

## Low voltage moulded case circuit breakers and low voltage switch disconnectors

Low voltage moulded case circuit breakers are used for the switching and protection of power supply cables, motors and other electrical equipment against overloads and short circuit faults. They provide, beside protection function, other functions as remote ON/OFF operation, undervoltage protection, main switch etc. They are available in range from 20 A up to 1600 A in 3 and 4 pole versions.

### Advantages:

- Small dimensions, modular sizes
- Possibility of field-installable accessories – up to 1600A frame size series 2 (EB2)
- High short circuit breaking capacity (up to 125 kA)
- Fast break mechanism
- Reduced energy let through  $I^2t$  – minimises thermal stresses
- Reduced tripping time – minimises damage after fault
- Reduced peak short current ampacity – minimised electrodynamic stresses on conductors and protected equipment
- Installation on mounting plate, 125 & 250 A frame size also on DIN-rail
- Wide range of accessories
- Compact design with high mechanical strength
- High dielectric withstand voltages (8 kV a.c.)
- Voltage level up to 690 V a.c. and 250 V d.c. – only MCCB's with thermal-magnetic tripping unit
- Direct opening – recommendation according to standard IEC 60204-1 – up to 1600 A frame size series 2 (EB2)
- Common internal accessories – up to 1600 A frame size series 2 (EB2)
- Visual safety
- Unsurpassed flexibility

## Moulded case circuit breaker ETIBREAK EB2

### Thermal magnetic

Thermal magnetic MCCBs are available in frame sizes from 125A to 800A. All frame sizes have adjustable both thermal and magnetic trip settings. Overload protection is adjustable between 63 % and 100 % of  $I_n$ , meanwhile short-circuit between 6-13x $I_n$  (more details in the technical part of catalogue).

Legend: EB2 -> series 2  
 L -> economic, lower short-circuit breaking capacity  
 S -> standard short-circuit breaking capacity  
 H -> high short-circuit breaking capacity

**ETIBREAK EB2 125**

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 125/3L 20A 3p	20	004671021	3	25/19	0,63-1/ 6-12	1,1	1
EB2 125/3L 32A 3p	32	004671022			0,63-1/ 6-12		
EB2 125/3L 50A 3p	50	004671023			0,63-1/ 6-12		
EB2 125/3L 63A 3p	63	004671024			0,63-1/ 6-12		
EB2 125/3L 100A 3p	100	004671025			0,63-1/ 6-12		
EB2 125/3L 125A 3p	125	004671026			0,63-1/ 6-10		
EB2 125/4L 20A 4p	20	004671027	4	25/19	0,63-1/ 6-12	1,4	
EB2 125/4L 32A 4p	32	004671028			0,63-1/ 6-12		
EB2 125/4L 50A 4p	50	004671029			0,63-1/ 6-12		
EB2 125/4L 63A 4p	63	004671030			0,63-1/ 6-12		
EB2 125/4L 100A 4p	100	004671031			0,63-1/ 6-12		
EB2 125/4L 125A 4p	125	004671032			0,63-1/ 6-10		
EB2 125/3S 20A 3p	20	004671041	3	36/36	0,63-1/ 6-12	1,1	1
EB2 125/3S 32A 3p	32	004671042			0,63-1/ 6-12		
EB2 125/3S 50A 3p	50	004671043			0,63-1/ 6-12		
EB2 125/3S 63A 3p	63	004671044			0,63-1/ 6-12		
EB2 125/3S 100A 3p	100	004671045			0,63-1/ 6-12		
EB2 125/3S 125A 3p	125	004671046			0,63-1/ 6-10		
EB2 125/4S 20A 4p	20	004671047	4	36/36	0,63-1/ 6-12	1,4	
EB2 125/4S 32A 4p	32	004671048			0,63-1/ 6-12		
EB2 125/4S 50A 4p	50	004671049			0,63-1/ 6-12		
EB2 125/4S 63A 4p	63	004671050			0,63-1/ 6-12		
EB2 125/4S 100A 4p	100	004671051			0,63-1/ 6-12		
EB2 125/4S 125A 4p	125	004671052			0,63-1/ 6-10		
EB2 125/3H 20A 3p	20	004672101	3	65/36	0,63-1/ 6-12	1,1	1
EB2 125/3H 32A 3p	32	004672102			0,63-1/ 6-12		
EB2 125/3H 50A 3p	50	004672103			0,63-1/ 6-12		
EB2 125/3H 63A 3p	63	004672104			0,63-1/ 6-12		
EB2 125/3H 100A 3p	100	004672105			0,63-1/ 6-12		
EB2 125/3H 125A 3p	125	004672106			0,63-1/ 6-10		
EB2 125/4H 20A 4p	20	004672107	4	65/36	0,63-1/ 6-12	1,4	
EB2 125/4H 32A 4p	32	004672108			0,63-1/ 6-12		
EB2 125/4H 50A 4p	50	004672109			0,63-1/ 6-12		
EB2 125/4H 63A 4p	63	004672110			0,63-1/ 6-12		
EB2 125/4H 100A 4p	100	004672111			0,63-1/ 6-12		
EB2 125/4H 125A 4p	125	004672112			0,63-1/ 6-10		
EB2 125/3V 20A 3p 1000V	20	004671371	3	4/4*	0,63-1/ 6-12	1,1	1
EB2 125/3V 32A 3p 1000V	32	004671372			0,63-1/ 6-12		
EB2 125/3V 50A 3p 1000V	50	004671373			0,63-1/ 6-12		
EB2 125/3V 63A 3p 1000V	63	004671374		6/4*	0,63-1/ 6-12		
EB2 125/3V 100A 3p 1000V	100	004671375			0,63-1/ 6-12		
EB2 125/3V 125A 3p 1000V	125	004671376			0,63-1/ 6-10		

\*1100V AC





### ETIBREAK EB2 160/250

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 250/3L 200A 3p	200	004671072	3	25/19	0,63-1/ 6-13	1,5	1
EB2 250/3L 250A 3p	250	004671073			0,63-1/ 6-10		
EB2 250/4L 200A 4p	200	004671075	4		0,63-1/ 6-13	1,9	
EB2 250/4L 250A 4p	250	004671076			0,63-1/ 6-10		
EB2 160/3S 160A 3p	160	004671061	3	36/36	0,63-1/ 6-13	1,5	1
EB2 250/3S 200A 3p	200	004671082			0,63-1/ 6-13		
EB2 250/3S 250A 3p	250	004671083	0,63-1/ 6-10		1,9		
EB2 160/4S 160A 4p	160	004671062	4			0,63-1/ 6-13	
EB2 250/4S 200A 4p	200	004671085				0,63-1/ 6-13	
EB2 250/4S 250A 4p	250	004671086				0,63-1/ 6-10	
EB2 160/3H 160A 3p	160	004672120	3	65/36	0,63-1 / 6-13	1,5	1
EB2 250/3H 160A 3p	160	004672130			0,63-1 / 6-13		
EB2 250/3H 200A 3p	200	004672131	0,63-1 / 6-10		1,9		
EB2 250/3H 250A 3p	250	004672132	0,63-1 / 6-13				
EB2 160/4H 160A 4p	160	004672121	4			0,63-1 / 6-13	
EB2 250/4H 160A 4p	160	004672133				0,63-1 / 6-13	
EB2 250/4H 200A 4p	200	004672134			0,63-1 / 6-13		
EB2 250/4H 250A 4p	250	004672135			0,63-1 / 6-10		
EB2 250/3V 160A 3p 1000V	160	004671377	3	6/4*	0,63-1 / 6-13	1,5	1
EB2 250/3V 250A 3p 1000V	250	004671378			0,63-1 / 6-10		

\*1100V AC



### ETIBREAK EB2 400

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 400/3LF 400A 3p	400A	004671105	3	25/25	fixed/fixed	4,2	1
EB2 400/3SF 400A 3p	400A	004671106		36/36	fixed/adjustable (6-12)	4,2	
EB2 400/4SF 400A 4p	400A	004671108	4			5,6	
EB2 400/3L 250A 3p	250	004671091	3	25/25	0,63-1/ 6-12	4,2	1
EB2 400/3L 400A 3p	400	004671092				4	
EB2 400/4L 250A 4p	250	004671093					
EB2 400/4L 400A 4p	400	004671094					
EB2 400/3S 250A 3p	250	004671101	3	50/50	0,63-1/ 6-12	4,3	1
EB2 400/3S 400A 3p	400	004671102				4	
EB2 400/4S 250A 4p	250	004671103					
EB2 400/4S 400A 4p	400	004671104					

# Low voltage moulded case circuit breakers and low voltage switch disconnectors

## ETIBREAK EB2 630/800

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 800/3LF 630A 3p	630	004671117	3	36/36	fixed/adjustable (5-10)	8	1
EB2 800/3LF 800A 3p	800	004672204	3			8,5	
EB2 800/4LF 630A 4p	630	004671118	4			11	
EB2 800/4LF 800A 4p	800	004672205	4			11,5	
EB2 800/3L 630A 3p	630	004672150	3	36/36	0,63-1 / 5-10	8,5	1
EB2 800/3L 800A 3p	800	004672151	3			8,5	
EB2 800/4L 630A 4p	630	004672152	4			11,5	
EB2 800/4L 800A 4p	800	004672153	4			11,5	
EB2 800/3S 630A 3p	630	004672160	3	50/50	0,63-1 / 5-10	8,5	1
EB2 800/3S 800A 3p	800	004672161	3			8,5	
EB2 800/4S 630A 4p	630	004672162	4			11,5	
EB2 800/4S 800A 4p	800	004672163	4			11,5	
EB2 800/3H 630A 3p	630	004672170	3	70/50	0,63-1 / 5-10	8,5	1
EB2 800/3H 800A 3p	800	004672171	3			8,5	
EB2 800/4H 630A 4p	630	004672172	4			11,5	
EB2 800/4H 800A 4p	800	004672173	4			11,5	



ETIBREAK

## Microprocessor's MCCBs

Microprocessor's MCCBs are available in frame sizes from 250 A up to 1600 A, with rated current from 40 A up to 1600 A. All frame sizes have adjustable thermal and magnetic protection.

Series 2: Protection against overload can be adjusted between 0,4 – 1 x I<sub>n</sub>, meanwhile short-circuit protection has already preset different curves, which can be easily selected according to the type of load.

### Optional Functions:

A - Standard relay with LSI Characteristic (where no letters are present then MCCB is A type)  
P - Preferential Trip Alarm  
G - Ground Fault

N - Neutral Protection

S - Phase rotation function

C - Communication function

W - Electrical energy pulse

H - Harmonic current

## ETIBREAK EB2 250

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 250/3LE 40A 3p	40	004671351	3	36/36	0,4-1/adjust.	2,5	1
EB2 250/3LE 125A 3p	125	004671352				2,5	
EB2 250/3LE 160A 3p	160	004671353				2,5	
EB2 250/3LE 250A 3p	250	004671354				2,5	
EB2 250/4LE 40A 4p	40	004671355	4	36/36	0,4-1/adjust.	3,3	1
EB2 250/4LE 125A 4p	125	004671356				3,3	
EB2 250/4LE 160A 4p	160	004671357				3,3	
EB2 250/4LE 250A 4p	250	004671358				3,3	
EB2 250/3E 40A 3p	40	004671301	3	70/70	0,4-1/adjust.	2,5	1
EB2 250/3E 125A 3p	125	004671302				2,5	
EB2 250/3E 160A 3p	160	004671303				2,5	
EB2 250/3E 250A 3p	250	004671304				2,5	
EB2 250/4E 40A 4p	40	004671305	4	70/70	0,4-1/adjust.	3,3	1
EB2 250/4E 125A 4p	125	004671306				3,3	
EB2 250/4E 160A 4p	160	004671307				3,3	
EB2 250/4E 250A 4p	250	004671308				3,3	





#### ETIBREAK EB2 400

Type	$I_n$ [A]	Code No.	Poles	$I_{cu}/I_{cs}$ 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 400/3E 250A 3p	250	004671111	3	50/50	0,4-1/adjust.	4,3	1
EB2 400/3E 400A 3p	400	004671112					
EB2 400/3E 400A 3p APG	400	004671115					
EB2 400/4E 250A 4p	250	004671113	4	50/50	0,4-1/adjust.	5,7	1
EB2 400/4E 400A 4p	400	004671114					
EB2 400/4E 400A 4p APGN	400	004671116					



#### ETIBREAK EB2 400 LCD

Type	$I_n$ [A]	Code No.	Poles	$I_{cu}/I_{cs}$ 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 400/3LCD 250A 3p A	250	004672144	3	50/50	0,4-1 / adjust.	4,3	1
EB2 400/3LCD 250A 3p APCWH	250	004672145					
EB2 400/3LCD 400A 3p A	400	004672146					
EB2 400/3LCD 400A 3p APCWH	400	004672147	4	50/50	0,4-1 / adjust.	5,7	1
EB2 400/4LCD 250A 4p A	250	004672148					
EB2 400/4LCD 250A 4p AGN	250	004672290					
EB2 400/4LCD 250A 4p APGNS	250	004672154	4	50/50	0,4-1 / adjust.	5,7	1
EB2 400/4LCD 250A 4p APCWH	250	004672155					
EB2 400/4LCD 250A 4p APGNSCWH	250	004672291					
EB2 400/4LCD 400A 4p A	400	004672156	4	50/50	0,4-1 / adjust.	5,7	1
EB2 400/4LCD 400A 4p AGN	400	004672292					
EB2 400/4LCD 400A 4p APGNS	400	004672157					
EB2 400/4LCD 400A 4p APCWH	400	004672158	4	70/70	0,4-1 / adjust.	5,7	1
EB2 400/4LCD 400A 4p APGNSCWH	400	004672293					
EB2 400/4HLCD 250A 4p AGN	250	004672295					
EB2 400/4HLCD 250A 4p APGNSCWH	250	004672296	4	70/70	0,4-1 / adjust.	5,7	1
EB2 400/4HLCD 400A 4p AGN	400	004672297					
EB2 400/4HLCD 400A 4p APGNSCWH	400	004672298					



#### ETIBREAK EB2 630

Type	$I_n$ [A]	Code No.	Poles	$I_{cu}/I_{cs}$ 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 630/3LE 630A 3p	630	004671121	3	36/36	0,4-1/adjust.	3,75	1
EB2 630/4LE 630A 4p	630	004671122	4			4,95	
EB2 630/4LE 630A 4p APGN	630	004671123	4			6,5	
EB2 630/3E 630A 3p	630	004671127	3	50/50	0,4-1/adjust.	3,75	1
EB2 630/4E 630A 4p	630	004671128	4			4,95	
EB2 630/4E 630A 4p APGN	630	004671129	4			6,5	
EB2 630/3HE 630A 3p	630	004672140	3	70/70	0,4-1/adjust.	3,75	1
EB2 630/4HE 630A 4p	630	004672141	4			4,95	



## Low voltage moulded case circuit breakers and low voltage switch disconnectors

**ETIBREAK EB2 630 LCD**

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 630/3LLCD 630A 3p A	630	004672122	3	36/36	0,4-1/adjust.	5	1
EB2 630/3LLCD 630A 3p APCWH	630	004672123					
EB2 630/4LLCD 630A 4p A	630	004672124					
EB2 630/4LLCD 630A 4p AGN	630	004672125					
EB2 630/4LLCD 630A 4p APGNS	630	004672126					
EB2 630/4LLCD 630A 4p APCWH	630	004672127					
EB2 630/4LLCD 630A 4p APGNSCWH	630	004672128					
EB2 630/4LCD 630A 4p AGN	630	004672142	4	50/50	0,4-1/adjust.	6,5	1
EB2 630/4LCD 630A 4p APGNSCWH	630	004672143					

**ETIBREAK EB2 800**

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 800/3LE 800A 3p	800	004672180	3	50/50	0,4-1 / adjust.	9,1	1
EB2 800/4LE 800A 4p	800	004672181	4			12,3	
EB2 800/4LE 800A 4p AGN	800	004672182	4			12,3	
EB2 800/4LE 800A 4p APGN	800	004672183	4			12,3	
EB2 800/3E 800A 3p	800	004672190	3	70/70	0,4-1 / adjust.	9,1	1
EB2 800/3E 800A 4p	800	004672191	4			12,3	
EB2 800/3HE 630A 3p	630	004672200	3	125/94	0,4-1 / adjust.	13,3	1
EB2 800/3HE 800A 3p	800	004672201				14,8	
EB2 800/4HE 630A 4p	630	004672202				16,8	
EB2 800/4HE 800A 4p	800	004672203				18,8	

**ETIBREAK EB2 1000**

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 1000/3LE 1000A 3p	1000	004672210	3	50/38	0,4-1 / adjust.	11	1
EB2 1000/4LE 1000A 4p	1000	004672211	4			14,8	
EB2 1000/4LE 1000A 4p APGN	1000	004672212	4			14,8	
EB2 1000/3E 1000A 3p	1000	004672220	3	70/50	0,4-1 / adjust.	11	1
EB2 1000/3E 1000A 4p	1000	004672221	4			14,8	
EB2 1000/4E 1000A 4p APGN	1000	004672222	4			14,8	

**ETIBREAK EB2 1250**

Type	I <sub>n</sub> [A]	Code No.	Poles	I <sub>cu</sub> /I <sub>cs</sub> 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 1250/3LE 1250A 3p	1250	004672230	3	50/38	0,4-1 / adjust.	19,8	1
EB2 1250/4LE 1250A 4p	1250	004672231	4			25	
EB2 1250/4LE 1250A 4p APGN	1250	004672232	4			25	
EB2 1250/3E 1250A 3p	1250	004672240	3	70/50	0,4-1 / adjust.	19,8	1
EB2 1250/3E 1250A 4p	1250	004672241	4			25	
EB2 1250/4E 1250A 4p APGN	1250	004672242	4			25	





#### ETIBREAK EB2 1600

Type	$I_n$ [A]	Code No.	Poles	$I_{cu}/I_{cs}$ 400/415V [kA]	Adjustment thermal/magnetic	Weight [kg]	Packaging [pcs]
EB2 1600/3LE-FC 1600A 3p	1600	004672250	3	50/38	0,4-1 / adjust.	27	1
EB2 1600/4LE-FC 1600A 4p	1600	004672251	4			35	
EB2 1600/4LE-FC 1600A 4p APGN	1600	004672252	4			35	
EB2 1600/3LE-RC 1600A 3p	1600	004672270	3			27	
EB2 1600/4LE-RC 1600A 4p	1600	004672271	4			35	
EB2 1600/4LE-RC 1600A 4p APGN	1600	004672272	4			35	
EB2 1600/3E-RC 1600A 3p	1600	004672280	3	100/75	0,4-1 / adjust.	27	1
EB2 1600/4E-RC 1600A 4p	1600	004672281	4			35	
EB2 1600/4E-RC 1600A 4p APGN	1600	004672282	4			35	
EB2 1600/3E-FC 1600A 3p	1600	004672260	3			27	
EB2 1600/3E-FC 1600A 4p	1600	004672261	4			35	
EB2 1600/4E-FC 1600A 4p APGN	1600	004672262	4			35	

FC - Front Connection

RC - Rear Connection

## Low voltage switch disconnecter ETIBREAK ED2



#### ETIBREAK ED2 125-1600

Type	$I_n$ [A]	Code No.	Poles	$I_{cm}$ [kA peak]	$U_e$ AC/DC [V]	Weight [kg]	Packaging [pcs]
ED2 125/3	125	004671271	3	3,6	690/250	1,1	1
ED2 160/3	160	004671272	3	6	690/250	1,5	1
ED2 250/3	250	004671273	3	6	690/250	1,5	1
ED2 400/3	400	004671274	3	9	690/250	4,2	1
ED2 630/3	630	004671275	3	9	690/250	4,4	1
ED2 800/3	800	004672370	3	17	690/250	8,5	1
ED2 1000/3	1000	004672373	3	17	690/250	10,4	1
ED2 1250/3	1250	004672371	3	32	690/250	18,2	1
ED2 1250/3 PI 3C	1250	004672374	3	32	690/250	18,2	1
ED2 1600/3 FC	1600	004672372	3	45	690/250	24,9	1
ED2 125/4	125	004671276	4	3,6	690/250	1,4	1
ED2 160/4	160	004671277	4	6	690/250	1,9	1
ED2 250/4	250	004671278	4	6	690/250	1,9	1
ED2 400/4	400	004671279	4	9	690/250	5,6	1
ED2 630/4	630	004671280	4	9	690/250	5,8	1
ED2 800/4	800	004672380	4	17	690/250	11,5	1
ED2 1000/4	1000	004672383	4	17	690/250	14,0	1
ED2 1250/4	1250	004672381	4	32	690/250	23,4	1
ED2 1600/4 FC	1600	004672382	4	45	690/250	32,9	1

#### Note:

All internal and external accessories for MCCBs can also be mounted to corresponding type of switch disconnectors.

#### ED2 1250/3 PI 3C:

This is an already prepared Plug-in version for ED2 with 3 AUX terminals on conversion side. Beside that you have to order base side (NPF) and AUX terminals for base side (please see accessories for 1250AF)