

## ETAP FAQ # 11

### Navigating Through The Cable Library

**Description:** How to navigate through the ETAP Cable Library.

**Version:** ETAP 4.7

**Published:** November 17, 2002

The ETAP Cable Library contains data for thousands of cables. This data includes manufacturer as well as standard cable information. For easier accessibility, the library is categorized in eight levels. When selecting a cable it is important to understand the hierarchy of these levels as shown in the figure below. To select a cable, start by selecting the desired Unit System followed by Frequency, Conductor Type, Installation, kV and Class, continuing down to Size.

**Cable Library**

1 Unit System: English

2 Frequency: 60

3 Conductor Type: CU

4 Installation: Mag.

5 kV: 5.0

6 U/G Ampacity: Ta=20, Tc=90, RHO=90; A/G Ampacity: Ta=40, Tc=90; Unit Length=1000 ft; Base Temp=90

7 Source: KERITE, Insulation: EPR, #/Cable: 1/C

8 Size: 6 AWG/kcmil

**Cable Library Hierarchy**

1. Unit System
- ↓
2. Frequency
- ↓
3. Conductor Type
- ↓
4. Installation
- ↓
5. kV and Class
- ↓
6. Base Temperatures/Length for Impedance and Ampacity
- ↓
7. Source, Insulation, and #/Cable
- ↓
8. Size

**Example**

As illustrated in the figure below, select a cable with the following categories from the cable library selector: English, 60Hz, CU, Magnetic, 5 kV, 100% Class. Next, select the available Base Temperatures/Length for Impedance and Ampacity (Category 6). Notice that three selections are available for this category. Select the first row with the A/G Ampacity Ta and Tc of 40 and 90°C respectively and base temp of 90°C, the next corresponding category parameters are displayed as follows:

Source: KERITE Insulation: EPR #/Cable: 1/C  
 Source: KERITE Insulation: EPR #/Cable: 3/C

Select the second row, the row with the A/G Ampacity Ta and Tc of 40 and 105°C respectively and base temp of 75°C, the next level parameters are displayed as follows:

Source: NEC Insulation: Rubber #/Cable: 3/C

U/G Ampacity			A/G Ampacity			Unit Length	Base Temp
Ta	Tc	RHO	Ta	Tc			
20	90	90	40	90	1000 ft	90	
20	90	90	40	105	1000 ft	75	
20	90	90	45	90	1000 ft	90	

Source: KERITE Insulation: EPR #/Cable: 1/C

Source: KERITE Insulation: EPR #/Cable: 3/C

Source: NEC Insulation: Rubber #/Cable: 3/C

Size: 6 AWG/kcmil

Size: 8 AWG/kcmil

Lastly select the desired cable size from the available size/all size list box based on the previously selected categories.

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