VAMP 245

FEEDER PROTECTION RELAY

- Versatile feeder protection
- Five shot scheme auto-reclosing
- Event handling and fault registration
- Disturbance recorder
- Various communication protocols including TCP/IP
- Configurable mimic
- Supports local and remote control

Main technical data/ VAMP 245

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 Ion	1A or 5A
- current measuring range	0…5 x In
Thermal Withstand	4 x In (continuous), 100 x In (for 1 s)
Rated residual voltage Un	50 – 120 V (configurable)
- voltage measuring range	0 – 175 V (100 / 110 V)
Voltage withstand (continuous)	250 V
Rated frequency fn	45…65 Hz
- frequency measuring range	16…75 Hz
Digital inputs	6 pcs
- internal operating voltage	+48 V dc
Trip contacts	2 pcs
Alarm contacts	5 pcs

Tests and environment

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	4,2 kg
Dimension (w x h x d)	209 x 155 x 225 mm

Protection stages

Overcurrent protection		
Overcurrent stage	I>	50/51
Overcurrent stage	I>>	50/51
Overcurrent stage	I>>>	50/51
Unbalance protection	I_2>	46
Thermal overload stage	T>	49
Residual overcurrent protection		
Directional / non-directional earth fault stage	$I_{o\varphi}$>	67N
Directional / non-directional earth fault stage	$I_{o\varphi}$>>	67N
Non-directional earth fault stage	I_o>	50N / 51N
Non-directional earth fault stage	I_o>>	50N / 51N
Residual overvoltage protection		
Residual voltage stage	U_o>	59N
Residual voltage stage	U_o>>	59N
Auto-reclosure function		
AR function - five (5) shots	0 ---> 1	79

Second harmonic stage

Inrush current detector	68

Arc protection (option)

Arc protection stage	ArcI>	51L>
Arc protection stage	Arc I_o>	51NL>

Other

Disturbance recorder	All analogue channels and binary inputs / outputs	
Circuit breaker failure protection	CBFP	50BF
Trip circuit supervision	TCS	

Measurements

Phase currents IL_1, IL_2, IL_3, IL
Residual current I_o (A), I_o (%)
Current unbalance I_2/I_1
Residual voltage U_o
Frequency f
Phasor diagrams(1

Note: (1 with VAMPSET software
Harmonics from phase currents:
THD, harmonics 2nd to 15th by phase

Communication protocols

IEC 60 870-5-103
Transparent TCP/IP
Modbus TCP
Modbus RTU
Profibus DP
SPA

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VAMP Ltd
Street address: Runsorintie 7
Postal address: P.O.BOX 5, FIN-65381 Vaasa, Finland
Phone: +358 6 2121 100
Fax: + 358 6 2121 105
Internet: www.vamp.fi
E-mail: vamp@vamp.fi