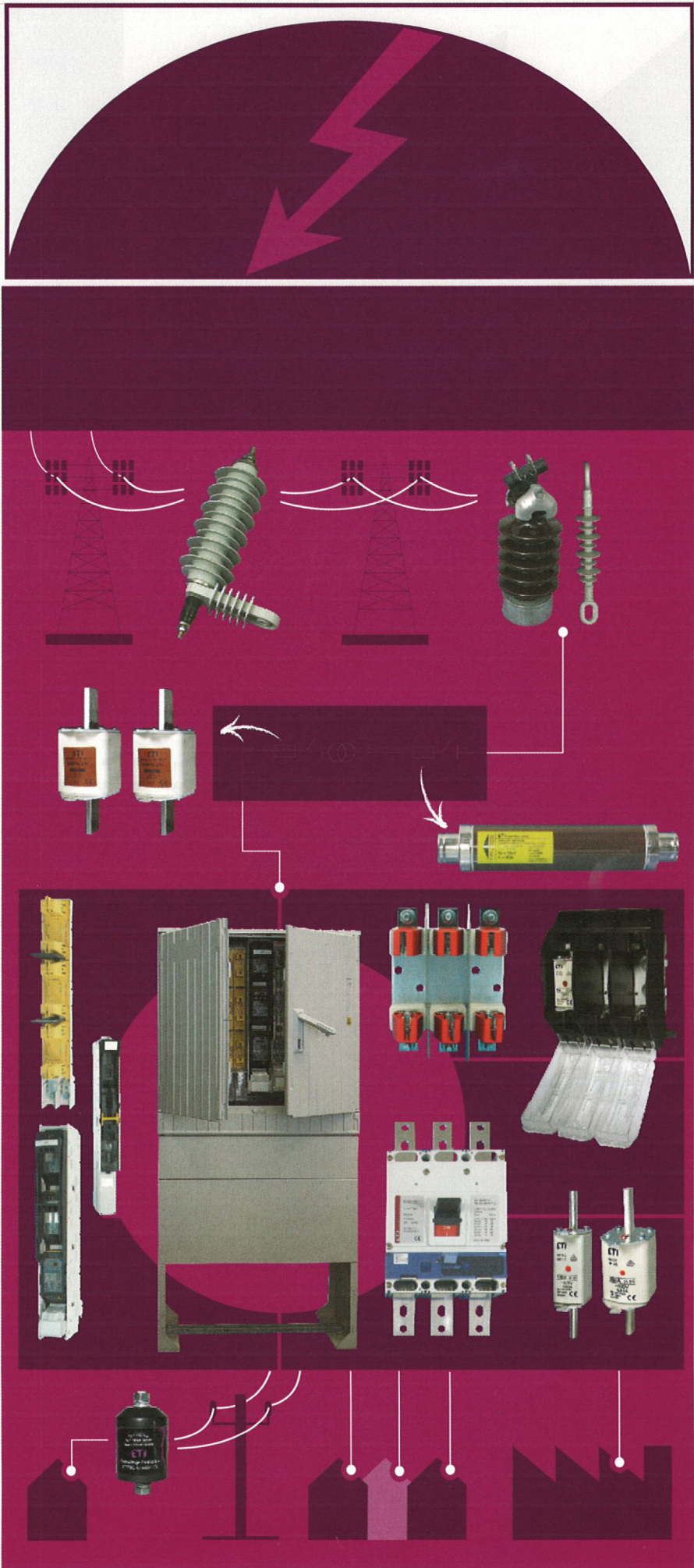


ELECTRIC POWER DISTRIBUTION

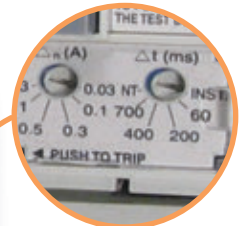
ETI provides high-quality solutions for the protection of low and high-voltage electrical installations in the field of electric power distribution. We supply a wide range of high-voltage fuse-links of the type VV, low voltage power circuit breakers ETIBREAK, distribution cabinets KVS, medium voltage surge arresters ETISURGE and ceramic as well as polymeric insulators. The products are internationally certified and carry several quality marks.



Low voltage moulded case circuit breakers with residual current protection

Main features and advantages

Breaking capacities as on MCCBs



Adjustable residual current tripping thresholds between 30mA and 3A. Adjustable time delay for residual current protection between 60ms and 700ms including INST (instantaneous) and NT (No Trip).



Type A: Tripping is ensured for residual sinusoidal AC in the presence of residual pulsating DC.



Voltage Presence LED Indicator and Trip Indicator (the yellow button pops up to indicate tripping due to residual current)



Test Button (to test the residual current detection and tripping system)



Dielectric test device plug (to allow dielectric testing with the EB2R closed - ON)



Adjustable overload protection I_R can be set between 63% and 100% of I_n

Accessories

Internal accessories



NA2



PS2

Undervoltage trip for EB2, ED2 125-630

Internal accessories can be mounted by customer	Code No.	Description	Poles	Packaging [pcs]
Undervoltage trip unit NA2 125-630AF AC200-240V	004671153	200-240 V AC	3p, 4p	1/1
Undervoltage trip unit NA2 125-630AF AC380-450V	004671154	380-450 V AC	3p, 4p	1/1
Undervoltage trip unit NA2 125-630AF DC24V	004671155	24 V DC	3p, 4p	1/1
Undervoltage trip unit NA2 125-630AF DC100-120V	004671156	100-120 V DC	3p, 4p	1/1
Undervoltage trip unit NA2 125-630AF DC200-240V	004671157	200-240 V DC	3p, 4p	1/1

Important note: The shunt trip unit DA and undervoltage trip unit NA cannot be mounted in the same breaker

Undervoltage trip for EB2, ED2 800-1600

Internal accessories can be mounted by customer	Code No.	Description	Poles	Packaging [pcs]
Undervoltage trip unit NA2 800-1600AF AC380-415V	004672299	AC 380-415V	3p, 4p	1/1
Undervoltage trip unit NA2 800-1600AF AC220-240V	004672300	AC 220-240 V	3p, 4p	1/1
Undervoltage trip unit NA2 800-1600AF AC415-450V	004672301	AC 415-450 V	3p, 4p	1/1
Undervoltage trip unit NA2 800-1600AF DC24V	004672302	24 V DC	3p, 4p	1/1
Undervoltage trip unit NA2 800-1600AF DC100-120V	004672303	100-120 V DC	3p, 4p	1/1
Undervoltage trip unit NA2 800-1600AF DC200-240V	004672304	200-240 V DC	3p, 4p	1/1

Important note: The shunt trip unit DA and undervoltage trip unit NA cannot be mounted in the same breaker

Undervoltage trip for EB2, ED2 125-630AF - Time Delay

Internal accessories can be mounted by customer	Code No.	Description	Poles	Packaging [pcs]
NA2 TD 125-630AF AC230-240V	004672341	230-240V AC	3p, 4p	1/1
NA2 TD 125-630AF AC380-415V	004672342	380-415V AC	3p, 4p	1/1
NA2 TD 125-630AF AC440-450V	004672343	440-450V AC	3p, 4p	1/1
NA2 TD 125-630AF DC24V	004672344	24V DC	3p, 4p	1/1
NA2 TD 125-630AF DC115-120V	004672345	115-120V DC	3p, 4p	1/1

Important note: The shunt trip unit DA and undervoltage trip unit NA cannot be mounted in the same breaker

Time delay of 500ms

Time delay units are fitted to the outside of MCCBs

Undervoltage trip for EB2, ED2 400-630AF only 4p - Time Delay

Internal accessories can be mounted by customer	Code No.	Description	Poles	Packaging [pcs]
NA2 TD 4p 400-630AF AC230-240V	004672365	230-240V AC	4p	1/1
NA2 TD 4p 400-630AF AC380-415V	004672366	380-415V AC	4p	1/1
NA2 TD 4p 400-630AF AC440-450V	004672367	440-450V AC	4p	1/1
NA2 TD 4p 400-630AF DC24V	004672368	24V DC	4p	1/1
NA2 TD 4p 400-630AF DC115-120V	004672369	115-120V DC	4p	1/1

Important note: The shunt trip unit DA and undervoltage trip unit NA cannot be mounted in the same breaker

Time delay of 500ms

Time delay units are fitted to the outside of MCCBs

Internal accessories – series EB2

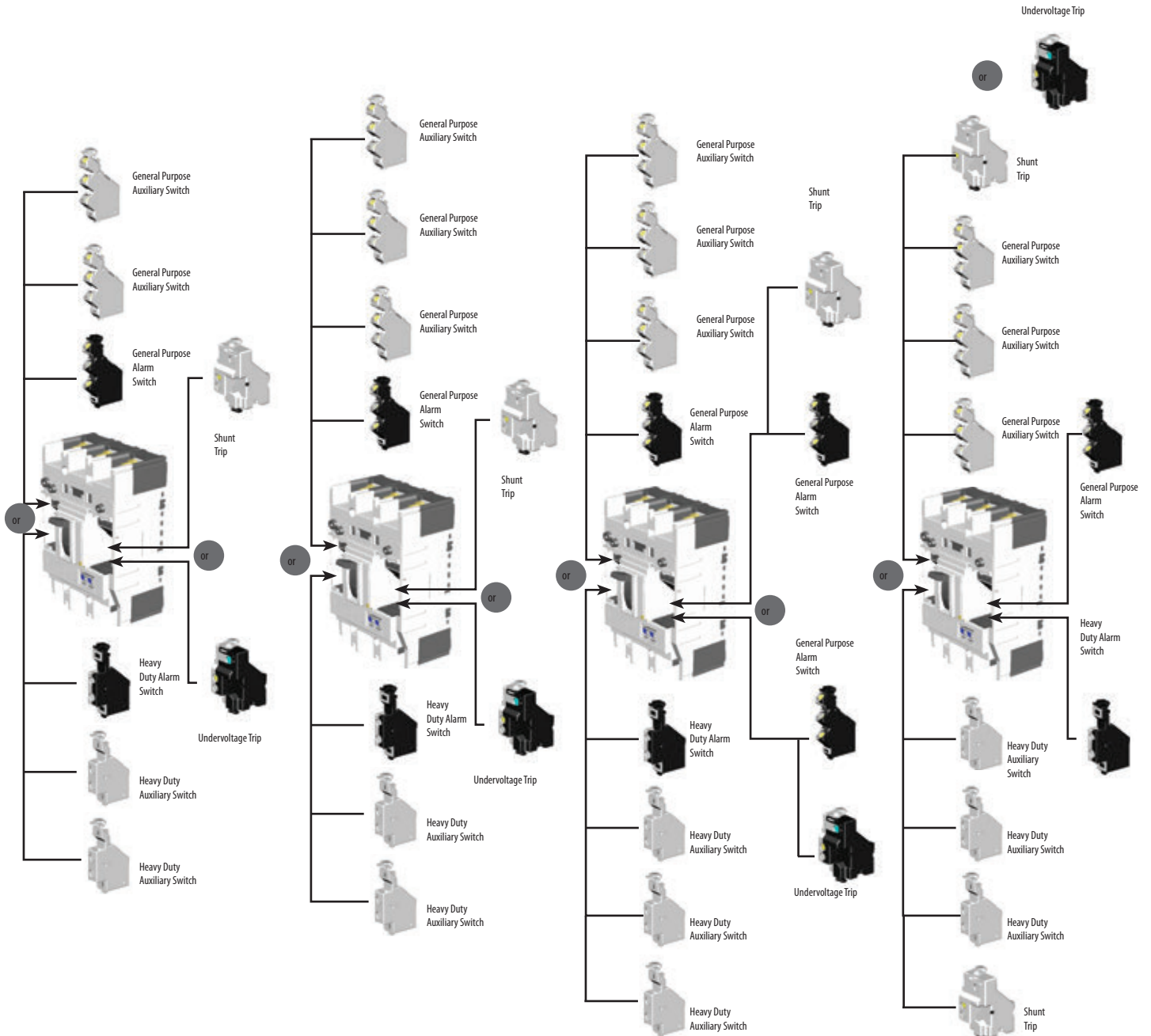
Ampere Frame size (A):

125, 160, 250

400, 630

800, 1000

1250, 1600

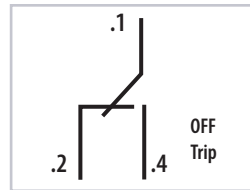


- Status indication switches mount in the left side of the MCCB. General purpose and heavy duty status indication switches cannot be mixed in the same MCCB. Only one alarm switch can be fitted to an MCCB.
- Shunt trips and undervoltage trips mount in the right side of the MCCB.
- It is not possible to install a shunt trip and an undervoltage trip in an MCCB as they occupy the same location. Undervoltage trips can provide remote tripping if necessary by wiring a normally closed contact or pushbutton in series with the protected supply.
- Undervoltage trips with time delays require an external time delay controller which clips to the side of the MCCB.

Internal accessories – series EB2



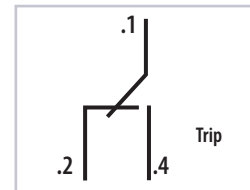
General Purpose Auxiliary Switch



Terminal Designations and Function of General Purpose Auxiliary Switch



General Purpose Alarm Switch



Terminal Designations and Function of General Purpose Alarm Switch

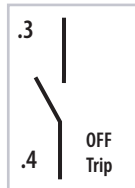
General purpose auxiliaries and alarm switch ratings

Volts (V)	AC Amperes (A)		Volts (V)	DC Amperes (A)		Minimum Load
	Resistive Load	Inductive Load		Resistive Load	Inductive Load	
440	-	-	250	-	-	100mA -> 15V DC.
240	3	2	125	0.4	0.05	
110	3	2	30	3	2	

Amperes (A)



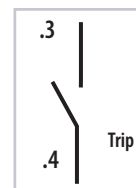
Heavy Duty Auxiliary Switch



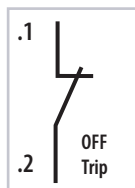
Terminal Designations and Function of Heavy Duty Auxiliary Switch NO contact



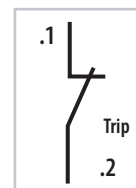
Heavy Duty Alarm Switch



Terminal Designations and Function of Heavy Duty Alarm Switch, NO contact



Terminal Designations and Function of Heavy Duty Auxiliary Switch, NC contact



Terminal Designations and Function of Heavy Duty Alarm Switch, NC contact

Ratings of Heavy Duty Auxiliary and Alarm switches

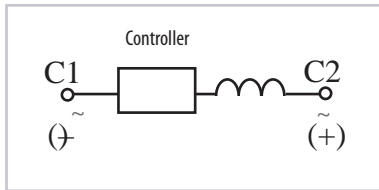
Volts (V)	AC Amperes (A)		Volts (V)	DC Amperes (A)	
	Resistive Load	Inductive Load		Resistive Load	Inductive Load
440	3	3	250	0.5	0.5
240	4	4	125	1	1
110	5	5	48	3	2.5
48	6	6	24	6	2.5



Shunt Trips

Ratings of Shunt Trips

Rated Voltage	Voltage AC		Voltage DC			
	200-240	380-450	24	48	100-120	200-240
Excitation Current (A)	0.014	0.0065	0.03	0.03	0.011	0.011



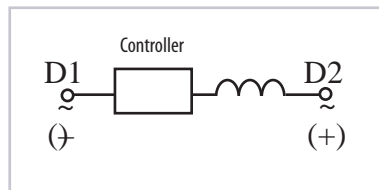
Terminal Designations of Shunt Trips



Undervoltage Trips

Ratings of Undervoltage Trips

Rated Voltage	Power supply capacity (VA)		Excitation current (mA)		
	Voltage AC		Voltage DC		
	200-240	380-450	24	100-120	200-240
Power Supply Capacity (A)	1.4	2.28	23	10	10



Terminal Designations of Undervoltage Trips