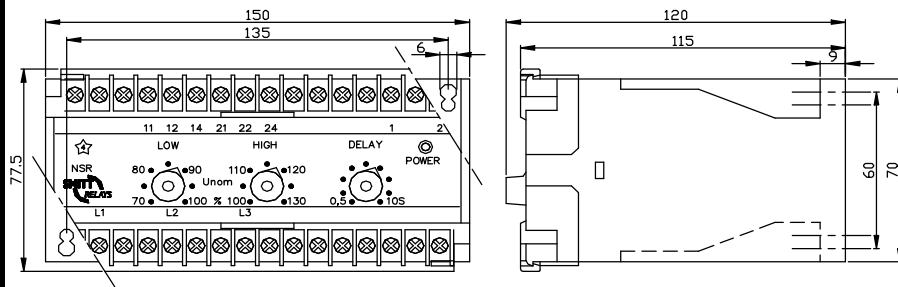


Datasheet

Product	NSR 3-Phase line voltage monitoring relay	Country of origin: The Netherlands
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Dimensions



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Description

The NSR is a line voltage monitoring relay for a 3-phase network. It is provided with adjustable (100...130 %) overvoltage and adjustable (70..100 %) undervoltage and phase rotation detection. The NSR has an adjustable delay-on time from 0.5 ...10 seconds, and is suitable for AC and DC auxiliary supplies

Input data				Adjustment	
Type	U_{nom} (V)	U_{max} (V)	f_{nom} (Hz)	Overvoltage	100..130%
NSR-220	220	330	50	Undervoltage	70 ..100%
NSR-400	400	600	50	Delay-on time	0.5 ...10 s
				Phase rotation	CW

Auxiliary supply data				Accuracy	
Type	U_{min} (V)	U_{max} (V)	f_{nom} (Hz)	Adjustment	< 5%
L	16.5	90	0...60	Repeat	< 1%
H	65	270	0...60	Hysteresis	1%
Max. powerinterruption			10 ms		
Nom. powerconsumption			< 3 VA		

Functionality

The NSR detects in a 3 phase network under- and over voltage, as well as phase rotation error. The NSR has a fail-safe circuit, thus also an auxiliary supply failure is detected. The NSR is equipped with lockable knobs for all adjustments. The NSR is equipped with two change-over contacts.

Other measuring ranges on request

Ordering information

Type NSR-	* input-	* auxiliary supply
Example:	NSR-220-L	line monitoring relay input 220 V auxiliary supply 16.5-90 V

Contact data			
Max. make current	14 A	Material	AgCdO
Max. cont. current	8 A		
Max. switching voltage		Insulation	
DC	300 V	between open contacts	1 kV; 50 Hz; 1 min
AC	250 V		
Min. switching voltage	12 V, 100 mA	pole to pole	2.5 kV; 50 Hz 1 min
Connection diagram			
<p>The diagram shows a three-pole switch mechanism. The main switch has six terminals: 11, 12, 14, 22, 24, and 21. Terminals 11, 12, and 14 are on the left, and 22, 24, and 21 are on the right. Terminals 1 and 2 are connected to an 'Auxiliary supply'. Below the switch, there are three terminals labeled L1, L2, and L3. L1 is connected to terminal 11, L2 to terminal 12, and L3 to terminal 21. The switch mechanism shows two moving contacts that can connect to either the top or bottom set of fixed contacts.</p>			
General Data			
Dielectric strength			
Input-output	IEC 77	3.5 kV, 50 Hz, 1 min	
Input-supply	IEC 77	4 kV, 50 Hz, 1 min	
Cont-cont	IEC 255-5/	1 kV	
Pole-pole	IEC 77	2.5 kV	
Pulse withstanding	IEC 255-5	5 kV (1.2/50 μ s)	
Vibration	IEC 77/ 571 IEC 571-1 IEC 68-2-6	1 g at 10 Hz max freq 80 Hz class VII	
Shock	IEC 77 IEC 68-2-27	5 g at 50 Hz	
Weight		40 g	
Temperature	$T_{amb,max}$ $T_{amb,min}$	+70 °C -25 °C	
Humidity		90%, temporary permitted condensation	
Protection		IP 20/ IP 40 (contacts/ housing)	
Materials		Polycarbonat/ GV/ V-0	