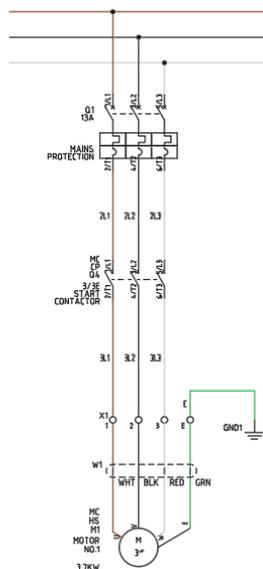


Check Power

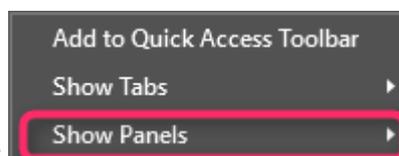
AutoCAD Electrical 2018

You can add information to your schematic components to indicate power source and load values using the Power Check tools. Once these values have been added, you can run the Power Load Check Report to scan the wire interconnections and report if there is too much load on a given source.

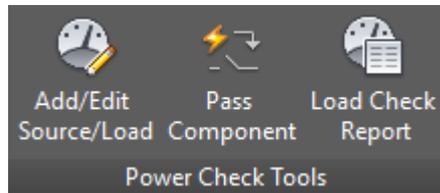


Power Check Ribbon Panel

You can show this ribbon panel by selecting the Schematic ribbon tab > right click anywhere on the ribbon >



select Show Panels > Power Check Tools



The toolbar has the following commands:

Add/Edit Source/Load, Pass Component & Load Check Report.

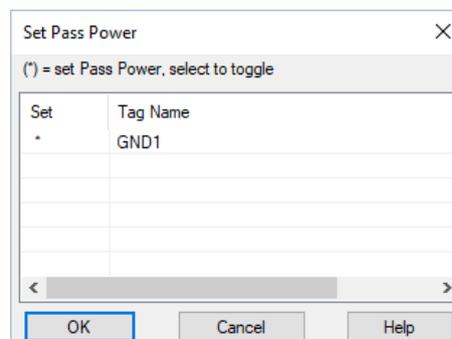


Pass Component

This utility marks a component with a PASSPWR flag. The PASSPWR flag instructs the Power Report to pass through the marked component when calculating the load on a given source. If a component carries the PASSPWR flag the Power Report program passes through the component and continue looking for load values on the network.

In a simple circuit, similar to the above, the contactor contacts, terminals & cable would all be components that pass.

However certain components do not need a PASSPWR flag (such as terminals and contacts) since they are automatically 'passed' through. Pick the command and select the ground connection and any other components that should pass power.



An * will appear in the Set column when you select each component

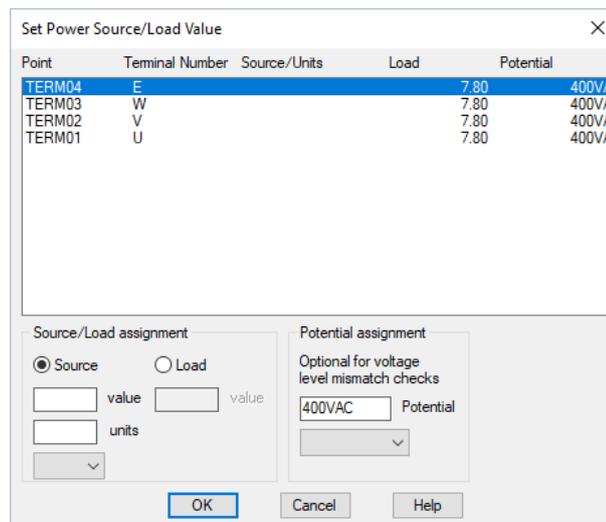
Select



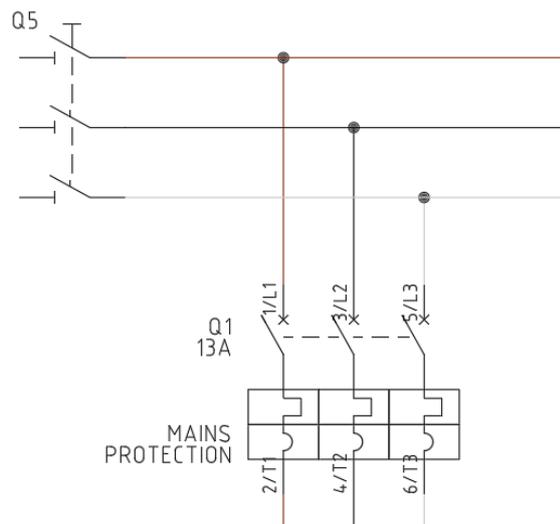
Add/Edit Source/Load

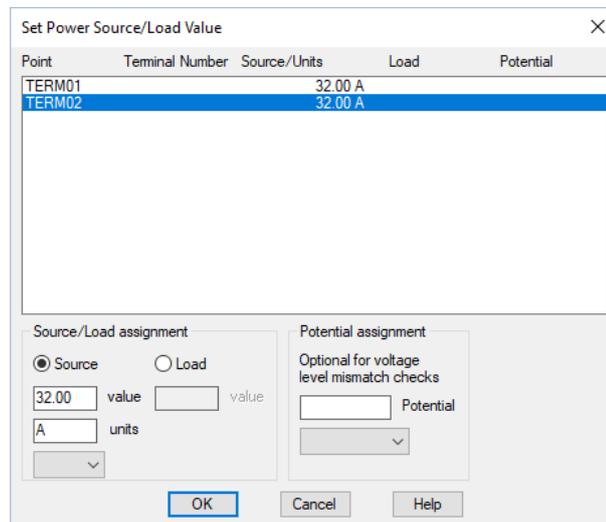
Pick the command and then select the motor. You can define the FLC rating as shown but also the optional voltage mismatch check value.

These values will be saved on the connection point as invisible xdata.

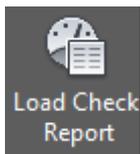


Therefore, we need to add a component where we can signify a source such as an isolator or disconnect switch in this instance. This has been given a source value of 32A for all the connections.





Point	Terminal Number	Source/Units	Load	Potential
TERM01			32.00 A	
TERM02			32.00 A	



Power Load Check Report

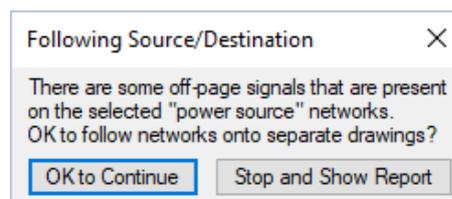
This command checks for any components assigned as a power source and then follows any wires connected to that connection. When a load is hit, the command stops reading on that wire segment and doesn't search past the load. For example, if you apply a supply value to the left power bus wire on a ladder and there are multiple connecting pilot lights and relay coils in the ladder, AutoCAD Electrical will go down the left bus and check each connected rung. It reads through contact and terminals but when it hits a load on a rung it will accumulate the load values (if present) and will stop going any further on that rung. The utility will still check the other rungs tied to the left-hand bus and try to find more loads.

Pick the command

Select *Active Drawing (All)*

Select The load paths will be shown visible on the drawing.

If you have source and destination arrows going off the page, the following dialogue will appear:



Select

The source and load values will be shown in the report. Now if you had further connecting DOL starters where the total exceeded the source amps, the total load value for the circuit analysed would be greater than the source value and this will be shown up in the report.

Adding Xdata to library symbols before insertion

You can predefine and add the extra data required into the library symbols before insertion but this would mean that the library symbol would be unique to a specific part and values. Obviously where a source is required, a load is not and vice-versa.



Open the library symbol and use the *Xdata Editor* available from the Conversion ribbon tab > Tool panel to add Xdata directly onto the appropriate TERM## attribute.

If a drawing already contains the block that has just been edited then you must use the [Update Block](#) option before running the report.

The following xdata can be added at the library level:

- Source: VIA_WD_PWR_SRC
- Load: VIA_WD_PWR_LOAD
- Unit: VIA_WD_PWR_UNIT
- Potential: VIA_WD_POTENTIAL

