

## 3-phase Asymmetrical Load Monitoring Unit SLW150 – G003 0-5A SLW110 – G003 0-1A

for mains quick switch off under asymmetrical load or phase cut off in electrical generator  
 or in solar energy switchboards

Recommendable additional installing for own used energy production acc. to german  
 DIN V VDE V 0126-1-1 and VDEW to detect one phase load interruption



### Application

The Asymmetrical Load Monitoring Unit SLW150/110 is used to monitor and protect 3-phase generators and networks from asymmetrical loads. The unit is usually connected to standard current transformers 1A or 5A. As the conductor voltages do not change much, three-phase current measurement is used to display the asymmetrical load. This shows the power conditions with sufficient precision. The unit requires an auxiliary voltage of 231V or 400V AC or a DC voltage of 18 - 24V. The asymmetrical load monitoring unit works reliably and without disturbances even in heavy-duty operation and in disturbed environments.

### Function

The Asymmetrical Load Monitoring Unit SLW150/110 measures the arithmetical mean value of the AC current in each of the 3 phases L1, L2 and L3 and calculates the total arithmetical mean value. Each of the 3 phases is then compared with the mean value. If one of the phase current exceeds the setpoint for the deviation from the mean value, the left-hand LED lights up first. After completion of the waiting time set, the output relay (two-way contact) is attracted. The asymmetrical load switch-off can be set to between 5 and 15% of the mean value via the adjuster. A waiting time of between 0 and 5,0 seconds can be selected. If the value falls under the asymmetrical load set, the unit switches the time circuit back to 0. The unit is designed for a rated current of 5A (1A) per phase. If the rated current is reduced, the precision given drops correspondingly.

### Technical Data

Typ	Asymmetrical Load Monitoring Unit SLW150-G003 (5A), SLW110-G003 (1A)
Construction	Plastic housing on 35mm hat rail as per DIN EN 50022
Material of housing	Bayblend FR 1439/0240 modified ABS with burning protection UL 94 V0
Dimension, Weight	104x68x110mm (WxHxD), ca. 0,6 kg
Auxiliary voltage, Connection	231VAC to <b>0 – 231V</b> , 400VAC to <b>0 – 400V</b> , or 18 - 28VDC to <b>19 - 20</b>
Class of accuracy	1,5% (mean value of rated current)
Power consumption	2,5 VA
Measuring Current (Rated)	3 x 5A AC (SLW150), 3 x 1A (SLW110)
Switching delay	Adjustable between 0 (appr. 0.2) to 5.0 sec.
Operation	Continuous with max. 1,2 x rated current, 10 x rated current for 1 sec
Terminal Load	5A/250VAC, 5A/30VDC, 0,015 Ohm contact resistance, 10 <sup>5</sup> life time
Voltage Protection	3750V (coil-kontakt), 1200V (open kontakt)
Connecting terminals	for wire connection up to 2,5 mm <sup>2</sup>
Type of protection	Housing IP 40, Terminals IP 20 (VDE 0106T100/VBG4)
Temperature range	-10 °C to +55°C, 95% Humidity
Mains isolating	EN 60 742 (Safety transformers)
General Regulations	EN 50 178 (electrical units in power current installation)
Radio interference	EN 55 022/B
EMV	EN 61000 und EN V 50 140
Installation position	Any position
Maintenance	Free of maintenance