



TRANSFORMERS 

SHUNT REACTORS



PARTNER TECHNOLOGIES

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Shunt Reactors

Partner Technologies manufactures single phase and three phase padmounted oil-filled shunt reactors used to correct capacitance on long cable runs in underground distribution systems.

Design voltages are available up to 34,500Y/19920. Inductive sizes range from 10kVAR 1Ø to 1500kVAR 3Ø.

Optional design features include loadbreak on-off or loop isolation switches, loadbreak connections, off circuit tappings for inductive tuning, bayonet or under oil isolation links, and environmentally friendly fluids. Submersible or platform type reactors are also available.

As Utilities and Industrials install more and longer runs of underground cable, a problem with leading power factor caused by the inherent capacitance in the cable will result. This leading power factor will become quite severe and cause over voltage that will damage equipment connected to the system. The solution is to install shunt reactors manufactured by Partner Technologies.

Since early 1991, PTI has been designing and producing shunt reactors that have out performed customer expectations.

Reactors must be sized to closely match the capacitive kVAR of the cable it is connected to and be strategically located along the cable length.

Below: Three Phase Submersible Shunt Reactor



Most of the reactors PTI manufactures are single phase units applied to single phase distribution systems. Unlike transformers which are subjected to large swings in loads as the demand for power changes throughout the day or seasonally, shunt reactors are fully loaded 24 hours every day when energized. They can therefore become overloaded any time the voltage rises above rated voltage. PTI takes this into account in the design by ensuring the units run cool and are never over excited under normal or expected system over voltages. As a result our reactors run cool and quiet.

Underground three phase circuits are becoming more common in areas of atmospheric contamination and in areas where customers do not want to see pole lines such as in National Parks, or on property valued for its natural beauty and aesthetically pleasing views.

PTI three phase reactors consist of three single phase reactors installed in a three phase tank which ensures the unit can withstand any system fault that results in a single phasing condition.

Below: Single Phase Shunt Reactor



Shunt Reactor Product Range	
Inductive sizes	10 kVAR (1Ø) to 1500 kVAR (3Ø)
Voltages	Up to 34,500Y/19920
Phases	1Ø or 3Ø

SALES CONTACTS:

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