

# VAMP 140

## OVERCURRENT AND EARTH FAULT RELAY



- Easy to use: flexible output and blocking matrix
- Event handling and fault registration
- Programmable mAoutput
- Integrated arc protection (option)
- Disturbance recorder
- Non-volatile memory
- Local and remote communication
- Various communication protocols including SPA Bus, Profibus, Modbus, Modbus TCP, IEC 60 870-5-103, TCP/IP



## Main technical data/ VAMP 140

Auxiliary voltage, Uaux	40...265 V ac / dc (optionally 18...36 Vdc)
Rated phase current In	1A or 5A
- current measuring range	0...50 x In
Rated neutral current I0n	1A or 5A
- current measuring range	0...5 x I0n
Thermal Withstand	4 x In (continuous), 100 x In (for 1 s)
Rated frequency fn	45...65 Hz
- frequency measuring range	16...75 Hz
Digital input	1 pc
- external operating voltage	18...265 V ac / dc
Trip contacts	2 pcs
Alarm contacts	4 pcs
<b>Tests and environment</b>	
Emission	EN 55022
Immunity	IEC 60255-22-1, IEC 60255-11, EN 61000-4-6, EN 61000-4-5, EN6100-4-4, EN 61000-4-3, EN6100-4-2
Insulation test	IEC 60255-5
Surge voltage	IEC 60255-5
Vibration shock	IEC 60255-21-1
Operating temperature	-10...+55° C
Relative humidity	<95 %, no condensation allowed
Degree of protection (IEC 60529)	IP54, flush mounted
Weight	2,3 kg
Dimension (w x h x d)	99 x 155 x 225 mm
<b>Protection stages</b>	
<b>Overcurrent protection</b>	
Overcurrent stage	I> (50/51)
Overcurrent stages	I>> (50/51)
Overcurrent stages	I>>> (50/51)
Phase unbalance stage	I2 / I1 (46)
Thermal overload stage	T> (49)
<b>Residual overcurrent protection</b>	
Residual current stage	Io> (50N/51N)
Residual current stage	Io>> (50N/51N)
Residual current stage	Io>>> (50N/51N)
<b>Arc protection (option)</b>	
Arc protection stage ArcI>	(51AR)
Arc protection stage Arc Io>	(51N AR)
<b>Second harmonic stage</b>	
Inrush current detector	68
<b>Other</b>	
Disturbance recorder (DR)	All analogue channels and binary inputs / outputs
Circuit breaker failure protection	CBFP 50BF
Trip circuit supervision	TCS
<b>Measurements</b>	
Phase currents	IL1, IL2, IL3, IL
Residual current	Io (A), Io (%)
Phase unbalance	I2 / I1
15 min demand current	IL15min
Maximum phase current	ILmax
Frequency	f
15 min average current	IL1, IL2, IL3, IL and Io <sup>(1)</sup>
15 min maximum current	IL1, IL2, IL3, IL and Io <sup>(1)</sup>
Current diagram	(1)
Note: <sup>(1)</sup> with VAMPSET software	
<b>Transducer</b>	
<b>Communication protocols</b>	
	One mA output for any relevant signals
	IEC 60 870-5-103
	Transparent TCP/IP
	Modbus TCP
	Modbus RTU
	Profibus DP
	SPA

V140 EN005

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VAMP