

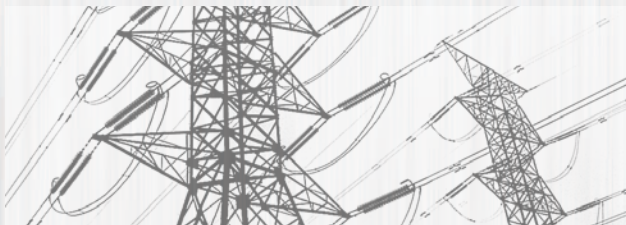
Use DTVA in solidly earthed distribution and transmission feeder protection and control applications. Provides full functionality for power lines and cables including 5-zone distance protection of quadrilateral or Mho characteristics and 2- or 3-end line differential function. Autoreclosing with synchrocheck and synchroswitch functions.

Native IEC 61850 compatibility

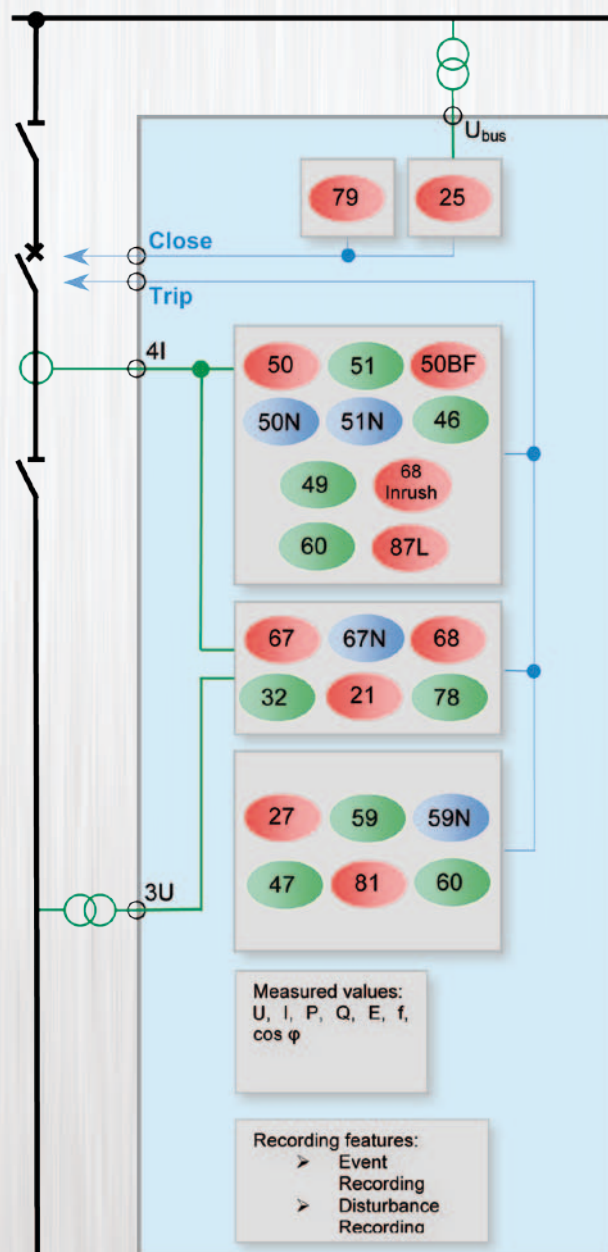


COLOR TFT TOUCHSCREEN  
QVGA (320 x 240) 65536 color 3.5"  
(optionally 5.7") TFT display

- CCVT filtering algorithm to maintain protection speed and fault coverage
- Fast trip of appr. 20ms
- Load encroachment
- Remote terminal communication
- Single pole / three-pole autoreclosing with synchrocheck and synchroswitch
- Redundant line differential protection via two physical links in 2-end application



- Use your web browser for complete device handling
- High capacity heavy duty trip contacts: 4A 220V DC breaking capacity
- Enhanced breaker monitoring
- Built-in PLC for user logic
- Full bay control feature



# DTVA – CONFIGURATIONS

Configurations		E1	E2
IEC	ANSI		
I >>>	50	X	X
I >, I >>	51	X	X
I Dir > >, I Dir >>	67	X	X
Io >>>	50N	X	X
Io >, Io >>	51N	X	X
Io Dir > >, Io Dir >>	67N	X	X
3I <sub>d</sub> L >	87L		X
Z <	21	X	X
ΔZ/Δt	78	X	X
		X	X
	68	X	X
I <sub>2h</sub> >	68	X	X
I <sub>2</sub> >	46	X	X
T >	49	X	X
U >, U >>	59	X	X
U <, U <<	27	X	X
U <sub>0</sub> >, U <sub>0</sub> >>	59N	X	X
U <sub>2</sub> >	47	X	X
f >, f >>	81O	X	X
f <, f <<	81U	X	X
df/dt	81R	X	X
SYNC	25	X	X
0 -> 1	79	X	X
	60	X	X
	60	X	X
CBFP	50BF	X	X
P >	32	X	X
P <	32	X	X

Version	Recommended application
E1	<p>The DTVA E1 configuration measures three phase currents, the zero sequence current component of the parallel line and, additionally, three phase voltages and the busbar voltage. These measurements allow, in addition to the current- and voltage-based functions, directionality extension of the configured phase and residual overcurrent function and also directional overpower or underpower functions.</p> <p>The main protection function in this application is the distance protection function. The distance protection function can generate three-phase or single-phase trip commands, depending on the fault types and the requirements. The range of functions is supplemented with the automatic reclosing function, synchrocheck, power swing detection and switch-onto-fault logic.</p> <p>Based on the voltage measurement, the frequency is also evaluated to realize frequency-based protection functions.</p>
E2	<p>This version is a functional extension of DTVA E1: There are two main protection functions in this application: the distance protection function and the line differential protection function.</p> <p>The communication hardware module sends and receives phase current vectors to realize the line differential protection function. The range of functions is supplemented with a directional phase overcurrent protection function.</p>



**PROTECTA**  
HUNGARY

