

TIPS TO CHOOSING TRANSMISSION SWITCHES FOR SYSTEM RELIABILITY AND RESILIENCE

A key component of the transmission line is the disconnect switch which is used to isolate the faulted sections and reconfigure transmission grids to balance demand for power. Operation is infrequent, but when called on to operate, it is very important that they do as designed. The impact of a switch that has not operated properly is significant both in the potential of significant revenue loss, due to extensive customer outages and the time and cost to access the switch and make any necessary repairs.

It is not unusual for a transmission disconnect switch to be treated somewhat as a commodity, with selection based on meeting the relevant standard(s) followed by the switch cost. Even though a switch might meet the requirements of a standards test, it is important that factors, not included in standards, be reviewed to assure reliable and trouble-free performance over the life of the switch. Considering the following will help to ensure that the best switching solution is selected for transmission line applications:

Installation Time & Cost	<p>A design that minimizes field assembly and adjustment before and during installation can help to significantly reduce outage duration, labor requirements, and any associated costs.</p>	<p>Unitized Switching Solutions <i>Fully assembled and adjusted from factory</i></p>	
		<p>Collapsible Frame <i>For 2-way & 3-way switches</i></p>	
Proper Blade Seating	<p>An improper slamming or slow-close of the switch can lead to costly failures. Successful open/close operation should not be dependent on operational speed or force.</p>	<p>Reduced Operating Force & Positive Latching Design <i>Allows for fast, slow, or dual speed operation</i></p> <p>Blade Is Not Spring Biased <i>No chance for misoperation</i></p>	
Reliable, Long-life Operation	<p>Effective contact geometry and a robust operating mechanism can help to maintain proper alignment under wind loading, ice, galloping lines, thermal cycles, and other factors that contribute to pole deflection.</p>	<p>Forgiving Contact Geometry <i>Fine tune adjustment & blade leveling not required</i></p> <p>Large, Heavy Castings & Oversized Vertical Operating Pipe <i>Ensures repeatable, reliable operation</i></p>	
Interrupter Device Selection	<p>When selecting an interrupting device, consider all potential switching applications. There is often a benefit in selecting full load break attachments, as they can act as a safeguard for the switch if an out-of-sequence switching operation occurs.</p>	<p>Interrupter With Load Break & All Functions <i>Line, Bus, Cable Dropping</i> <i>Loop Splitting</i> <i>Line Charging / Loop Splitting</i></p>	



www.southernstatesllc.com
sales@southernstatesllc.com

Printed in December 2018 @2018 Southern States, LLC

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