



## **EURO**PROT+

Use DTIVA products in full range of MV feeder protection and control applications for cables, overhead lines, motors, distributed generators and capacitor banks. Directional and non-directional overcurrent, voltage, frequency, MV distance, line differential, motor protection and vector jump protection functions.

## Native IEC 61850 compatibility



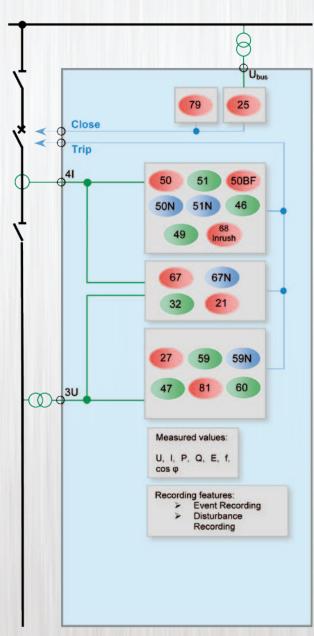
## **COLOR TFT TOUCHSCREEN**

QVGA (320 × 240) 65536 color 3.5" (optionally 5.7") TFT display

- Complete MV bay units including full protection and controlling functions
- User friendly LCD configuration with a library of a large number of predefined controllable objects
- Enhanced interlocking schemes
- Distribution load shedding schemes
- Protection against islanding operation for wind farm and photovoltaic energy applications



- 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



ECTION, AUTOMATION & CONTROL

## **DTIVA – CONFIGURATIONS**

Configurations		EI	E2	E3	E4	E5	E6	E7		E8	E9	EI0
IEC	ANSI											
1>>>	50	×	Х		X.	х	ж		×			
1>,1>>	51	×	×		X	×	X	1	×		1	K
I Dir > >,	67			- 1	×		*					
10>>>	50N	×	×		×	×	×		×			
10 >, 10 >>	51N	×	х	- 1	X	×	ж		×		1	K
lo Dir >>, lo Dir >>	67N		×	1	×		×	*	×			
31 <sub>6</sub> L >	87L					×	*					
	87G								×			
Z<	21				×							
126 >	68	×	×		×	×	×		×			
12 >	46	×	ж		X	×			×			
T>	49	×	×	1	×	×	X	1	×			
U >, U >>	59		×		X.	×	. 1		×	х.		Op.
U <, U <<	27		×	1	×	×	X	1	K	X		Op.
Uo >, Uo >>	59N		×		×	×			×	×		Op.
U <sub>2</sub> >	47		×		×				×			
U1 <	27D								×			
f>,f>>	810				X		X		×	X		
fs,fee	81U				×		*		×	×		
f/dt	81R				X				×	*		
SYNC	25											
0->1	79		×		×	×						
	60				×		×					
	60	×	×		×	×			×			
CBFP	50BF	×	×	-	×	×	×	-	×			
31,6 >	48					1000			×			
31 <sub>0</sub> B >	37											
	66								*			
P>	32		х		×							
P<	32		×									

	[-] Cre module		
	Correct Ch - 11	146	A
	Angle Ch - II	100	drg
	Current Ch - 12	0.50	
on-Brow data	Angle Ch - 12	145	drg
	Current Ch + (3	0.50	
	Angle Ch - 18	21	dra
	Current Ch - 14	31.00	
	Angle Ch - SA		deg
			E 165
	[-] Wa module		
₩ =	Voltage Ch = US	NO.	
₩=	Voltage Ch - US Angle Ch - US	1000	deg
₩=		58.81	
₩=	Angle Ck - Lft		drg
₩ =	Angle Ch - UI Voltage Ch - UI	58 81	deq v
₩ ■	Angle Ch - UI Williage Ch - UI Angle Ch - UII	58 81 -121	deg v deg
₩ =	Angle Ch - US Softage Ch - US Angle Ch - US Softage Ch - US	58.81 -121 58.99	deg V deg



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Version	Recommended application
EI	Protection of overhead lines and cables on radial networks. The configured functions are based on current measurement and they are supplemented with automatic reclosing function.
E2	This configuration is the functional extension of version DTIVA E1. The additional voltage measurement is the basis of the residual directional decision, power calculation and over- and undervoltage functions.
E3	The configuration is designed to meet the requirements of a complex field unit for overhead lines and cables on compensated or resistance grounded networks. The range of functions includes all current and voltage based applications, except distance protection and line differential functions. The automatic reclosing function is performed with synchrocheck. Frequency protection functions are included.
E4	This configuration is the functional extension of version DTIVA E3. The range of functions includes all current and voltage based applications, including the distance protection function. The only exception is the line differential function.
E5	This configuration is another functional extension of version DTIVA E3. The range of functions includes all current and voltage based applications except for the distance protection function. The configuration is supplemented with the line differential protection function.
E6	This configuration is a functional extension of version DTI-VA E3. The range of functions includes all current and voltage based applications, including the distance protection function and line differential protection function.
E7	The configuration is designed to meet the requirements of a complex motor protection device for medium voltage motors.
E8	The configuration is designed to measure voltages. Over- and undervoltage functions are performed based on these measurements. The configuration is supplemented with frequency protection functions.
E9	The configuration is designed to be applied on networks with distributed generation. Its unique function is vector jump protection. Additionally to voltage-based functions, current-base functions are also available, and the measurements support the application of calculated power-based functions.
EI0	This simple configuration is designed to protect power capacitor units based on current unbalance measurement.