

## | Modern and customized design |



### UPB, HBL Type

[ 125, 160, 250, 400, 630AF ]

#### | High breaking capacity

- Up to 150kA at AC380/415V
- Based on current-limiting technology
- Ics = 100% Icu

#### | Reliable quality

- Type-tested by international test authorities
- KEMA for IEC standard, KERI for NEMA standard

#### | Diverse trip mechanism and application

- Fixed & adjustable thermal, electronic
- Motor protection, nuclear power plant



### Miniature Type

[ 30, 50, 100AF ]

#### | Industrial and residential application

- Mini molded case circuit breaker
- Mini earth leakage circuit breaker
- Up to 100A, 10kA

#### | Various protection

- Short-circuit and overload
- Earth leakage protection

#### | Internal accessories

- Auxiliary switch
- Trip alarm switch
- Shunt trip

## Features

### | Adjustable rating in full range with diverse trip mechanisms |

- U-Series MCCB adopts adjustable rating function in full range from 50 to 1600AF. With diverse trip mechanisms of U-Series MCCB, you will be provided with wide options for system design and more flexible load fluctuations.

#### [ UAB, UCB type ]



Fixed thermal



Adjustable thermal

#### [ UPB type ]



Fixed thermal



Adjustable thermal



Electronic

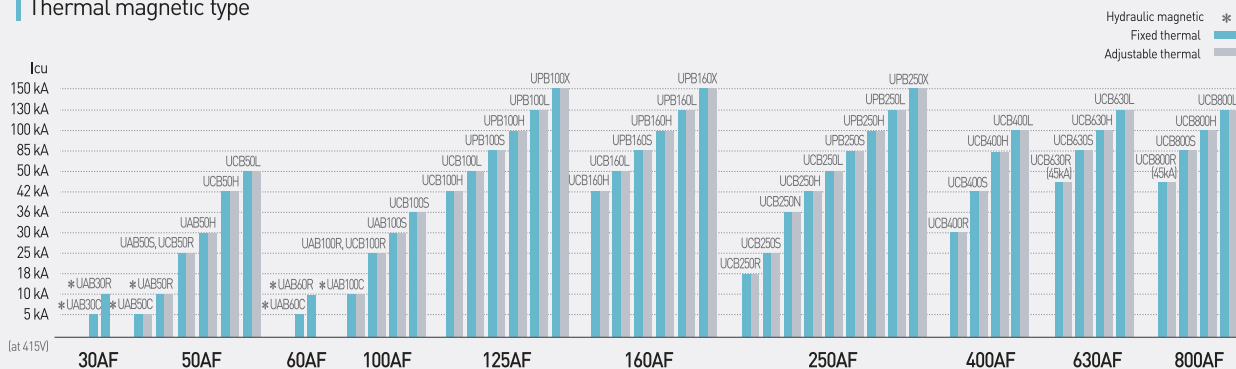


Adjustable instantaneous  
for motor protection

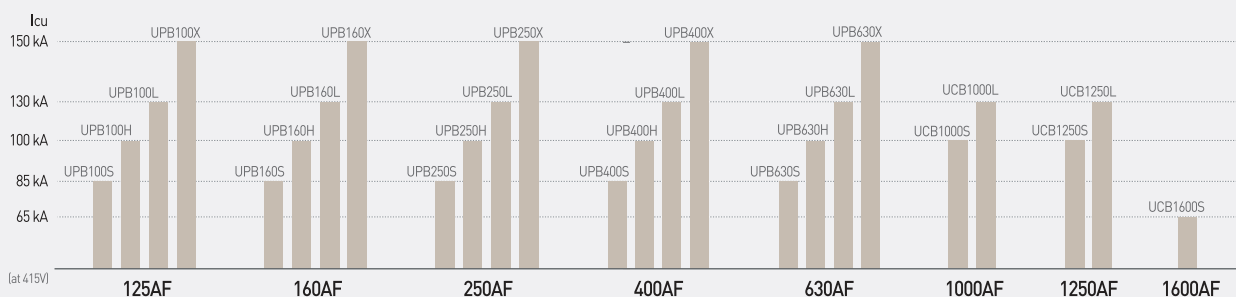
## Wide and powerful production range |

- U-Series MCCB supplies you with wide and powerful production range; 3 to 1600A, 5 to 150kA at AC415V from general distribution boards to nuclear power plants.
- U-Series MCCB also completely covers Hi-Series MCCB range with better characteristics.

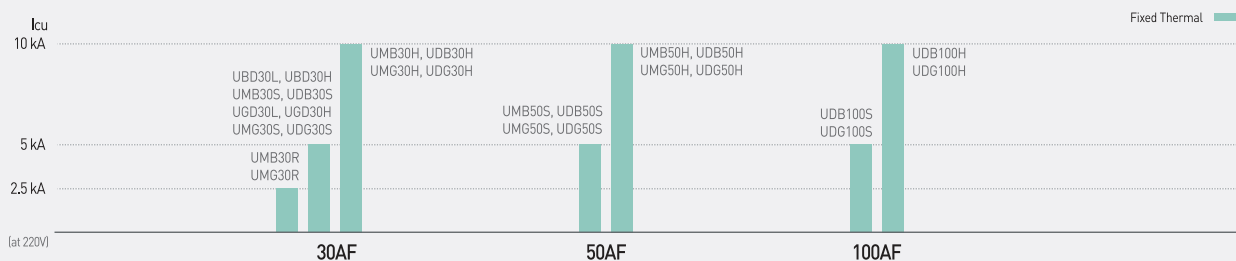
### Thermal magnetic type



### Electronic type



### Miniature type



Motor protection - UPB type 125-250AF

Q-class HBL type - 100-225AF

Switch disconnecter - UAD type 50-100AF, UCD type 50-1250AF, UPD type 125-630AF

## Features

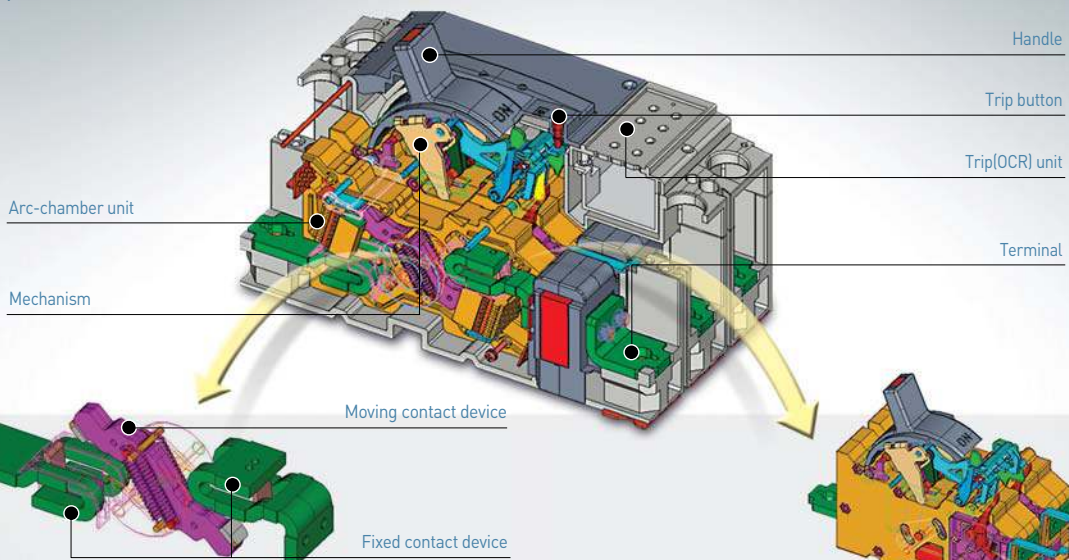
### | High breaking capacity, realized by advanced technology and optimized design |

- Our optimized design by advanced current-limiting technology allows U-Series MCCB to realize high breaking capacity in a smaller size compared to Hi-Series MCCB, contributing to compact design of system.



- The current-limiting characteristic of U-Series MCCB also minimizes the effects from fault currents and offers cost-effectiveness.

[UPB type]



#### Maximized repulsive-force trip mechanism

Realized by twin contact structure (two contacts in fixed contact device, other two in moving contact device), up-down direction repulsion at both sides of rotary structure, and u-shaped terminal structure of fixed contact.

Contribute to increase of main contact travel distance, prevention of arc re-ignition, and correct lead of arc projection to arc chute.

#### Arc pressure actuator (APA)

Arc pressure occurred by short-circuit current can be detected through APA and operates trip mechanism before the response of trip sensor.

- ▶ Minimizing total breaking time, Maximizing current-limiting performance



### | Standardization of dimensions |

- U-Series MCCB minimizes the difference in size of each model, so that they can be easily replaced whenever the specifications of the system changes.



### | Reliable quality and various applications |

- U-Series MCCB is type-tested by international test authorities such as KEMA and KERI as well satisfying IEC60947-2 and NEMA AB-1 standards. It also acquired various marine classes and certificates for nuclear power plants.



# Features

## | Modern and refined design |

**Model name**

- UPB : Type
- 250 : Ampere frame size
- X : Recognition code for order

**Ampere frame size**

**Main characteristics**

- $U_i$  : Rated insulation voltage
- $U_{imp}$  : Rated impulse withstand voltage
- $U_e$  : Rated operational voltage
- $I_{cu}$  : Rated ultimate short-circuit breaking capacity
- $I_{cs}$  : Rated service short-circuit breaking capacity

**Approvals and certificates**



Line side terminal

Rated frequency

Utilization category

Suitability of isolation

Rated current

Standard

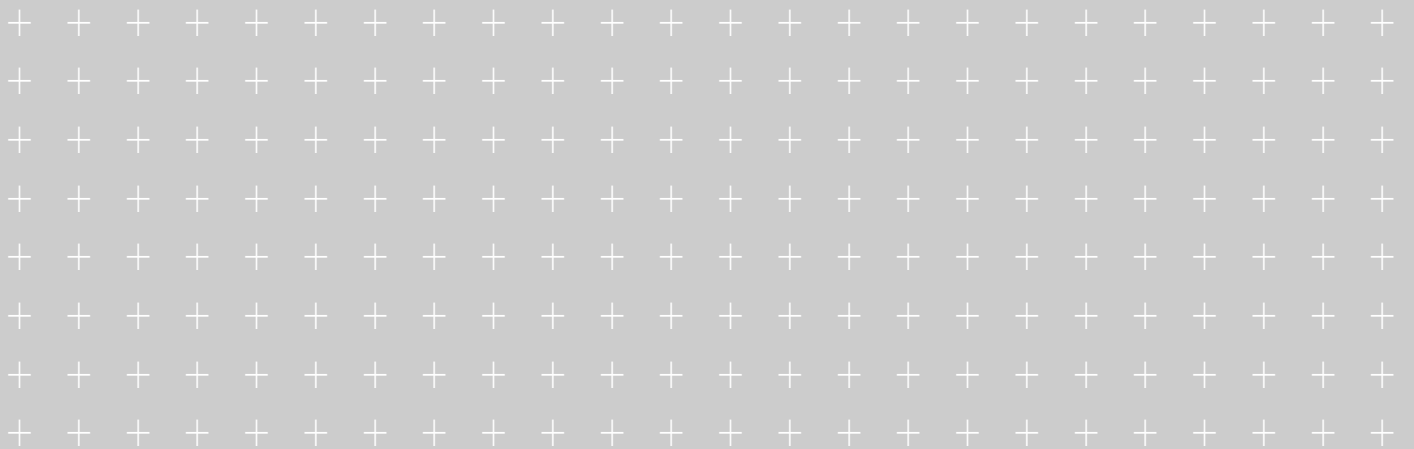
Trip unit

Trip button

Load side terminal



Quick Selection Table



# Quick Selection Table

## | UAB type / 30-100AF |

Ampere frame	Model	Number of poles	Rated current (A)	Breaking capacity [Icu] (kA r.m.s.)				Trip mechanism & Characteristics			Dimensions (mm)		
				AC220V AC240V	AC380V AC415V	AC440V AC460V	AC600V AC660V	Hydraulic magnetic	Thermal magnetic Fixed	Thermal magnetic Adjustable	Width	Height	Depth
30	UAB30C	2, 3	3, 5, 10, 15, 20, 30	10	<b>7.5/5</b>	5	2.5	○	–	–	50/75	130	60
	UAB30R	2, 3	5, 10, 15, 20, 30	25	<b>14/10</b>	10	5	○	–	–			
50	UAB50C	2, 3, 4	5, 10, 15, 20, 30, 40, 50	10	<b>7.5/5</b>	5	2.5	○	–	–	50/75/100	130	60
	UAB50R	2, 3, 4	5, 10, 15, 20, 30, 40, 50	25	<b>14/10</b>	10	5	○	–	–			
	UAB50S	2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50	42	<b>25</b>	21	7.5	–	○	○ <sup>1)</sup>			
	UAB50H	2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50	50	<b>30</b>	25	10	–	○	○ <sup>1)</sup>			
60	UAB60C	2, 3, 4	5, 10, 15, 20, 30, 40, 50, 60	10	<b>7.5/5</b>	5	2.5	○	–	–	50/75/100	130	60
	UAB60R	2, 3, 4	5, 10, 15, 20, 30, 40, 50, 60	25	<b>14/10</b>	10	5	○	–	–			
100	UAB100C	2, 3, 4	5, 10, 15, 20, 30, 40, 50, 60, 75, 100	25	<b>14/10</b>	10	5	○	–	–	50/75/100	130	60
	UAB100R	2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100	42	<b>25</b>	21	7.5	–	○	○ <sup>1)</sup>			
	UAB100S	2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100	50	<b>30</b>	25	10	–	○	○ <sup>1)</sup>			

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

1) Not applicable to 2P breaker.

## | UCB type / 50-1600AF |

Ampere frame	Model	Number of poles	Rated current (A)	Breaking capacity [Icu] (kA r.m.s.)				Trip mechanism & Characteristics			Dimensions (mm)		
				AC220V AC240V	AC380V AC415V	AC440V AC460V	AC600V AC660V	Thermal magnetic Fixed	Thermal magnetic Adjustable	Electronic	Width	Height	Depth
50	UCB50R	2, 3, 4	15, 20, 30, 40, 50	50	<b>30/25</b>	25	10	○	–	–	60/90/120	155	60
	UCB50H	*2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50	85	<b>42</b>	42	20	○	○	–	90/90/120	155	60
	UCB50L	*2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50	100	<b>50</b>	50	25	○	○	–	90/90/120	155	60
100	UCB100R	2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100	50	<b>30/25</b>	25	10	○	○	–	60/90/120	155	60
	UCB100S	2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100	65	<b>42/36</b>	35	18	○	○	–	60/90/120	155	60
125	UCB100H	*2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125	85	<b>42</b>	42	20	○	○	–	90/90/120	155	60
	UCB100L	*2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125	100	<b>50</b>	50	25	○	○	–	90/90/120	155	60
160	UCB160H	*2, 3, 4	100, 125, 160	85	<b>42</b>	42	20	○	○	–	105/105/140	165	60
	UCB160L	*2, 3, 4	100, 125, 160	100	<b>50</b>	50	25	○	○	–	105/105/140	165	60
250	UCB250R	*2, 3, 4	100, 125, 150, 160, 175, 200, 225, 250	35	<b>25/18</b>	18	7.5	○	○	–	105/105/140	164	60
	UCB250S	*2, 3, 4	100, 125, 150, 160, 175, 200, 225, 250	50	<b>35/25</b>	25	10	○	○	–			
	UCB250N	*2, 3, 4	100, 125, 150, 160, 175, 200, 225, 250	65	<b>42/36</b>	35	18	○	○	–	105/105/140	165	60
	UCB250H	*2, 3, 4	100, 125, 150, 160, 175, 200, 225, 250	85	<b>42</b>	42	20	○	○	–			
	UCB250L	*2, 3, 4	100, 125, 150, 160, 175, 200, 225, 250	100	<b>50</b>	50	25	○	○	–			
400	UCB400R	*2, 3, 4	250, 300, 320, 350, 400	35	<b>30</b>	25	18	○	○	–	140/140/185	257	110
	UCB400S	*2, 3, 4	250, 300, 320, 350, 400	50	<b>42</b>	35	22	○	○	–			
	UCB400H	*2, 3, 4	250, 300, 320, 350, 400	85	<b>65</b>	50	25	○	○	–			
	UCB400L	*2, 3, 4	250, 300, 320, 350, 400	125	<b>100</b>	85	30	○	○	–			
630	UCB630R	*2, 3, 4	500, 630	50	<b>45</b>	35	22	○	○	–	210/210/280	280	110
	UCB630S	*2, 3, 4	500, 630	100	<b>65</b>	50	25	○	○	–			
	UCB630H	*2, 3, 4	500, 630	100	<b>85</b>	65	35	○	○	–			
	UCB630L	*2, 3, 4	500, 630	125	<b>100</b>	85	35	○	○	–			
800	UCB800R	*2, 3, 4	700, 800	50	<b>45</b>	35	25	○	○	–	210/210/280	280	110
	UCB800S	*2, 3, 4	700, 800	100	<b>65</b>	50	25	○	○	–			
	UCB800H	*2, 3, 4	700, 800	100	<b>85</b>	65	35	○	○	–			
	UCB800L	*2, 3, 4	700, 800	125	<b>100</b>	85	35	○	○	–			
1000	UCB1000S	3, 4	505-1000	100	<b>100</b>	75	40	–	–	○	210/280	370	110
	UCB1000L	3, 4	505-1000	150	<b>130</b>	100	60	–	–	○	210/280	370	200
1250	UCB1250S	3, 4	630-1250	100	<b>100</b>	75	40	–	–	○	210/280	370	110
	UCB1250L	3, 4	630-1250	150	<b>130</b>	100	60	–	–	○	210/280	370	200
1600	UCB1600S	3	640-1600	100	<b>65</b>	45	25	–	–	○	210	371	151

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

\*2P breaker has same dimension as 3P breaker, but the middle pole is removed.



## | UPB type / 125-630AF |

Ampere frame	Model	Number of poles	Rated current (A)	Breaking capacity [Icu] (kA r.m.s.)				Trip mechanism & Characteristics			Dimensions (mm)		
				AC220V AC240V	AC380V AC415V	AC440V AC460V	AC660V AC690V	Thermal Fixed	magnetic Adjustable	Electronic	Width	Height	Depth
125	UPB100S	3, 4	15,16,20,25,30,32,40,50,60,63,75,80,100,125 <sup>1)</sup>	100	<b>85</b>	65	10	○	○	○	105/140	165	86.5
	UPB100H	3, 4	15,16,20,25,30,32,40,50,60,63,75,80,100,125 <sup>1)</sup>	130	<b>100</b>	85	10	○	○	○			
	UPB100L	3, 4	15,16,20,25,30,32,40,50,60,63,75,80,100,125 <sup>1)</sup>	150	<b>130</b>	100	25	○	○	○			
	UPB100X	3, 4	15,16,20,25,30,32,40,50,60,63,75,80,100,125 <sup>1)</sup>	200	<b>150</b>	150	25	○	○	○			
160	UPB160S	3, 4	100, 125, 160 <sup>1)</sup>	100	<b>85</b>	65	10	○	○	○			
	UPB160H	3, 4	100, 125, 160 <sup>1)</sup>	130	<b>100</b>	85	10	○	○	○			
	UPB160L	3, 4	100, 125, 160 <sup>1)</sup>	150	<b>130</b>	100	25	○	○	○			
	UPB160X	3, 4	100, 125, 160 <sup>1)</sup>	200	<b>150</b>	150	25	○	○	○			
250	UPB250S	3, 4	125, 150, 160, 175, 200, 225, 250 <sup>1)</sup>	100	<b>85</b>	65	10	○	○	○			
	UPB250H	3, 4	125, 150, 160, 175, 200, 225, 250 <sup>1)</sup>	130	<b>100</b>	85	10	○	○	○			
	UPB250L	3, 4	125, 150, 160, 175, 200, 225, 250 <sup>1)</sup>	150	<b>130</b>	100	25	○	○	○			
	UPB250X	3, 4	125, 150, 160, 175, 200, 225, 250 <sup>1)</sup>	200	<b>150</b>	150	25	○	○	○			
400	UPB400S	3, 4	200-400	100	<b>85</b>	65	10	–	–	○	140/185	255	117
	UPB400H	3, 4	200-400	130	<b>100</b>	85	10	–	–	○			
	UPB400L	3, 4	200-400	150	<b>130</b>	100	25	–	–	○			
	UPB400X	3, 4	200-400	200	<b>150</b>	150	25	–	–	○			
630	UPB630S	3, 4	320-630	100	<b>85</b>	65	10	–	–	○			
	UPB630H	3, 4	320-630	130	<b>100</b>	85	10	–	–	○			
	UPB630L	3, 4	320-630	150	<b>130</b>	100	25	–	–	○			
	UPB630X	3, 4	320-630	200	<b>150</b>	150	25	–	–	○			

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

1) Rated current of electronic types are as followings; · UPB100: 50-125A · UPB160: 63-160A · UPB250: 100-250A

## | Motor protection / UPB type 125-250AF |

Ampere frame	Model	Number of poles	Rated current (A)	Breaking capacity [Icu] (kA r.m.s.)				Dimensions (mm)		
				AC220V AC240V	AC380V AC415V	AC440V AC460V	AC660V AC690V	Width	Height	Depth
125	UPB100H	3	2.5,3,2,6,3,12,5,20,32,50,63,80,100	130	<b>100</b>	85	10	105	165	86.5
	UPB100L	3	2.5,3,2,6,3,12,5,20,32,50,63,80,100	150	<b>130</b>	100	25			
250	UPB250H	3	125, 150, 175, 200, 225	130	<b>100</b>	85	10			
	UPB250L	3	125, 150, 175, 200, 225	150	<b>130</b>	100	25			

※ The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

## | Q-class (for nuclear power plant application) / HBL type 100-225AF |

Ampere frame	Model	Number of poles	Rated current (A)	Breaking capacity [Icu] (kA r.m.s.)					Characteristics		Dimensions (mm)		
				AC220V AC240V	AC380V AC415V	AC440V AC460V	AC480V AC500V	AC660V AC690V	E1 class	Motor protection	Width	Height	Depth
100	HBL103U	3	15, 20, 30, 40, 50, 60, 75, 100	200	150	100	<b>85</b>	25	–	–	105	165	86.5
	HBL103UQ	3	15, 20, 30, 40, 50, 60, 75, 100	200	150	100	<b>85</b>	25	○	–			
	HBL103UM	3	2.5, 3, 2, 6, 3, 12, 5, 20, 32, 50, 63, 80, 100	200	150	100	<b>85</b>	25	–	○			
	HBL103UMQ	3	2.5, 3, 2, 6, 3, 12, 5, 20, 32, 50, 63, 80, 100	200	150	100	<b>85</b>	25	○	○			
225	HBL203U	3	125, 150, 175, 200, 225	200	150	100	<b>85</b>	25	–	–			
	HBL203UQ	3	125, 150, 175, 200, 225	200	150	100	<b>85</b>	25	○	–			
	HBL203UM	3	125, 150, 175, 200, 225	200	150	100	<b>85</b>	25	–	○			
	HBL203UMQ	3	125, 150, 175, 200, 225	200	150	100	<b>85</b>	25	○	○			

※ The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

## Quick Selection Table

### | Switch disconnecter / 50-1250AF |

Type	Ampere frame	Model	Number of poles	Rated current (A)	Dimensions (mm)			Type	Ampere frame	Model	Number of poles	Rated current (A)	Dimensions (mm)		
					Width	Height	Depth						Width	Height	Depth
UCD	50	UCD50H	3	50	90	155	60	UAD	50	UAD50C	3	50	75	130	60
	100	UCD100S	3	100						UAD50S	3	50			
	125	UCD100H	3	125						UAD100R	3	100			
	160	UCD160H	3	160	105	165	60	UPD	125	UPD100S	3	125	105	165	86.5
	250	UCD250S	3	250						105	164	60			
			UCD250H	3	250	105	165	60	250	UPD250S	3	250	140	255	117
	400	UCD400S	3	400	140	257	110	400	UPD400S	3	400				
	630	UCD630S	3	630	210	280	110	630	UPD630S	3	630				
	800	UCD800S	3	800					210	370	110				
	1000	UCD1000S	3	1000											
1250	UCD1250S	3	1250												

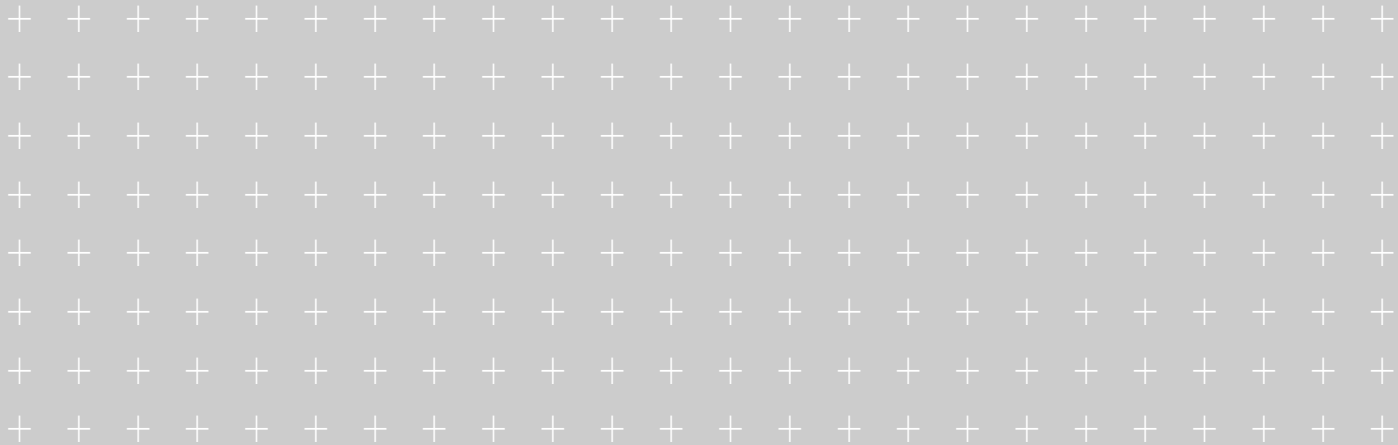
### | Miniature type / 30-100AF |

Type	Ampere frame	Model		Number of poles	Rated current (A)	Rated residual current [I <sub>Δn</sub> ] (mA) for ELCB	Breaking capacity [I <sub>cu</sub> ] (kA r.m.s.)			Dimensions (mm)		
		Molded case circuit breaker	Earth leakage circuit breaker				AC220V AC240V	AC380V AC415V	AC440V AC460V	Width	Height	Depth
UBD	30	UBD30L	UGD30L	2	15,20,30	15,30	<b>5</b>	–	–	35	82.5	42
UGD		UBD30H	UGD30H	2	15,20,30	15,30	<b>5</b>	–	–			60
UMB	30	UMB30R	UMG30R	2	15,20,30	15,30	<b>2.5</b>	–	–	33	70	57
		UMB30S	UMG30S	2	15,20,30	15,30	<b>5</b>	–	–			35
UMG		UMB30H	UMG30H	2	15,20,30	15,30	<b>10</b>	–	–			
	50	UMB50S	UMG50S	2	15,20,30,40,50	15,30	<b>5</b>	–	–	50/75	96	60
		UMB50H	UMG50H	2	15,20,30,40,50	15,30	<b>10</b>	–	–			
UDB	30	UDB30S	UDG30S	2,3	3,5,10,15,20,30	15,30	<b>5</b>	2.5	2.5	50/75	96	60
		UDB30H	UDG30H	2,3	5,10 15,20,30	15,30	<b>5</b>	2.5	2.5			
UDG	50	UDB50S	UDG50S	2,3	5,10,15,20,30,40,50	15,30	<b>5</b>	2.5	2.5	75/75	96	60
		UDB50H	UDG50H	2,3	5,10 15,20,30,40,50	15,30	<b>5</b>	2.5	2.5			
	100	UDB100S	UDG100S	*2,3	15,20,30,40,50,60,75,100	30,100	<b>5</b>	2.5	2.5			
		UDB100H	UDG100H	*2,3	15,20,30,40,50,60,75,100	30,100	<b>10</b>	5	5			

※ - KS certified products. English nameplate and 50Hz marking are not available.  
 - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.  
 \*2P breaker has same dimension as 3P breaker, but the middle pole is removed.







# Rating Overview



# Rating Overview

## | UAB type / 30-50AF |




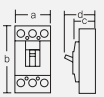
Model		UAB30		UAB50					
Figure									
Ampere frame size		30AF		50AF					
Number of poles (P)		2, 3		2, 3, 4		2, 3, 4			
Degree of protection (with terminal cover)		IP20		IP20		IP20			
Utilization category		A		A		A			
Suitability of isolation		O		O		O			
Protection		overload, inst., short-circuit		overload, inst., short-circuit		overload, inst., short-circuit			
Rating	Rated current [A]	3,5,10,15,20,30   5,10,15,20,30		5,10,15,20,30,40,50		15,16,20,25,30,32,40,50			
	Rated insulation voltage [Ui] [V]	AC690		AC690		AC690			
	Rated operational voltage [Ue] [V]	AC660		AC660		AC660			
	Rated impulse withstand voltage [Uimp] [kV]	-		-		DC250			
Rated short-circuit breaking capacity	Ultimate [Icu] (kAr.m.s.)	Recognition code for order	C	R	C	R	S	H	
		AC600/660V, 50-60Hz	2.5	5	2.5	5	7.5	10	
		AC480/500V, 50-60Hz	2.5	7.5	2.5	7.5	7.5	14	
		AC440/460V, 50-60Hz	5	10	5	10	21	25	
		AC380/415V, 50-60Hz	7.5/5	14/10	7.5/5	14/10	25	30	
		AC220/240V, 50-60Hz	10	25	10	25	42	50	
	IEC 60947-2 K 60947-2	DC250V	-	-	-	-	10	14	
	DC125V	-	-	-	-	15	20		
Service [lcs]	% of [Icu]	50		50		25			
Trip mechanism & Protection characteristics	Hydraulic magnetic	Fixed thermal,	O		O		-		
		Fixed instantaneous INST	12×In		12×In		-		
	Thermal magnetic	Fixed thermal,	-		-		O		
		Fixed instantaneous INST	-		-		15-32A: 20×In, 40-100A: 10×In		
	Adjustable thermal, LTD	-		-		(0.8-0.9-1)×In			
	Fixed instantaneous INST	-		-		15-32A: 20×In, 40-100A: 10×In			
Mounting	Direct mounting by screw		O		O		O		
	Plug-in	for Both line & load side	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>		
		Switchboard Line side only	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>		
		for Distribution board	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>		
	with DIN-rail adaptor	-		-		O			
Terminal connection	Screw	O		O		O			
Accessories	Signal	Auxiliary switch AUX	O		O		O		
		Trip alarm switch ALT	O		O		O		
		Shunt trip SHT	O		O		O		
		Under voltage trip UVT	O		O		O		
	Operating	Operating handle	Surface type TFG	O <sup>1)</sup>		O <sup>2)</sup>		O <sup>2)</sup>	
			Extended type TFH	O <sup>1)</sup>		O <sup>2)</sup>		O <sup>2)</sup>	
		Motor operator MOT	O		O		O		
		Mechanical interlock MIF	O <sup>1)</sup>		O <sup>2)</sup>		O <sup>2)</sup>		
		Padlock plate PLD	O		O		O		
	Mounting	DIN-rail adaptor DRA	-		-		O		
		Plug-in mounting base TDM	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>		
	Terminal	Cage terminal block CTB	O		O		O		
Terminal cover TCF		O		O		O			
Interpole barrier TQQ		O <sup>3)</sup>		O <sup>3)</sup>		O <sup>3)</sup>			
Durability (times)	Mechanical operation		25,000		25,000		25,000		
	Electrical operation		15,000		15,000		15,000		
Dimensions (mm)		2/3/4P	a	Width	50/75		50/75/100		
			b	Height	130		130		
			c	Depth	60		60		
			d		82		82		
Weight (kg, breaker only)	2/3/4P	0.45/0.65		0.45/0.65/0.85		0.6/0.78/0.96			

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

1) Available for 3P breaker 2) Available for 3P, 4P breaker

3) Supplied as standard component

## | UAB type / 60-100AF |

Model		UAB60		UAB100					
Figure									
Ampere frame size		60AF		100AF					
Number of poles (P)		2, 3, 4		2, 3, 4					
Degree of protection (with terminal cover)		IP20		IP20					
Utilization category		A		A					
Suitability of isolation		O		O					
Protection		overload, inst., short-circuit		overload, inst., short-circuit					
Rating	Rated current [A]	5, 10, 15, 20, 30, 40, 50, 60		5, 10, 15, 20, 30, 40, 50, 60, 75, 100					
	Rated insulation voltage [Ui] (V)	AC690		AC690					
	Rated operational voltage [Ue] (V)	AC660		AC660					
	Rated impulse withstand voltage [Uimp] (kV)	6		6					
Rated short-circuit breaking capacity [Icu] (kA r.m.s.) IEC 60947-2 K 60947-2	Ultimate [Icu] (kA r.m.s.)	Recognition code for order	C	R	C	R	S		
		AC600/660V, 50-60Hz	2.5	5	5	7.5	10		
		AC480/500V, 50-60Hz	2.5	7.5	7.5	7.5	14		
		AC440/460V, 50-60Hz	5	10	10	21	25		
		AC380/415V, 50-60Hz	<b>7.5/5</b>	<b>14/10</b>	<b>14/10</b>	<b>25</b>	<b>30</b>		
		AC220/240V, 50-60Hz	10	25	25	42	50		
	DC250V	-	-	-	10	14			
	DC125V	-	-	-	15	20			
Service [Ics]	% of [Icu]	50		50		25			
Trip mechanism & Protection characteristics	Hydraulic magnetic	Fixed thermal	O		O		-		
		Fixed instantaneous INST	12×In		12×In		-		
	Thermal magnetic	Fixed thermal	-		-		O		
		Fixed instantaneous INST	-		-		15-32A: 20×In, 40-100A: 10×In		
	Adjustable thermal LTD	-		-		(0.8-0.9-1)×In <sup>2</sup>			
	Fixed instantaneous INST	-		-		15-32A: 20×In, 40-100A: 10×In			
Mounting	Direct mounting by screw		O		O		O		
	Plug-in	for Both line & load side	O		O		O		
		Switchboard Line side only	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>		
	for Distribution board		O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>		
DIN-rail with DIN-rail adaptor		-		-		O			
Terminal connection	Screw		O		O		O		
Accessories	Signal	Auxiliary switch AUX	O		O		O		
		Trip alarm switch ALT	O		O		O		
		Shunt trip SHT	O		O		O		
		Under voltage trip UVT	O		O		O		
	Operating	Operating handle	Surface type TFG	O <sup>2)</sup>		O <sup>2)</sup>		O <sup>2)</sup>	
			Extended type TFH	O <sup>2)</sup>		O <sup>2)</sup>		O <sup>2)</sup>	
		Motor operator MOT	O		O		O		
		Mechanical interlock MIF	O <sup>2)</sup>		O <sup>2)</sup>		O <sup>2)</sup>		
	Padlock plate PLD		O		O		O		
	Mounting	DIN-rail adaptor DRA	-		-		O		
		Plug-in mounting base TDM	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>		
	Terminal	Cage terminal block CTB	O		O		O		
Terminal cover TCF		O		O		O			
Interpole barrier TQQ		O <sup>3)</sup>		O <sup>3)</sup>		O <sup>3)</sup>			
Durability (times)	Mechanical operation		25,000		25,000		25,000		
	Electrical operation		10,000		10,000		10,000		
Dimensions (mm)		2/3/4P	a	Width	50/75/100		50/75/100		
			b	Height	130		130		
			c	Depth	60		60		
			d		82		82		
Weight (kg, breaker only)	2/3/4P		0.45/0.65/0.85		0.45/0.65/0.85		0.6/0.78/0.96		

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.





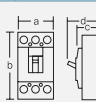
1) Available for 3P breaker 2) Available for 3P, 4P breaker

3) Supplied as standard component



# Rating Overview

## | UCB type / 50-125AF |

Model		UCB50			UCB100				
Figure									
Ampere frame size		50AF			100AF		125AF		
Number of poles (P)		2, 3, 4	*2, 3, 4		2, 3, 4		*2, 3, 4		
Degree of protection (with terminal cover)		IP20	IP20		IP20		IP20		
Utilization category		A	A		A		A		
Suitability of isolation		O	O		O		O		
Protection		overload, inst., short-circuit	overload, inst., short-circuit		overload, inst., short-circuit		overload, inst., short-circuit		
Rating	Rated current (A)	15,20,30,40,50	15,16,20,25,30,32,40,50		15,16,20,25,30,32,40,50,60,63,75,80,100		15,16,20,25,30,32,40,50,60,63,75,80,100,125		
	Rated insulation voltage [Ui] (V)	AC690	AC690		AC690		AC690		
	Rated operational voltage [Ue] (V)	AC660	AC660		AC660		AC660		
	Rated impulse withstand voltage [Uimp] (kV)	DC250	DC250		DC250		DC250		
Rated short-circuit breaking capacity	Ultimate [Icu] (kA r.m.s.)	Recognition code for order	R	H	L	R	S	H	L
		AC600/660V, 50-60Hz	10	20	25	10	18	20	25
		AC480/500V, 50-60Hz	14	30	35	14	25	30	35
		AC440/460V, 50-60Hz	25	42	50	25	35	42	50
		AC380/415V, 50-60Hz	<b>30/25</b>	<b>42</b>	<b>50</b>	<b>30/25</b>	<b>42/36</b>	<b>42</b>	<b>50</b>
		AC220/240V, 50-60Hz	50	85	100	50	65	85	100
	IEC 60947-2 K 60947-2	DC250V	14	25	40	14	18	25	40
	DC125V	20	40	60	20	25	40	60	
	Service [Ics] % of [Icu]	50	50		75		75		
Trip mechanism & Protection characteristics	Thermal magnetic	Fixed thermal, Fixed instantaneous	INST	10×In	15-32A: 15×In, 40-50A: 10×In	10×In		15-32A: 15×In, 40-125A: 10×In	
			LTD	–	(0.8-0.9-1)×In	(0.8-0.9-1)×In		(0.8-0.9-1)×In	
		Adjustable thermal, Fixed instantaneous	INST	–	15-32A: 15×In, 40-50A: 10×In	10×In		15-32A: 15×In, 40-125A: 10×In	
Mounting	Direct mounting by screw		O	O	O	O	O		
	Plug-in	for Switchboard	Both line & load side	O <sup>1)</sup>	O <sup>1)</sup>	O <sup>1)</sup>	O <sup>1)</sup>		
			Line side only	O <sup>1)</sup>	O <sup>1)</sup>	O <sup>1)</sup>	O <sup>1)</sup>		
			for Distribution board	O <sup>1)</sup>	O <sup>1)</sup>	O <sup>1)</sup>	O <sup>1)</sup>		
Terminal connection	Screw		O	O	O	O			
Accessories	Signal	Auxiliary switch	AUX	O	O	O	O		
		Trip alarm switch	ALT	O	O	O	O		
		Shunt trip	SHT	O	O	O	O		
		Under voltage trip	UVT	O	O	O	O		
	Operating	Operating handle	Surface type	TFG	O <sup>2)</sup>	O	O <sup>2)</sup>	O	
			Extended type	TFH	O <sup>2)</sup>	O	O <sup>2)</sup>	O	
		Motor operator	MOT	O	O	O	O		
		Mechanical interlock	MIF	O	O	O <sup>3)</sup>	O		
	Mounting	Padlock plate	PLD	O	O	O	O		
		Plug-in mounting base	TDM	O <sup>1)</sup>	O	O <sup>1)</sup>	O <sup>1)</sup>		
	Terminal	Cage terminal block	CTB	O	O	O	O		
		Terminal cover	TCF	O	O	O	O		
	Interpole barrier	TQQ	O <sup>3)</sup>	O <sup>3)</sup>	O <sup>3)</sup>	O <sup>3)</sup>			
Durability (times)	Mechanical operation		25,000	25,000	25,000	25,000			
	Electrical operation		10,000	10,000	10,000	10,000			
Dimensions (mm)		2/3/4P	a	Width	60/90/120	90 <sup>3)</sup> /90/120	60/90/120	90 <sup>3)</sup> /90/120	
			b	Height	155	155	155	155	
			c	Depth	60	60	60	60	
			d		84.5	84.5	84.5	84.5	
Weight (kg, breaker only)	2/3/4P		0.7/1.0/1.2	0.9/1.0/1.3	0.7/1.0/1.2	0.9/1.0/1.3			

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.





1) Available for 3P breaker

2) Available for 3P, 4P breaker

3) Supplied as standard component

4) \*2P breaker has same dimension as 3P breaker, but the middle pole is removed.

## | UCB type / 160-250AF |

Model		UCB160		UCB250							
Figure											
Ampere frame size		160AF		250AF							
Number of poles (P)		*2, 3, 4		*2, 3, 4		*2, 3, 4					
Degree of protection (with terminal cover)		IP20		IP20		IP20					
Utilization category		A		A		A					
Suitability of isolation		O		O		O					
Protection		overload, inst., short-circuit		overload, inst., short-circuit		overload, inst., short-circuit					
Rating	Rated current [A]	100, 125, 160		100, 125, 150, 160, 175, 200, 225, 250			100, 125, 150, 160, 175, 200, 225, 250				
	Rated insulation voltage [Ui] [V]	AC690		AC690			AC690				
	Rated operational voltage [Ue] [V]	AC660		AC660			AC660				
	Rated impulse withstand voltage [Uimp] [kV]	DC250		DC250			DC250				
Rated short-circuit breaking capacity IEC 60947-2 K 60947-2	Ultimate [Icu] [kA r.m.s.]	Recognition code for order		H	L	R	S	N	H	L	
		AC600/660V, 50-60Hz	20	25	7.5	10	18	20	25		
		AC480/500V, 50-60Hz	30	35	10	14	25	30	35		
		AC440/460V, 50-60Hz	42	50	18	25	35	42	50		
		AC380/415V, 50-60Hz	<b>42</b>	<b>50</b>	<b>25/18</b>	<b>35/25</b>	<b>42/36</b>	<b>42</b>	<b>50</b>		
		AC220/240V, 50-60Hz	85	100	35	50	65	85	100		
		DC250V	25	40	10	14	18	25	40		
	DC125V	40	60	15	20	25	40	60			
Service [Ics]	% of [Icu]		50			50					
Trip mechanism & Protection characteristics	Thermal magnetic	Fixed thermal, Fixed instantaneous		INST	10×In			10×In			
		Adjustable thermal, Fixed instantaneous		LTD	(0.8-0.9-1)×In			(0.8-0.9-1)×In			
				INST	10×In			10×In			
					10×In			10×In			
Mounting	Direct mounting by screw		O		O		O				
	Plug-in	for Both line & load side	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>				
		Switchboard Line side only	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>				
for Distribution board		O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>					
Terminal connection		Screw		O		O		O			
		Bus bar		O		O		O			
Accessories	Signal	Auxiliary switch		AUX	O		O		O		
		Trip alarm switch		ALT	O		O		O		
		Shunt trip		SHT	O		O		O		
		Under voltage trip		UVT	O		O		O		
	Operating	Operating handle	Surface type	TFG	O		O		O		
			Extended type	TFH	O		O		O		
		Motor operator		MOT	O		O		O		
		Mechanical interlock		MIF	O		O		O		
	Padlock plate		PLD	O		O		O			
	Mounting	Plug-in mounting base		TDM	O <sup>1)</sup>		O <sup>1)</sup>		O <sup>1)</sup>		
		Terminal bus bar		TBB	O		O		O		
		Cage terminal block		CTB	O		O		O		
		Terminal cover		TCF	O		O		O		
Interpole barrier		TQQ	O <sup>2)</sup>		O <sup>2)</sup>		O <sup>2)</sup>				
Durability (times)	Mechanical operation		25,000		25,000		25,000				
	Electrical operation		10,000		10,000		10,000				
Dimensions (mm)		2/3/4P	a	Width	105 <sup>3)</sup> /105/140		105 <sup>3)</sup> /105/140		105 <sup>3)</sup> /105/140		
			b	Height	165		164		165		
			c	Depth	60		60		60		
			d		84.5		84		84.5		
Weight (kg, breaker only)		2/3/4P	1.1/1.3/1.6		1.1/1.2/1.5		1.1/1.3/1.6				





※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

1) Available for 3P breaker 2) Supplied as standard component

3) \*2P breaker has same dimension as 3P breaker, but the middle pole is removed.

# Rating Overview

## | UCB type / 400-800AF |




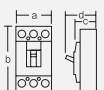
Model		UCB400				UCB630				UCB800						
Figure																
Ampere frame size		400AF				630AF				800AF						
Number of poles (P)		*2, 3, 4				*2, 3, 4				*2, 3, 4						
Degree of protection (with terminal cover)		IP20				IP20				IP20						
Utilization category		A				A				A						
Suitability of isolation		O				O				O						
Protection		overload, inst., short-circuit				overload, inst., short-circuit				overload, inst., short-circuit						
Rating	Rated current [A]	250, 300, 320, 350, 400				500, 630				700, 800						
	Rated insulation voltage [Ui] [V]	AC690				AC690				AC690						
	Rated operational voltage [Ue] [V]	AC660				AC660				AC660						
	Rated impulse withstand voltage [Uimp] [kV]	DC250				DC250				DC250						
Rated short-circuit breaking capacity	Ultimate [Icu] [kA r.m.s.]	Recognition code for order	R	S	H	L	R	S	H	L	R	S	H	L		
		AC600/660V, 50-60Hz	18	22	25	30	22	25	35	35	25	25	35	35		
		AC480/500V, 50-60Hz	18	25	35	65	25	45	50	65	35	45	50	65		
		AC440/460V, 50-60Hz	25	35	50	85	35	50	65	85	35	50	65	85		
		AC380/415V, 50-60Hz	<b>30</b>	<b>42</b>	<b>65</b>	<b>100</b>	<b>45</b>	<b>65</b>	<b>85</b>	<b>100</b>	<b>45</b>	<b>65</b>	<b>85</b>	<b>100</b>		
		AC220/240V, 50-60Hz	35	50	85	125	50	100	100	125	50	100	100	125		
		DC250V	14	25	40	40	20	40	40	40	20	40	40	40		
	DC125V	20	30	50	60	30	50	50	60	30	50	50	60			
	Service [Ics] % of [Icu]	50				50				50						
Trip mechanism & Protection characteristics	Thermal magnetic	Fixed thermal, Fixed instantaneous	INST	10×In				10×In				10×In				
		Adjustable thermal, Fixed instantaneous	LTD	(0.8-0.9-1)×In				(0.8-0.9-1)×In				(0.8-0.9-1)×In				
			INST	10×In				10×In				10×In				
				10×In				10×In				10×In				
Mounting	Direct mounting by screw		O				O				O					
	Plug-in	for Both line & load side	O <sup>1)</sup>				O <sup>1)</sup>				O <sup>1)</sup>					
		Switchboard Line side only	O <sup>1)</sup>				O <sup>1)</sup>				O <sup>1)</sup>					
Terminal connection	Screw		O				O				O					
	Bus bar		O				O				O					
Accessories	Signal	Auxiliary switch	AUX	O				O				O				
		Trip alarm switch	ALT	O				O				O				
		Shunt trip	SHT	O				O				O				
		Under voltage trip	UVT	O				O				O				
	Operating	Operating handle	Surface type	TFG	O				O				O			
			Extended type	TFH	O				O				O			
		Motor operator	MOT	O				O				O				
		Mechanical interlock	MIF	O				O				O				
		Padlock plate	PLD	O				O				O				
	Mounting	Terminal	Extension handle	THA	O <sup>2)</sup>				O <sup>2)</sup>				O <sup>2)</sup>			
Plug-in mounting base			TDM	O <sup>1)</sup>				O <sup>1)</sup>				O <sup>1)</sup>				
Terminal bus bar			TBB	O				O				O				
Cage terminal block			CTB	O				O				O				
		Terminal cover	TCF	O				O				O				
		Interpole barrier	TQQ	O <sup>2)</sup>				O <sup>2)</sup>				O <sup>2)</sup>				
Durability (times)	Mechanical operation		20,000				20,000				10,000					
	Electrical operation		6,000				6,000				3,000					
Dimensions (mm)		2/3/4P	a	Width	140 <sup>3)</sup> /140/185				210 <sup>3)</sup> /210/280				210 <sup>3)</sup> /210/280			
			b	Height	257				280				280			
			c	Depth	110				110				110			
			d		145				145				145			
Weight (kg, breaker only)	2/3/4P		4/4.5/5.4				8.7/9.5/12.5				8.7/9.5/12.5					

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

1) Available for 3P breaker 2) Supplied as standard component

3) \*2P breaker has same dimension as 3P breaker, but the middle pole is removed.

## | UCB type / 1000-1600AF |

Model		UCB1000		UCB1250		UCB1600			
Figure									
Ampere frame size		1000AF		1250AF		1600AF			
Number of poles (P)		3, 4		3, 4		3			
Degree of protection (without terminal bus bar)		IP20		IP20		IP20			
Utilization category		A		A		A			
Suitability of isolation		O		O		O			
Protection		overload, inst., short-circuit		overload, inst., short-circuit		overload, inst., short-circuit			
Rating	Rated current [A]		505-1,000		630-1,250		640-1,600		
	Rated insulation voltage [Ui] (V)		AC750		AC750		AC750		
	Rated operational voltage [Ue] (V)		AC690		AC690		AC690		
	Rated impulse withstand voltage [Uimp] (kV)		8		8		8		
Rated short-circuit breaking capacity	Ultimate [Icu] (kA r.m.s.)	Recognition code for order		S	L	S	L	S	
		AC600/660V, 50-60Hz		40	60	40	60	25	
		AC480/500V, 50-60Hz		75	100	75	100	35	
		AC440/460V, 50-60Hz		75	100	75	100	45	
		AC380/415V, 50-60Hz		<b>100</b>	<b>130</b>	<b>100</b>	<b>130</b>	<b>65</b>	
		AC220/240V, 50-60Hz		100	150	100	150	100	
IEC 60947-2 K 60947-2	Service [Ics]	% of [Icu]		50		50			
Trip mechanism & Protection characteristics	Electronic	Long time delay	LTD	(0.5-1) <sup>1)</sup> × In (15 setting)		(0.5-1) <sup>1)</sup> × In (15 setting)		(0.4-1) <sup>2)</sup> × In (8 setting)	
		Short time delay	STD	(2-4-6-8-10) × Ir		(2-4-6-8-10) × Ir		–	
		Instantaneous	INST	(3-6-8-10-11) × In		(3-6-8-10-11) × In		(2-3-4-5-6-7-8-10) × In	
		Ground fault trip	GFT	(0.2-0.3-0.4) × In		(0.2-0.3-0.4) × In		–	
		Pre-trip alarm	PTA	0.9 × Ir		0.9 × Ir		–	
		I <sup>2</sup> T lamp		○		○		–	
		Pick-up LED		○		○		○	
Mounting	Direct mounting by screw		○		○		○		
Terminal connection	Bus bar		○		○		○		
Accessories	Signal	Auxiliary switch	AUX	○		○		○	
		Trip alarm switch	ALT	○		○		–	
		Shunt trip	SHT	○		○		○	
		Under voltage trip	UVT	○		○		○	
	Operating	Operating handle	Extended type TFH	–		–		○	
		Motor operator	MOT	○		○		–	
		Padlock plate	PLD	○		○		–	
	Terminal	Extension handle	THA	○ <sup>3)</sup>		○ <sup>3)</sup>		○ <sup>3)</sup>	
		Terminal bus bar	TBB	○ <sup>4)</sup>		○ <sup>4)</sup>		○ <sup>4)</sup>	
		Terminal cover	TCF	–		–		○ <sup>3)</sup>	
	Interpole barrier	TQQ	○ <sup>3)</sup>		○ <sup>3)</sup>		○ <sup>3)</sup>		
Durability (times)	Mechanical operation		10,000		10,000		10,000		
	Electrical operation		3,000		3,000		3,000		
Dimensions (mm)		3/4P	a	Width	210/280	210/280	210/280	210/280	210
			b	Height	370	370	370	370	371
			c	Depth	110	200	110	200	151
			d		159	249	159	249	215
Weight (kg, breaker only)		3/4P	13/17	25/33	13.5/17.5	25.5/33.5	27		

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.




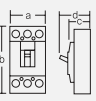
1) (0.5-1): (0.63-0.8-1) × (0.8-0.85-0.9-0.95-1) 2) (0.4-1): (0.4-0.5-0.6-0.7-0.8-0.9-0.95-1)

3) Supplied as standard component

4) Supplied as standard component that attached in breaker

# Rating Overview

## | UPB type / 125-250AF |

Model		UPB100				UPB160				UPB250						
Figure																
Ampere frame size		125AF				160AF				250AF						
Number of poles (P)		3, 4				3, 4				3, 4						
Degree of protection (with terminal cover)		IP20				IP20				IP20						
Utilization category		A				A				A						
Suitability of isolation		O				O				O						
Protection		overload, inst., short-circuit				overload, inst., short-circuit				overload, inst., short-circuit						
Rating	Rated current (A)	Thermal magnetic type	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125				100, 125, 160				125, 150, 160, 175, 200, 225, 250					
		Electronic type	50-125				63-160				100-250					
	Rated insulation voltage [Ui] (V)		AC750				AC750				AC750					
			AC690				AC690				AC690					
Rated operational voltage [Ue] (V)		DC500 <sup>1)</sup>				DC500 <sup>1)</sup>				DC500 <sup>1)</sup>						
		DC125V				DC125V				DC125V						
Rated impulse withstand voltage [Uimp] (kV)		8				8				8						
Rated short-circuit breaking capacity	Ultimate [Icu] (kA r.m.s.)	Recognition code for order	S	H	L	X	S	H	L	X	S	H	L	X		
		AC660/690V, 50-60Hz	10	10	25	25	10	10	25	25	10	10	25	25		
		AC480/500V, 50-60Hz	50	65	85	85	50	65	85	85	50	65	85	85		
		AC440/460V, 50-60Hz	65	85	100	150	65	85	100	150	65	85	100	150		
		AC380/415V, 50-60Hz	85	100	130	150	85	100	130	150	85	100	130	150		
		AC220/240V, 50-60Hz	100	130	150	200	100	130	150	200	100	130	150	200		
	IEC 60947-2	DC250V	50 <sup>1)</sup>	65 <sup>1)</sup>	85 <sup>1)</sup>	100 <sup>1)</sup>	50 <sup>1)</sup>	65 <sup>1)</sup>	85 <sup>1)</sup>	100 <sup>1)</sup>	50 <sup>1)</sup>	65 <sup>1)</sup>	85 <sup>1)</sup>	100 <sup>1)</sup>		
	K 60947-2	DC125V	65 <sup>1)</sup>	100 <sup>1)</sup>	100 <sup>1)</sup>	100 <sup>1)</sup>	65 <sup>1)</sup>	100 <sup>1)</sup>	100 <sup>1)</sup>	100 <sup>1)</sup>	65 <sup>1)</sup>	100 <sup>1)</sup>	100 <sup>1)</sup>	100 <sup>1)</sup>		
Service [Ics]	% of [Icu]	100				100				100						
Trip mechanism & Protection characteristics	Thermal magnetic	Fixed thermal, Fixed instantaneous	O <sup>2)</sup>				O <sup>2)</sup>				O <sup>2)</sup>					
		Adjustable thermal, Fixed inst.	O <sup>2)</sup>				O <sup>2)</sup>				O <sup>2)</sup>					
		Adjustable thermal, Adjustable inst.	-				O <sup>2)</sup>				O <sup>2)</sup>					
	Electronic	LTD, STD, INST	O <sup>2)</sup>				O <sup>2)</sup>				O <sup>2)</sup>					
PTA, Pick-up LED		O				O				O						
Mounting	Direct mounting by screw		O				O				O					
	Plug-in	for Switchboard	O <sup>3)</sup>				O <sup>3)</sup>				O <sup>3)</sup>					
		Both line & load side	O <sup>3)</sup>				O <sup>3)</sup>				O <sup>3)</sup>					
		Line side only	O <sup>3)</sup>				O <sup>3)</sup>				O <sup>3)</sup>					
Terminal connection	Screw		O				O				O					
	Bus bar		O				O				O					
Accessories	Signal	Auxiliary switch AUX	O				O				O					
		Trip alarm switch ALT	O				O				O					
		Shunt trip SHT	O				O				O					
		Under voltage trip UVT	O				O				O					
	Operating	Operating handle	Surface type TFG	O				O				O				
			Extended type TFH	O				O				O				
		Motor operator MOT	O				O				O					
		Mechanical interlock MIF	O				O				O					
	Mounting	Padlock plate PLD	O				O				O					
			O				O				O					
		Plug-in mounting base TDM	O <sup>3)</sup>				O <sup>3)</sup>				O <sup>3)</sup>					
			O <sup>3)</sup>				O <sup>3)</sup>				O <sup>3)</sup>					
Terminal	Terminal bus bar TBB	O				O				O						
		O				O				O						
	Cage terminal block CTB	O				O				O						
		O				O				O						
Terminal cover TCF	O				O				O							
	O <sup>4)</sup>				O <sup>4)</sup>				O <sup>4)</sup>							
Durability (times)	Mechanical operation		25,000				25,000				25,000					
	Electrical operation		10,000				10,000				10,000					
Dimensions (mm)		3/4P	a	Width	105/140				105/140				105/140			
			b	Height	165				165				165			
			c	Depth	86.5				86.5				86.5			
			d		112				112				112			
Weight (kg, breaker only)	3/4P		1.8/2.2				2.0/2.4				2.0/2.4					

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.




1) DC is not applicable for electronic breaker.

2) For the detail protection characteristics, please refer to following pages; · UPB100: page 92 · UPB160: page 98 · UPB250: page 102

3) Available for 3P breaker 4) Supplied as standard component



## | UPB type / 400-630AF |

Model		UPB400				UPB630						
Figure												
Ampere frame size		400AF				630AF						
Number of poles (P)		3, 4				3, 4						
Degree of protection (with terminal cover)		IP20				IP20						
Utilization category		A				A						
Suitability of isolation		O				O						
Protection		overload, inst., short-circuit				overload, inst., short-circuit						
Rating	Rated current [A]		200-400				320-630					
	Rated insulation voltage [Ui] [V]		AC750				AC750					
	Rated operational voltage [Ue] [V]		AC690				AC690					
	Rated impulse withstand voltage [Uimp] [kV]		8				8					
Rated short-circuit breaking capacity IEC 60947-2 K 60947-2	Ultimate [Icu] (kA r.m.s.)	Recognition code for order		S	H	L	X	S	H	L	X	
		AC660/690V, 50-60Hz		10	10	25	25	10	10	25	25	
		AC480/500V, 50-60Hz		50	65	85	85	50	65	85	85	
		AC440/460V, 50-60Hz		65	85	100	150	65	85	100	150	
		AC380/415V, 50-60Hz		85	100	130	150	85	100	130	150	
	AC220/240V, 50-60Hz		100	130	150	200	100	130	150	200		
Service [Ics]		% of [Icu]		100				100				
Trip mechanism & Protection characteristics	Electronic	LTD, STD, INST		O <sup>1)</sup>				O <sup>1)</sup>				
		GFT, I <sup>2</sup> T lamp		O <sup>1)</sup>				O <sup>1)</sup>				
		PTA, Pick-up LED		O				O				
Mounting	Direct mounting by screw		O				O					
	Plug-in	for Switchboard	Both line & load side	O <sup>2)</sup>				O <sup>2)</sup>				
			Line side only	O <sup>2)</sup>				O <sup>2)</sup>				
Terminal connection		Screw		O				O				
		Bus bar		O				O				
Accessories	Signal	Auxiliary switch		AUX				O				
		Trip alarm switch		ALT				O				
		Shunt trip		SHT				O				
		Under voltage trip		UVT				O				
	Operating	Operating handle	Surface type	TFG				O				
			Extended type	TFH				O				
		Motor operator		MOT				O				
		Mechanical interlock		MIF				O				
		Padlock plate		PLD				O				
	Mounting	Extension handle		THA				O <sup>3)</sup>				
		Plug-in mounting base		TDM				O <sup>2)</sup>				
		Terminal	Terminal bus bar		TBB				O			
			Cage terminal block		CTB				O			
Terminal cover			TCF				O					
Interpole barrier			TQQ				O <sup>3)</sup>					
Durability (times)	Mechanical operation		20,000				20,000					
	Electrical operation		6,000				6,000					
Dimensions (mm)		3/4P	a	Width	140/185				140/185			
			b	Height	255				255			
			c	Depth	117				117			
			d		159.5				159.5			
Weight (kg, breaker only)		3/4P		6.0/7.8				6.0/7.8				



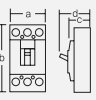
※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

1) For the detail protection characteristics, please refer to following pages; · UPB400: page 108 · UPB630: page 110

2) Available for 3P breaker 3) Supplied as standard component

# Rating Overview

## | Motor protection / UPB type 125-250AF |

Model		UPB100		UPB250		
Figure						
Ampere frame size		125AF		250AF		
Number of poles (P)		3		3		
Degree of protection (with terminal cover)		IP20		IP20		
Utilization category		A		A		
Suitability of isolation		O		O		
Protection		instantaneous, short-circuit		instantaneous, short-circuit		
Rating	Rated current (A)	2.5, 3.2, 6.3, 12.5, 20, 32, 50, 63, 80, 100		125, 150, 175, 200, 225		
	Rated insulation voltage [Ui] (V)	AC750		AC750		
	Rated operational voltage [Ue] (V)	AC690		AC690		
	Rated impulse withstand voltage [Uimp] (kV)	DC500		DC500		
Rated short-circuit breaking capacity	Ultimate [Icu] (kA r.m.s.)	Recognition code for order	H	L	H	L
		AC660/690V, 50-60Hz	10	25	10	25
		AC480/500V, 50-60Hz	65	85	65	85
		AC440/460V, 50-60Hz	85	100	85	100
		AC380/415V, 50-60Hz	<b>100</b>	<b>130</b>	<b>100</b>	<b>130</b>
		AC220/240V, 50-60Hz	130	150	130	150
	IEC 60947-2 K 60947-2	DC250V	65	85	65	85
		DC125V	100	100	100	100
Service [Ics]	% of [Icu]	100		100		
Trip mechanism & Protection characteristics	Thermal magnetic	Adjustable instantaneous		Adjustable instantaneous		
		[6-7-8-9-10-11-12-13] × In		[5-6-7-8-9-10] × In		
Mounting	Direct mounting by screw		○		○	
	Plug-in	for Switchboard	Both line & load side	○	○	
			Line side only	○	○	
Terminal connection	Screw		○		○	
	Bus bar		○		○	
Accessories	Signal	Auxiliary switch	AUX	○	○	
		Trip alarm switch	ALT	○	○	
		Shunt trip	SHT	○	○	
		Under voltage trip	UVT	○	○	
	Operating	Operating handle	Surface type	TFG	○	○
			Extended type	TFH	○	○
		Motor operator	MOT	○	○	
		Mechanical interlock	MIF	○	○	
	Mounting	Padlock plate	PLD	○	○	
		Plug-in mounting base	TDM	○	○	
		Terminal bus bar	TBB	○	○	
		Cage terminal block	CTB	○	○	
Terminal	Terminal cover	TCF	○	○		
	Interpole barrier	TQQ	○ <sup>1)</sup>	○ <sup>1)</sup>		
Durability (times)	Mechanical operation		25,000		25,000	
	Electrical operation		10,000		10,000	
Dimensions (mm)		3P	a	Width	105	105
			b	Height	165	165
			c	Depth	86.5	86.5
			d		112	112
Weight (kg, breaker only)		3P	1.8		2.0	

※ - The breaking capacity highlighted with blue and thick type is standard nominal value for each model in this catalogue.

1) Supplied as standard component