



Technical Data

| Rectification of rated current |

Frame	Rated current	Terminal busbar of ACB body	Applicable busbar size										
				Horizontal type					Vertical type				
				40°C	45°C	50°C	55°C	60°C	40°C	45°C	50°C	55°C	60°C
A frame UAN/UAS06 - 16	200A	15t x 50mm x 1ea	5t x 50mm x 1ea	200A	200A	200A	200A	200A	200A	200A	200A	200A	200A
	400A			400A	400A	400A	400A	400A	400A	400A	400A	400A	
	630A		5t x 50mm x 2ea 10t x 60mm x 1ea	630A	630A	630A	630A	630A	630A	630A	630A	630A	630A
				800A	6t x 50mm x 2ea 10t x 60mm x 1ea	800A	800A	800A	800A	800A	800A	800A	800A
	1,000A		8t x 50mm x 2ea 6t x 75mm x 2ea			1,000A	1,000A	1,000A	1,000A	1,000A	1,000A	1,000A	1,000A
				1,250A	8t x 60mm x 2ea 10t x 50mm x 2ea	1,250A	1,250A	1,250A	1,250A	1,250A	1,250A	1,250A	1,250A
	1,600A		6t x 75mm x 3ea 10t x 60mm x 2ea			1,600A	1,600A	1,520A	1,480A	1,420A	1,600A	1,600A	1,580A
				2,000A	8t x 60mm x 3ea 10t x 100mm x 2ea	-	-	-	-	-	2,000A	2,000A	1,940A
B frame UAN/UAS06 - 25	630A	20t x 75mm x 1ea	5t x 50mm x 2ea 10t x 60mm x 1ea			630A	630A	630A	630A	630A	630A	630A	630A
	800A			6t x 50mm x 2ea 10t x 60mm x 1ea	800A	800A	800A	800A	800A	800A	800A	800A	800A
			1,000A		8t x 50mm x 2ea 6t x 75mm x 2ea	1,000A	1,000A	1,000A	1,000A	1,000A	1,000A	1,000A	1,000A
	1,250A			8t x 60mm x 2ea 10t x 50mm x 2ea		1,250A	1,250A	1,250A	1,250A	1,250A	1,250A	1,250A	1,250A
			1,600A		6t x 75mm x 3ea 10t x 60mm x 2ea	1,600A	1,600A	1,600A	1,600A	1,600A	1,600A	1,600A	1,600A
	2,000A			8t x 60mm x 3ea 10t x 100mm x 2ea		2,000A	2,000A	2,000A	2,000A	2,000A	2,000A	2,000A	2,000A
			2,500A		10t x 75mm x 3ea 8t x 75mm x 4ea	2,500A	2,500A	2,500A	2,400A	2,300A	2,500A	2,500A	2,500A
	3,200A			10t x 100mm x 3ea 10t x 75mm x 4ea		-	-	-	-	-	3,200A	3,200A	3,120A
4,000A Horizontal		15t x 100mm x 2ea	4,000A		4,000A	3,900A	3,800A	3,640A	-	-	-	-	-
	4,000A Vertical		15t x 125mm x 2ea	4,000A	4,000A	-	-	-	4,000A	4,000A	3,950A	3,800A	3,800A
C frame UAN32 - 50		3,200A		20t x 125mm x 2ea	10t x 100mm x 3ea	3,200A	3,200A	3,100A	3,000A	2,900A	3,200A	3,200A	3,100A
	4,000A	10t x 100mm x 4ea	4,000A		4,000A	3,920A	3,860A	3,800A	4,000A	4,000A	3,960A	3,900A	3,900A
	5,000A	10t x 125mm x 4ea	5,000A		5,000A	4,900A	4,800A	4,700A	5,000A	5,000A	4,950A	4,900A	4,900A
D frame UAN40 - 63	4,000A	20t x 125mm x 2ea	10t x 100mm x 4ea	4,000A	4,000A	4,000A	4,000A	4,000A	4,000A	4,000A	4,000A	4,000A	4,000A
	5,000A		10t x 125mm x 4ea	5,000A	5,000A	4,900A	4,820A	4,750A	5,000A	5,000A	4,950A	4,870A	4,870A
	6,300A		10t x 150mm x 4ea	6,300A	6,300A	6,170A	6,040A	5,900A	6,300A	6,300A	6,220A	6,160A	6,160A

※ - Outer part of ACB's ambient temperature is applied for selecting ACB terminal busbar.
 - Terminal busbar is copper with no paintings.
 - The max. temperature for terminal busbar is 100°C

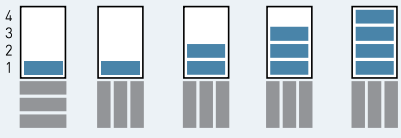

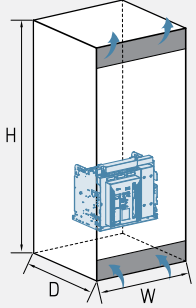
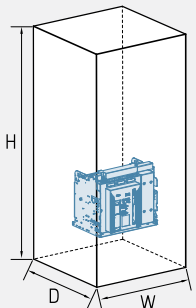
■ Altitude

U-Series ACB is designed for operation at altitudes under 2,000m. At altitudes higher than 2,000m, change the ratings upon service condition.

Item	Altitude	2,000m	3,000m	4,000m	5,000m
Withstand voltage[V]		3,500	3,150	2,500	2,100
Average insulating voltage[V]		1,000	900	700	600
Max. operation voltage [V]		690	590	520	460
Rectificated rated current [A]		1×In	0.99×In	0.96×In	0.94×In

Derating table

UAN

Switchboard composition connection type										
Model type	UAN 06 - 08A					UAN 10A				
Rated current ²⁾	-800A					1,000A				
Busbar dimensions (mm) ³⁾	2ea x 50 x 6					2ea x 50 x 8				
Ventilated switchboard (IP31) ⁴⁾ 	Ta ¹⁾ =35°C	4				800 ↓				
		3			800 ↓	800 ↓				1,000
		2		800 ↓	800 ↓	800 ↓			1,000	1,000
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000
	Ta=45°C	4				800 ↓				
		3			800 ↓	800 ↓				1,000
		2		800 ↓	800 ↓	800 ↓			1,000	1,000
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000
	Ta=55°C	4				800 ↓				
		3			800 ↓	800 ↓				1,000
		2		800 ↓	800 ↓	800 ↓			1,000	1,000
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000
Non ventilated switchboard (IP52) ⁵⁾ 	Ta ¹⁾ =35°C	4				800 ↓				
		3			800 ↓	800 ↓				1,000
		2		800 ↓	800 ↓	800 ↓			1,000	1,000
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000
	Ta=45°C	4				800 ↓				
		3			800 ↓	800 ↓				1,000
		2		800 ↓	800 ↓	800 ↓			1,000	1,000
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000
	Ta=55°C	4				800 ↓				
		3			800 ↓	800 ↓				1,000
		2		800 ↓	800 ↓	800 ↓			1,000	1,000
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000
Panel dimensions (mm): W x H x D		800 x 2,300 x 900								
Area of outlet vents (IP31)		350cm ²								
Area of inlet vents (IP31)		350cm ²								

※ 1) Ta refers to atmospheric temperature outside of panel (IEC 60439-1).

2) Rated current observes temperature condition on test according to IEC 60947-1,2. When installed inside the panel, derating of additional current and using indicated busbar dimension is required.

3) Busbar dimension is manufacturer's recommendation. Smaller busbar requires additional derating.

4) Ventilation should be designed to drop the temperature of switchboard inside the panel.

5) For non-ventilated switchboard, additional forced ventilation should be added to drop the temperature inside the panel.










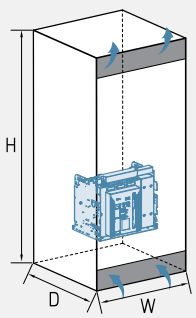
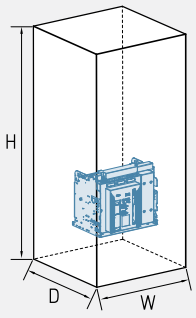
Technical Data

Derating table

UAN

Switchboard composition connection type										
Model type	UAN 12A				UAN 16A			UAN 20A		
Rated current ²⁾	1,250A				1,600A			2,000A		
Busbar dimensions (mm) ³⁾	2ea x 75 x 8				3ea x 75 x 8			2ea x 100 x 10		
Ventilated switchboard (IP31)⁴⁾ 	Ta ¹⁾ =35°C	4								
		3			1,250				2,000	
		2		1,250	1,250			1,600	2,000	2,000
		1	1,250	1,250	1,250	1,250	1,600	1,600	1,600	
	Ta=45°C	4								
		3			1,250					1,900
		2		1,250	1,250			1,600	2,000	2,000
		1	1,250	1,250	1,250	1,250	1,600	1,600	1,600	
	Ta=55°C	4								
		3			1,250					1,800
		2		1,250	1,250			1,470	1,900	1,900
		1	1,250	1,250	1,250	1,250	1,520	1,600	1,600	
Non ventilated switchboard (IP52)⁵⁾ 	Ta ¹⁾ =35°C	4								
		3			1,250					1,750
		2		1,250	1,250			1,600	1,850	1,850
		1	1,250	1,250	1,250	1,250	1,600	1,600	1,600	
	Ta=45°C	4								
		3			1,250					1,650
		2		1,250	1,250			1,500	1,750	1,750
		1	1,250	1,250	1,250	1,250	1,500	1,600	1,600	
	Ta=55°C	4								
		3			1,250					1,550
		2		1,250	1,250			1,400	1,650	1,650
		1	1,250	1,250	1,250	1,250	1,400	1,520	1,520	
Panel dimensions (mm): W x H x D		800 x 2,300 x 900								
Area of outlet vents (IP31)		350cm ²								
Area of inlet vents (IP31)		350cm ²								

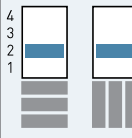
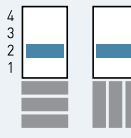
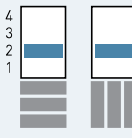
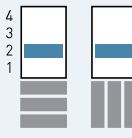
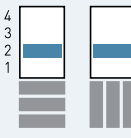
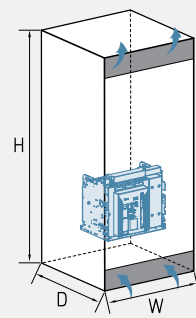
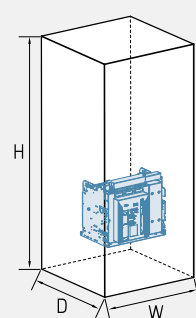
※ 1) Ta refers to atmospheric temperature outside of panel (IEC 60439-1).
 2) Rated current observes temperature condition on test according to IEC 60947-1,2. When installed inside the panel, derating of additional current and using indicated busbar dimension is required.
 3) Busbar dimension is manufacturer's recommendation. Smaller busbar requires additional derating.
 4) Ventilation should be designed to drop the temperature of switchboard inside the panel.
 5) For non-ventilated switchboard, additional forced ventilation should be added to drop the temperature inside the panel.

Switchboard composition connection type	  		 		 		 				
Model type	UAN 06-20B			UAN 25b		UAN 32b		UAN 40B			
Rated current ²⁾	2,000A			2,500A		3,200A		4,000A			
Busbar dimensions (mm) ³⁾	2ea x 100 x 10			3ea x 100 x 10		3ea x 125 x 10		4ea x 125 x 10			
Ventilated switchboard (IP31) ⁴⁾ 	Ta ¹⁾ =35°C	4									
		3			2,000 ↓						
		2	2,000 ↓	2,000 ↓	2,000 ↓	2,375	2,500	3,040	3,200	3,320	3,700
	Ta=45°C	4									
		3			2,000 ↓						
		2	2,000 ↓	2,000 ↓	2,000 ↓	2,250	2,380	2,880	3,100	3,160	3,500
	Ta=55°C	4									
		3			2,000 ↓						
		2	2,000 ↓	2,000 ↓	2,000 ↓	2,100	2,250	2,690	2,900	2,960	3,280
	Non ventilated switchboard (IP52) ⁵⁾ 	Ta ¹⁾ =35°C	4								
			3			2,000 ↓					
			2	2,000 ↓	2,000 ↓	2,000 ↓	2,125	2,275	2,650	2,850	3,040
Ta=45°C		4									
		3			1,900 ↓						
		2	1,960 ↓	1,960 ↓	1,960 ↓	2,000	2,150	2,550	2,700	2,880	3,120
Ta=55°C		4									
		3			1,780 ↓						
		2	1,800 ↓	1,920 ↓	1,920 ↓	1,900	2,020	2,370	2,530	2,720	2,960
Panel dimensions (mm): W x H x D		800 x 2,300 x 900									
Area of outlet vents (IP31)		350cm ²									
Area of inlet vents (IP31)		350cm ²									

Technical Data

Derating table




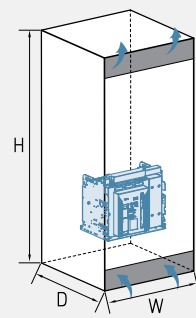
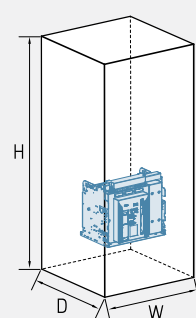
UAN

Switchboard composition connection type													
Model type	UAN C40		UAN 50C		UAN 40D		UAN 50D		UAN 63D				
Rated current ²⁾	4,000A		5,000A		4,000A		5,000A		6,300A				
Busbar dimensions (mm) ³⁾	4ea x 125 x 10		5ea x 140 x 10		4ea x 125 x 10		5ea x 140 x 10		5ea x 160 x 10				
Ventilated switchboard (IP31) ⁴⁾ 	Ta ¹⁾ =35°C	4											
		3											
		2	3,900	4,000	4,550	4,850	4,000	4,000	4,700	5,000	5,550	5,850	
	Ta=45°C	4											
		3											
		2	3,850	3,900	4,350	4,650	4,000	4,000	4,450	4,850	5,380	5,670	
	Ta=55°C	4											
		3											
		2	3,800	3,850	4,100	4,400	4,000	4,000	4,200	4,600	5,080	5,350	
	Non ventilated switchboard (IP52) ⁵⁾ 	Ta ¹⁾ =35°C	4										
			3										
			2	3,800	3,900	4,200	4,500	4,000	4,000	4,350	4,650	5,050	5,290
Ta=45°C		4											
		3											
		2	3,650	3,800	3,950	4,250	4,000	4,000	4,100	4,400	4,780	5,040	
Ta=55°C		4											
		3											
		2	3,550	3,650	3,750	4,050	3,840	3,950	3,850	4,150	4,490	4,730	
Panel dimensions (mm): W x H x D		1,000 x 2,300 x 900				1,400 x 2,300 x 1,500							
Area of outlet vents (IP31)		500cm ²				500cm ²							
Area of inlet vents (IP31)		500cm ²				500cm ²							

※ 1) Ta refers to atmospheric temperature outside of panel (IEC 60439-1).
 2) Rated current observes temperature condition on test according to IEC 60947-1,2. When installed inside the panel, derating of additional current and using indicated busbar dimension is required.
 3) Busbar dimension is manufacturer's recommendation. Smaller busbar requires additional derating.
 4) Ventilation should be designed to drop the temperature of switchboard inside the panel.
 5) For non-ventilated switchboard, additional forced ventilation should be added to drop the temperature inside the panel.

| Derating table |

■ UAS

Switchboard composition connection type																
Model type	UAS 06 - 08A					UAS 10A				UAS 12A						
Rated current ²⁾	-800A					1,000A				1,250A						
Busbar dimensions (mm) ³⁾	2ea x 50 x 6					2ea x 50 x 8				2ea x 75 x 8						
Ventilated switchboard (IP31) ⁴⁾		Ta ¹⁾ =35°C	4				800 ↓									
			3				800 ↓	800 ↓			1,000				1,250	
			2			800 ↓	800 ↓	800 ↓			1,000	1,000			1,250	1,250
			1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000	1,000	1,250	1,250	1,250	1,250
	Ta=45°C	4				800 ↓										
		3				800 ↓	800 ↓			1,000					1,250	
		2			800 ↓	800 ↓	800 ↓			1,000	1,000			1,250	1,250	
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000	1,000	1,250	1,250	1,250	1,250	
	Ta=55°C	4				800 ↓										
		3				800 ↓	800 ↓			1,000					1,050	
		2			800 ↓	800 ↓	800 ↓			1,000	1,000			1,200	1,150	
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000	1,000	1,250	1,250	1,250	1,250	
Non ventilated switchboard (IP52) ⁵⁾		Ta ¹⁾ =35°C	4				800 ↓									
			3				800 ↓	800 ↓			1,000				1,050	
			2			800 ↓	800 ↓	800 ↓			1,000	1,000			1,200	1,150
			1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000	1,000	1,250	1,250	1,250	1,250
	Ta=45°C	4				800 ↓										
		3				800 ↓	800 ↓			900					1,000	
		2			800 ↓	800 ↓	800 ↓			975	950			1,100	1,050	
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	1,000	1,000	1,250	1,250	1,150	1,150	
	Ta=55°C	4				800 ↓										
		3				800 ↓	800 ↓			850					975	
		2			800 ↓	800 ↓	800 ↓			950	900			1,050	1,000	
		1	800 ↓	800 ↓	800 ↓	800 ↓	800 ↓	1,000	1,000	975	950	1,250	1,250	1,150	1,050	
Panel dimensions (mm): W x H x D		800 x 2,300 x 900														
Area of outlet vents (IP31)		350cm ²														
Area of inlet vents (IP31)		350cm ²														

Technical Data

| Derating table |

■ UAS

Switchboard composition connection type												
Model type	UAS 16A		UAS 20B		UAS 25B	UAS 32B						
Rated current ²⁾	1,600A		2,000A		2,500A	3,200A						
Busbar dimensions (mm) ³⁾	3ea x 75 x 8		2ea x 100 x 10		3ea x 100 x 10	3ea x 25 x 10						
Ventilated switchboard (IP31) ⁴⁾ 	Ta ¹⁾ =35°C	4										
		3					2,000					
		2			1,600	2,000	2,000	2,000	2,375	2,500	2,880	3,100
		1	1,600	1,600	1,600							
	Ta=45°C	4										
		3					1,900					
		2			1,520	1,900	2,000	2,000	2,250	2,380	2,690	2,900
		1	1,600	1,600	1,600							
	Ta=55°C	4										
		3					1,800					
		2			1,450	1,800	1,950	1,900	2,100	2,250	2,500	2,700
		1	1,520	1,600	1,520							
Non ventilated switchboard (IP52) ⁵⁾ 	Ta ¹⁾ =35°C	4										
		3					1,750					
		2			1,520	1,750	1,850	1,850	2,125	2,275	2,550	2,700
		1	1,600	1,600	1,600							
	Ta=45°C	4										
		3					1,650					
		2			1,450	1,650	1,750	1,750	2,000	2,150	2,370	2,530
		1	1,520	1,600	1,520							
	Ta=55°C	4										
		3					1,550					
		2			1,370	1,550	1,650	1,650	1,900	2,020	2,200	2,370
		1	1,370	1,450	1,450							
Panel dimensions (mm): W x H x D		800 x 2,300 x 900			800 x 2,300 x 900							
Area of outlet vents (IP31)		350cm ²			350cm ²							
Area of inlet vents (IP31)		350cm ²			350cm ²							

※ 1) Ta refers to atmospheric temperature outside of panel (IEC 60439-1).
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