

POWER MONITORS



Type	Phase Failure & Sequence Relay	Phase Failure & Sequence Relay		Supply Protection Relay		Over & Under Voltage Three Phase	
Code	SMP1 1000	SMP1 SMP1/N	SMP2 SMP2/N	SPR3	SPR3/N	TWCP1	TWCP1/N
Outputs	SPDT	SPDT	DPDT	SPDT		SPDT	
Mode of Operation	<p>This three phase (3 wire) unit monitors the supply voltage for all systems between 525 and 1000V. The output relay energises if the phases are all present and in the correct sequence. The relay de-energises when any phase is lost or the phase sequence is incorrect.</p> <p>The unit is housed in a DIN rail mounting housing suitable for 1000V connections.</p>	<p>This three phase (3 or 4 wire) unit monitors the supply voltages. The output relay energises if the phases are all present, in the correct sequence and each voltage is within 5-15% range (adjustable) of each other. The relay de-energises on:</p> <ol style="list-style-type: none"> A phase voltage imbalance exceeding the adj limit (5-15%). Total failure of one or more phases. Incorrect phase sequence. Supply exceeds 15% under/over nominal voltage (Link 2-10 options). <p>Built-in optional facilities (SMP1 & SMP1/N only)</p> <ol style="list-style-type: none"> 180 sec fault restart delay. 15% fixed over/under voltage. <p>These facilities can be utilised by connecting external links as per the diagram below.</p>		<p>SPR3: 3 Phase (3 wires) SPR3/N: 3 Phase + N (4 wires)</p> <p>This three phase (3 or 4 wire) unit monitors the supply voltage and combines the protection features of the SMP1 and TWCP1. The output relay energises if the phases are all present, in the correct sequence and each voltage is to within the adjustable over and undervoltage limits.</p> <p>The relay de-energises on:</p> <ol style="list-style-type: none"> Phase voltage imbalance exceeding the 10% (preset) Total failure of one or more phases. Incorrect phase sequence. Any phase falling outside the set voltage range. <p>Built-in optional facilities:</p> <ol style="list-style-type: none"> External latch N/C 10 sec start up delay 180 sec fault restart delay <p>These facilities can be utilised by connecting external links as per the diagram below.</p>		<p>TWCP1: 3 Phase (3 wires) TWCP1/N: 3 Phase + N (4 wires)</p> <p>This three phase (3 or 4 wire) window voltage comparator monitors the supply voltage. The output relay energises if the voltage level is within the adjustable over and undervoltage limits and de-energises when the voltage is outside this range.</p> <p>Built-in optional facilities:</p> <ol style="list-style-type: none"> External latch 10 sec start up delay 180 sec fault restart delay <p>These facilities can be utilised by connecting external links as per the diagram below.</p>	
Connection Diagram		<p>N: FOR SMP1/N ONLY</p>		<p>N: FOR SPR3/N</p>		<p>N: FOR TWCP1/N</p>	
Specification	<p>For any 3 phase system with a nominal voltage from 525 to 1000V.</p> <p>LED: Supply healthy – Green</p> <p>DIN mounting housing</p>	<p>SMP1 & SMP2 – 3 Phase SMP1/N & SMP2/N – 3Phase + N Phase imbalance: 5-15% ADJ.</p> <p>SMP1 & SMP1/N only Link 8 & 9 180sec fault restart delay Link 2 & 10 for SMP1 only 15% fixed over/under voltage protection.</p> <p>LED: Supply healthy – Green Available for 110, 230, 400V and 525V systems</p>		<p>Link 8 & 9 External latch Link 9 & 10 10 sec start up delay Link 9 & 11 180 sec fault restart delay. Phase imbalance: 10% fixed Overvolts 0 - 20% ADJ. Undervolts 0 - 20% ADJ.</p> <p>LEDs: Over/Undervolt – Red Phase rotation – Red x2 Supply healthy – Green</p>		<p>Link 8 & 9 Ext. Latch N/C Link 9 & 10 10 sec start up delay Link 9 & 11 180 sec fault restart delay</p> <p>Overvolts 5 - 20% ADJ. Undervolts 5 - 20% ADJ</p> <p>LEDs: Over voltage – Red Undervoltage – Red Supply healthy – Green</p>	
Hysteresis	2% Fixed	2% Fixed		2% Fixed		2% Fixed	
Supply AC	525-1000VAC	115*, 230*, 400 & 525VAC		400 & 525VAC		115*, 400 & 525VAC	
Supply DC	-	-		-		-	
Contact Rating		SPDT: 10A @ 250VAC		DPDT: 5A @ 250VAC			

* For Use with VT's Only