

ERP / TPo Calculations

Call sign: W228DX
FIN: 201068
City of License: Williamsburg, VA
Date: 18-Jul-18
Name: Chris Courson

Operating Frequency	93.5	MHz	
Coax Type	Commscope 7/8" Foam		
Model	AVA5-50		
KW Rating	7.72	KW	@ 88 MHz
dB loss per 100'	0.332	dB	@ 88 MHz
Coax length	380	feet	
Filters	0	dB	
Other Loss Factors	0.1	dB (jumpers, etc.)	
Antenna gain	-1.51	dB	0.71 efficiency
ERP	180.0	Watts	52.6 dBm
Power at antenna input	254.8	Watts	54.1 dBm
TPo	348.7	Watts	55.4 dBm
Tranmitter Efficiency	55.0%		
Power Voltage	120	VAC	
Power factor	0.9		
Phases	1		
Xmtr Power Draw	0.634	KW	0.704 KVA
Xmtr Current Draw	5.87	Amps	
Xmtr Heat Output	973	BTU	
Xmtr Cooling Required	0.08	AC Tons	

NOTES:

360' V + 20' H

 PolyPhaser
 Shively 6812B - Half Wave

 Armstrong

TPo Percentages

90%	313.8 W	101%	352.2 W
92%	320.8 W	102%	355.7 W
94%	327.8 W	103%	359.1 W
96%	334.7 W	104%	362.6 W
98%	341.7 W	105%	366.1 W