



POWER MONITORS

Type	Phase Sequence, Phase Failure, Phase Asymmetry Detector	Phase Sequence, Phase Failure, Phase Asymmetry Monitor	Single Phase, Reverse Power Monitor (Generator Protection)	Phase Sequence, Phase Failure, Phase Asymmetry Detector with Alarm
Code	SP430/SP431	AP430/AP432	SP510	SX125/SX131
Features	<ul style="list-style-type: none"> <li>Detection of phase asymmetry</li> <li>Adjustable sensitivity</li> <li>Insensitive to regenerated EMF</li> <li>High stability under harmonic distortion</li> <li>Insensitive to balanced supply voltage variations</li> <li>Fast response to reversed phase sequence</li> <li>SP431 available with neutral</li> <li>10A SPDT Relay output</li> </ul>	<ul style="list-style-type: none"> <li>DIN rail mount</li> <li>Detection of phase asymmetry</li> <li>Adjustable Negative Phase Sequence (NPS) sensitivity</li> <li>Insensitive to regenerated EMF</li> <li>High stability under harmonic distortion</li> <li>Insensitive to balance supply voltage variations</li> <li>Fast response to reversed phase sequence</li> <li>AP432 Available with neutral</li> <li>Power ON and Relay ON LED's</li> </ul>	<ul style="list-style-type: none"> <li>Reverse current tripping level adjustable up to 20% of maximum forward current</li> <li>Current monitoring through internal shunt</li> <li>Response time adjustable up to 10 seconds</li> <li>Start-up delay adjustable up to 10 seconds</li> <li>Insensitive to changes in power factor</li> <li>LED indication for reverse power and Relay ON</li> <li>Latching facility</li> <li>10A SPDT Relay output</li> </ul>	<ul style="list-style-type: none"> <li>Detection of phase asymmetry</li> <li>Clear audible warning alarm when detection occurs (SX131)</li> <li>5mm bright LED indication when detection occurs (SX125)</li> <li>Insensitive to regenerated EMF</li> <li>High stability under harmonic distortion</li> <li>Insensitive to balanced supply voltage variations</li> <li>Fast response to reversed phase sequence</li> <li>10A DPDT Relay Output</li> </ul>
Connection Diagram				
Specifications	<p><b>POWER SUPPLY</b> Supply voltage (phase-to-phase): 115, 230, 400, 440, 525V AC ±15% Power consumption: 3VA (approx), 6VA for 415, 525V AC (approx)</p> <p><b>VOLTAGE SENSING</b> Repetitive accuracy: 1% Hysteresis: 2% fixed (relative to its supply voltage) Response delay: 1 second (approx)</p>	<p><b>POWER SUPPLY</b> Type: AC transformer (2kV galvanic isolation) Voltage: 115, 230, 400, 415, 525, 550V Tolerance: ±20% Power consumption: 2VA (approx)</p> <p><b>HOUSING</b> 250V and below: 22.5mm width Above 250V: 45mm width</p> <p><b>VOLTAGE SENSING</b> Repetitive accuracy: 1% Hysteresis: 2% (fixed) Hysteresis relates to the supply voltage Response delay: 1 second (approx)</p> <p><b>RELAY</b> Relay options (250V): 10A SPDT or 5A DPDT</p>	<p><b>POWER SUPPLY</b> Supply voltage: 115, 230, 400, 415, 525V AC ±15% Power consumption: 3VA (approx), 6VA for 415, 525V AC (approx)</p> <p><b>CURRENT INPUT</b> Input current range: 0 - 5AAC Reverse current sensitivity: 100mA to 1AAC (adjustable) Repetitive accuracy: 1% Hysteresis: 5% (fixed) Maximum input current (continuous): 6A Peak short term over current (10 seconds): 20A Current input impedance: 50 milliohms</p> <p><b>RESPONSE</b> Start-up delay: 0 - 10 seconds (adjustable) Response delay: 1 - 10 seconds (adjustable)</p>	<p><b>POWER SUPPLY</b> Supply voltage (phase-to-phase): 115, 230, 400, 525V AC ±20% Power consumption: 3VA (approx), 6VA for 415, 525V AC (approx)</p> <p><b>VOLTAGE SENSING</b> Repetitive accuracy: 1% Hysteresis: 2% fixed (relative to its supply voltage) Response delay: 1 second (approx)</p>
Ordering Code Example	TYPE MODEL VOLTAGE POWER SUPPLY RELAY CONTACTS SP 430 / 230V AC - *	TYPE MODEL VOLTAGE POWER SUPPLY RELAY CONTACTS AP 430 / 230V AC - *	TYPE MODEL VOLTAGE POWER SUPPLY RELAY CONTACTS SP 510 / 230V AC - *	TYPE MODEL VOLTAGE POWER SUPPLY RELAY CONTACTS SX 125 / 230V AC

\*Relay contact  
SP= Single Pole  
DP= Double Pole