

Derwent
Top 100
Global
Innovator
2020

Renewable energy solution



LS[▶]**ELECTRIC**

FUTURING SMART ENERGY

We open up a brighter future through efficient and convenient energy solutions.



LS a leader of the electric power and automation industry, offers smart convergence solutions by combining ICT and DC technology.
Smart Power Transmission Solutions / Smart Power Distribution Solutions Smart Automation Solutions

DC ACB

- Basic rating
 - Rated voltage: 1500Vdc (4p) / 1000Vdc (3p) - Rated current: 800 ~ 3200A
 - Short-time capacity: 65kA/1sec - Breaking capacity: 70kA @ 750Vdc, 60kA @ 1500Vdc
- Multi-function relays dedicated to DC protect and enhancing user convenience
 - Precise measurement of current, voltage, power and various protection relay functions
 - Self diagnosis function, event and fault waveform recording
- Electrical endurance:
 - 10,000 operations (1600A @ 1500Vdc), 3,000 operations (3200A @ 1500Vdc)
- Isolation function convenient for withstand voltage test of switchgears
- Optional Short-Busbar considering temperature performance
- Compatible with existing Susol ACB
 - Accessories including closing and trip coils
 - Physical sizes for installation
- Applicable standards and tests: IEC 60947-2, DEKRA CB certification



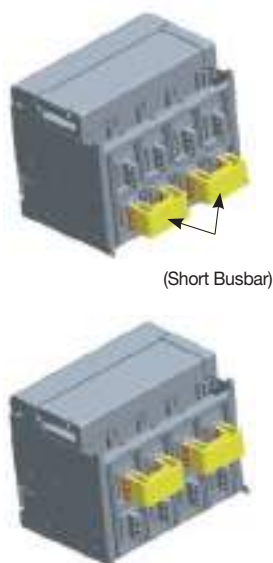
Type and ratings

Type			DC 1200V			DC 1500V			
Number of poles	(P)		3 / 4			3 / 4			
Rated operational voltage (Ue)	(Vdc)		750 (3P) / 1200 (4P)			1000 (3P) / 1500 (4P)			
Rated insulation voltage (Ui)	(V)		1500			1500			
Rated impulse withstand voltage (Uimp)	(kV)		12kV			12kV			
Version			Fixed / Withdrawable			Fixed / Withdrawable			
Suitability for isolation									
Degree of pollution	IEC60661-1		3			3			
Certification			CB certification according to IEC 60947-2			CB certification according to IEC 60947-2			
Brand name			Susol			Susol			
Ampere Frame			ADH-16E 1600AF	ADH-25E 2500AF	ADH-32E 3200AF	ADV-16E 1600AF	ADV-25E 2500AF	ADV-32E 3200AF	
Rated current (In) at 40°C	(A)		800/1000/ 1250/1600	1600/2000/ 2500	1600 / 2000 / 2500 / 3200	800 / 1000 / 1250/1600	1600 / 2000 / 2500	1600 / 2000 / 2500 / 3200	
Rated ultimate breaking capacity (Icu)	(kA)	(3P)	500V DC	60	85	-	-	-	
			750V DC	-	40	60	70	-	
			1000V DC	-	-	50	60	-	
		(4P)	750V DC	-	50	-	-	-	
			1000V DC	32	40	60	70	-	
1500V DC	-	-	50	60	-	-			
Rated service breaking capacity (Ics)	(%)		100			100			
Rated short-time withstand current (Icw)	(kA/1s)	(3P)	500V DC	60 ^{Note1)}	65	-	-	-	
			750V DC	40	45	50 ^{Note1)}	60	-	
			1000V DC	-	-	50 ^{Note1)}	50	-	
		(4P)	750V DC	50 ^{Note1)}	50	-	-	-	
			1000V DC	-	-	50 ^{Note1)}	65	-	
			1200V DC	35	40	-	-	-	
			1500V DC	-	-	50 ^{Note1)}	50	-	
Rated making capacity (Icm)	(kA peak)		100			100			
Utilization category (according to IEC 60947-2)			B			B			
Overcurrent protection	Electronic trip units for DC applications		●			●			
Operation time	(ms)	Total Breaking < Icw	max. 70			max. 70			
		time > Icw	max. 30			max. 30			
		Closing time	max. 80			max. 80			
Mechanical and Electrical Life cycle									
Endurance (times) (Without maintenance)		Mechanical		15,000			15,000		
			less than 1600A	10,000			10,000		
		Electrical (at 1000 V DC)	2000A	8,000			8,000		
			2500A	-	5,000	3,000	-	5,000	3,000
Dimension and Weight									
Weight (3P/4P)	(mm)	Drawout	Without cradle	43 / 53			43 / 53		
			With cradle	87 / 103			87 / 103		
		Fixed	44 / 55			44 / 55			
External dimensions (HxWxD)	(mm)	Drawout	3P(4P)	430x412(527)x375			430x412(527)x375		
		Fixed	3P(4P)	300x378(493)x295			300x378(493)x295		

Note 1) Duration of rated short-time withstand current (Icw) is 0.5s

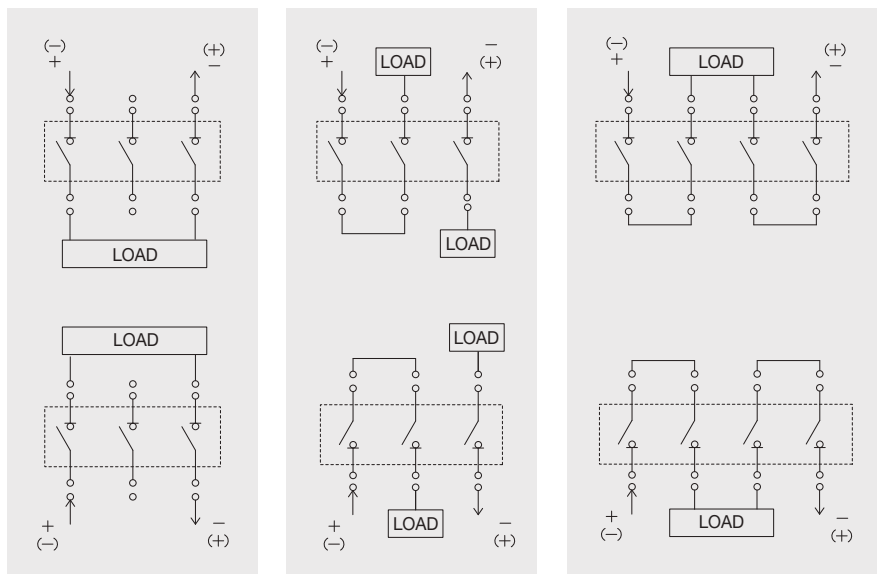
Connection diagram of DC ACB

ADV	750V	1000V	1500V
ADH	500V	750V	1200V



Upper supply

Lower supply



※ Refer to the following page for product dimensions with short busbar.

Composition of short busbar

1. Short busbars can be ordered as shown in the table below, or customer have to make short busbars in accordance with the specified short busbars according to AF.
2. The tightening torque for assembling short busbars is 40~50N.m

Type	AF	Ordering code & quantity	Appearance	Contents
ADV ADH	800-1600AF	70223464603		Short busbars: 75mm×10T×2ea Bolt : M12×60, 6ea Nut : M12, 6ea Spring washer, Plain washer
		3P: 1ea 4P: 2ea		
ADV ADH	2000-2500AF	70223464604		Short busbars: 125mm×10T×3ea Bolt : M12×80, 6ea Nut : M12, 6ea Spring washer, Plain washer
		3P: 1ea 4P: 2ea		
ADV ADH	3200AF	70223464620		Short busbars: 100mmx10T×1ea 120mmx105mmx10T×1ea (L type) Bolt : M12×60, 8ea Nut : M12, 8ea Spring washer, Plain washer, Heat sink
		3P: 1ea 4P: 2ea		