

PSW210 type on-pole switching controller

Summary >>>

According to integrated domestic and foreign advanced technology, the actual demand of the power distribution area, PSW210 column switching controller is our company's development of distribution network automation products to applying to control the pillar demarcation switch (circuit breaker or load switch), which can realize the judgment, excision and isolation of over current, short-circuit and earth fault. Based on the features of the domestic 10kV distribution network overhead line, the controller is integrated to calculate the zero sequence current, zero sequence voltage and zero sequence power direction of the three characteristics in the earth fault judgment, which achieves the reliable detection of ground fault bounds and out of bounds. Compared with similar products, this product can greatly reduce the probability of miscarriage of justice and judgment. The product has been widely used in urban and rural 10kV overhead distribution line.



Features >>>

- Can distinguish between in and out earth fault;
- In fault, the remote closing trip quickly and blocking Reclosing (Circuit breaker mode);
- The aviation connector connected with the switch body, good reliability, high protection level;
- Using modular design, programmable control, communication、 motor function can be expanded;
- Suitable for feeder automation, with "three remote" function.

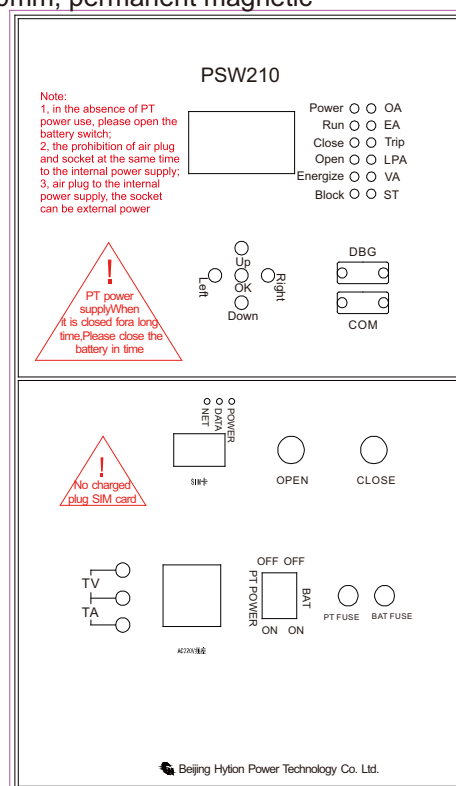
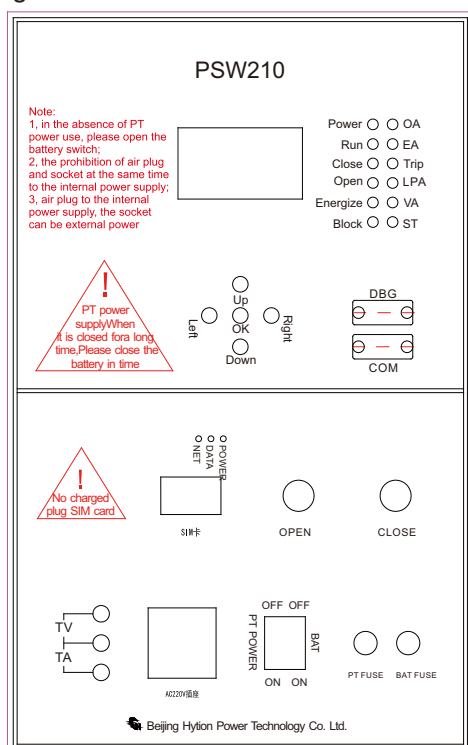
Main function >>>

Fault type	System neutral point Grounding mode	Switch type			
		Breaker		Switch	
Single phase earth fault	High resistance grounding or arc suppression coil grounding	In of bounds	Out of bounds	In of bounds	Out of bounds
		The delay is determined to be permanent. Protective action after grounding fault	No actio	The delay is determined to be permanent. Protective action after grounding fault	No actio
	Small resistance grounding system	The delay is determined to be permanent. Protective action after grounding fault	No actio	The delay is determined to be permanent. Protective action after grounding fault	No actio
Phase short-circuit fault		Prior to substation protection action	No actio	No actio	No actio
Overcurrent protection		The delay is determined to be permanent. Protective action after grounding fault		The delay is determined to be permanent. Protective action after grounding fault	
Overvoltage protection		Meet the criteria, immediatly act		Meet the criteria, immediatly act	
Under voltage protection		Meet the criteria, immediatly act		Meet the criteria, immediatly act	
Incident record		Satisfy		Satisfy	
Communication function		Optional		Optional	
Local remote control		Optional		Optional	

- **Function of analogue detection:** detection of three-phase current, three-phase voltage, zero sequence current, zero sequence voltage and zero sequence phase angle
- **Function of digital Input:** detecting the state, the pressure state, the energy storage state of the switch body, and so on.
- **Function of single phase earth protection:** By the detection of value setting, zero sequence voltage and power direction, The controller can detect and judge the single-phase earth fault in the user ,which switch off accident automatically by outputing signal after delay, controlling switch trip. single phase faults out of bounds do not act; At the same time, we can choose to judge the grounding protection mode, to realize alarm not action and the function of definite time limit grounding protection.
- **Interphase short circuit protection:** By the detection of value setting and phase current, the controller can detect and determine wire short circuit fault in the user, which respectively connects the load switch mode and the short circuit breaker for protective action. Single phase faults out of bounds do not act
- **Overcurrent protection:** The load switch mode and the short circuit breaker mode are connected respectively for protective action. In the load switch mode, the controller has the large current blocking function, which ensures that the switch does not act when the circuit current is greater than the switch
- **Over voltage / under voltage protection:** When the system voltage is greater than or lower than the set, the controller controls the switch to operate trip.
- **Function of accident recording:** The switch quantity information of the tripping moment before and after the fault occurs, fault type and the analog quantity sampling value before and after the fault are recorded by packet mode.
- **Communication function:** Reserved RS232/485 interface, support GPRS/PDA (handheld)/GSM SMS communication way.
- **Intelligent power control:** Power supply control module has management function to backup battery,which automatically enters the floating state when the module is full, after the system loss of electricity, backup electric source supply power for the control unit and the on-off switch.

Control box size chart >>>

Spring operating mechanism control box size: 280*180*420mm; permanent magnetic operating mechanism control box size: 320*180*500mm.



Technical parameters >>>

PSW210 series user interface switching controller		Circuit breaker mode	Load switch mode
Operating voltage		AC220 V±20%	
Operating voltage frequency		50Hz	
Power consumption		<5 W	
Switching output		Dry contact 10A, 220V	
Sampling voltage input range		0 ~ 264VAC	
Sampled phase current input value		0 ~ 5A	
Sampling zero sequence current input value		0 ~ 5A	
Short circuit / overcurrent protection	Phase current setting range	0 ~ 1260 A	
	Switch lock current		100 ~ 1000A
	Overcurrent action delay setting range	0 ~ 60s	
Single phase grounding protection	Zero sequence current setting range	0 ~ 20A	
	Grounding protection	Only alarm without tripping Grounding current ≥ Grounding current setting value, After the delay is determined as permanent grounding, Tripping operation Determination of zero sequence phase angle, After the delay is determined as permanent grounding Tripping operation	
	Zero sequence voltage setting range	(20%~100%) *Rated phase voltage	
	Single phase grounding protection action delay	0 ~ 2h	
System grounding method	Neutral point not grounding / small resistance grounding	270° ± 85° (Adjustable)	
	Arc suppression coil grounding	180° ± 85° (Adjustable)	
Function of the gate	Number of times of reclosing	0~3次	
	Reclosing time	0.1-300s	
Over voltage protection	Overvoltage protection setting	110 ~ 150%	
	Overvoltage protection delay	1 ~ 180 s	
Under voltage protection	Under voltage protection setting	80 ~ 90%	
	Under voltage protection delay	1 ~ 180 s	