Product Specification

● Specification

Type				AE630-SW	AE1000-SW	AE1250-SW	AE1600-SW
Frame size (A)				630	1000	1250	1600
Rated insulation voltage (Ui) (AC.V)				1000			
Rated operational voltage (Ue) (AC.V)				690			
Rated impulse withstand voltage (Uimp) (kV)				12			
Pollution degree				3			
Number of poles				3, 4			
Rated current In (CT rating)				630	1000	1250	1600
Current setting Ir (A) (40˚C)	General use (Current rating adjustable 0.5 to 1.0 × In 0.05 step)			315-346.5-378-409.5-441-472.5-504-535.5-567-598.5-630 (Note 5)	500-550-600-650-700-750-800-850-900-950-1000	625-687.5-750-812.5-875-937.5-1000-1062.5-1125-1187.5-1250	800-880-960-1040-1120-1200-1280-1360-1440-1520-1600
	Generator protection use (Current rating fixed)			160 ≤ Ir ≤ 630	400 ≤ Ir ≤ 1000	800 ≤ Ir ≤ 1250	1000 ≤ Ir ≤ 1600
Rated current of neutral pole (A)				630	1000	1250	1600
IEC60947-2 EN60947-2 BS VDE JIS C 8201-2-1	Ultimate breaking capacity Icu (kA rms)		690V AC	65			
			600V AC	65			
			240-500V AC	65			
		with MCR	690V AC	65			
			600V AC	65			
			240-500V AC	65			
		without Instantaneous	690V AC	25 (Note1)			
			500V AC	25 (Note1)			
	Rated service breaking capacity Ics (kA rms) %Icu			100%			
	Rated making capacity Icm (kA peak)		690V AC	143			
			600V AC	143			
			240-500V AC	143			
		with MCR	690V AC	143			
			600V AC	143			
			240-500V AC	143			
		without Instantaneous	690V AC	52.5			
			500V AC	52.5			
Rated short time withstand current Icw (kA rms)			1s	65			
			2s	60			
			3s	50			
Maximum total breaking time (ms)				40 (Note 6)			
Maximum closing time (ms)				80			
Number of operating cycles (Note 2)	With rated current		AC500V In	5000			
			AC690V In	5000			
	Without rated current			25000 (Note 4)			
Connecting terminal	Horizontal terminal			○			
	Vertical terminal			○			
	Front terminal			○			
Outline dimension (mm) H×W×D	Fixed type	3-pole		410×340×290			
		4-pole		410×425×290			
	Drawout type	3-pole		430×300×368			
		4-pole		430×385×368			
Weight (kg) (without Accessory)	Fixed type	3-pole		40	41	42	
		4-pole		50	51	52	
	Drawout type (including cradle)	3-pole		63	64	65	
		4-pole		77	78	79	
	Cradle only	3-pole		26			
		4-pole		30			
Marine approval	3-pole			○ (LR, GL, BV, DNV, ABS, NK, CCS)			

(Note 1) The columns for "without instantaneous" are the values when the bare main body and the external relay is combined.
(Note 2) The number of operating cycles without rated current also include the number of operating cycles with rated current.
(Note 3) AE2000-SWA, AE4000-SWA and AE4000-SW~AE6300-SW apply for only vertical terminal of connecting terminal.
(Note 4) This value is max. operating cycle for just ACB body not including any accessories.
(The max. operating cycles for the accessories like AX, MD,CC, SHT and UVT are half of this value.)
(Note 5) Products with low rating types is available.

AE 630-SW 3 kinds of products with low rating types is available.

- 250-275-300-325-350-375-400-425-450-475-500(CT 500A)
- 157.5-173.3-189-204.8-220.5-236.3-252-267.8-283.5-299.3-315(CT 315A)
- 125-137.5-150-162.5-175-187.5-200-212.5-225-237.5-250(CT 250A)

AE 2000-SW 2 kinds of products with low rating types is available.

- 800-880-960-1040-1120-1200-1280-1360-1440-1520-1600(CT 1600A)
- 625-687.5-750-812.5-875-937.5-1000-1062.5-1125-1187.5-1250(CT 1250A)

	AE2000-SWA	AE2000-SW	AE2500-SW	AE3200-SW	AE4000-SWA	AE4000-SW	AE5000-SW	AE6300-SW
	2000	2000	2500	3200	4000	4000	5000	6300
		1000				1000		
		690				690		
		12				12		
		3				3		
		3, 4				3, 4 (HN, FN) (Note7)		
	2000	2000	2500	3200	4000	4000	5000	6300
	1000-1100-1200-1300-1400-1500-1600-1700-1800-1900-2000	1000-1100-1200-1300-1400-1500-1600-1700-1800-1900-2000 (Note 5)	1250-1375-1500-1625-1750-1875-2000-2125-2250-2375-2500	1600-1760-1920-2080-2240-2400-2560-2720-2880-3040-3200	2000-2200-2400-2600-2800-3000-3200-3400-3600-3800-4000	2000-2200-2400-2600-2800-3000-3200-3400-3600-3800-4000	2500-2750-3000-3250-3500-3750-4000-4250-4500-4750-5000	3150-3465-3780-4095-4410-4725-5040-5355-5670-5985-6300
	1250 ≤ Ir ≤ 2000	800 ≤ Ir ≤ 2000	1600 ≤ Ir ≤ 2500	2000 ≤ Ir ≤ 3200	2500 ≤ Ir ≤ 4000	2500 ≤ Ir ≤ 4000	3150 ≤ Ir ≤ 5000	4000 ≤ Ir ≤ 6300
	2000	2000	2500	3200	4000	2000 (4000) (Note8)	2500 (5000) (Note8)	3150 (6300) (Note8)
		75				85		
		75				85		
		85				130 (Note9)		
		75				85		
		75				85		
		75				100		
		45 (Note1)				65 (Note1)		
		45 (Note1)				65 (Note1)		
		100%				100%		
		165				187		
		165				187		
		187				286		
		165				187		
		165				187		
		165				220		
		94.5				143		
		94.5				143		
		75				100		
		75				85		
		65				85		
		40 (Note 6)				50 (Note 6)		
		80				80		
	1500	1500		1000	500	1000		
	1500	1500		1000	500	1000		
		20000 (Note 4)				10000 (3P) / 5000 (4P)		
	-	○			-	-		
	○ (Note 3)	○			○ (Note 3)	○ (Note 3)		
	-	○			-	-		
		410×475×290				414×873×290		
		410×605×290				414×1003(1133)×290 (Note 8)		
		430×435×368			430×439×368	480×875×368		
		430×565×368			430×569×368	480×1005(1135)×368 (Note 8)		
	47	60	61	63	81	160	160	160
	57	72	73	75	99	180 (200) (Note8)	180 (200) (Note8)	180 (200) (Note8)
	70	92	93	95	108	233	233	240
	84	113	114	116	136	256 (279) (Note8)	256 (279) (Note8)	263 (286) (Note8)
	31	35		36	49	118	118	125
	35	43		44	61	133 (148) (Note8)	133 (148) (Note8)	140 (155) (Note8)
		○ (LR, GL, BV, DNV, ABS, NK, CCS)				○ (NK), available soon (LR, GL, BV, ABS)		

(Note 6) This value means the instantaneous breaking time at shortcircuit interruption.
As for accessories (SHT, UVT), refer to page 13 and 14.

(Note 7) 4(HN) means the neutral poles current capacity is 50% of the rated current, for 4 poles.
4(FN) means the neutral poles current capacity is 100% of the rated current, for 4 poles.

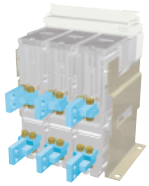
(Note 8) ( ) shows the value for 4P FN type.

(Note 9) Marine approval value is 138kA.

(Remark) All models conform the isolating function according to IEC 60947-2.
Reverse connection is possible.

Connections

Over view (AE630~1600-SW, AE2000~3200-SW)

Type \ Connections	Horizontal Standard	Vertical (VT)	Front (FT)	Vertical terminal adapter (VTA)	Front terminal adapter (FTA)
Fixed type (FIX)		——	——	 FIX-VTA	 FIX-FTA
Drawout type (DR)		 DR-VT	 DR-FT	 DR-VTA	 DR-FTA

● Connection image : AE630~1600-SW, 3-pole type

Over view (AE2000-SWA, AE4000-SWA, AE4000~6300-SW)

Type \ Connections	Vertical (VT) Standard
Fixed type (FIX)	 FIX-VT
Drawout type (DR)	 DR-VT

● Connection image : AE2000-SWA, 3-pole type
● For AE2000-SWA, AE4000-SWA, AE4000-SW, AE5000-SW and AE6300-SW models, vertical terminal only is available.

Available connections

Connections \ Breakers		AE630-SW	AE1000-SW	AE1250-SW	AE1600-SW	AE2000-SWA	AE2000-SW	AE2500-SW	AE3200-SW	AE4000-SWA	AE4000-SW	AE5000-SW	AE6300-SW
Fixed type (FIX)	Horizontal	●	●	●	●	–	●	●	●	–	–	–	–
	FIX-VT	–	–	–	–	●	–	–	–	●	●	●	●
	FIX-VTA	○	○	○	○	–	○	○	○	–	–	–	–
	FIX-FTA	○	○	○	○	–	○	○	○	–	–	–	–
Drawout type (DR)	Horizontal	●	●	●	●	–	●	●	●	–	–	–	–
	DR-VT	○	○	○	○	●	○	○	○	●	●	●	●
	DR-FT	○	○	○	○	–	○	○	○	–	–	–	–
	DR-VTA	○	○	○	○	–	○	○	○	–	–	–	–
	DR-FTA	○	○	○	○	–	○	○	○	–	–	–	–

● Standard ○ Optional

Manual charging

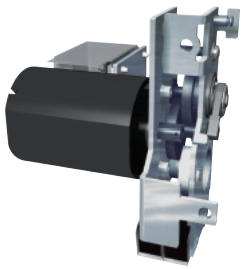
The closing spring is charged by the manual charging handle. The breaker is closed when the ON button is pressed, and opened when the OFF button is pressed.

- When the closing spring is completely charged, the charging indicator will show "CHARGED".
- The indicator shows the ON or OFF state of the main contacts.
- The breaker cannot be closed while the OFF button is being pressed. (Safety feature)
- OFF lock is available by padlock (See P7, P17) as standard.

Motor charging device (MD)

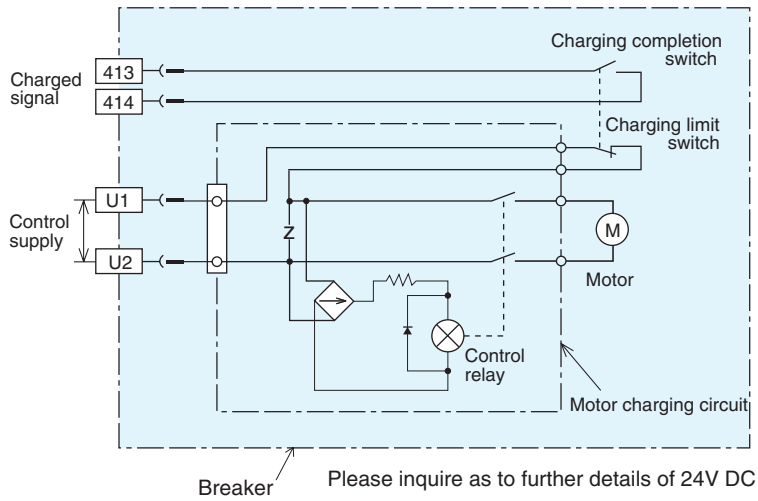
Option

1



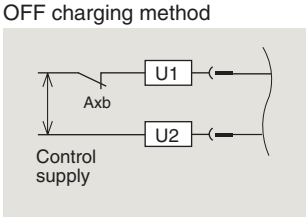
The closing spring is charged by an electric motor. When the breaker is closed, the spring is charged automatically (ON-charge method.) The closing coil (CC) is required to remotely close, and the shunt trip device is required to remotely open the breaker.

- Manual charging operation is also possible.
- Pumping prevention is assured both electrically and mechanically.
- As the charging completion contact is separate from the electrical charging circuit, its function in the control scheme can be arranged as desired.



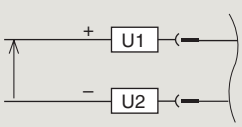
Please inquire as to further details of 24V DC and 48V DC.

OFF charging method



OFF charging method is also available. The closing spring is charged automatically when the breaker is opened. This is available only by externally connecting b contact (AXb) of the auxiliary switch to the motor charging circuit in series.
In case of DC power supply, please use high capacity auxiliary switch (HAX).

Polarity of DC circuit use

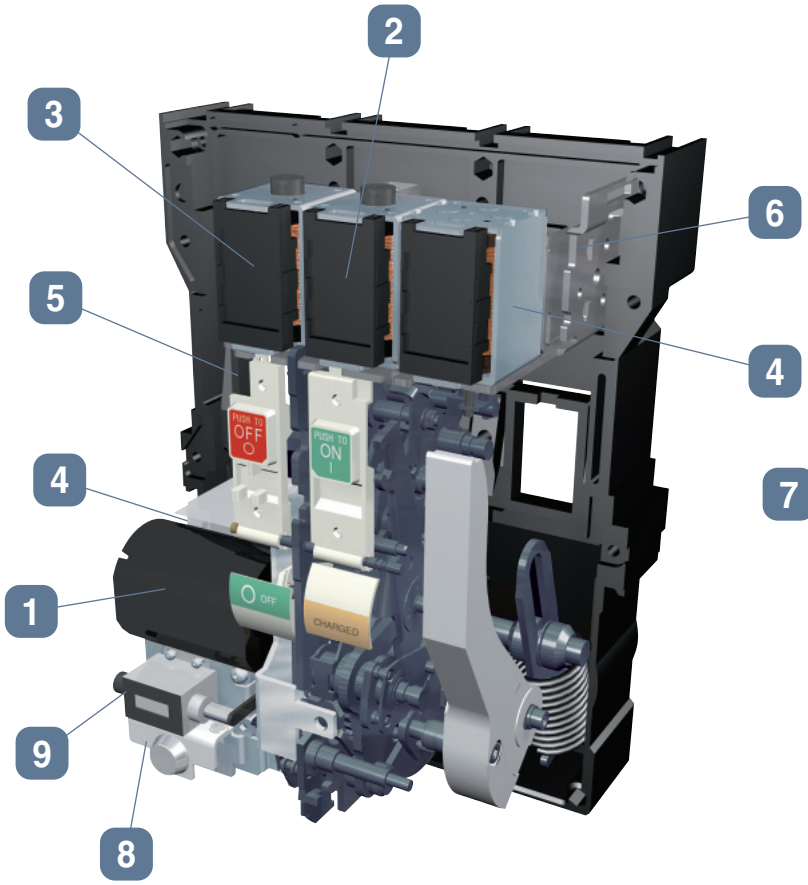


Motor charging rating

Rated voltage (V)	Applicable voltage range (V)	Applied voltage (V)	Inrush current(Peak value) (A)	Steady current (A)	Charging time (s)	Criterion for power requirement (VA)
DC24	18 ~ 26.4	24	22	6	≤ 5	500
DC48	36 ~ 52.8	48	14	3		
AC/DC 100-125	85 ~ 137.5	100	10(10)	3(4)		700
		125	12(12)	3(4)		1000
AC/DC 200-250	170 ~ 275	200	5(7)	1(2)		700
		250	6(8)	1(2)		1000

Values in parentheses show values for AE4000-SWA 4 pole and AE4000-SW ~ AE6300-SW.
We cannot manufacture AE4000-SWA 4 pole and AE4000-SW ~ AE6300-SW in DC 24V and DC 48V rating.

Accessories (for breaker unit)



Closing coil (CC)

Option

2

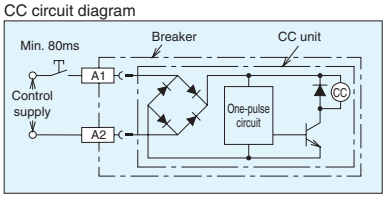
The closing coil is a device to close the breaker by remote control.

- An interlock to prevent pumping is provided electrically.

Rated voltage (Applicable voltage range)	Operating voltage・Operating inrush current (VA)		Closing time (Note1)
	AC	DC	
DC24-48V (18~52.8)	–	DC24V 3.0A (100W)	0.08 s or less
	–	DC48V 6.0A (200W)	
AC・DC common 100-250V (75-275)	AC100V 0.7A (100VA)	DC100V 0.8A (100W)	
	AC250V 1.7A (200VA)	DC250V 1.8A (250W)	

N o t e 1) In case of double rating of rated voltage, it is the value for the lower rating.
(Example) In case of DC24 to 48, it is operating time for DC24V.

CC circuit diagram



Diode rectifier is not used for control source 24~48V DC.

- Closing time means time from the initial energization of the closing coil up to the complete closing of the main contacts.
- As CC is one-pulse driven, it is not necessary to insert AXb for burning prevention purposes. Inserting AXb will cause anti-pumping function to be ineffective.

Shunt trip device (SHT)

Option

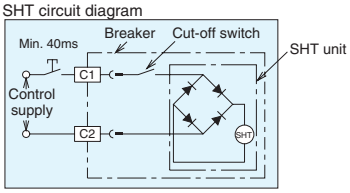
3

The shunt trip device is a device to open the breaker by remote control. A cut-off switch is included.

Rated voltage (Applicable voltage range)	Operating voltage • Operating inrush current (VA)		Operating time (Note1)
	AC	DC	
DC24-48V (16.8~52.8)	–	DC24V 2.5A (100W)	0.04 s or less
	–	DC48V 6.0A (200W)	
AC・DC common 100-250V(70-275)	AC100V 0.4A (100VA)	DC100V 0.6A (100W)	
	AC250V 1.4A (150VA)	DC250V 1.6A (200W)	
AC380~500V (266~550)	AC380V 0.5A (250VA) AC500V 0.7A (300VA)	-	

N o t e 1) In case of double rating of rated voltage, it is the value for the lower rating.
(Example) In case of DC24 to 48V, it is operating time for DC24V.
N o t e 2) Operating time for AE4000-SW~AE6300-SW is 0.05s or less.

SHT circuit diagram



Diode rectifier is not used for control source 24~48V DC.

4 Under voltage trip device (UVT)

Option

This is the device that automatically trips the breaker when the circuit voltage drops below the nominal voltage, and comprises UVT coil and UVT controller. There are 3 kinds of tripping time, INST, 0.5s and 3.0s.

Rated voltage	Frequency	operating time (time delay)	Pick-up voltage	Drop-out voltage	Trip function	Power consumption
AC100-120V	50/60Hz	☐ Inst(0.2s) ☐ 0.5s(Min.) ☐ 3.0s(Min.)	65~85V	45~70V	With open circuit of DT1,DT2 terminals.	20VA
AC200-240V			130~170V	90~140V		
AC380-460V			247~323V	171~266V		
DC24V	-		15.6~20.4V	10.8~16.8V		
DC48V			31.2~40.8V	21.6~33.6V		
DC100-110V			65~85V	45~70V		
DC120-125V			78~102V	54~84V		

Note1) In case of 380-460V AC, the external unit is attached additionally.

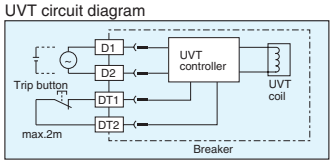
Note2) The operating time is a guarantee value when it drops from 85% or more of rated voltage.

Note3) Time delay should be allowed for 1.5s between applying the voltage to the UVT and closing the breaker.

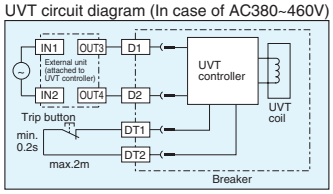
Note4) If a remote trip function is required, remove the shorting bar (DT1 DT2) and connect a normally closed switch, rated 0.5A at 150VDC across them.

Note5) Usage ambient temperature should be in the range from max. 40°C to min. -5°C.

UVT circuit diagram

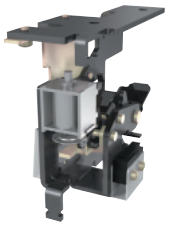


UVT circuit diagram (In case of AC380~460V)



5 OCR alarm (AL) [Automatic reset type Short-time operation (30ms)]

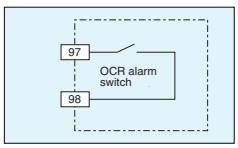
Standard if ETR is equipped



OCR alarm (AL) is provided as standard if ETR is equipped. OCR alarm (AL) is the contact (1a) of short-time operation (30ms), being output when the breaker is tripped by the electronic trip relay. Two types of automatic reset type (standard) and manual reset type (optional) are available. When ordering, specify either automatic reset or Manual reset.

Switch rating

Voltage (V)		Current (A)	
		Resistive load	Inductive load
AC	240	3	2
	125	5	3
DC	240	0.2	0.2
	125	0.4	0.4
	30	4	3



Note1) Though the control power supply is unnecessary to activate OCR alarm (AL), the self-holding circuit is necessary since the contact output is activated for the short time (30ms).

Note2) This works when tripping occurs in LTD, STD, INST, GFR or ER.

Note3) If any continuous output of OCR alarm (AL) is necessary, use the trip indicator (TI) output contact of the electronic trip relay.

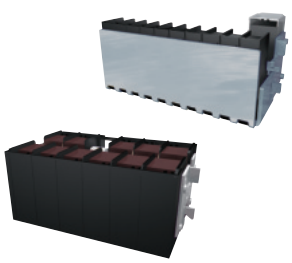
OCR alarm (AL) [MRE : Manual reset type]

Option

On the manual reset type (optional), the gray manual reset button on the front side of the breaker will stick out to continuously output OCR alarm (AL) if the breaker is tripped by the electronic trip relay. After tripping, the breaker can not be turned on unless the manual reset button is pressed for resetting.

6 Auxiliary switch Standard (AX) • High capacity type (HAX)

Option



This is the contact that remotely indicates the ON or OFF status of the breaker.

Switch rating

Voltage (V)		Current (A)			
		Standard (AX)		High capacity type (HAX)	
		Resistive load	Inductive load	Resistive load	Inductive load
AC	460	5	2	5	2.5
	250	10	10	10	10
	125	10	10	10	10
DC	250	0.3	0.3	3	1.5
	125	0.6	0.6	10	6
	30	10	6	10	10
Maximum contacts		5a5b		5a5b	

Change-over sequence	Breaker state	a-contact (NO)	b-contact (NC)
	ON	ON	OFF
	OFF	OFF	ON

- The a and b conacts may turn simultaneously to ON instantaneously at the time of changing the contact; Pay attention to the contact state when designing circuits.
- The chattering time at the time of contact ON-OFF is below 0.025 s.
- For special environment specification, the contact capacity gets deteriorated. Make inquiries for more details.

Accessories (for breaker unit)

Push button cover (BC-L)

Option

7

The cover prevents careless manual operation (ON,OFF) of the push buttons.
BC-L can be locked by a padlock (The padlock should be supplied by the customer.)
For the suitable size of a padlock, refer to Page 17.

Cylinder lock(CYL)

Option

8

The breaker is locked OFF with the cylinder lock.

- Since it is an interlock which only allows the key to be removed when the breaker is locked off, it can be used for interlocking two or more breakers.

Counter(CNT)

Option

9

The open/close operations of the breaker are shown by a 5 digit counter.

Door frame(DF)

Option

The door frame improves the appearance, after cutting out the panel door to install the breaker.
As for panel cut-out dimensions, refer to page 49.

Door interlock(DI)

Option

The panel door cannot be opened unless the breaker is open position.

- A wire type mechanical interlock allows flexibility in positioning breakers in the switchboard.
- The parts of the Door panel should be supplied by the customer.
- DI can not be installed by combining with "Mechanical interlock(MI)for 3 breakers."

Interphase Barrier(BA)

Option

This enhances the interphase insulation between the terminal portions of the breaker, and prevents short-circuit due to conductive inclusion or dust. It can be attached and detached easily. As for its availability, refer to the following table.

Type	Connections	AE630-SW~ AE1600-SW	AE2000-SWA	AE2000-SW~ AE3200-SW	AE4000-SWA	AE4000-SW~ AE6300-SW
Fixed type (FIX)	Horizontal (FIX)	●		●		
	Vertical terminal (FIX-VT)		▲		▲	–
	Vertical terminal adaptor (VTA)	▲		▲		
	Front terminal adaptor (FIX-FTA)	▲		▲		
Drawout type (DR)	Horizontal (DR)	●		●		
	Vertical terminal (DR-VT)	●	▲	▲	▲	▲
	Front terminal (DR-FT)	–		▲		
	Vertical terminal adaptor (VTA)	▲		▲		
	Front terminal adaptor (DR-FTA)	▲		▲		

● Available for the insulation ▲ Available for separating terminals Not existing type – Attachment is impossible

Terminal Cover(TTC)

Option

The transparent terminal cover prevents from careless touching to the live control terminals.
Protection degree is IP20.

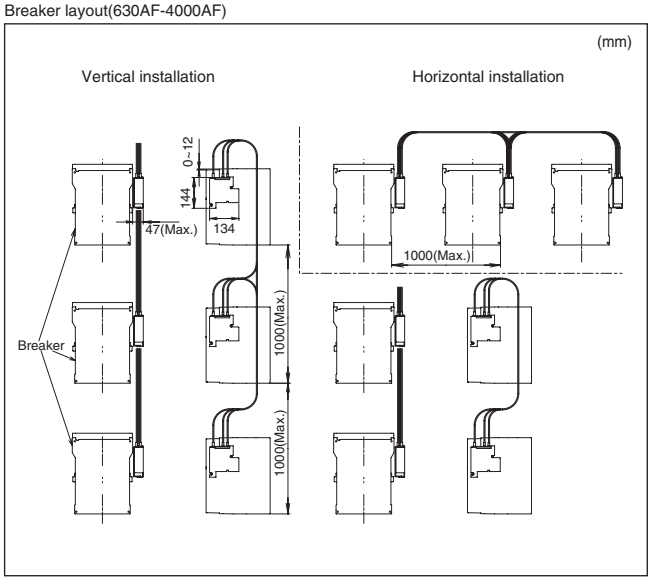
Mechanical interlock (MI)

Option

This is the device to prevent parallel charge of 2 or 3 units of breakers, and it can interlock the breakers mechanically without fail.
All combinations are available among any models from AE630-SW to AE4000-SWA.
Please make inquiries about installation to AE4000-SW~AE6300-SW.
Further the interlock is possible among the different connection types or poles, such as fixed type or drawout type, 3 pole or 4 pole.
In combination with electric interlock, the higher safety interlock system can be secured.

- In case of drawout type,the interlock works at "CONNECTED" position, and in another position the interlock is released, which assures easy maintenance and inspection of the breaker.
- When turning OFF one breaker and then turning ON another breakers, please take an interval 0.5 seconds or more.
- MI for 3 breakers can not be installed by combining with Door Interlock (DI).

Breaker layout(630AF-4000AF)



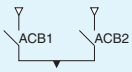
Interlock combinations

Switching states (for 2 ACBs)

Type	①	②	③
ACB1	○	|	○
ACB2	○	○	|

○ : ACB open
\| : ACB closed

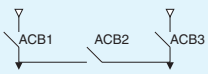
2 devices : 1 normal power supply and 1 emergency power supply



Switching states (for 3 ACBs)

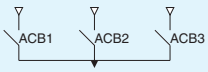
Type	①	②	③	④	⑤	⑥	⑦
ACB1	○	|	○	○	|	|	○
ACB2	○	○	|	○	|	○	|
ACB3	○	○	○	|	○	|	|

3 devices : 2 sources and 1 coupling



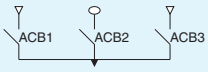
Type	①	②	③	④
ACB1	○	|	○	○
ACB2	○	○	|	○
ACB3	○	○	○	|

3 devices : 3 sources,only 1 device closed



Type	①	②	③	④	⑤
ACB1	○	|	○	|	○
ACB2	○	○	|	○	○
ACB3	○	○	○	|	|

3 devices : 2 normal power supplies and 1 emergency power supply



Case circuit

Condenser trip device (COT)

Option

Even if the power supply fails, the breaker can be electrically opened by remote operation within a definite time. This device is used in combination with the shunt trip device (SHT).

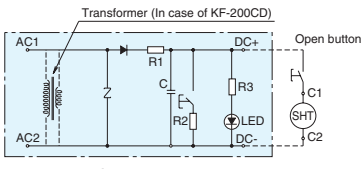
Type	KF-100CD	KF-200CD
Rated input voltage (V)	AC100/110	AC200/220
Rated frequency (Hz)	50-60	
Rated charging voltage (V) Note1	140/155	
Condenser capacity (μF)	820	
Voltage range	70~125%	
Power supply capacity (VA)	1 VA max	
Charging time (s)	1sec. max	
Trip limit time Note2	30 sec.	
Paint color	Black	
Withstand voltage (1minute)	AC 2000V	
Applicable SHT type (Rated voltage)	AC·DC 100-250V	

As for outline dimensions, refer to page 49.

Note 1: The rated charging voltage is the voltage stored during condenser saturation. It is continuously supplied by the rectified voltage of the rated AC input voltage.

Note 2: The trip limit time means the time period in which the shunt trip device (SHT) can make a tripping operation once, even after the charged condenser with 100% supply voltage would be stopped to charge. It can be tripped up to 30 seconds.

Note 3: Usage ambient temperature is in a range of max. 40°C to min. -20°C.



Circuit diagram

Dust cover (DUC)

Option

Dust cover prevents the dust or water entering into the panel board from the breaker panel cut.
Protection degree is IP54.

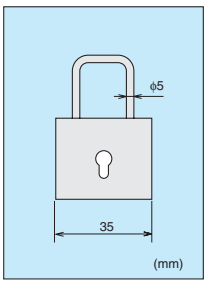
Accessories(for drawout type)

Drawout interlock (standard)

This is the safety device that prevents insertion and drawout operation. When the breaker is ON, the drawout handle cannot be inserted, and insertion and drawout operation cannot be done unless the OFF button is pressed.

Position lock (standard)

This is the device that locks automatically the drawout mechanism at "TEST" or "CONNECTED" positions during insertion and drawout operation. When the lock plate is pushed in, lock is released and operation can be continued.



Outline dimensions
(reference)

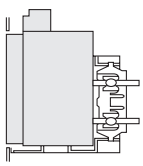
Padlock

Option

A padlock can be arranged at the lock plate. Thereby, it is possible to prevent the connection position from being changed unnecessarily. A padlock of ϕ5 should to be supplied by customer. As for outline dimensions of the padlock, please refer to the left figure.

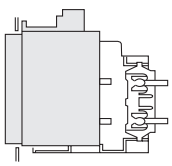
Operating position of drawout type

CONNECTED position



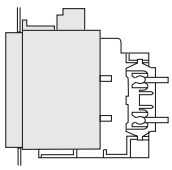
- Both main and control circuits are connected.
- Normal in use condition.
- Lock plate is protruding

TEST position



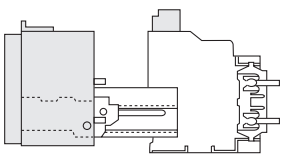
- Main circuit is disconnected, but the control circuit is connected.
- The breaker operation can be tested with the door closed.
- Lock plate is protruding

DISCONNECTED position



- Both main and control circuits are disconnected.
- The door can be closed.

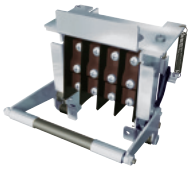
DRAWOUT position



- This is the position for removing the breaker.
- The breaker is drawn out of the cradle on the extension rails.

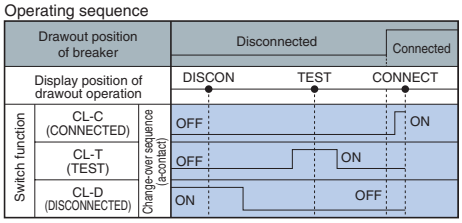
Cell switch (CL)

Option



This is the switch to show the drawout position (CONNECTED, TEST, and DISCONNECTED) of the breaker. An arbitrary combination up to 4 pieces is available.

Operating sequence



Note 1: The setting is available for change by customer later.
A preliminary setting of CL at factory shipment is as follows.
CL1:1C CL2:1C1D CL3:1C1T1D CL4:2C1T1D

Switch rating

Voltage (V)		Current (A)	
		Resistive load	Inductive load
AC	460	5	2.5
	250	10	10
	125		
DC	250	3	1.5
	125	10	6
	30	10	10
Maximum contacts		Total 4c max.	

Standard pattern

	CL-C	CL-T	CL-D
CL1	1	–	–
CL2	1	–	1
CL3	1	1	1
CL4	2	1	1

Shorting b-contact (SBC)

Option

When moving the breaker from the connected to the test positions, this contact is used to short circuit auxiliary switch (AXb) thus maintaining the correct sequence of operation of the external control circuit. When ordering, SBC with the same number of contacts as auxiliary switches (AXb) will be provided.

Switch rating

Voltage (V)		Current (A)	
		Resistive load	Inductive load
AC	250	10	2
	125	10	3
DC	250	0.2	0.2
	125	0.4	0.4
	30	4	3

Lifting hook(HP)

Option

This is the metal fitting to suspend the main body when the breaker is removed from the drawout cradle. The fixed type breaker is equipped with HP as standard.

Safety shutter(SST)

Option

The safety shutters cover the conductors (cradle side) and prevent contact with them when the breaker is drawn out.

Safety shutter lock(SST-Lock)

Option

This kit is used to lock the safety shutters using 2 padlocks (the padlocks to be customer's supply). The safety shutters close when the breakers drawn out to prevent accidental contact with the main contacts.

Mis-insertion preventor(MIP)

Option

This prevents other breakers than specified from inserting into the cradle, and max.5 patterns are available.
Not available for AE4000-SW~AE6300-SW

Test jumper(TJ)

Option

With the breaker taken out of its cradle, this device enables the breaker to be electrically opened and closed, and the operating sequence to be checked. 3m length of cable is equipped as standard shipment.