



ETIPOWER

Air Circuit Breakers

Preassembled Air Circuit Breakers **548**

EPL..., EPH..

On Demand Air Circuit Breakers EP **574**

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/etigroup

ETI
SWITCH TO
A SAFE FUTURE

ETIPOWER Air Circuit Breakers

Air Circuit Breakers EPL..., EPH...

- Integrated draw-in/out handle ensures reliable operation



- SHT and UVT coils for different voltages. Easy replacement.



- Counter in standard version of ACB



- Possibility to use mechanical interlock for up to 3 devices in both draw-out and fixed versions

- Advanced OCR protection for demanding applications. Switch disconnectors versions available for all current sizes



- Wide selection options due to model dualization, compact design, and a current range from 630 A to 6300 A.

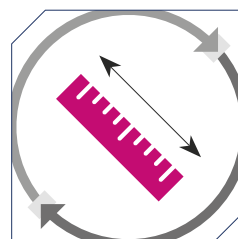
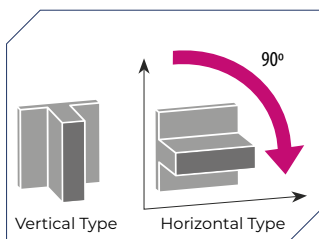


- FIX version



- D/O version





Multipurpose

Versatile Design: The busbar terminal can be adjusted to horizontal or vertical orientation for EPL/EPH models:

- A-frame: 630 A to 1600 A
- B-frame: 2000 A to 3200 A

For currents above 4000 A, horizontal/vertical adjustments require additional components. Please contact our company for details.

- Maximum Breaking Capacity:**
150 kA (At 500 V, EPH D Frame)

- Rated Impulse Withstand Voltage (Uimp) :**
12 kV

- Type per Rating**
2 Frames, EPL 1600/3200 A
4 Frames, EPH 2000/4000/5000/6300 A

Retrofit

Customized Retrofit ACBs can be Provided

New products can be developed to ensure compatibility and installation according to the cradle phase, pole, earth, and terminal dimensions of previously installed ACBs.

100 % N Phase Current Flow Capacity for all Types

The neutral conductor is designed to handle the full load current (100%) of the phase conductors, ensuring:

- **Full Neutral Current Capacity:** It can handle imbalances in the system effectively, especially in cases with high harmonics or single-phase loads.
- **Improved Safety and Reliability:** This avoids overheating or damage to the neutral conductor, even under maximum load conditions.
- **Versatility:** The feature is standard across all device types or models offered.



- A Frame [85 kA]**
- 630 ... 1600 A (EPL) / 630 ... 2000 A (EPH)**



- B Frame [100 kA]**
- 2000 ... 3200 A (EPL) / 630 ... 4000 A (EPH)**



- C Frame [100 kA]**
- 3200 ... 5000 A (EPH)**



- D Frame [150 kA]**
- 4000 ... 6300 A (EPH)**

EPH		12		3		J		A		Execution	
Model name		Rated Frame		No. of Poles		Mounting Method		Frame Category & Neutral Pole		Execution	
EPL	Air Circuit Breaker	6	630A	3	3 Pole	Independent Release of Draw-Out Type (Control Power) of Main Unit		A	630 ~ 2000 AF 3/4P Standard RST (N)	D/	Draw-out
EPH	Air Circuit Breaker	8	800A	4	4 Pole	A	Auto Connection	W	630 ~ 2000 AF 4P Reverse Phase NRST	F/	Fixed
EPL-D	Switch Disconnecter	10	1000A			J	Manual Connection				
		12	1250A			Fixed Type (Terminal Form)					
		16	1600A			H	Horizontal Type	B	630 ~ 4000 AF 3/4P Standard RST (N)		
		20	2000A ¹⁾			V	Vertical Type	X	630 ~ 4000 AF 4P Reverse Phase NRST		
		6	6300A			T	Upper Side: Horizontal/Lower Side:Vertical	C	3200 ~ 5000 AF 3/4P Standard RST (N)		
		8	8000A			L	Upper Side: Vertical/Lower Side: Horizontal				
		10	1000A			p ²⁾	Front Type and Mounting Type Selected by Customer	Y	3200 ~ 5000 AF 4P Reverse Phase NRS		
		12	1250A			Draw-Out Type(Combined with Cradle)		D	4000 ~ 6300 AF 3/4P Standard RST (N)		
		16	1600A			B	Auto Connection + Horizontal Type	Z	4000 ~ 6300 AF 4P Reverse Phase NRST		
		20	2000A			C	Auto Connection + Vertical Type				
		25	2500A			D	Auto Connection + Upper Side: Horizontal / Lower Side: Vertical				
		32	3200A			E	Auto Connection + Upper Side: Vertical / Lower Side: Horizont				
		40	4000A			G ²⁾	Auto Connection + Front Type/Mounting Type Selected by Customer				
		32	3200A			K	Manual Connection + Horizontal Type				
		40	4000A			M	Manual Connection + Vertical Type				
		50	5000A			N	Manual Connection + Upper: Horizontal/ Lower: Vertical				
		40	4000A			Q	Manual Connection + Upper: Horizontal/ Lower: Vertical				
		50	5000A			R ²⁾	Manual Connection + Front Type/Mounting Type Selected by Customer				
		63	6300A								

1) A frame, 2000 A is only available for vertical terminal busbar arrangement.

2) P, G, R type of fixed terminal busbar arrangement should be ordered per terminal and mounted personally.
(Refer to the additional components). Applicable frames are A06 - -16, B06 32.

3) CT for Over-Current

- A/W Frame : 200 - 2000 A
- B/X Frame : 400 - 4000 A
- C/Y Frame : 3,200 - 5000 A
- D/Z Frame : 4,000 - 6300 A 4)

4) When applying OCR high-end type P, H type, place an order for voltage module (EPLH VM) additionally for mounting

M2	C2	S2	/PR...	-K
Charging Motor Power	Closing Coil	Trip Coil	Over-Current Trip	CT ³⁾
M0 Manual Type	C0 N/A	S0 N/A	General Feeder	O OCR N/A
M1 AC/DC 110V	C1 AC/DC 110V	S1 AC/DC 110	00 N/A	O 200A
M2 AC/DC 220V	C2 AC/DC 220V	S2 AC/DC 220	50 Hz	V 320A
M7 DC 24V	C3 AC 380V	S3 AC 380V	50 PR-LN	E 400A
M8 DC 48V	C4 AC 440V	S4 AC 440V	51 PR-LA	T 630A
M9 DC 125V	C7 DC 24V	S7 DC 24V	52 PR-LAG	H 800A
	C8 DC 48V	S8 DC 48V	54 PR-LP ⁴⁾	J 1000A
	C9 DC 125V	S9 DC 125V	55 PR-LH ⁴⁾	K 1250A
		Trip Supervision Coil	60 Hz	L 1600A
		T1 AC/DC 110V	60 PR-LN	M 2000A
		T2 AC/DC 220V	61 PR-LA	N 2500A
		T3 AC 380V	62 PR-LAG	P 3200A
		T4 AC 440V	64 PR-LP ⁴⁾	Q 4000A
		T7 DC 24V	65 PR-LH ⁴⁾	S 5000A
		T8 DC 48V	Generator	X 6300A
		T9 DC 125V	50 Hz	
			57 PR-SN	
			58 PR-SA	
			59 PR-SP ⁴⁾	
			60 Hz	
			67 PR-SN	
			68 PR-SA	
			69 PR-SP ⁴⁾	

U_Δ: Applicable only for instantaneous type ACBs and when only the UVT coil is installed. For time delay types, place a separate order for the time delay controller (EPLH) and install it externally.

V_Δ: Applicable only for time delay types with the UVT coil installed in the main unit and the time delay controller mounted at the side of the cradle. In case of dimension constraints, order EPLH V for separate installation.

B0: The mechanical interlock device must be ordered separately. When B0 is specified, only the interlocked components inside the main unit are assembled for release. (Refer to additional components for details.)

SI Application: When Secondary Trip (SI) is applied, the UVT coil cannot be used simultaneously.

Trip Coil Monitoring Contact: Using this contact changes the configuration to 4a3b. When the MCP function of B8 OCR is applied, it can be configured as 4a5b. If both functions are used simultaneously, the configuration will be 3a3b.

Main Unit Order Codes (A/J/Fixed Type): Combination with cradle accessories is not possible when ordering only the main unit. Cradle accessory arrangements are available only when purchased with a cradle. For independent main unit release, place a separate order (EPLH). Refer to additional components for details.

Position Switch: Cannot be used in overlapping configurations and can only be installed on the right side of the cradle. For combinations outside the standard options, contact us for a custom inquiry.

Incompatible Combinations:

- The mechanical interlock device (B0), external auxiliary contact (MC), and fixing block (AF) cannot be used together.
- AA and BA (BH) cannot be attached simultaneously.
- UVT and Secondary Trip Coil cannot be installed together.

Control Terminal Safety Cover (BC): Available only for automatic connection systems.

Short "b" (AK): Available only for automatic connection systems and attaches to terminals 51 and 52. For additional mounting, place a separate order (EPLH).

Front Cover (AG): Shipped with the front cover inserted, even if attached separately during assembly.

Standard Accessories (MR): AE, AC, AF, and AM are included as standard options and are not marked separately.

Auxiliary Contacts: The standard version of the ACB includes 5 pairs of auxiliary contacts (5x NO and 5x NC).

Versatile Solutions for Various Applications

The EPL/EPH series air circuit breakers combine high breaking capacity with advanced overcurrent relay (OCR) functionality, enabling them to meet the diverse needs of industrial buildings, data centers, equipment manufacturers, and more. With 100% N-phase current flow capacity across all models, the breakers provide reliable protection against abnormal conditions, such as harmonic distortion.

Advanced Accessories and Protection Features - Overcurrent Relay (OCR)

The OCR is equipped with enhanced power monitoring capabilities, including temperature monitoring, fault recording, and storage, ensuring a stable and reliable power supply.

Types of Protection and Features:

N Type

Overcurrent Protection: Long-time (L), Short-time (S), Instantaneous (I), Ground Fault (G)
World's first NFC-enabled functionality
Fault recording (10 events) and waveform data (4 cycles) viewable via mobile app

A Type

Overcurrent Protection: L/S/I/G
Self-powered operation
Individual continuous power contact
Fault recording (256 events) and waveform data (4 cycles) viewable via communication
Supports MODBUS communication and external CT/ZCT for ground/earth leakage detection

P Type

Overcurrent Protection: L/S/I/G
External power supply
Individual continuous power contact
Fault recording (256 events) and waveform data (4 cycles) viewable via communication
Additional features: Over-voltage/under-voltage protection, power and energy monitoring, power factor display

H Type

Overcurrent Protection: L/S/I/G with precise minute current adjustments
External power supply
Individual continuous power contact
Fault recording (256 events) and waveform data (4 cycles) viewable via communication
Voltage/current harmonics analysis (1st to 63rd order)
Real-time 3-phase waveform visualization

Flexible Busbar Terminal Design

The busbar terminal configuration can be adjusted between horizontal and vertical orientations to accommodate customer panel layouts:

A-frame: 630 A to 1600 A

B-frame: 630 A to 3200 A

Easy Maintenance with Draw-In/Out Design

The breakers feature a draw-in/out mechanism integrated into the body, enabling convenient maintenance and quick operational adjustments.

Customized Retrofit Solutions

Customized retrofit ACBs can be developed to ensure compatibility with existing installations, considering cradle phase, pole, earth, and terminal dimensions of previously installed devices.

Economic Benefits: Avoids the need for busbar and external box replacement, reduces construction time, and allows uninterrupted replacement for retrofitting.

Enhanced Stability: Extends lifespan with the latest relay technology and ensures high-breaking performance.

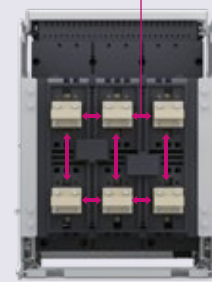
Seamless Compatibility: Provides stable operation with compatible control terminal bars, busbar structures, and plug-in devices.

Technical Support: Comprehensive inspection of old panel accessories to ensure customer satisfaction.

Re-Design of External Terminal



Standard Cradle



Cradle Retrofit

Equipped with Temperature Sensor

The integrated temperature sensor enables reliable and accurate measurement of heat sources, with a measurement range of -5°C to 250°C.

Applied Standards and Certifications

The EPL/EPH series air circuit breakers are certified in compliance with IEC 60947-1 and IEC 60947-2 by recognized testing institutions. They can be installed and used according to the environmental conditions and usage parameters defined by these standards.

Certifications Obtained:

■ CB Certification (DEKRA, KERI): IEC 60947-1, 2

■ CE Mark



Technical data

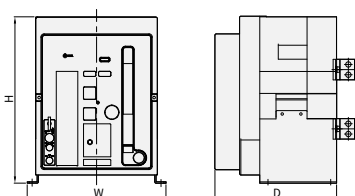
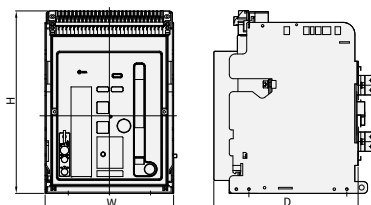
Technical data				EPL		EPH				
				A Frame	B Frame	A Frame	B Frame	C Frame	D Frame	
Rated Current [In max]	Based on 40 °C			A	06 : 630	20 : 2000	06 : 630	06 : 630	32 : 3200	40 : 4000
					08 : 800	25 : 2500	08 : 800	08 : 800	40 : 4000	50 : 5000
					10 : 1000	32 : 3200	10 : 1000	10 : 1000	50 : 5000	63 : 6300
					12 : 1250		12 : 1250	12 : 1250		
					16 : 1600		16 : 1600	16 : 1600		
							20 : 2000	20 : 2000		
								25 : 2500		
								32 : 3200		
			40 : 4000							
Rated Operational Voltage [Ue]				V	690		690			
Rated Insulation Voltage [Ui]				V	1000		1000			
Frequency				Hz	50/60		50/60			
No. of Poles				P	3, 4		3, 4			
Current Setting Range (...× In max)				A	0.4 ~ 1.0		0.4 ~ 1.0			
Rated Current of Neutral Pole (N) (... %×In)				A	100 %	100 %	100 %	100 %	100 %	
Rated Breaking Capacity [Icu] [Sym]										
IEC 60947-2	AC	690/600/550 V	kA	50	70 ¹⁾ (KS : 65)	65	85	85	100	
Category "B"		500/480/460 V		65	85	85	100	100	150	
KS C 4620		415/380/230/220 V		65	85	85	100	100	150	
Rated Service Short-Circuit Breaking Capacity [Ics] ...%×Icu				kA	100 %	100 %	100 %	100 %	100 %	
Rated Service Short-Circuit Breaking Capacity										
IEC 60947-2	AC	690/600/550 V	kA	105	154	143	187	187	220	
Kategoria "B"		500/480/460 V		143	187	187	220	220	330	
KS C 4620		415/380/230/220 V		143	187	187	220	220	330	
Rated Short-Time withstand Voltage [Icw] (Without Inst)										
1 s			kA	50	70	65	85	85	100	
2 s				35	65	42	75	75	85	
3 s				28	50	35	65	65	75	
Rated Impulse withstand Voltage[Uimp]				kV	12		12			
Total Breaking-Time				ms	40 ³⁾		40 ³⁾			
Closing Operational Time										
Motor Charging Time (s) max.					10		10			
Rated Trip Time (ms) max.					80		80			
Lifecycle (Cycles)										
Mechanical					20000	15000	20000	15000	10000	10000
Electrical					5000	5000	5000	5000	2000	2000
Weight										
3 Pole	Draw-Out Type - D/O		kg	63	87	63	87 (107) ²⁾	145	169	
	Fixed Type - FIX			34	44	34	44 (61) ²⁾	76	108	
4 Pole	Draw-Out Type - D/O			74	103	74	103 (140) ²⁾	173	214	
	Fixed Type - FIX			44	55	44	55 (80) ²⁾	81	137	
(W×H×D)										
3 Pole	Draw-Out Type - D/O		mm	328×460×368.4	399×460×368.4	328×460×368.4	399×460×368.4	624×460×368.4	766×460×368.4	
	Fixed Type - FIX			337.4×404.4×295.8	408.4×404.4×295.8	337.4×404.4×295.8	408.4×404.4×295.8	633.4×404.4×295.8	775.4×404.4×295.8	
4 Pole	Draw-Out Type - D/O			413×460×368.4	514×460×368.4	413×460×368.4	514×460×368.4	794×460×368.4	996×460×368.4	
	Fixed Type - FIX			422.4×404.4×295.8	523.4×404.4×295.8	422.4×404.4×295.8	523.4×404.4×295.8	803.4×404.4×295.8	1005×404.4×295.8	

1) 70 kA is DEKRA certified

2) 4,000 AF

3) In case of MCR and override setting, INST is 50 ms.

Life time is the limit lifespan and is not the guaranteed lifespan. In case of maintenance, it is charged. In the event of abnormalities in accessories during use, it can be replaced. Quality Assurance : Based on IEC 60947-2's number of opening/closing within the warranty period.

Fixed Type
- FIXDraw-Out Type
- D/O

Air Circuit Breakers

Circuit breakers equipped with OCR (PR-LP), without motor drive and coils

Type	Code No.	In [A]	Ampere Frame [AF]	No. of poles	Frame type	Terminal busbar arrangement	Rated Breaking Capacity [kA]	 kg	Width (mm)	Depth (mm)	Height (mm)	
EPL-06 3H AD/MOCOSO/PR-LP	004690300	630	A	3	D/O	Horizontal	65	68	600	700	600	1
EPL-08 3H AD/MOCOSO/PR-LP	004690301	800	A	3	D/O	Horizontal	65	68	600	700	600	1
EPL-10 3H AD/MOCOSO/PR-LP	004690302	1000	A	3	D/O	Horizontal	65	68	600	700	600	1
EPL-12 3H AD/MOCOSO/PR-LP	004690303	1250	A	3	D/O	Horizontal	65	68	600	700	600	1
EPL-16 3H AD/MOCOSO/PR-LP	004690304	1600	A	3	D/O	Horizontal	65	68	600	700	600	1
EPL-20 3H BD/MOCOSO/PR-LP	004690305	2000	B	3	D/O	Horizontal	85	92	600	700	600	1
EPL-25 3H BD/MOCOSO/PR-LP	004690306	2500	B	3	D/O	Horizontal	85	92	600	700	600	1
EPL-32 3H BD/MOCOSO/PR-LP	004690307	3200	B	3	D/O	Horizontal	85	92	600	700	600	1
EPL-06 4H AD/MOCOSO/PR-LP	004690308	630	A	4	D/O	Horizontal	65	79	600	700	600	1
EPL-08 4H AD/MOCOSO/PR-LP	004690309	800	A	4	D/O	Horizontal	65	79	600	700	600	1
EPL-10 4H AD/MOCOSO/PR-LP	004690310	1000	A	4	D/O	Horizontal	65	79	600	700	600	1
EPL-12 4H AD/MOCOSO/PR-LP	004690311	1250	A	4	D/O	Horizontal	65	79	600	700	600	1
EPL-16 4H AD/MOCOSO/PR-LP	004690312	1600	A	4	D/O	Horizontal	65	79	600	700	600	1
EPL-20 4H BD/MOCOSO/PR-LP	004690313	2000	B	4	D/O	Horizontal	85	111	650	1050	620	1
EPL-25 4H BD/MOCOSO/PR-LP	004690314	2500	B	4	D/O	Horizontal	85	111	650	1050	620	1
EPL-32 4H BD/MOCOSO/PR-LP	004690315	3200	B	4	D/O	Horizontal	85	111	650	1050	620	1
EPL-06 3H AF/MOCOSO/PR-LP	004690316	630	A	3	FIX	Horizontal	65	39	600	700	600	1
EPL-08 3H AF/MOCOSO/PR-LP	004690317	800	A	3	FIX	Horizontal	65	39	600	700	600	1
EPL-10 3H AF/MOCOSO/PR-LP	004690318	1000	A	3	FIX	Horizontal	65	39	600	700	600	1
EPL-12 3H AF/MOCOSO/PR-LP	004690319	1250	A	3	FIX	Horizontal	65	39	600	700	600	1
EPL-16 3H AF/MOCOSO/PR-LP	004690320	1600	A	3	FIX	Horizontal	65	39	600	700	600	1
EPL-20 3H BF/MOCOSO/PR-LP	004690321	2000	B	3	FIX	Horizontal	85	49	600	700	600	1
EPL-25 3H BF/MOCOSO/PR-LP	004690322	2500	B	3	FIX	Horizontal	85	49	600	700	600	1
EPL-32 3H BF/MOCOSO/PR-LP	004690323	3200	B	3	FIX	Horizontal	85	49	600	700	600	1
EPL-06 4H AF/MOCOSO/PR-LP	004690324	630	A	4	FIX	Horizontal	65	49	600	700	600	1
EPL-08 4H AF/MOCOSO/PR-LP	004690325	800	A	4	FIX	Horizontal	65	49	600	700	600	1
EPL-10 4H AF/MOCOSO/PR-LP	004690326	1000	A	4	FIX	Horizontal	65	49	600	700	600	1
EPL-12 4H AF/MOCOSO/PR-LP	004690327	1250	A	4	FIX	Horizontal	65	49	600	700	600	1
EPL-16 4H AF/MOCOSO/PR-LP	004690328	1600	A	4	FIX	Horizontal	65	49	600	700	600	1
EPL-20 4H BF/MOCOSO/PR-LP	004690329	2000	B	4	FIX	Horizontal	85	63	650	1050	620	1
EPL-25 4H BF/MOCOSO/PR-LP	004690330	2500	B	4	FIX	Horizontal	85	63	650	1050	620	1
EPL-32 4H BF/MOCOSO/PR-LP	004690331	3200	B	4	FIX	Horizontal	85	63	650	1050	620	1
EPH-40 3H BD/MOCOSO/PR-LP	004690340	4000	B	3	D/O	Horizontal	85	112	600	700	600	1

Circuit breakers equipped with OCR (PR-LP), with motor drive (24V DC), shunt trip (24V DC) and closing coil (24V DC)

Type	Code No.	In [A]	Ampere Frame [AF]	No. of poles	Frame type	Terminal busbar arrangement	Rated Breaking Capacity [kA]	 kg	Width (mm)	Depth (mm)	Height (mm)	
EPL-06 3H AD/M7C7S7/PR-LP	004694700	630	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-08 3H AD/M7C7S7/PR-LP	004694701	800	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-10 3H AD/M7C7S7/PR-LP	004694702	1000	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-12 3H AD/M7C7S7/PR-LP	004694703	1250	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-16 3H AD/M7C7S7/PR-LP	004694704	1600	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-20 3H BD/M7C7S7/PR-LP	004694705	2000	B	3	D/O	Horizontal	85	94	600	700	600	1
EPL-25 3H BD/M7C7S7/PR-LP	004694706	2500	B	3	D/O	Horizontal	85	94	600	700	600	1
EPL-32 3H BD/M7C7S7/PR-LP	004694707	3200	B	3	D/O	Horizontal	85	94	600	700	600	1
EPL-06 4H AD/M7C7S7/PR-LP	004694708	630	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-08 4H AD/M7C7S7/PR-LP	004694709	800	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-10 4H AD/M7C7S7/PR-LP	004694710	1000	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-12 4H AD/M7C7S7/PR-LP	004694711	1250	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-16 4H AD/M7C7S7/PR-LP	004694712	1600	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-20 4H BD/M7C7S7/PR-LP	004694713	2000	B	4	D/O	Horizontal	85	112	650	1050	620	1
EPL-25 4H BD/M7C7S7/PR-LP	004694714	2500	B	4	D/O	Horizontal	85	112	650	1050	620	1
EPL-32 4H BD/M7C7S7/PR-LP	004694715	3200	B	4	D/O	Horizontal	85	112	650	1050	620	1
EPL-06 3H AF/M7C7S7/PR-LP	004694716	630	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-08 3H AF/M7C7S7/PR-LP	004694717	800	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-10 3H AF/M7C7S7/PR-LP	004694718	1000	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-12 3H AF/M7C7S7/PR-LP	004694719	1250	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-16 3H AF/M7C7S7/PR-LP	004694720	1600	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-20 3H BF/M7C7S7/PR-LP	004694721	2000	B	3	FIX	Horizontal	85	51	600	700	600	1
EPL-25 3H BF/M7C7S7/PR-LP	004694722	2500	B	3	FIX	Horizontal	85	51	600	700	600	1
EPL-32 3H BF/M7C7S7/PR-LP	004694723	3200	B	3	FIX	Horizontal	85	51	600	700	600	1
EPL-06 4H AF/M7C7S7/PR-LP	004694724	630	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-08 4H AF/M7C7S7/PR-LP	004694725	800	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-10 4H AF/M7C7S7/PR-LP	004694726	1000	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-12 4H AF/M7C7S7/PR-LP	004694727	1250	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-16 4H AF/M7C7S7/PR-LP	004694728	1600	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-20 4H BF/M7C7S7/PR-LP	004694729	2000	B	4	FIX	Horizontal	85	64	650	1050	620	1
EPL-25 4H BF/M7C7S7/PR-LP	004694730	2500	B	4	FIX	Horizontal	85	64	650	1050	620	1
EPL-32 4H BF/M7C7S7/PR-LP	004694731	3200	B	4	FIX	Horizontal	85	64	650	1050	620	1
EPH-40 3H BD/M7C7S7/PR-LP	004694740	4000	B	3	D/O	Horizontal	85	114	600	700	600	1

Circuit breakers equipped with OCR (PR-LP), with motor drive (230V AC/DC), shunt trip (230V AC/DC) and closing coil (230V AC/DC)

Type	Code No.	In [A]	Ampere Frame [AF]	No. of poles	Frame type	Terminal busbar arrangement	Rated Breaking Capacity [kA]	kg	Width (mm)	Depth (mm)	Height (mm)	
EPL-06 3H AD/M2C2S2/PR-LP	004695700	630	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-08 3H AD/M2C2S2/PR-LP	004695701	800	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-10 3H AD/M2C2S2/PR-LP	004695702	1000	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-12 3H AD/M2C2S2/PR-LP	004695703	1250	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-16 3H AD/M2C2S2/PR-LP	004695704	1600	A	3	D/O	Horizontal	65	70	600	700	600	1
EPL-20 3H BD/M2C2S2/PR-LP	004695705	2000	B	3	D/O	Horizontal	85	94	600	700	600	1
EPL-25 3H BD/M2C2S2/PR-LP	004695706	2500	B	3	D/O	Horizontal	85	94	600	700	600	1
EPL-32 3H BD/M2C2S2/PR-LP	004695707	3200	B	3	D/O	Horizontal	85	94	600	700	600	1
EPL-06 4H AD/M2C2S2/PR-LP	004695708	630	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-08 4H AD/M2C2S2/PR-LP	004695709	800	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-10 4H AD/M2C2S2/PR-LP	004695710	1000	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-12 4H AD/M2C2S2/PR-LP	004695711	1250	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-16 4H AD/M2C2S2/PR-LP	004695712	1600	A	4	D/O	Horizontal	65	81	600	700	600	1
EPL-20 4H BD/M2C2S2/PR-LP	004695713	2000	B	4	D/O	Horizontal	85	112	650	1050	620	1
EPL-25 4H BD/M2C2S2/PR-LP	004695714	2500	B	4	D/O	Horizontal	85	112	650	1050	620	1
EPL-32 4H BD/M2C2S2/PR-LP	004695715	3200	B	4	D/O	Horizontal	85	112	650	1050	620	1
EPL-06 3H AF/M2C2S2/PR-LP	004695716	630	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-08 3H AF/M2C2S2/PR-LP	004695717	800	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-10 3H AF/M2C2S2/PR-LP	004695718	1000	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-12 3H AF/M2C2S2/PR-LP	004695719	1250	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-16 3H AF/M2C2S2/PR-LP	004695720	1600	A	3	FIX	Horizontal	65	41	600	700	600	1
EPL-20 3H BF/M2C2S2/PR-LP	004695721	2000	B	3	FIX	Horizontal	85	51	600	700	600	1
EPL-25 3H BF/M2C2S2/PR-LP	004695722	2500	B	3	FIX	Horizontal	85	51	600	700	600	1
EPL-32 3H BF/M2C2S2/PR-LP	004695723	3200	B	3	FIX	Horizontal	85	51	600	700	600	1
EPL-06 4H AF/M2C2S2/PR-LP	004695724	630	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-08 4H AF/M2C2S2/PR-LP	004695725	800	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-10 4H AF/M2C2S2/PR-LP	004695726	1000	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-12 4H AF/M2C2S2/PR-LP	004695727	1250	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-16 4H AF/M2C2S2/PR-LP	004695728	1600	A	4	FIX	Horizontal	65	51	600	700	600	1
EPL-20 4H BF/M2C2S2/PR-LP	004695729	2000	B	4	FIX	Horizontal	85	64	650	1050	620	1
EPL-25 4H BF/M2C2S2/PR-LP	004695730	2500	B	4	FIX	Horizontal	85	64	650	1050	620	1
EPL-32 4H BF/M2C2S2/PR-LP	004695731	3200	B	4	FIX	Horizontal	85	64	650	1050	620	1
EPH-40 3H BD/M2C2S2/PR-LP	004695740	4000	B	3	D/O	Horizontal	85	114	600	700	600	1



Air Switch Disconnectors

Air switch disconnectors without motor drive and coils

Type	Code No.	In [A]	Ampere Frame [AF]	No. of poles	Frame type	Terminal busbar arrangement	 kg	Width (mm)	Depth (mm)	Height (mm)	
EPL-D-06 3H AD/MOCOSO	004696000	630	A	3	D/O	Horizontal	65	600	700	600	1
EPL-D-08 3H AD/MOCOSO	004696001	800	A	3	D/O	Horizontal	65	600	700	600	1
EPL-D-10 3H AD/MOCOSO	004696002	1000	A	3	D/O	Horizontal	65	600	700	600	1
EPL-D-12 3H AD/MOCOSO	004696003	1250	A	3	D/O	Horizontal	65	600	700	600	1
EPL-D-16 3H AD/MOCOSO	004696004	1600	A	3	D/O	Horizontal	65	600	700	600	1
EPL-D-20 3H BD/MOCOSO	004696005	2000	B	3	D/O	Horizontal	89	600	700	600	1
EPL-D-25 3H BD/MOCOSO	004696006	2500	B	3	D/O	Horizontal	89	600	700	600	1
EPL-D-32 3H BD/MOCOSO	004696007	3200	B	3	D/O	Horizontal	89	600	700	600	1
EPL-D-06 4H AD/MOCOSO	004696008	630	A	4	D/O	Horizontal	76	600	700	600	1
EPL-D-08 4H AD/MOCOSO	004696009	800	A	4	D/O	Horizontal	76	600	700	600	1
EPL-D-10 4H AD/MOCOSO	004696010	1000	A	4	D/O	Horizontal	76	600	700	600	1
EPL-D-12 4H AD/MOCOSO	004696011	1250	A	4	D/O	Horizontal	76	600	700	600	1
EPL-D-16 4H AD/MOCOSO	004696012	1600	A	4	D/O	Horizontal	76	600	700	600	1
EPL-D-20 4H BD/MOCOSO	004696013	2000	B	4	D/O	Horizontal	108	650	1050	620	1
EPL-D-25 4H BD/MOCOSO	004696014	2500	B	4	D/O	Horizontal	108	650	1050	620	1
EPL-D-32 4H BD/MOCOSO	004696015	3200	B	4	D/O	Horizontal	108	650	1050	620	1
EPL-D-06 3H AF/MOCOSO	004696016	630	A	3	FIX	Horizontal	36	600	700	600	1
EPL-D-08 3H AF/MOCOSO	004696017	800	A	3	FIX	Horizontal	36	600	700	600	1
EPL-D-10 3H AF/MOCOSO	004696018	1000	A	3	FIX	Horizontal	36	600	700	600	1
EPL-D-12 3H AF/MOCOSO	004696019	1250	A	3	FIX	Horizontal	36	600	700	600	1
EPL-D-16 3H AF/MOCOSO	004696020	1600	A	3	FIX	Horizontal	36	600	700	600	1
EPL-D-20 3H BF/MOCOSO	004696021	2000	B	3	FIX	Horizontal	46	600	700	600	1
EPL-D-25 3H BF/MOCOSO	004696022	2500	B	3	FIX	Horizontal	46	600	700	600	1
EPL-D-32 3H BF/MOCOSO	004696023	3200	B	3	FIX	Horizontal	46	600	700	600	1
EPL-D-06 4H AF/MOCOSO	004696024	630	A	4	FIX	Horizontal	46	600	700	600	1
EPL-D-08 4H AF/MOCOSO	004696025	800	A	4	FIX	Horizontal	46	600	700	600	1
EPL-D-10 4H AF/MOCOSO	004696026	1000	A	4	FIX	Horizontal	46	600	700	600	1
EPL-D-12 4H AF/MOCOSO	004696027	1250	A	4	FIX	Horizontal	46	600	700	600	1
EPL-D-16 4H AF/MOCOSO	004696028	1600	A	4	FIX	Horizontal	46	600	700	600	1
EPL-D-20 4H BF/MOCOSO	004696029	2000	B	4	FIX	Horizontal	60	650	1050	620	1
EPL-D-25 4H BF/MOCOSO	004696030	2500	B	4	FIX	Horizontal	60	650	1050	620	1
EPL-D-32 4H BF/MOCOSO	004696031	3200	B	4	FIX	Horizontal	60	650	1050	620	1
EPH-D-40 3H BD/MOCOSO	004696040	4000	B	3	D/O	Horizontal	109	600	700	600	1

Air switch disconnectors equipped with OCR (PR-LP), with motor drive (24V DC), shunt trip (24V DC) and closing coil (24V DC)

Type	Code No.	In [A]	Ampere Frame [AF]	No. of poles	Frame type	Terminal busbar arrangement	 kg	Width (mm)	Depth (mm)	Height (mm)	
EPL-D-06 3H AD/M7C7S7	004696400	630	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-08 3H AD/M7C7S7	004696401	800	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-10 3H AD/M7C7S7	004696402	1000	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-12 3H AD/M7C7S7	004696403	1250	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-16 3H AD/M7C7S7	004696404	1600	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-20 3H BD/M7C7S7	004696405	2000	B	3	D/O	Horizontal	91	600	700	600	1
EPL-D-25 3H BD/M7C7S7	004696406	2500	B	3	D/O	Horizontal	91	600	700	600	1
EPL-D-32 3H BD/M7C7S7	004696407	3200	B	3	D/O	Horizontal	91	600	700	600	1
EPL-D-06 4H AD/M7C7S7	004696408	630	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-08 4H AD/M7C7S7	004696409	800	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-10 4H AD/M7C7S7	004696410	1000	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-12 4H AD/M7C7S7	004696411	1250	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-16 4H AD/M7C7S7	004696412	1600	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-20 4H BD/M7C7S7	004696413	2000	B	4	D/O	Horizontal	109	650	1050	620	1
EPL-D-25 4H BD/M7C7S7	004696414	2500	B	4	D/O	Horizontal	109	650	1050	620	1
EPL-D-32 4H BD/M7C7S7	004696415	3200	B	4	D/O	Horizontal	109	650	1050	620	1
EPL-D-06 3H AF/M7C7S7	004696416	630	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-08 3H AF/M7C7S7	004696417	800	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-10 3H AF/M7C7S7	004696418	1000	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-12 3H AF/M7C7S7	004696419	1250	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-16 3H AF/M7C7S7	004696420	1600	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-20 3H BF/M7C7S7	004696421	2000	B	3	FIX	Horizontal	48	600	700	600	1
EPL-D-25 3H BF/M7C7S7	004696422	2500	B	3	FIX	Horizontal	48	600	700	600	1
EPL-D-32 3H BF/M7C7S7	004696423	3200	B	3	FIX	Horizontal	48	600	700	600	1
EPL-D-06 4H AF/M7C7S7	004696424	630	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-08 4H AF/M7C7S7	004696425	800	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-10 4H AF/M7C7S7	004696426	1000	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-12 4H AF/M7C7S7	004696427	1250	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-16 4H AF/M7C7S7	004696428	1600	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-20 4H BF/M7C7S7	004696429	2000	B	4	FIX	Horizontal	61	650	1050	620	1
EPL-D-25 4H BF/M7C7S7	004696430	2500	B	4	FIX	Horizontal	61	650	1050	620	1
EPL-D-32 4H BF/M7C7S7	004696431	3200	B	4	FIX	Horizontal	61	650	1050	620	1
EPH-D-40 3H BD/M7C7S7	004696440	4000	B	3	D/O	Horizontal	111	600	700	600	1

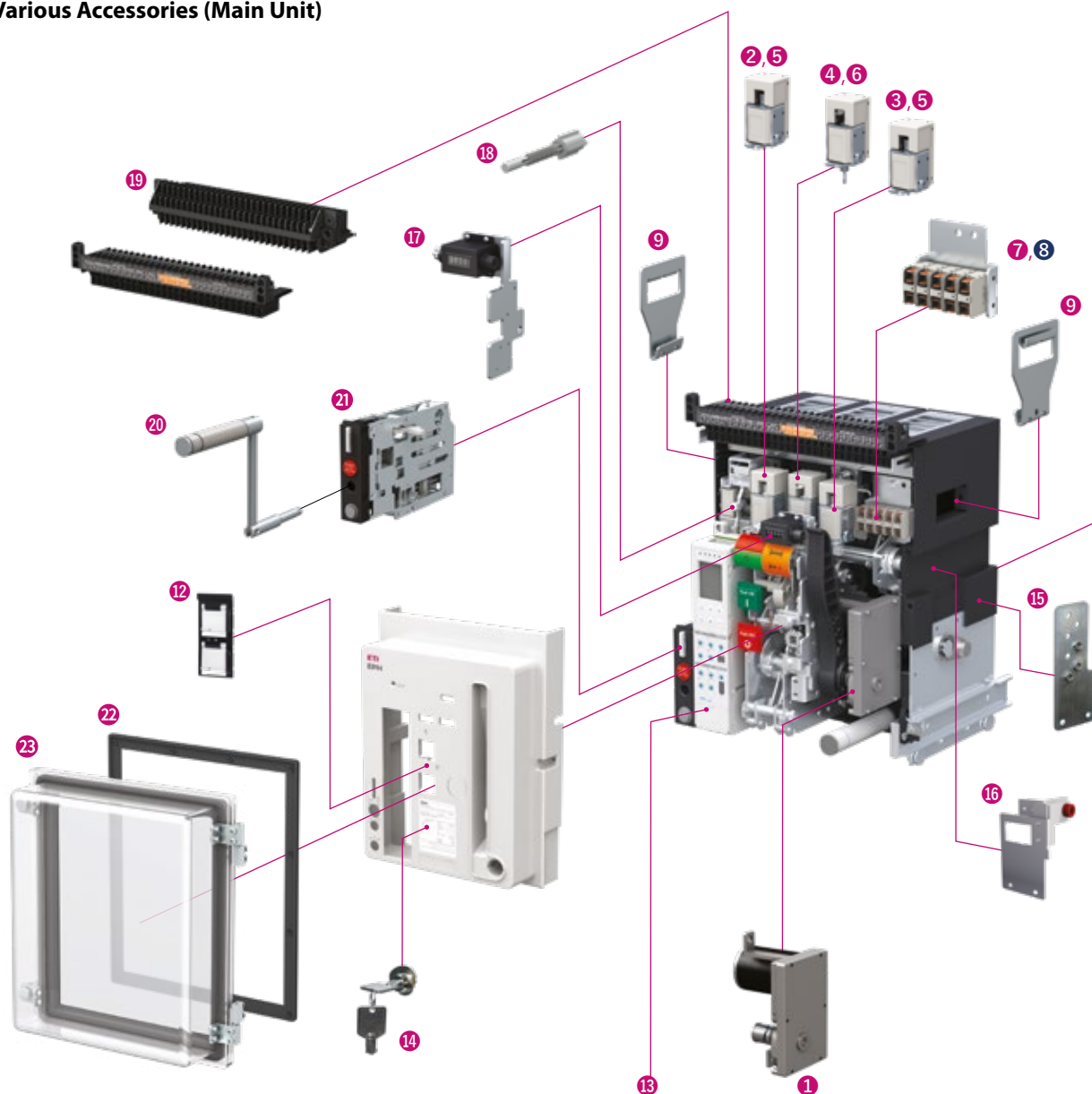
Air switch disconnectors equipped with OCR (PR-LP), with motor drive (230V AC/DC), shunt trip (230V AC/DC) and closing coil (230V AC/DC)

Type	Code No.	In [A]	Ampere Frame [AF]	No. of poles	Frame type	Terminal busbar arrangement	kg	Width (mm)	Depth (mm)	Height (mm)	
EPL-D-06 3H AD/M2C2S2	004696600	630	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-08 3H AD/M2C2S2	004696601	800	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-10 3H AD/M2C2S2	004696602	1000	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-12 3H AD/M2C2S2	004696603	1250	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-16 3H AD/M2C2S2	004696604	1600	A	3	D/O	Horizontal	67	600	700	600	1
EPL-D-20 3H BD/M2C2S2	004696605	2000	B	3	D/O	Horizontal	91	600	700	600	1
EPL-D-25 3H BD/M2C2S2	004696606	2500	B	3	D/O	Horizontal	91	600	700	600	1
EPL-D-32 3H BD/M2C2S2	004696607	3200	B	3	D/O	Horizontal	91	600	700	600	1
EPL-D-06 4H AD/M2C2S2	004696608	630	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-08 4H AD/M2C2S2	004696609	800	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-10 4H AD/M2C2S2	004696610	1000	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-12 4H AD/M2C2S2	004696611	1250	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-16 4H AD/M2C2S2	004696612	1600	A	4	D/O	Horizontal	78	600	700	600	1
EPL-D-20 4H BD/M2C2S2	004696613	2000	B	4	D/O	Horizontal	109	650	1050	620	1
EPL-D-25 4H BD/M2C2S2	004696614	2500	B	4	D/O	Horizontal	109	650	1050	620	1
EPL-D-32 4H BD/M2C2S2	004696615	3200	B	4	D/O	Horizontal	109	650	1050	620	1
EPL-D-06 3H AF/M2C2S2	004696616	630	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-08 3H AF/M2C2S2	004696617	800	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-10 3H AF/M2C2S2	004696618	1000	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-12 3H AF/M2C2S2	004696619	1250	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-16 3H AF/M2C2S2	004696620	1600	A	3	FIX	Horizontal	38	600	700	600	1
EPL-D-20 3H BF/M2C2S2	004696621	2000	B	3	FIX	Horizontal	48	600	700	600	1
EPL-D-25 3H BF/M2C2S2	004696622	2500	B	3	FIX	Horizontal	48	600	700	600	1
EPL-D-32 3H BF/M2C2S2	004696623	3200	B	3	FIX	Horizontal	48	600	700	600	1
EPL-D-06 4H AF/M2C2S2	004696624	630	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-08 4H AF/M2C2S2	004696625	800	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-10 4H AF/M2C2S2	004696626	1000	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-12 4H AF/M2C2S2	004696627	1250	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-16 4H AF/M2C2S2	004696628	1600	A	4	FIX	Horizontal	48	600	700	600	1
EPL-D-20 4H BF/M2C2S2	004696629	2000	B	4	FIX	Horizontal	61	650	1050	620	1
EPL-D-25 4H BF/M2C2S2	004696630	2500	B	4	FIX	Horizontal	61	650	1050	620	1
EPL-D-32 4H BF/M2C2S2	004696631	3200	B	4	FIX	Horizontal	61	650	1050	620	1
EPH-D-40 3H BD/M2C2S2	004696640	4000	B	3	D/O	Horizontal	111	600	700	600	1



Accessories

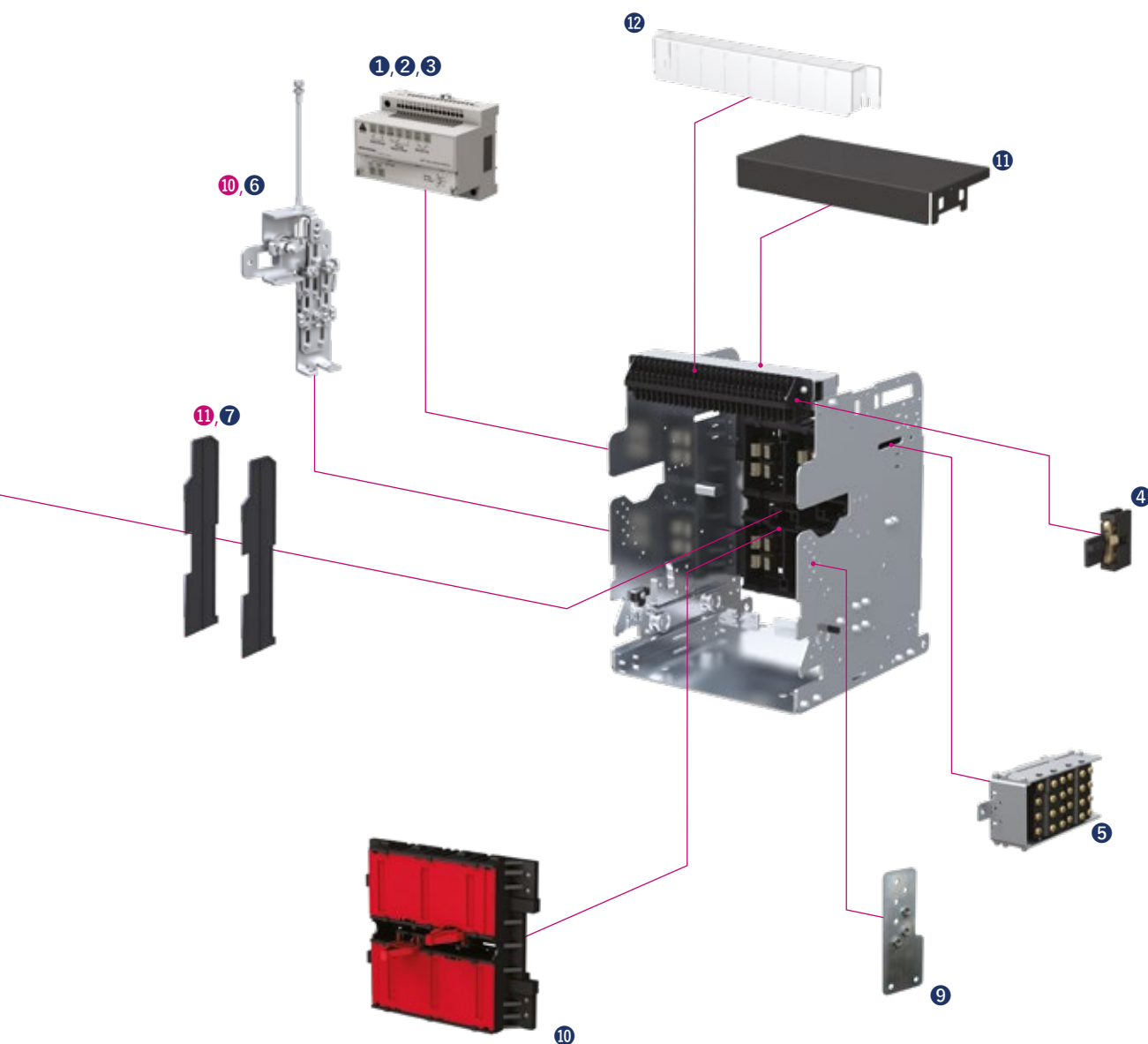
Various Accessories (Main Unit)



Accessories for Circuit Breaker

- | | | |
|--------------------------------|----------------------------|--------------------------------|
| ① Spring Charge Geared Motor | ⑨ Lifting Lug | ⑰ Counter |
| ② Closing Coil | ⑩ Mechanical Interlock | ⑱ OCR & Alarm S/W Reset Button |
| ③ Trip Coil | ⑪ Phase Insulation Barrier | ⑲ Test Jumper |
| ④ Secondary SHT Trip Coil | ⑫ On/Off Button Lock | ⑳ Draw-In/Out Handle |
| ⑤ Trip Coil Supervision | ⑬ OCR | ㉑ Position Pad Lock |
| ⑥ UVT Coil | ⑭ Key Lock | ㉒ Door Flange |
| ⑦ AUX Switch (5x NO and 5X NC) | ⑮ Miss-Insertion Preventer | ㉓ Dust Cover |
| | ⑯ Fixing Block | |

Various Accessories (Cradle)



Accessories for Cradle

- | | |
|--|-------------------------------------|
| ① UVT Time Delay Controller | ⑦ Phase Insulation Barrier |
| ② Remote Closing Prevention Module | ⑧ Mechanical Operated Cell Switch |
| ③ Temperature Monitoring Device Module | ⑨ Miss-Insertion Preventer |
| ④ Short "b" Contact | ⑩ Safety Shutter |
| ⑤ Position Switch | ⑪ Arc Shield |
| ⑥ Mechanical Interlock | ⑫ Control Terminal Protection Cover |

Motor operators

Type	Code No.	Rated operational voltage [V]	 kg	Width (mm)	Depth (mm)	Height (mm)	
EPLH-M1U	004697000	AC/DC110V	1,550	180	130	110	1
EPLH-M2U	004697001	AC/DC220V	1,550	180	130	110	1
EPLH-M7U	004697002	DC24V	1,550	180	130	110	1
EPLH-M8U	004697003	DC48V	1,550	180	130	110	1
EPLH-M9U	004697004	DC125V	1,550	180	130	110	1

Closing coils

Type	Code No.	Rated voltage [V]	 kg	Width (mm)	Depth (mm)	Height (mm)	
EPLH-C1	004697005	AC/DC110V	0,190	45	50	100	1
EPLH-C2	004697006	AC/DC220V	0,190	45	50	100	1
EPLH-C3	004697007	AC380V	0,190	45	50	100	1
EPLH-C4	004697008	AC440V	0,190	45	50	100	1
EPLH-C7	004697009	DC24V	0,190	45	50	100	1
EPLH-C8	004697010	DC48V	0,190	45	50	100	1
EPLH-C9	004697011	DC125	0,190	45	50	100	1

Shunt trips (SHT)

Type	Code No.	Rated voltage [V]	 kg	Width (mm)	Depth (mm)	Height (mm)	
EPLH-S1	004697012	AC/DC110V	0,185	45	50	100	1
EPLH-S2	004697013	AC/DC220V	0,185	45	50	100	1
EPLH-S3	004697014	AC380V	0,185	45	50	100	1
EPLH-S4	004697015	AC440V	0,185	45	50	100	1
EPLH-S7	004697016	DC24V	0,185	45	50	100	1
EPLH-S8	004697017	DC48V	0,185	45	50	100	1
EPLH-S9	004697018	DC125	0,185	45	50	100	1

Secondary shunt trips (SHT)

Type	Code No.	Rated voltage [V]	 kg	Width (mm)	Depth (mm)	Height (mm)	 (pc)
EPLH-SS1	004697019	AC/DC110V	0,185	45	50	100	1
EPLH-SS2	004697020	AC/DC220V	0,185	45	50	100	1
EPLH-SS3	004697021	AC380V	0,185	45	50	100	1
EPLH-SS4	004697022	AC440V	0,185	45	50	100	1
EPLH-SS7	004697023	DC24V	0,185	45	50	100	1
EPLH-SS8	004697024	DC48V	0,185	45	50	100	1
EPLH-SS9	004697025	DC125	0,185	45	50	100	1

Undervoltage coils (UVT)

Type	Code No.	Rated voltage [V]		Width (mm)	Depth (mm)	Height (mm)	
EPLH-U1	004697033	AC/DC110V	0,200	45	50	100	1
EPLH-U2	004697034	AC/DC220V	0,200	45	50	100	1
EPLH-U3	004697035	AC380V	0,200	45	50	100	1
EPLH-U4	004697036	AC440V	0,200	45	50	100	1
EPLH-U7	004697037	DC24V	0,200	45	50	100	1
EPLH-U8	004697038	DC48V	0,200	45	50	100	1
EPLH-U9	004697039	DC125	0,200	45	50	100	1

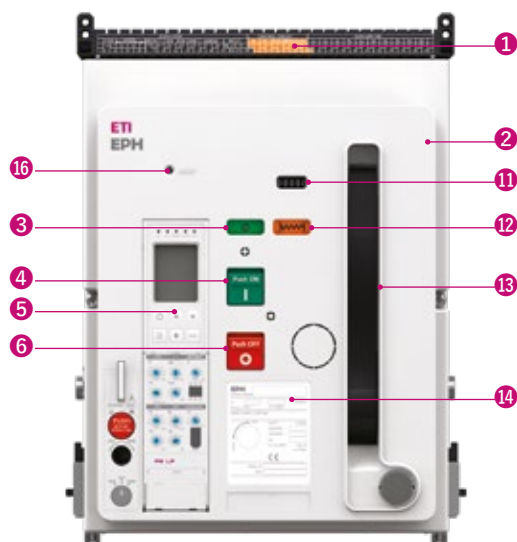
Position switches

Type	Code No.	Type of contact		Width (mm)	Depth (mm)	Height (mm)	
EPLH-AQ	004697052	TEST:1C, CONN:1C	0,53	210	100	60	1
EPLH-AR	004697053	CONN:2C	0,53	210	100	60	1
EPLH-AS	004697054	TEST:2C	0,53	210	100	60	1
EPLH-AT	004697055	ISOLATED:1C, INSERTED:1C	0,53	210	100	60	1
EPLH-AU	004697056	INSERTED:2C	0,53	210	100	60	1
EPLH-AV	004697057	ISOLATED:2C	0,53	210	100	60	1
EPLH-PS	004697058	TEST:1C, ISOLATED:1C, CONN:2C	0,62	210	100	60	1
EPLH-P4	004697059	TEST:2C, CONN:2C	0,62	210	100	60	1
EPLH-PQ	004697060	INSERTED:1C, ISOLATED:1C, TEST:1C, CONN:1C	0,62	210	100	60	1
EPLH-P8	004697061	INSERTED:2C, ISOLATED:2C, TEST:2C, CONN:2C	0,62	210	100	60	1
EPLH-PR	004697062	INSERTED:1C, ISOLATED:1C, TEST:3C, CONN:3C	0,9	210	100	60	1

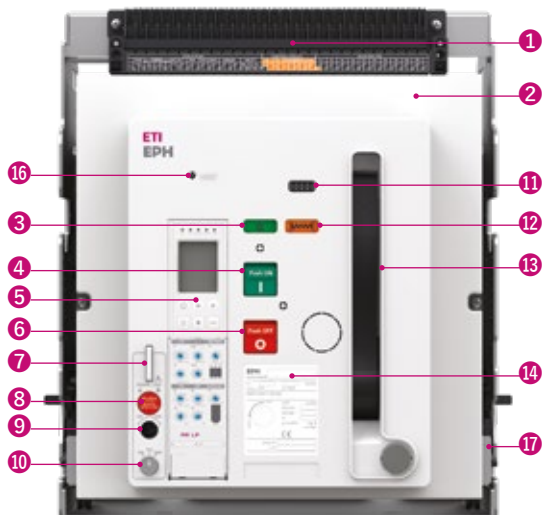
Accessories EPL

Type	Code No.	Description	 kg	
EPLH-VM	004697128	Voltage Module	0,08	1
EPLH-AG	004697122	Door flange IP30	0,27	1
EPLH-DC	004697123	Dust Cover IP52	2,1	1
EPLH-FHVA3F	004697093	Upper & lower front type + Horizontal/Vertical terminal (A frame, 630-1600A, 3P)	7,24	1
EPLH-FHVA4F	004697094	Upper & lower front type + Horizontal/Vertical terminal (A frame, 630-1600A, 4P)	9,6	1
EPLH-FHVB3F	004697095	Upper & lower front type + Horizontal/Vertical terminal (B frame, 2000-3200A, 3P)	15,4	1
EPLH-FHVB4F	004697096	Upper & lower front type + Horizontal/Vertical terminal (B frame, 2000-3200A, 4P)	19,6	1
EPLH-FRA3F	004697124	Upper & lower front type terminal 6 (A frame, 630-1600A, 3P)	12,11	1
EPLH-FRA4F	004697125	Upper & lower front type terminal 8 (A frame, 630-1600A, 4P)	16,15	1
EPLH-FRB3F	004697126	Upper & lower front type terminal 6 (B frame, 2000-3200A, 3P)	25	1
EPLH-FRB4F	004697127	Upper & lower front type terminal 8 (B frame, 2000-3200A, 4P)	31,53	1
EPLH-DWB1	004697180	A & B & C & D Frame Draw-Out (Fixed) Type 2 Way MI (External Mounting Kit Only)	2,1	1
EPLH-DWB2	004697181	A & B & C & D Frame Draw-Out (Fixed) Type 3 Way MI (External Mounting Kit Only)	4,2	1
EPLH-FWB1	004697182	A & C Frame Fixed Type 2 Way MI (External Mounting Kit Only)	2,7	1
EPLH-FWB2	004697183	A & C Frame Fixed Type 3 Way MI (External Mounting Kit Only)	4,7	1
EPLH-B0DA	004697184	A Frame Interlock Part (B0)	0,2	1
EPLH-B0DB	004697185	B Frame Interlock Part (B0)	0,2	1
EPLH-B0DC3	004697186	C Frame 3P Interlock Part (B0)	0,2	1
EPLH-B0DC4	004697187	C Frame 4P Interlock Part (B0)	0,2	1
EPLH-B0DD3	004697188	D Frame 3P Interlock Part (B0)	0,2	1
EPLH-B0DD4	004697189	D Frame 4P Interlock Part (B0)	0,2	1
EPLH-B0FA	004697190	A Frame Interlock Part (B0) + Fixed Type of Installation Bracket	0,8	1
EPLH-B0FB	004697191	B Frame Interlock Part (B0) + Fixed Type of Installation Bracket	0,8	1
EPLH-B0FC3	004697192	C Frame 3P Interlock Part (B0) + Fixed Type of Installation Bracket	0,8	1
EPLH-B0FC4	004697193	C Frame 4P Interlock Part (B0) + Fixed Type of Installation Bracket	0,8	1
EPLH-B0FD3	004697194	D Frame 3P Interlock Part (B0) + Fixed Type of Installation Bracket	0,8	1
EPLH-B0FD4	004697195	D Frame 4P Interlock Part (B0) + Fixed Type of Installation Bracket	0,8	1
EPLH-DWB1A	004697196	A Frame Draw-Out Type 2 Way MI + Interlock Part (B0)	2,2	1
EPLH-DWB2A	004697197	A Frame Draw-Out Type 3 Way MI + Interlock Part (B0)	4,4	1
EPLH-DWB1B	004697198	B Frame Draw-Out Type 2 Way MI + Interlock Part (B0)	2,2	1
EPLH-DWB2B	004697199	B Frame Draw-Out Type 3 Way MI + Interlock Part (B0)	4,4	1
EPLH-DWB1C3	004697200	C Frame 3P Draw-Out 2 Way MI + Interlock Part (B0)	2,3	1
EPLH-DWB1C4	004697201	C Frame 4P Draw-Out 2 Way MI + Interlock Part (B0)	2,3	1
EPLH-DWB2C3	004697202	C Frame 3P Draw-Out 3 Way MI + Interlock Part (B0)	4,5	1
EPLH-DWB2C4	004697203	C Frame 4P Draw-Out 3 Way MI + Interlock Part (B0)	4,5	1
EPLH-DWB1D3	004697204	D Frame 3P Draw-Out 2 Way MI + Interlock Part (B0)	2,3	1
EPLH-DWB1D4	004697205	D Frame 4P Draw-Out 2 Way MI + Interlock Part (B0)	2,3	1
EPLH-DWB2D3	004697206	D Frame 3P Draw-Out 3 Way MI + Interlock Part (B0)	4,5	1
EPLH-DWB2D4	004697207	D Frame 4P Draw-Out 3 Way MI + Interlock Part (B0)	4,5	1
EPLH-FWB1A	004697208	A Frame Fixed Type 2 Way MI + Interlock Part (B0)	2,8	1
EPLH-FWB2A	004697209	A Frame Fixed Type 3 Way MI + Interlock Part (B0)	4,9	1
EPLH-FWB1B	004697210	B Frame Fixed Type 2 Way MI + Interlock Part (B0)	2,8	1
EPLH-FWB2B	004697211	B Frame Fixed Type 3 Way MI + Interlock Part (B0)	4,9	1
EPLH-FWB1C3	004697212	C Frame 3P Fixed Type 2 Way MI + Interlock Part (B0)	2,9	1
EPLH-FWB1C4	004697213	C Frame 4P Fixed Type 2 Way MI + Interlock Part (B0)	2,9	1
EPLH-FWB2C3	004697214	C Frame 3P Fixed Type 3 Way MI + Interlock Part (B0)	5	1
EPLH-FWB2C4	004697215	C Frame 4P Fixed Type 3 Way MI + Interlock Part (B0)	5	1
EPLH-FWB1D3	004697216	D Frame 3P Fixed Type 2 Way MI + Interlock Part (B0)	2,9	1
EPLH-FWB1D4	004697217	D Frame 4P Fixed Type 2 Way MI + Interlock Part (B0)	2,9	1
EPLH-FWB2D3	004697218	D Frame 3P Fixed Type 3 Way MI + Interlock Part (B0)	5	1
EPLH-FWB2D4	004697219	D Frame 4P Fixed Type 3 Way MI + Interlock Part (B0)	5	1

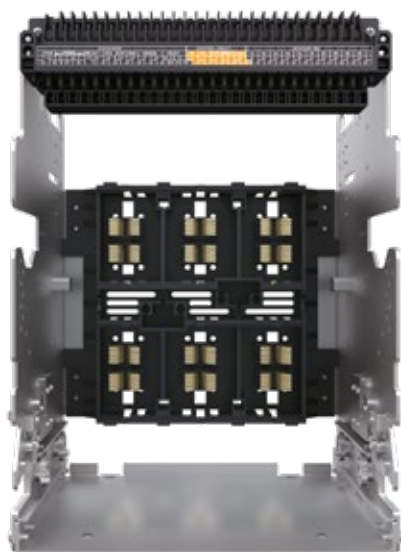
External Structure



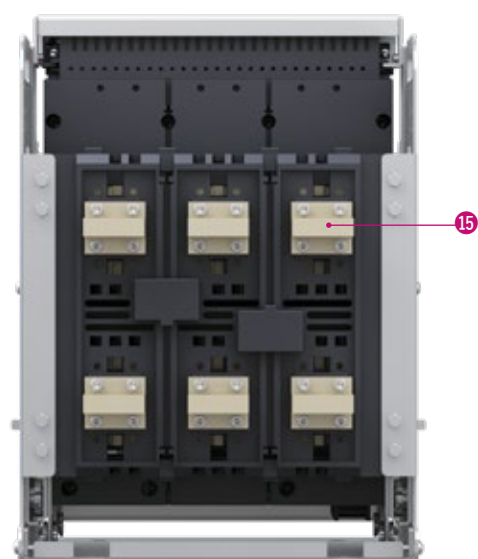
Draw-In/Out Type (ACB Body)



Draw-In/Out Type (Including Cradle)



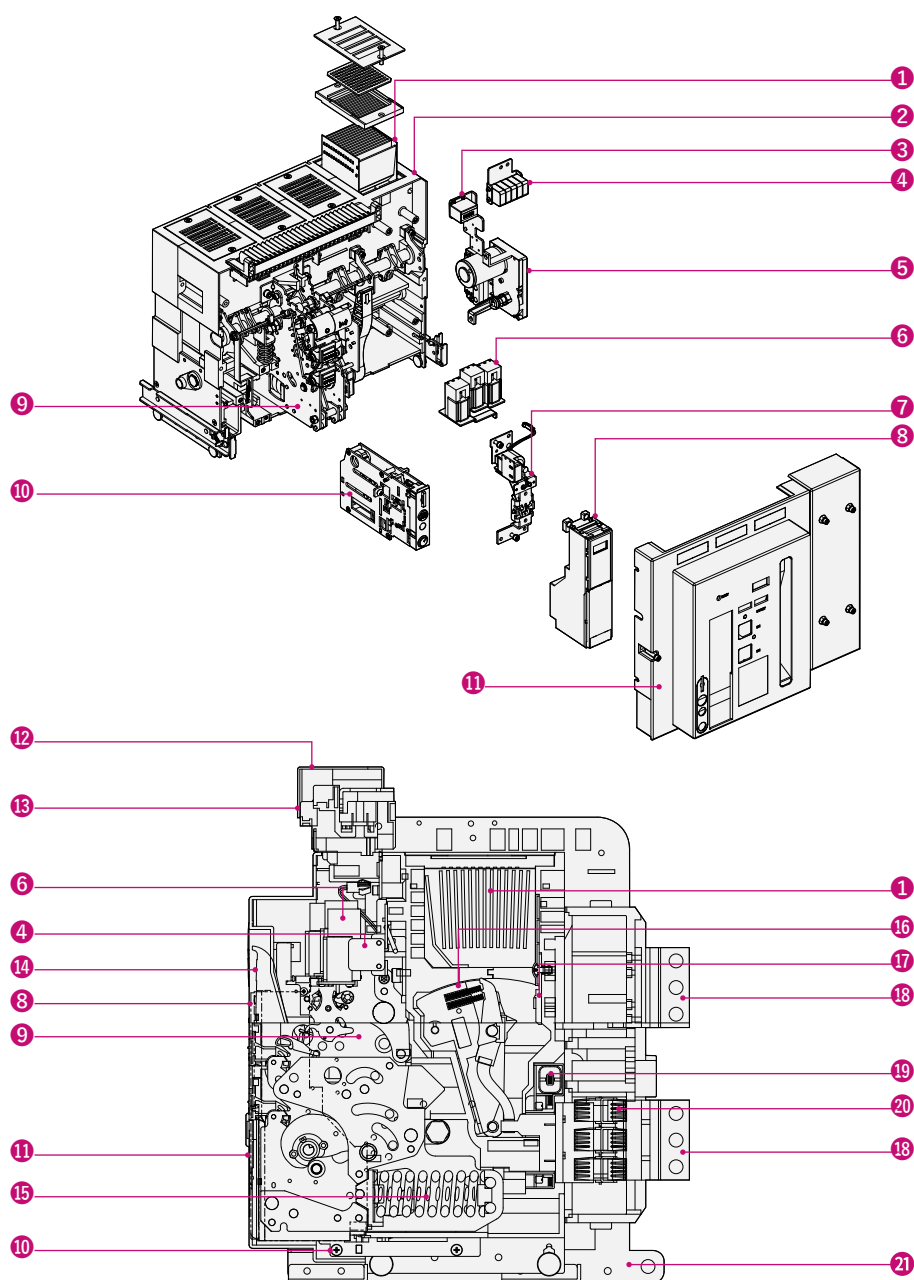
Cradle Front



Cradle Rear

- | | | |
|----------------------------|-------------------------------------|--------------------------------|
| ① Control Circuit Terminal | ⑧ Position Lock Release Button | ⑭ Rating Nameplate |
| ② Front Cover | ⑨ Draw-In/Out Handle Insertion Hole | ⑮ Terminal Busbar |
| ③ Close/Open Indicator | ⑩ Position Indicator | ⑯ OCR & Alarm S/W Reset Button |
| ④ Close Button | ⑪ Counter | ⑰ Draw-In/Out Guide Rail |
| ⑤ Overcurrent Relay Device | ⑫ Charged/Discharged Indicator | |
| ⑥ Open Button | ⑬ Manual Charging Handle | |
| ⑦ Position Padlock | | |

Internal Structure



- | | | |
|-------------------------|--------------------------------------|----------------------------|
| 1 DI Grid | 9 Mechanism | 16 Moving Contact |
| 2 CO Unit | 10 DR Device | 17 Fixed Contact |
| 3 Counter | 11 Cover | 18 Terminal |
| 4 AUX Switch | 12 Control Terminal Protection Cover | 19 Current Transformer(CT) |
| 5 Motor operator | 13 Control Terminal | 20 Terminal Clip |
| 6 Closing/Trip/UVT Coil | 14 Manual Charging Handle | 21 Cradle |
| 7 MHT Device | 15 Closing Spring | |
| 8 OCR | | |

EP Series air circuit breaker has been designed so that upon closing, the N phase is closed earlier than R, S, T phase and upon opening, the N phase is disconnected last in order to reduce burden of main contact and to prevent ripple effect of accident of N phase.

Convenient Connection Method

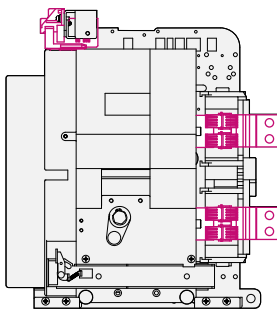
With EP Series air circuit breaker, 4 types of mounting (Connected, test, isolated, removed) are possible and offer easy maintenance.



Sliding Body Type (In Case of Draw-In/Out Type)

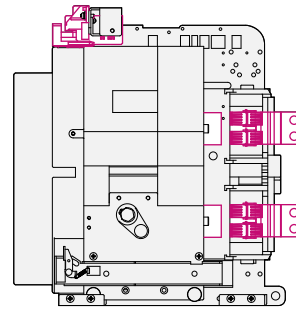
Connected Position

As a commonly used status, the main circuit and control circuit are both connected.



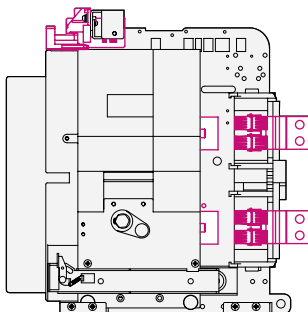
Test Position

As a status in which the main circuit is isolated and the control circuit is connected, the circuit breaker can be turned On/Off with the switchgear door closed.



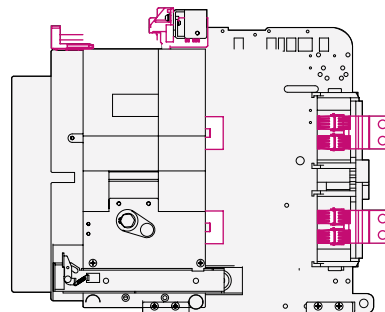
Isolated Position

With the main circuit and control circuit both isolated, the air circuit cannot be turned On/Off.



Removed Position

The air circuit breaker body has completely been removed from the cradle.

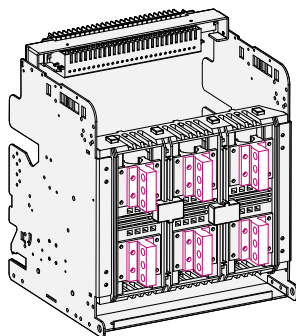


Connection Method

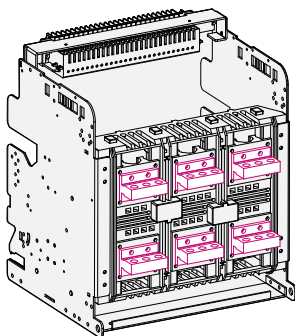
Enhanced user convenience through on-site adaptability: each terminal can be rotated 90 degrees to accommodate different busbar types in low-voltage switchgear.

Standard Type

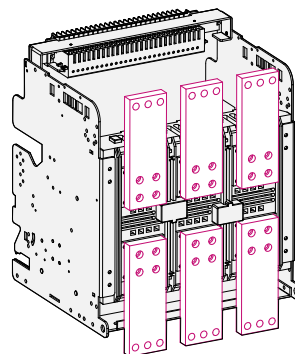
Vertical Type



Horizontal Type

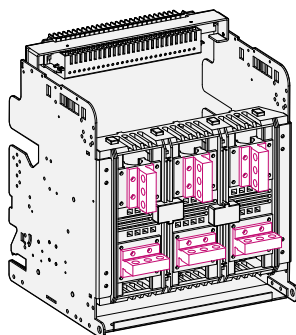


Front Type

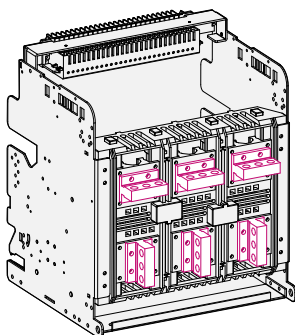


Combined Type

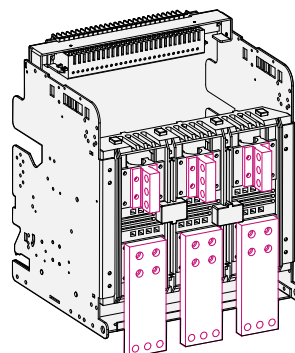
(Upper) Vertical Type +
(Lower) Horizontal Type



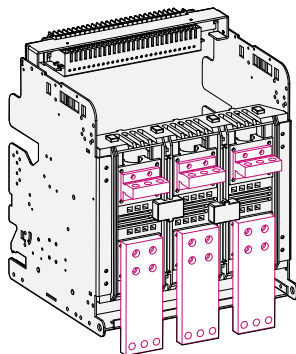
(Upper) Horizontal Type +
(Lower) Vertical Type



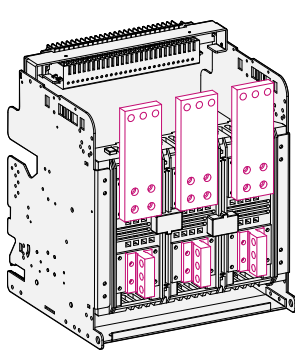
(Upper) Vertical Type +
(Lower) Front Type



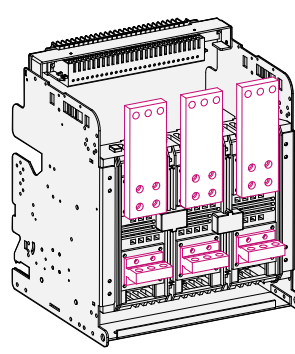
(Upper) Horizontal Type +
(Lower) Front Type



(Upper) Front Type +
(Lower) Vertical Type



(Upper) Front Type +
(Lower) Horizontal Type



Terminal Configuration and Compatibility

Terminal Change Options:

- Terminal changes are supported for EPL/EPH A frame (630–1600 A) and B frame (2000–3200 A) models.
- For current ratings above 4000 A, horizontal or vertical terminal adjustments require additional parts. Please contact our company for further details.

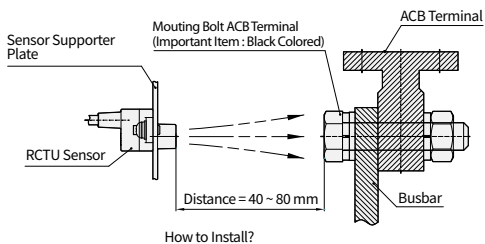
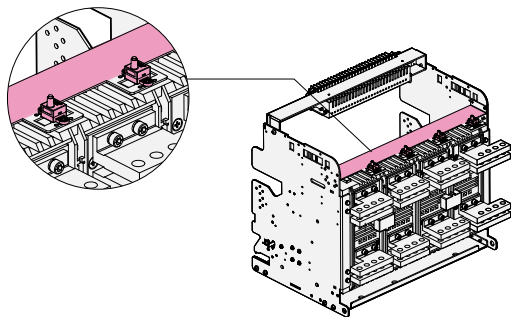
Front Type Terminal:

- The front-type terminal is designed for switchgear installations with spatial restrictions.
- For B frame (3200 A), the front-type terminal is provided separately for 2000 A and 2500 A.
- Front-type terminals must be purchased as separate components.

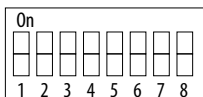
Temperature Sensor

The integrated temperature sensor enables reliable and accurate measurement of heat sources, with a measurement range of -5°C to 250°C.

Example of IR Sensor Application



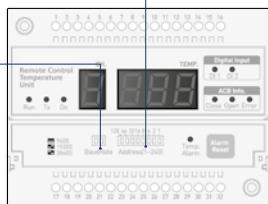
Address Setting: 1 ~ 240



Baud Rate Setting



Set		Description
Off	Off	9,600
Off	On	19,200
On	Off	38,400



Installation of IR Sensor



Screw PH(+) PS/W M4 L8

When Installed Directly on ACB



3 m in Length

Matte Black Coating Applied on Measurement Point

IR Temperature Sensor Installation Guidelines

Ensure the IR temperature sensor is installed with sufficient insulation distance from the measurement point to avoid interference.

Recommended distance: Maintain a gap of 50–80 mm between the sensor and the measurement point.

Surface requirements: The measurement point should have a non-reflective surface to ensure accurate readings. A matte black coating is recommended to minimize reflection and optimize sensor performance.

Caution

Surface Reflection Impact:

The measurement accuracy of the IR sensor varies based on the reflectivity of the metal surface.

Use surfaces coated with matte black or non-metallic varnish for accurate measurements. Avoid metallic varnishes as they can distort readings.

Measurement Point Size:

The size of the measurement point depends on the Distance-to-Spot (D:S) Ratio and the distance from the surface.

This sensor operates with a D:S Ratio of 8:1, meaning the measurement point's diameter is 1/8th of the distance from the sensor.

Key Lock

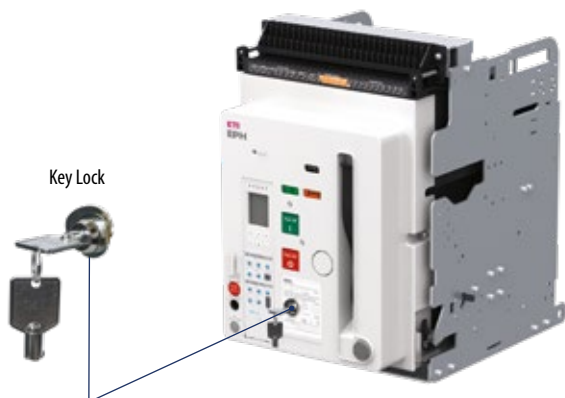
The Key Lock device ensures safety by maintaining the interlock condition to prevent electric or manual closing when the circuit breaker is open.

Operation Details:

- /// When the key is used to unlock, electric and manual On/Off operations become possible.
- /// When the key is removed, the circuit breaker becomes interlocked, preventing operation.
- /// To lock the device, the Off button must be pressed before turning the key to the lock position.

Ordering Information:

The key lock is mounted on the main unit. To include this feature, add AB to the order form when placing an order for the main unit.



Mechanical Interlock (MI)

The Mechanical Interlock (MI) is a device designed to mechanically link the closing and tripping operations of 2 or 3 circuit breakers. It operates using a combination of the MI unit and interlock components pre-installed within the main unit.

Key Features and Installation Guidelines:

/// MI Unit and Components:

- The MI unit is a separate product that must be ordered and installed additionally after the ACB is mounted in the panel.
- When ordering the main unit, include B0 in the order code to have only the interlock components pre-installed inside the main unit.

/// External Mounting Kit:

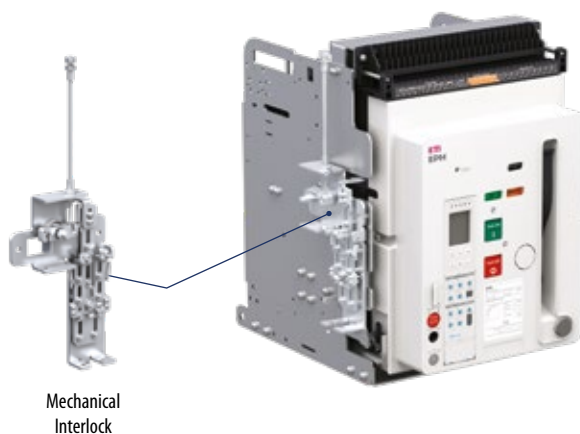
- The external MI mounting kit must be ordered separately as an additional product.

/// Connection Requirements:

- The MI wire must be connected within a 2-meter distance between ACBs.

/// Panel Installation:

- A square hole of 100 mm x 200 mm is required in the panel for installation.



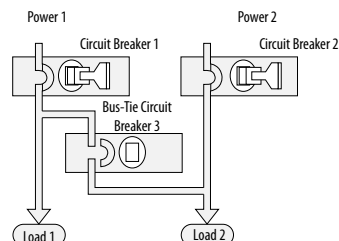
Key Lock & Key Interlock

The Key Lock and Key Interlock system provides enhanced safety and control by interlocking multiple circuit breakers.

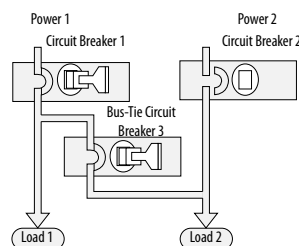
System Functionality:

- /// Up to three circuit breakers equipped with key lock devices can be integrated into the system.
- /// Using two keys, only two circuit breakers can be closed at a time, ensuring the third breaker remains interlocked.
- /// This configuration ensures a stable load distribution and prevents simultaneous operation of all breakers, enhancing system safety.

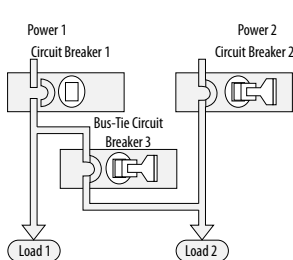
Circuit Breaker 3 cannot be closed



Circuit Breaker 2 cannot be closed



Circuit Breaker 1 cannot be closed



Example : Parallel feed at 2 power is prevented in case bus-tie circuit breaker is used .

Over Current Relay (OCR)

Function	General Feeder					Generator (Marine Type)		
Type	N	A		P	H	N	A	P
	PR-LN	PR-LA	PR-LG	PR-LP	PR-LH	PR-SN	PR-SA	PR-SP
Frequency								
50 Hz	50	50	50	50	50	50	50	50
60 Hz	60	60	60	60	60	60	60	60
Control Power								
External Power	☒	■	■	■	■	☒	■	■
Self-Power	■	■	■	■	■	■	■	■
Protection Function								
LTD (Long Time)	■	■	■	■	■	■	■	■
STD (Short Time)	■	■	■	■	■	■	■	■
INST (Instantaneous)	■	■	■	■	■	■	■	■
Pre-Trip Alarm	☒	■	■	■	■	☒	■	■
Ground Fault Trip	■	■	☒	■	■	☒	☒	☒
ELT Function	☒	☒	■ Outer CT Ground 2) (Ground fault at more than 30 A)	☒	☒	☒	☒	☒
Thermal Function	■	■	■	■	■	■	■	■
Field Test	☒	■	■	■	■	☒	■	■
Fail Safe	■	■	■	■	■	■	■	■
Indication								
True RMS Detection Method	■	■	■	■	■	■	■	■
LED Indication per Trip Type	☒	■	■	■	■	☒	■	■
Fault LED	L ¹⁾	PTA, L, S/I, G	PTA, L, S/I, leakage	PTA, L, S/I, G	PTA, L, S/I, G	L ¹⁾	PTA, L, S/I	PTA, L, S/I
Real-Time LCD Indication of Load Rate per Phase	☒	■	■	■	■	☒	■	■
Measurement LCD	☒	■	■	■	■	☒	■	■
Output Contact								
Integrated Instantaneous Contact (1a)	■	☒	☒	☒	☒		☒	☒
Individual Continuous Contact (4a)	☒	■	■	■	■	☒	■ ⁴⁾	■ ⁴⁾
Operation								
MCR ³⁾	☒	□	□	□	□	☒	□	□
Communication	NFC	Modbus-RTU				NFC	Modbus-RTU	
Event/Fault Recording	■	■	■	■	■	■	■	■

■: Standard, □: Option

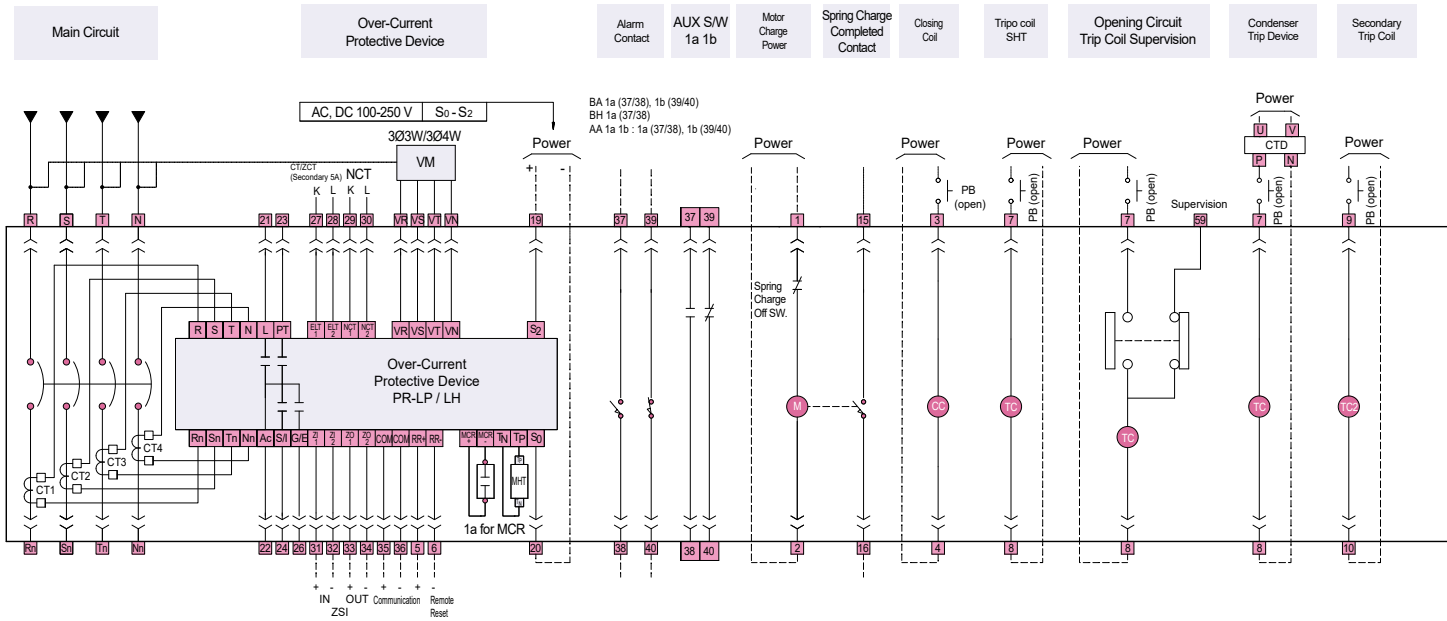
1) Indicates reserve before operation during long time delay.

2) ZCT designated by the customer is used.

3) ZCT designated by our company is used.

4) As for marine type, individual continuous contact is 3a.

Circuit diagram



Symbol Description

CT	Current Transformer
L	LTD Terminal
PT	Pre-Trip Alarm
G	Ground Fault Contact
S/I	STD/INST Contact
Ac	Common Contact
NCT	NCT (Neutral CT) Input
ZI	Zone Selective Interlock Input
ZO	Zone Selective Interlock Output
MCR+	MCR Input Terminal
Tp/Tn	MHT Output Terminal
M	Charging Motor
CC	Close Coil
TC	Trip Coil
UVT	Under-Current Voltage Trip Coil
CT	Magnetic Hold Trigger
SO/S2	OCR Power

Terminal Description

1 2	Charge Motor Power
3 4	Closing Coil Power
7 8	Trip Coil Power
9 10	UVT Coil Power
15 16	Spring Charge Switch
19 20	OCR Control Power
22 21	LTD Contact
22 23	Pre-Trip Alarm/Temperature Alarm Contact
22 24	STD/INST Contact
22 26	GFT/ELT Contact
22 30	NCT (Neutral CT) Input Terminal
31 ~ 34	ZSI (Zone Selective Interlock)
41 ~ 60	Auxiliary Contact
61 ~ 96	Position Switch

— Manufacturer's Wiring
 ---- User's Wiring
 <—> Disconnecting Device (Draw-Out Type)

RR : Remote Reset • VM : Voltage Module • VR ~ VN : Voltage Phase Input
 • R ~ N : Current Input • Rn ~ Nn : Current Input

This circuit diagram is equipped with the 'PR-LA' type of OCR and please refer to main ACB catalogue for other types of OCR.



Control Jack Lay-Out

OCR Protection Relay

OCR Protection Relay

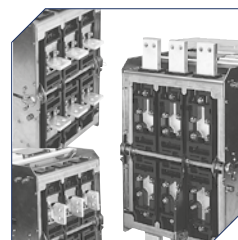
Operating Circuit

Air Circuit Breakers EP



ETIPOWER EP ACBs have the world's smallest depth resulting in space saving in switchboards.

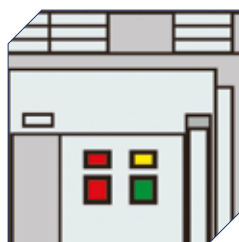
ETIPOWER EP is the world's first "Double Break" ACB, having two breaking contacts per phase, what means that the short time withstand rating (ICW, 1sec) is equal to ICS for all models.



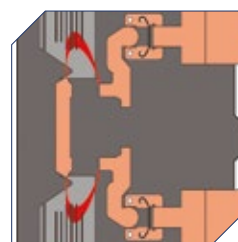
Three types of main circuit terminal arrangements are available:

- vertical terminals,
- horizontal terminals,
- front connections.

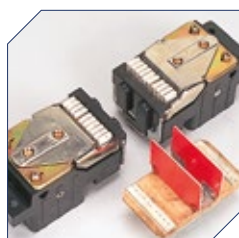
Different types of terminal arrangements can be specified for the line and load sides.



The ETIPOWER EP ACB dissipates all arc energy within its unique "Double Break" arc chamber. The internal energy dissipation within the ACB allows the clearance distance of the ACB to nearby earthed metal to be zero. This will assist in minimizing switchboard height and costs.

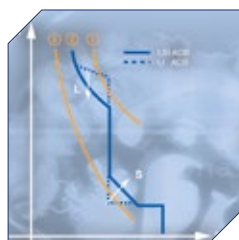


The unique "Double Break" main contact system ensures extremely fast interruption of short circuit currents and substantially reduces main contacts wear, what accordingly increase service life.



The fixed and moving main contacts can easily be replaced in the field (changing each pole takes around 15 minutes).

There are no clamp screws or flexible leads in the main circuit contact units, what improves the reliability in ON-OFF operation.

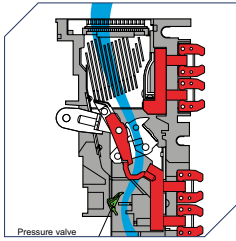


Our protection relays have LSI characteristics as standard. This provides an adjustable time delay on overload (L) and also the I^2t ramp characteristic (S). The settings of these characteristics allow a wide range of selectivity when grading with other protective devices.



The ETIPOWER series is equipped with RMSD sensing over-current release (OCR) having a wide range of protection functions and capabilities.

- Type L: protection of industrial equipment and transformers;
- Type S: protection of generators;
- Type R: general circuit protection



- The EP6 ACB interrupts the current at two points on the line side while dissipating heat from contacts or terminals by efficient air convection through a pressure valve.



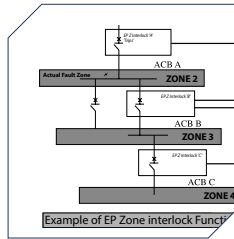
- An ON-OFF button cover prevents inadvertent or unauthorized operation of the ON or OFF button. It can be locked with up to three padlocks.



- The ON-OFF Cycle Counter is a mechanical 5-bit readout that shows the number of ON-OFF cycles the ACB has performed.



- Double Opening and closing Coils provides extended control system redundancy to an ACB. It provides the end user with ultimate reliability on critical UPS circuits connected to critical loads.



- In conventional discrimination systems, short time delays are used to allow a short-circuit current to be tripped by the circuit breaker nearest the fault. With the ETIPOWER Z Interlock system the breaker nearest the fault irrespective of the short time delay setting will trip first.



- The unique design of ETIPOWER ACBs allows for the earthing of either the busbar or the circuit of a low voltage system.



- The key lock is available in two types: the lock-in ON type that locks the ACB in the closed position, and the lock-in OFF type that locks the ACB in the open position.
- When the ACB is fitted with a key lock, the operator cannot operate the ACB unless using a matched key.



- Using the position padlock lever prevents the breaker body from inadvertently being drawn out. The position padlock lever in the pulled-out position locks the breaker body in the CONNECTED, TEST, or ISOLATED position. Up to three padlocks can be installed.



- A door flange provides IP20 protection. For IP31 protection you have to specify the door flange with a gasket.
- An IP cover provides an IP55 grade of protection (IEC 60529). Even if the breaker body is on the ISOLATED position, IP cover can still be fitted on the ACB.



Application - Air circuit breakers ETIPOWER are used for protection of distribution lines, generators and other electrical equipment from effects of overload and short-circuit currents.

Air circuit breakers ETIPOWER are available in 3 frame sizes from 800A to 6300A, with a voltage up to 690V:

/// size 1: current from 800 to 2000A

/// size 2: current 2500 to 3200A (Type SB at 4000A made in 2 sizes)

/// size 3: current 4000A - 6300A

Sizes 1 and 2 have two versions, draw-out and fixed. There are many options for connecting and wide range of accessories.

Two types of level breaking capacity:

/// Type S (standard) from 65kA to 100kA

/// Type H (high breaking capacity) from 80kA to 120kA (optional)

technical specifications / Type		EP 208 S	EP 212 S	EP 216 S	EP 220 S	EP 325 S	EP 332 S	EP 440 SB	EP 650 S	EP 663 S
Number of poles		3p / 4p	3p / 4p	3p / 4p	3p / 4p	3p / 4p	3p / 4p	3p / 4p	3p / 4p	3p / 4p
Rated Current In (A)		800	1250	1600	2000	2500	3200	4000	5000	6300
Neutral pole amperes frame (4pole) In (A)		800	1250	1600	2000	2500	3200	4000	5000	6300
Rated operational voltage Un (V)		690	690	690	690	690	690	690	690	690
Rated breaking capacity, kA (ICS=ICU)	Un=690V AC	50	50	50	50	65	65	85	85	85
	Un=440V AC	65	65	65	65	85	85	100	120	120
Rated breaking capacity, kA (ICU)	Un=600V DC	40	40	40	40	40	40	40	40	40
	Un=250V DC	40	40	40	40	40	40	40	40	40
Rated short time withstand current, kA (ICW)	t=1s	65	65	65	65	85	85	100	120	120
	t=3s	50	50	50	50	65	65	75	85	85
Mechanical life	with maintenance	30000	30000	30000	25000	20000	20000	15000	10000	10000
	without maintenance	15000	15000	15000	12000	10000	10000	8000	5000	5000
Electrical life	without maintenance (Un=460V AC)	12000	12000	12000	10000	7000	7000	3000	1000	1000
	(Un=690V AC)	10000	10000	10000	7000	5000	5000	2500	500	500
Total breaking time (s)		0,03	0,03	0,03	0,03	0,03	0,03	0,03	0,05	0,05
Type of Mounting		Fixed / Drawout						Drawout		
Total Fixed Weight (kg)		53/59	53/59	54/60	54/60	80/92	80/92	-/-	-/-	-/-
Total Draw-Out Weight (kg)		73 / 86	73 / 86	76 / 90	79 / 94	105 / 125	105 / 125	126 / 158	200/260	220/285
Outline Dimension (mm)										
Fixed Type	a	360 / 445	360 / 445	360 / 445	360 / 445	466 / 586	466 / 586	- / -	- / -	- / -
	b	460	460	460	460	460	460	-	-	-
	c	290	290	290	290	290	290	-	-	-
	d	75	75	75	75	75	75	-	-	-
Draw-out Type	a	354 / 439	354 / 439	354 / 439	354 / 439	460 / 580	460 / 580	460 / 580	799/1034	799/1034
	b	460	460	460	460	460	460	460	460	460
	c	345	345	345	345	345	345	345	380	380
	d	40	40	40	40	40	40	140	60	60

Air circuit breakers ETIPOWER are available with three types of OCRs (over-current release):

/// AGR-11: Standard OCR with adjustment dial serves as the current protection and overload ground fault protection, neutral protection and signalling overload.

/// AGR-21/22B LCD Type provides protection & measurement of current (only) and has trip signal for each function, the signal is permanent. It has a possibility of communications on the M-bus protocol.

/// AGR-31B Enhanced OCR with backlit. It provides protection & measurement of current, voltage, Power etc... It has permanent trip signal for each function.

Standard Specification includes:

- /// Padlockable Mechanical Close & Open Buttons
- /// Mechanical Close & Open Indicators
- /// Mechanical Indication of spring Charged/ Discharged State
- /// 4AB Auxiliary contacts
- /// Terminal Cover
- /// IP20 Door Flange
- /// Horizontal or Vertical
- Busbar Connections
- /// Spring Charged main Circuit Shutters
- /// Control Circuit Shutters
- /// Position Indicator
- /// Drawout Handle

Note: A full description and specifications of Air circuit breakers are in the catalogue ETIPOWER 2010.