

**RLSwitcher® 36-550 kV Reactor switcher**

HV Switching



## Switch Reactors with confidence and certainty

- Switching shunt reactors can impose a severe duty on the connected system, the switching device, and the shunt reactor.
- The low magnitude current the switching device is asked to clear, along with the high magnitude and extremely fast transient recovery voltage, establish an environment that can lead to damaging interrupter reignitions.
- The RLSwitcher®, with its patented interrupter design, deliberately delays current interruption for the first couple of current zeros so that when current interruption does occur the likelihood of a reignition is reduced and if they occur, are of a reduce magnitude.

### Ratings

Rated voltage	$U_r$ (kV)	17.5	36	123	145	170	245	362	420	550
Rated lightning impulse withstand voltage to earth	$U_p$ (kV <sub>p</sub> )	95	200	550	650	750	900	1300	1425	1800
Maximum shunt reactor capacity	(MVAR)	100	105	135	158	185	267	395	305	400
Rated continuous current	$I_r$ (A)	3000	1600	630				440		
Rated shunt reactor breaking current	$I_{5b}$ (A)	3000	1600	630				440		
Rated short-circuit breaking current	$I_{sc}$ (kA)	NA	25	NA						
Interrupting time	(cycles)	3	5	3						
Rated short-time withstand current	$I_k$ (kA)	40	25	40						
Rated duration of short-circuit	$t_k$ (s)	2	3	3						
Rated peak withstand current	$I_p$ (kA <sub>p</sub> )	108	62.5	164						
Rated short-circuit making current	$I_{ma}$ (kA <sub>p</sub> )	40	25	63						
Insulator design	-	Composite								
Ambient temperature range	(°C)	-40/+40				-40/+50				

### Benefits

- Patented Interrupter minimizes probability and magnitude of re-ignitions
- Reduced Turn-to-Turn voltage stress on reactor windings
- Simplified design improves reliability
- Local and remote gas monitoring system
- Compact design can fit in tight spaces
- Reduced maintenance costs when compared to traditional electronically controlled

### Key advantages

- Very low probability of re-ignitions
- Re-ignitions, if they occur, are of low magnitude
- Makes and breaks circuit in SF<sub>6</sub>
- Single mechanism spring-open, spring-close up to 245 kV designs
- Independent pole, multi-gap interrupter with spring-open, spring-close mechanisms for 362 kV and 550 kV
- Local visual indication of gas pressure provided by color coded temperature compensated gas gauge
- Gas system with gas density switch with low pressure alarm and low pressure lockout for remote status monitoring

