

AIR CIRCUIT BREAKER

# LS ACB production specification

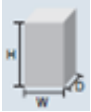


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# LS ACB production specification

## 1. Major specification table

NO	Item	Rating of ACB				Remarks	
1	Type	AH-E					
2	Description	AH-20E	AH-25E	AH-32E	AH-40E		
3	Ampere Frame	2000AF	2500AF	3200AF	4000AF		
4	Rated current (In max)	2000A	2500A	3200A	4000A	at 40°C	
5	Rated current of neutral pole	2000A	2500A	3200A	4000A		
6	Number of poles	3P/ 4P					
7	setting current	(0.4~1.0) X In max					
8	Rated insulation voltage	1000V					
9	Rated operation voltage	690V					
10	Rated impulse withstand voltage	12kV					
11	Rated frequency	50/ 60Hz					
12	Rated breaking capacity (AC 50/60Hz)	100kA				at 220~415V	
13	Rated making capacity (AC 50/60Hz)	220kA				at 220~415V	
14	Rated short-time withstand current	1S	85kA				
		2S	75kA				
		3S	65kA				
15	Maxium total breaking time	40ms					
16	Maxium closing time	80ms					
17	Life cycle	Mechanical	15000times				
		Electrical	5000times				
18	standards	IEC60947-2					
19	External dimension (mm) W x H x D 	Draw-out type		3P : 412 x 430 x 423		2000~ 3200A	
				4P : 527 x 430 x 423			
				3P : 412 x 430 x 473		4000A	
				4P : 527 x 430 x 473			
		Fixed type		3P : 378 x 300 x 327		2000~ 3200A	
				4P : 493 x 300 x 327			
				3P : 432 x 320 x 360		4000A	
				4P : 547 x 320 x 360			
20	weight (3/4P)	Draw-out type	Main Body	Motor chaging type	87/103		
				Manual chaging type	85/101		
		Cradle only			44/55		
		Fixed type		Motor chaging type	44/55		
				Manual chaging type	42/53		

# LS ACB production specification

## 1. Major specification table

<b>AH</b>	—	<b>40</b>	<b>E</b>	<b>3</b>	—	<b>40</b>	<b>J</b>
Type <b>AH</b>	Ampere frame	Frame sizes & phase array	No. of pole	Rated current (CT Spec.)	Connections		
	06 630AF 08 800AF 10 1000AF 13 1250AF 16 1600AF 20 2000AF 25 2500AF 32 3200AF 40 4000AF	E 630~4000AF 3P/4P Standard RST(N) X 630~4000AF 4P Reverse phase type (N)RST	3 3P(E) 4 4P(E, X)	06 630A 08 800A 10 1000A 13 1250A 16 1600A 20 2000A 25 2500A 32 3200A 40 4000A	Draw-out type A Automatic connection Fixed type H Horizontal type V Vertical type M Mixed type Horizontal Vertical N Mixed type Vertical Horizontal P Front type		
	* 4000AF only offers with vertical type mounting terminals (Busbar).						

<b>M2</b>	<b>D2</b>	<b>D2</b>	<b>BX</b>	<b>SC1</b>	<b>U0</b>	<b>T</b>	<b>Hyx CN</b>
Motor rated voltage	Shunt coil rated voltage	Closing coil rated voltage	Aux.contact & charging types	Trip relay	UVT coil rated voltage	Option	
M2 AC/DC 200V~250V	D2 AC/DC 200V~250V	D2 AC/DC 200V~250V	BX Standard OFF charge/5a5b	000 Without trip relay S Supreme meter	U0 Without UVT coil		

Code	Description	Code	Description
AL	AL1+MRB	M	MI Mechanical interlock
A1	AL1+MRB +RES(AC110~130V) *AC only	D	DI or MOC Door Interlock or MOC(Mechanism operated cell switch)
A2	AL1+AL2 +MRB	K	K1 Key Lock
A3	AL1+MRB +RES(DC110~125V) *DC only	K2	K2 Key Interlock Set
A4	AL1+MRB +RES(AC200~250V) *AC only	K3	K3 Key Interlock Double
A5	AL1+MRB +Auto Reset	R	RCS Ready to Close switch
A6	AL1+AL2 +MRB +Auto Reset	T	TM Temperature Monitoring
A7	AL1+MRB +RES(DC110~125V) +Auto Reset *DC only	H1	AC/DC 100V ~125V, Double Shunt coil
A8	AL1+MRB +RES(AC200~250V) +Auto Reset *AC only	H2	AC/DC 200V ~250V, Double Shunt coil
A9	AL1+MRB +RES(AC110~130V) +Auto Reset *AC only	H3	DC 125V, Double Shunt coil
C	C COUNTER	H4	DC 24V ~30V, Double Shunt coil
S	CS2 Charge switch communication	H5	DC 48V ~60V, Double Shunt coil
B	B On/Off Button lock	H7	AC 48V, Double Shunt coil

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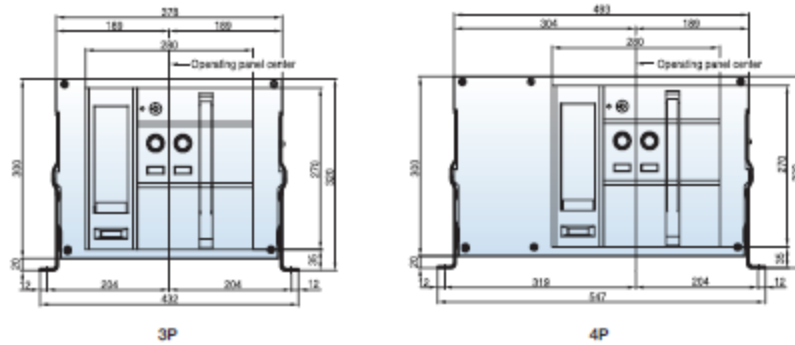
## 2. Outline drawing

1) Fixed type (ACB, AH-32E3-32A M2D2D2BX SC1U0T Hyx CN )

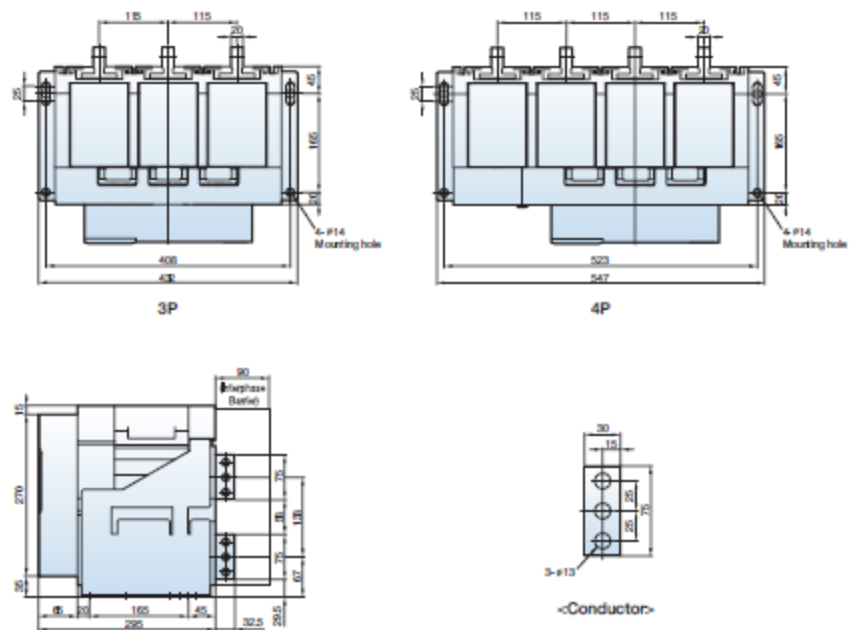
Fixed type 4000AF  
(2000~3200A: AH/AN/AS-20~32E)

Dimensions: [mm]

Front view



Vertical type



# LS ACB production specification

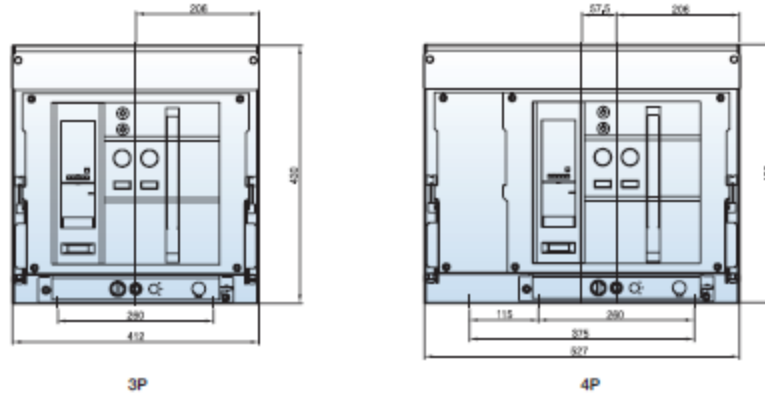
## 2. Outline drawing

2) Draw-out type (ACB, AH-32E3-32A M2D2D2BX SC1U0T Hyx CN )

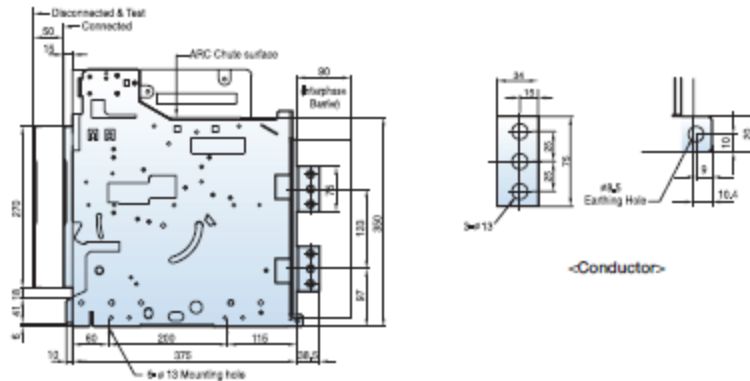
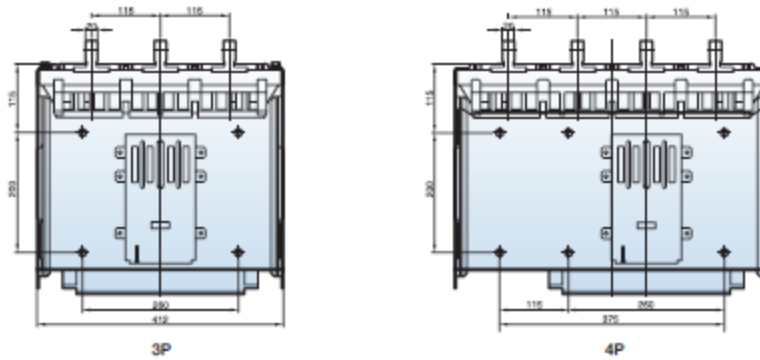
Draw-out type 4000AF  
(2000~3200A: AH/AN/AS-20~32E)

Dimensions: [mm]

Front view



Vertical type



# LS ACB production specification

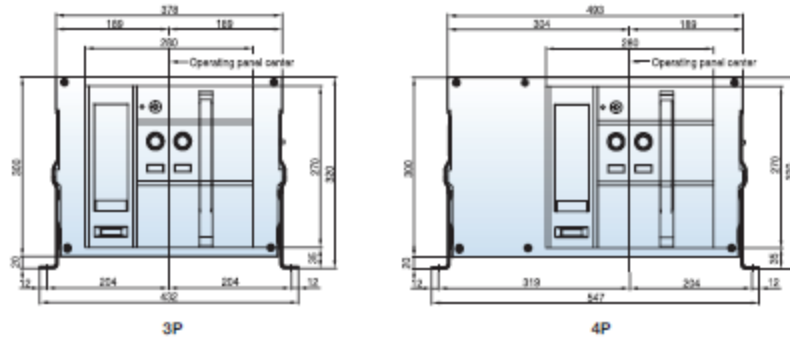
## 2. Outline drawing

3) Fixed type (ACB, AH-40E3-40A M2D2D2BX SC1U0T Hyx CN )

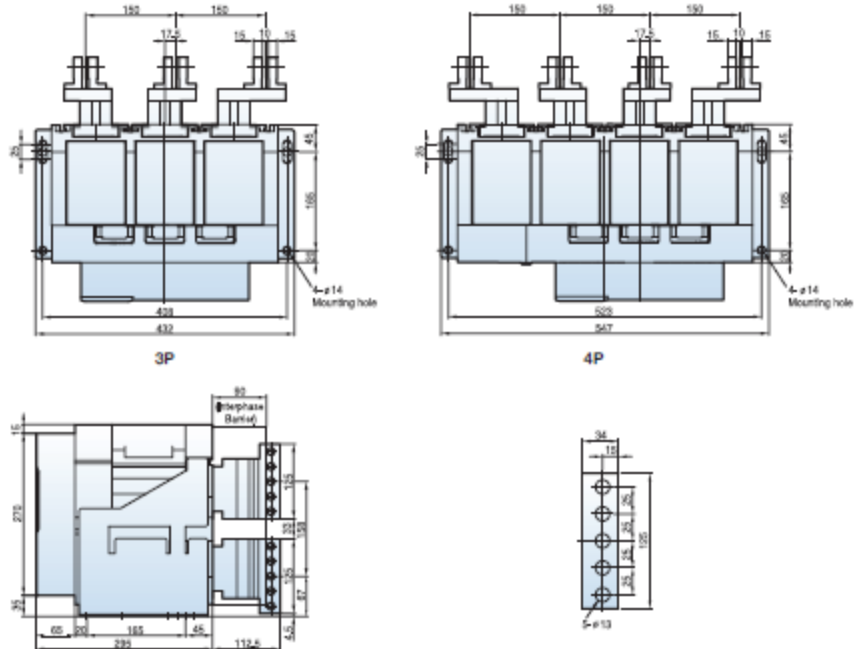
Fixed type 4000AF (4000A: AH/AS-40E)

Dimensions: [mm]

Front view



Vertical type



<-Conductor->

# LS ACB production specification

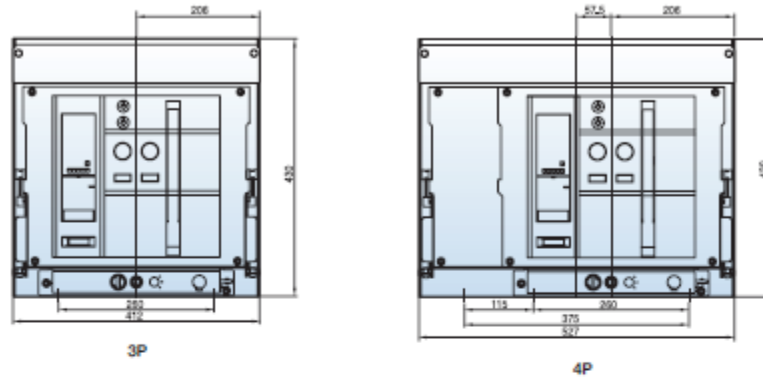
## 2. Outline drawing

### 4) Draw-out type (ACB, AH-40E3-40A M2D2D2BX SC1U0T Hyx CN )

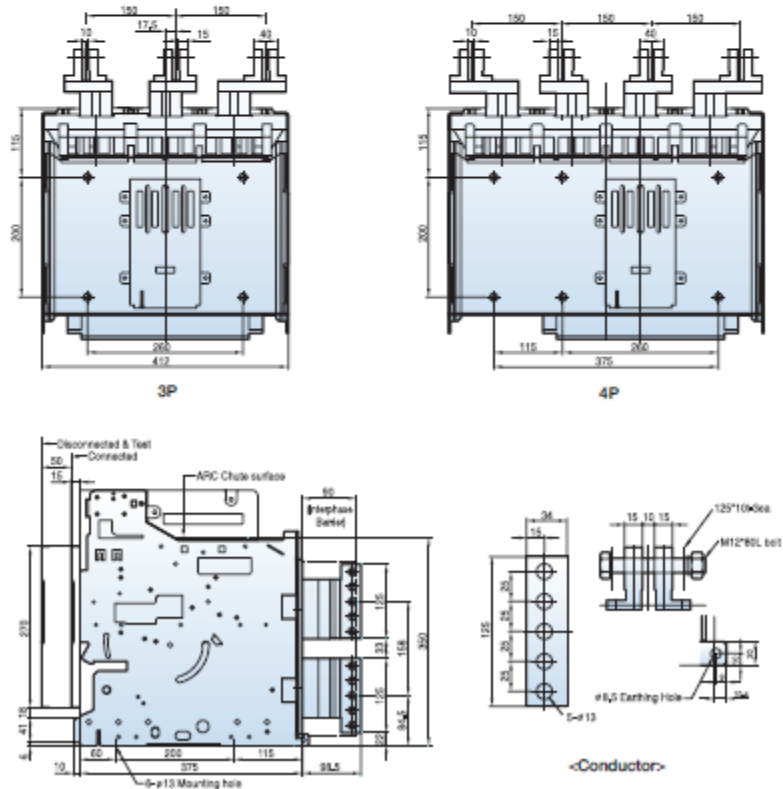
#### Draw-out type 4000AF (4000A: AH/AS-40E)

Dimensions: [mm]

#### Front view



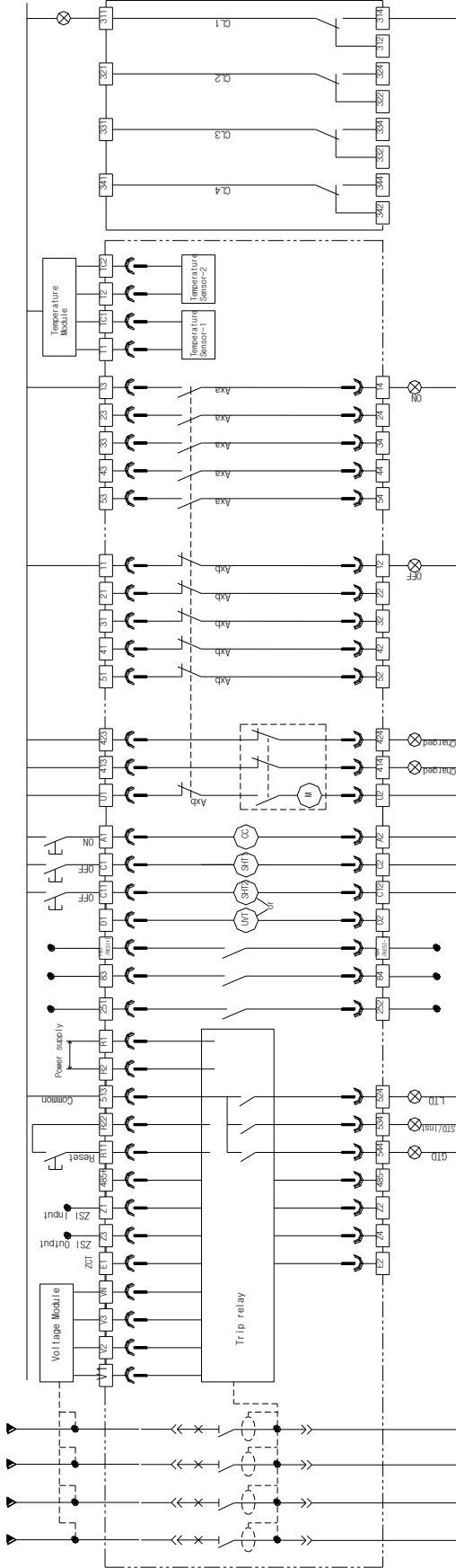
#### Vertical type



# LS ACB production specification

## 3. Wiring diagram

This diagram is based on "CONNECTED" position of a circuit breaker and Opening, Motor charging, Releasing of locking plate should be normal condition.



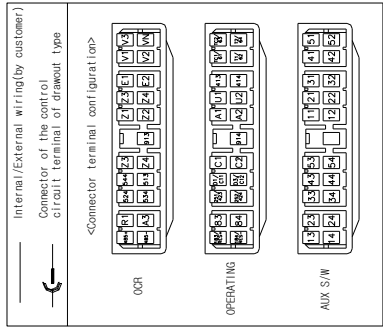
**Accessory code description**

Axa . Axb	Accessory switch
LTD	Auxiliary switch
STD/Inst	Long time delay trip indicator
GTD	Short time delay/instantaneous
CL1-CL4	Cell switch
M	Motor
⊖	Closing coil
⊕	Shunt tripping device1
⊕	Shunt tripping device2
⊕	UVF coil

**Terminal code description**

13   14	~ 63   64	Auxiliary switch "a"
11   12	~ 61   62	Auxiliary switch "b"
413   414		Charge signal
423   424		Charge signal communication
U1   U2		Motor charge
A1   A2		Closing coil
C1   C2		Shunt coil
C11   C12		2nd shunt trip
D1   D2		Voltage input thermal of UVF
B3   B4		ALARM1 "a"
B3   B4		ALARM2 "a"
Z51   Z52		Ready to close switch
R1   R2		Control power
S13	~ 544	Alarm contact
R11   R22		Alarm reset (1 to cause LED, Alarm contact)
485+   485-		RS - 485 communication
Z1   Z2		ZSI input
Z3   Z4		ZSI output
E1   E2		ZCT
VN	~ V3	Voltage Module
T01   T02 ~ T1   T2		Thermal Module
S11	~ 544	Position switch

- Note**
- The diagram is shown with circuits de-energised, all devices open, connected and charged and relays in normal position
  - Relay is normal condition and charging type is "GF charging"
  - The standard of auxiliary contact is 3A30, the auxiliary switch in above diagram is composed of 5A6b.
  - Relay to close contact, Trip alarm contact, UVF coil, Fully charged contact, secondary trip coil, - Cell switch, Thermal Module, Voltage Module, Reset close-open Module, ZCT, ZSI.
  - Please consult us for the use of ZSI (Zone selective Interlocking).
  - Refer to the catalogue for the connection of Trip relay and UVF.



Internal/External wiring by customer  
 Connector of the control circuit terminal of drawout type  
 <Connector terminal configuration>  
 OCR  
 OPERATING  
 AUX S/W