

Supplementary vs Branch Circuit Breakers

[0m:0s]



[0m:4s] Hi I'm Josh Bloom, welcome to another video in the RSP Supply education series. Today, we want to talk about the different types of protection that circuit breakers can offer, both supplementary and branch circuit protection.

[0m:16s] Here you can see, we have two circuit breakers. They similarly look identical. Both the same size, shape and color. Are they the same? They are not the same they function very, very differently and we're going to talk about that. One of them is a supplementary breaker, the other is a branch breaker.



[0m:32s] Both branch and supplementary breakers have been designed for specific use in certain applications defined by the National Electric Code and UL. When choosing breakers in electrical design, it is important that we take the differences between supplementary and

branch breakers into consideration. Using the wrong circuit breaker in certain applications can be very dangerous and definitely should be avoided. We first want to talk to you about supplementary breakers, also known as UL 1,077 recognized breakers. Now, these breakers go through independent testing at a slightly lower standard. The reason this is a lower standard is because these breakers are designed to only protect one device at a time.



[1m:9s] Now that we've talked about supplementary protection, we're going to move on to branch circuit protection, which is a higher level of protection for circuit breakers. These are also known as UL 489 listed Breakers.

[1m:21s] Now, these go through independent testing just like our supplementary breakers, but to a much higher standard. The reason we test these to a higher standard is because they are designed to protect multiple devices at one time. They can also be used as both a branch circuit protector and a supplementary protector,

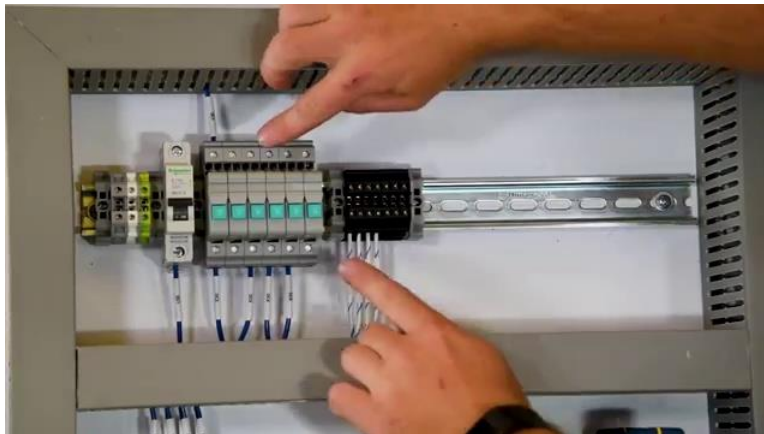
[1m:36s] where a supplementary protector can only be used as a supplementary protector and not used in branch protection.

[1m:43s] Let me demonstrate how these breakers work on this industrial control panel. As you can see here I've got several different breakers located at the top here. I've got both branch and



[1m:52s] supplementary protection. The branch circuit protector is located right here. Now, this circuit protector is protecting this entire control panel. So, if I turn this breaker off, it will turn off everything that is located within this panel.

[2m:5s] Now, our supplementary breakers are designed to control one specific device within the panel itself. So, for example, we have one supplementary breaker that is controlling power to this radio. We have another supplementary breaker which is controlling power to this switch. So in review branch circuit protection is designed to protect multiple devices at one time or a higher level of protection.





[2m:28s] Supplementary protectors are designed to protect one device at a time.

[2m:32s] For a full selection of circuit breakers, go to the RSP Supply website.

[2m:36s] For more information or other educational videos, please go to RSPSupply.com, the Internet's top source for industrial hardware. Also, please remember to like and subscribe.

