

Air Circuit Breakers

DH series

■ Specifications, standard types

Frame size	800A		1250A		1600A		2000A		2500A		3200A		4000A				
Basic type	DH08 □■		DH12 □■		DH16 □■		DH20 □■		DH25 □■		DH30 □■		DH40 □■				
No. of poles *2	3	4	3	4	3	4	3	4	3	4	3	4	3	4			
Rated current (A) *1	IEC, EN, AS		800		1250		1600		2000		2500		3200		4000		
	JIS		800		1250		1600		2000		2500		3200		3700		
	NEMA, ANSI		800		1250		1540		2000		2500		3200		3700		
	NK, LR, AB, GL, BV		800		1250		1600		2000		2500		3200		4000		
Rated current of the neutral pole (A)		800		1250		1600		2000		2500		3200		4000			
Rated primary current of overcurrent tripping device (I _{CT}) (A) (For general feeder circuit use)		200 400 800		400 800 1250		400 800 1250 1600		400 800 1250 1600 2000		2500		3200		4000			
Rated primary current of overcurrent tripping device (I _n) (A) (For generator protection use) I _n : Generator rated current		100 ≤ I _n ≤ 200 200 < I _n ≤ 400 400 < I _n ≤ 800		200 ≤ I _n ≤ 400 400 < I _n ≤ 800 630 < I _n ≤ 1250		200 ≤ I _n ≤ 400 400 < I _n ≤ 800 630 < I _n ≤ 1250 800 < I _n ≤ 1600		200 ≤ I _n ≤ 400 400 < I _n ≤ 800 630 < I _n ≤ 1250 800 < I _n ≤ 1600 1000 < I _n ≤ 2000		1250 ≤ I _n ≤ 2500		1600 ≤ I _n ≤ 3200		2000 ≤ I _n ≤ 4000			
Rated insulation voltage (U _i) (V, 50/60Hz) *3		1000		1000		1000		1000		1000		1000		1000			
Rated operational voltage (U _s) (V, 50/60Hz) *4		690		690		690		690		690		690		690			
Fixed type P		●		●		●		●		●		●		-			
Draw-out type with cradle X		●		●		●		●		●		●		●			
Draw-out type with cradle and shutter Q		●		●		●		●		●		●		●			
Main circuit terminal connection		Horizontal						Vertical									
Mass (kg) For draw-out type X		73	86	73	86	76	90	79	94	105	125	105	125	139	176		
Rated breaking capacity (kA, sym.)/ Rated making current (kA, peak)																	
IEC, EN, AS [I _{cs} =I _{cu}]		690V AC 440V		50/105 65/143 (500V)		50/105 65/143 (500V)		50/105 65/143 (500V)		50/105 65/143 (500V)		65/143 85/187 (500V)		65/143 85/187 (500V)		75/165 100/220 (500V)	
NEMA, ANSI		600V AC 480V 240V		42/96.6 50/115 65/149.5		42/96.6 50/115 65/149.5		42/96.6 50/115 65/149.5		42/96.6 50/115 65/149.5		50/115 65/149.5 85/195.5		50/115 65/149.5 85/195.5		65/149.5 75/172.5 100/230	
JIS		550V AC 460V 220V		50/105 65/143 65/143		50/105 65/143 65/143		50/105 65/143 65/143		50/105 65/143 65/143		65/143 85/195.5 85/195.5		65/143 85/195.5 85/195.5		75/165 100/230 100/230	
		600V DC *5 250V		40/40 40/40		40/40 40/40		40/40 40/40		40/40 40/40		40/40 40/40		40/40 40/40		40/40 40/40	
NK 3-pole type only		690V AC 450V		50/115 65/153 (500V)		50/115 65/153 (500V)		50/115 65/153 (500V)		50/115 65/153 (500V)		65/153 85/201 (500V)		65/153 85/201 (500V)		75/179 100/245 (500V)	
LR, AB, GL, BV 3-pole type only		690V AC 450V		50/115 65/153 (500V)		50/115 65/153 (500V)		50/115 65/153 (500V)		50/115 65/153 (500V)		65/153 85/201 (500V)		65/153 85/201 (500V)		75/179 100/245 (500V)	
Rated impulse withstand voltage (U _{imp}) (kV)		12		12		12		12		12		12		12			
Rated short time withstand current (I _{cs}) (kA, rms)		1 sec. 3 sec.		65 50		65 50		65 50		65 50		85 65		85 65		100 85	
Rated latching current (kA, rms)		65		65		65		65		85		85		100			
Total fault clearing time (s)		0.03		0.03		0.03		0.03		0.03		0.03		0.03			
Closing time (s) max.		10		10		10		10		10		10		10			
Spring charging time (s) max.		0.08		0.08		0.08		0.08		0.08		0.08		0.08			

Notes: ● Available – Not available

□ Replace the □ mark in the type number by the pole number code

3-pole: **3** 4-pole: **4**

■ Replace the ■ mark in the type number by the installation code

Fixed: **P** Draw-out with cradle: **X** Draw-out with cradle and shutter: **Q**

*1 At ambient temperature of 40°C (or at ambient temperature of 45°C for marine use)

*2 The 2-pole ACBs are similar to 3-pole types except that the center pole contacts and conductors are omitted.

*3 1000V AC applies to IEC60947-2 and JIS C8201-2.

*4 690V AC applies to IEC60947-2 and JIS C8201-2.

*5 3-pole in series should be applied.

■ Specifications, high breaking types

Frame size		1250A		1600A		2000A		1600A		2000A		2500A		3200A	
Basic type		DH12 □■H		DH16 □■H		DH20 □■H		DH16 □■P		DH20 □■P		DH25 □■P		DH30 □■P	
No. of poles *2		3	4	3	4	3	4	3	4	3	4	3	4	3	4
Rated current (A) *1	IEC, EN, AS	1250	1600	2000	1600	2000	1600	2000	2500	3200					
	JIS	1250	1600	2000	1600	2000	1600	2000	2500	3200					
	NEMA, ANSI	1250	1600	2000	1600	2000	1600	2000	2500	3200					
	NK, LR, AB, GL, BV	1250	1600	2000	1600	2000	1600	2000	2500	3200					
Rated current of the neutral pole (A)		1250	1600	2000	1600	2000	1600	2000	2500	3200					
Rated primary current of overcurrent tripping device (I _{CT}) (A) (For general feeder circuit use)		200 400 800 1250	1600	2000	1600	2000	200 400 800 1250 1600	2000	2500	3200					
Rated primary current of overcurrent tripping device (I _n) (A) (For generator protection use) I _n : Generator rated current		100 ≤ I _n ≤ 200 200 < I _n ≤ 400 400 < I _n ≤ 800 630 < I _n ≤ 1250	800 ≤ I _n ≤ 1600	1000 ≤ I _n ≤ 2000	100 ≤ I _n ≤ 200 200 < I _n ≤ 400 400 < I _n ≤ 800 630 < I _n ≤ 1250 800 < I _n ≤ 1600	1000 ≤ I _n ≤ 2000	1000 ≤ I _n ≤ 2000	1250 ≤ I _n ≤ 2500	1600 ≤ I _n ≤ 3200						
Rated insulation voltage (U _i) (V, 50/60Hz) *3		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Rated operational voltage (U _e)(V, 50/60Hz)*4		690	690	690	690	690	690	690	690	690	690	690	690	690	690
Fixed type P		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Draw-out type with cradle X		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Draw-out type with cradle and shutter Q		●	●	●	●	●	●	●	●	●	●	●	●	●	●
Main circuit terminal connection		Vertical						Vertical							
Mass (kg) For draw-out type X		79	94	79	94	79	94	105	125	105	125	105	125	105	125
Rated breaking capacity (kA, sym.)/ Rated making current (kA, peak)															
IEC, EN, AS [I _{cs} -I _{cu}]		690V AC	55/121	55/121	55/121	55/121	85/187	85/187	85/187	85/187	85/187	85/187	85/187	85/187	85/187
		440V	80/176	80/176	80/176	80/176	100/220	100/220	100/220	100/220	100/220	100/220	100/220	100/220	100/220
NEMA, ANSI		600V AC	42/96.6	42/96.6	42/96.6	42/96.6	50/115	50/115	50/115	50/115	50/115	50/115	50/115	50/115	50/115
		480V	65/149.5	65/149.5	65/149.5	65/149.5	80/184	80/184	80/184	80/184	80/184	80/184	80/184	80/184	80/184
		240V	80/184	80/184	80/184	80/184	100/230	100/230	100/230	100/230	100/230	100/230	100/230	100/230	100/230
JIS		550V AC	55/121	55/121	55/121	55/121	85/196	85/196	85/196	85/196	85/196	85/196	85/196	85/196	85/196
		460V	80/176	80/176	80/176	80/176	100/230	100/230	100/230	100/230	100/230	100/230	100/230	100/230	100/230
		220V	80/176	80/176	80/176	80/176	100/230	100/230	100/230	100/230	100/230	100/230	100/230	100/230	100/230
		600V DC *5	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40
		250V	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40	40/40
NK		690V AC	55/128	55/128	55/128	55/128	85/201	85/201	85/201	85/201	85/201	85/201	85/201	85/201	85/201
3-pole type only		450V	80/186	80/186	80/186	80/186	100/233	100/233	100/233	100/233	100/233	100/233	100/233	100/233	100/233
LR, AB, GL, BV		690V AC	55/128	55/128	55/128	55/128	85/201	85/201	85/201	85/201	85/201	85/201	85/201	85/201	85/201
3-pole type only		450V	80/186	80/186	80/186	80/186	100/233	100/233	100/233	100/233	100/233	100/233	100/233	100/233	100/233
Rated impulse withstand voltage (U _{imp}) (kV)		12	12	12	12	12	12	12	12	12	12	12	12	12	12
Rated short time withstand current (I _{sw}) (kA, rms)		1 sec. 3 sec.	80 55	80 55	80 50	80 50	100 75	100 75	100 75	100 75	100 75	100 75	100 75	100 75	100 75
Rated latching current (kA, rms)		65	65	65	65	65	85	85	85	85	85	85	85	85	85
Total fault clearing time (s)		0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Closing time Spring charging time (s) max. Closing time		10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08	10 0.08

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