

## Appendix A

### Cable Tray Fuel Load Calculations

Reference Point	Tray ID	Width of Cables (m)	Combustible Fuel Load per Meter (kJ/m)	Heat Release Rate per unit length of cable tray (kW/m) ( $400 \text{ kW/m}^2 \dot{q}''_{fs}$ )
2305 (with L101)	M100	0.502	74388.2	90.36
	C100	0.075	16143.3	13.50
	C101	0.283	38195.6	50.94
	L101	0.367	42678.3	66.06
	<b>TOTAL</b>	<b>1.227</b>	<b>171405.5</b>	<b>220.86</b>
2305 (without L101)	M100	0.502	74388.2	90.36
	C100	0.075	16143.3	13.50
	C101	0.283	38195.6	50.94
	<b>TOTAL</b>	<b>0.860</b>	<b>128727.2</b>	<b>154.80</b>
2307/2369 (with L120)	M120	0.610	89177.6	109.80
	C120	0.294	36767.3	52.92
	L120	0.388	55180.6	69.84
	<b>TOTAL</b>	<b>1.292</b>	<b>181125.5</b>	<b>232.56</b>
2307/2369 (without L120)	M120	0.610	89177.6	109.80
	C120	0.294	36767.3	52.92
	<b>TOTAL</b>	<b>0.904</b>	<b>125944.9</b>	<b>162.72</b>
2320	M100	0.502	74388.2	90.36
	C101	0.283	38579.3	50.94
	<b>TOTAL</b>	<b>0.785</b>	<b>112967.5</b>	<b>141.30</b>
2393	M100	0.502	74388.2	90.36
	C101	0.243	33795.2	43.74
	<b>TOTAL</b>	<b>0.745</b>	<b>108183.4</b>	<b>134.10</b>
2306	M100	0.376	55791.2	67.68
	C101	0.148	20097.5	26.64
	<b>TOTAL</b>	<b>0.524</b>	<b>75888.7</b>	<b>94.32</b>
2308	M120	0.502	74388.2	90.36
	C120	0.113	16752.6	20.34
	<b>TOTAL</b>	<b>0.615</b>	<b>91140.8</b>	<b>110.70</b>
2245	M102	0.037	6641.2	6.66
	C103	0.516	66073.0	92.88
	<b>TOTAL</b>	<b>0.553</b>	<b>72714.2</b>	<b>99.54</b>
2247	M102	0.016	2571.8	2.88
	C103	0.249	39607.3	44.82
	<b>TOTAL</b>	<b>0.265</b>	<b>42179.1</b>	<b>47.70</b>
2221/2225	M127	0.110	17057.2	19.80
	C121	0.610	118745.1	109.80
	<b>TOTAL</b>	<b>0.720</b>	<b>135802.3</b>	<b>129.60</b>
2223	M127	0.110	17057.2	19.80
	C121	0.610	115916.7	109.80
	<b>TOTAL</b>	<b>0.720</b>	<b>132973.9</b>	<b>129.60</b>
2227	M127	0.016	2167.3	2.88
	C121	0.396	63357.2	71.28
	<b>TOTAL</b>	<b>0.412</b>	<b>65524.5</b>	<b>74.16</b>

<b>Cable Tray ID</b>	<b>C100-2305</b>			
Cable Type	7/C#12		XLPN (XLPPP)	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	7	7	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.00027747 m <sup>2</sup>			
Jacket Area	0.00011585 m <sup>2</sup>			
Insulation Area	4.716E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.53E-05	Mass of Jacket per meter (kg/m)	0.1670	
Total Volume of Insulation (m <sup>3</sup> )	1.44E-05	Mass of Insulation per meter (kg/m)	0.0436	
Total Combustible Volume (m <sup>3</sup> )	4.97E-05	Total Combustible Mass per meter (kg/m)	0.2106	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>16143.3</b>	
Number of Cables	4			
Total Width of Cables	0.075			

**Cable Tray ID**

**C101-2305**

Cable Type	2/C#12		
Outside Diameter (inches)	0.5	0.0127	meters
Outer Jacket Thickness (mils)	45	0.001143	meters
Insulation Jacket Thickness (mils)	15	0.000381	meters
Conduct. Insul. Thickness (mils)	30	0.00076	meters
Num. Conds.	2	2	
Diam. Cond. (inches)	0.0806	0.002052	meters
Cable Length (feet)	1	0.304878	meters

XLPPP

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamitrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.6
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.00635 m
Total Cable Area (A3)	0.00012668 m <sup>2</sup>
Jacket Area	5.0973E-05 m <sup>2</sup>
Insulation Area	1.3474E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>
		Combustible Fuel Load per meter (kJ/m)	<b>6462.5</b>
Number of Cables	4		
Total Width of Cables	0.051		

<b>Cable Tray ID</b>	<b>C101-2305</b>			
Cable Type	2/C#12		XLPN (XLPPP)	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.6
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.00012668 m <sup>2</sup>			
Jacket Area	5.0973E-05 m <sup>2</sup>			
Insulation Area	1.3474E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>6462.5</b>	
Number of Cables	4			
Total Width of Cables	0.051			

<b>Cable Tray ID</b>	<b>C101-2305</b>			
Cable Type	5/C#16		XLPPP	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.00013701 m <sup>2</sup>			
Jacket Area	6.0927E-05 m <sup>2</sup>			
Insulation Area	1.9204E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3998.6</b>	
Number of Cables	2			
Total Width of Cables	0.026			

<b>Cable Tray ID</b>	<b>C101-2305</b>			
Cable Type	2/C#16		XLPPP	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.5178E-05 m <sup>2</sup>			
Jacket Area	4.0332E-05 m <sup>2</sup>			
Insulation Area	7.6817E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>6064.0</b>	
Number of Cables	5			
Total Width of Cables	0.052			

**Cable Tray ID**

**C101-2305**

Cable Type	2/C#16	
Outside Diameter (inches)	0.41	0.010414 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPPP)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamitrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.005207 m
Total Cable Area (A3)	8.5178E-05 m <sup>2</sup>
Jacket Area	4.0332E-05 m <sup>2</sup>
Insulation Area	7.6817E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1212.8
		Combustible Fuel Load per meter (kJ/m)	1212.8

Number of Cables	1
Total Width of Cables	0.010

<b>Total Width (m)</b>	<b>0.283</b>
<b>Total Energy (kJ/m)</b>	<b>38195.6</b>



<b>Cable Tray ID</b>	<b>M120-2307/2369</b>	
Cable Type	3-1/C #4/0	
Outside Diameter (inches)	0.823	0.020904 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	55	0.00140 meters
Num. Conds.	1	1
Diam. Cond. (inches)	0.46	0.011684 meters
Cable Length (feet)	1	0.304878 meters

XLPP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.0104521 m
Total Cable Area (A3)	0.00034321 m <sup>2</sup>
Jacket Area	7.0959E-05 m <sup>2</sup>
Insulation Area	5.741E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.16E-05	Mass of Jacket per meter (kg/m)	0.1023
Total Volume of Insulation (m <sup>3</sup> )	1.75E-05	Mass of Insulation per meter (kg/m)	0.0531
Total Combustible Volume (m <sup>3</sup> )	3.91E-05	Total Combustible Mass per meter (kg/m)	0.1554

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1836.4
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1263.1
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>3099.5</b>
		Combustible Fuel Load per meter (kJ/m)	<b>74388.2</b>

Number of Cables	24
Total Width of Cables	0.502

Cable Tray ID	M120-2307/2369	
Cable Type	5/C#12	
Outside Diameter (inches)	0.64	0.016256 meters
Outer Jacket Thickness (mils)	65	0.001651 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	40	0.00102 meters
Num. Conds.	1	1
Diam. Cond. (inches)	0.0608	0.002052 meters
Cable Length (feet)	1	0.304878 meters

MCCC	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.008128 m
Total Cable Area (A3)	0.00020755 m <sup>2</sup>
Jacket Area	7.5753E-05 m <sup>2</sup>
Insulation Area	9.7936E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.31E-05	Mass of Jacket per meter (kg/m)	0.1092
Total Volume of Insulation (m <sup>3</sup> )	2.99E-06	Mass of Insulation per meter (kg/m)	0.0091
Total Combustible Volume (m <sup>3</sup> )	2.61E-05	Total Combustible Mass per meter (kg/m)	0.1183

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1960.5
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	215.5
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2176.0</b>
		Combustible Fuel Load per meter (kJ/m)	<b>4351.9</b>

Number of Cables	2
Total Width of Cables	0.033

**Cable Tray ID**

**M120-2307/2369**

Cable Type	3/C#12	
Outside Diameter (inches)	0.619	0.015723 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	3	3
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPP)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.0078613 m
Total Cable Area (A3)	0.00019415 m <sup>2</sup>
Jacket Area	6.6563E-05 m <sup>2</sup>
Insulation Area	2.0212E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.03E-05	Mass of Jacket per meter (kg/m)	0.0960
Total Volume of Insulation (m <sup>3</sup> )	6.16E-06	Mass of Insulation per meter (kg/m)	0.0187
Total Combustible Volume (m <sup>3</sup> )	2.65E-05	Total Combustible Mass per meter (kg/m)	0.1147

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1722.7
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	444.7
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2167.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>4334.7</b>

Number of Cables	2
Total Width of Cables	0.031

<b>Cable Tray ID</b>	<b>M120-2307/2369</b>	
Cable Type	3-1/C#2	
Outside Diameter (inches)	0.582	0.014783 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	55	0.00140 meters
Num. Conds.	1	1
Diam. Cond. (inches)	0.2576	0.006543 meters
Cable Length (feet)	1	0.304878 meters

XLPP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.0073914 m
Total Cable Area (A3)	0.00017163 m <sup>2</sup>
Jacket Area	4.8978E-05 m <sup>2</sup>
Insulation Area	3.4847E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.49E-05	Mass of Jacket per meter (kg/m)	0.0706
Total Volume of Insulation (m <sup>3</sup> )	1.06E-05	Mass of Insulation per meter (kg/m)	0.0322
Total Combustible Volume (m <sup>3</sup> )	2.56E-05	Total Combustible Mass per meter (kg/m)	0.1028

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1267.6
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	766.7
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2034.2</b>
		Combustible Fuel Load per meter (kJ/m)	<b>6102.7</b>

Number of Cables	3
Total Width of Cables	0.044

**Total Width (m): 0.610**  
**Total Energy (kJ/m): 89177.6**

**Cable Tray ID**

**C120-2307**

Cable Type	7/C#12	
Outside Diameter (inches)	0.74	0.018796 meters
Outer Jacket Thickness (mils)	60	0.001524 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	7	7
Diam. Cond. (inches)	0.0608	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPPP)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23600
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.009398 m
Total Cable Area (A3)	0.00027747 m <sup>2</sup>
Jacket Area	0.00011585 m <sup>2</sup>
Insulation Area	4.716E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	3.53E-05	Mass of Jacket per meter (kg/m)	0.1670
Total Volume of Insulation (m <sup>3</sup> )	1.44E-05	Mass of Insulation per meter (kg/m)	0.0436
Total Combustible Volume (m <sup>3</sup> )	4.97E-05	Total Combustible Mass per meter (kg/m)	0.2106

Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>
		Combustible Fuel Load per meter (kJ/m)	<b>8071.7</b>

Number of Cables	2
Total Width of Cables	0.038

Cable Tray ID	C120-2307	
Cable Type	5/C#12	
Outside Diameter (inches)	0.64	0.016256 meters
Outer Jacket Thickness (mils)	65	0.001651 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	40	0.00102 meters
Num. Conds.	5	5
Diam. Cond. (inches)	0.0608	0.002052 meters
Cable Length (feet)	1	0.304878 meters

MCCC	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23600
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.008128 m
Total Cable Area (A3)	0.00020755 m <sup>2</sup>
Jacket Area	7.5753E-05 m <sup>2</sup>
Insulation Area	4.8968E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.31E-05	Mass of Jacket per meter (kg/m)	0.1092
Total Volume of Insulation (m <sup>3</sup> )	1.49E-05	Mass of Insulation per meter (kg/m)	0.0453
Total Combustible Volume (m <sup>3</sup> )	3.8E-05	Total Combustible Mass per meter (kg/m)	0.1545
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1960.5
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1077.3
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>3037.8</b>
		Combustible Fuel Load per meter (kJ/m)	<b>12151.4</b>
Number of Cables	4		
Total Width of Cables	0.065		

**Cable Tray ID**

**C120-2307**

Cable Type	9/C#12	
Outside Diameter (inches)	0.89	0.022606 meters
Outer Jacket Thickness (mils)	80	0.002032 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	40	0.00102 meters
Num. Conds.	9	9
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

**MCCC**

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.011303 m
Total Cable Area (A3)	0.00040136 m <sup>2</sup>
Jacket Area	0.00013134 m <sup>2</sup>
Insulation Area	8.8143E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	4E-05	Mass of Jacket per meter (kg/m)	0.1894
Total Volume of Insulation (m <sup>3</sup> )	2.69E-05	Mass of Insulation per meter (kg/m)	0.0815
Total Combustible Volume (m <sup>3</sup> )	6.69E-05	Total Combustible Mass per meter (kg/m)	0.2708
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	3399.1
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1939.2
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>5338.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>5338.3</b>

Number of Cables	1
Total Width of Cables	0.023

**Cable Tray ID**

**C120-2307**

Cable Type	5/C#16	
Outside Diameter (inches)	0.52	0.013208 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	5	5
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

**XLPPP**

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23600
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.006604 m
Total Cable Area (A3)	0.00013701 m <sup>2</sup>
Jacket Area	6.0927E-05 m <sup>2</sup>
Insulation Area	1.9204E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>5997.9</b>

Number of Cables	3
Total Width of Cables	0.040



<b>Cable Tray ID</b>	<b>C120-2307</b>			
Cable Type	2/C#12		XLPPP	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23600
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.00012668 m <sup>2</sup>			
Jacket Area	5.0973E-05 m <sup>2</sup>			
Insulation Area	1.3474E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1615.6</b>	
Number of Cables	1			
Total Width of Cables	0.013			

Cable Tray ID	C120-2307	
Cable Type	2/C#16	
Outside Diameter (inches)	0.41	0.010414 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPPP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.005207 m
Total Cable Area (A3)	8.5178E-05 m <sup>2</sup>
Jacket Area	4.0332E-05 m <sup>2</sup>
Insulation Area	7.6817E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1212.8
		Combustible Fuel Load per meter (kJ/m)	8489.6

Number of Cables	7
Total Width of Cables	0.073

Cable Tray ID	C120-2307	
Cable Type	7/C#12	
Outside Diameter (inches)	0.69	0.017526 meters
Outer Jacket Thickness (mils)	65	0.001651 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	40	0.00102 meters
Num. Conds.	7	7
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

MCCC	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamitrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.008763 m
Total Cable Area (A3)	0.00024124 m <sup>2</sup>
Jacket Area	8.234E-05 m <sup>2</sup>
Insulation Area	6.8555E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.51E-05	Mass of Jacket per meter (kg/m)	0.1187
Total Volume of Insulation (m <sup>3</sup> )	2.09E-05	Mass of Insulation per meter (kg/m)	0.0634
Total Combustible Volume (m <sup>3</sup> )	4.6E-05	Total Combustible Mass per meter (kg/m)	0.1821
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2131.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1508.3
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>3639.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>3639.3</b>

Number of Cables	1
Total Width of Cables	0.018

<b>Cable Tray ID</b>	<b>C120-2307</b>			
Cable Type	2/C#12		XLPN (XLPPP)	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.00012668 m <sup>2</sup>			
Jacket Area	5.0973E-05 m <sup>2</sup>			
Insulation Area	1.3474E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1615.6</b>	
Number of Cables	1			
Total Width of Cables	0.013			

**Cable Tray ID**

**C120-2307**

Cable Type	5/C#16	
Outside Diameter (inches)	0.52	0.013208 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	5	5
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPPP)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.006604 m
Total Cable Area (A3)	0.00013701 m <sup>2</sup>
Jacket Area	6.0927E-05 m <sup>2</sup>
Insulation Area	1.9204E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>1999.3</b>

Number of Cables	1
Total Width of Cables	0.013

<b>Total Width (m)</b>	<b>0.294</b>
<b>Total Energy (m)</b>	<b>36767.3</b>

<b>Cable Tray ID</b>	<b>L120-2307/2369</b>	
Cable Type	12/C#16	
Outside Diameter (inches)	1.1	0.02794 meters
Outer Jacket Thickness (mils)	80	0.002032 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	12	12
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPSMP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrap) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.01397 m
Total Cable Area (A3)	0.00061312 m <sup>2</sup>
Jacket Area	0.00020764 m <sup>2</sup>
Insulation Area	4.609E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	6.33E-05	Mass of Jacket per meter (kg/m)	0.2994
Total Volume of Insulation (m <sup>3</sup> )	1.41E-05	Mass of Insulation per meter (kg/m)	0.0426
Total Combustible Volume (m <sup>3</sup> )	7.74E-05	Total Combustible Mass per meter (kg/m)	0.3420

Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	5373.7
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1014.0
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>6387.7</b>
		Combustible Fuel Load per meter (kJ/m)	<b>12775.4</b>

Number of Cables	2
Total Width of Cables	0.056

<b>Cable Tray ID</b>	<b>L120-2307/2369</b>	
Cable Type	2/C#16	
Outside Diameter (inches)	0.43	0.010922 meters
Outer Jacket Thickness (mils)	50	0.00127 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

<b>INSTS</b>	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.005461 m
Total Cable Area (A3)	9.369E-05 m <sup>2</sup>
Jacket Area	3.851E-05 m <sup>2</sup>
Insulation Area	9.8261E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.17E-05	Mass of Jacket per meter (kg/m)	0.0555
Total Volume of Insulation (m <sup>3</sup> )	3E-06	Mass of Insulation per meter (kg/m)	0.0091
Total Combustible Volume (m <sup>3</sup> )	1.47E-05	Total Combustible Mass per meter (kg/m)	0.0646

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	996.6
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	216.2
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>
		Combustible Fuel Load per meter (kJ/m)	<b>6064.1</b>

Number of Cables	5
Total Width of Cables	0.055

<b>Cable Tray ID</b>	<b>L120-2307/2369</b>	
Cable Type	4/C#16	
Outside Diameter (inches)	0.41	0.010414 meters
Outer Jacket Thickness (mils)	50	0.00127 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

INSTS	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.005207 m
Total Cable Area (A3)	8.5178E-05 m <sup>2</sup>
Jacket Area	3.6483E-05 m <sup>2</sup>
Insulation Area	9.8261E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.11E-05	Mass of Jacket per meter (kg/m)	0.0526
Total Volume of Insulation (m <sup>3</sup> )	3E-06	Mass of Insulation per meter (kg/m)	0.0091
Total Combustible Volume (m <sup>3</sup> )	1.41E-05	Total Combustible Mass per meter (kg/m)	0.0617
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	944.2
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	216.2
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1160.4
		Combustible Fuel Load per meter (kJ/m)	1160.4
Number of Cables	1		
Total Width of Cables	0.010		



Cable Tray ID	L120-2307/2369	
Cable Type	2/C#16	
Outside Diameter (inches)	0.35	0.00889 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPSMP(TE)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.004445 m
Total Cable Area (A3)	6.2072E-05 m <sup>2</sup>
Jacket Area	2.7818E-05 m <sup>2</sup>
Insulation Area	9.8261E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	8.48E-06	Mass of Jacket per meter (kg/m)	0.0401
Total Volume of Insulation (m <sup>3</sup> )	3E-06	Mass of Insulation per meter (kg/m)	0.0091
Total Combustible Volume (m <sup>3</sup> )	1.15E-05	Total Combustible Mass per meter (kg/m)	0.0492

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	719.9
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	216.2
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	936.1
		Combustible Fuel Load per meter (kJ/m)	936.1

Number of Cables	1
Total Width of Cables	0.009

Cable Tray ID	L120-2307/2369	
Cable Type	3/C#16	
Outside Diameter (inches)	0.43	0.010922 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	3	3
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPSMP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23600
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.005461 m
Total Cable Area (A3)	9.369E-05 m <sup>2</sup>
Jacket Area	4.5677E-05 m <sup>2</sup>
Insulation Area	1.1523E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.39E-05	Mass of Jacket per meter (kg/m)	0.0659
Total Volume of Insulation (m <sup>3</sup> )	3.51E-06	Mass of Insulation per meter (kg/m)	0.0107
Total Combustible Volume (m <sup>3</sup> )	1.74E-05	Total Combustible Mass per meter (kg/m)	0.0765
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1182.1
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	253.5
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1435.6
		Combustible Fuel Load per meter (kJ/m)	2871.3

Number of Cables	2
Total Width of Cables	0.022

Cable Tray ID	L120-2307/2369	
Cable Type	2/C#14	
Outside Diameter (inches)	0.5	0.0127 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0641	0.001628 meters
Cable Length (feet)	1	0.304878 meters

XLPSN (XLPSMP)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.00635 m
Total Cable Area (A3)	0.00012668 m <sup>2</sup>
Jacket Area	4.9957E-05 m <sup>2</sup>
Insulation Area	1.1443E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.52E-05	Mass of Jacket per meter (kg/m)	0.0720
Total Volume of Insulation (m <sup>3</sup> )	3.49E-06	Mass of Insulation per meter (kg/m)	0.0106
Total Combustible Volume (m <sup>3</sup> )	1.87E-05	Total Combustible Mass per meter (kg/m)	0.0826

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1292.9
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	251.8
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1544.7</b>
		Combustible Fuel Load per meter (kJ/m)	<b>4634.0</b>

Number of Cables	3
Total Width of Cables	0.038

**Cable Tray ID**

**L120-2307/2369**

Cable Type	4/C#16	
Outside Diameter (inches)	0.5	0.0127 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	20	0.00051 meters
Num. Conds.	4	4
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPSN	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.00635 m
Total Cable Area (A3)	0.00012668 m <sup>2</sup>
Jacket Area	4.1499E-05 m <sup>2</sup>
Insulation Area	1.148E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.27E-05	Mass of Jacket per meter (kg/m)	0.0598
Total Volume of Insulation (m <sup>3</sup> )	3.5E-06	Mass of Insulation per meter (kg/m)	0.0106
Total Combustible Volume (m <sup>3</sup> )	1.62E-05	Total Combustible Mass per meter (kg/m)	0.0704

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1074.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	252.6
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1326.6</b>
		Combustible Fuel Load per meter (kJ/m)	<b>3979.8</b>

Number of Cables	3
Total Width of Cables	0.038

**Cable Tray ID**

**L120-2307/2369**

Cable Type	2/C#16	
Outside Diameter (inches)	0.41	0.010414 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

EPDMHYP (XLPPP)

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.005207 m
Total Cable Area (A3)	8.5178E-05 m <sup>2</sup>
Jacket Area	4.0332E-05 m <sup>2</sup>
Insulation Area	7.6817E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1212.8
		Combustible Fuel Load per meter (kJ/m)	2425.6

Number of Cables	2
Total Width of Cables	0.021

<b>Cable Tray ID</b>	<b>L120-2307/2369</b>	
Cable Type	4/C#16	
Outside Diameter (inches)	0.75	0.01905 meters
Outer Jacket Thickness (mils)	60	0.001524 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	4	4
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPP (XLPSMP)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.009525 m
Total Cable Area (A3)	0.00028502 m <sup>2</sup>
Jacket Area	9.7993E-05 m <sup>2</sup>
Insulation Area	1.5363E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.99E-05	Mass of Jacket per meter (kg/m)	0.1413
Total Volume of Insulation (m <sup>3</sup> )	4.68E-06	Mass of Insulation per meter (kg/m)	0.0142
Total Combustible Volume (m <sup>3</sup> )	3.46E-05	Total Combustible Mass per meter (kg/m)	0.1555

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2536.1
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	338.0
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2874.1</b>
		Combustible Fuel Load per meter (kJ/m)	<b>8622.3</b>

Number of Cables	3
Total Width of Cables	0.057

Cable Tray ID	L120-2307/2369	
Cable Type	2/C#14	
Outside Diameter (inches)	0.5	0.0127 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0641	0.001628 meters
Cable Length (feet)	1	0.304878 meters

XLPSMP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.00635 m
Total Cable Area (A3)	0.00012668 m <sup>2</sup>
Jacket Area	4.9957E-05 m <sup>2</sup>
Insulation Area	1.1443E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.52E-05	Mass of Jacket per meter (kg/m)	0.0720
Total Volume of Insulation (m <sup>3</sup> )	3.49E-06	Mass of Insulation per meter (kg/m)	0.0106
Total Combustible Volume (m <sup>3</sup> )	1.87E-05	Total Combustible Mass per meter (kg/m)	0.0826

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1292.9
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	251.8
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1544.7</b>
		Combustible Fuel Load per meter (kJ/m)	<b>3089.4</b>

Number of Cables	2
Total Width of Cables	0.025

<b>Cable Tray ID</b>	<b>L120-2307/2369</b>	
Cable Type	4/C#16	
Outside Diameter (inches)	0.75	0.01905 meters
Outer Jacket Thickness (mils)	60	0.001524 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	4	4
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPSMP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.009525 m
Total Cable Area (A3)	0.00028502 m <sup>2</sup>
Jacket Area	9.7993E-05 m <sup>2</sup>
Insulation Area	1.5363E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.99E-05	Mass of Jacket per meter (kg/m)	0.1413
Total Volume of Insulation (m <sup>3</sup> )	4.68E-06	Mass of Insulation per meter (kg/m)	0.0142
Total Combustible Volume (m <sup>3</sup> )	3.46E-05	Total Combustible Mass per meter (kg/m)	0.1555
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2536.1
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	338.0
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2874.1</b>
		Combustible Fuel Load per meter (kJ/m)	<b>8622.3</b>

Number of Cables	3
Total Width of Cables	0.057

<b>Total Width (m)</b>	<b>0.388</b>
<b>Total Energy (kJ/m)</b>	<b>55180.6</b>



**Cable Tray ID**

**L101-2305**

Cable Type	RG-59/U	
Outside Diameter (inches)	0.74	0.018796 meters
Outer Jacket Thickness (mils)	0	0 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	108	0.00274 meters
Num. Conds.	1	1
Diam. Cond. (inches)	0.0253	0.000643 meters
Cable Length (feet)	1	0.304878 meters

RG-59/U COA	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	1441.8
Insulation Heat of Combustion (kJ/kg)	46500
Jacket Material	Polyolefin (Flamtrol) - use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	46500

Outside Radius	0.009398 m
Total Cable Area (A3)	0.00027747 m <sup>2</sup>
Jacket Area	0 m <sup>2</sup>
Insulation Area	2.9179E-05 m <sup>2</sup>

(PE)

Total Volume of Jacket (m <sup>3</sup> )	0	Mass of Jacket per meter (kg/m)	0.0000
Total Volume of Insulation (m <sup>3</sup> )	8.9E-06	Mass of Insulation per meter (kg/m)	0.0421
Total Combustible Volume (m <sup>3</sup> )	8.9E-06	Total Combustible Mass per meter (kg/m)	0.0421
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	0.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1956.3
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1956.3
		Combustible Fuel Load per meter (kJ/m)	9781.4
Number of Cables	5		
Total Width of Cables	0.094		

**Cable Tray ID**

**L101-2305**

Cable Type	RG-71B/U	
Outside Diameter (inches)	0.74	0.018796 meters
Outer Jacket Thickness (mils)	0	0 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	125	0.00318 meters
Num. Conds.	1	1
Diam. Cond. (inches)	0.0226	0.000574 meters
Cable Length (feet)	1	0.304878 meters

COAX	COA	
Insulation Material		Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )		1441.8
Insulation Heat of Combustion (kJ/kg)		46500
Jacket Material		Polyolefin (Flamrot) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )		1441.8
Jacket Heat of Combustion (kJ/kg)		46500

Outside Radius	0.009398 m
Total Cable Area (A3)	0.00027747 m <sup>2</sup>
Jacket Area	0 m <sup>2</sup>
Insulation Area	3.7395E-05 m <sup>2</sup>

(PE)

Total Volume of Jacket (m <sup>3</sup> )	0	Mass of Jacket per meter (kg/m)	0.0000
Total Volume of Insulation (m <sup>3</sup> )	1.14E-05	Mass of Insulation per meter (kg/m)	0.0539
Total Combustible Volume (m <sup>3</sup> )	1.14E-05	Total Combustible Mass per meter (kg/m)	0.0539
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	0.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	2507.1
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2507.1</b>
		Combustible Fuel Load per meter (kJ/m)	<b>5014.2</b>

Number of Cables	2
Total Width of Cables	0.038

**Cable Tray ID**

**L101-2305**

Cable Type	6/C#18	
Outside Diameter (inches)	0.525	0.013335 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	20	0.00051 meters
Num. Conds.	6	6
Diam. Cond. (inches)	0.0403	0.001024 meters
Cable Length (feet)	1	0.304878 meters

XLPSN (XLPPP)

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.0066675 m
Total Cable Area (A3)	0.00013966 m <sup>2</sup>
Jacket Area	4.378E-05 m <sup>2</sup>
Insulation Area	1.4666E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.33E-05	Mass of Jacket per meter (kg/m)	0.0631
Total Volume of Insulation (m <sup>3</sup> )	4.47E-06	Mass of Insulation per meter (kg/m)	0.0136
Total Combustible Volume (m <sup>3</sup> )	1.78E-05	Total Combustible Mass per meter (kg/m)	0.0767
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1133.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	322.7
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1455.7</b>
		Combustible Fuel Load per meter (kJ/m)	<b>1455.7</b>

Number of Cables	1
Total Width of Cables	0.013

Cable Tray ID	L101-2305	
Cable Type	4/C#16	
Outside Diameter (inches)	0.5	0.0127 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	20	0.00051 meters
Num. Conds.	4	4
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPSN	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamrot) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.00635 m
Total Cable Area (A3)	0.00012668 m <sup>2</sup>
Jacket Area	4.1499E-05 m <sup>2</sup>
Insulation Area	1.148E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.27E-05	Mass of Jacket per meter (kg/m)	0.0598
Total Volume of Insulation (m <sup>3</sup> )	3.5E-06	Mass of Insulation per meter (kg/m)	0.0106
Total Combustible Volume (m <sup>3</sup> )	1.62E-05	Total Combustible Mass per meter (kg/m)	0.0704

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1074.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	252.6
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1326.6
		Combustible Fuel Load per meter (kJ/m)	2653.2

Number of Cables	2
Total Width of Cables	0.025

<b>Cable Tray ID</b>	<b>L101-2305</b>			
Cable Type	2/C #16		XLPSN (1) (XLPPP)	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.5178E-05 m <sup>2</sup>			
Jacket Area	4.0332E-05 m <sup>2</sup>			
Insulation Area	7.6817E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1212.8	
		Combustible Fuel Load per meter (kJ/m)	2425.6	
Number of Cables	2			
Total Width of Cables	0.021			

<b>Cable Tray ID</b>	<b>L101-2305</b>			
Cable Type	2/C#14		XLPSN (1) (XLPSMP)	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0641	0.001628 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.00012668 m <sup>2</sup>			
Jacket Area	4.9957E-05 m <sup>2</sup>			
Insulation Area	1.1443E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.52E-05	Mass of Jacket per meter (kg/m)	0.0720	
Total Volume of Insulation (m <sup>3</sup> )	3.49E-06	Mass of Insulation per meter (kg/m)	0.0106	
Total Combustible Volume (m <sup>3</sup> )	1.87E-05	Total Combustible Mass per meter (kg/m)	0.0826	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1292.9	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	251.8	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1544.7</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4634.0</b>	
Number of Cables	3			
Total Width of Cables	0.038			

<b>Cable Tray ID</b>	<b>L101-2305</b>			
Cable Type	2/C#16		XLPSMP	
Outside Diameter (inches)	0.35	0.00889 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	0	0 meters	Insulation Heat of Combustion (kJ/kg)	23600
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.004445 m			
Total Cable Area (A3)	6.2072E-05 m <sup>2</sup>			
Jacket Area	2.7818E-05 m <sup>2</sup>			
Insulation Area	9.8261E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	8.48E-06	Mass of Jacket per meter (kg/m)	0.0401	
Total Volume of Insulation (m <sup>3</sup> )	3E-06	Mass of Insulation per meter (kg/m)	0.0091	
Total Combustible Volume (m <sup>3</sup> )	1.15E-05	Total Combustible Mass per meter (kg/m)	0.0492	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	719.9	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	216.2	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>936.1</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>2808.4</b>	
Number of Cables	3			
Total Width of Cables	0.027			

**Cable Tray ID**

**L101-2305**

Cable Type	2/C #14	
Outside Diameter (inches)	0.5	0.0127 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0641	0.001628 meters
Cable Length (feet)	1	0.304878 meters

**XLPSMP**

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtruf) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.00635 m
Total Cable Area (A3)	0.00012668 m <sup>2</sup>
Jacket Area	4.9957E-05 m <sup>2</sup>
Insulation Area	1.1443E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.52E-05	Mass of Jacket per meter (kg/m)	0.0720
Total Volume of Insulation (m <sup>3</sup> )	3.49E-06	Mass of Insulation per meter (kg/m)	0.0106
Total Combustible Volume (m <sup>3</sup> )	1.87E-05	Total Combustible Mass per meter (kg/m)	0.0826

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1292.9
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	251.8
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1544.7</b>
		Combustible Fuel Load per meter (kJ/m)	<b>3089.4</b>

Number of Cables	2
Total Width of Cables	0.025



**Cable Tray ID**

**L101-2305**

Cable Type	3/C#16	
Outside Diameter (inches)	0.43	0.010922 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	3	3
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPSMP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.005461 m
Total Cable Area (A3)	9.369E-05 m <sup>2</sup>
Jacket Area	4.5677E-05 m <sup>2</sup>
Insulation Area	1.1523E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.39E-05	Mass of Jacket per meter (kg/m)	0.0659
Total Volume of Insulation (m <sup>3</sup> )	3.51E-06	Mass of Insulation per meter (kg/m)	0.0107
Total Combustible Volume (m <sup>3</sup> )	1.74E-05	Total Combustible Mass per meter (kg/m)	0.0765

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1182.1
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	253.5
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1435.6</b>
		Combustible Fuel Load per meter (kJ/m)	<b>7178.1</b>

Number of Cables	5
Total Width of Cables	0.055

<b>Cable Tray ID</b>	<b>L101-2305</b>			
Cable Type	2/C#16		TEW (XLPPP)	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23600
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.5178E-05 m <sup>2</sup>			
Jacket Area	4.0332E-05 m <sup>2</sup>			
Insulation Area	7.6817E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>2425.6</b>	
Number of Cables	2			
Total Width of Cables	0.021			

**Cable Tray ID**

**L101-2305**

Cable Type	2/C#16	
Outside Diameter (inches)	0.41	0.010414 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

EPDMHYP (XLPPP)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23600
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.005207 m
Total Cable Area (A3)	8.5178E-05 m <sup>2</sup>
Jacket Area	4.0332E-05 m <sup>2</sup>
Insulation Area	7.6817E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>
		Combustible Fuel Load per meter (kJ/m)	<b>1212.8</b>

Number of Cables	1
Total Width of Cables	0.010

<b>Total Width (m)</b>	<b>0.367</b>
<b>Total Energy (m)</b>	<b>42678.3</b>

**Cable Tray ID**

**M100-2305**

Cable Type	3-1/C #4/0	
Outside Diameter (inches)	0.823	0.020904 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	55	0.00140 meters
Num. Conds.	1	1
Diam. Cond. (inches)	0.46	0.011684 meters
Cable Length (feet)	1	0.304878 meters

**XLPP**

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23600
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.0104521 m
Total Cable Area (A3)	0.00034321 m <sup>2</sup>
Jacket Area	7.0959E-05 m <sup>2</sup>
Insulation Area	5.741E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.16E-05	Mass of Jacket per meter (kg/m)	0.1023
Total Volume of Insulation (m <sup>3</sup> )	1.75E-05	Mass of Insulation per meter (kg/m)	0.0531
Total Combustible Volume (m <sup>3</sup> )	3.91E-05	Total Combustible Mass per meter (kg/m)	0.1554
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1836.4
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1263.1
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>3099.5</b>
		Combustible Fuel Load per meter (kJ/m)	<b>74388.2</b>

Number of Cables	24
Total Width of Cables	0.502

<b>Cable Tray ID</b>	<b>M100-2320</b>		
Cable Type	3-1/C #4/0	XLPP	
Outside Diameter (inches)	0.823 0.020904 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45 0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	0 0 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	55 0.00140 meters	Jacket Material	Polyolefin (Flamtril) - *use PVC properties
Num. Conds.	1 1	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.46 0.011684 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1 0.304878 meters		
Outside Radius	0.0104521 m		
Total Cable Area (A3)	0.0003432 m <sup>2</sup>		
Jacket Area	7.096E-05 m <sup>2</sup>		
Insulation Area	5.741E-05 m <sup>2</sup>		
Total Volume of Jacket (m <sup>3</sup> )	2.16E-05	Mass of Jacket per meter (kg/m)	0.1023
Total Volume of Insulation (m <sup>3</sup> )	1.75E-05	Mass of Insulation per meter (kg/m)	0.0531
Total Combustible Volume (m <sup>3</sup> )	3.91E-05	Total Combustible Mass per meter (kg/m)	0.1554
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1836.4
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1263.1
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>3099.5</b>
		Combustible Fuel Load per meter (kJ/m)	<b>74388.2</b>
Number of Cables	24		
Total Width of Cables	0.502		

<b>Cable Tray ID</b>	<b>C101-2320</b>			
Cable Type	5/C #16		XLPPP	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>7997.2</b>	
Number of Cables	4			
Total Width of Cables	0.053			

**Cable Tray ID C101-2320**

	2/C#12		
Cable Type			
Outside Diameter (inches)	0.5	0.0127	meters
Outer Jacket Thickness (mils)	45	0.001143	meters
Insulation Jacket Thickness (mils)	15	0.000381	meters
Conduct. Insul. Thickness (mils)	30	0.00076	meters
Num. Conds.	2	2	
Diam. Cond. (inches)	0.0808	0.002052	meters
Cable Length (feet)	1	0.304878	meters

XLPPP
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

Carbon-black cross-linked polyethylene
924.4
23800
Black polyvinyl chloride (PVC)
1441.8
17950

Outside Radius	0.00635 m
Total Cable Area (A3)	0.0001267 m <sup>2</sup>
Jacket Area	5.097E-05 m <sup>2</sup>
Insulation Area	1.347E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.55E-05
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06
Total Combustible Volume (m <sup>3</sup> )	1.96E-05

Mass of Jacket per meter (kg/m)	0.0735
Mass of Insulation per meter (kg/m)	0.0125
Total Combustible Mass per meter (kg/m)	0.0859

Total Mass of Jacket (kg)	0.0
Total Mass of Insulation (kg)	0.0
Total Combustible Mass (kg)	0.0

Jacket heat of combustion energy per meter (kJ/m)	1319.2
Insulation heat of combustion energy per meter (kJ/m)	296.4
Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>
Combustible Fuel Load per meter (kJ/m)	<b>6462.5</b>

Number of Cables	4
Total Width of Cables	0.051

<b>Cable Tray ID</b>	<b>C101-2320</b>			
Cable Type	2/C#16		XLPPP	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>7276.8</b>	
Number of Cables	6			
Total Width of Cables	0.062			



<b>Cable Tray ID</b>	<b>C101-2320</b>			
Cable Type	5/C#16		XLPN (XLPPP)	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrif) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>11995.8</b>	
Number of Cables	6			
Total Width of Cables	0.079			

<b>Cable Tray ID</b>	<b>C101-2320</b>			
Cable Type	2/C#12		XLPN (XLPPP)	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4846.9</b>	
Number of Cables	3			
Total Width of Cables	0.038			
<b>Total Width (m)</b>	<b>0.283</b>			
<b>Total Energy (kJ/m)</b>	<b>38579.3</b>			

<b>Cable Tray ID</b>	<b>M100-2393</b>			
Cable Type	3-1/C #4/0		XLPP	
Outside Diameter (inches)	0.823	0.020904 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	0	0 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	55	0.00140 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	1	1	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.46	0.011684 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0104521 m			
Total Cable Area (A3)	0.0003432 m <sup>2</sup>			
Jacket Area	7.096E-05 m <sup>2</sup>			
Insulation Area	5.741E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	2.16E-05	Mass of Jacket per meter (kg/m)	0.1023	
Total Volume of Insulation (m <sup>3</sup> )	1.75E-05	Mass of Insulation per meter (kg/m)	0.0531	
Total Combustible Volume (m <sup>3</sup> )	3.91E-05	Total Combustible Mass per meter (kg/m)	0.1554	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1836.4	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1263.1	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>3099.5</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>74388.2</b>	
Number of Cables	24			
Total Width of Cables	0.502			

<b>Cable Tray ID</b>	<b>C101-2393</b>			
Cable Type	2/C#12		XLPPP	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4846.9</b>	
Number of Cables	3			
Total Width of Cables	0.038			

<b>Cable Tray ID</b>	<b>C101-2393</b>			
Cable Type	5/C #16		XLPPP	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23600
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3998.6</b>	
Number of Cables	2			
Total Width of Cables	0.026			

**Cable Tray ID**

**C101-2393**

Cable Type	2/C#16	
Outside Diameter (inches)	0.41	0.010414 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPPP
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

Carbon-black cross-linked polyethylene
924.4
23800
Black polyvinyl chloride (PVC)
1441.8
17950

Outside Radius	0.005207 m
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>
Jacket Area	4.033E-05 m <sup>2</sup>
Insulation Area	7.682E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>
		Combustible Fuel Load per meter (kJ/m)	<b>3638.4</b>

Number of Cables	3
Total Width of Cables	0.031

**Cable Tray ID**

**C101-2393**

Cable Type	5/C #12	
Outside Diameter (inches)	0.68	0.017272 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	5	5
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPPP)
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

Carbon-black cross-linked polyethylene
924.4
23800
Polyolefin (Flamtrol) - *Use PVC properties
1441.8
17950

Outside Radius	0.008636 m
Total Cable Area (A3)	0.0002343 m <sup>2</sup>
Jacket Area	8.16E-05 m <sup>2</sup>
Insulation Area	3.369E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.49E-05	Mass of Jacket per meter (kg/m)	0.1177
Total Volume of Insulation (m <sup>3</sup> )	1.03E-05	Mass of Insulation per meter (kg/m)	0.0311
Total Combustible Volume (m <sup>3</sup> )	3.51E-05	Total Combustible Mass per meter (kg/m)	0.1488

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2111.8
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	741.1
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2853.0</b>
		Combustible Fuel Load per meter (kJ/m)	<b>2853.0</b>

Number of Cables	1
Total Width of Cables	0.017

<b>Cable Tray ID</b>	<b>C101-2393</b>			
Cable Type	2/C#12		XLPN (XLPPP)	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>6462.5</b>	
Number of Cables	4			
Total Width of Cables	0.051			



<b>Cable Tray ID</b>	<b>C101-2393</b>			
Cable Type	5/C#16		XLPN (XLPPP)	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>11995.8</b>	
Number of Cables	6			
Total Width of Cables	0.079			
<b>Total Width (m)</b>	<b>0.243</b>			
<b>Total Energy (kJ/m)</b>	<b>33795.2</b>			

**Cable Tray ID**

**M100-2306**

Cable Type	3-1/C #4/0	
Outside Diameter (inches)	0.823	0.020904 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	55	0.00140 meters
Num. Conds.	1	1
Diam. Cond. (inches)	0.46	0.011684 meters
Cable Length (ft)	1	0.304878 meters

XLPP

Insulation Material	Carbon black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.0104521 m
Total Cable Area (A3)	0.0003432 m <sup>2</sup>
Jacket Area	7.096E-05 m <sup>2</sup>
Insulation Area	5.741E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.16E-05
Total Volume of Insulation (m <sup>3</sup> )	1.75E-05
Total Combustible Volume (m <sup>3</sup> )	3.91E-05

Mass of Jacket per meter (kg/m)	0.1023
Mass of Insulation per meter (kg/m)	0.0531
Total Combustible Mass per meter (kg/m)	0.1554

Total Mass of Jacket (kg)	0.0
Total Mass of Insulation (kg)	0.0
Total Combustible Mass (kg)	0.0

Jacket heat of combustion energy per meter (kJ/m)	1836.4
Insulation heat of combustion energy per meter (kJ/m)	1263.1
Combustible Fuel Load per meter per cable (kJ/m)	<b>3099.5</b>
Combustible Fuel Load per meter (kJ/m)	<b>55791.2</b>

Number of Cables	18
Total Width of Cables	0.376

<b>Cable Tray ID</b>	<b>C101-2306</b>			
Cable Type	2/C#12		XLPPP	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55405E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.10804E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96485E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1615.6</b>	
Number of Cables	1			
Total Width of Cables	0.013			

<b>Cable Tray ID</b>	<b>C101-2306</b>			
Cable Type	5/C #16		XLPPP	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0500	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.85752E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85494E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44301E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1999.3</b>	
Number of Cables	1			
Total Width of Cables	0.013			

<b>Cable Tray ID</b>	<b>C101-2306</b>			
Cable Type	2/C#12		XLPN (XLPPP)	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55405E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.10804E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96485E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4846.9</b>	
Number of Cables	3			
Total Width of Cables	0.038			

<b>Cable Tray ID</b>	<b>C101-2306</b>			
Cable Type	5/C#16		XLPN (XLPPP)	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamitrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.85752E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85494E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44301E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>7997.2</b>	
Number of Cables	4			
Total Width of Cables	0.053			

<b>Cable Tray ID</b>	<b>C101-2306</b>			
Cable Type	2/C#16		XLPPP	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.22963E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34198E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46383E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1212.8	
		Combustible Fuel Load per meter (kJ/m)	3638.4	
Number of Cables	3			
Total Width of Cables	0.031			
<b>Total Width (m)</b>	<b>0.148</b>			
<b>Total Energy (kJ/m)</b>	<b>20097.5</b>			

<b>Cable Tray ID</b>	<b>M120-2308</b>			
Cable Type	3-1/C #4/0		XLPP	
Outside Diameter (inches)	0.823	0.020904 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	0	0 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	55	0.00140 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	1	1	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.46	0.011684 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0104521 m			
Total Cable Area (A3)	0.0003432 m <sup>2</sup>			
Jacket Area	7.096E-05 m <sup>2</sup>			
Insulation Area	5.741E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	2.16E-05	Mass of Jacket per meter (kg/m)	0.1023	
Total Volume of Insulation (m <sup>3</sup> )	1.75E-05	Mass of Insulation per meter (kg/m)	0.0531	
Total Combustible Volume (m <sup>3</sup> )	3.91E-05	Total Combustible Mass per meter (kg/m)	0.1554	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1836.4	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1263.1	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>3099.5</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>74388.2</b>	
Number of Cables	24			
Total Width of Cables	0.502			



<b>Cable Tray ID</b>	<b>C120-2308</b>			
Cable Type	2/C#12		XLPN (XLPPP)	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55405E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.10804E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96485E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1615.6</b>	
Number of Cables	1			
Total Width of Cables	0.013			

<b>Cable Tray ID</b>	<b>C120-2308</b>			
Cable Type	5/C#16		XLPN (XLPPP)	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.85752E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85494E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44301E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1999.3</b>	
Number of Cables	1			
Total Width of Cables	0.013			

<b>Cable Tray ID</b>		<b>C120-2308</b>			
Cable Type	7/C #12			XLPN (XLPPP)	
Outside Diameter (inches)	0.74	0.018796	meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524	meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381	meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076	meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	7	7		Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0898	0.002052	meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878	meters		
Outside Radius	0.009398		m		
Total Cable Area (A3)	0.0002775		m <sup>2</sup>		
Jacket Area	0.0001159		m <sup>2</sup>		
Insulation Area	4.716E-05		m <sup>2</sup>		
Total Volume of Jacket (m <sup>3</sup> )	3.53206E-05	Mass of Jacket per meter (kg/m)	0.1670		
Total Volume of Insulation (m <sup>3</sup> )	1.43781E-05	Mass of Insulation per meter (kg/m)	0.0436		
Total Combustible Volume (m <sup>3</sup> )	4.96987E-05	Total Combustible Mass per meter (kg/m)	0.2106		
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3		
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6		
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>		
		Combustible Fuel Load per meter (kJ/m)	<b>4035.8</b>		
Number of Cables	1				
Total Width of Cables	0.019				

<b>Cable Tray ID</b>	<b>C120-2308</b>		<b>MCCC</b>	
Cable Type	5/C #12			
Outside Diameter (inches)	0.64	0.016256 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	65	0.001651 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	0	0 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	40	0.00102 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.008128 m			
Total Cable Area (A3)	0.0002075 m <sup>2</sup>			
Jacket Area	7.575E-05 m <sup>2</sup>			
Insulation Area	4.897E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	2.30954E-05	Mass of Jacket per meter (kg/m)	0.1092	
Total Volume of Insulation (m <sup>3</sup> )	1.49293E-05	Mass of Insulation per meter (kg/m)	0.0453	
Total Combustible Volume (m <sup>3</sup> )	3.80247E-05	Total Combustible Mass per meter (kg/m)	0.1545	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1960.5	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1077.3	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>3037.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3037.8</b>	
Number of Cables	1			
Total Width of Cables	0.016			

<b>Cable Tray ID</b>	<b>C120-2308</b>			
Cable Type	2/C#16		XLPPP	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.22963E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34198E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46383E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>6064.0</b>	
Number of Cables	5			
Total Width of Cables	0.052			
<b>Total Width (m)</b>	<b>0.113</b>			
<b>Total Energy (kJ/m)</b>	<b>16752.6</b>			

<b>Cable Tray ID</b>	<b>M102-2245</b>			
Cable Type	3/C #8		XLPP	
Outside Diameter (inches)	0.846	0.021488 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	45	0.00114 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	3	3	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.1285	0.003264 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0107442 m			
Total Cable Area (A3)	0.0003627 m <sup>2</sup>			
Jacket Area	0.0001169 m <sup>2</sup>			
Insulation Area	4.747E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.56348E-05	Mass of Jacket per meter (kg/m)	0.1685	
Total Volume of Insulation (m <sup>3</sup> )	1.44736E-05	Mass of Insulation per meter (kg/m)	0.0439	
Total Combustible Volume (m <sup>3</sup> )	5.01084E-05	Total Combustible Mass per meter (kg/m)	0.2124	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	3024.9	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1044.4	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4069.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4069.4</b>	
Number of Cables	1			
Total Width of Cables	0.021			

<b>Cable Tray ID</b>	<b>M102-2245</b>			
Cable Type	3/C #12		XLPP (XLPPP)	
Outside Diameter (inches)	0.619	0.015723 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	3	3	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0868	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0078613 m			
Total Cable Area (A3)	0.0001942 m <sup>2</sup>			
Jacket Area	8.219E-05 m <sup>2</sup>			
Insulation Area	2.021E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	2.50579E-05	Mass of Jacket per meter (kg/m)	0.1185	
Total Volume of Insulation (m <sup>3</sup> )	6.16206E-06	Mass of Insulation per meter (kg/m)	0.0187	
Total Combustible Volume (m <sup>3</sup> )	3.122E-05	Total Combustible Mass per meter (kg/m)	0.1372	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2127.1	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	444.7	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2571.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>2571.8</b>	
Number of Cables	1			
Total Width of Cables	0.016			
<b>Total Width (m)</b>	<b>0.037</b>			
<b>Total Energy (kJ/m)</b>	<b>6641.2</b>			

<b>Cable Tray ID</b>	<b>C103-2245</b>			
Cable Type	2/C#16		XLPPP	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.22963E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34198E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46383E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.018	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.002	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.020	Combustible Fuel Load per meter per cable (kJ/m)	1212.8	
		Combustible Fuel Load per meter (kJ/m)	18192.1	
Number of Cables	15			
Total Width of Cables	0.156			



<b>Cable Tray ID</b>	<b>C103-2245</b>			
Cable Type	2/C#12		XLPPP	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0806	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55405E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.10804E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96485E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	1615.6	
		Combustible Fuel Load per meter (kJ/m)	19387.6	
Number of Cables	12			
Total Width of Cables	0.152			

<b>Cable Tray ID</b>	<b>C103-2245</b>			
<b>Cable Type</b>	<b>5/C#16</b>		<b>XLPPP</b>	
<b>Outside Diameter (inches)</b>	0.52	0.013208 meters	<b>Insulation Material</b>	Carbon-black cross-linked polyethylene
<b>Outer Jacket Thickness (mils)</b>	45	0.001143 meters	<b>Insulation Density (kg/m<sup>3</sup>)</b>	924.4
<b>Insulation Jacket Thickness (mils)</b>	15	0.000381 meters	<b>Insulation Heat of Combustion (kJ/kg)</b>	23800
<b>Conduct. Insul. Thickness (mils)</b>	25	0.00064 meters	<b>Jacket Material</b>	Black polyvinyl chloride (PVC)
<b>Num. Conds.</b>	5	5	<b>Jacket Density (kg/m<sup>3</sup>)</b>	1441.8
<b>Diam. Cond. (inches)</b>	0.0508	0.00129 meters	<b>Jacket Heat of Combustion (kJ/kg)</b>	17950
<b>Cable Length (feet)</b>	1	0.304878 meters		
<b>Outside Radius</b>	0.006604 m			
<b>Total Cable Area (A3)</b>	0.000137 m <sup>2</sup>			
<b>Jacket Area</b>	6.093E-05 m <sup>2</sup>			
<b>Insulation Area</b>	1.92E-05 m <sup>2</sup>			
<b>Total Volume of Jacket (m<sup>3</sup>)</b>	1.85752E-05	<b>Mass of Jacket per meter (kg/m)</b>	0.0878	
<b>Total Volume of Insulation (m<sup>3</sup>)</b>	5.85494E-06	<b>Mass of Insulation per meter (kg/m)</b>	0.0178	
<b>Total Combustible Volume (m<sup>3</sup>)</b>	2.44301E-05	<b>Total Combustible Mass per meter (kg/m)</b>	0.1056	
<b>Total Mass of Jacket (kg)</b>	0.027	<b>Jacket heat of combustion energy per meter (kJ/m)</b>	1576.8	
<b>Total Mass of Insulation (kg)</b>	0.005	<b>Insulation heat of combustion energy per meter (kJ/m)</b>	422.5	
<b>Total Combustible Mass (kg)</b>	0.032	<b>Combustible Fuel Load per meter per cable (kJ/m)</b>	1999.3	
		<b>Combustible Fuel Load per meter (kJ/m)</b>	7997.2	
<b>Number of Cables</b>	4			
<b>Total Width of Cables</b>	0.053			

Cable Tray ID	C103-2245	
Cable Type	7/C #12	
Outside Diameter (inches)	0.74	0.018796 meters
Outer Jacket Thickness (mils)	60	0.001524 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	7	7
Diam. Cond. (inches)	0.0805	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPPP	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23900
Jacket Material	Black polyvinyl chloride (PVC)
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.009398 m
Total Cable Area (A3)	0.0002775 m <sup>2</sup>
Jacket Area	0.0001159 m <sup>2</sup>
Insulation Area	4.716E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	3.53206E-05
Total Volume of Insulation (m <sup>3</sup> )	1.43781E-05
Total Combustible Volume (m <sup>3</sup> )	4.96987E-05

Mass of Jacket per meter (kg/m)	0.1670
Mass of Insulation per meter (kg/m)	0.0436
Total Combustible Mass per meter (kg/m)	0.2106

Total Mass of Jacket (kg)	0.1
Total Mass of Insulation (kg)	0.0
Total Combustible Mass (kg)	0.1

Jacket heat of combustion energy per meter (kJ/m)	2998.3
Insulation heat of combustion energy per meter (kJ/m)	1037.6
Combustible Fuel Load per meter per cable (kJ/m)	4035.8
Combustible Fuel Load per meter (kJ/m)	4035.8

Number of Cables	1
Total Width of Cables	0.019

<b>Cable Tray ID</b>	<b>C103-2245</b>			
<b>Cable Type</b>	2/C #12 - Armored Cable		XLPE (XLPPP)	
<b>Outside Diameter (inches)</b>	0.5	0.0127 meters	Insulation Material	cross-linked polyethylene
<b>Outer Jacket Thickness (mils)</b>	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
<b>Insulation Jacket Thickness (mils)</b>	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	0
<b>Conduct. Insul. Thickness (mils)</b>	30	0.00076 meters	Jacket Material	Chlorosulphonated Polyethylene - *use PVC properties
<b>Num. Conds.</b>	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
<b>Diam. Cond. (inches)</b>	0.0908	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	0
<b>Cable Length (feet)</b>	1	0.304878 meters		
<b>Outside Radius</b>	0.00635 m			
<b>Total Cable Area (A3)</b>	0.0001267 m <sup>2</sup>			
<b>Jacket Area</b>	5.097E-05 m <sup>2</sup>			
<b>Insulation Area</b>	1.347E-05 m <sup>2</sup>			
<b>Total Volume of Jacket (m<sup>3</sup>)</b>	1.55405E-05	<b>Mass of Jacket per meter (kg/m)</b>	0.0735	
<b>Total Volume of Insulation (m<sup>3</sup>)</b>	4.10804E-06	<b>Mass of Insulation per meter (kg/m)</b>	0.0125	
<b>Total Combustible Volume (m<sup>3</sup>)</b>	1.96485E-05	<b>Total Combustible Mass per meter (kg/m)</b>	0.0859	
<b>Total Mass of Jacket (kg)</b>	0.022	<b>Jacket heat of combustion energy per meter (kJ/m)</b>	0.0	
<b>Total Mass of Insulation (kg)</b>	0.004	<b>Insulation heat of combustion energy per meter (kJ/m)</b>	0.0	
<b>Total Combustible Mass (kg)</b>	0.026	<b>Combustible Fuel Load per meter per cable (kJ/m)</b>	0.0	
		<b>Combustible Fuel Load per meter (kJ/m)</b>	0.0	
<b>Number of Cables</b>	2			
<b>Total Width of Cables</b>	0.025			

<b>Cable Tray ID</b>	<b>C103-2245</b>			
Cable Type	5/C #12		XLPPP	
Outside Diameter (inches)	0.88	0.017272 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.008636 m			
Total Cable Area (A3)	0.0002343 m <sup>2</sup>			
Jacket Area	9.908E-05 m <sup>2</sup>			
Insulation Area	3.369E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.02078E-05	Mass of Jacket per meter (kg/m)	0.1429	
Total Volume of Insulation (m <sup>3</sup> )	1.02701E-05	Mass of Insulation per meter (kg/m)	0.0311	
Total Combustible Volume (m <sup>3</sup> )	4.04779E-05	Total Combustible Mass per meter (kg/m)	0.1740	
Total Mass of Jacket (kg)	0.044	Jacket heat of combustion energy per meter (kJ/m)	2564.3	
Total Mass of Insulation (kg)	0.009	Insulation heat of combustion energy per meter (kJ/m)	741.1	
Total Combustible Mass (kg)	0.053	Combustible Fuel Load per meter per cable (kJ/m)	3305.4	
		Combustible Fuel Load per meter (kJ/m)	3305.4	
Number of Cables	1			
Total Width of Cables	0.017			

<b>Cable Tray ID</b>	<b>C103-2245</b>			
<b>Cable Type</b>	<b>2/C#16</b>		<b>XLPN (XLPPP)</b>	
<b>Outside Diameter (inches)</b>	0.41	0.010414 meters	<b>Insulation Material</b>	Carbon-black cross-linked polyethylene
<b>Outer Jacket Thickness (mils)</b>	45	0.001143 meters	<b>Insulation Density (kg/m<sup>3</sup>)</b>	924.4
<b>Insulation Jacket Thickness (mils)</b>	15	0.000381 meters	<b>Insulation Heat of Combustion (kJ/kg)</b>	23800
<b>Conduct. Insul. Thickness (mils)</b>	25	0.00064 meters	<b>Jacket Material</b>	Polyolefin (Flamtrol) - *use PVC properties
<b>Num. Conds.</b>	2	2	<b>Jacket Density (kg/m<sup>3</sup>)</b>	1441.8
<b>Diam. Cond. (inches)</b>	0.0508	0.00129 meters	<b>Jacket Heat of Combustion (kJ/kg)</b>	17950
<b>Cable Length (feet)</b>	1	0.304878 meters		
<b>Outside Radius</b>	0.005207 m			
<b>Total Cable Area (A3)</b>	8.518E-05 m <sup>2</sup>			
<b>Jacket Area</b>	4.033E-05 m <sup>2</sup>			
<b>Insulation Area</b>	7.682E-06 m <sup>2</sup>			
<b>Total Volume of Jacket (m<sup>3</sup>)</b>	1.22963E-05	<b>Mass of Jacket per meter (kg/m)</b>	0.0582	
<b>Total Volume of Insulation (m<sup>3</sup>)</b>	2.34198E-06	<b>Mass of Insulation per meter (kg/m)</b>	0.0071	
<b>Total Combustible Volume (m<sup>3</sup>)</b>	1.46383E-05	<b>Total Combustible Mass per meter (kg/m)</b>	0.0653	
<b>Total Mass of Jacket (kg)</b>	0.0	<b>Jacket heat of combustion energy per meter (kJ/m)</b>	1043.8	
<b>Total Mass of Insulation (kg)</b>	0.0	<b>Insulation heat of combustion energy per meter (kJ/m)</b>	169.0	
<b>Total Combustible Mass (kg)</b>	0.0	<b>Combustible Fuel Load per meter per cable (kJ/m)</b>	1212.8	
		<b>Combustible Fuel Load per meter (kJ/m)</b>	1212.8	
<b>Number of Cables</b>	1			
<b>Total Width of Cables</b>	0.010			

<b>Cable Tray ID</b>	<b>C103-2245</b>			
<b>Cable Type</b>	<b>5/C#16</b>		<b>XLPN (XLPPP)</b>	
<b>Outside Diameter (inches)</b>	0.52	0.013208 meters	<b>Insulation Material</b>	Carbon-black cross-linked polyethylene
<b>Outer Jacket Thickness (mils)</b>	45	0.001143 meters	<b>Insulation Density (kg/m<sup>3</sup>)</b>	924.4
<b>Insulation Jacket Thickness (mils)</b>	15	0.000381 meters	<b>Insulation Heat of Combustion (kJ/kg)</b>	23800
<b>Conduct. Insul. Thickness (mils)</b>	25	0.00064 meters	<b>Jacket Material</b>	Polyolefin (Flamtrol) - *use PVC properties
<b>Num. Conds.</b>	5	5	<b>Jacket Density (kg/m<sup>3</sup>)</b>	1441.8
<b>Diam. Cond. (inches)</b>	0.0506	0.00129 meters	<b>Jacket Heat of Combustion (kJ/kg)</b>	17950
<b>Cable Length (feet)</b>	1	0.304878 meters		
<b>Outside Radius</b>	0.006604 m			
<b>Total Cable Area (A3)</b>	0.000137 m <sup>2</sup>			
<b>Jacket Area</b>	6.093E-05 m <sup>2</sup>			
<b>Insulation Area</b>	1.92E-05 m <sup>2</sup>			
<b>Total Volume of Jacket (m<sup>3</sup>)</b>	1.85752E-05	<b>Mass of Jacket per meter (kg/m)</b>	0.0878	
<b>Total Volume of Insulation (m<sup>3</sup>)</b>	5.85494E-06	<b>Mass of Insulation per meter (kg/m)</b>	0.0178	
<b>Total Combustible Volume (m<sup>3</sup>)</b>	2.44301E-05	<b>Total Combustible Mass per meter (kg/m)</b>	0.1056	
<b>Total Mass of Jacket (kg)</b>	0.0	<b>Jacket heat of combustion energy per meter (kJ/m)</b>	1576.8	
<b>Total Mass of Insulation (kg)</b>	0.0	<b>Insulation heat of combustion energy per meter (kJ/m)</b>	422.5	
<b>Total Combustible Mass (kg)</b>	0.0	<b>Combustible Fuel Load per meter per cable (kJ/m)</b>	1999.3	
		<b>Combustible Fuel Load per meter (kJ/m)</b>	5997.9	
<b>Number of Cables</b>	3			
<b>Total Width of Cables</b>	0.040			

<b>Cable Tray ID</b>	<b>C103-2245</b>			
Cable Type	2/C #12		SP	
Outside Diameter (inches)	0.504	0.012802 meters	Insulation Material	Ethylene propylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	neoprene - use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0506	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.0064008 m			
Total Cable Area (A3)	0.0001287 m <sup>2</sup>			
Jacket Area	4.951E-05 m <sup>2</sup>			
Insulation Area	9.826E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.50956E-05	Mass of Jacket per meter (kg/m)	0.0714	
Total Volume of Insulation (m <sup>3</sup> )	2.99575E-06	Mass of Insulation per meter (kg/m)	0.0091	
Total Combustible Volume (m <sup>3</sup> )	1.80913E-05	Total Combustible Mass per meter (kg/m)	0.0805	
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	1281.4	
Total Mass of Insulation (kg)	0.003	Insulation heat of combustion energy per meter (kJ/m)	216.2	
Total Combustible Mass (kg)	0.025	Combustible Fuel Load per meter per cable (kJ/m)	1497.6	
		Combustible Fuel Load per meter (kJ/m)	2995.2	
Number of Cables	2			
Total Width of Cables	0.026			



<b>Cable Tray ID</b>	<b>C103-2245</b>		<b>SP</b>	<b>(XLPPP)</b>	
<b>Cable Type</b>	<b>5/C #12</b>		<b>Insulation Material</b>		<b>Ethylene propylene</b>
<b>Outside Diameter (inches)</b>	<b>0.653</b>	<b>0.016967 meters</b>	<b>Insulation Density (kg/m<sup>3</sup>)</b>		<b>924.4</b>
<b>Outer Jacket Thickness (mils)</b>	<b>60</b>	<b>0.001524 meters</b>	<b>Insulation Heat of Combustion (kJ/kg)</b>		<b>23900</b>
<b>Insulation Jacket Thickness (mils)</b>	<b>15</b>	<b>0.000381 meters</b>	<b>Jacket Material</b>		<b>neoprene - use PVC properties</b>
<b>Conduct. Insul. Thickness (mils)</b>	<b>30</b>	<b>0.00076 meters</b>	<b>Jacket Density (kg/m<sup>3</sup>)</b>		<b>1441.8</b>
<b>Num. Conds.</b>	<b>5</b>	<b>5</b>	<b>Jacket Heat of Combustion (kJ/kg)</b>		<b>17950</b>
<b>Diam. Cond. (inches)</b>	<b>0.0508</b>	<b>0.00129 meters</b>			
<b>Cable Length (feet)</b>	<b>1</b>	<b>0.304878 meters</b>			
<b>Outside Radius</b>	<b>0.0084836 m</b>				
<b>Total Cable Area (A3)</b>	<b>0.0002261 m<sup>2</sup></b>				
<b>Jacket Area</b>	<b>9.306E-05 m<sup>2</sup></b>				
<b>Insulation Area</b>	<b>2.457E-05 m<sup>2</sup></b>				
<b>Total Volume of Jacket (m<sup>3</sup>)</b>	<b>2.83725E-05</b>	<b>Mass of Jacket per meter (kg/m)</b>		<b>0.1342</b>	
<b>Total Volume of Insulation (m<sup>3</sup>)</b>	<b>7.48938E-06</b>	<b>Mass of Insulation per meter (kg/m)</b>		<b>0.0227</b>	
<b>Total Combustible Volume (m<sup>3</sup>)</b>	<b>3.58619E-05</b>	<b>Total Combustible Mass per meter (kg/m)</b>		<b>0.1569</b>	
<b>Total Mass of Jacket (kg)</b>	<b>0.0</b>	<b>Jacket heat of combustion energy per meter (kJ/m)</b>		<b>2408.5</b>	
<b>Total Mass of Insulation (kg)</b>	<b>0.0</b>	<b>Insulation heat of combustion energy per meter (kJ/m)</b>		<b>540.5</b>	
<b>Total Combustible Mass (kg)</b>	<b>0.0</b>	<b>Combustible Fuel Load per meter per cable (kJ/m)</b>		<b>2948.9</b>	
		<b>Combustible Fuel Load per meter (kJ/m)</b>		<b>2948.9</b>	
<b>Number of Cables</b>	<b>1</b>				
<b>Total Width of Cables</b>	<b>0.017</b>				
<b>Total Width (m)</b>	<b>0.516</b>				
<b>Total Energy (kJ/m)</b>	<b>66073.0</b>				

**Cable Tray ID**

**M102-2247**

Cable Type	3/C #12	
Outside Diameter (inches)	0.619	0.015723 meters
Outer Jacket Thickness (mils)	60	0.001524 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	3	3
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (ft)	1	0.304878 meters

XLPP (XLPPP)
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

Carbon-black cross-linked polyethylene
924.4
23800
Polyolefin (Flamtröl) - *use PVC properties
1441.8
17950

Outside Radius	0.0078613 m
Total Cable Area (A3)	0.0001942 m <sup>2</sup>
Jacket Area	8.219E-05 m <sup>2</sup>
Insulation Area	2.021E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.51E-05
Total Volume of Insulation (m <sup>3</sup> )	6.16E-06
Total Combustible Volume (m <sup>3</sup> )	3.12E-05

Mass of Jacket per meter (kg/m)	0.1185
Mass of Insulation per meter (kg/m)	0.0187
Total Combustible Mass per meter (kg/m)	0.1372

Total Mass of Jacket (kg)	0.036
Total Mass of Insulation (kg)	0.006
Total Combustible Mass (kg)	0.042

Jacket heat of combustion energy per meter (kJ/m)	2127.1
Insulation heat of combustion energy per meter (kJ/m)	444.7
Combustible Fuel Load per meter per cable (kJ/m)	<b>2571.8</b>
Combustible Fuel Load per meter (kJ/m)	<b>2571.8</b>

Number of Cables	1
Total Width of Cables	0.016

<b>Cable Tray ID</b>	<b>C103-2247</b>			
Cable Type	2/C#16		XLPPP	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.018	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.002	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.020	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>2425.6</b>	
Number of Cables	2			
Total Width of Cables	0.021			

<b>Cable Tray ID</b>	<b>C103-2247</b>			
Cable Type	2/C#12		XLPPP	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0608	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>6462.5</b>	
Number of Cables	4			
Total Width of Cables	0.051			

<b>Cable Tray ID</b>	<b>C103-2247</b>			
Cable Type	5/C#16		XLPPP	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.027	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.005	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.032	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>7997.2</b>	
Number of Cables	4			
Total Width of Cables	0.053			

**Cable Tray ID**

**C103-2247**

Cable Type	7/C #12	
Outside Diameter (inches)	0.69	0.017526 meters
Outer Jacket Thickness (mils)	65	0.001651 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	40	0.00102 meters
Num. Conds.	7	7
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

MCCC (XLPPP for Insul. Jacket thickness)

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.008763 m
Total Cable Area (A3)	0.0002412 m <sup>2</sup>
Jacket Area	8.234E-05 m <sup>2</sup>
Insulation Area	6.856E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.51E-05	Mass of Jacket per meter (kg/m)	0.1187
Total Volume of Insulation (m <sup>3</sup> )	2.09E-05	Mass of Insulation per meter (kg/m)	0.0634
Total Combustible Volume (m <sup>3</sup> )	4.6E-05	Total Combustible Mass per meter (kg/m)	0.1821

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2131.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1508.3
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>3639.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>10917.8</b>

Number of Cables	3
Total Width of Cables	0.053

<b>Cable Tray ID</b>	<b>C103-2247</b>			
Cable Type	5/C #12		XLPPP	
Outside Diameter (inches)	0.68	0.017272 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtril) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.008636 m			
Total Cable Area (A3)	0.0002343 m <sup>2</sup>			
Jacket Area	9.908E-05 m <sup>2</sup>			
Insulation Area	3.369E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.02E-05	Mass of Jacket per meter (kg/m)	0.1429	
Total Volume of Insulation (m <sup>3</sup> )	1.03E-05	Mass of Insulation per meter (kg/m)	0.0311	
Total Combustible Volume (m <sup>3</sup> )	4.05E-05	Total Combustible Mass per meter (kg/m)	0.1740	
Total Mass of Jacket (kg)	0.044	Jacket heat of combustion energy per meter (kJ/m)	2564.3	
Total Mass of Insulation (kg)	0.009	Insulation heat of combustion energy per meter (kJ/m)	741.1	
Total Combustible Mass (kg)	0.053	Combustible Fuel Load per meter per cable (kJ/m)	<b>3305.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3305.4</b>	
Number of Cables	1			
Total Width of Cables	0.017			

**Cable Tray ID**

**C103-2247**

Cable Type	2/C#16	
Outside Diameter (inches)	0.41	0.010414 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPPP)
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

Carbon-black cross-linked polyethylene
924.4
23800
Polyolefin (Flamtrai) - *use PVC properties
1441.8
17950

Outside Radius	0.005207 m
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>
Jacket Area	4.033E-05 m <sup>2</sup>
Insulation Area	7.682E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.23E-05
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06
Total Combustible Volume (m <sup>3</sup> )	1.46E-05

Mass of Jacket per meter (kg/m)	0.0582
Mass of Insulation per meter (kg/m)	0.0071
Total Combustible Mass per meter (kg/m)	0.0653

Total Mass of Jacket (kg)	0.0
Total Mass of Insulation (kg)	0.0
Total Combustible Mass (kg)	0.0

Jacket heat of combustion energy per meter (kJ/m)	1043.8
Insulation heat of combustion energy per meter (kJ/m)	169.0
Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>
Combustible Fuel Load per meter (kJ/m)	<b>1212.8</b>

Number of Cables	1
Total Width of Cables	0.010



<b>Cable Tray ID</b>	<b>C103-2247</b>			
Cable Type	7/C #12		XLPPP	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	7	7	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.0002775 m <sup>2</sup>			
Jacket Area	0.0001159 m <sup>2</sup>			
Insulation Area	4.716E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.53E-05	Mass of Jacket per meter (kg/m)	0.1670	
Total Volume of Insulation (m <sup>3</sup> )	1.44E-05	Mass of Insulation per meter (kg/m)	0.0436	
Total Combustible Volume (m <sup>3</sup> )	4.97E-05	Total Combustible Mass per meter (kg/m)	0.2106	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4035.8</b>	
Number of Cables	1			
Total Width of Cables	0.019			

<b>Cable Tray ID</b>	<b>C103-2247</b>			
Cable Type	2/C #12		SP	
Outside Diameter (inches)	0.504	0.012802 meters	Insulation Material	Ethylene propylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	neoprene - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.0064008 m			
Total Cable Area (A3)	0.0001287 m <sup>2</sup>			
Jacket Area	5.134E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.57E-05	Mass of Jacket per meter (kg/m)	0.0740	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.98E-05	Total Combustible Mass per meter (kg/m)	0.0865	
Total Mass of Jacket (kg)	0.023	Jacket heat of combustion energy per meter (kJ/m)	1328.6	
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	<b>1625.1</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3250.2</b>	
Number of Cables	2			
Total Width of Cables	0.026			
<b>Total Width (m)</b>	<b>0.249</b>			
<b>Total Energy (kJ/m)</b>	<b>39607.3</b>			

<b>Cable Tray ID</b>	<b>M127-2221/2225</b>			
Cable Type	3/C #8		XLPP	
Outside Diameter (inches)	0.846	0.021488 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	45	0.00114 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	3	3	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.1285	0.003264 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0107442 m			
Total Cable Area (A3)	0.0003627 m <sup>2</sup>			
Jacket Area	0.0001169 m <sup>2</sup>			
Insulation Area	4.747E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.56E-05	Mass of Jacket per meter (kg/m)	0.1685	
Total Volume of Insulation (m <sup>3</sup> )	1.45E-05	Mass of Insulation per meter (kg/m)	0.0439	
Total Combustible Volume (m <sup>3</sup> )	5.01E-05	Total Combustible Mass per meter (kg/m)	0.2124	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	3024.9	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1044.4	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	4069.4	
		Combustible Fuel Load per meter (kJ/m)	4069.4	
Number of Cables	1			
Total Width of Cables	0.021			

<b>Cable Tray ID</b>	<b>M127-2221/2225</b>			
Cable Type	3/C #12		XLPP (XLPPP)	
Outside Diameter (inches)	0.619	0.015723 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtril) - *use PVC properties
Num. Conds.	3	3	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0078613 m			
Total Cable Area (A3)	0.0001942 m <sup>2</sup>			
Jacket Area	8.219E-05 m <sup>2</sup>			
Insulation Area	2.021E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	2.51E-05	Mass of Jacket per meter (kg/m)	0.1185	
Total Volume of Insulation (m <sup>3</sup> )	6.16E-06	Mass of Insulation per meter (kg/m)	0.0187	
Total Combustible Volume (m <sup>3</sup> )	3.12E-05	Total Combustible Mass per meter (kg/m)	0.1372	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2127.1	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	444.7	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2571.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>2571.8</b>	
Number of Cables	1			
Total Width of Cables	0.016			

**Cable Tray ID**

**M127-2221/2225**

Cable Type	4 - 1/C #2/0	
Outside Diameter (inches)	0.712	0.018085 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	55	0.00140 meters
Num. Conds.	1	1
Diam. Cond. (inches)	0.3648	0.009266 meters
Cable Length (ft)	1	0.304878 meters

XLPN (XLPPP)
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

Flame resistant cross-linked polyethylene
924.4
23800
Polyolefin (Flamtrol) - *use PVC properties
1441.8
17950

Outside Radius	0.0090424 m
Total Cable Area (A3)	0.0002569 m <sup>2</sup>
Jacket Area	6.084E-05 m <sup>2</sup>
Insulation Area	4.68E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.85E-05
Total Volume of Insulation (m <sup>3</sup> )	1.43E-05
Total Combustible Volume (m <sup>3</sup> )	3.28E-05

Mass of Jacket per meter (kg/m)	0.0877
Mass of Insulation per meter (kg/m)	0.0433
Total Combustible Mass per meter (kg/m)	0.1310

Total Mass of Jacket (kg)	0.027
Total Mass of Insulation (kg)	0.013
Total Combustible Mass (kg)	0.040

Jacket heat of combustion energy per meter (kJ/m)	1574.4
Insulation heat of combustion energy per meter (kJ/m)	1029.6
Combustible Fuel Load per meter per cable (kJ/m)	<b>2604.0</b>
Combustible Fuel Load per meter (kJ/m)	<b>10416.1</b>

Number of Cables	4
Total Width of Cables	0.072

<b>Total Width (m)</b>	<b>0.110</b>
<b>Total Energy (kJ/m)</b>	<b>17057.2</b>

<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	2/C#16		XLPPP	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.018	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.002	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.020	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>14553.7</b>	
Number of Cables	12			
Total Width of Cables	0.125			

<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	5/C #10		XLPPP	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23600
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.1019	0.002588 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.0002775 m <sup>2</sup>			
Jacket Area	0.0001096 m <sup>2</sup>			
Insulation Area	4.01E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.34E-05	Mass of Jacket per meter (kg/m)	0.1580	
Total Volume of Insulation (m <sup>3</sup> )	1.22E-05	Mass of Insulation per meter (kg/m)	0.0371	
Total Combustible Volume (m <sup>3</sup> )	4.56E-05	Total Combustible Mass per meter (kg/m)	0.1951	
Total Mass of Jacket (kg)	0.048	Jacket heat of combustion energy per meter (kJ/m)	2836.1	
Total Mass of Insulation (kg)	0.011	Insulation heat of combustion energy per meter (kJ/m)	882.2	
Total Combustible Mass (kg)	0.059	Combustible Fuel Load per meter per cable (kJ/m)	<b>3718.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3718.4</b>	
Number of Cables	1			
Total Width of Cables	0.019			

<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	7/C #12		XLPN (XLPPP)	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	7	7	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0608	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.0002775 m <sup>2</sup>			
Jacket Area	0.0001159 m <sup>2</sup>			
Insulation Area	4.716E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.53E-05	Mass of Jacket per meter (kg/m)	0.1670	
Total Volume of Insulation (m <sup>3</sup> )	1.44E-05	Mass of Insulation per meter (kg/m)	0.0436	
Total Combustible Volume (m <sup>3</sup> )	4.97E-05	Total Combustible Mass per meter (kg/m)	0.2106	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4035.8</b>	
Number of Cables	1			
Total Width of Cables	0.019			



<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	2/C#12		XLPPP	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0608	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	1615.6	
		Combustible Fuel Load per meter (kJ/m)	19387.6	
Number of Cables	12			
Total Width of Cables	0.152			

**Cable Tray ID**

**C121-2221/2225**

Cable Type	5/C #12	
Outside Diameter (inches)	0.68	0.017272 meters
Outer Jacket Thickness (mils)	60	0.001524 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	5	5
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPPP)	
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.008636 m
Total Cable Area (A3)	0.0002343 m <sup>2</sup>
Jacket Area	9.908E-05 m <sup>2</sup>
Insulation Area	3.369E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	3.02E-05	Mass of Jacket per meter (kg/m)	0.1429
Total Volume of Insulation (m <sup>3</sup> )	1.03E-05	Mass of Insulation per meter (kg/m)	0.0311
Total Combustible Volume (m <sup>3</sup> )	4.05E-05	Total Combustible Mass per meter (kg/m)	0.1740
Total Mass of Jacket (kg)	0.044	Jacket heat of combustion energy per meter (kJ/m)	2564.3
Total Mass of Insulation (kg)	0.009	Insulation heat of combustion energy per meter (kJ/m)	741.1
Total Combustible Mass (kg)	0.053	Combustible Fuel Load per meter per cable (kJ/m)	<b>3305.4</b>
		Combustible Fuel Load per meter (kJ/m)	<b>13221.5</b>

Number of Cables	4
Total Width of Cables	0.069

<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	5/C#16		XLPPP	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.027	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.005	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.032	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3998.6</b>	
Number of Cables	2			
Total Width of Cables	0.026			

**Cable Tray ID**

**C121-2221/2225**

Cable Type	2/C #12 - Armored Cable	
Outside Diameter (inches)	0.5	0.0127 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0608	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPE (XLPPP)
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

cross-linked polyethylene
924.4
0
Chlorosulphonated Polyethylene - *use PVC propert
1441.8
0

Outside Radius	0.00635 m
Total Cable Area (A3)	0.0001267 m <sup>2</sup>
Jacket Area	5.097E-05 m <sup>2</sup>
Insulation Area	1.347E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	0.0
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	0.0
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	0.0
		Combustible Fuel Load per meter (kJ/m)	0.0

Number of Cables	3
Total Width of Cables	0.038

<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	2/C#16		XLPN (XLPPP)	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamrot) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	1212.8	
		Combustible Fuel Load per meter (kJ/m)	1212.8	
Number of Cables	1			
Total Width of Cables	0.010			

<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	7/C #12		XLPPP	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	7	7	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.0002775 m <sup>2</sup>			
Jacket Area	0.0001159 m <sup>2</sup>			
Insulation Area	4.716E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.53E-05	Mass of Jacket per meter (kg/m)	0.1670	
Total Volume of Insulation (m <sup>3</sup> )	1.44E-05	Mass of Insulation per meter (kg/m)	0.0436	
Total Combustible Volume (m <sup>3</sup> )	4.97E-05	Total Combustible Mass per meter (kg/m)	0.2106	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>8071.7</b>	
Number of Cables	2			
Total Width of Cables	0.038			

<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	5/C #12		XLPPP	
Outside Diameter (inches)	0.68	0.017272 meters	Insulation Material	Carbon-black crossed-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23600
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0608	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.008636 m			
Total Cable Area (A3)	0.0002343 m <sup>2</sup>			
Jacket Area	9.908E-05 m <sup>2</sup>			
Insulation Area	3.369E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.02E-05	Mass of Jacket per meter (kg/m)	0.1429	
Total Volume of Insulation (m <sup>3</sup> )	1.03E-05	Mass of Insulation per meter (kg/m)	0.0311	
Total Combustible Volume (m <sup>3</sup> )	4.05E-05	Total Combustible Mass per meter (kg/m)	0.1740	
Total Mass of Jacket (kg)	0.044	Jacket heat of combustion energy per meter (kJ/m)	2564.3	
Total Mass of Insulation (kg)	0.009	Insulation heat of combustion energy per meter (kJ/m)	741.1	
Total Combustible Mass (kg)	0.053	Combustible Fuel Load per meter per cable (kJ/m)	<b>3305.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>9916.1</b>	
Number of Cables	3			
Total Width of Cables	0.052			

<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	2/C #12		XLPN	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polytetrafluoroethylene (Famtril) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0608	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>8078.2</b>	
Number of Cables	5			
Total Width of Cables	0.064			



<b>Cable Tray ID</b>	<b>C121-2221/2225</b>			
Cable Type	5/C #16		XLPN (XLPPP)	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.027	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.005	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.032	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>17993.7</b>	
Number of Cables	9			
Total Width of Cables	0.119			

Cable Tray ID	C121-2221/2225	
Cable Type	7/C #12	
Outside Diameter (inches)	0.69	0.017526 meters
Outer Jacket Thickness (mils)	65	0.001651 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	40	0.00102 meters
Num. Conds.	7	7
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

MCCC	(XLPPP for Insul. Jacket thickness)
Insulation Material	Carbon black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.008763 m
Total Cable Area (A3)	0.0002412 m <sup>2</sup>
Jacket Area	8.234E-05 m <sup>2</sup>
Insulation Area	6.856E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.51E-05	Mass of Jacket per meter (kg/m)	0.1187
Total Volume of Insulation (m <sup>3</sup> )	2.09E-05	Mass of Insulation per meter (kg/m)	0.0634
Total Combustible Volume (m <sup>3</sup> )	4.6E-05	Total Combustible Mass per meter (kg/m)	0.1821
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2131.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1508.3
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>3639.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>14557.0</b>

Number of Cables	4
Total Width of Cables	0.070

<b>Total Width (m)</b>	<b>0.801</b> 0.61 m Tray width used
<b>Total Energy (kJ/m)</b>	<b>118745.1</b>

<b>Cable Tray ID</b>	<b>M127-2223</b>			
Cable Type	3/C #8		XLPP	
Outside Diameter (inches)	0.846	0.021488 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	45	0.00114 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	3	3	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.1285	0.003264 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0107442 m			
Total Cable Area (A3)	0.0003627 m <sup>2</sup>			
Jacket Area	0.0001169 m <sup>2</sup>			
Insulation Area	4.747E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.56E-05	Mass of Jacket per meter (kg/m)	0.1685	
Total Volume of Insulation (m <sup>3</sup> )	1.45E-05	Mass of Insulation per meter (kg/m)	0.0439	
Total Combustible Volume (m <sup>3</sup> )	5.01E-05	Total Combustible Mass per meter (kg/m)	0.2124	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	3024.9	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1044.4	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4069.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4069.4</b>	
Number of Cables	1			
Total Width of Cables	0.021			

<b>Cable Tray ID</b>	<b>M127-2223</b>			
Cable Type	3/C #12		XLPP (XLPPP)	
Outside Diameter (inches)	0.619	0.015723 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	3	3	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0078613 m			
Total Cable Area (A3)	0.0001942 m <sup>2</sup>			
Jacket Area	8.219E-05 m <sup>2</sup>			
Insulation Area	2.021E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	2.51E-05	Mass of Jacket per meter (kg/m)	0.1185	
Total Volume of Insulation (m <sup>3</sup> )	6.16E-06	Mass of Insulation per meter (kg/m)	0.0187	
Total Combustible Volume (m <sup>3</sup> )	3.12E-05	Total Combustible Mass per meter (kg/m)	0.1372	
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2127.1	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	444.7	
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2571.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>2571.8</b>	
Number of Cables	1			
Total Width of Cables	0.016			

<b>Cable Tray ID</b>	<b>M127-2223</b>			
Cable Type	4 - 1/C #2/0		XLPN (XLPPP)	
Outside Diameter (inches)	0.712	0.018085 meters	Insulation Material	Flame resistant cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	0	0 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	55	0.00140 meters	Jacket Material	Polyolefin (Flamtrol) - *Use PVC properties
Num. Conds.	1	1	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.3648	0.009266 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (ft)	1	0.304878 meters		
Outside Radius	0.0090424 m			
Total Cable Area (A3)	0.0002569 m <sup>2</sup>			
Jacket Area	6.084E-05 m <sup>2</sup>			
Insulation Area	4.68E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.85E-05	Mass of Jacket per meter (kg/m)	0.0877	
Total Volume of Insulation (m <sup>3</sup> )	1.43E-05	Mass of Insulation per meter (kg/m)	0.0433	
Total Combustible Volume (m <sup>3</sup> )	3.28E-05	Total Combustible Mass per meter (kg/m)	0.1310	
Total Mass of Jacket (kg)	0.027	Jacket heat of combustion energy per meter (kJ/m)	1574.4	
Total Mass of Insulation (kg)	0.013	Insulation heat of combustion energy per meter (kJ/m)	1029.6	
Total Combustible Mass (kg)	0.040	Combustible Fuel Load per meter per cable (kJ/m)	<b>2604.0</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>10416.1</b>	
Number of Cables	4			
Total Width of Cables	0.072			
<b>Total Width (m)</b>	<b>0.110</b>			
<b>Total Energy (kJ/m)</b>	<b>17057.2</b>			

<b>Cable Tray ID</b>	<b>C121-2223</b>			
<b>Cable Type</b>	<b>2/C#16</b>		<b>XLPPP</b>	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.018	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.002	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.020	Combustible Fuel Load per meter per cable (kJ/m)	1212.8	
		Combustible Fuel Load per meter (kJ/m)	13340.8	
Number of Cables	11			
Total Width of Cables	0.115			

<b>Cable Tray ID</b>	<b>C121-2223</b>			
Cable Type	5/C #10		XLPPP	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.1019	0.002588 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.0002775 m <sup>2</sup>			
Jacket Area	0.0001096 m <sup>2</sup>			
Insulation Area	4.01E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.34E-05	Mass of Jacket per meter (kg/m)	0.1580	
Total Volume of Insulation (m <sup>3</sup> )	1.22E-05	Mass of Insulation per meter (kg/m)	0.0371	
Total Combustible Volume (m <sup>3</sup> )	4.56E-05	Total Combustible Mass per meter (kg/m)	0.1951	
Total Mass of Jacket (kg)	0.048	Jacket heat of combustion energy per meter (kJ/m)	2836.1	
Total Mass of Insulation (kg)	0.011	Insulation heat of combustion energy per meter (kJ/m)	882.2	
Total Combustible Mass (kg)	0.059	Combustible Fuel Load per meter per cable (kJ/m)	<b>3718.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3718.4</b>	
Number of Cables	1			
Total Width of Cables	0.019			

<b>Cable Tray ID</b>	<b>C121-2223</b>			
Cable Type	7/C #12		XLPN (XLPPP)	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtröl) - *use PVC properties
Num. Conds.	7	7	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.0002775 m <sup>2</sup>			
Jacket Area	0.0001159 m <sup>2</sup>			
Insulation Area	4.716E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.53E-05	Mass of Jacket per meter (kg/m)	0.1670	
Total Volume of Insulation (m <sup>3</sup> )	1.44E-05	Mass of Insulation per meter (kg/m)	0.0436	
Total Combustible Volume (m <sup>3</sup> )	4.97E-05	Total Combustible Mass per meter (kg/m)	0.2106	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4035.8</b>	
Number of Cables	1			
Total Width of Cables	0.019			



**Cable Tray ID C121-2223**

Cable Type	2/C#12	
Outside Diameter (inches)	0.5	0.0127 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPPP
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

Carbon-black cross-linked polyethylene
924.4
23800
Black polyvinyl chloride (PVC)
1441.8
17950

Outside Radius	0.00635 m
Total Cable Area (A3)	0.0001267 m <sup>2</sup>
Jacket Area	5.097E-05 m <sup>2</sup>
Insulation Area	1.347E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.55E-05
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06
Total Combustible Volume (m <sup>3</sup> )	1.96E-05

Mass of Jacket per meter (kg/m)	0.0735
Mass of Insulation per meter (kg/m)	0.0125
Total Combustible Mass per meter (kg/m)	0.0859

Total Mass of Jacket (kg)	0.022
Total Mass of Insulation (kg)	0.004
Total Combustible Mass (kg)	0.026

Jacket heat of combustion energy per meter (kJ/m)	1319.2
Insulation heat of combustion energy per meter (kJ/m)	296.4
Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>
Combustible Fuel Load per meter (kJ/m)	<b>17772.0</b>

Number of Cables	11
Total Width of Cables	0.140

<b>Cable Tray ID</b>	<b>C121-2223</b>			
Cable Type	5/C #12		XLPN (XLPPP)	
Outside Diameter (inches)	0.68	0.017272 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamrot) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0608	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.008636 m			
Total Cable Area (A3)	0.0002343 m <sup>2</sup>			
Jacket Area	9.908E-05 m <sup>2</sup>			
Insulation Area	3.369E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.02E-05	Mass of Jacket per meter (kg/m)	0.1429	
Total Volume of Insulation (m <sup>3</sup> )	1.03E-05	Mass of Insulation per meter (kg/m)	0.0311	
Total Combustible Volume (m <sup>3</sup> )	4.05E-05	Total Combustible Mass per meter (kg/m)	0.1740	
Total Mass of Jacket (kg)	0.044	Jacket heat of combustion energy per meter (kJ/m)	2564.3	
Total Mass of Insulation (kg)	0.009	Insulation heat of combustion energy per meter (kJ/m)	741.1	
Total Combustible Mass (kg)	0.053	Combustible Fuel Load per meter per cable (kJ/m)	<b>3305.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>13221.5</b>	
Number of Cables	4			
Total Width of Cables	0.069			

<b>Cable Tray ID</b>	<b>C121-2223</b>			
Cable Type	5/C#16		XLPPP	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters		
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m		Jacket Heat of Combustion (kJ/kg)	17950
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.027	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.005	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.032	Combustible Fuel Load per meter per cable (kJ/m)	1999.3	
		Combustible Fuel Load per meter (kJ/m)	3998.6	
Number of Cables	2			
Total Width of Cables	0.026			

**Cable Tray ID**

**C121-2223**

Cable Type	2/C #12 - Armored Cable	
Outside Diameter (inches)	0.5	0.0127 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0608	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPE (XLPPP)

Insulation Material	cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	0
Jacket Material	Chlorosulphonated Polyethylene - *use PVC propert
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	0

Outside Radius	0.00635 m
Total Cable Area (A3)	0.0001267 m <sup>2</sup>
Jacket Area	5.097E-05 m <sup>2</sup>
Insulation Area	1.347E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.55E-05
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06
Total Combustible Volume (m <sup>3</sup> )	1.96E-05

Mass of Jacket per meter (kg/m)	0.0735
Mass of Insulation per meter (kg/m)	0.0125
Total Combustible Mass per meter (kg/m)	0.0859

Total Mass of Jacket (kg)	0.022
Total Mass of Insulation (kg)	0.004
Total Combustible Mass (kg)	0.026

Jacket heat of combustion energy per meter (kJ/m)	0.0
Insulation heat of combustion energy per meter (kJ/m)	0.0
Combustible Fuel Load per meter per cable (kJ/m)	0.0
Combustible Fuel Load per meter (kJ/m)	0.0

Number of Cables	3
Total Width of Cables	0.038

**Cable Tray ID**

**C121-2223**

Cable Type	2/C#16	
Outside Diameter (inches)	0.41	0.010414 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	25	0.00064 meters
Num. Conds.	2	2
Diam. Cond. (inches)	0.0508	0.00129 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPPP)
Insulation Material
Insulation Density (kg/m <sup>3</sup> )
Insulation Heat of Combustion (kJ/kg)
Jacket Material
Jacket Density (kg/m <sup>3</sup> )
Jacket Heat of Combustion (kJ/kg)

Carbon black cross-linked polyethylene
924.4
23800
Polyolefin (Flamtrol) - *use PVC properties
1441.8
17950

Outside Radius	0.005207 m
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>
Jacket Area	4.033E-05 m <sup>2</sup>
Insulation Area	7.682E-06 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	1.23E-05
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06
Total Combustible Volume (m <sup>3</sup> )	1.46E-05

Mass of Jacket per meter (kg/m)	0.0582
Mass of Insulation per meter (kg/m)	0.0071
Total Combustible Mass per meter (kg/m)	0.0653

Total Mass of Jacket (kg)	0.0
Total Mass of Insulation (kg)	0.0
Total Combustible Mass (kg)	0.0

Jacket heat of combustion energy per meter (kJ/m)	1043.8
Insulation heat of combustion energy per meter (kJ/m)	169.0
Combustible Fuel Load per meter per cable (kJ/m)	1212.8
Combustible Fuel Load per meter (kJ/m)	1212.8

Number of Cables	1
Total Width of Cables	0.010

<b>Cable Tray ID</b>	<b>C121-2223</b>			
Cable Type	7/C #12		XLPPP	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	7	7	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.0002775 m <sup>2</sup>			
Jacket Area	0.0001159 m <sup>2</sup>			
Insulation Area	4.716E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.53E-05	Mass of Jacket per meter (kg/m)	0.1670	
Total Volume of Insulation (m <sup>3</sup> )	1.44E-05	Mass of Insulation per meter (kg/m)	0.0436	
Total Combustible Volume (m <sup>3</sup> )	4.97E-05	Total Combustible Mass per meter (kg/m)	0.2106	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>8071.7</b>	
Number of Cables	2			
Total Width of Cables	0.038			

<b>Cable Tray ID</b>	<b>C121-2223</b>			
Cable Type	5/C #12		XLPPP	
Outside Diameter (inches)	0.68	0.017272 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.008636 m			
Total Cable Area (A3)	0.0002343 m <sup>2</sup>			
Jacket Area	9.908E-05 m <sup>2</sup>			
Insulation Area	3.369E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.02E-05	Mass of Jacket per meter (kg/m)	0.1429	
Total Volume of Insulation (m <sup>3</sup> )	1.03E-05	Mass of Insulation per meter (kg/m)	0.0311	
Total Combustible Volume (m <sup>3</sup> )	4.05E-05	Total Combustible Mass per meter (kg/m)	0.1740	
Total Mass of Jacket (kg)	0.044	Jacket heat of combustion energy per meter (kJ/m)	2564.3	
Total Mass of Insulation (kg)	0.009	Insulation heat of combustion energy per meter (kJ/m)	741.1	
Total Combustible Mass (kg)	0.053	Combustible Fuel Load per meter per cable (kJ/m)	<b>3305.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>9916.1</b>	
Number of Cables	3			
Total Width of Cables	0.052			

<b>Cable Tray ID</b>	<b>C121-2223</b>			
Cable Type	2/C #12		XLPN (XLPPP)	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>8078.2</b>	
Number of Cables	5			
Total Width of Cables	0.064			



<b>Cable Tray ID</b>	<b>C121-2223</b>			
Cable Type	5/C #16		XLPN (XLPPP)	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.027	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.005	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.032	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>17993.7</b>	
Number of Cables	9			
Total Width of Cables	0.119			

Cable Tray ID	C121-2223	
Cable Type	7/C #12	
Outside Diameter (inches)	0.69	0.017526 meters
Outer Jacket Thickness (mils)	65	0.001651 meters
Insulation Jacket Thickness (mils)	0	0 meters
Conduct. Insul. Thickness (mils)	40	0.00102 meters
Num. Conds.	7	7
Diam. Cond. (inches)	0.0908	0.002052 meters
Cable Length (feet)	1	0.304878 meters

MCCC	(XLPPP for Insul. Jacket thickness)
Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrat) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.008763 m
Total Cable Area (A3)	0.0002412 m <sup>2</sup>
Jacket Area	8.234E-05 m <sup>2</sup>
Insulation Area	6.856E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.51E-05	Mass of Jacket per meter (kg/m)	0.1187
Total Volume of Insulation (m <sup>3</sup> )	2.09E-05	Mass of Insulation per meter (kg/m)	0.0634
Total Combustible Volume (m <sup>3</sup> )	4.6E-05	Total Combustible Mass per meter (kg/m)	0.1821
Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	2131.0
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1508.3
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>3639.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>14557.0</b>

Number of Cables	4
Total Width of Cables	0.070

<b>Total Width (m)</b>	<b>0.778</b> 0.61 m Tray width used
<b>Total Energy (kJ/m)</b>	<b>115916.7</b>

**Cable Tray ID**

**M127-2227**

Cable Type	3/C#12	
Outside Diameter (inches)	0.619	0.015723 meters
Outer Jacket Thickness (mils)	45	0.001143 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	3	3
Diam. Cond. (inches)	0.0808	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPP

Insulation Material	Carbon black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.0078613 m
Total Cable Area (A3)	0.0001942 m <sup>2</sup>
Jacket Area	6.656E-05 m <sup>2</sup>
Insulation Area	2.021E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	2.03E-05	Mass of Jacket per meter (kg/m)	0.0960
Total Volume of Insulation (m <sup>3</sup> )	6.16E-06	Mass of Insulation per meter (kg/m)	0.0187
Total Combustible Volume (m <sup>3</sup> )	2.65E-05	Total Combustible Mass per meter (kg/m)	0.1147

Total Mass of Jacket (kg)	0.0	Jacket heat of combustion energy per meter (kJ/m)	1722.7
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	444.7
Total Combustible Mass (kg)	0.0	Combustible Fuel Load per meter per cable (kJ/m)	<b>2167.3</b>
		Combustible Fuel Load per meter (kJ/m)	<b>2167.3</b>

Number of Cables	1
Total Width of Cables	0.016

<b>Cable Tray ID</b>	<b>C121-2227</b>			
Cable Type	2/C#16		XLPPP	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.018	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.002	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.020	Combustible Fuel Load per meter per cable (kJ/m)	<b>1212.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3638.4</b>	
Number of Cables	3			
Total Width of Cables	0.031			

<b>Cable Tray ID</b>	<b>C121-2227</b>			
Cable Type	2/C#12		XLPPP	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>17772.0</b>	
Number of Cables	11			
Total Width of Cables	0.140			

<b>Cable Tray ID</b>	<b>C121-2227</b>			
Cable Type	5/C#16		XLPPP	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.027	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.005	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.032	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1999.3</b>	
Number of Cables	1			
Total Width of Cables	0.013			

<b>Cable Tray ID</b>	<b>C121-2227</b>			
Cable Type	7/C #12		XLPPP	
Outside Diameter (inches)	0.74	0.018796 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Black polyvinyl chloride (PVC)
Num. Conds.	7	7	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0908	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.009398 m			
Total Cable Area (A3)	0.0002775 m <sup>2</sup>			
Jacket Area	0.0001159 m <sup>2</sup>			
Insulation Area	4.716E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.53E-05	Mass of Jacket per meter (kg/m)	0.1670	
Total Volume of Insulation (m <sup>3</sup> )	1.44E-05	Mass of Insulation per meter (kg/m)	0.0436	
Total Combustible Volume (m <sup>3</sup> )	4.97E-05	Total Combustible Mass per meter (kg/m)	0.2106	
Total Mass of Jacket (kg)	0.1	Jacket heat of combustion energy per meter (kJ/m)	2998.3	
Total Mass of Insulation (kg)	0.0	Insulation heat of combustion energy per meter (kJ/m)	1037.6	
Total Combustible Mass (kg)	0.1	Combustible Fuel Load per meter per cable (kJ/m)	<b>4035.8</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>4035.8</b>	
Number of Cables	1			
Total Width of Cables	0.019			

**Cable Tray ID**

**C121-2227**

Cable Type	5/C #12	
Outside Diameter (inches)	0.68	0.017272 meters
Outer Jacket Thickness (mils)	60	0.001524 meters
Insulation Jacket Thickness (mils)	15	0.000381 meters
Conduct. Insul. Thickness (mils)	30	0.00076 meters
Num. Conds.	5	5
Diam. Cond. (inches)	0.0608	0.002052 meters
Cable Length (feet)	1	0.304878 meters

XLPN (XLPPP)

Insulation Material	Carbon-black cross-linked polyethylene
Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Heat of Combustion (kJ/kg)	23800
Jacket Material	Polyolefin (Flamtrol) - *use PVC properties
Jacket Density (kg/m <sup>3</sup> )	1441.8
Jacket Heat of Combustion (kJ/kg)	17950

Outside Radius	0.008636 m
Total Cable Area (A3)	0.0002343 m <sup>2</sup>
Jacket Area	9.908E-05 m <sup>2</sup>
Insulation Area	3.369E-05 m <sup>2</sup>

Total Volume of Jacket (m <sup>3</sup> )	3.02E-05
Total Volume of Insulation (m <sup>3</sup> )	1.03E-05
Total Combustible Volume (m <sup>3</sup> )	4.05E-05

Mass of Jacket per meter (kg/m)	0.1429
Mass of Insulation per meter (kg/m)	0.0311
Total Combustible Mass per meter (kg/m)	0.1740

Total Mass of Jacket (kg)	0.044
Total Mass of Insulation (kg)	0.009
Total Combustible Mass (kg)	0.053

Jacket heat of combustion energy per meter (kJ/m)	2564.3
Insulation heat of combustion energy per meter (kJ/m)	741.1
Combustible Fuel Load per meter per cable (kJ/m)	<b>3305.4</b>
Combustible Fuel Load per meter (kJ/m)	<b>13221.5</b>

Number of Cables	4
Total Width of Cables	0.069



<b>Cable Tray ID</b>	<b>C121-2227</b>			
Cable Type	2/C#16		XLPN (XLPPP)	
Outside Diameter (inches)	0.41	0.010414 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamrot) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.005207 m			
Total Cable Area (A3)	8.518E-05 m <sup>2</sup>			
Jacket Area	4.033E-05 m <sup>2</sup>			
Insulation Area	7.682E-06 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.23E-05	Mass of Jacket per meter (kg/m)	0.0582	
Total Volume of Insulation (m <sup>3</sup> )	2.34E-06	Mass of Insulation per meter (kg/m)	0.0071	
Total Combustible Volume (m <sup>3</sup> )	1.46E-05	Total Combustible Mass per meter (kg/m)	0.0653	
Total Mass of Jacket (kg)	0.018	Jacket heat of combustion energy per meter (kJ/m)	1043.8	
Total Mass of Insulation (kg)	0.002	Insulation heat of combustion energy per meter (kJ/m)	169.0	
Total Combustible Mass (kg)	0.020	Combustible Fuel Load per meter per cable (kJ/m)	1212.8	
		Combustible Fuel Load per meter (kJ/m)	1212.8	
Number of Cables	1			
Total Width of Cables	0.010			

<b>Cable Tray ID</b>	<b>C121-2227</b>			
Cable Type	5/C #12		XLPPP	
Outside Diameter (inches)	0.68	0.017272 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	60	0.001524 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyolefin (Flamtraf) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.008636 m			
Total Cable Area (A3)	0.0002343 m <sup>2</sup>			
Jacket Area	9.908E-05 m <sup>2</sup>			
Insulation Area	3.369E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	3.02E-05	Mass of Jacket per meter (kg/m)	0.1429	
Total Volume of Insulation (m <sup>3</sup> )	1.03E-05	Mass of Insulation per meter (kg/m)	0.0311	
Total Combustible Volume (m <sup>3</sup> )	4.05E-05	Total Combustible Mass per meter (kg/m)	0.1740	
Total Mass of Jacket (kg)	0.044	Jacket heat of combustion energy per meter (kJ/m)	2564.3	
Total Mass of Insulation (kg)	0.009	Insulation heat of combustion energy per meter (kJ/m)	741.1	
Total Combustible Mass (kg)	0.053	Combustible Fuel Load per meter per cable (kJ/m)	<b>3305.4</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>3305.4</b>	
Number of Cables	1			
Total Width of Cables	0.017			

<b>Cable Tray ID</b>	<b>C121-2227</b>			
<b>Cable Type</b>	<b>2/C #12</b>		<b>XLPN (XLPPP)</b>	
Outside Diameter (inches)	0.5	0.0127 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	30	0.00076 meters	Jacket Material	Polyclefin (Flamtrol) - *use PVC properties
Num. Conds.	2	2	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.00635 m			
Total Cable Area (A3)	0.0001267 m <sup>2</sup>			
Jacket Area	5.097E-05 m <sup>2</sup>			
Insulation Area	1.347E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.55E-05	Mass of Jacket per meter (kg/m)	0.0735	
Total Volume of Insulation (m <sup>3</sup> )	4.11E-06	Mass of Insulation per meter (kg/m)	0.0125	
Total Combustible Volume (m <sup>3</sup> )	1.96E-05	Total Combustible Mass per meter (kg/m)	0.0859	
Total Mass of Jacket (kg)	0.022	Jacket heat of combustion energy per meter (kJ/m)	1319.2	
Total Mass of Insulation (kg)	0.004	Insulation heat of combustion energy per meter (kJ/m)	296.4	
Total Combustible Mass (kg)	0.026	Combustible Fuel Load per meter per cable (kJ/m)	<b>1615.6</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1615.6</b>	
Number of Cables	1			
Total Width of Cables	0.013			

<b>Cable Tray ID</b>	<b>C121-2227</b>			
Cable Type	5/C #16		XLPN (XLPPP)	
Outside Diameter (inches)	0.52	0.013208 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	45	0.001143 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	15	0.000381 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	25	0.00064 meters	Jacket Material	Polyolefin (Flamtrif) - *use PVC properties
Num. Conds.	5	5	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0508	0.00129 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.006604 m			
Total Cable Area (A3)	0.000137 m <sup>2</sup>			
Jacket Area	6.093E-05 m <sup>2</sup>			
Insulation Area	1.92E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	1.86E-05	Mass of Jacket per meter (kg/m)	0.0878	
Total Volume of Insulation (m <sup>3</sup> )	5.85E-06	Mass of Insulation per meter (kg/m)	0.0178	
Total Combustible Volume (m <sup>3</sup> )	2.44E-05	Total Combustible Mass per meter (kg/m)	0.1056	
Total Mass of Jacket (kg)	0.027	Jacket heat of combustion energy per meter (kJ/m)	1576.8	
Total Mass of Insulation (kg)	0.005	Insulation heat of combustion energy per meter (kJ/m)	422.5	
Total Combustible Mass (kg)	0.032	Combustible Fuel Load per meter per cable (kJ/m)	<b>1999.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>1999.3</b>	
Number of Cables	1			
Total Width of Cables	0.013			

<b>Cable Tray ID</b>	<b>C121-2227</b>			
Cable Type	7/C #12		MCCC	
Outside Diameter (inches)	0.69	0.017526 meters	Insulation Material	Carbon-black cross-linked polyethylene
Outer Jacket Thickness (mils)	65	0.001651 meters	Insulation Density (kg/m <sup>3</sup> )	924.4
Insulation Jacket Thickness (mils)	0	0 meters	Insulation Heat of Combustion (kJ/kg)	23800
Conduct. Insul. Thickness (mils)	40	0.00102 meters	Jacket Material	Polyolefin (Flamtrif) - *use PVC properties
Num. Conds.	7	7	Jacket Density (kg/m <sup>3</sup> )	1441.8
Diam. Cond. (inches)	0.0808	0.002052 meters	Jacket Heat of Combustion (kJ/kg)	17950
Cable Length (feet)	1	0.304878 meters		
Outside Radius	0.008763 m			
Total Cable Area (A3)	0.0002412 m <sup>2</sup>			
Jacket Area	8.234E-05 m <sup>2</sup>			
Insulation Area	6.856E-05 m <sup>2</sup>			
Total Volume of Jacket (m <sup>3</sup> )	2.51E-05	Mass of Jacket per meter (kg/m)	0.1187	
Total Volume of Insulation (m <sup>3</sup> )	2.09E-05	Mass of Insulation per meter (kg/m)	0.0634	
Total Combustible Volume (m <sup>3</sup> )	4.6E-05	Total Combustible Mass per meter (kg/m)	0.1821	
Total Mass of Jacket (kg)	0.036	Jacket heat of combustion energy per meter (kJ/m)	2131.0	
Total Mass of Insulation (kg)	0.019	Insulation heat of combustion energy per meter (kJ/m)	1508.3	
Total Combustible Mass (kg)	0.056	Combustible Fuel Load per meter per cable (kJ/m)	<b>3639.3</b>	
		Combustible Fuel Load per meter (kJ/m)	<b>14557.0</b>	
Number of Cables	4			
Total Width of Cables	0.070			
<b>Total Width (m)</b>	<b>0.396</b>			
<b>Total Energy (kJ/m)</b>	<b>63357.2</b>			

## Appendix B

### Thermal Material Properties used to Calculated Temperature Response of Target Cable Tray System to Incident Heat Flux

#### B1. Thermal Conductivity

The thermal conductivity for steel as a function of temperature is shown in Table B1. Because the failure threshold for the cable jacket material is less than 400 °C, the thermal conductivity of the copper and PVC jacket material are essentially temperature independent in this analysis.

Copper [Holman, 1990]: 386 W/m-°C

PVC [Marks, 1996]: 0.17 W/m-°C

Table B1 – Temperature Dependent Thermal Conductivity of Steel [Abrams, 1978]

T (°C)	k (W/m-°C)	T (°C)	k (W/m-°C)	T (°C)	k (W/m-°C)	T (°C)	k (W/m-°C)
20.0	46.02	316.0	42.75	649.0	32.84	816.0	29.03
38.0	46.02	371.0	41.04	677.0	32.1	843.0	27.15
73.0	46.4	427.0	39.45	704.0	31.42	871.0	26.40
149.0	45.73	482.0	37.82	732.0	30.92	899.0	26.73
204.0	44.76	538.0	36.44	760.0	30.45	927.0	26.78
260.0	43.84	593.0	34.73	788.0	30.0	1038.0	27.74

#### B2. Thermal Heat Capacity

The thermal heat capacity for steel as a function of temperature is shown in Table B2. The thermal heat capacity for PVC as a function of temperature over the range of interest is shown in Table B3. The heat capacity for copper is essentially constant of the temperature range expected in the cable core.

Copper [Holman, 1990]: 383 J/kg-°C

Table B2 – Temperature Dependant Heat Capacity of Steel [Abrams, 1978]

T (°C)	$c_p$ (J/kg-°C)	T (°C)	$c_p$ (J/kg-°C)	T (°C)	$c_p$ (J/kg-°C)	T (°C)	$c_p$ (J/kg-°C)
20.0	467	316.0	558	649.0	777	816.0	568
38.0	471	371.0	580	677.0	810	843.0	535
73.0	484	427.0	606	704.0	1098	871.0	522
149.0	501	482.0	641	732.0	1410	899.0	533
204.0	518	538.0	690	760.0	1012	927.0	568
260.0	536	593.0	736	788.0	727	1038.0	584

Table B3 – Temperature Dependant Heat Capacity of PVC [Marks, 1996]

T (°C)	$c_p$ (J/kg-°C)	T (°C)	$c_p$ (J/kg-°C)	T (°C)	$c_p$ (J/kg-°C)
27	950	87	1457	107	1569

*B3. Density*

The density for the steel, PVC, and copper is constant of the temperature range considered.

Steel [Abrams, 1978]: 7800.0 kg/m<sup>3</sup>

Copper [Holman, 1990]: 8954.0 kg/m<sup>3</sup>

PVC [Johnson, 1994]: 1500.0 kg/m<sup>3</sup>