

Beyond X™

Susol ACB

Air Circuit Breaker up to 800 / 900 / 1000 / 1150V





LS ELECTRIC

Susol
AIR CIRCUIT BREAKER up to 800/900/1000/1150Vac

Latest “AV”, “AW” series of LS ELECTRIC is suitable for PV, ESS, Wind Power Facilities in harsh environment conditions(high altitude, etc).
It also provides smart connectivity and delivers electrical status with Smart Trip Unit (Smart LV Application).





Features

- E-Frame: (~ 4000AF)
- D-Frame: (~ 2000AF)
- C-Frame: (~ 1600AF)
- 1150Vac, 1000Vac, 900Vac, 800Vac
- PV market, high altitude area, wind power
- D/E Frame with new Trip Relay (STU)
- Instrumentation precision
  - Current/Voltage: 0.5%
  - Power: Class 1.0

Ampere Frame			AV-20D□	AV-40E□
			~ 2000AF	~ 4000AF
Rated current (In) at 40°C (A)		(A)	200 / 400 / 630 / 800 / 1000 / 1250 / 1600 / 2000	400 / 630 / 800 / 1000 / 1250 / 1600 / 2000 / 2500 / 3200 / 4000
Rated ultimate breaking capacity (Icu)	1150V	(kA)	30	50
	1000V	(kA)	42	65
	900V	(kA)	50	75
	800V	(kA)	50	75

* AV series are applicable for IT system

Ampere Frame			AW-16C□	AW-20D□	AW-40E□
			~ 1600AF	~ 2000AF	~ 4000AF
Rated current (In) at 40°C (A)		(A)	400 / 630 / 800 / 1000 / 1250 / 1600	200 / 400 / 630 / 800 / 1000 / 1250 / 1600 / 2000	400 / 630 / 800 / 1000 / 1250 / 1600 / 2000 / 2500 / 3200 / 4000
Rated ultimate breaking capacity (Icu)	1150V	(kA)	-	-	-
	1000V	(kA)	-	-	-
	900V	(kA)	-	42	50
	800V	(kA)	40	50	65

* AW-08/16C are applicable for IT system

Contents

- Features 02
- Air Circuit Breakers 04
- Trip Unit 16
- Dimensions 20
- Technical information 52

ACB ordering

AV — **10** **D** **3** — **10** **A**

Type
Circuit Breakers
AV
AW

Ampere Frame	
06	630AF
08	800AF
10	1000AF
13	1250AF
16	1600AF
20	2000AF

Frame sizes & phase array	
D	630~2000AF 3P/4P Standard RST(N)
W	630~2000AF 4P Reverse phase type (N)RST

No. of poles	
3	3-pole type (D)
4	4-pole type (D, W)

Rated current (CT SPEC.)	
00	Without Trip relay & CT
02	200A
04	400A
06	630A
08	800A
10	1000A
13	1250A
16	1600A
20	2000A

Connections	
	Draw-out type
J	Manual connection
A	Automatic connection
	Fixed type
H	Horizontal type
V	Vertical type
M	Mixed type Horizontal Vertical
N	Mixed type Vertical Horizontal
P	Front type

* 2000AF only offers with vertical type mounting terminals(Busbar).

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	3-pole type (E)
4	4-pole type (E, X)

00	Without Trip relay & CT	13	1250A
		16	1600A
04	400A	20	2000A
06	630A	25	2500A
08	800A	32	3200A
10	1000A	40	4000A

*4000AF only offers with vertical type mounting terminals(Busbar).

* Please, refer to cradle installation instruction for draw-in/out types.
Note 1) 20D, 40E types are equipped with vertical-only terminals.
2) Front connection terminals should be purchased separately (see Page 6.)

[G frame]

40	4000AF
50	5000AF
63	6300AF

G	4000/5000/6300AF 3P/4P Standard RST(N)
Z	4000/5000/6300AF 4P Reverse phase type (N)RST

3	3P(G)
4	4P(G, Z)

00	Trip Relay & CT N/A
40	4000A
50	5000A
63	6300A

* Please, refer to cradle installation instruction for draw-in/out types. (p.144~147)

Note) 1. AH-20D, AH-40E types are equipped with vertical-only terminals. In case of G/Z Frame size, front type & mixed type connection is not available.
2. In case of DH type Switch Disconnector, the rated current (CT Spec.) will be applied 00 (without Trip Relay & CT)
3. For the busbar installation method of draw-out type, please refer to the connection type of cradle which describes in page 19
4. Front connection terminals should be purchased separately



D-Frame ~ 2000AF
50kA @900Vac
30kA @1150Vac



E-Frame ~ 4000AF
75kA @900Vac
50kA @1150Vac

M1	D1	D1	AX	SS1	U1	AL

Motor rated voltage	
MA	No motor
M1	AC/DC 100V~130V
M2	AC/DC 200V~250V
M3	DC 125V
M4	DC 24V~30V
M5	DC 48V~60V
M6	AC 380V~415V
M7	AC 440V~480V
M8	AC 48V

Closing coil rated voltage	
D0	No input coil
D1	AC/DC 100V~130V
D2	AC/DC 200V~250V
D3	DC 125V
D4	DC 24V~30V
D5	DC 48V~60V
D6	AC 380V~480V
D7	AC 48V

Shunt coil rated voltage	
D0	No trip coil
D1	AC/DC 100V~130V
D2	AC/DC 200V~250V
D3	DC 125V
D4	DC 24V~30V
D5	DC 48V~60V
D6	AC 380V~480V
D7	AC 48V

Auxiliary contact and charge method	
AX	Standard type OFF – Charge 3a3b
AC	Standard type ON – Charge 3a3b
BX	Standard type OFF – Charge 5a5b
BC	Standard type ON – Charge 5a5b
HX	High capacity OFF – Charge 5a5b
HC	High capacity ON – Charge 5a5b
CC	Standard type ON – Charge 6a6b
JC	High capacity ON – Charge 6a6b
GX	High capacity OFF – Charge 3a3b
GC	High capacity ON – Charge 3a3b
TX	TCS OFF – Charge 4a4b
TC	TCS ON – Charge 5a5b

Note) TCS (Trip Circuit Supervision): The terminal supervising trip circuit and monitoring disconnection or disable of trip.

STU
Refer to page 7

UVT	
U0	No UVT
U1	AC/DC 100V~130V
U2	AC/DC 200V~250V
U3	DC 125V
U4	DC 24V~30V
U5	DC 48V~60V
U6	AC 380V~480V
U7	AC 48V

* UVT Delay is composed from AC/DC 48V

Note 1) Reduplicate of AL is not available.
2) Reduplicate of Key lick is not available.
3) Reduplicate of Double shunt coil is not available. It can not be used simultaneously with UVT.
4) RCS and CS2 cannot be used simultaneously.
5) TM and auxiliary contacts TX, TC, CC, JC cannot be used simultaneously.
6) MI, DI and MOC cannot be used simultaneously with SBC.

Option		
Option	Type name	Option Description
AL	AL1 + MRB	
A1	AL1 + MRB + RES(AC 110~130V)	
A2	AL1 + AL2 + MRB	
A3	AL1 + MRB + RES(DC 110~125V)	
A4	AL1 + MRB + RES(AC 200~250V)	
A5	AL1 + MRB + AUTO RESET	
A6	AL1 + AL2 + MRB + AUTO RESET	
A7	AL1 + MRB + RES(DC 110~125V) + AUTO RESET	
A8	AL1 + MRB + RES(AC 200~250V) + AUTO RESET	
A9	AL1 + MRB + RES(AC 110~130V) + AUTO RESET	
Y2	AL1 + AL2 + MRB(2b contact)	
Y6	AL1 + AL2 + MRB + AUTO RESET(2b contact)	
Z2	AL1 + AL2 + MRB(1a1b contact)	
Z6	AL1 + AL2 + MRB + AUTO RESET(1a1b contact)	
C	C	Counter
S	CS2	Charge switch communication
B	B	On/Off Button lock
B1	B1	On/Off Button lock S type
B2	B2	On/Off Button lock
M	MI	Mechanical interlock
D	DI	Door Interlock
		Door Interlock (Catcher type)
	MOC	Mechanism operated cell switch
K	K1	Key Lock
K2	K2	Key Interlock Set
K3	K3	Key Lock Double
R	RCS	Ready to Close switch
T	TM	Temperature Monitoring
H1	SHT2	AC/DC 100~130V
H2	SHT2	AC/DC 200~250V
H3	SHT2	DC 125V
H4	SHT2	DC 24~30V
H5	SHT2	DC 48~60V
H6	SHT2	AC 380~480V
H7	SHT2	AC 48V

Note 1) Note 2) Note 3)

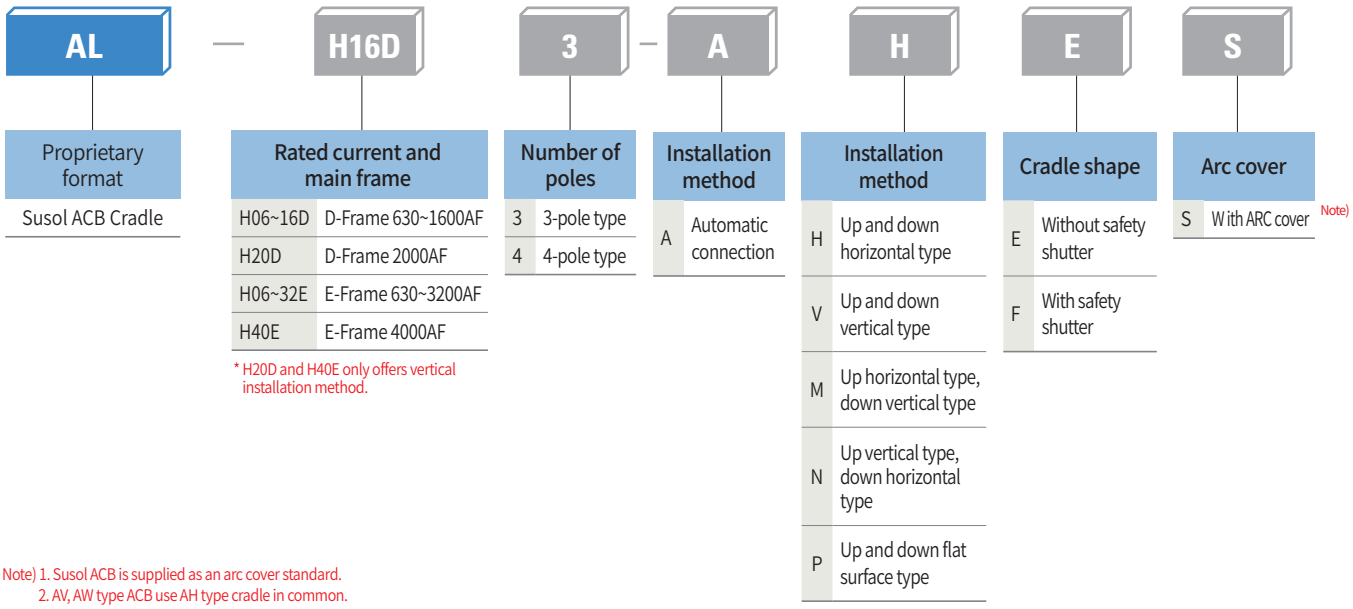


W = 785mm

G-Frame

~ 6300AF
85kA @900Vac
65kA @1150Vac

ACB Cradle ordering



Note) 1. Susol ACB is supplied as an arc cover standard.
2. AV, AW type ACB use AH type cradle in common.
3. Terminals are purchased separately for flat type products.

Front connection terminal types

Connection type	Code	Description	Breaker
Front connection/Standard	62363461507	SUB ASS'Y, ADAPTER KIT ASS'Y_FRONT, AN/AS/AH-D3	D3-Frame
Front connection/Standard	62363462510	SUB ASS'Y, ADAPTER KIT ASS'Y_FRONT, AN/AS/AH-D4	D4-Frame
Front connection/Standard	62363463507	SUB ASS'Y, ADAPTER KIT ASS'Y_FRONT, AN/AS/AH-E3	E3-Frame
Front connection/Standard	62363464512	SUB ASS'Y, ADAPTER KIT ASS'Y_FRONT, AN/AS/AH-E4	E4-Frame
Front connection/Mixed	62363461508	SUB ASS'Y, ADAPTER KIT ASS'Y_F&V/H, AN/AS/AH-D3	D3-Frame
Front connection/Mixed	62363462511	SUB ASS'Y, ADAPTER KIT ASS'Y_F&V/H, AN/AS/AH-D4	D4-Frame
Front connection/Mixed	62363463506	SUB ASS'Y, ADAPTER KIT ASS'Y_F&V/H, AN/AS/AH-E3	E3-Frame
Front connection/Mixed	62363464511	SUB ASS'Y, ADAPTER KIT ASS'Y_F&V/H, AN/AS/AH-E4	E4-Frame

Trip Relay ordering

N type



A type



P type



S type



N	H	0
Trip Relay Type	Communication & protection	Control voltage & frequency

N

000	Trip Relay N/A
N	Normal

H

H	L, S, I, G

* L/S/I/G configuration as standard
 - with LED indicators
 - without output contacts
* Ground fault system by vector sum

0

	Frequency used	Control power voltage	Comm.
0	60Hz	Self-Power Note1)	NFC
5	50Hz	Self-Power Note1)	NFC

A

A	Ammeter

H

H	L, S, I, G
D	L, S, I, G + Comm.
J	L, S, I, Gext + LS ZCT + Comm.
Y	L, S, I, Gext + Ground wire CT + Comm.
O **	L, S, I, G + Neutral CT + Comm.

* L,S,I: Long time delay trip, Short time delay trip, Instantaneous trip
* G: Ground fault (Residual earth fault protection)
* Ground fault system by vector sum
* J: External CT - Use ZCT provided by LS ELECTRIC (up to 1600A)
* Y: External CT - Use ZCT chosen by the customer (2000A and above)
* Communication and output contacts DO NOT work under self-power condition
* Gext + Ground wire CT: Source return Type
* Customers must purchase their own Ground wire CT (Secondary output: 5A, accuracy 1%)

** AO provide the function to detect and protect the ground fault current by applying the NCT (Neutral CT) in the neutral wire when 3pole circuit breaker is used in 3-phase 4-wire system.
* Customers must purchase their own Neutral CT (Primary output: same as ACB's Rated Current / Secondary output: 5A, accuracy 1%)

0

	Frequency used	Control power voltage	Comm.
0	60Hz	Self-Power	N/A
1	60Hz	AC/DC 100V~250V	N/A
2	60Hz	AC/DC 24V~48V	N/A
5	50Hz	Self-Power	N/A
6	50Hz	AC/DC 100V~250V	N/A
7	50Hz	AC/DC 24V~48V	N/A

* The Self-Power function is to receive power from the main circuit inside the circuit breaker without external power to the STU Communication, ZSI, Remote Reset, DO functions are not available and EVENT is not logged when using Self - Power only.

P

Trip unit type

P	Power meter

S

Relay function / Communtation (MODBUS)

S	L,S,I,G + PTA
J	L, S, I, Gext + LS ZCT
Y	L,S,I,Gext + Ground wire CT
O	L,S,I,G + Neutral CT

1

	Frequency	Control power voltage	Communication
1	60Hz	AC/DC 100V~250V	N/A
2	60Hz	AC/DC 24V~48V	N/A
3	60Hz	AC/DC 100V~250V	Bluetooth
4	60Hz	AC/DC 24V~48V	Bluetooth
6	50Hz	AC/DC 100V~250V	N/A
7	50Hz	AC/DC 24V~48V	N/A
8	50Hz	AC/DC 100V~250V	Bluetooth
9	50Hz	AC/DC 24V~48V	Bluetooth

S

Trip unit type

S	Supreme meter

S

Relay function / Communtation fuction(Default)

S	L,S,I,G + PTA
J	L, S, I, Gext + LS ZCT
Y	L,S,I,Gext + Ground wire CT
O	L,S,I,G + Neutral CT

1

	Frequency	Control power voltage	Communication
1	60Hz	AC/DC 100V~250V	Bluetooth, NFC
2	60Hz	AC/DC 24V~48V	Bluetooth, NFC
6	50Hz	AC/DC 100V~250V	Bluetooth, NFC
7	50Hz	AC/DC 24V~48V	Bluetooth, NFC

* Self-power is basic function (Automatic power supply to the Trip Unit without additional control power)
* L,S,I: Long time delay trip, Short time delay trip, Instantaneous trip
* G: Ground fault (Residual earth fault protection)
* Gext + Ground wire CT: Source return Type * PTA: Pre-trip alarm Function
* Customers must purchase their own Ground wire CT (Secondary output: 5A, accuracy 1%)
* Customers must purchase their own Neutral CT (Primary output: same as ACB's Rated Current / Secondary output: 5A, accuracy 1%)
* The STU acceptable voltage range is 100 to 250V.
* If you want an external VDM, please insert '(-V)' at the end of the full ordering.

Item	Description	Features	Remark
72313460708	TOTAL ASS'Y,VDM(Shield Cable), EXTERNAL, STU	Accessory	Separate purchasing

* If you want to apply external VDM separately, please order the code above.

Compact ACB ordering

AW — **16** **C** **3** — **10** **A**

Air circuit breaker
AW

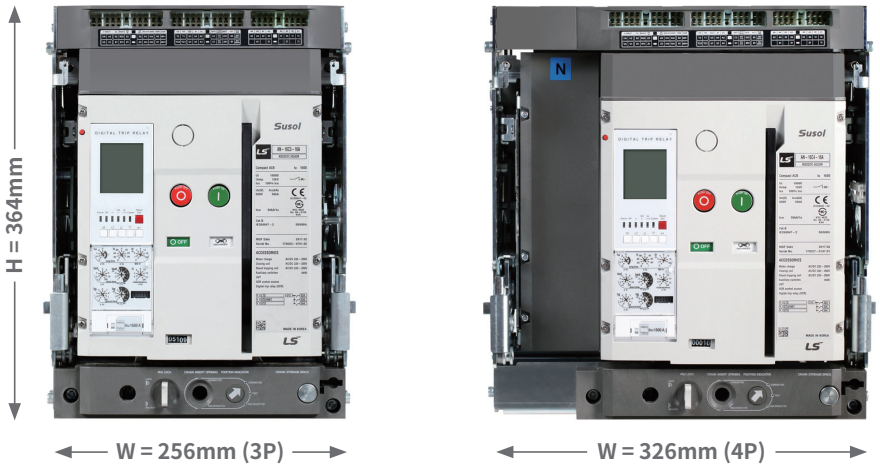
Ampere frame	
08	800AF
16	1600AF

Frame sizes & phase array	
C	Standard (N) RST
V	Reverse phase RST (N)

Number of poles	
3	3P (C)
4	4P (C, V)

Rated current (CT Spec.)	
00	Without Trip relay & CT
04	400A
06	630A
08	800A
10	1000A
13	1250A
16	1600A

Installation & Connection	
withdrawable type	
A	Automatic connection
Fixed type	
H	Horizontal type
V	Vertical type
M	Upper-Horizontal /Lower-Vertical type
N	Upper-Vertical / Lower-Horizontal type
P*	Flat type
Z**	Flat spread type
R***	Spread type
T**	Flat vertical type
X**	Cable lug type



* Installation method is common to all models
** When using Z, T and X type, please purchase adapter kit separately after ordering P type product (Refer to fixed adapter kit table)
*** When using R type, purchase purchase adapter kit separately after ordering H type product (Refer to fixed adapter kit table)

■ **Fixed type Adaptor Kit**

Number	Part Name	Product Name	How to install	Pole
62363471509	Terminal Kit Ass'y	SUB ASS'Y,ADAPTER KIT ASS'Y_SPREAD_FIXED,AN,AH,AR-C3	Z	3
62363471510		SUB ASS'Y,ADAPTER KIT ASS'Y_SPREAD_FIXED,AN.AH,AR-C4	Z	4
62363471511		SUB ASS'Y,ADAPTER KIT ASS'Y_SPREAD/VER_FIXED,AN,AH,AR-C3	T	3
62363471512		SUB ASS'Y,ADAPTER KIT ASS'Y_SPREAD/VER_FIXED,AN,AH,AR-C4	T	4
62363471513		SUB ASS'Y,ADAPTER KIT ASS'Y_LUG_FIXED,AN,AH,AR-C3	X	3
62363471514		SUB ASS'Y,ADAPTER KIT ASS'Y_LUG_FIXED,AN,AH,AR-C4	X	4
62363471515		SUB ASS'Y,ADAPTER KIT ASS'Y_SPREAD,AN,AH-C3	R	3
62363471516		SUB ASS'Y,ADAPTER KIT ASS'Y_SPREAD,AN.AH-C4	R	4

* Ordering a P type for Fixed type requires a separate order for Arc Screen

■ **Arc Screen Order Code for Fixed type**

Number	Part Name	Product Name
72313471504	Arc Screen (Fixed P type only) 3P	TOTAL ASS'Y,ARC SCREEN,3P P TYPE,AN,AH,AR-C
72313471506	Arc Screen (Fixed P type only) 4P	TOTAL ASS'Y,ARC SCREEN,4P P TYPE,AN,AH,AR-C

M1 — Motor rated voltage

MA	Without Motor
M1	AC/DC 100V~130V
M2	AC/DC 200V~250V
M3	DC 125V
M4	DC 24V~30V
M5	DC 48V~60V
M6	AC 380V~415V
M7	AC 440V~480V
M8	AC 48V

D1 — Closing coil rated voltage

D0	Without Closing coil
D1	AC/DC 100V~130V
D2	AC/DC 200V~250V
D3	DC 125V
D4	DC 24V~30V
D5	DC 48V~60V
D6	AC 380V~480V
D7	AC 48V

D1 — Shunt coil rated voltage

D0	Without Shunt coil
D1	AC/DC 100V~130V
D2	AC/DC 200V~250V
D3	DC 125V
D4	DC 24V~30V
D5	DC 48V~60V
D6	AC 380V~480V
D7	AC 48V

FX — Aux.contact & charging types

FX	Standard OFF-Charge 4C
FC	Standard ON-Charge 4C
LC	Standard ON-Charge 3C TCS
PX	Standard 4C with “OFF” charging type _ low-level contacts
PC	Standard 4C with “ON” charging type _ low-level contacts

* TCS (Trip Circuit Supervision)
* Auxiliary switch for micro load (Order No. 83011176209)

NGO — Trip relay

U1 — UVT

U0	Without UVT coil
U1	AC/DC 100V~130V
U2	AC/DC 200V~250V
U3	DC 125V
U4	DC 24V~30V
U5	DC 48V~60V
U6	AC 380V~480V
U7	AC 48V

* UVT Delay module is available over AC / DC 48V

AL — Accessories

Code	Description	Option description
AL	AL1 + MRB	
A1	AL1 + MRB + RES(AC110~130V) *AC Only	
A2	AL1 + AL2 + MRB	
A3	AL1 + MRB + RES(DC 110~125V) *DC Only	
A4	AL1 + MRB + RES(AC 200~250V) *AC Only	
A5	AL1 + MRB + Auto Reset	
A6	AL1 + AL2 + MRB + Auto Reset	
A7	AL1 + MRB + RES(DC 110~125V) + Auto Reset *DC Only	
A8	AL1 + MRB + RES(AC 200~250V) + Auto Reset *AC Only	
A9	AL1 + MRB + RES(AC 110~130V) + Auto Reset *AC Only	
C	C	Counter
B	B	On/Off Button lock
M	MI	Mechanical interlock
D	DI or MOC	Door Interlock or MOC (Mechanism operated cell switch)
K	K1	Key Lock
K2	K2	Key Interlock Set
R	RCS	Ready to Close switch
H1	SHT2 Note 2)	AC/DC 100~130V, Double Shunt coil
H2		AC/DC 200~250V, Double Shunt coil
H3		DC 125V, Double Shunt coil
H4		DC 24~30V, Double Shunt coil
H5		DC 48~60V, Double Shunt coil
H6		AC 380~480V, Double Shunt coil
H7		AC 48V, Double Shunt coil

Note 1) * If mixed option is more than 5, it is separated by mixed option code.
2) UVT & SHT2 can be not applicable together.

E01	A4 (AL1 + MRB + RES(AC200~250V))+C(Counter)+B(ON/OFF Button Lock) +K(Key Lock)+R(Ready to close switch)+M(Mechanicl Interlock)
E02	AL (AL1 + MRB)+K(Key Lock(OFF Lock))+R(Ready to close switch)+D(Door Interlock or MOC)+H1(AC/DC 100V ~ 130V, Double Shunt Coil)
E03	C(Counter)+B(ON/OFF Button Lock)+K2(Key Interlock Set) +R(Ready to close switch)
E04	A4(AL1 + MRB + RES(AC200~250V))+B(ON/OFF Button Lock)+K(Key Lock(OFF Lock))+M(Mechanical Interlock)
E05	A1(AL1+MRB+RES110~130V)+B(ON/OFF Button Lock)+K(Key Lock(OFF Lock))+R(Ready to close switch)+M(Mechanical Interlock)
E06	A2(AL1+AL2+MRB)+C(Counter)+K(Key Lock(OFF Lock))+R(Ready to close switch)

ACB Cradle ordering

AL	—	H16C	3	—	A	H	E	S

Air circuit breaker

Susol ACB Cradle	
AL	Bottom operating cradle

Type & Ampare frame

H16C	400~1600A

Number of poles

3	3P
4	4P

Secondary connection type

A	Auto connection

Installation & Connection

H	Horizontal type
V	Vertical type
M	Upper-Horizontal /Lower-Vertical type
N	Upper-Vertical / Lower-Horizontal type
P**	Flat type
Z**	Flat spread type
R***	Spread type
T**	Flat vertical type
X**	Cable lug type

Arc cover

S	with arc cover

Shtter

E	without shutter
F	with shutter

Note) AV, AW type ACB use AH type cradle in common.

** When using P, Z, T and X type, please purchase adapter kit separately after ordering P type product (Refer to fixed adapter kit table)

*** When using R type, purchase purchase adapter kit separately after ordering H type product (Refer to fixed adapter kit table)

2. Draw-out type Adaptor Kit (Cradle)

Number	Part Name	Product Name	How to install	Pole
62363471501	Terminal Kit Ass'y	SUB ASS'Y,ADAPTER KIT ASS'Y_FRONT,AN,AH-C3	P	3
62363471502		SUB ASS'Y,ADAPTER KIT ASS'Y_FRONT,AN,AH-C4	P	4
62363471503		SUB ASS'Y,ADAPTER KIT ASS'Y_FRONT_SPREAD,AN,AH-C3	Z	3
62363471504		SUB ASS'Y,ADAPTER KIT ASS'Y_FRONT_SPREAD,AN.AH-C4	Z	4
62363471505		SUB ASS'Y,ADAPTER KIT ASS'Y_SPREAD/VER,AN,AH-C3	T	3
62363471506		SUB ASS'Y,ADAPTER KIT ASS'Y_SPREAD/VER,AN,AH-C4	T	4
62363471507		SUB ASS'Y,ADAPTER KIT ASS'Y_LUG,AN,AH-C3	X	3
62363471508		SUB ASS'Y,ADAPTER KIT ASS'Y_LUG,AN,AH-C4	X	4

Various installation methods

Type	H	V	M	N	P
Installation type					
Type	**Z**	**R**	**T**	**X**	
Installation type					

Compact ACB Trip unit ordering









N	Trip relay type
0	Without trip relay
N	Normal

N	Trip relay type
A	Ammeter

N	Trip relay type
P	Power meter

N	Trip relay type
S	Supreme meter

G	Communication & protection
G	Ground fault

* L/S/I/G configuration as standard
  - with LED indicators
  - without output contacts
* Ground fault system by vector sum

G	Communication & protection
G	Ground fault
Z	Earth Leakage(External CT, Earth Leakage below 30A)
E	Earth Leakage(External CT, Earth Leakage over 30A)
C	Ground fault + Comm.
K	Earth Leakage(External CT, Earth Leakage below 30A) + Comm.
X	Earth Leakage(External CT, Earth Leakage over 30A) + Comm.
N **	Ground fault (External NCT) + Comm.

* L/S/I/G(or EL) configuration as standard
  (Only. Unable to select ground fault and earth leakage, simultaneously)
* Ground fault system by vector sum(G,C)
* Earth leakage system
  - Z,K: External CT - LS ZCT applied(fault current 0.5~30A, 1600AF)
  - E,X: External CT - Private ZCT applied(faullt current >30A, 2000AF)
* Comm. And output contacts DO NOT work under self-power condition.(Only checking LED available)

C	Communication & protection
C	Ground fault + Comm.
K	Earth Leakage(External CT, Earth Leakage below 30A) + Comm.
X	Earth Leakage(External CT, Earth Leakage over 30A) + Comm.
A	Pre-Trip Alram + Comm.
N **	Ground fault (External NCT) + Comm.

* L/S/I/G(or EL) configuration as standard
  (Only. Unable to select ground fault and earth leakage, simultaneously)
* Ground fault system by vector sum
* Earth leakage system
  - K: External CT - LS ZCT applied(fault current 0.5~30A, 1600AF)
  - X: External CT - Private ZCT applied(faullt current >30A, 2000AF)
* Applicable to generator protection purpose
* Comm. And output contacts DO NOT work under self-power condition.(Only checking LED available)

C	Communication & protection
C	Ground fault + Comm.
K	Earth Leakage(External CT, Earth Leakage below 30A) + Comm.
X	Earth Leakage(External CT, Earth Leakage over 30A) + Comm.
A	Pre-Trip Alram + Comm.
N **	Ground fault (External NCT) + Comm.

* L/S/I/G(or EL) configuration as standard
  (Only. Unable to select ground fault and earth leakage, simultaneously)
* Ground fault system by vector sum
* Earth leakage system
  - K: External CT - LS ZCT applied(fault current 0.5~30A, 1600AF)
  - X: External CT - Private ZCT applied(faullt current >30A, 2000AF)
* Applicable to generator protection purpose
* Comm. And output contacts DO NOT work under self-power condition.(Only checking LED available)

0	Control voltage & frequency	
0	Self-Power Note1)	60Hz
5	Self-Power Note1)	50Hz

0	Control voltage & frequency	
0	Self-Power	60Hz
1	AC/DC 100V~250V	60Hz
2	DC 15V~60V	60Hz
5	Self-Power	50Hz
6	AC/DC 100V~250V	50Hz
7	DC 15V~60V	50Hz

1	Control voltage & frequency	
1	AC/DC 100V~250V	60Hz
2	DC 15V~60V	60Hz
6	AC/DC 100V~250V	50Hz
7	DC 15V~60V	50Hz

1	Control voltage & frequency	
1	AC/DC 100V~250V	60Hz
2	DC 15V~60V	60Hz
6	AC/DC 100V~250V	50Hz
7	DC 15V~60V	50Hz

** AN, PN, SN provide the function to detect and protect the ground fault current by applying the NCT (Neutral CT) in the neutral wire when 3pole circuit breaker is used in 3-phase 4-wire system. Please use NCT with the secondary output of 5A rating. (NCT is not provided)

Note) 1. L/S/I/G(or EL) configuration as standard (Only. Unable to select ground fault and earth leakage, simultaneously)
2. Ground fault, earth leakage and pre-trip alarm functions are alternative.
3. The functions like Metering, Communication, ZSI, Remote reset and Digital output are NOT available only under Self-power condition.
4. Voltage module should be required for P and S types purchased separately

Susol ACB up to 1150Vac

Characteristics										
Number of poles			(P)	3 / 4						
Rated operational voltage (Ue)			(Vac)	~ 1150						
Rated insulation voltage (Ui)			(V)	1250						
Rated impulse withstand voltage (Uimp)			(kV)	12kV						
Version				Fixed / Withdrawable						
Suitability for isolation										
Degree of pollution	IEC60661-1			3						
Certification				CB certification according to IEC 60947-2						

Brand name				Susol AV-D					
Model				AV-06D	AV-08D	AV-10D	AV-13D	AV-16D	AV-20D
Ampere Frame			(AF)	630	800	1000	1250	1600	2000
Rated current (In max)			(A)	200 400 630	400 630 800	630 800 1000	630 800 1000 1250	800 1000 1250 1600	1000 1250 1600 2000
Rated ultimate breaking capacity (Icu)	1150V		(kA)	30					
	1000V		(kA)	42					
	900V		(kA)	50					
	800V		(kA)	50					
Rated serivce breaking capacity (Ics)			(% Icu)	100					
Rated short-timewithstand current (Icw)	1150V		(kA/1s)	30					
	1000V		(kA/1s)	42					
	900V		(kA/1s)	50					
	800V		(kA/1s)	50					
Rated making capacity (Icm)			(kA)	63					
Selectivity category (according to IEC 60947-2)				B					
Operation time (ms)	Total Breaking time	< Icw		max. 75					
		≥ Icw		max. 25					
	Closing time			max. 80					
Mechanical and Electrical Life cycle									
Endurance (times) (Without maintenance)	Mechanical			20,000					
	Electrical			1,000					
Dimension and Weight									
Weight (3P/4P)	Draw-out	Without cradle	(kg)	37/45					
		With cradle	(kg)	70/85					
	Fixed		(kg)	34/44					
External Dimensions (H×W×D)	Draw-out	3P(4P)	(mm)	430×334(419)×375					
	Fixed	3P(4P)	(mm)	300×300(385)×295					

* AV type can be applied to IT system up to 1000Vac.

	3 / 4											
	~ 1150											
	1250											
	12kV											
	Fixed / Withdrawable											
												
	3											
	CB certification according to IEC 60947-2											
	Susol AV-E									**Susol AV-G**		
	AV-06E	**AV-08E**	**AV-10E**	**AV-13E**	**AV-16E**	**AV-20E**	**AV-25E**	**AV-32E**	**AV-40E**	**AV-40G**	**AV-50G**	**AV-63G**
	630	800	1000	1250	1600	2000	2500	3200	4000	4000	5000	6300
	400 630	400 630 800	630 800 1000	630 800 1000 1250	800 1000 1250 1600	1000 1250 1600 2000	1250 1600 2000 2500	1600 2000 2500 3200	2000 2500 3200 4000	2000 2500 3200 4000	2500 3200 4000 5000	3200 4000 5000 6300
	50									65		
	65									85		
	75									85		
	75									85		
	100									100		
	50									65		
	65									85		
	75									85		
	75									85		
	105									143(1150V) / 187(below 1000V)		
	B									B		
	max. 75									max. 75		
	max. 25									max. 25		
	max. 80									max. 90		
	20,000									10,000		
	1,000									500		
	44/49									84/106		
	88/104									181/223		
	45/56									98/123		
	430×412(527)×375									430×785(1015)×375		
	300×378(493)×295									300×751(981)×295		

Susol ACB up to 900Vac

Characteristics																				
Number of poles (P)	3 / 4																			
Rated operational voltage (Ue) (Vac)	~ 900																			
Rated insulation voltage (Ui) (V)	1000																			
Rated impulse withstand voltage (Uimp) (kV)	12kV																			
Version	Fixed / Withdrawable																			
Suitability for isolation																				
Degree of pollution IEC60661-1	3																			
Certification	CB certification according to IEC 60947-2																			

Brand name				Susol AW-D/AW-E/AW-G																
Model				AW-06D	AW-08D	AW-10D	AW-13D	AW-16D	AW-20D	AW-06E	AW-08E	AW-10E	AW-13E	AW-16E	AW-20E	AW-25E	AW-32E	AW-40E	AW-40G	AW-50G	AW-63G
Ampere Frame (AF)				630	800	1000	1250	1600	2000	630	800	1000	1250	1600	2000	2500	3200	4000	4000	5000	6300
Rated current (In max) (A)				200 400 630	400 630 800	630 800 1000	630 800 1000 1250	800 1000 1250 1600	1000 1250 1600 2000	400 630	400 630 800	630 800 1000	630 800 1000 1250	800 1000 1250 1600	1000 1250 1600 2000	1250 1600 2000 2500	1600 2000 2500 3200	2000 2500 3200 4000	2000 2500 3200 4000	2500 3200 4000 5000	3200 4000 5000 6300
Rated ultimate breaking capacity (Icu)	900V (kA)			42						50									85		
	800V (kA)			50						65									85		
Rated serivce breaking capacity (Ics) (% Icu)				100															100		
Rated short-time withstand current (Icw)	900V (kA/1s)			42						50									85		
	800V (kA/1s)			50						65									85		
Rated making capacity (Icm) (kA)				88.2						105									187		
Selectivity category (according to IEC 60947-2)				B															B		
Operation time (ms)	Total Breaking time	< Icw		max. 75															max. 75		
		≥ Icw		max. 25															max. 25		
	Closing time			max. 80															max. 90		
Mechanical and Electrical Life cycle																				
Endurance (times) (Without maintenance)	Mechanical			20,000						15,000									10,000		
	Electrical			1,000															1,000		
Dimension and Weight																				
Weight (3P/4P)	Draw-out	Without cradle (kg)		37/45						44/49									84/106		
		With cradle (kg)		70/85						88/104									181/223		
	Fixed (kg)			34/44						45/56									98/123		
External Dimensions (H×W×D)	Draw-out	3P(4P) (mm)		430×334(419)×375						430×412(527)×375									430×785(1015)×375		
	Fixed	3P(4P) (mm)		300×300(385)×295						300×378(493)×295									300×751(981)×295		

Susol Compact ACB up to 800Vac

Characteristics				
Number of poles			(P)	3 / 4
Rated operational voltage (Ue)			(Vac)	~ 800
Rated insulation voltage (Ui)			(V)	1000
Rated impulse withstand voltage (Uimp)			(kV)	12kV
Version				Fixed / Withdrawable
Suitability for isolation				
Degree of pollution	IEC60661-1			3
Certification				CB certification according to IEC 60947-2

Brand name				Susol AW-C	
Model				**AW-08C**	**AW-16C**
Ampere Frame			(AF)	800	1600
Rated current (In max)			(A)	400 630 800	800 1000 1250 1600
Rated ultimate breaking capacity (Icu)	800V		(kA)	40	
Rated serivce breaking capacity (Ics)			(% Icu)	100	
Rated short-timewithstand current (Icw)	1s		(kA)	40	
	3s		(kA)	40	
Rated making capacity (Icm)			(%)	84	
Selectivity category (according to IEC 60947-2)				B	
Operation time (ms)	Total Breaking time	< Icw		max. 75	
		≥ Icw		max. 25	
	Closing time			max. 80	
Mechanical and Electrical Life cycle					
Endurance (times) (Without maintenance)	Mechanical			12,500	
	Electrical			500	
Dimension and Weight					
Weight	Draw-out (3P/4P)		(kg)	22/26	
	Fixed (3P/4P)		(kg)	16/19.5	
External Dimensions (H×W×D)	Draw-out	3P	(mm)	W: 256 D: 274.5 [1] H: 364.3	
		4P	(mm)	W: 326 D: 274.5 [1] H: 364.3	
	Fixed	3P	(mm)	W: 272.4 D: 198.5 [1] H: 322	
		4P	(mm)	W: 342.4 D: 198.5 [1] H: 322	

1) Exclude terminal length
* AW-08/16C are applicable for IT system

Trip Relay (STU : Smart Trip Unit)

Advanced trip relay!

With the world's best measurement accuracy and increased relay elements, the relay operation stability is enhanced, and the self-diagnosis function prevents mis-trips and ensures the stability of abnormal conditions through alarms.
NFC and Bluetooth built-in and Smart add-on modules can be configured. Monitoring and monitoring is possible through service access anytime, anywhere by securing a Smart LV solution through ICT convergence technology.

Trip Relay series for function



N type

- Device operation through self-power
- Current relay function
- Supports USB communication
- Available NFC communication



A type

- Device operation through self-power
- Current relay function
- Segment LCD Display
- DO output
- Supports USB communication
- Supports RS485 communication



P type

- Device operation through self-power
- Current/voltage/frequency/power relay function
- 3.5” touch screen
- DO output
- Supports USB communication
- Supports RS485 communication
- Available BLE communication



S type

- Device operation through self-power
- Current/voltage/frequency/power relay function
- 3.5” touch screen
- DO output
- Relay setting group A/B available
- Supports USB communication
- Supports RS485 communication
- NFC/BLE communication support



Types of STU

		N-Type	A-Type	P-Type	S-Type
Externals					
Current relay		• L, S, I, G	• L(N), S, I, G, PTA, Gext	• L(N), S1, I, G, PTA, Gext • D, S(V)1, IU	• P type Current relay • S(V)2
Voltage relay		-	-	• UV1, OV1, RV, VU	• P type Voltage relay • UV2, OV2
Frequency relay		-	-	• UF1, OF1, ROCOF	• P type Frequency relay • UF2, OF2
Power relay		-	-	• RP, RQ1, OP, OQ, UP	• P type Power relay • RP, RQ1, RQ2
Group control		-	-	-	• A,B (Control by DI and communication)
Relay fine tuning		-	-	• Possible (Adjust knob and freely set operating value current)	• Possible (Freely set operating value current)
ERMS		-	• Control by DI and Communication	• Control by DI and Communication	• Control by DI and Communication
IDMTL Support		-	• L relay element (Thermal, DT, SIT, VIT, EIT, EIT50)	• L relay element (Thermal, DT, SIT, VIT, EIT, EIT50)	• L relay element (Thermal,DT,SIT,VIT, EIT,EIT50)
Trip information Maintenance LED		• L, S, I, G • SP : Self protection	• L, S, I, G/Gext/PTA, SP	• L, S, I, G/Gext/PTA, SP	• L, S, I, G/Gext/PTA, SP
Incident record	Screen	-	• Display of 32 incident events (Incident phase/current/time)	• Display of 127 incident events (Incident phase/current/time)	• Display of 127 incident events (Incident phase/current/time)
	Memory	-	• Saves 127 incident events • Saves 6 incident waveforms (In case of operation by Self Power, incident waveform is not saved)	• Saves 127 incident events • Saves 6 incident waveforms (In case of operation by Self Power, incident waveform is not saved)	• Saves 127 incident events • Saves 6 incident waveforms (In case of operation by Self Power, incident waveform is not saved)

Compact Trip Unit

The trip relay of Compact ACB provides the additional protection functions for voltage, frequency, unbalance, and others in addition to main protection functions for over current, short-circuit, ground fault. It supports the advanced measurement functions for voltage, current, power, electric energy, harmonics, communication function, and others.
Analog trip function interlocked with mechanism enhanced a durability of devices as well as the breaking capacity of ACB.
Zone selective interlocking function makes the protective coordination more simple and thermal memory can be applied to various loads.

*Trip Relay is for C Frame



Trip relay types

Classification	N type	A type	P type	S type
Externals				
Current protection	• L/S/I/G/Thermal	• L/S/I/G/Thermal • ZSI (Protective coordination)	• L/S/I/G • ZSI (Protective coordination) • Thermal (Linear Hot Start)	• L/S/I/G • ZSI (Protective coordination) • Thermal (Linear Hot Start)
Other protection	-	• Earth leakage (Option)	• Earth leakage (Option) • Over/Under voltage • Over/Under frequency • Unbalance (Voltage/Current • Reverse power	• Earth leakage (Option) • Over/Under voltage • Over/Under frequency • Unbalance (Voltage/Current • Reverse power
Measurement function	-	• Current (R/S/T/N)	• 3 Phase Voltage/Current RMS/Vector • Power (P, Q, S), PF (3-Phase) • Energy (Positive/Negative) • Frequency, Demand	• 3 Phase Voltage/Current RMS/Vector • Power (P, Q, S), PF (3-Phase) • Energy (Positive/Negative) • Frequency, Demand • Voltage/Current harmonics (1st~63th) • 3 Phase Waveforms • THD, TDD, K-Factor
Fine adjustment	-	-	• Fine adjustment for long/short time delay/instantaneous/ ground	• Fine adjustment for long/short time delay/instantaneous/ ground
Digital Output		• 3DO (Fixed) • L, S/I, G Alarm	• 3DO (Programmable) • Trip, Alarm, General	• 3DO (Programmable) • Trip, Alarm, General
IDMTL setting	-	-	• Compliance with IEC60255-3: SIT, VIT, EIT, DT	• Compliance with IEC60255-3: SIT, VIT, EIT, DT
Communication	-	• Modbus/RS-485 • Profibus-DP	• Modbus/RS-485 • Profibus-DP	• Modbus/RS-485 • Profibus-DP
Power supply	• Self Power – Power source worksover 20% of load current.	• Self Power – Power source worksover 20% of load current. – External power source are required for comm. • AC/DC 100~250V • DC 24~60V	• AC/DC 100~250V • DC 24~60V • Basic protection function (L/S/I/G) is still under normal operation without control power.	• AC/DC 100~250V • DC 24~60V • Basic protection function (L/S/I/G) is still under normal operation without control power.
RTC Timer	• Available	• Available	• Available	• Available
LED for trip info.	• Long time delay • Short time delay/Instantaneous • Ground fault	• Long time delay • Short time delay/Instantaneous • Ground fault	• Long time delay • Short time delay/Instantaneous • Ground fault	• Long time delay • Short time delay/Instantaneous • Ground fault
Fault recording	-	• 10 records (Fault/Current/Date and Time)	• 256 records	• 256 records • Last fault wave form recording (3 Phase)
Event recording	-	-	• 256 records (Content, Status, Date)	• 256 records (Content, Status, Date)
Operating button	• Reset button	• Reset, Menu Up/Down, Left/Right, Enter	• Reset, Menu Up/Down, Left/Right, Enter	• Reset, Menu Up/Down, Left/Right, Enter

Each Trip Relay type has Battery in itself.

1. Battery lifespan
   1) When turned off: 14~28years
   2) When using 1 LED consecutively or turned off: 7~14days

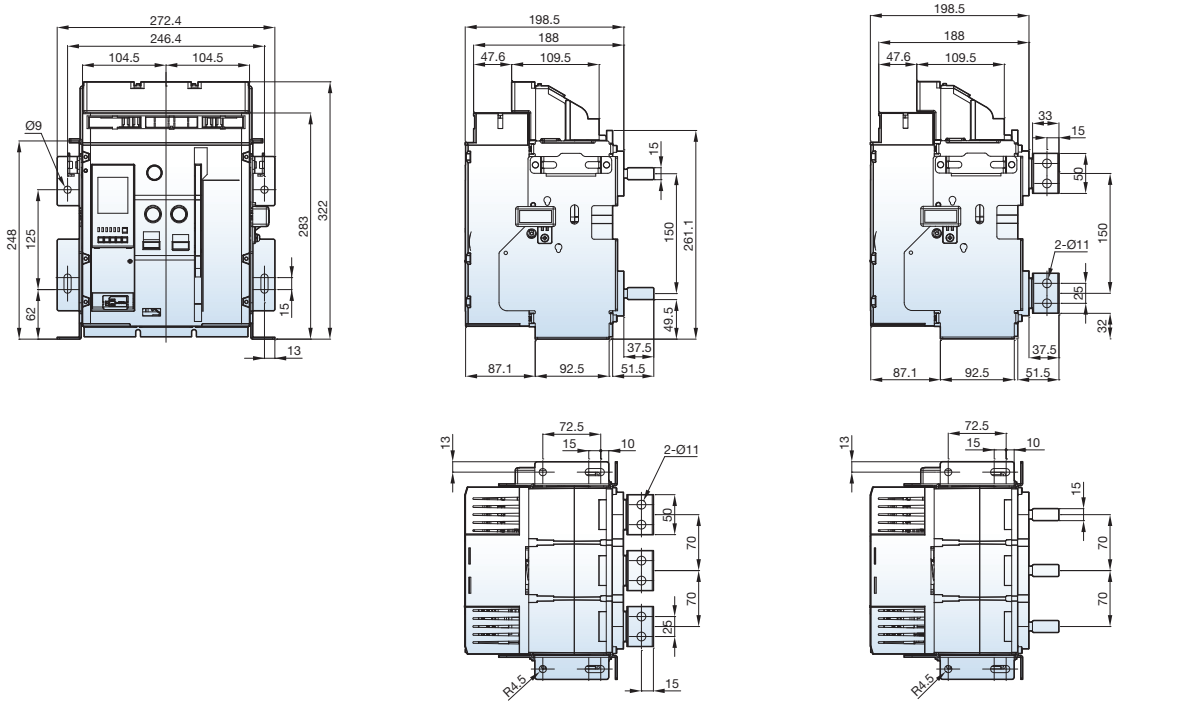
2. The recognizable range of Trip Relay current
   1) 1Ø: When more 20% than rated current(In) (ratio to In regardless of Iu and Ir)
   2) 3Ø: When more 12% than rated current(In)

Dimensions

800/1600AF (400~1600A : AW-08/16C)

• 3P [Fixed H: Horizontal type / V: Vertical type]

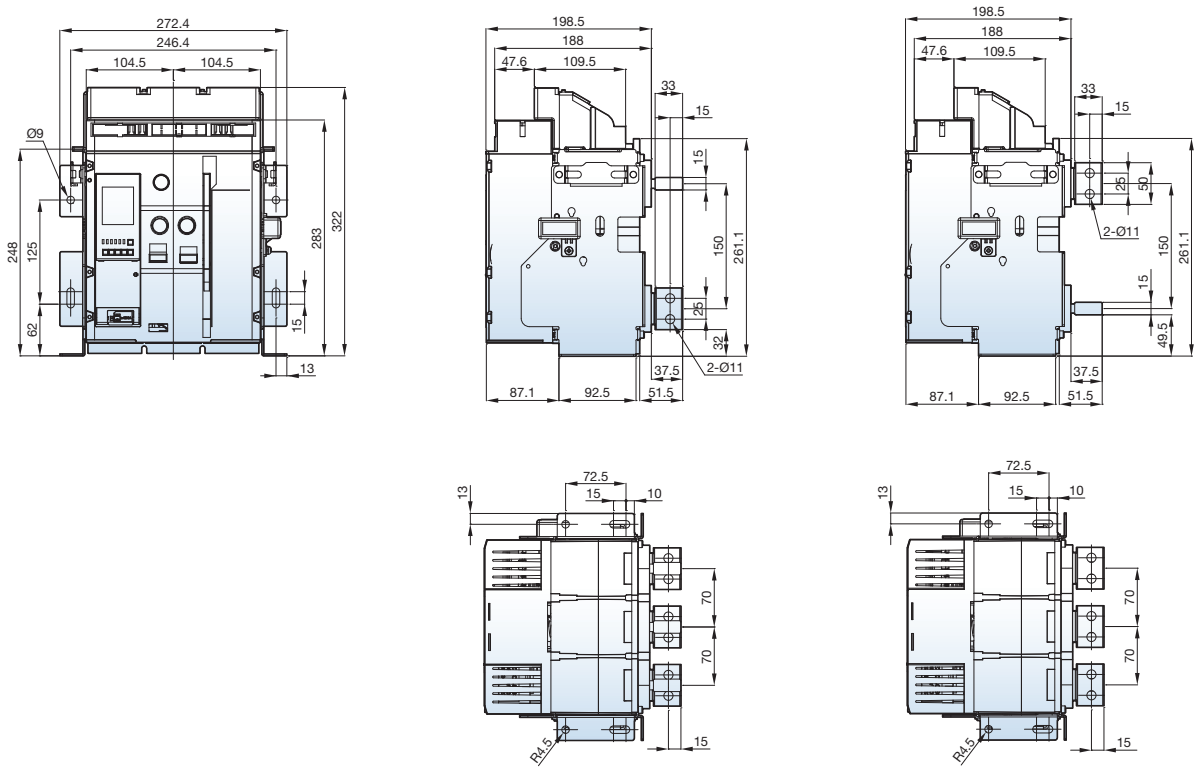
(Unit : mm)



H Type (Horizontal type)

V Type (Vertical type)

• 3P [Fixed M: Upper-Horizontal type, Lower-Vertical type / N: Upper-Vertical type, Lower-Horizontal type]



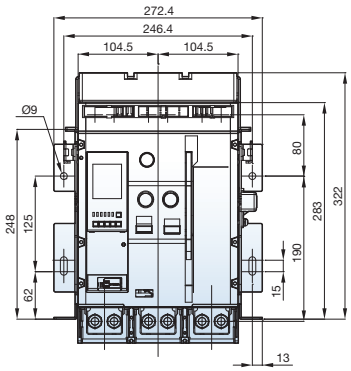
M Type
(Upper-Horizontal type, Lower-Vertical type)

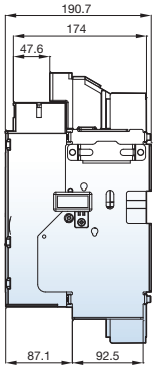
N Type
(Upper-Vertical type, Lower-Horizontal type)

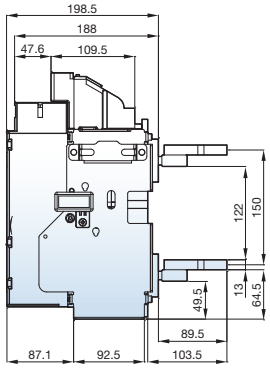
800/1600AF (400~1600A : AW-08/16C)

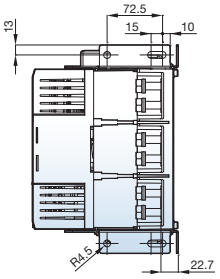
• 3P [Fixed P: Plane type / R: Spread type]

(Unit : mm)

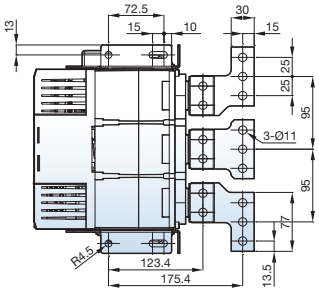






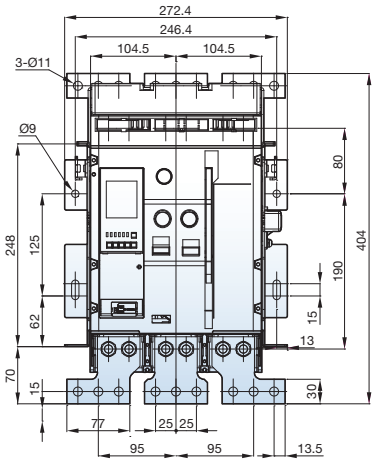


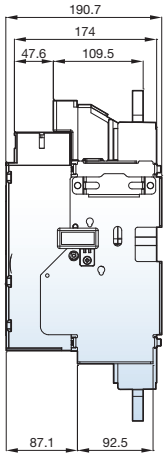
P Type (Plane type)

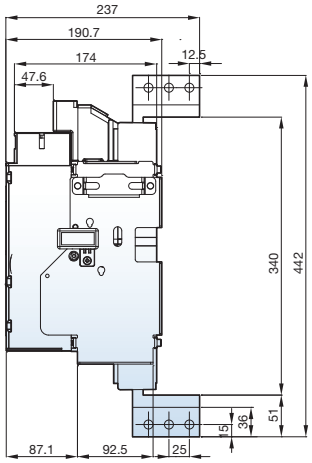


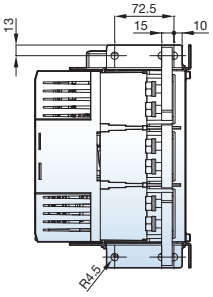
R Type (Spread type)

• 3P [Fixed Z: Plane spread type / T: Plane vertical type]

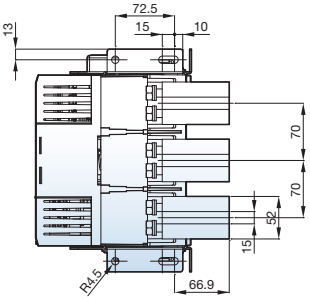








Z Type (Plane spread type)



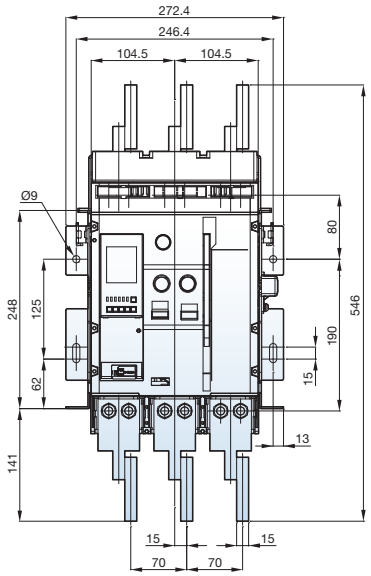
T Type (Plane vertical type)

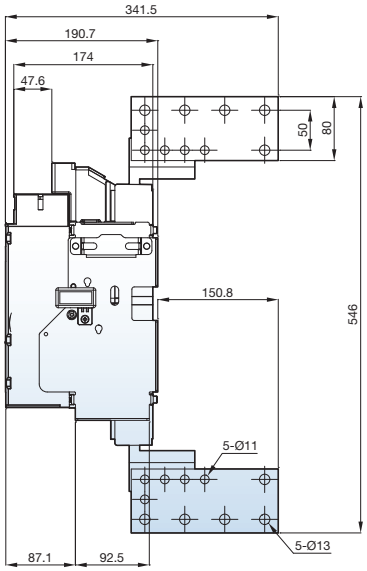
Dimensions

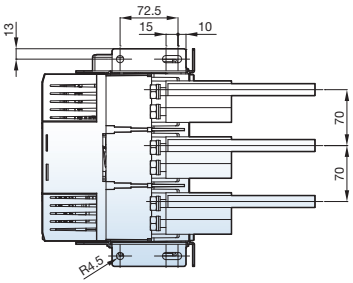
800/1600AF (400~1600A : AW-08/16C)

• 3P [Fixed X: Cable lug type]

(Unit : mm)





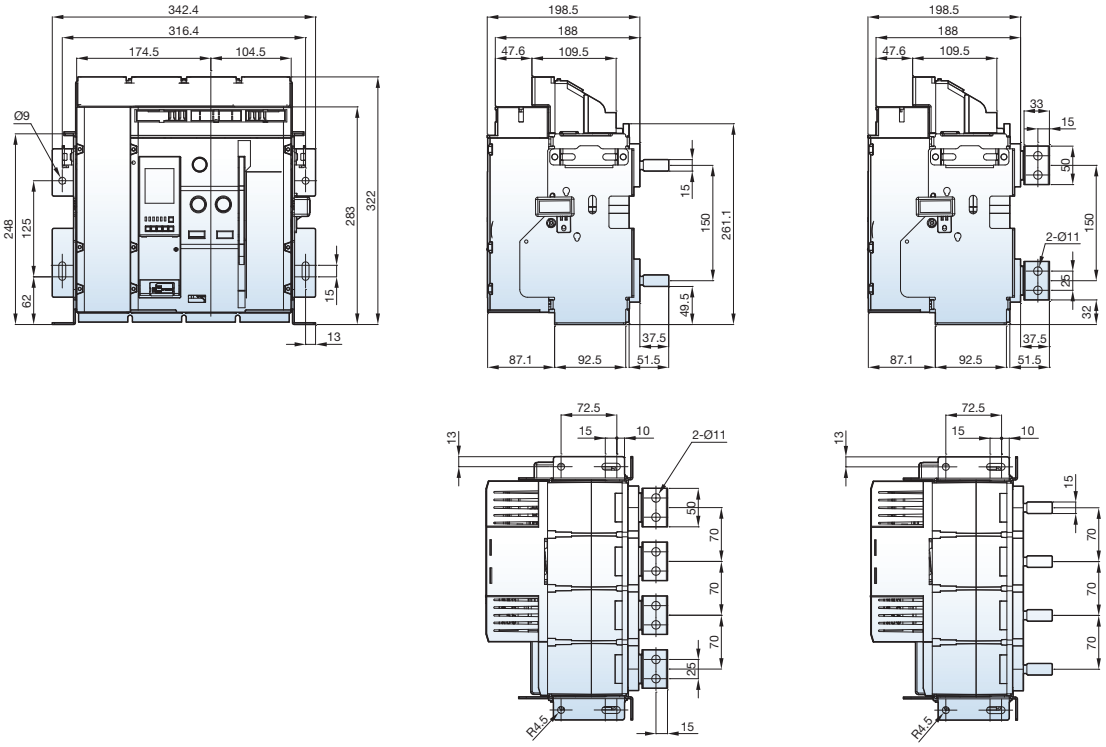


X Type (Cable lug type)

800/1600AF (400~1600A : AW-08/16C)

• 4P [Fixed H: Horizontal type / V: Vertical type]

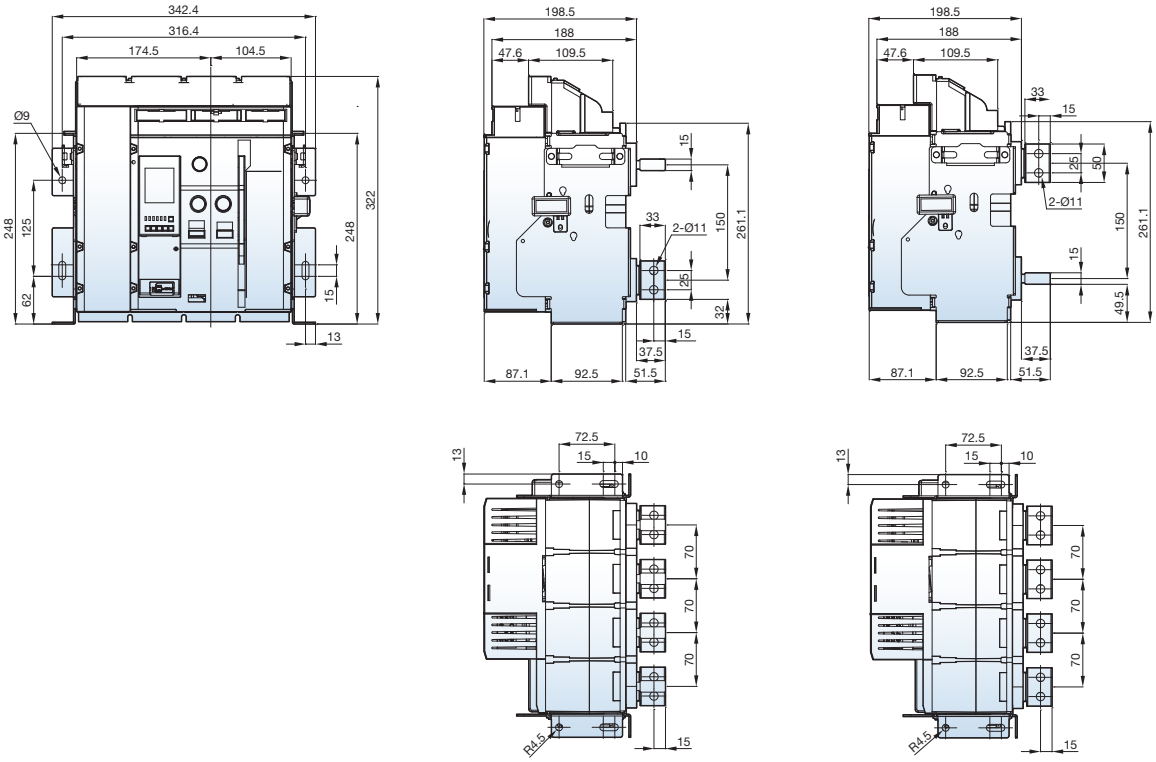
(Unit : mm)



H Type (Horizontal type)

V Type (Vertical type)

• 4P [Fixed M: Upper-Horizontal type, Lower-Vertical type / N: Upper-Vertical type, Lower-Horizontal type]



M Type
(Upper-Horizontal type, Lower-Vertical type)

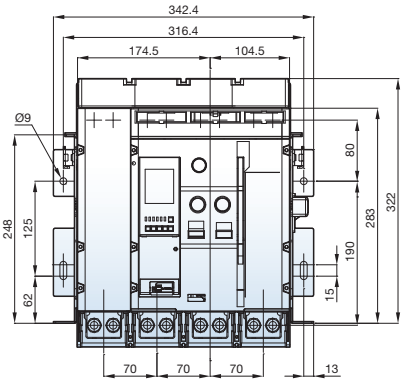
N Type
(Upper-Vertical type, Lower-Horizontal type)

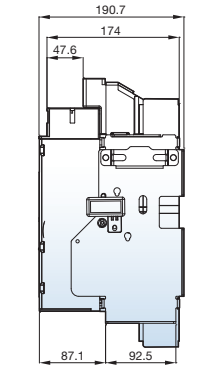
Dimensions

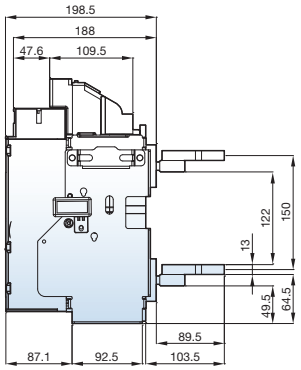
800/1600AF (400~1600A : AW-08/16C)

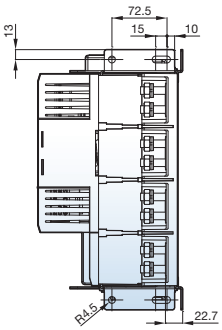
• 4P [Fixed P: Plane type / R: Spread type]

(Unit : mm)

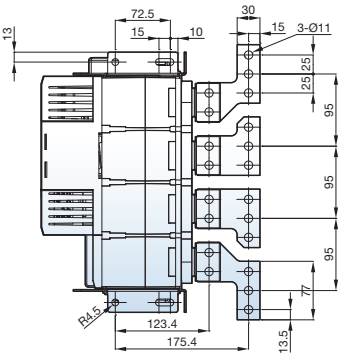






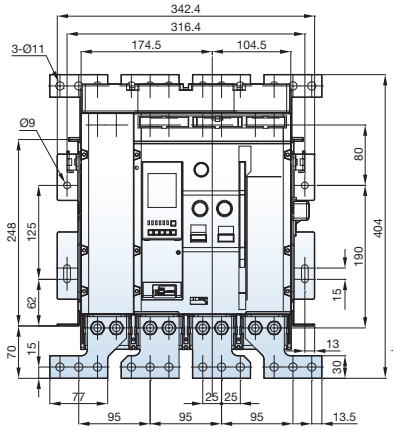


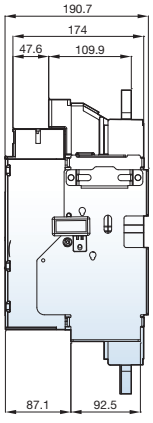
P Type (Plane type)

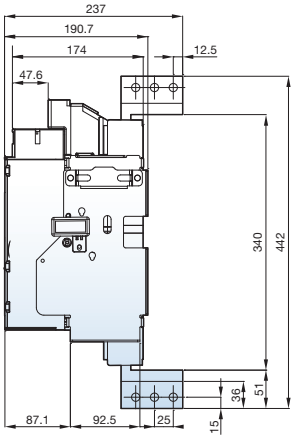


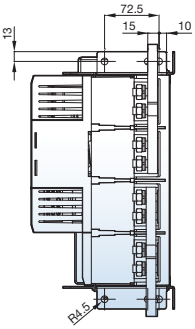
R Type (Spread type)

• 4P [Fixed Z: Plane spread type / T: Plane vertical type]

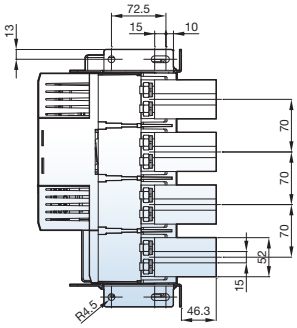








Z Type (Plane spread type)

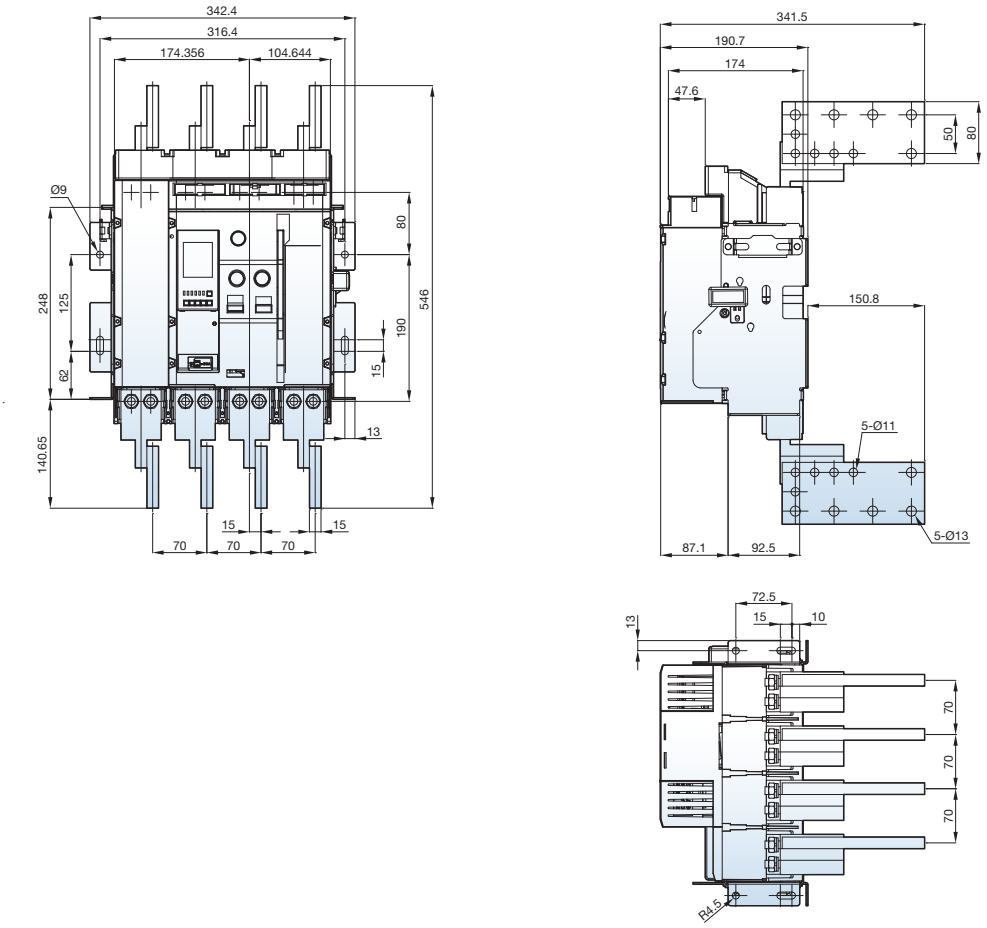


T Type (Plane vertical type)

800/1600AF (400~1600A : AW-08/16C)

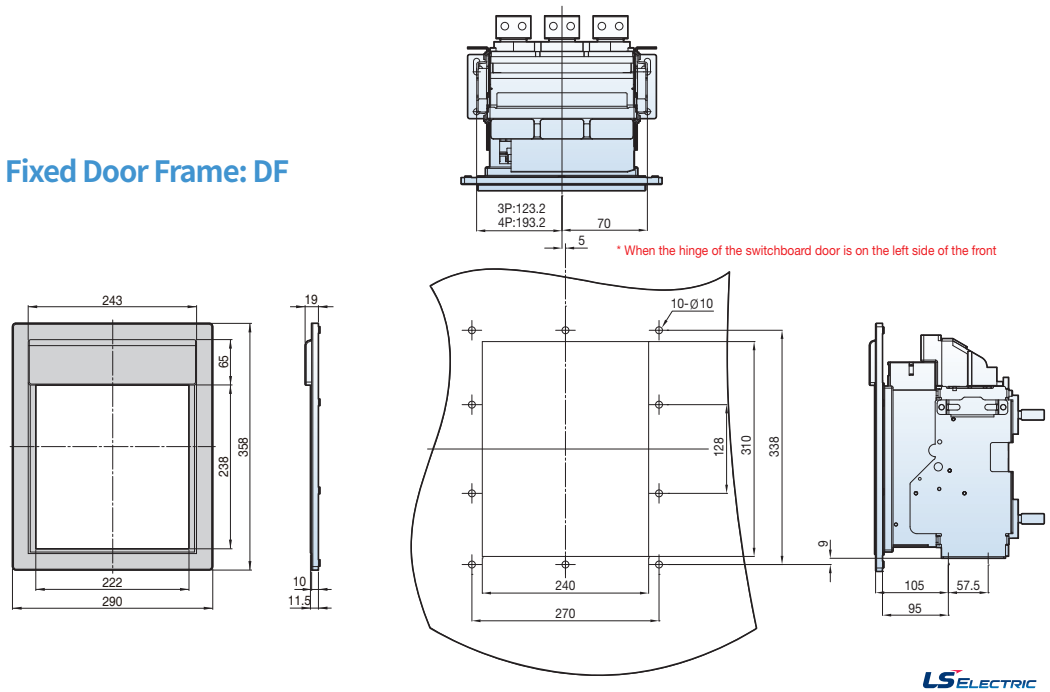
• 4P [Fixed X: Cable lug type]

(Unit : mm)



X Type (Cable lug type)

Fixed Door Frame: DF

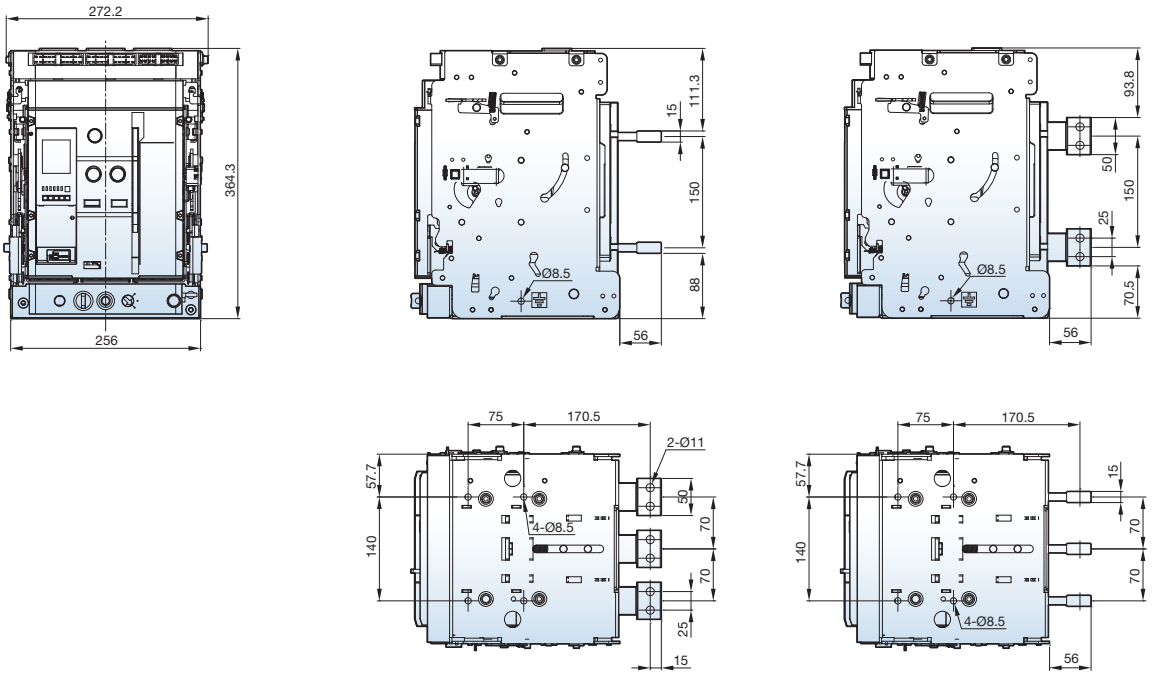


Dimensions

800/1600AF (400~1600A : AW-08/16C)

• 3P [Draw-out H: Horizontal type / V: Vertical type]

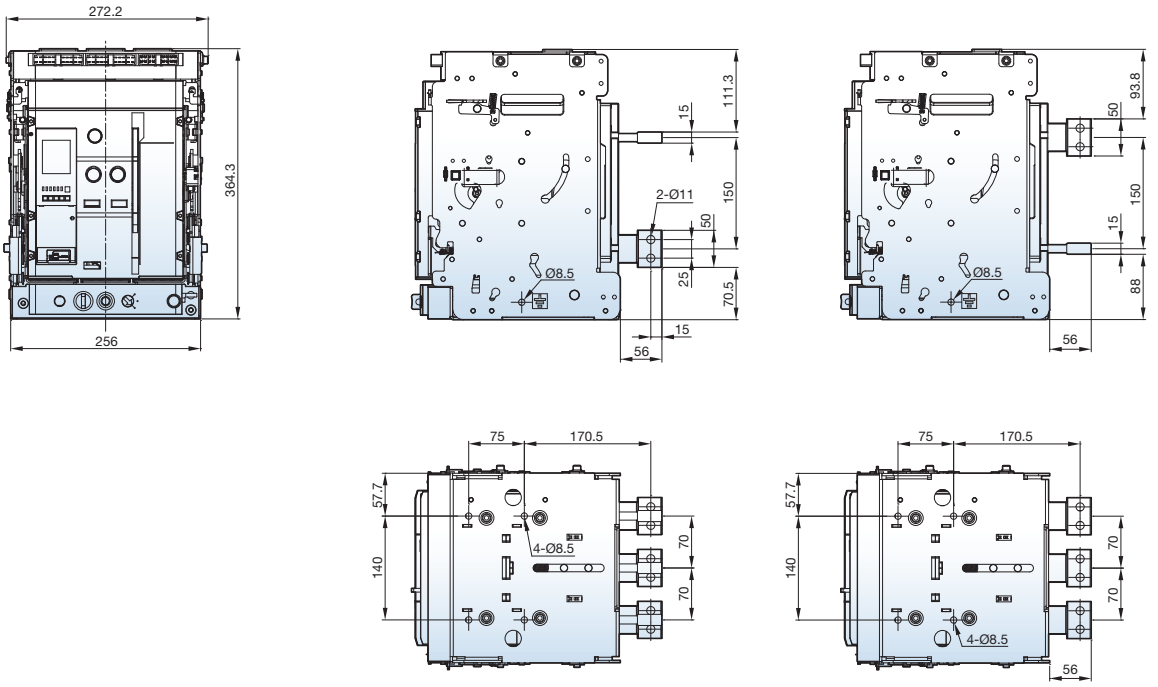
(Unit : mm)



H Type (Horizontal type)

V Type (Vertical type)

• 3P [Draw-out M: Upper-Horizontal type, Lower-Vertical type / N: Upper-Vertical type, Lower-Horizontal type]



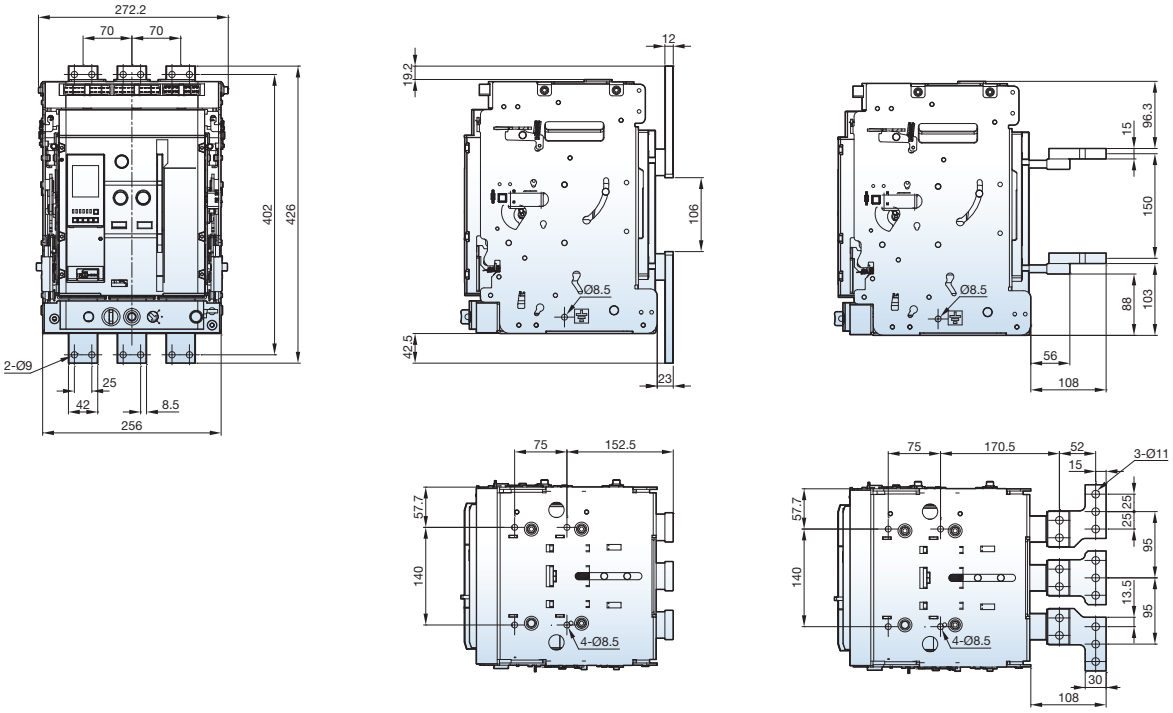
M Type
(Upper-Horizontal type, Lower-Vertical type)

N Type
(Upper-Vertical type, Lower-Horizontal type)

800/1600AF (400~1600A : AW-08/16C)

• 3P [Draw-out P: Plane type / R: Spread type]

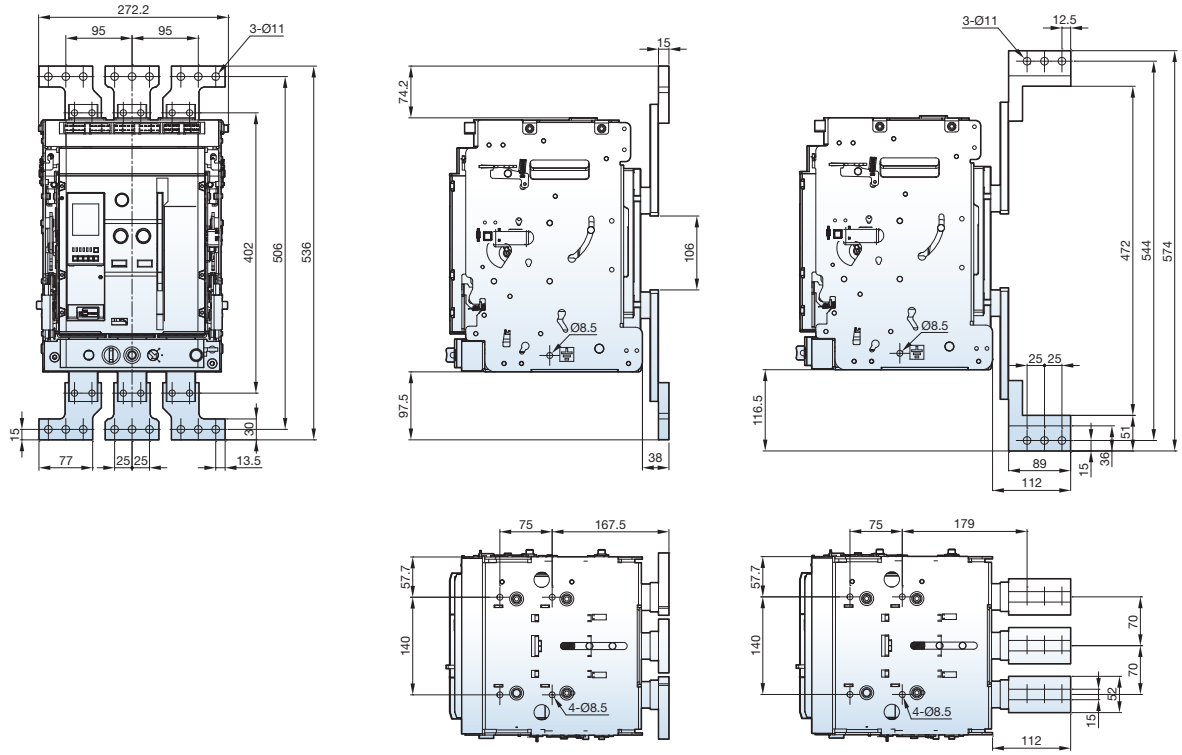
(Unit : mm)



P Type (Plane type)

R Type (Spread type)

• 3P [Draw-out Z: Plane spread type / T: Plane vertical type]



Z Type (Plane spread type)

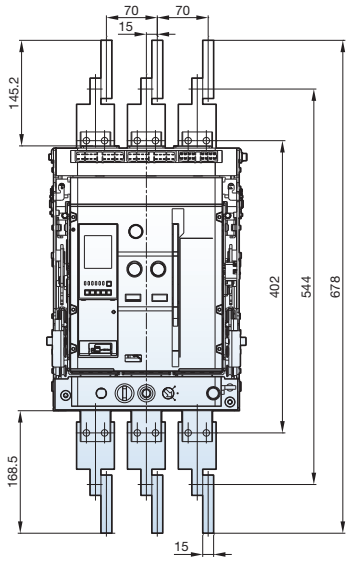
T Type (Plane vertical type)

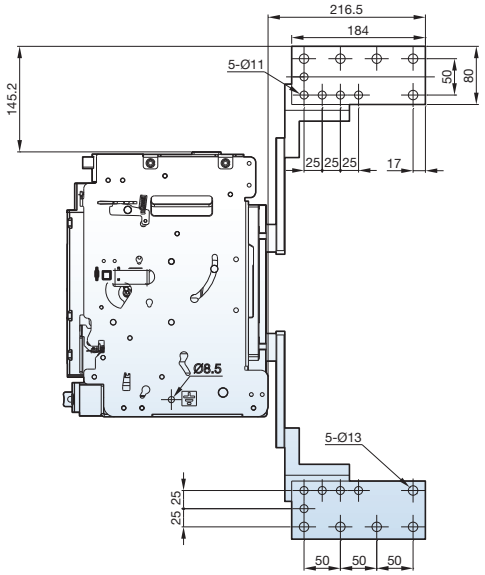
Dimensions

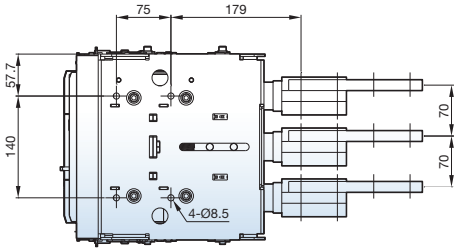
800/1600AF (400~1600A : AW-08/16C)

• 3P [Draw-out X: Cable lug type]

(Unit : mm)





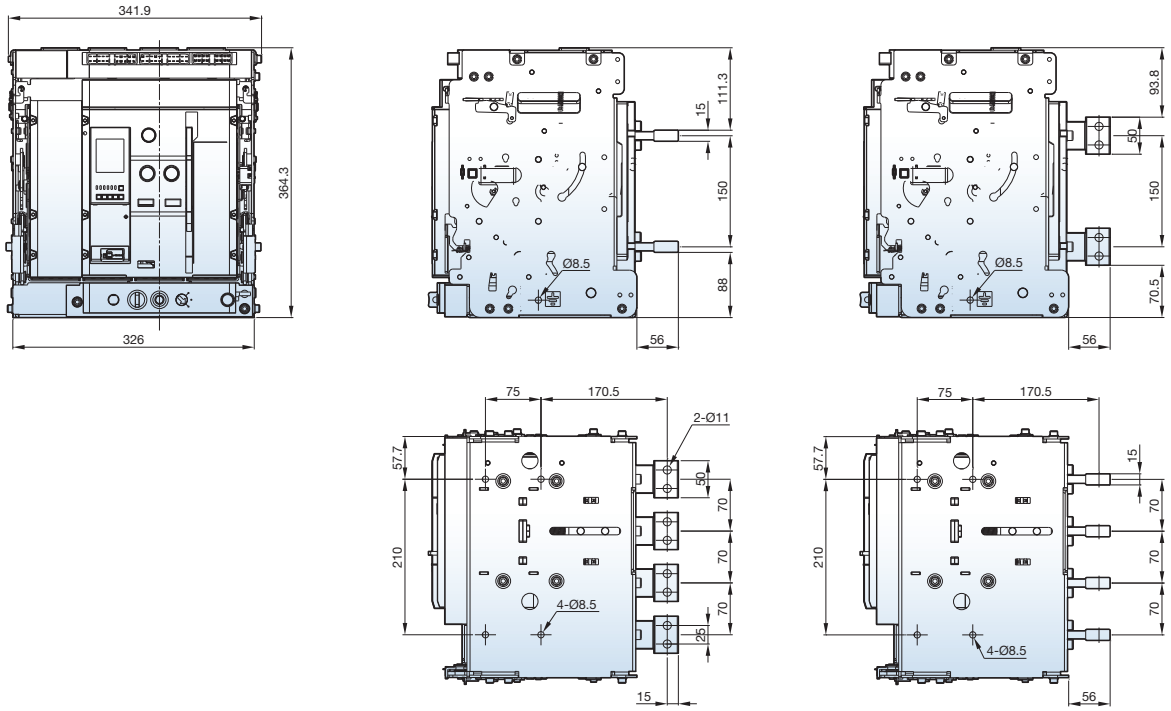


X Type (Cable lug type)

800/1600AF (400~1600A : AW-08/16C)

• 4P [Draw-out H: Horizontal type / V: Vertical type]

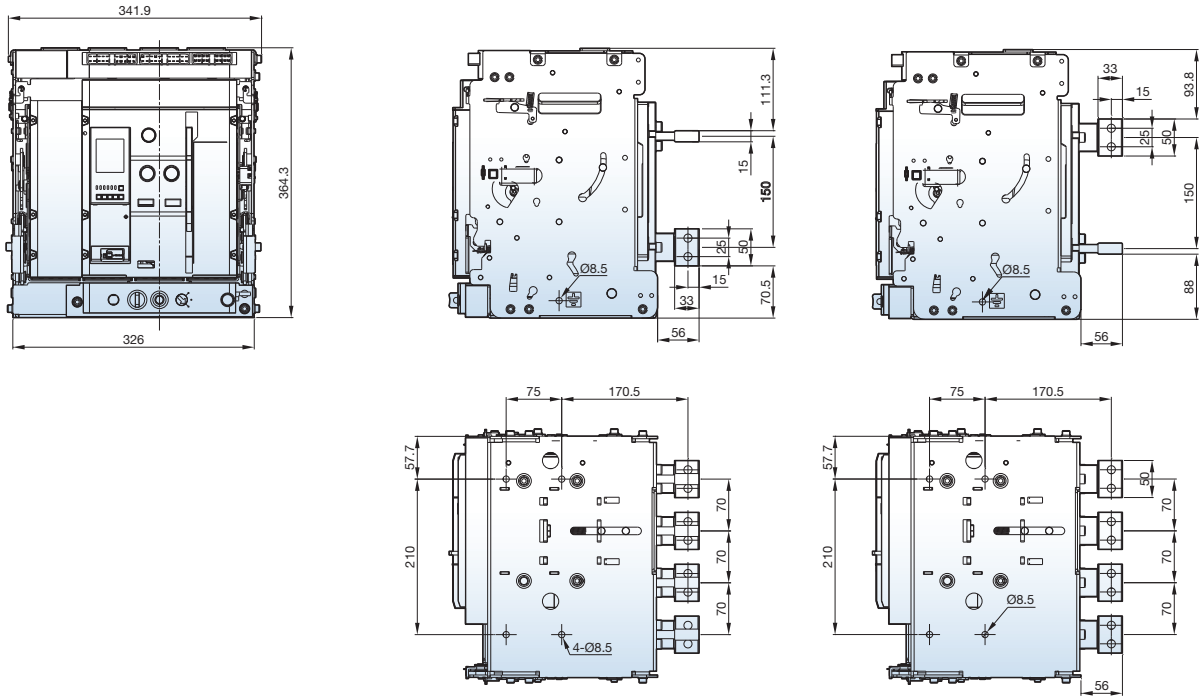
(Unit : mm)



H Type (Horizontal type)

V Type (Vertical type)

• 4P [Draw-out M: Upper-Horizontal type, Lower-Vertical type / N: Upper-Vertical type, Lower-Horizontal type]



M Type
(Upper-Horizontal type, Lower-Vertical type)

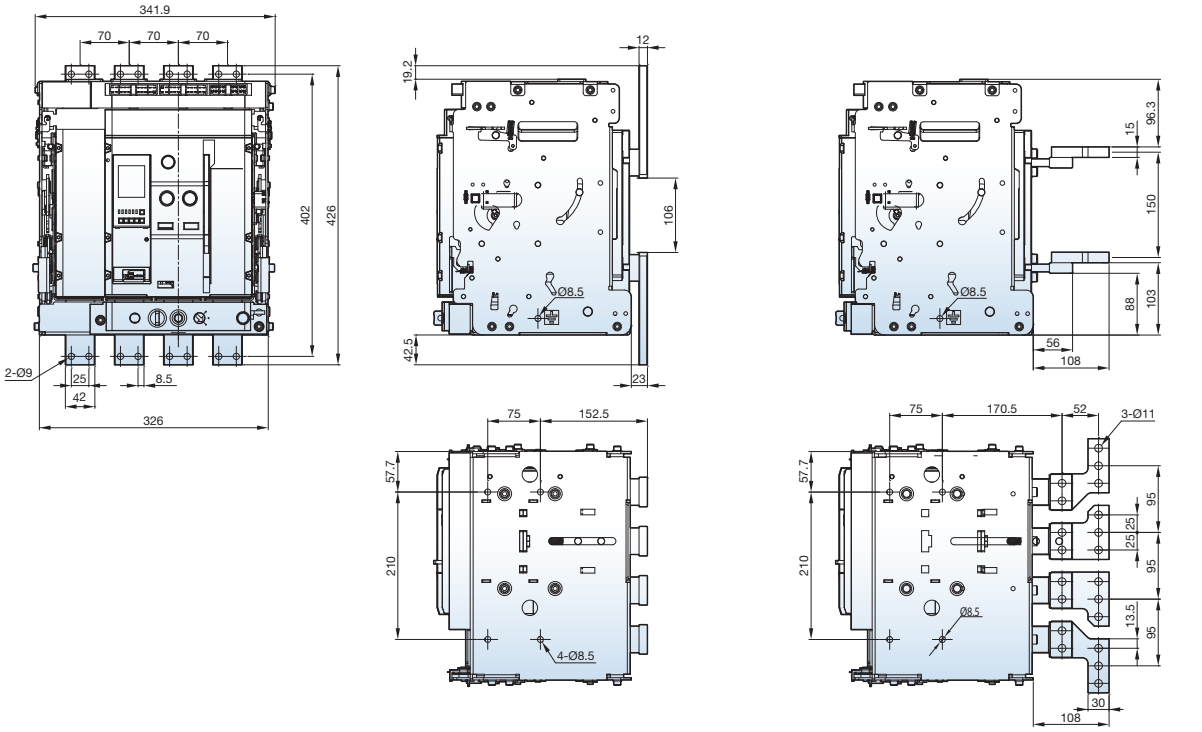
N Type
(Upper-Vertical type, Lower-Horizontal type)

Dimensions

800/1600AF (400~1600A : AW-08/16C)

• 4P [Draw-out P: Plane type / R: Spread type]

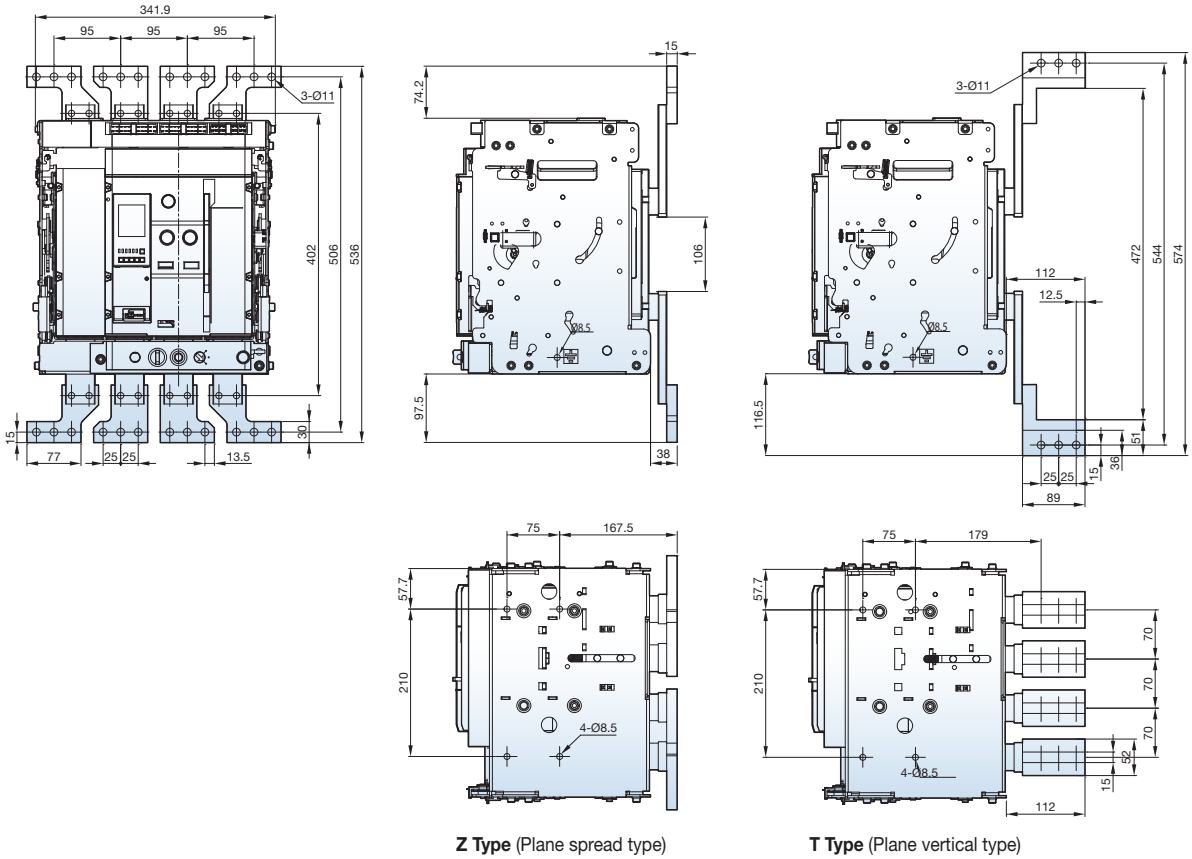
(Unit : mm)



P Type (Plane type)

R Type (Spread type)

• 4P [Draw-out Z: Plane spread type / T: Plane vertical type]



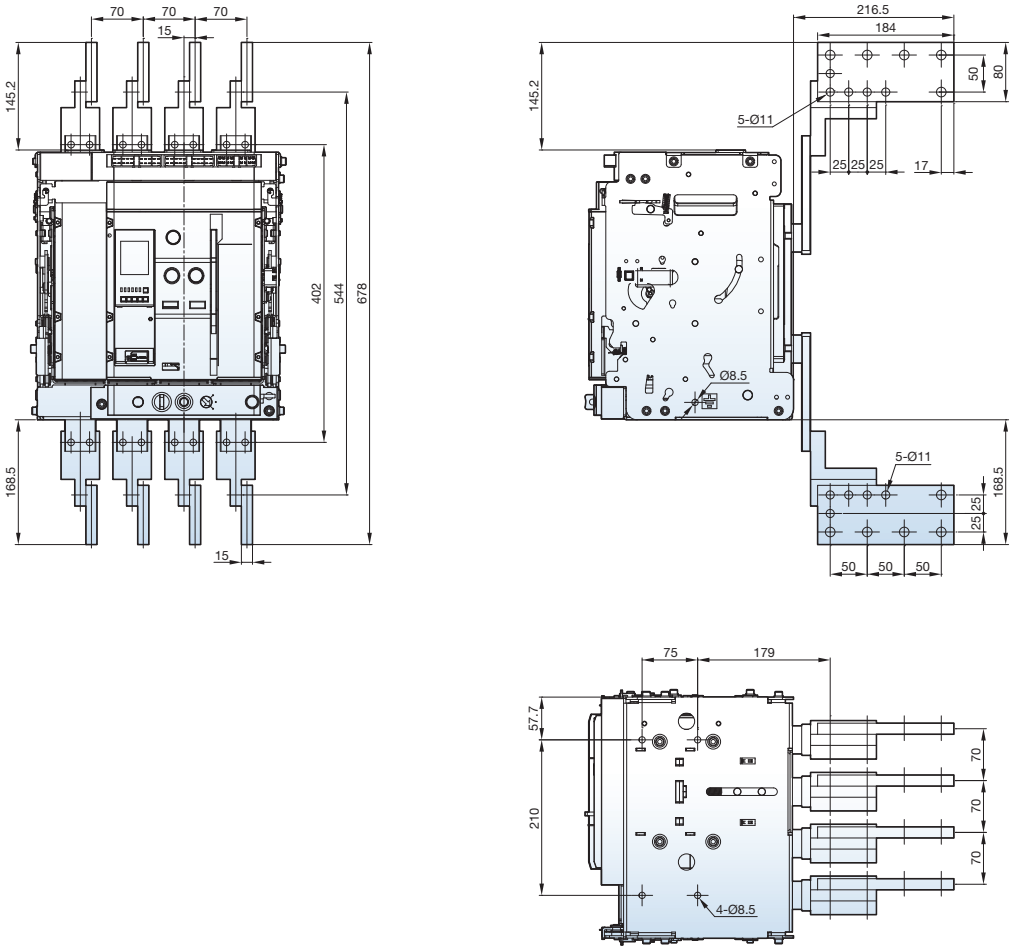
Z Type (Plane spread type)

T Type (Plane vertical type)

800/1600AF (400~1600A : AW-08/16C)

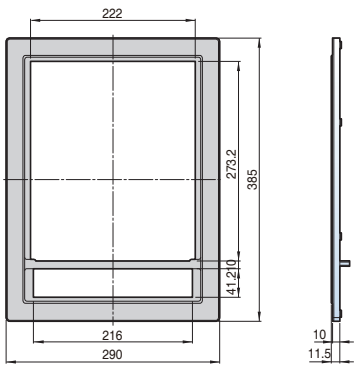
• 4P [Draw-out X: Cable lug type]

(Unit : mm)



X Type (Cable lug type)

Draw-out Door Frame: DF

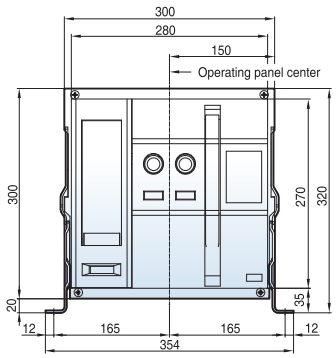


Dimensions

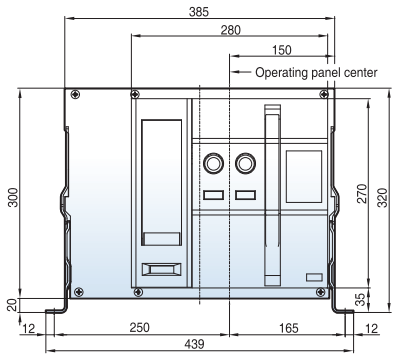
1600AF Fixed type (200~1600A : AV/AW-06~16D)

(Unit : mm)

Front view

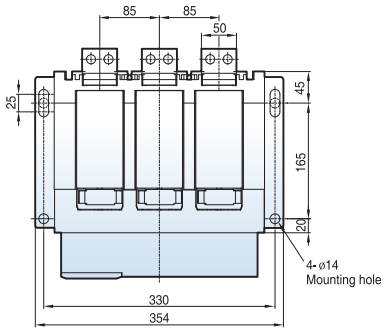


3P

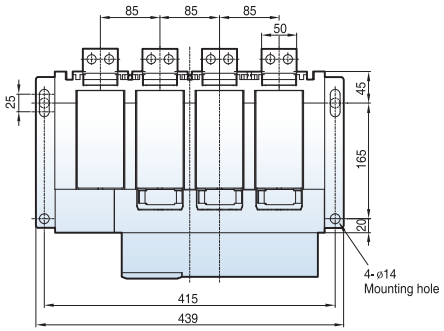


4P

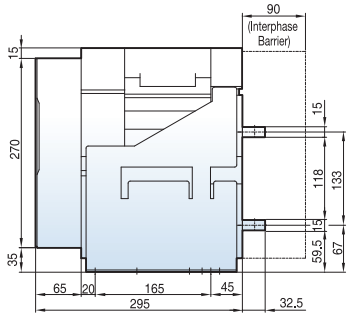
Horizontal type

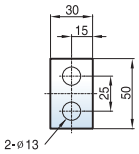


3P



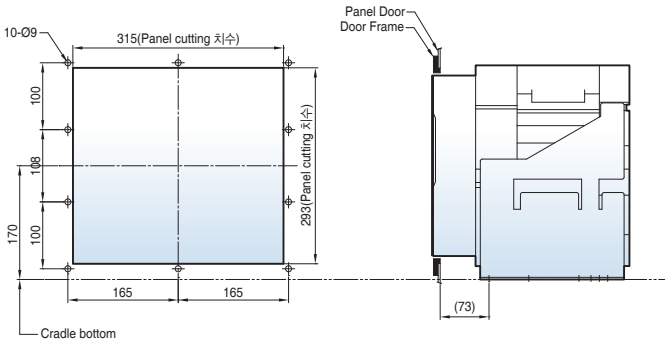
4P





<Conductor>

Door Frame: DF (AH-D/E)

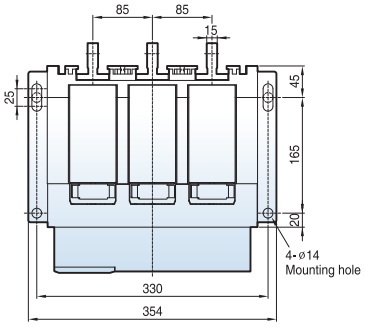


Note) The dimensions are for fixed type.

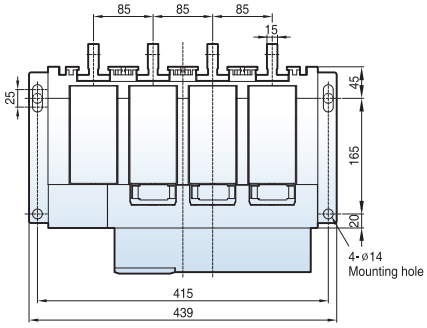
1600AF Fixed type (200~1600A : AV/AW-06~16D)

(Unit : mm)

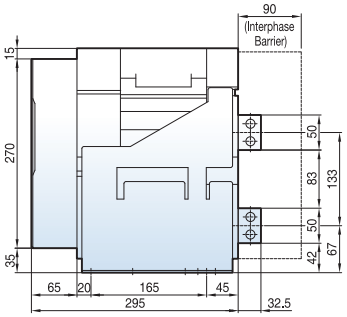
Vertical type

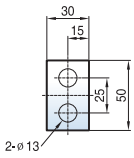


3P



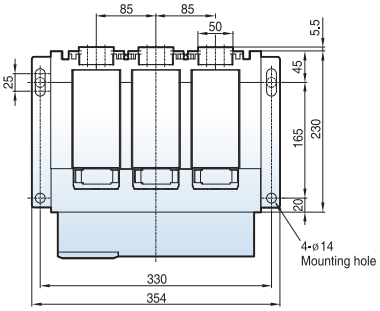
4P



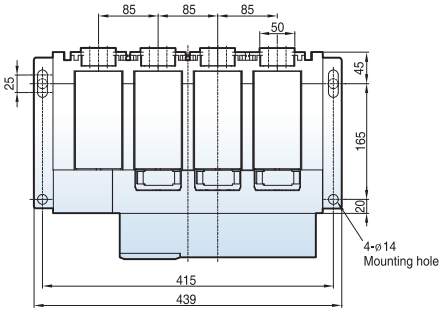


<Conductor>

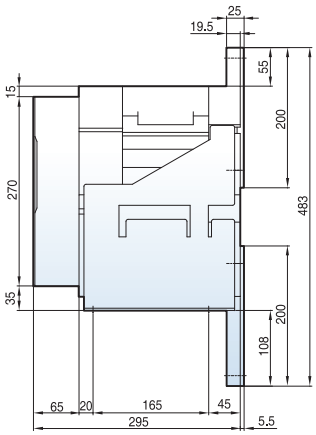
Front connection type

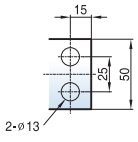


3P



4P





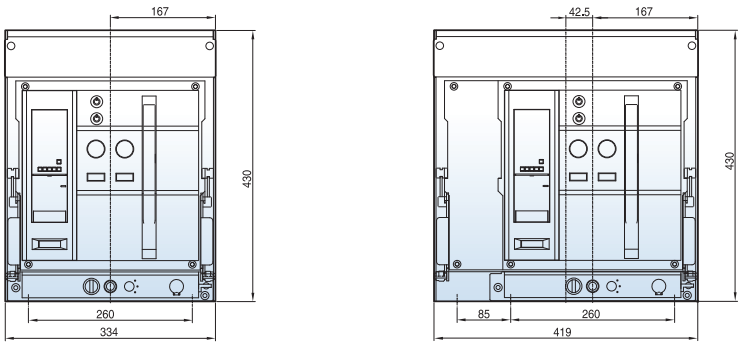
<Conductor>

Dimensions

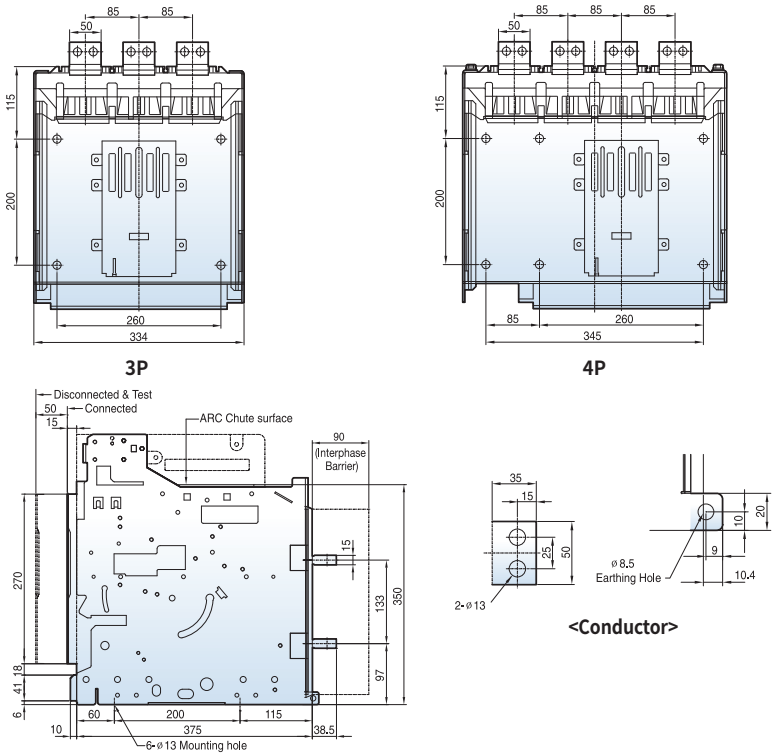
1600AF Draw-out type (200~1600A : AV/AW-06~16D)

(Unit : mm)

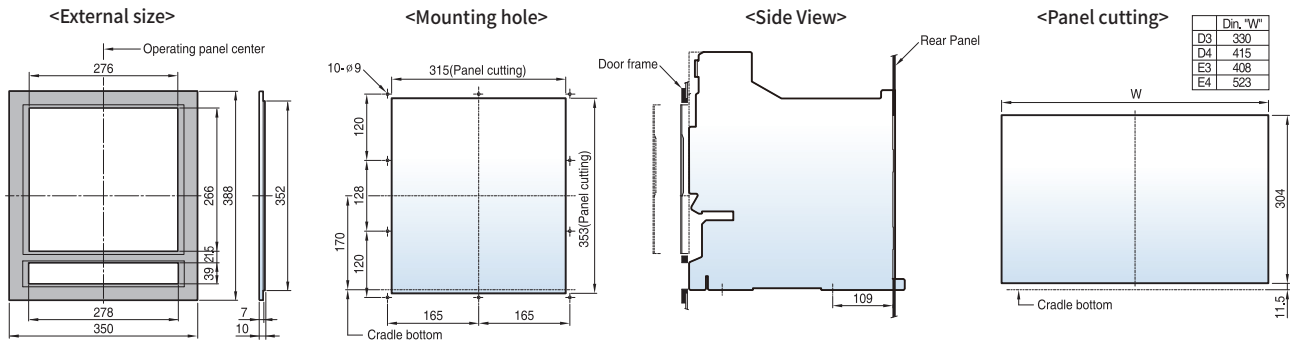
Front view



Horizontal type



Door Frame: DF (AV-D/E)

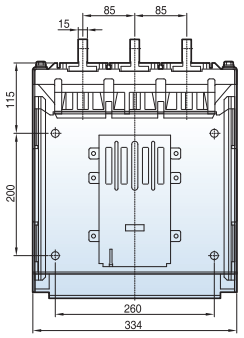


Note) The dimensions are for drawout type.

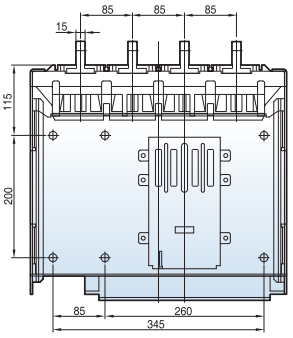
1600AF Draw-out type (200~1600A : AV/AW-06~16D)

(Unit : mm)

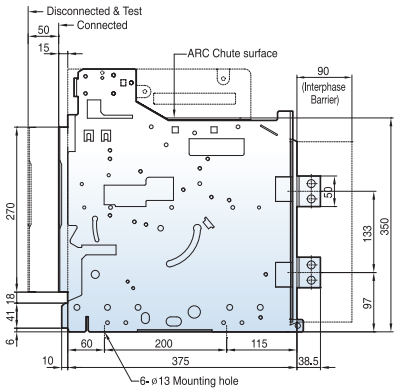
Vertical type

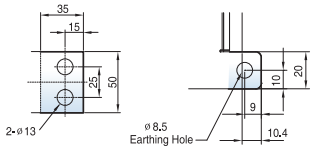


3P



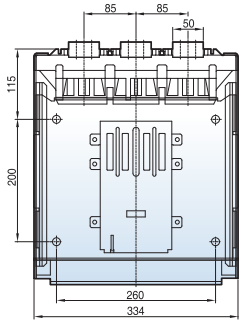
4P



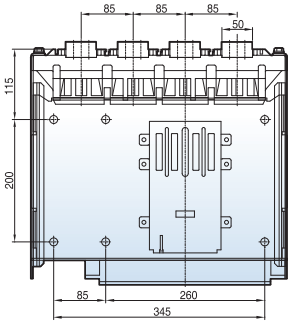


<Conductor>

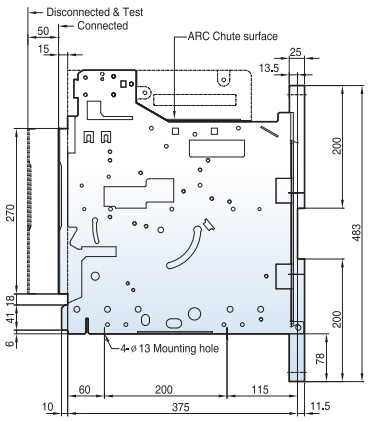
Front connection type

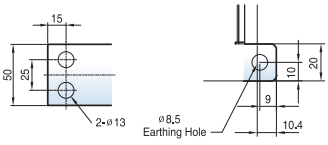


3P



4P





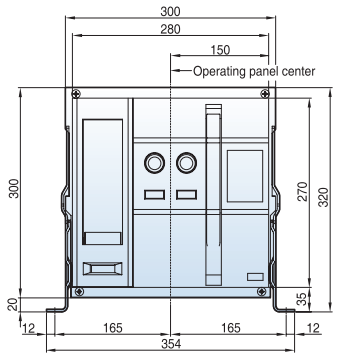
<Conductor>

Dimensions

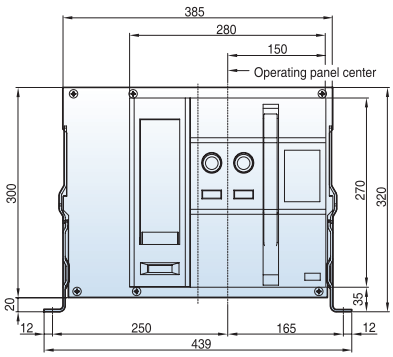
Fixed type 2000AF (2000A: AV/AW-20D)

(Unit : mm)

Front view

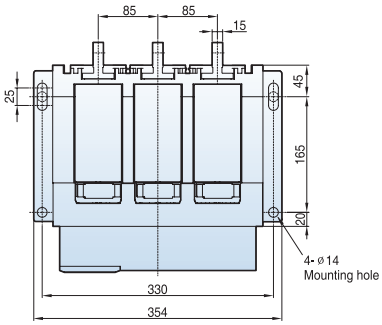


3P

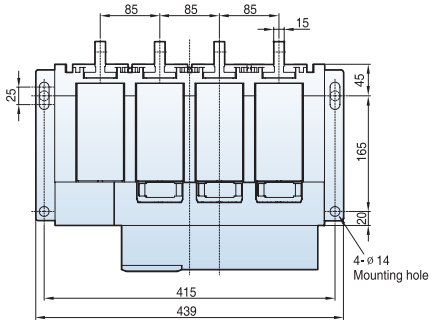


4P

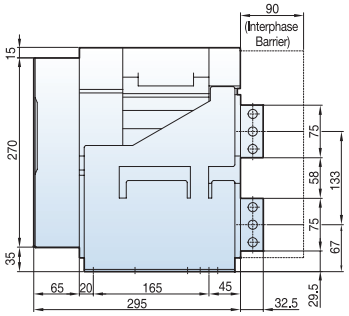
Vertical type

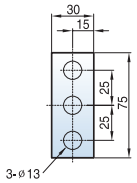


3P



4P



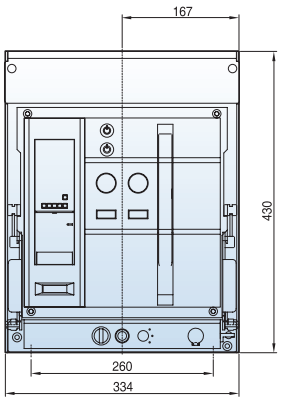


<Conductor>

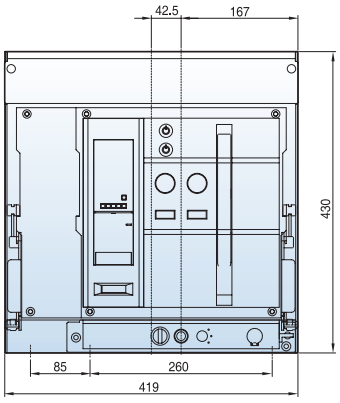
Draw-out type 2000AF (2000A: AV/AW-20D)

(Unit : mm)

Front view

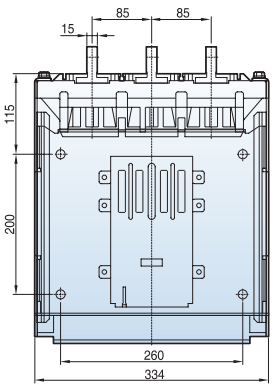


3P

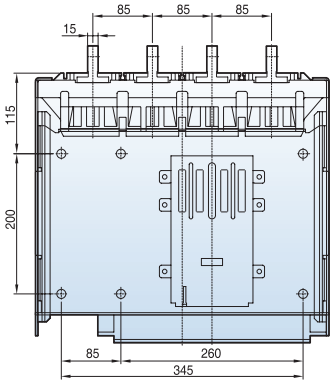


4P

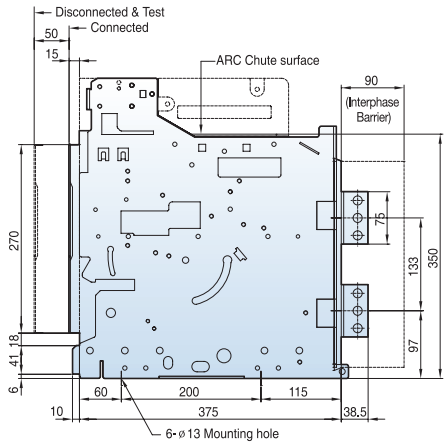
Vertical type

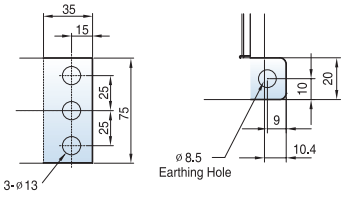


3P



4P





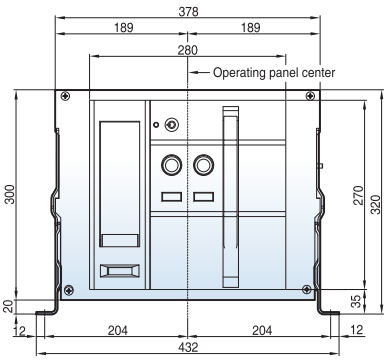
<Conductor>

Dimensions

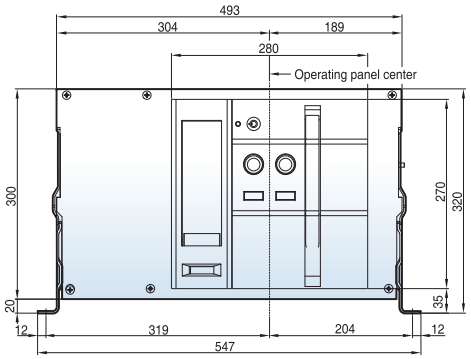
3200AF Fixed type (400~3200A : AV/AW-06~32E)

(Unit : mm)

Front view

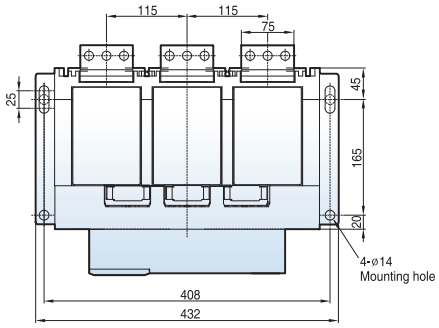


3P

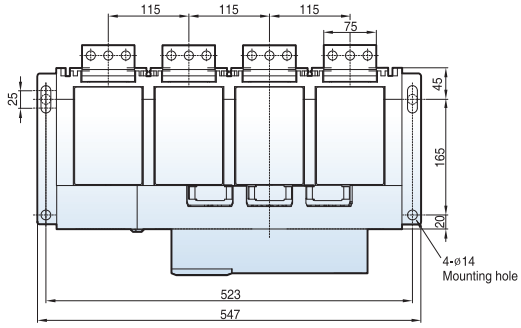


4P

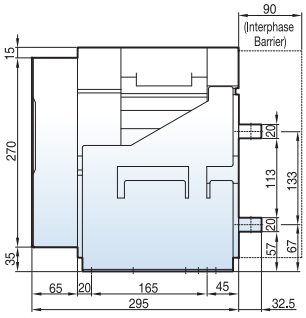
Horizontal type

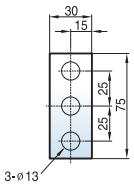


3P



4P



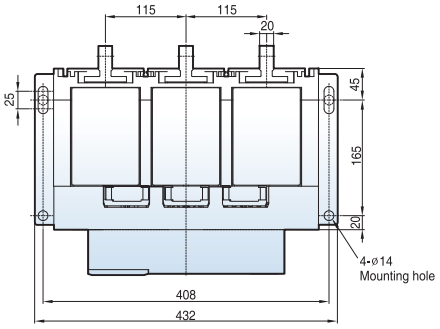


<Conductor>

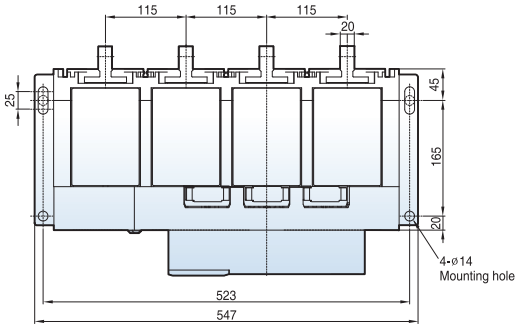
3200AF Fixed type (400~3200A : AV/AW-06~32E)

(Unit : mm)

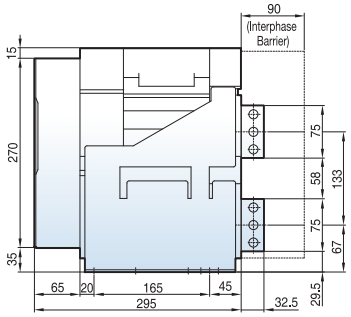
Vertical type

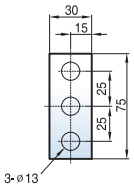


3P



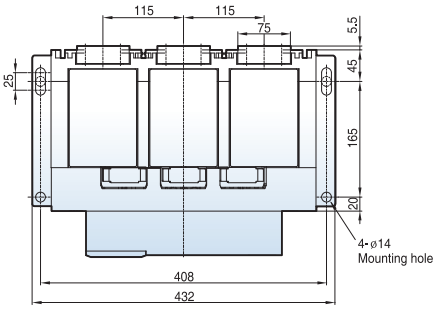
4P



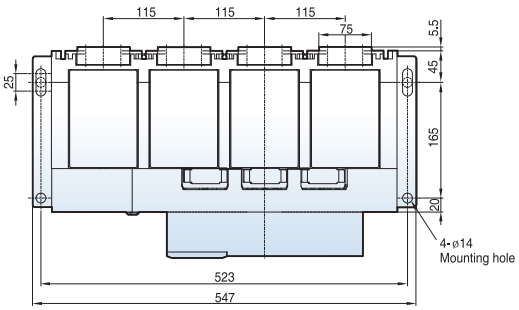


<Conductor>

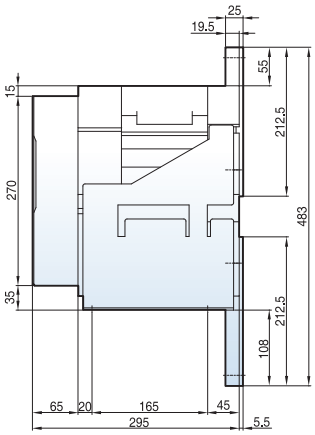
Front connection type

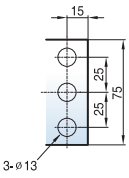


3P



4P





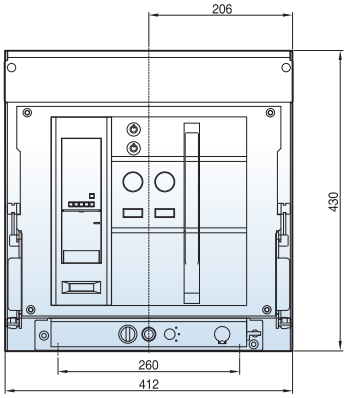
<Conductor>

Dimensions

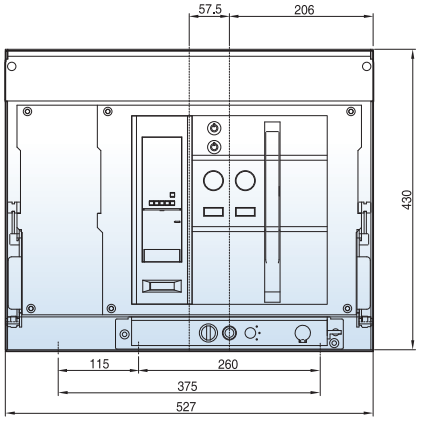
3200AF Draw-out type (400~3200A : AV/AW-06~32E)

(Unit : mm)

Front view

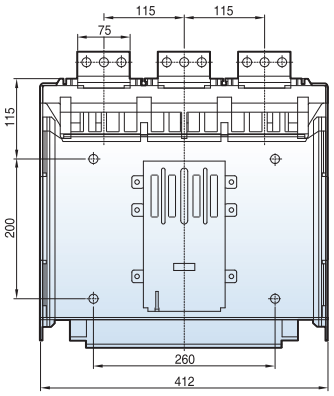


3P

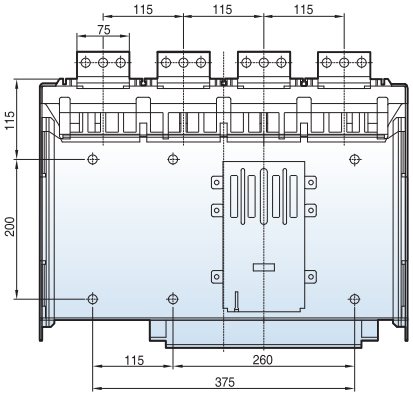


4P

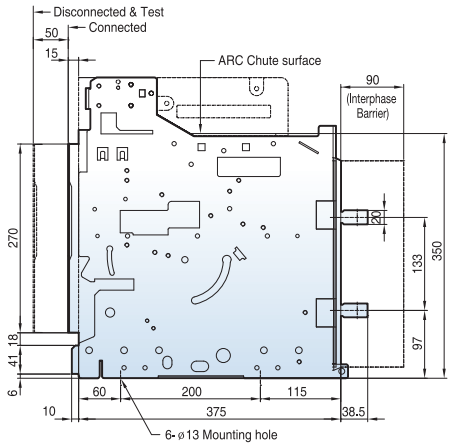
Horizontal type

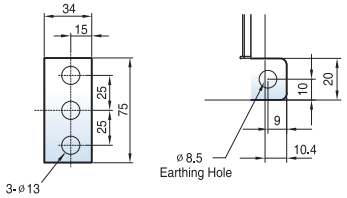


3P



4P



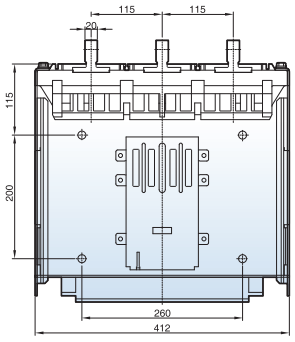


<Conductor>

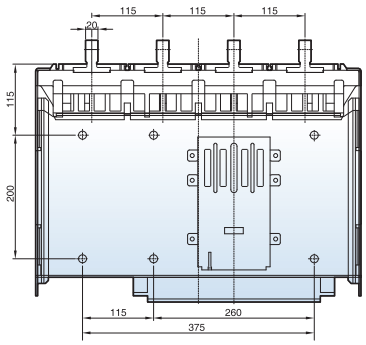
3200AF Draw-out type (400~3200A : AV/AW-06~32E)

(Unit : mm)

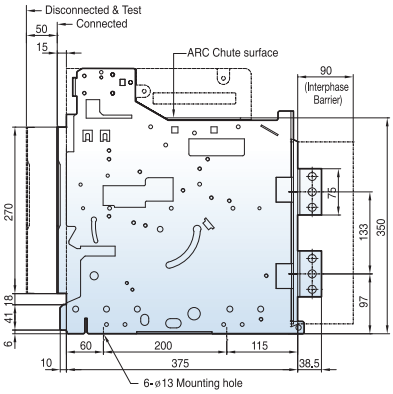
Vertical type

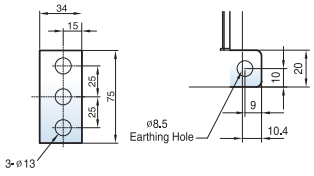


3P



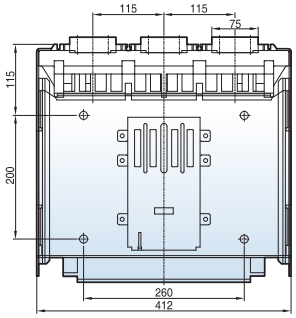
4P



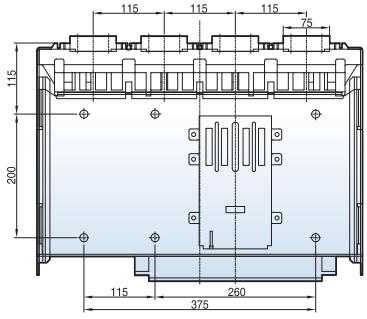


<Conductor>

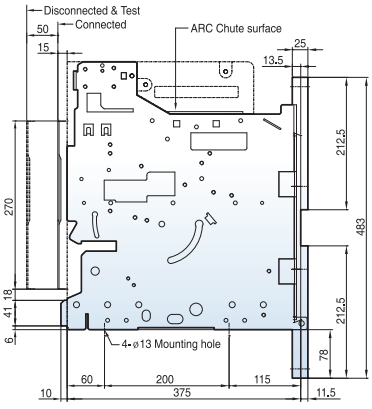
Front connection type

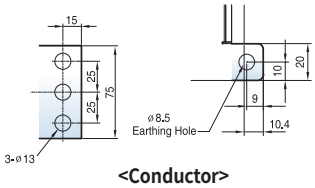


3P



4P





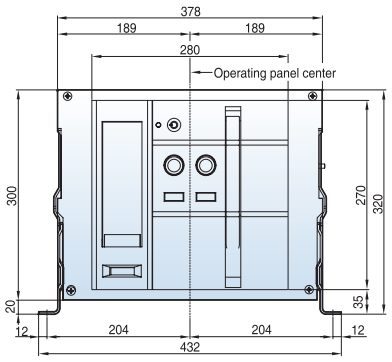
<Conductor>

Dimensions

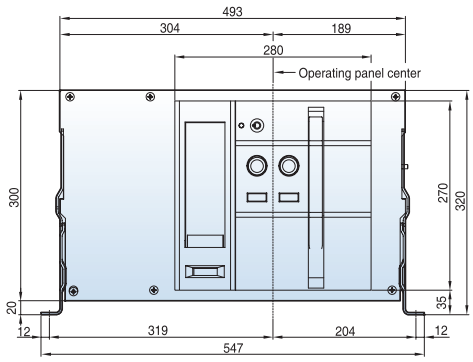
Fixed type 4000AF (4000A: AV/AW-40E)

(Unit : mm)

Front view

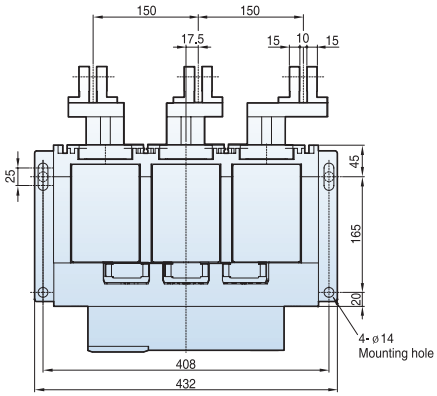


3P

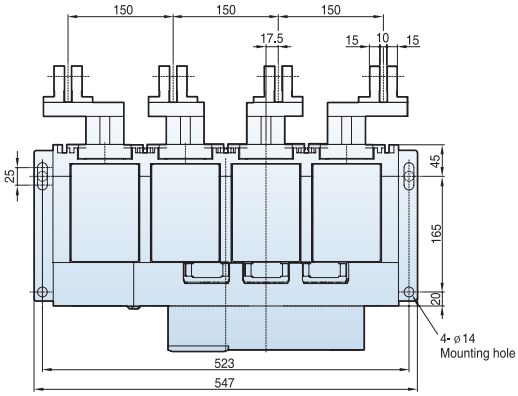


4P

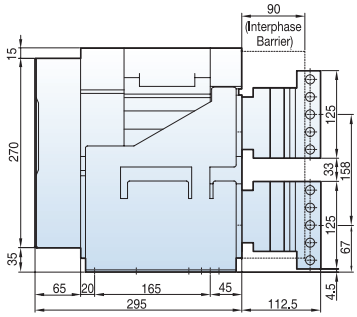
Vertical type

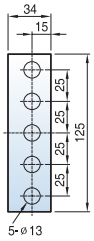


3P



4P



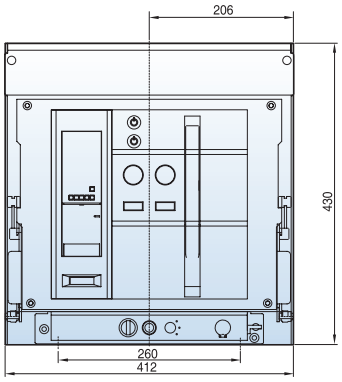


<Conductor>

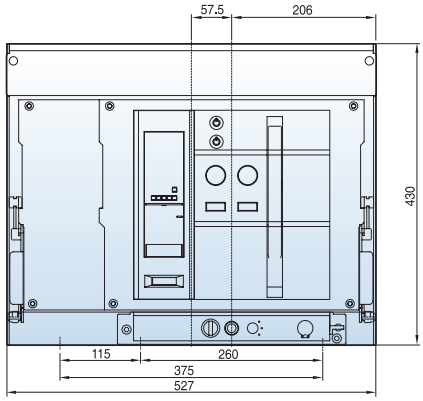
Draw-out type 4000AF (4000A: AV/AW-40E)

(Unit : mm)

Front view

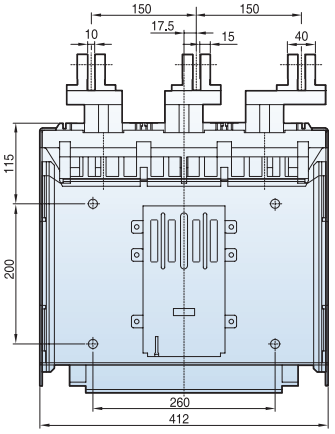


3P

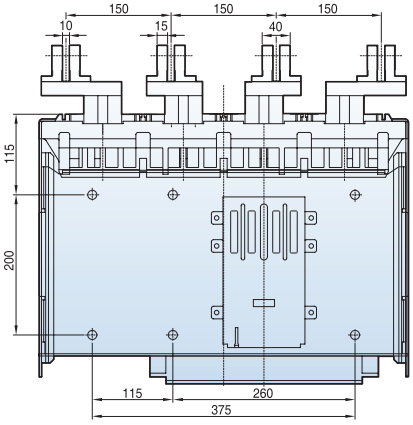


4P

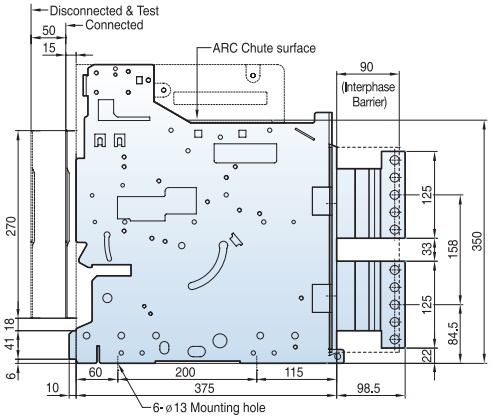
Vertical type

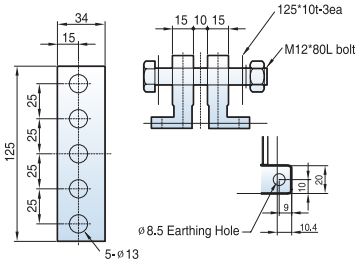


3P



4P





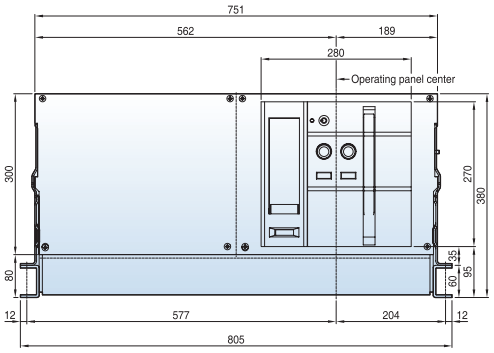
<Conductor>

Dimensions

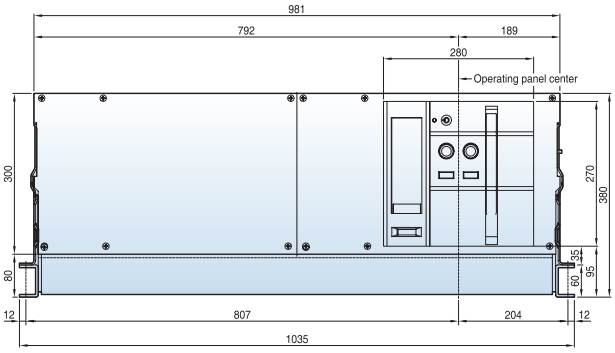
Fixed type 6300AF (4000A~5000A: AV/AW-40~50G)

Front view

[Unit: mm]

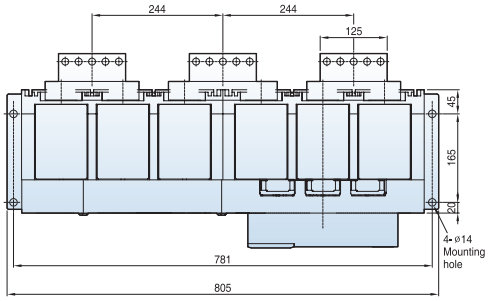


3P

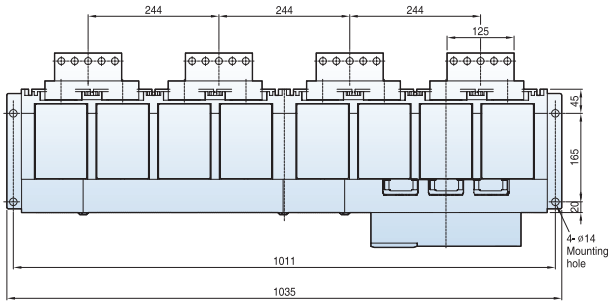


4P

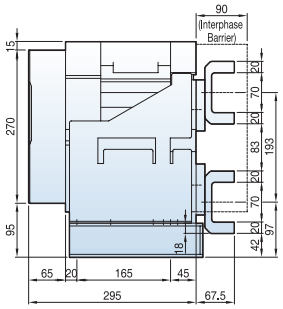
Horizontal type

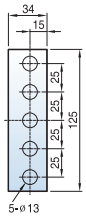


3P



4P



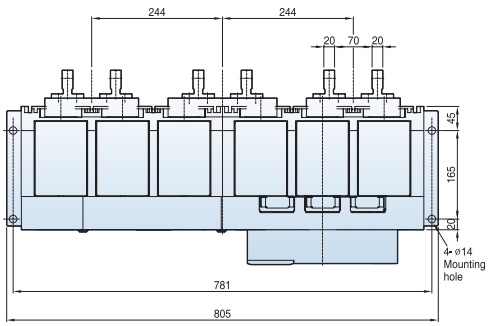


<Conductor>

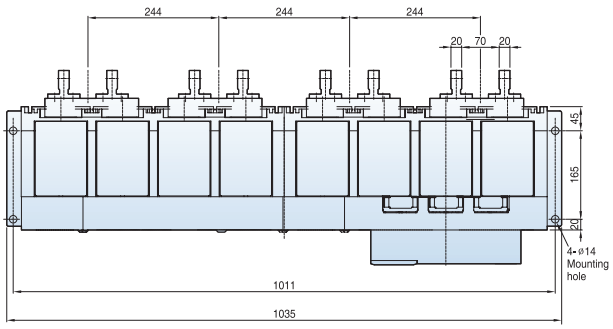
* Side View: Horizontal type same as 3-pole type

Vertical type

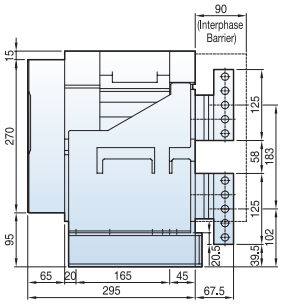
[Unit: mm]

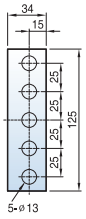


3P



4P





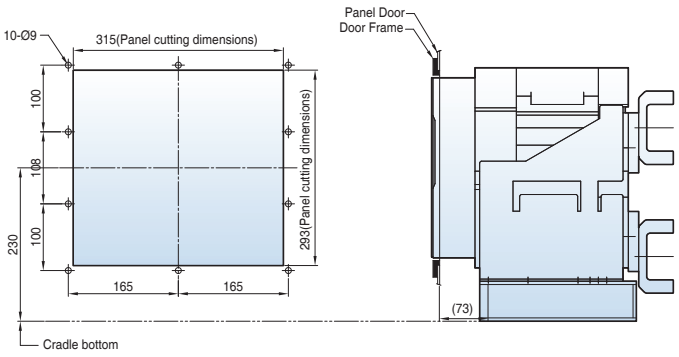
<Conductor>

* Side View: Vertical type same as 3-pole type

Door Frame: DF (AH-G)

<Attachment hole>

<Side View>



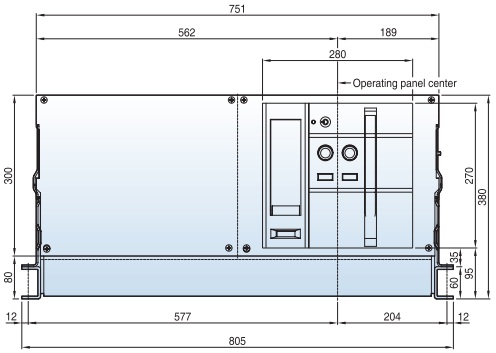
Note) The above Door Frame dimensions are applicable only to the fixed type.

Dimensions

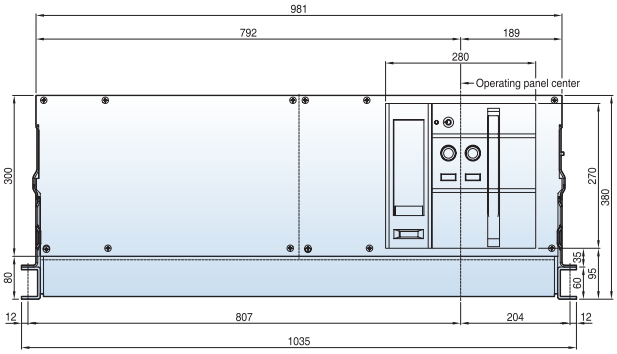
Fixed type 6300AF (6300A: AV/AW-63G)

Front view

[Unit: mm]

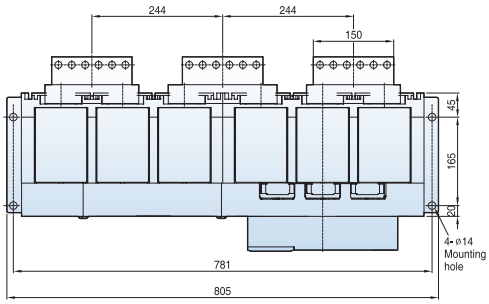


3P

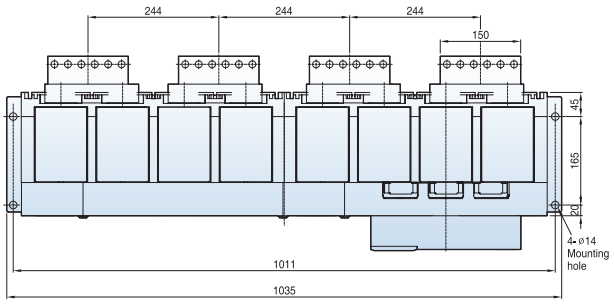


4P

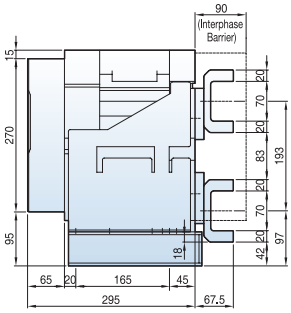
Horizontal type

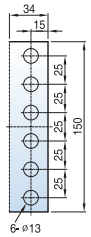


3P



4P



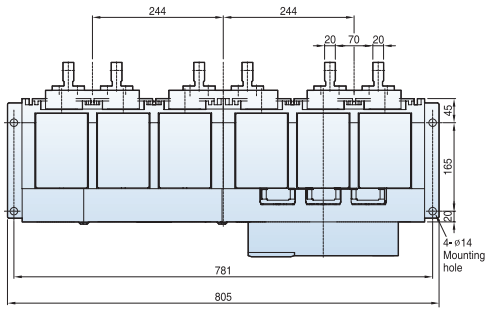


<Conductor>

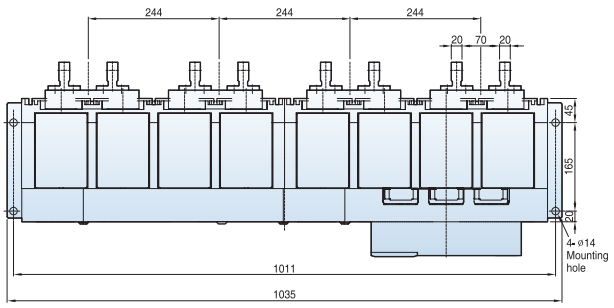
* Side View: Horizontal type same as 3-pole type

Vertical type

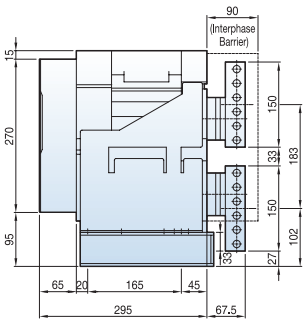
[Unit: mm]

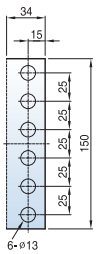


3P



4P





<Conductor>

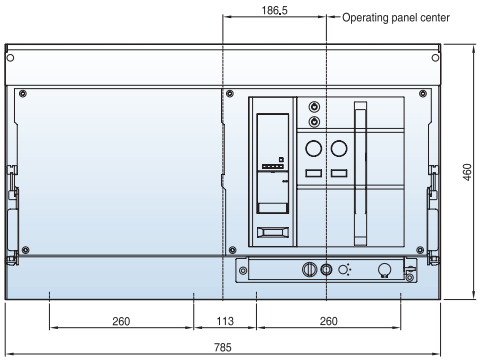
* Side View: Vertical type same as 3-pole type

Dimensions

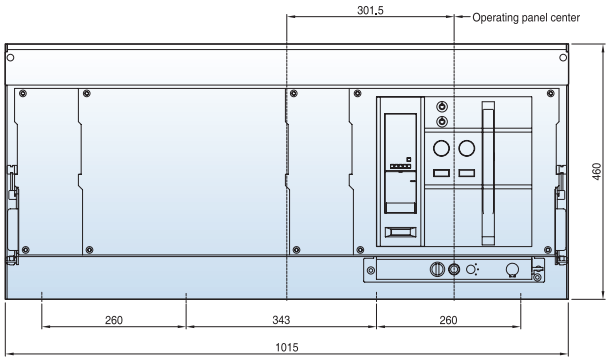
Draw-out type 6300AF (4000A~5000A: AV/AW-40~50G)

Front view

[Unit: mm]

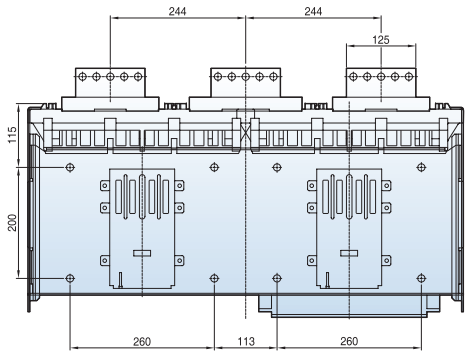


3P

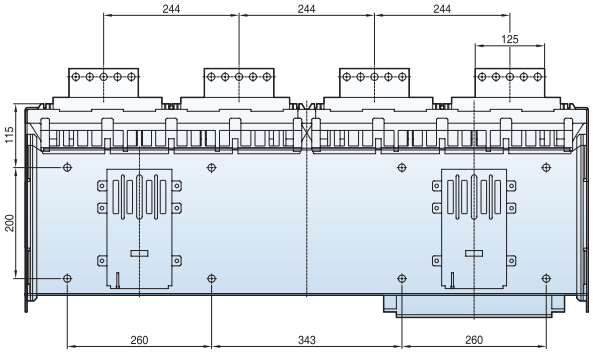


4P

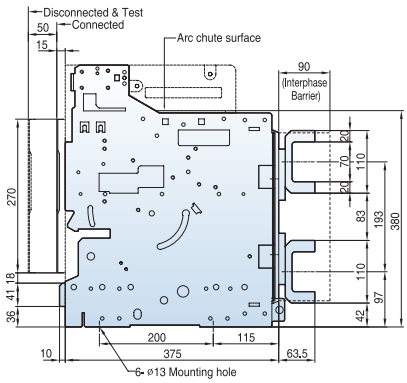
Horizontal type

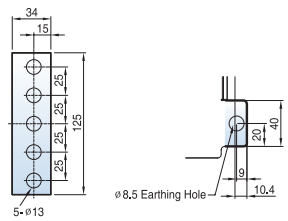


3P



4P



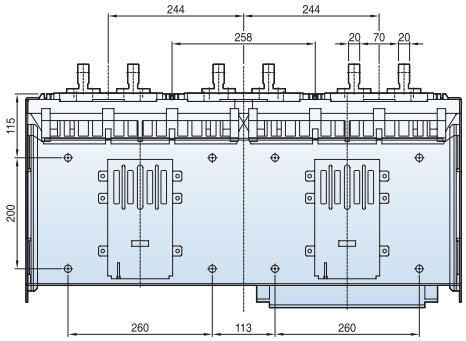


<Conductor>

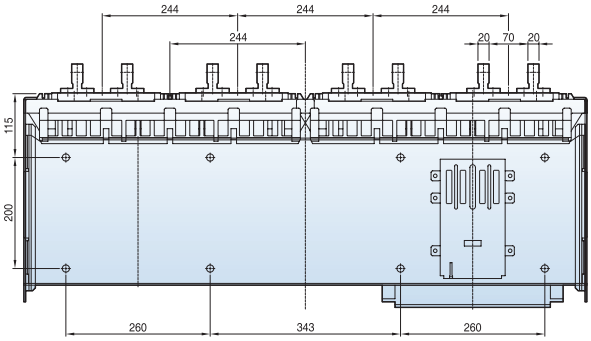
* Side View: Horizontal type same as 3-pole type

Vertical type

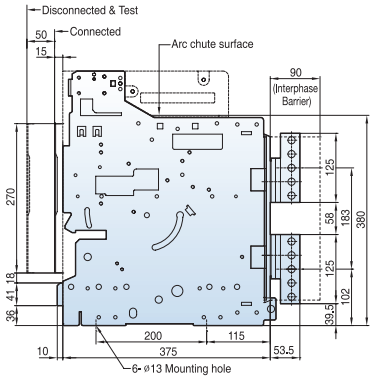
[Unit: mm]

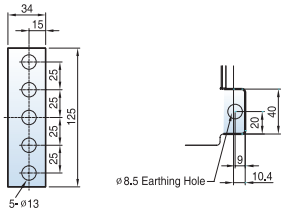


3P



4P



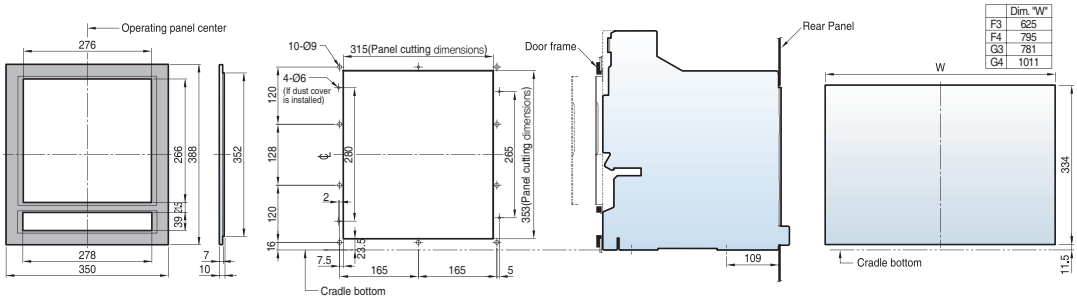


<Conductor>

* Side View: Vertical type same as 3-pole type

Door Frame: DF (AH-G)

<External size> <Attachment hole> <Side View> <Panel cut dimensions>



	Dim. "W"
F3	625
F4	795
G3	781
G4	1011

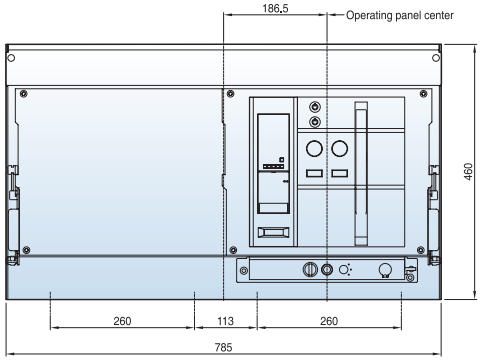
Note) The above Door Frame dimensions are applicable only to the pull-out type.

Dimensions

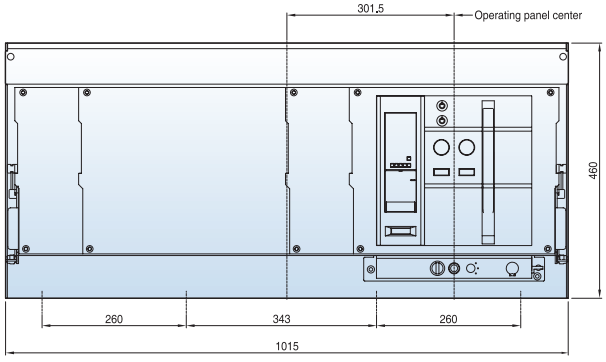
Draw-out type 6300AF (6300A: AV/AW-63G)

Front view

[Unit: mm]

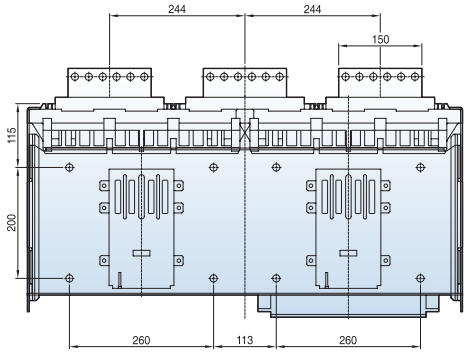


3P

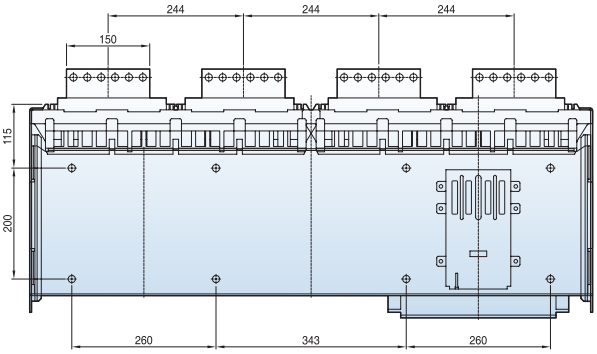


4P

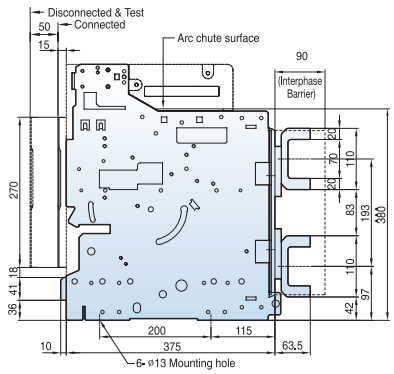
Horizontal type

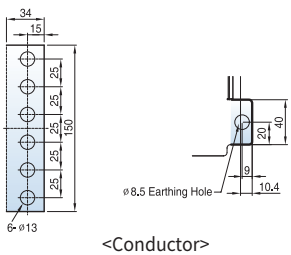


3P



4P



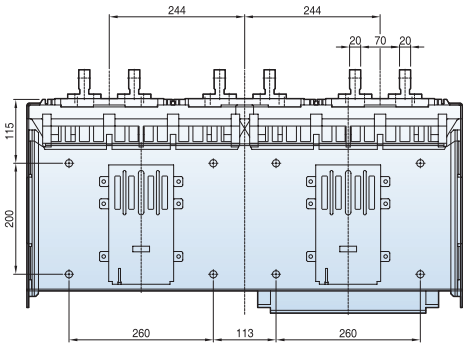


<Conductor>

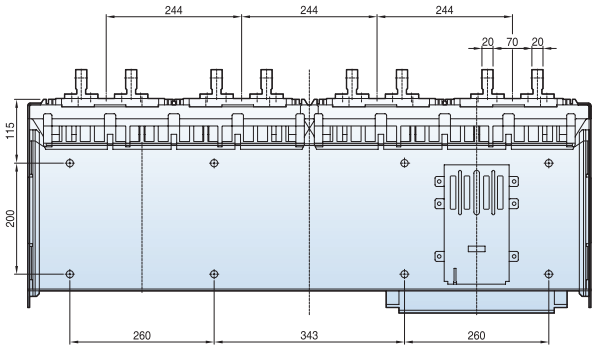
* Side View: Horizontal type same as 3-pole type

Vertical type

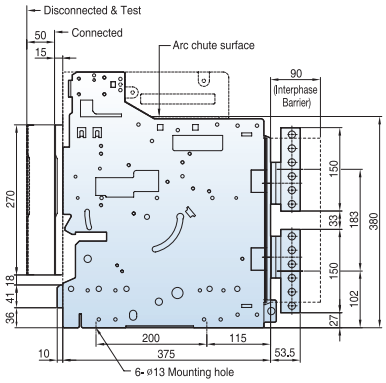
[Unit: mm]

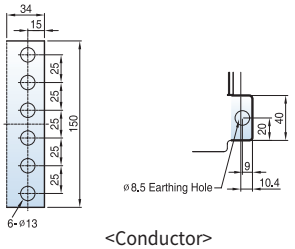


3P



4P





<Conductor>

* Side View: Vertical type same as 3-pole type

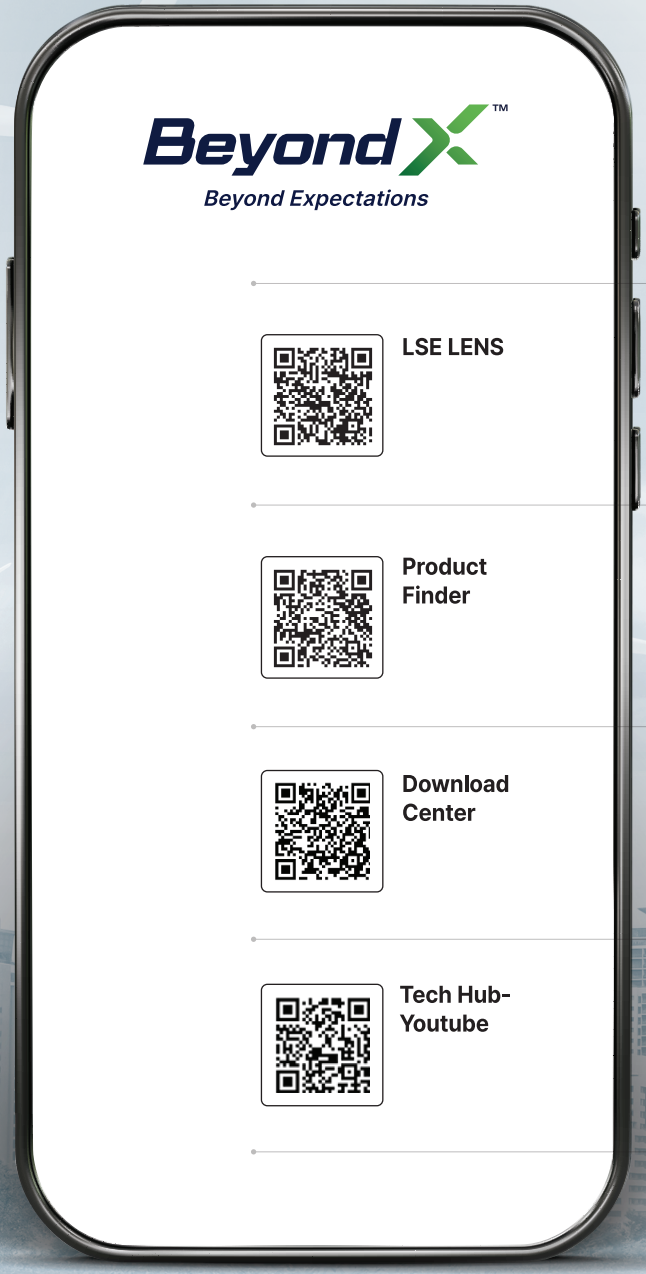
Temperature derating

Frame	Rated current	ACB terminal	Applicable busbar size														
				Horizontal type							Vertical type						
				40℃	45℃	50℃	55℃	60℃	65℃	70℃	40℃	45℃	50℃	55℃	60℃	65℃	70℃
1600AF AH-D	800A	15t×50×1EA	6t×50×2EA	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A
			10t×60×1EA														
	1000A		8t×50×2EA	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A
	1250A		6t×75×2EA	-	-	-	-	-	-	-	1250A	1250A	1250A	1250A	1250A	1250A	1250A
			8t×60×2EA	1250A	1250A	1250A	1250A	1250A	1200A	1140A							
			10t×50×2EA	-	-	-	-	-	-	-							
	1600A		6t×75×3EA	-	-	-	-	-	-	-	1600A	1600A	1580A	1550A	1500A	1320A	1260A
			10t×60×2EA	1600A	1600A	1520A	1480A	1420A	1240A	1180A							
			8t×60×3EA														
2000AF AH-D	2000A	15t×75×1EA	8t×75×3EA	-	-	-	-	-	-	-	2000A	2000A	1940A	1860A	1780A	1650A	1580A
			10t×100×2EA														
3200AF AH-E	630A	20t×75×1EA	5t×50×2EA	630A	630A	630A	630A	630A	630A	630A	630A	630A	630A	630A	630A	630A	630A
			10t×60×1EA														
	800A		6t×50×2EA	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A	800A
			10t×60×1EA														
	1000A		8t×50×2EA	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A	1000A
	1250A		6t×75×2EA	-	-	-	-	-	-	-	1250A	1250A	1250A	1250A	1250A	1250A	1250A
			8t×60×2EA	1250A	1250A	1250A	1250A	1250A	1250A	1250A							
			10t×50×2EA														
	1600A		6t×75×3EA	-	-	-	-	-	-	-	1600A	1600A	1600A	1600A	1600A	1600A	1600A
			10t×60×2EA	1600A	1600A	1600A	1600A	1600A	1600A	1520A							
			8t×60×3EA														
	2000A		8t×75×3EA	2000A	2000A	2000A	2000A	2000A	1900A	1800A	2000A	2000A	2000A	2000A	2000A	2000A	2000A
			10t×100×2EA	-	-	-	-	-	-	-							
	2500A		10t×75×3EA	2500A	2500A	2500A	2400A	2300A	2220A	2140A	2500A	2500A	2500A	2500A	2400A	2320A	2240A
			8t×75×4EA														
	3200A		10t×100×3EA	-	-	-	-	-	-	-	3200A	3200A	3120A	3050A	2950A	2650A	2530A
			10t×75×4EA	3200A	3200A	3100A	3000A	2900A	2600A	2460A							
4000AF AH-E	4000A	10t×100×3EA	10t×100×4EA	-	-	-	-	-	-	-	4000A	4000A	3950A	3800A	3680A	3310A	3160A
			10t×75×5EA														
6300AF AH-G	4000A	20t×125×2EA	10t×100×4EA	4000A	4000A	4000A	4000A	4000A	4000A	4000A	4000A	4000A	4000A	4000A	4000A	4000A	4000A
	5000A		10t×125×4EA	5000A	5000A	4900A	4820A	4750A	4690A	4490A	5000A	5000A	4950A	4870A	4850A	4830A	4630A
	6300A	20t×150×2EA	10t×150×4EA	6300A	6300A	6170A	6040A	5900A	5020A	4780A	6300A	6300A	6220A	6160A	6100A	5220A	4980A

Memo

Digital Support Hub

Scan the QR code for instant product information and expert support





**One Scan,
More Materials**

Scan the QR code to instantly access product materials

**Search Smarter.
Find Faster**

Quickly discover the best-fit product for your needs

**Download with
Ease and Speed**

Instantly access datasheets, manuals, and CAD files

**Expert Guidance,
Now on YouTube**

Watch trusted tutorials and product guides from real experts

Headquarter
127 LS-ro (Hogye-dong) Dongan-gu, Anyang-si, Gyeonggi-Do, 14119, Korea

Seoul Office
LS Yongsan Tower, 92, Hangang-daero, Yongsan-gu, Seoul, 04386, Korea
TEL: 82-2-2034-4916, 4684, 4429

China

LS ELECTRIC (Dalian) Co., Ltd.
+86-411-8730-5872
china.dalian@lselectric.com.cn

LS ELECTRIC (Wuxi) Co., Ltd.
+86-510-8534-6666
china.wuxi@lselectric.com.cn

LS ELECTRIC (Lishui) Co., Ltd.
+86-133-6207-7980
china.lishui@lselectric.com.cn

Shanghai Office
+86-21-5237-9977
china@lselectric.com.cn

Beijing Office
+86-10-5095-1631
china@lselectric.com.cn

Guangzhou Office
+86-20-3818-2883
china@lselectric.com.cn

Qingdao Office
+86-532-8501-2065
china@lselectric.com.cn

Chengdu Office
+86-28-8670-3201
china@lselectric.com.cn

Nanjing Office
+86-25-8467-0005
china@lselectric.com.cn

India

India Office
+91-80-6142-9108
Info_india@ls-electric.com

Indonesia

PT. LS ELECTRIC INDONESIA
+62-21-2933-7614
indonesia@ls-electric.com

PT SYMPHOS ELECTRIC
+62-81-1900-1474
marketing@symphos-weltraf.com

Italy

Italy office
+39-030-8081-833
italia@ls-electric.com

Japan

LS ELECTRIC Japan Co., Ltd.
+81-3-6268-8241
japan@ls-electric.com

Tokyo Office
+81-3-6268-8241
tokyo@ls-electric.com

Netherlands

LS ELECTRIC Europe B.V.
+31-20-654-1424
europartner@ls-electric.com

Russia

Moscow Office
+7-499-682-6130
info@lselectric-ru.com

Singapore

Singapore Office
+65-6958-8162
singapore@ls-electric.com

Spain

LS ELECTRIC IBERIA S.L.U.
+34-910-28-02-74
iberia@ls-electric.com

Thailand

Bangkok Office
+66-2-128-0295
thailand@ls-electric.com

Türkiye

LS ELECTRIC Türkiye Co., Ltd.
+90-212-806-1252
turkiye@ls-electric.com

U.A.E

LS ELECTRIC Middle East FZE (Dubai)
+971-4-886-5360
middleeast@ls-electric.com

USA

LS ELECTRIC America Inc.
+1-800-891-2941
sales.us@lselectricamerica.com

LS ENERGY SOLUTIONS LLC
+1-980-221-0654
cmfeldman@ls-es.com

MCM Engineering II
+1-435-865-0125
sales.us@lselectricamerica.com

America Western Office
+1-949-333-3140
america@ls-electric.com

America Bastrop Campus
+1-224-352-2265
sales.us@lselectricamerica.com

Vietnam

LS ELECTRIC Vietnam Co., Ltd.
+84-222-2221-110
vietnam@ls-electric.com

Hanoi Sales Office
+84-24-6275-8054
vietnam@ls-electric.com

Ho Chi Minh Sales Office
+84-3823-7890
vietnam@ls-electric.com

Specifications in this catalog are subject to change without notice due to continuous product development and improvement
© 2020. 11 LS ELECTRIC Co., Ltd. All rights reserved. / English (05) 2025. 01 Staffcom

www.ls-electric.com