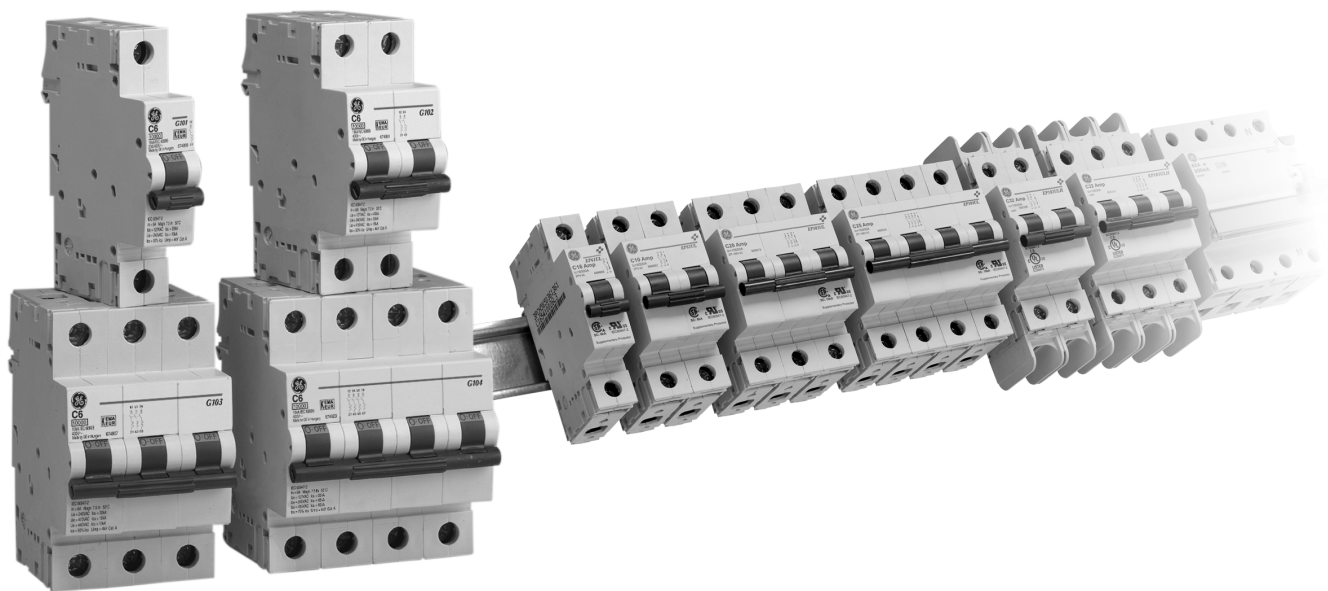




E2000 Miniature Circuit Breakers

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Miniature Circuit Breakers

E2000 Miniature Circuit Breakers

EP60 Series

Applications

—Industrial

Performance

Thermal setting In (A)	0.5-63
Rated Vac Un (V)	240/415
Minimum operating voltage U _g min (V)	12
Tripping characteristics	B-C-D
Selectivity class	3
Mechanical/electrical endurance	20000/10000
Tropicalisation acc. to IEC 60068-2	95% RH at 55°C
Terminal capacity flexible/rigid cable mm ²	25-35
Poles	1, 2, 3, 4
Weight (g/pole)	120

Short-circuit Capacity

Per UL 1077 & CSA 22.2 No. 235-1989 (File E151139)

Poles	Max. Voltage Rating		Short Circuit Rating					kAIC DC	
	AC	DC	120	120/240	277	480V/277	50	110	
1	277	50	10	–	6	–	10	–	
2	480V/277	110	10	10	6	6	–	10	
3, 4	480V/277	110	10	10	6	6	–	–	

AC acc. to IEC 60898

Poles	V	Icn/Ics (kA)
1-4	230/400	6

AC acc. to IEC 60947-2

Poles	V	Icu (kA) ¹
1	240	10
2,3,4	240	20
2,3,4	415	10

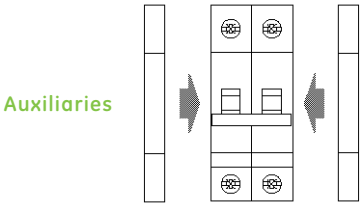
¹Ics = 75% Icu

DC acc. to IEC 60947-2

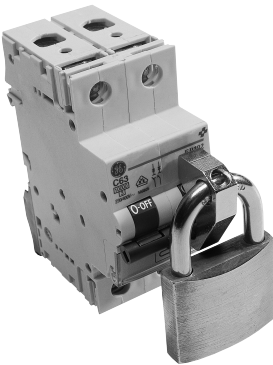
Poles	V	Icu/Ics (kA)
1	60	20
2	125	25

Approval/Marking

- CE
- cURus
- CEBEC
- KEMA EUR



Add-on Devices



KS Padlocking Bracket

Miniature Circuit Breakers

E2000 Miniature Circuit Breakers

EP60 Series

Section 7

EP60 Series, 6 kAIC @277 or 480Y/277 Vac, Tripping Characteristics B-C-D

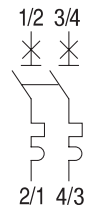
Poles	Std. Pack	6 kAIC In (A)	Tripping Characteristic		
			B (3-5X) Product No.	C (5-10X) Product No.	D (10-20X) Product No.
1	12	0.5	-	EP61ULC0.5	EP61ULD0.5
		1	-	EP61ULC01	EP61ULD01
		2	-	EP61ULC02	EP61ULD02
		3	-	EP61ULC03	EP61ULD03
		4	-	EP61ULC04	EP61ULD04
		5	EP61ULB05	EP61ULC05	EP61ULD05
		6	EP61ULB06	EP61ULC06	EP61ULD06
		10	EP61ULB10	EP61ULC10	EP61ULD10
		13	EP61ULB13	EP61ULC13	EP61ULD13
		15	EP61ULB15	EP61ULC15	EP61ULD15
		16	EP61ULB16	EP61ULC16	EP61ULD16
		20	EP61ULB20	EP61ULC20	EP61ULD20
		25	EP61ULB25	EP61ULC25	EP61ULD25
		30	EP61ULB30	EP61ULC30	EP61ULD30
		32	EP61ULB32	EP61ULC32	EP61ULD32
		40	EP61ULB40	EP61ULC40	EP61ULD40
		50	EP61ULB50	EP61ULC50	EP61ULD50
		60	EP61ULB60	EP61ULC60	EP61ULD60
		63	EP61ULB63	EP61ULC63	EP61ULD63
2	6	0.5	-	EP62ULC0.5	EP62ULD0.5
		1	-	EP62ULC01	EP62ULD01
		2	-	EP62ULC02	EP62ULD02
		3	-	EP62ULC03	EP62ULD03
		4	-	EP62ULC04	EP62ULD04
		5	EP62ULB05	EP62ULC05	EP62ULD05
		6	EP62ULB06	EP62ULC06	EP62ULD06
		10	EP62ULB10	EP62ULC10	EP62ULD10
		13	EP62ULB13	EP62ULC13	EP62ULD13
		15	EP62ULB15	EP62ULC15	EP62ULD15
		16	EP62ULB16	EP62ULC16	EP62ULD16
		20	EP62ULB20	EP62ULC20	EP62ULD20
		25	EP62ULB25	EP62ULC25	EP62ULD25
		30	EP62ULB30	EP62ULC30	EP62ULD30
		32	EP62ULB32	EP62ULC32	EP62ULD32
		40	EP62ULB40	EP62ULC40	EP62ULD40
		50	EP62ULB50	EP62ULC50	EP62ULD50
		60	EP62ULB60	EP62ULC60	EP62ULD60
		63	EP62ULB63	EP62ULC63	EP62ULD63
3	4	0.5	-	EP63ULC0.5	EP63ULD0.5
		1	-	EP63ULC01	EP63ULD01
		2	-	EP63ULC02	EP63ULD02
		3	-	EP63ULC03	EP63ULD03
		4	-	EP63ULC04	EP63ULD04
		5	EP63ULB05	EP63ULC05	EP63ULD05
		6	EP63ULB06	EP63ULC06	EP63ULD06
		10	EP63ULB10	EP63ULC10	EP63ULD10
		13	EP63ULB13	EP63ULC13	EP63ULD13
		15	EP63ULB15	EP63ULC15	EP63ULD15
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		25	EP63ULB25	EP63ULC25	EP63ULD25
		30	EP63ULB30	EP63ULC30	EP63ULD30
		32	EP63ULB32	EP63ULC32	EP63ULD32
		40	EP63ULB40	EP63ULC40	EP63ULD40
		50	EP63ULB50	EP63ULC50	EP63ULD50
		60	EP63ULB60	EP63ULC60	EP63ULD60
		63	EP63ULB63	EP63ULC63	EP63ULD63
4	3	0.5	-	EP64ULC0.5	EP64ULD0.5
		1	-	EP64ULC01	EP64ULD01
		2	-	EP64ULC02	EP64ULD02
		3	-	EP64ULC03	EP64ULD03
		4	-	EP64ULC04	EP64ULD04
		5	EP64ULB05	EP64ULC05	EP64ULD05
		6	EP64ULB06	EP64ULC06	EP64ULD06
		10	EP64ULB10	EP64ULC10	EP64ULD10
		13	EP64ULB13	EP64ULC13	EP64ULD13
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		16	EP64ULB16	EP64ULC16	EP64ULD16
		20	EP64ULB20	EP64ULC20	EP64ULD20
		25	EP64ULB25	EP64ULC25	EP64ULD25
		30	EP64ULB30	EP64ULC30	EP64ULD30
		32	EP64ULB32	EP64ULC32	EP64ULD32
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		50	EP64ULB50	EP64ULC50	EP64ULD50
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		63	EP64ULB63	EP64ULC63	EP64ULD63



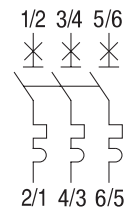
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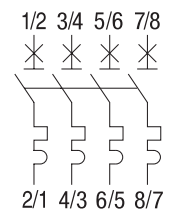
2 Pole



3 Pole



4 Pole



Miniature Circuit Breakers

E2000 Miniature Circuit Breakers

EP100 Series

Applications

—Industrial

Performance

Thermal setting In (A)	0.5-63
Rated Vac Un (V)	240/415
Minimum operating voltage U _g min (V)	12
Tripping characteristics	B-C-D
Selectivity class	3
Mechanical/electrical endurance	20000/10000
Tropicalisation acc. to IEC 60068-2	95% RH at 55°C
Terminal capacity flexible/rigid cable mm²	25-35
Poles	1, 2, 3, 4
Weight (g/pole)	120

Short-circuit Capacity

Per UL 1077 & CSA 22.2 No. 235-1989 (File E151139)

Poles	Max. Voltage Rating		Short Circuit Rating kAIC RMS Symmetrical					kAIC DC	
	AC	DC	120	120/240	277	480V/277	50	110	
1	277	50	10	—	10	—	10	—	
2	480V/277	110	10	10	10	—	—	10	
3, 4	480V/277	110	10	10	10	10	—	—	

AC acc. to IEC 60898

Poles	V	Icn (kA) ¹
1-4	230/400	10

¹Ics = 75% Icu

AC acc. to IEC 60947-2

Poles	V	Icu (kA) ²
1	240	15
2,3,4	240	30
2,3,4	415	15

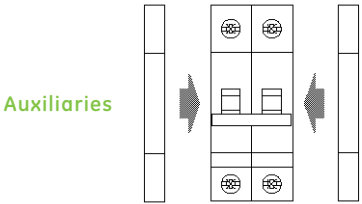
²Ics = 50% Icu

DC acc. to IEC 60947-2

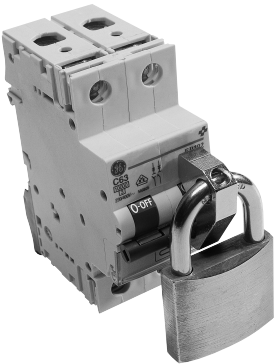
Poles	V	Icu/Ics (kA)
1	60	25
2	125	30

Approval/Marking

- CE
- CSA
- cURus
- CEBEC
- KEMA EUR



Add-on Devices



KS Padlocking Bracket

Miniature Circuit Breakers

E2000 Miniature Circuit Breakers

EP100 Series

Section 7

EP100 Series, 10 kAIC @120 or 120/240 Vac, Tripping Characteristics B-C-D

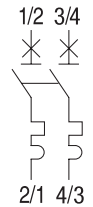
Poles	10 kAIC In (A)	Tripping Characteristic		
		B (3-5X) Product No.	C (5-10X) Product No.	D (10-20X) Product No.
1	0.5	-	EP101ULC0.5	EP101ULD0.5
	1	-	EP101ULC01	EP101ULD01
	2	-	EP101ULC02	EP101ULD02
	3	-	EP101ULC03	EP101ULD03
	4	-	EP101ULC04	EP101ULD04
	5	EP101ULB05	EP101ULC05	EP101ULD05
	6	EP101ULB06	EP101ULC06	EP101ULD06
	10	EP101ULB10	EP101ULC10	EP101ULD10
	13	EP101ULB13	EP101ULC13	EP101ULD13
	15	EP101ULB15	EP101ULC15	EP101ULD15
	16	EP101ULB16	EP101ULC16	EP101ULD16
	20	EP101ULB20	EP101ULC20	EP101ULD20
	25	EP101ULB25	EP101ULC25	EP101ULD25
	30	EP101ULB30	EP101ULC30	EP101ULD30
	32	EP101ULB32	EP101ULC32	EP101ULD32
	40	EP101ULB40	EP101ULC40	EP101ULD40
	50	EP101ULB50	EP101ULC50	EP101ULD50
	60	EP101ULB60	EP101ULC60	EP101ULD60
	63	EP101ULB63	EP101ULC63	EP101ULD63
2	0.5	-	EP102ULC0.5	EP102ULD0.5
	1	-	EP102ULC01	EP102ULD01
	2	-	EP102ULC02	EP102ULD02
	3	-	EP102ULC03	EP102ULD03
	4	-	EP102ULC04	EP102ULD04
	5	EP102ULB05	EP102ULC05	EP102ULD05
	6	EP102ULB06	EP102ULC06	EP102ULD06
	10	EP102ULB10	EP102ULC10	EP102ULD10
	13	EP102ULB13	EP102ULC13	EP102ULD13
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	32	EP102ULB32	EP102ULC32	EP102ULD32
	40	EP102ULB40	EP102ULC40	EP102ULD40
	50	EP102ULB50	EP102ULC50	EP102ULD50
	60	EP102ULB60	EP102ULC60	EP102ULD60
	63	EP102ULB63	EP102ULC63	EP102ULD63
3	0.5	-	EP103ULC0.5	EP103ULD0.5
	1	-	EP103ULC01	EP103ULD01
	2	-	EP103ULC02	EP103ULD02
	3	-	EP103ULC03	EP103ULD03
	4	-	EP103ULC04	EP103ULD04
	5	EP103ULB05	EP103ULC05	EP103ULD05
	6	EP103ULB06	EP103ULC06	EP103ULD06
	10	EP103ULB10	EP103ULC10	EP103ULD10
	13	EP103ULB13	EP103ULC13	EP103ULD13
	15	EP103ULB15	EP103ULC15	EP103ULD15
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	25	EP103ULB25	EP103ULC25	EP103ULD25
	30	EP103ULB30	EP103ULC30	EP103ULD30
	32	EP103ULB32	EP103ULC32	EP103ULD32
	40	EP103ULB40	EP103ULC40	EP103ULD40
	50	EP103ULB50	EP103ULC50	EP103ULD50
	60	EP103ULB60	EP103ULC60	EP103ULD60
	63	EP103ULB63	EP103ULC63	EP103ULD63
4	0.5	-	EP104ULC0.5	EP104ULD0.5
	1	-	EP104ULC01	EP104ULD01
	2	-	EP104ULC02	EP104ULD02
	3	-	EP104ULC03	EP104ULD03
	4	-	EP104ULC04	EP104ULD04
	5	EP104ULB05	EP104ULC05	EP104ULD05
	6	EP104ULB06	EP104ULC06	EP104ULD06
	10	EP104ULB10	EP104ULC10	EP104ULD10
	13	EP104ULB13	EP104ULC13	EP104ULD13
	15	EP104ULB15	EP104ULC15	EP104ULD15
	16	EP104ULB16	EP104ULC16	EP104ULD16
	20	EP104ULB20	EP104ULC20	EP104ULD20
	25	EP104ULB25	EP104ULC25	EP104ULD25
	30	EP104ULB30	EP104ULC30	EP104ULD30
	32	EP104ULB32	EP104ULC32	EP104ULD32
	40	EP104ULB40	EP104ULC40	EP104ULD40
	50	EP104ULB50	EP104ULC50	EP104ULD50
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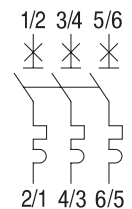
1 Pole



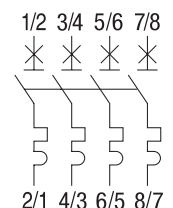
2 Pole



3 Pole



4 Pole



Miniature Circuit Breakers

E2000 Miniature Circuit Breakers with UL 489 Approval

EP100 ULH34 Series (Branch Circuit Protection)

Applications

- Industrial
- Commercial

Performance

Thermal setting In (A)	0.5-40
Rated Vac Un (V)	277/480V
Minimum operating voltage UBmin (V)	12
Tripping characteristics	B-C-D
Selectivity class	3
Mechanical/electrical endurance	20000/10000
Tropicalisation acc. to IEC 60068-2-28/2-30	95%RH at 55°C
Terminal capacity flexible/rigid cable (mm²)	25-35
Poles	1, 2, 3
Weight/(g/pole)	130

Short-circuit Capacity

According to UL 489

Poles	V	Icc (kA)
1	277	10
2, 3	480	10

According to IEC 60947-2

Poles	V	Icu (kA) ⁽¹⁾
1	127	30
	240	15
	415	4
2	127	40
	240	30
	415	15
2, 3	440	10

DC acc. to IEC 60947-2

Poles	Un (V=)	Icu (kA)/Ics (kA)
1	60	25
2	125	30

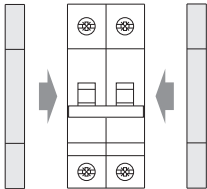
¹Ics = 50% Icu

Approval/Marking

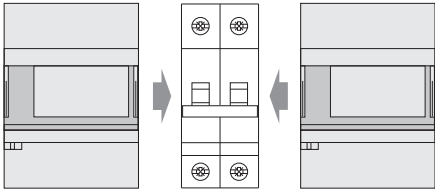
- UL
- CE



Add-on
Devices



Auxiliary Contacts



Motor Operator

Miniature Circuit Breakers

E2000 Miniature Circuit Breakers with UL 489 Approval

EP100 ULH34 Series (Branch Circuit Protection)

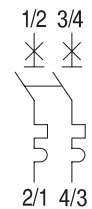
Section 7

UL489 EP100 ULH34 Series, 10kA, Tripping Characteristics B-C-D

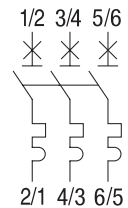
Poles	10 kAIC In (A)	Tripping Characteristic		
		B (3-5X) Product No.	C (5-10X) Product No.	D (10-20X) Product No.
1P	0.5	-	EP101ULH3C0.5	EP101ULH3D0.5
	1	-	EP101ULH3C01	EP101ULH3D01
	2	-	EP101ULH3C02	EP101ULH3D02
	3	-	EP101ULH3C03	EP101ULH3D03
	4	-	EP101ULH3C04	EP101ULH3D04
	5	EP101ULH3B05	EP101ULH3C05	EP101ULH3D05
	6	EP101ULH3B06	EP101ULH3C06	EP101ULH3D06
	8	EP101ULH3B08	EP101ULH3C08	EP101ULH3D08
	10	EP101ULH3B10	EP101ULH3C10	EP101ULH3D10
	13	EP101ULH3B13	EP101ULH3C13	EP101ULH3D13
	15	EP101ULH3B15	EP101ULH3C15	EP101ULH3D15
	16	EP101ULH3B16	EP101ULH3C16	EP101ULH3D16
	20	EP101ULH3B20	EP101ULH3C20	EP101ULH3D20
	25	EP101ULH3B25	EP101ULH3C25	EP101ULH3D25
	30	EP101ULH3B30	EP101ULH3C30	EP101ULH3D30
	32	EP101ULH3B32	EP101ULH3C32	EP101ULH3D32
	35	EP101ULH3B35	EP101ULH3C35	EP101ULH3D35
	40	EP101ULH3B40	EP101ULH3C40	EP101ULH3D40
2P	0.5	-	EP102ULH4C0.5	EP102ULH4D0.5
	1	-	EP102ULH4C01	EP102ULH4D01
	2	-	EP102ULH4C02	EP102ULH4D02
	3	-	EP102ULH4C03	EP102ULH4D03
	4	-	EP102ULH4C04	EP102ULH4D04
	5	EP102ULH4B05	EP102ULH4C05	EP102ULH4D05
	6	EP102ULH4B06	EP102ULH4C06	EP102ULH4D06
	8	EP102ULH4B08	EP102ULH4C08	EP102ULH4D08
	10	EP102ULH4B10	EP102ULH4C10	EP102ULH4D10
	13	EP102ULH4B13	EP102ULH4C13	EP102ULH4D13
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	16	EP102ULH4B16	EP102ULH4C16	EP102ULH4D16
	20	EP102ULH4B20	EP102ULH4C20	EP102ULH4D20
	25	EP102ULH4B25	EP102ULH4C25	EP102ULH4D25
	30	EP102ULH4B30	EP102ULH4C30	EP102ULH4D30
	32	EP102ULH4B32	EP102ULH4C32	EP102ULH4D32
	35	EP102ULH4B35	EP102ULH4C35	EP102ULH4D35
	40	EP102ULH4B40	EP102ULH4C40	EP102ULH4D40
3P	0.5	-	EP103ULH4C0.5	EP103ULH4D0.5
	1	-	EP103ULH4C01	EP103ULH4D01
	2	-	EP103ULH4C02	EP103ULH4D02
	3	-	EP103ULH4C03	EP103ULH4D03
	4	-	EP103ULH4C04	EP103ULH4D04
	5	EP103ULH4B05	EP103ULH4C05	EP103ULH4D05
	6	EP103ULH4B06	EP103ULH4C06	EP103ULH4D06
	8	EP103ULH4B08	EP103ULH4C08	EP103ULH4D08
	10	EP103ULH4B10	EP103ULH4C10	EP103ULH4D10
	13	EP103ULH4B13	EP103ULH4C13	EP103ULH4D13
	15	EP103ULH4B15	EP103ULH4C15	EP103ULH4D15
	16	EP103ULH4B16	EP103ULH4C16	EP103ULH4D16
	20	EP103ULH4B20	EP103ULH4C20	EP103ULH4D20
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	30	EP103ULH4B30	EP103ULH4C30	EP103ULH4D30
	32	EP103ULH4B32	EP103ULH4C32	EP103ULH4D32
	35	EP103ULH4B35	EP103ULH4C35	EP103ULH4D35
	40	EP103ULH4B40	EP103ULH4C40	EP103ULH4D40



1 Pole



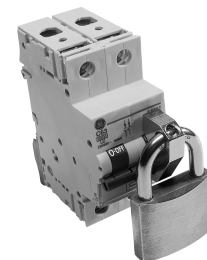
2 Pole



3 Pole



Walls



Padlocking Bracket

Accessories for MCBs

Description	Std. Pack	Product No.
Walls for terminals IP ¹	10	WUL
Padlocking Bracket - cut off the number of poles needed	25	KS

¹Single pole MCBs mounted side by side must use walls.

Miniature Circuit Breakers

E2000 Miniature Circuit Breakers with UL 489 Approval

EP100 ULH12 Series (Branch Circuit Protection)

Section 7

Applications

- Industrial
- Commercial

Performance

Thermal setting In (A)	0.5-63
Rated Vac Un (V)	120/240; 110V
Minimum operating voltage UBmin (V)	12
Tripping characteristics	B-C-D
Selectivity class	3
Mechanical/electrical endurance	20000/10000
Tropicalisation acc. to IEC 60068-2-28/2-30	95%RH at 55°C
Terminal capacity flexible/rigid cable (mm ²)	25-35
Poles	1, 2, 3
Weight/(g/pole)	130

Short-circuit Capacity

According to UL 489

Poles	V	Icc (kA)
1	120	10
2, 3	240	10

According to IEC 60947-2

Poles	V	Icu (kA) ⁽¹⁾
1	127	30
	240	15
	415	4
2	127	40
	240	30
	415	15
2, 3	440	10

DC acc. to IEC 60947-2

Poles	Un (V=)	Icu (kA)/Ics (kA)
1	60	25
2	125	30

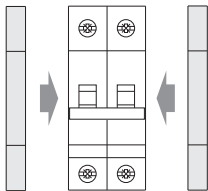
¹Ics = 50% Icu

Approval/Marking

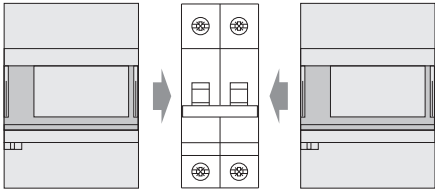
- UL
- CE



Add-on
Devices



Auxiliary Contacts



Motor Operator

Miniature Circuit Breakers
E2000 Miniature Circuit Breakers with UL 489 Approval
EP100 ULH12 Series (Branch Circuit Protection)

Section 7

UL489 EP100 ULH12 Series, 10kA, Tripping Characteristics B-C-D

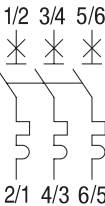
Poles	10 kAIC In (A)	Tripping Characteristic		
		B (3-5X) Product No.	C (5-10X) Product No.	D (10-20X) Product No.
1	0.5	-	EP101ULH1C0.5	EP101ULH1D0.5
	1	-	EP101ULH1C01	EP101ULH1D01
	2	-	EP101ULH1C02	EP101ULH1D02
	3	-	EP101ULH1C03	EP101ULH1D03
	4	-	EP101ULH1C04	EP101ULH1D04
	5	EP101ULH1B05	EP101ULH1C05	EP101ULH1D05
	6	EP101ULH1B06	EP101ULH1C06	EP101ULH1D06
	8	EP101ULH1B08	EP101ULH1C08	EP101ULH1D08
	10	EP101ULH1B10	EP101ULH1C10	EP101ULH1D10
	13	EP101ULH1B13	EP101ULH1C13	EP101ULH1D13
	15	EP101ULH1B15	EP101ULH1C15	EP101ULH1D15
	16	EP101ULH1B16	EP101ULH1C16	EP101ULH1D16
	20	EP101ULH1B20	EP101ULH1C20	EP101ULH1D20
	25	EP101ULH1B25	EP101ULH1C25	EP101ULH1D25
	30	EP101ULH1B30	EP101ULH1C30	EP101ULH1D30
	32	EP101ULH1B32	EP101ULH1C32	EP101ULH1D32
	35	EP101ULH1B35	EP101ULH1C35	EP101ULH1D35
	40	EP101ULH1B40	EP101ULH1C40	EP101ULH1D40
	50	EP101ULH1B50	EP101ULH1C50	EP101ULH1D50
	60	EP101ULH1B60	EP101ULH1C60	EP101ULH1D60
	63	EP101ULH1B63	EP101ULH1C63	EP101ULH1D63
2	0.5	-	EP102ULH2C0.5	EP102ULH2D0.5
	1	-	EP102ULH2C01	EP102ULH2D01
	2	-	EP102ULH2C02	EP102ULH2D02
	3	-	EP102ULH2C03	EP102ULH2D03
	4	-	EP102ULH2C04	EP102ULH2D04
	5	EP102ULH2B05	EP102ULH2C05	EP102ULH2D05
	6	EP102ULH2B06	EP102ULH2C06	EP102ULH2D06
	8	EP102ULH2B08	EP102ULH2C08	EP102ULH2D08
	10	EP102ULH2B10	EP102ULH2C10	EP102ULH2D10
	13	EP102ULH2B13	EP102ULH2C13	EP102ULH2D13
	15	EP102ULH2B15	EP102ULH2C15	EP102ULH2D15
	16	EP102ULH2B16	EP102ULH2C16	EP102ULH2D16
	20	EP102ULH2B20	EP102ULH2C20	EP102ULH2D20
	25	EP102ULH2B25	EP102ULH2C25	EP102ULH2D25
	30	EP102ULH2B30	EP102ULH2C30	EP102ULH2D30
	32	EP102ULH2B32	EP102ULH2C32	EP102ULH2D32
	35	EP102ULH2B35	EP102ULH2C35	EP102ULH2D35
	40	EP102ULH2B40	EP102ULH2C40	EP102ULH2D40
	50	EP102ULH2B50	EP102ULH2C50	EP102ULH2D50
	60	EP102ULH2B60	EP102ULH2C60	EP102ULH2D60
	63	EP102ULH2B63	EP102ULH2C63	EP102ULH2D63
3	0.5	-	EP103ULH3C0.5	EP103ULH3D0.5
	1	-	EP103ULH3C01	EP103ULH3D01
	2	-	EP103ULH3C02	EP103ULH3D02
	3	-	EP103ULH3C03	EP103ULH3D03
	4	-	EP103ULH3C04	EP103ULH3D04
	5	EP103ULH3B05	EP103ULH3C05	EP103ULH3D05
	6	EP103ULH3B06	EP103ULH3C06	EP103ULH3D06
	8	EP103ULH3B08	EP103ULH3C08	EP103ULH3D08
	10	EP103ULH3B10	EP103ULH3C10	EP103ULH3D10
	13	EP103ULH3B13	EP103ULH3C13	EP103ULH3D13
	15	EP103ULH3B15	EP103ULH3C15	EP103ULH3D15
	16	EP103ULH3B16	EP103ULH3C16	EP103ULH3D16
	20	EP103ULH3B20	EP103ULH3C20	EP103ULH3D20
	25	EP103ULH3B25	EP103ULH3C25	EP103ULH3D25
	30	EP103ULH3B30	EP103ULH3C30	EP103ULH3D30
	32	EP103ULH3B32	EP103ULH3C32	EP103ULH3D32
	35	EP103ULH3B35	EP103ULH3C35	EP103ULH3D35
	40	EP103ULH3B40	EP103ULH3C40	EP103ULH3D40
	50	EP103ULH3B50	EP103ULH3C50	EP103ULH3D50
	60	EP103ULH3B60	EP103ULH3C60	EP103ULH3D60
	63	EP103ULH3B63	EP103ULH3C63	EP103ULH3D63



1 Pole



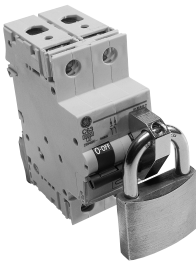
2 Pole



3 Pole



Walls



Padlocking Bracket

Accessories for MCBs

Description	Std. Pack	Product No.
Walls for terminals IP ¹	10	WUL
Padlocking Bracket - cut off the number of poles needed	25	KS

¹Single pole MCBs mounted side by side must use walls.

Miniature Circuit Breakers E2000 Miniature Circuit Breakers EP100 UC Series¹

Applications

—Industrial

Performance

Thermal setting In (A)	0.5-63
Rated Vac Un (V)	240/400; 230/440
Minimum operating voltage U _B min (V)	12
Tripping characteristics	B-C
Selectivity class	3
Mechanical/electrical endurance	20000/10000
Tropicalisation acc. to IEC 60068-2	95% RH at 55°C
Terminal capacity flexible/rigid cable mm ²	25-35
Poles	1, 2
Weight (g/pole)	120

Short-circuit Capacity

AC acc. to IEC 60898

Poles	V	Icn/Ics (kA)
1	125 DC	10
	220 DC	6
	230/400 AC	6
2	250 DC	10
	440 DC	6
	400 AC	6

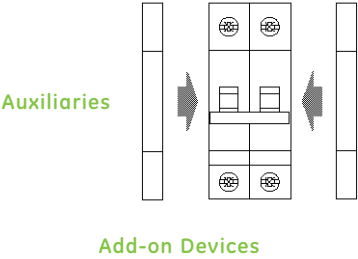
AC acc. to IEC 60947-2

Poles	V	Icu/Ics (kA)
1, 2	240 AC	10

Approval/Marking

—IEC 60898-2, DIN VDE 0641
—CE

¹Not UL approved



Miniature Circuit Breakers E2000 Miniature Circuit Breakers EP100 UC Series¹

EP100 UC Series, 10 kAIC @125 Vdc, Tripping Characteristics B-C

Poles	Std. Pack	Tripping Characteristic		
		6 kAIC In (A)	B (3-5X) Product No.	C (5-10X) Product No.
1	12	0.5	–	EP101UCC0.5
		1	–	EP101UCC01
		2	–	EP101UCC02
		4	–	EP101UCC04
		6	EP101UCB06	EP101UCC06
		10	EP101UCB10	EP101UCC10
		16	EP101UCB16	EP101UCC16
		20	EP101UCB20	EP101UCC20
		25	EP101UCB25	EP101UCC25
		32	EP101UCB32	EP101UCC32
		40	EP101UCB40	EP101UCC40
		50	EP101UCB50	EP101UCC50
		63	EP101UCB63	EP101UCC63
2	6	0.5	–	EP102UCC0.5
		1	–	EP102UCC01
		2	–	EP102UCC02
		4	–	EP102UCC04
		6	EP102UCB06	EP102UCC06
		10	EP102UCB10	EP102UCC10
		16	EP102UCB16	EP102UCC16
		20	EP102UCB20	EP102UCC20
		25	EP102UCB25	EP102UCC25
		32	EP102UCB32	EP102UCC32
		40	EP102UCB40	EP102UCC40
		50	EP102UCB50	EP102UCC50
		63	EP102UCB63	EP102UCC63

¹Not UL approved



1 Pole



2 Pole

Miniature Circuit Breakers

E2000 Miniature Circuit Breakers

Series CA Auxiliary Switch and Bell Alarm

Applications

- Commercial
- Industrial

Features

- Common for all MCBs
- Can be coupled on both sides of MCBs
- Gold contact version available for low current and low voltage applications
- Stack up to four CA on left and right sides
- Permits the pass-through of busbars, pin and fork, top and bottom, by changing the position of the base of the auxiliaries

Performance

Change-over contacts	1 Form C
Rate current In (A)	5
Rated voltage AC Un (V)	240
Electrical endurance	10000
Terminal capacity flexible/rigid cable (mm ²)	2.5
Weight (g)	70

Functions

Auxiliary contacts are units to be added on to protection devices. They allow information about the status of the protection device to be monitored from a distance.

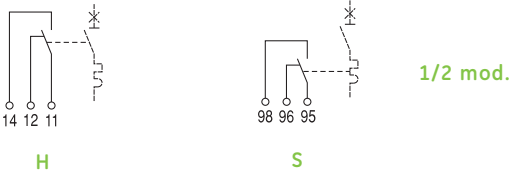
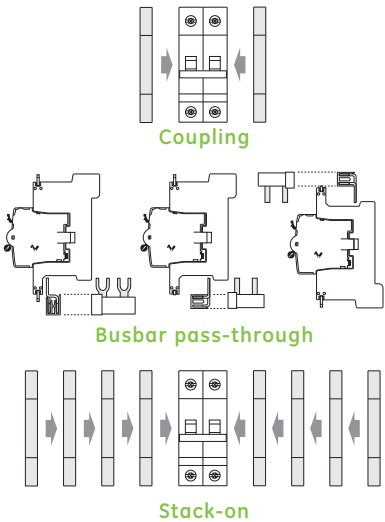
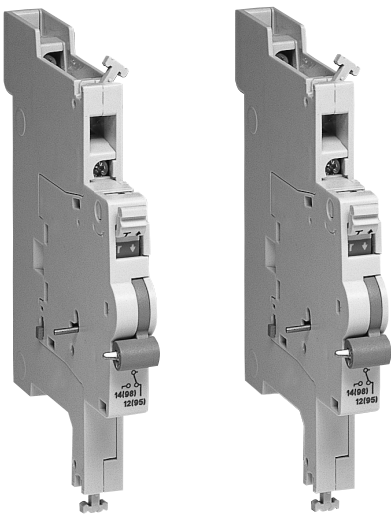
Auxiliary contact CA H (function H) reports the OPEN/CLOSED status. CA S/H or CA S/H G act as either an auxiliary contact (function H) or a signal contact (function S). The user can set the function at the time of installation. When used as a signal contact, it reports information about the automatic tripping of the protection devices. A test button on the front simulates functions H or S. There are also a reset button for the contacts (function S) and a tripping signal (function S).

Approval/Marking

- CE
- cURus
- CEBEC
- KEMA EUR

Series CA

Function	Std. Pack	Product No.
H	1	CA H
S/H	1	CA S/H
S/H (gold contacts)	1	CA S/H G
Padlocking Bracket	25	KS



Miniature Circuit Breakers E2000 Miniature Circuit Breakers Series CB Auxiliary Switch and Bell Alarm

Applications

- Commercial
- Industrial

Features

- Common for all MCBs
- Can be coupled on both sides of MCBs
- There are two change-over contacts – the upper one features changeable function S/H
- CB SH/HH-R couples to the right side of the protection devices; CB SH/HH-L couple to the left
- No stack-on possibilities (only one auxiliary)
- No busbar pass-through facilities

Performance

Change-over contacts	2 Form C
Rate current In (A)	5
Rated voltage AC Un (V)	240
Electrical endurance	10000
Terminal capacity flexible/rigid cable (mm²)	2.5
Weight (g)	80

Functions

The bottom auxiliary contact (function H) reports the OPEN/ CLOSED status.

The top auxiliary contact can act as either an auxiliary contact (function H) or a signal contact (function S). The user can set the function at the time of installation. When used as a signal contact, it reports information about the automatic tripping of the protection devices.

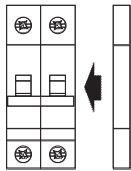
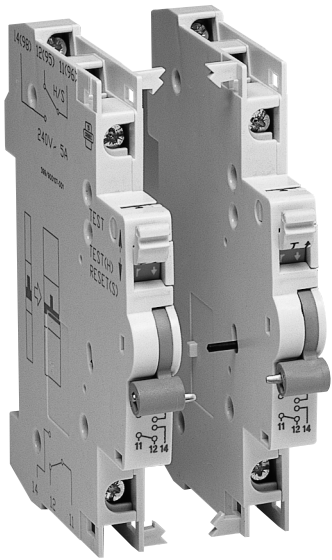
A test button on the front simulates functions H or S. There are also a reset button for the contacts (function S) and a tripping signal (function S).

Approval/Marking

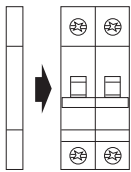
- cURus

Series CB

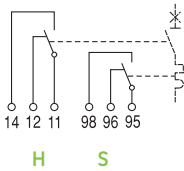
Function	Coupling	Std. Pack	Product No.
SH/HH	Right	1	CB SH/HH-R
SH/HH	Left	1	CB SH/HH-L



Coupling right



Coupling left



1/2 mod.

Miniature Circuit Breakers

E2000 Miniature Circuit Breakers

Shunt Trip and Undervoltage Release

Applications

- Commercial
- Industrial

Features

- Common devices for all miniature circuit breakers
- Can be coupled on both sides of MCBs
- Permits pass-through of busbars, pin and fork, at top or bottom terminals
- Stack up to four modules on left and right sides

Approval/Marking

- cURus
- IEC 947-2

Shunt Trip Tele L

The Tele L allows remote switching of any miniature circuit breaker by means of push buttons or any other automatic management processor. A built-in contact, in series with the coil, prevents burnout damage if the voltage remains.

Shunt Trip Tele L Performance

Rated voltage (V)	110/415, 110/125 DC
(V)	24/60, 24/48 DC
Tripping time (ms)	<10
Electrical endurance	10000
Terminal capacity flexible/rigid cable (mm²)	2.5
Weight (g)	125

Shunt Trip Tele L

Poles	Std. Pack	Voltage		Product No.
		AC	DC	
1	1	24-60 V	24-48 V	TELE L-1
		110-415 V	110-125 V	TELE L-2

Undervoltage Release Tele U

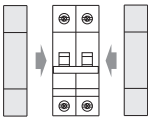
The Tele U releases the main miniature circuit breaker in case the power supply drops below 0.5xUn. Time delay is adjustable up to 300 ms.

Undervoltage Release Tele U Performance

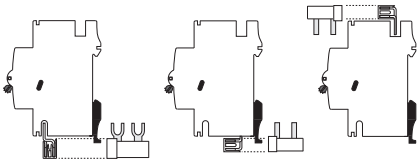
Rated voltage AC UN (V)	240
Rated voltage DC/AC UN (V)	12, 24, 48 DC/AC
Tripping voltage (V)	≤0.5xUN ±10%
Resetting voltage (V)	>0.5xUN ±10%
Tripping time (ms)	Adjustable 1-300
Electrical endurance	2000
Terminal capacity flexible/rigid cable (mm²)	2.5
Weight (g)	125

Undervoltage Release Tele U

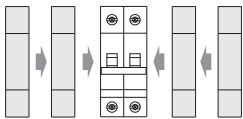
Poles	Std. Pack	Voltage		Product No.
		AC	DC	
1	1	AC 230V		TELE U-230
		AC/DC 12V		TELE U-12
		AC/DC 24V		TELE U-24
		AC/DC 48V		TELE U-48



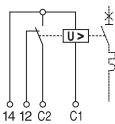
Coupling



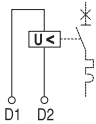
Busbar pass-through



Stack-on



Shunt Trip Tele L



Undervoltage Release Tele L

Miniature Circuit Breakers

E2000 Miniature Circuit Breakers

Technical Data

Section 7

Technical Data–E2000 Miniature Circuit Breakers

			Series				
			EP60 UL	EP100 UL	EP100 ULH34	EP100 ULH12	EP100 UC
Standards			UL1077, EN60947-2	UL1077, EN60947-2	UL489, EN60947-2	UL489, EN60947-2	IEC EN70898-2
UL file			E151139	E151139	E256870	E256870	-
Nominal voltage acc. UL			1P	277VAC/50VDC	277VAC/50VDC	277VAC/60VDC	120VAC/60VDC
			2P	480VAC/110VDC	480VAC/110VDC	480VAC/120VDC	240VAC/120VDC
			3P	480VAC/110VDC	480VAC/110VDC	480VAC/120VDC	240VAC/120VDC
			4P	480VAC/110VDC	480VAC/110VDC		
Tripping characteristics				B,C,D	B,C,D	B,C,D	B,C
Nominal current				B 6-63, C/D 0.5-63	B 6-63, C/D 0.5-63	B 5-40, C/D 0.5-40	B 0.5-63, C/D 0.5-63
Calibration temperature			°C	50	50	50	30
Number of poles			(# mod)	1/2/3/4	1/2/3/4	1/2/3	1/2/3
Nominal voltage Un							
AC	1P	V	230/400	230/400	230/400	230/400	240/415
	2P	V	400	400	400	400	415
	3P	V	400	400	400	400	415
	3P+N/4P	V	400	400	400	400	415
DC	1P	VDC	48	48	48	48	220
	2P (in series)	VDC	110	110	110	110	440
Frequency			Hz	50/60	50/60	50/60	50/60
Maximum service voltage U _{bmax} between two wires			V	250/440; 53/120	250/440; 53/120	250/440; 53/120	250/440; 53/120
Minimum service voltage U _{bmin}			V	12 and 12	12 and 12	12 and 12	12 and 12
Selectivity class (IEC 60898)				3	3	3	3
Isolator application IEC 60947-2				yes	yes	yes	yes
Rated insulation voltage			V	500	500	500	500
			V	440	440	440	440
Impulse withstand test voltage			kV	6	6	6	6
Insulation resistance			MΩm	10000	10000	10000	10000
Dielectric rigidity			kV	2.5	2.5	2.5	2.5
Mounting position				any	any	any	any
Incoming top or bottom				any	any	any	any
Vibrations resistance (in x, y, z direction) (IEC 77/16.3)				3g	3g	3g	3g
Endurance				10000	10000	10000	10000
				20000	20000	20000	20000
Utilisation category (IEC 60947-2)			A	A	A	A	A
Protection distance (IEC 60947-2)			mm	12	12	12	12
Protection degree (outside / inside enclosure with door)				IP20/IP40	IP20/IP40	IP20/IP40	IP20/IP40
Self-extinguish degree (according to UL94)				V0	V0	V0	V2
Tropicalisation (according to IEC 60068-2 / DIN 40046)			°C/RH	+55°C / 95%RH	+55°C / 95%RH	+55°C / 95%RH	+55°C / 95%RH
Operating temperature			°C	-25/+55	-25/+55	-25/+55	-25/+55
Storage temperature			°C	-55/+55	-55/+55	-55/+55	-55/+55
Terminal capacity							

¹EP100ULH executions 2P and 3P: H = 16 mm

Miniature Circuit Breakers E2000 Miniature Circuit Breakers with UL 489 Approval EP100 ULH Series (Branch Circuit Protection)

Section 7

Short Circuit Capacity–E2000 Miniature Circuit Breakers

		Series				
		EP60 UL	EP100 UL	EP100 ULH34	EP100 ULH12	EP100 UC
		UL1077	UL1077	UL489	UL489	
Interrupting capacity acc. to	kA					
1P/2P	277VAC	6	10	10	–	
3P/4P	480VAC	6	10	10	–	
1P	120VAC	6	10	–	10	
2P/3P	240VAC	–	–	–	10	
1P	50VDC	6	10	10	10	
2P	110VDC	6	10	10	10	
Short-circuit capacity AC						
Icu (ultimate)	kA					
1 P	127 V	20	30	30	30	
	240 V	10	15	15	15	
	415 V	3	4	4	4	
1+N /2P	127 V	30	40	40	40	
	240 V	20	30	30	30	
2 P	415 V	10	15	15	15	
3/3+N/4P	240 V	20	30	30	30	
	415 V	10	15	15	15	
	440 V	6	10	10	10	
Ics (service)		75% Icu	50% Icu	50% Icu	50% Icu	
Short-circuit capacity DC						
Icu (ultimate)	kA					
1 P	≤ 60 V	20	25	25	25	
	≤ 220 V	–	–	–	–	6
2 P	≤ 125 V	25	30	30	30	
	≤ 440 V	–	–	–	–	6
Ics (service)		100% Icu	100% Icu	10% Icu	10% Icu	