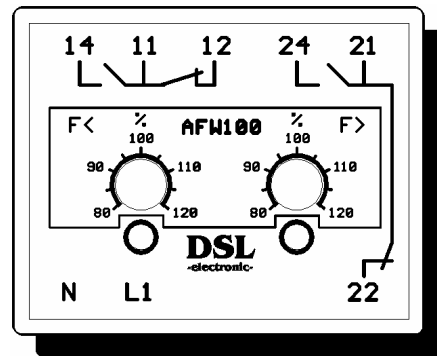


Frequency Monitor AFW100



Application / Function

The Frequency Monitor AFW100 is used to monitor the frequency of AC or three-phase supply networks. Especially free-running isolated networks without network synchronization or emergency power supplies can show strong frequency variations which must be monitored automatically. The Frequency Monitor AFW100 monitors the underfrequency and overfrequency of the AC voltage connected to it. The underfrequency and overfrequency switching points are set individually and work on separate output relays (two-way contacts). The output relay of the switching point in each case is attracted if the actual value of the frequency measured exceeds the limit set (LED lights up). The AFW100 works in highly disturbed networks up to the form factor 1.0 (rectangular) and the integrated low-pass makes it insensitive to glitches. The unit compares the mains frequency connected to it with a 10 0% reference signal for the underfrequency and overfrequency circuit provided by an internal quartz generator.

Technical Data

Type	Frequency monitor AFW100
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 VO
Dimension, Weight	55x68x110mm (WxHxD), ca. 0,2 kg
Rated Voltage	231V +/- 15%
Rated Frequency	50 Hz (60 Hz on request)
Control Range	+/- 20%
Switching Duration	Appr. 250 ms (Jump dF=1Hz)
Hysteresis of switch over	0,25%
Repeat Accuracy	1%
Power Consumption	2,5 VA from measuring signal
On Period	100 %
Terminal Load	5A/250VAC , 5A/30VDC , 0,015 Ohm contact resistance , 10 ⁵ life time
Voltage Protection	3000V (coil-contact), 1000V (open kontakt)
Connection Terminals	For wire connection up to 2,5 mm ² , potentialfree input terminal
Type of Protection	Housing IP 40 , terminals IP 20 (bzw. VDE 0106T100/VBG4)
Operating Temp. Range	-10 °C bis +55°C, 95% Humidity
Potential Separation	EN 60 742 (safety transformers)
General Regulations	EN 50 178 (electrical units in power current installation)
Noise suppressions	EN 55 022/B
EMV	EN 61000 und EN V 50 140
Installation Position	Any position
Maintenance	Free of maintenance