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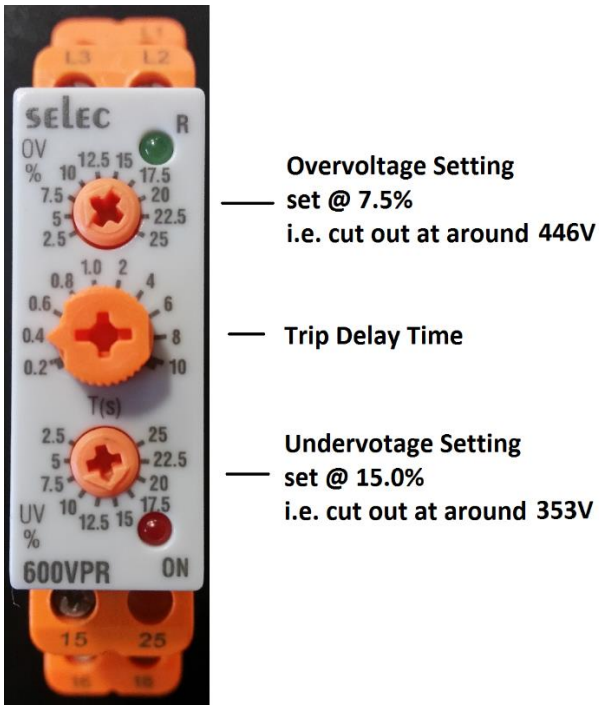
Malta

Voltage Protection Relay - 3 Phase

Extract from the Enemalta Network Code:

> "DPC4.2.2 - Enemalta shall operate the distribution system so as to ensure that the voltage at the supply terminals, as defined in MSA EN 50160:2001, 'Voltage characteristics of electricity supplied by public distribution systems', complies with that standard. In line with these standards the low voltage range tolerance shall be 230V +/- 10% (phaseneutral)."

Brand:	Selec
Product No.:	600VPR-310/520
Description:	Voltage Monitoring Relay with preset limits for Under and Over Voltage



1 - Device front face showing Overvoltage, Time Delay and undervoltage Settings

Local Settings on Device:

The device is designed to work on a system voltage of 240V/415V ac. It has over and under voltage limit settings as follows:

Nominal Voltage of 415V AC			
Overvoltage % Setting	Cut-Out if voltage goes above:	Undervoltage % Setting	Cut-Out if voltage goes below:
2.5	425	2.5	405
5.0	436	5.0	394
7.5	446	7.5	384
10.0	457	10.0	374
12.5	467	12.5	363
15.0	477	15.0	353
17.5	488	17.5	342
20.0	498	20.0	332
22.5	508	22.5	322
25.0	519	25.0	311

Clearly, in order for the device to operate as close as possible to Enemalta's low voltage range tolerance of 400V +/- 10%, the device has to be set as follows:

Over Voltage Knob: 7.5%

Under Voltage Knob: 15.0%

Trip Delay Time: 0.4s

PS: The device assumes a clockwise phase sequence of L1-L2-L3. By default, the national grid rotates in anti-clockwise manner, thus if the device is connected directly to Enemalta, it's sensing inputs L1-L2-L3 have to be connected as follows: L1 of line to L3 of device, L2 of line to L2 of device, L3 of line to L1 of device.