from us have been designed for EXTREMELY HIGH POWER RF transmission in frequencies upto 1500 MHz. Intended for hi-energy applications in nuclear, particle physics and similar applications

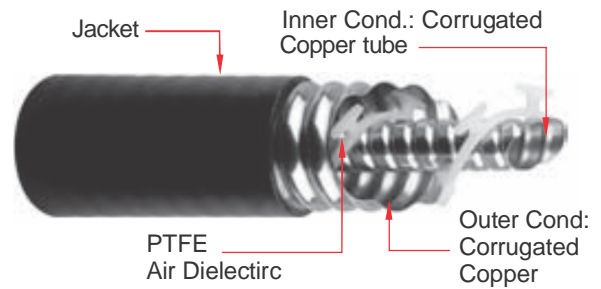
### Power Handling

11KW CW @ 700 MHz  
16KW CW @ 350 MHz

available on rupee payment

### APPLICATIONS

- Nuclear applications
- Particle Physics research applications
- Any application that needs extremely high power RF coaxial cables



Electrical Specifications	
Impedance	50 ± 0.5 Ω
Relative velocity of propagation	96%
Capacitance pF/m (pF/ft)	70.0 (21.3)
Inductance uH/m (uH/ft)	0.175 (0.053)
Max. Operating frequency	1.5 GHz
Peak power rating	580 KW
RF peak voltage	7600 Volts
Jacket Spark	8000 Volts RMS
Inner conductor DC-resistance	0.51 Ω/1000 m
Outer conductor DC-resistance	0.18Ω/1000 m

Mechanical Specifications	
Cable weight	2.6 kg/m
Tensile Strength	1800 N
Min. bending radius (single)	270 mm
Min. bending radius (repeated)	800 mm
Recommended/Max. clamp spacing	0.8/1.2 m

Description	Material
Inner Conductor	Corrugated Copper Ø 27.1 mm
Dielectric	Air type dielectric, Ø 58.4 mm
Outer Conductor	Corrugated Copper, Ø 66.6 mm
Jacket	Ø 71 mm

Attenuation and Power Handling Data													
Frequency [MHz]	100	200	300	400	450	500	600	700	800	900	1000	1250	1500
Attenuation [dB/100m]	0.44	0.63	0.78	0.90	0.96	1.02	1.12	1.22	1.31	1.39	1.47	1.66	1.83
Average power [kW]	36.0	25.3	20.6	17.8	16.8	15.9	14.5	13.4	12.6	11.8	11.2	10.1	9.19

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### Ordering Codes Description

3l - □ □ - □ ( □ / □ ) - □ ( □ / □ ) - □  
**L L 1 2 3 1 2 3 U**

<b>L L</b>	Length	0.5 = 0.5 ; 1 = 1.0 ; 2 = 2.0
<b>1</b>	Connector Series	EIA 3-1/8 = 3-1/8
<b>2</b>	Male/Female Designator	M = Male ; F = Female
<b>3</b>	Orientation of Connector	ST = Straight ; RA = Right Angle
<b>U</b>	Unit of Length	M = Meter ; F = Feet ; I = Inch

1 meter cable set with 3-1/8 on both sides = 3l-1.0-3-1/8(M/ST)-3-1/8(M/ST)-M

### Cable Set Ordering Codes

Part Number	Conn 1	Conn 2	Length
<b>3-1/8 (Male) Straight Connector on one end &amp; 3-1/8 (Male) Straight Connector on other end</b>			
3l-1.0-3-1/8(M/ST)-3-1/8(M/ST)-M	3-1/8 EIA	3-1/8 EIA	1m
3l-2.0-3-1/8(M/ST)-3-1/8(M/ST)-M	3-1/8 EIA	3-1/8 EIA	2m
3l-5.0-3-1/8(M/ST)-3-1/8(M/ST)-M	3-1/8 EIA	3-1/8 EIA	5m
3l-10.0-3-1/8(M/ST)-3-1/8(M/ST)-M	3-1/8 EIA	3-1/8 EIA	10m
3l-30.0-3-1/8(M/ST)-3-1/8(M/ST)-M	3-1/8 EIA	3-1/8 EIA	30m
3l-50.0-3-1/8(M/ST)-3-1/8(M/ST)-M	3-1/8 EIA	3-1/8 EIA	50m

### 3-1/8" Connector Specifications



Specifications	3-1/8" Connectors
Center Conductor	Silver Plated
Attachment Method (inner)	Threaded
Attachment Method (outer)	Tab Flare
Nominal Impedance	50 Ω
Frequency range	DC ~ 1.5 Ghz
Standards	EIA RS-225, MIL-F-24044

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