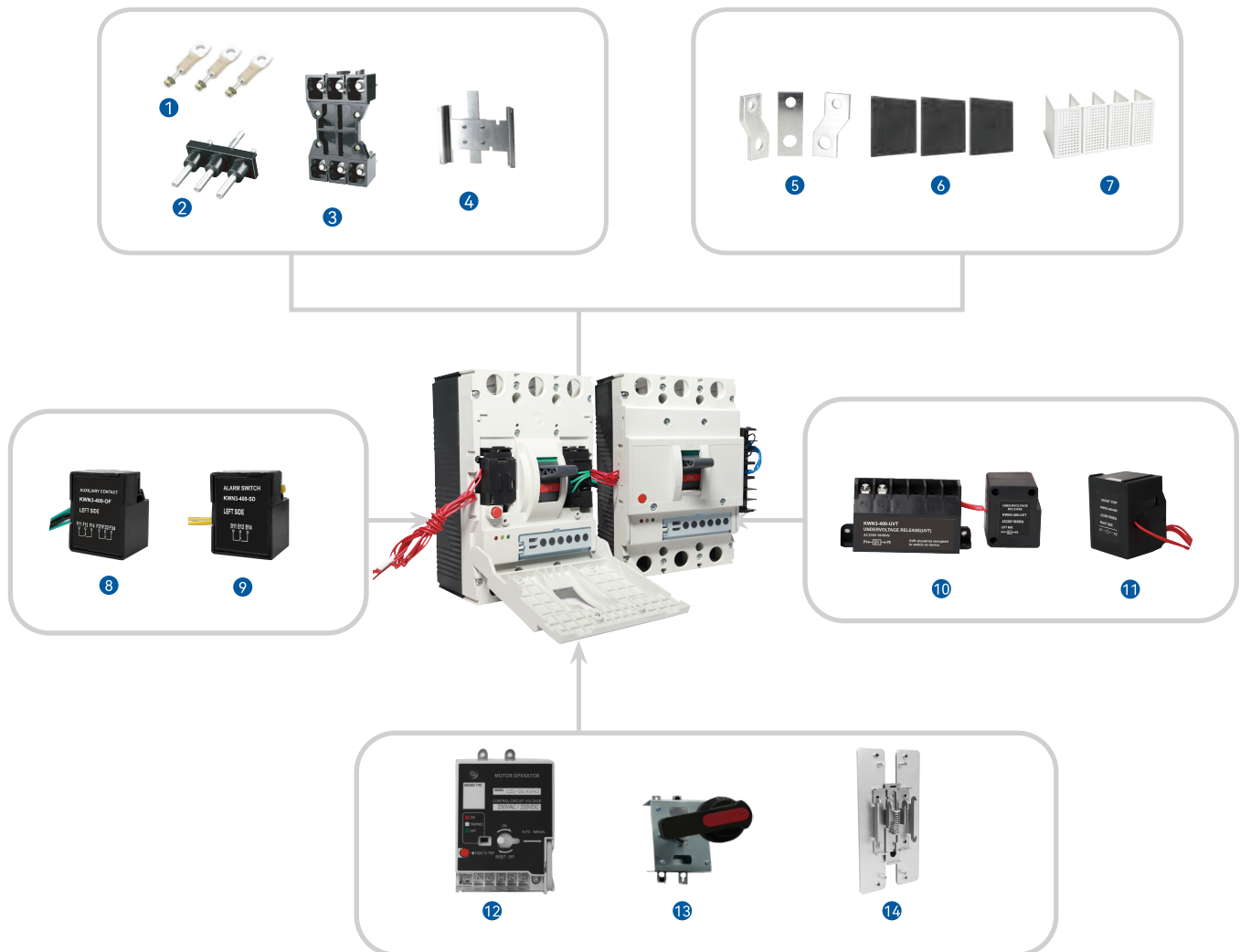


Accessories

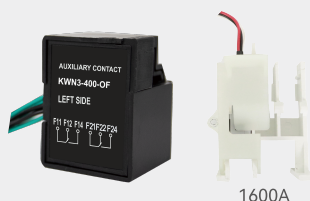
Overview of Accessories



- | | | | |
|---|-------------------------------|----|--|
| 1 | Fixed rear connection (RC) | 8 | Auxiliary contact (OF) |
| 2 | Plug-in rear connection (PR) | 9 | Alarm switch (SD) |
| 3 | Plug-in front connection (RF) | 10 | Under-voltage release (MN) |
| 4 | Mechanical interlock (MI) | 11 | Shunt trip (MX) |
| 5 | Spreader links (C3/C4) | 12 | Motor (M) |
| 6 | Interphase barriers (IB) | 13 | Rotary handle operating mechanism (HL) |
| 7 | Terminal cover (TC) | 14 | DIN Rail adaptor (DR) |

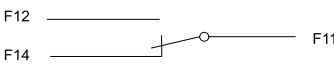
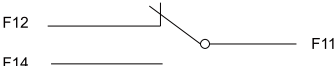
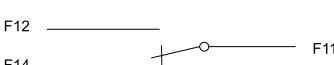
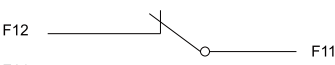
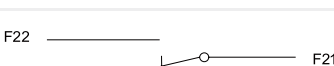
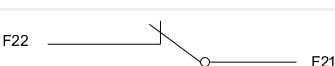
Internal Accessories

■ Auxiliary contact with Wire (OF)



An accessory that is connected to the auxiliary contact of the switching device to indicate whether the circuit breaker is in the ON position or not.

Electrical wiring diagram

Accessory name		ON	OFF/TRIP
Auxiliary contact	OF		
	TWO OF		
			

Electrical parameters

Conventional Thermal Current		3A	
Use category		AC 15	DC 13
Working electricity 50Hz	AC 400V	0.3A	
	DC 220V		0.15A

Auxiliary contact	Frame size	Accessory name	Left	Right
	KWN3-125	OF	KWN3125OF11L	KWN3125OF11R
		TWO OF	KWN3125OF21L	KWN3125OF21R
	KWN3-160	OF	KWN3160OF11L	KWN3160OF11R
		TWO OF	KWN3160OF21L	KWN3160OF21R
	KWN3-250	OF	KWN3250OF11L	KWN3250OF11R
		TWO OF	KWN3250OF21L	KWN3250OF21R
	KWN3-400/630/800/1000	OF	KWN3630OF11L	KWN3630OF11R
		TWO OF	KWN3630OF21L	KWN3630OF21R
	KWN3-1600	OF	KWN31600OF11L	KWN31600OF11R
		TWO OF	KWN31600OF21L	KWN31600OF21R

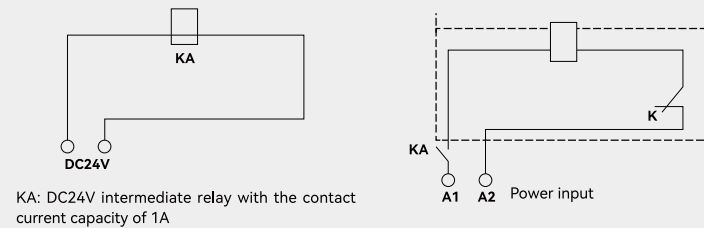
Internal Accessories

■ Shunt trip with Wire (MX)



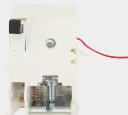
- The Shunt trip shall reliably trip the circuit breaker at the voltage between 70% and 110% of the rated control power voltage U_e .
- The circuit breaker shall be reset on the site after tripping through the Shunt trip.

Electrical wiring diagram



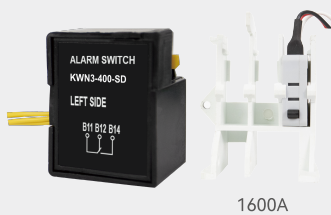
Electrical parameters

Frame size	Shunt trip power loss(W)		
	AC400V	AC230V	DC24V
KWN3-125	152	161	180
KWN3-160	116	225	165
KWN3-250	220	161	108
KWN3-400/630/800/1000	108	179	98
KWN3-1600	200	150	108

Shunt trip	Frame size	Voltage	Left	Right
	KWN3-125	AC230V	KWN3125MXAC2L	KWN3125MXAC2R
		AC400V	KWN3125MXAC3L	KWN3125MXAC3R
		DC110V	KWN3125MXDC1L	KWN3125MXDC1R
		DC220V	KWN3125MXDC2L	KWN3125MXDC2R
		DC24V	KWN3125MXDC3L	KWN3125MXDC3R
	KWN3-160	AC230V	KWN3160MXAC2L	KWN3160MXAC2R
		AC400V	KWN3160MXAC3L	KWN3160MXAC3R
		DC110V	KWN3160MXDC1L	KWN3160MXDC1R
		DC220V	KWN3160MXDC2L	KWN3160MXDC2R
		DC24V	KWN3160MXDC3L	KWN3160MXDC3R
	KWN3-250	AC230V	KWN3250MXAC2L	KWN3250MXAC2R
		AC400V	KWN3250MXAC3L	KWN3250MXAC3R
		DC110V	KWN3250MXDC1L	KWN3250MXDC1R
		DC220V	KWN3250MXDC2L	KWN3250MXDC2R
		DC24V	KWN3250MXDC3L	KWN3250MXDC3R
	KWN3-400/630/800/1000	AC230V	KWN3630MXAC2L	KWN3630MXAC2R
		AC400V	KWN3630MXAC3L	KWN3630MXAC3R
		DC110V	KWN3630MXDC1L	KWN3630MXDC1R
		DC220V	KWN3630MXDC2L	KWN3630MXDC2R
		DC24V	KWN3630MXDC3L	KWN3630MXDC3R
	KWN3-1600	AC230V	KWN31600MXAC2L	KWN31600MXAC2R
		AC400V	KWN31600MXAC3L	KWN31600MXAC3R
		DC110V	KWN31600MXDC1L	KWN31600MXDC1R
		DC220V	KWN31600MXDC2L	KWN31600MXDC2R
		DC24V	KWN31600MXDC3L	KWN31600MXDC3R

Internal Accessories

■ Alarm switch with Wire (SD)

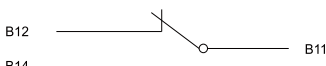
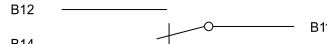


1600A

An accessory used to indicate whether the circuit breaker has tripped. When the Alarm switch indicates that the circuit breaker is at Trip status, there are the following five possibilities.

- Overload or short circuit fault.
- Residual current fault.
- Shunt trip action.
- Line fault and undervoltage release action.

Electrical wiring diagram

Accessory name	ON/OFF	TRIP
Alarm		

Electrical parameters

Conventional Thermal Current	3A		
Use category		AC 15	DC 13
Working electricity 50Hz	AC 400V	0.3A	
	DC 220V		0.15A

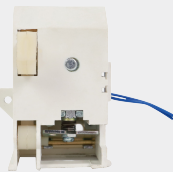
Alarm switch	Frame size	Left	Right
	KWN3-125	KWN3125SD1L	KWN3125SD1R
	KWN3-160	KWN3160SD1L	KWN3160SD1R
	KWN3-250	KWN3250SD1L	KWN3250SD1R
	KWN3-400/630/800/1000	KWN3630SD1L	KWN3630SD1R
	KWN3-1600	KWN31600SD1L	KWN31600SD1R

■ Auxiliary + Alarm with Wire

Auxiliary + Alarm	Frame size	Left	Right
	KWN3-125	KWN3125OFSD1L	KWN3125OFSD1R
	KWN3-160	KWN3160OFSD1L	KWN3160OFSD1R
	KWN3-250	KWN3250OFSD1L	KWN3250OFSD1R
	KWN3-400/630/800/1000	KWN3630OFSD1L	KWN3630OFSD1R
	KWN3-1600	KWN31600OFSD1L	KWN31600OFSD1R

Internal Accessories

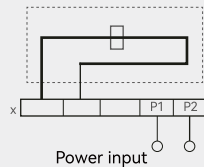
■ Under-voltage release with Terminal (MN)



1600A

- The Under-voltage release shall reliably trip the circuit breaker at the voltage between 35% and 70% of the rated operational voltage;
- The Under-voltage release shall ensure that the circuit breaker can be switched on at the voltage between 85% and 110% of the rated operational voltage;
- The Under-voltage release shall prevent the circuit breaker from switching on when voltage is below 35% of the rated operational voltage.

Electric wiring diagram

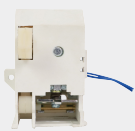


Note: X- terminal block

Note: In the dashed box, it is the wiring diagram of accessories in the circuit breaker.

Electrical parameters

Frame size	Under-voltage release power loss(W)	
	AC400V	AC230V
KWN3-125	124	41
KWN3-160	4	2.4
KWN3-250	4	2.4
KWN3-400/630/800/1000	224	184
KWN3-1600	2.53	3.4

Under-voltage release	Frame size	Voltage	Left	Right
	KWN3-125	AC230V	KWN3125MNAC2L	KWN3125MNAC2R
		AC400V	KWN3125MNAC3L	KWN3125MNAC3R
		DC110V	KWN3125MNDC1L	KWN3125MNDC1R
		DC220V	KWN3125MNDC2L	KWN3125MNDC2R
		DC24V	KWN3125MNDC3L	KWN3125MNDC3R
	KWN3-160	AC230V	KWN3160MNAC2L	KWN3160MNAC2R
		AC400V	KWN3160MNAC3L	KWN3160MNAC3R
		DC110V	KWN3160MNDC1L	KWN3160MNDC1R
		DC220V	KWN3160MNDC2L	KWN3160MNDC2R
		DC24V	KWN3160MNDC3L	KWN3160MNDC3R
	KWN3-250	AC230V	—	KWN3250MNAC2R
		AC400V	—	KWN3250MNAC3R
		DC110V	—	KWN3250MNDC1R
		DC220V	—	KWN3250MNDC2R
		DC24V	—	KWN3250MNDC3R
	KWN3-400/630/800/1000	AC230V	KWN3630MNAC2L	KWN3630MNAC2R
		AC400V	KWN3630MNAC3L	KWN3630MNAC3R
		DC110V	KWN3630MNDC1L	KWN3630MNDC1R
		DC220V	KWN3630MNDC2L	KWN3630MNDC2R
		DC24V	KWN3630MNDC3L	KWN3630MNDC3R
	KWN3-1600	AC230V	KWN31600MNAC2L	KWN31600MNAC2R
		AC400V	KWN31600MNAC3L	KWN31600MNAC3R
		DC110V	KWN31600MNDC1L	KWN31600MNDC1R
		DC220V	KWN31600MNDC2L	KWN31600MNDC2R
		DC24V	KWN31600MNDC3L	KWN31600MNDC3R

External Accessories

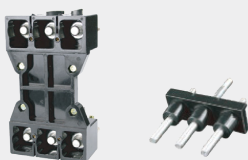
■ Fixed rear connection (RC)



Easy to install and connect the products in the rear connection.

Fixed rear connection	Frame size	3P(6pcs)	4P(8pcs)
	KWN3-160	KWN3160RC3	KWN3160RC4
	KWN3-250	KWN3250RC3	KWN3250RC4
	KWN3-400	KWN3400RC3	KWN3400RC4
	KWN3-630	KWN3630RC3	KWN3630RC4

■ Plug-in (PF/PR)



Plug-in

The wiring type is divided into plug-in Rear Connection and plug-in Front Connection.

The plug-in connection for the products is easy for maintenance and replacement, but plug-in and plug-out cannot be done with the electricity.

Frame size	Fixed front	Fixed rear	Plug-in front	Plug-in rear
KWN3-125	■	■	■	■
KWN3-160	■	■	■	■
KWN3-250	■	■	■	■
KWN3-400	■	■	■	■
KWN3-630	■	■	■	■

Plug-in	Frame size	Connection type	3P	4P
	KWN3-125	Front connection	KWN3125PF3	KWN3125PF4
		Rear connection	KWN3125PR3	KWN3125PR4
	KWN3-160	Front connection	KWN3160PF3	KWN3160PF4
		Rear connection	KWN3160PR3	KWN3160PR4
	KWN3-250	Front connection	KWN3250PF3	KWN3250PF4
		Rear connection	KWN3250PR3	KWN3250PR4
	KWN3-400	Rear connection	KWN3400PR3	KWN3400PR4
	KWN3-630	Rear connection	KWN3630PR3	KWN3630PR4

External Accessories

■ Rotary handle operating mechanism (HL)



The circuit breaker can be operated by the rotation of the handle and the ergonomically designed rotation handle makes the operation of the circuit breaker more flexible.

User visualization information/settings:

- 3 position indications: OFF, ON and TRIP
- The circuit breaker cannot be switched on when the door is open
- The door cannot be opened when the circuit breaker is switched on
- The axial length of the extended handle can be custom made according to the distance from the back of the circuit breaker to the door.

Rotary handle operating mechanism	Frame size	Handle shape	Extended (Default 150mm)
	KWN3-125	Round	KWN3125HL1
	KWN3-160	Round	KWN3160HL1
	KWN3-250	Round	KWN3250HL1
	KWN3-400	Round	KWN3400HL1
	KWN3-630	Round	KWN3630HL1
	KWN3-800/1000	Round	KWN3800HL1
	KWN3-1600	Square	KWN31600HL1

■ DIN Rail adaptor (DR)



It is an adapter plate that allows MCCB mounting on a DIN rail.

DIN Rail adaptor	Frame size	3P/4P
	KWN3-125	KWN3125DR3
	KWN3-160	KWN3160DR3
	KWN3-250	KWN3250DR3

■ Mechanical interlock (MI)

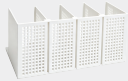
Mechanical interlock is intended to prohibit both power sources from being simultaneously connected to the load.

The interlocking system disables one circuit breaker by mechanically preventing handle movement from the Off position while the other circuit breaker is in the On position.

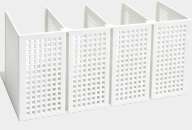
Mechanical interlock	Frame size	3P	4P
	KWN3-125	KWN3125MI3	KWN3125MI4
	KWN3-160	KWN3160MI3	KWN3160MI4
	KWN3-250	KWN3250MI3	KWN3250MI4
	KWN3-400	KWN3400MI3	KWN3400MI4
	KWN3-630	KWN3630MI3	KWN3630MI4
	KWN3-800/1000	KWN3800MI3	KWN3800MI4
	KWN3-1600	KWN31600MI3	KWN31600MI4

External Accessories

■ Terminal cover (TC)



Protection Degree: IP40
Protect from being contacted with main circuit.

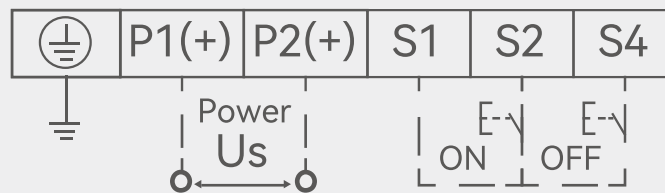
Terminal cover	Frame size	3P(2pcs)	4P(2pcs)
	KWN3-125	KWN3125TC3	KWN3125TC4
	KWN3-160	KWN3160TC3	KWN3160TC4
	KWN3-250	KWN3250TC3	KWN3250TC4
	KWN3-400	KWN3400TC3	KWN3400TC4
	KWN3-630	KWN3630TC3	KWN3630TC4

■ Motor (M)



- Apply to remote electric connection, disconnection and re-trip of the circuit breaker and the automation control occasions.
- Rated voltage of electric operating mechanism: AC400V;AC230V/DC220V;AC/DC110V;DC24V
- Operating voltage range of electric operating mechanism: 85%-110% Ue.

Electrical wiring diagram



- When operating manually, operate 180° clockwise and do not operate counter clockwise.
- Withstand voltage test: it should be between the incoming terminals P1 and P2 (excluding S1, S2 and S4) of the power supply and the installation screws of electric operation that can withstand 50Hz AC, power Frequency withstand voltage test of 1890V (withstand voltage test is prohibited when rated voltage is DC24V).
- P1 and P2 are forbidden to be connected to S1, S2 and S4 during electrical operation.

Electrical parameters

Frame size	IP degree	Current	Voltage	Switch on/off time	Electric life
KWN3-125	20	≤0.5 DC24V≤3	AC110V/DC110V AC230V/DC220V AC400V DC24V	≤0.7	10000
KWN3-160	20	≤0.8 DC24V≤3		≤0.7	10000
KWN3-250	20	≤0.8 DC24V≤3		≤0.7	10000
KWN3-400	20	≤1 DC24V≤6		≤1	5000
KWN3-630	20	≤1 DC24V≤6		≤1	5000
KWN3-800/1000	20	≤1 DC24V≤6		≤1	5000
KWN3-1600	20	≤2 DC24V≤6	AC230V/DC220V	≤2	1000

External Accessories

Motor	Frame size	AC110V	AC230V	AC400V	DC110V	DC220V	DC24V
	KWN3-125	KWN3125MAC1	KWN3125MAC2	KWN3125MAC3	KWN3125MDC1	KWN3125MDC2	KWN3125MDC3
	KWN3-160	KWN3160MAC1	KWN3160MAC2	KWN3160MAC3	KWN3160MDC1	KWN3160MDC2	KWN3160MDC3
	KWN3-250	KWN3250MAC1	KWN3250MAC2	KWN3250MAC3	KWN3250MDC1	KWN3250MDC2	KWN3250MDC3
	KWN3-400	KWN3400MAC1	KWN3400MAC2	KWN3400MAC3	KWN3400MDC1	KWN3400MDC2	KWN3400MDC3
	KWN3-630	KWN3630MAC1	KWN3630MAC2	KWN3630MAC3	KWN3630MDC1	KWN3630MDC2	KWN3630MDC3
	KWN3-800/1000	KWN3800MAC1	KWN3800MAC2	KWN3800MAC3	KWN3800MDC1	KWN3800MDC2	KWN3800MDC3
	KWN3-1600	-	KWN31600MAC2	-	-	KWN31600MDC2	-

■ Spreader links (C3/C4)



The spreader links are connected to the terminal of the circuit breaker, in order to provide many other wiring schemes in the limited space:

- Direct spreader links
- Spreader link with inter-electrode distance

The busbar and extension terminal can be connected to the inlet or outlet terminal of the circuit breaker.

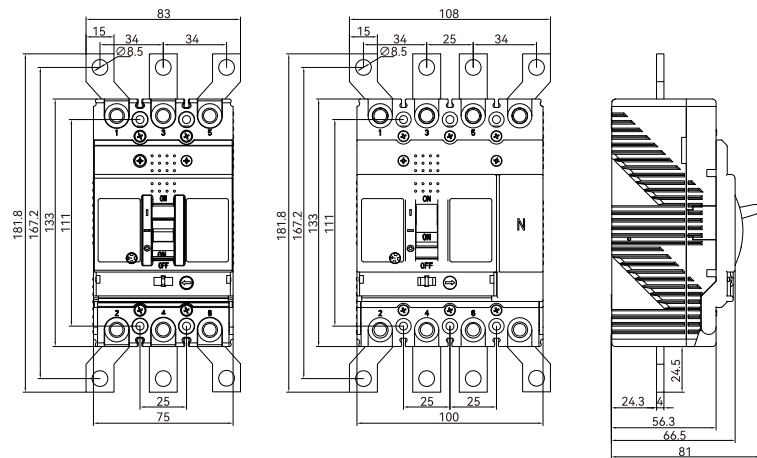
Spreader links	Frame size	3P(6pcs)	4P(8pcs)
	KWN3-125	KWN3125C3	KWN3125C4
	KWN3-160	KWN3160C3	KWN3160C4
	KWN3-250	KWN3250C3	KWN3250C4
	KWN3-400	KWN3400C3	KWN3400C4
	KWN3-630	KWN3630C3	KWN3630C4
	KWN3-800	KWN3800C3	KWN3800C4
	KWN3-1000	KWN31000C3	KWN31000C4
	Frame size	3P(12pcs)	4P(16pcs)
	KWN3-1600	KWN31600C3	KWN31600C4

MCCB With Spreader Link Dimensions

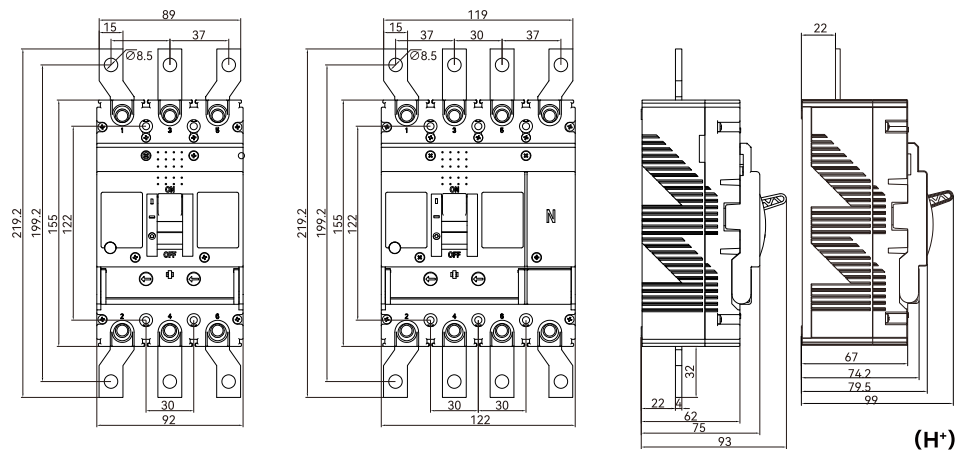
■ Front connection

Note: All dimensions are in mm

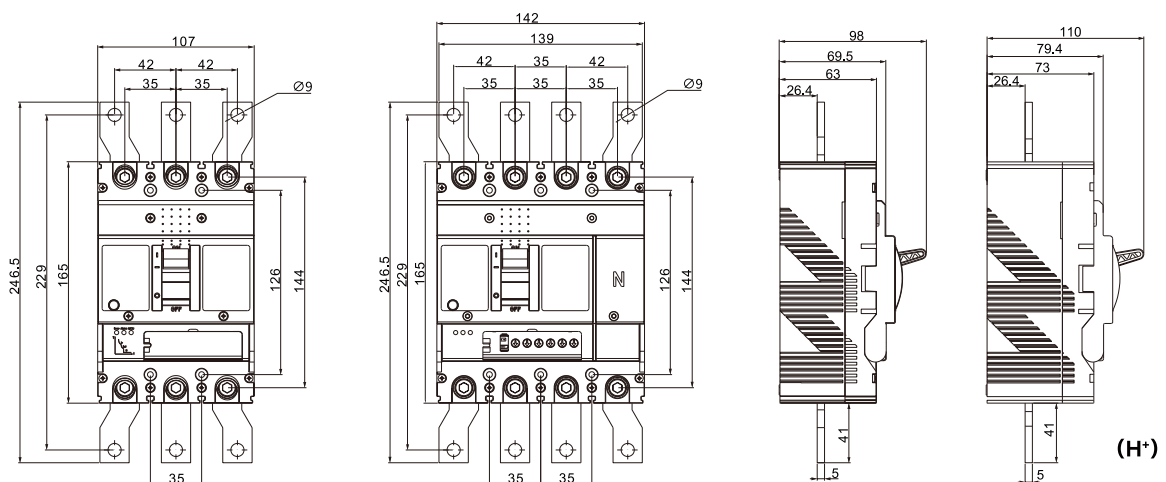
KWN3/3s-125A 3 POLES & 4 POLES



KWN3/3s/3sm/3E/i3E-160A 3 POLES & 4 POLES



KWN3/3s/3sm/3E/i3E-250A 3 POLES & 4 POLES

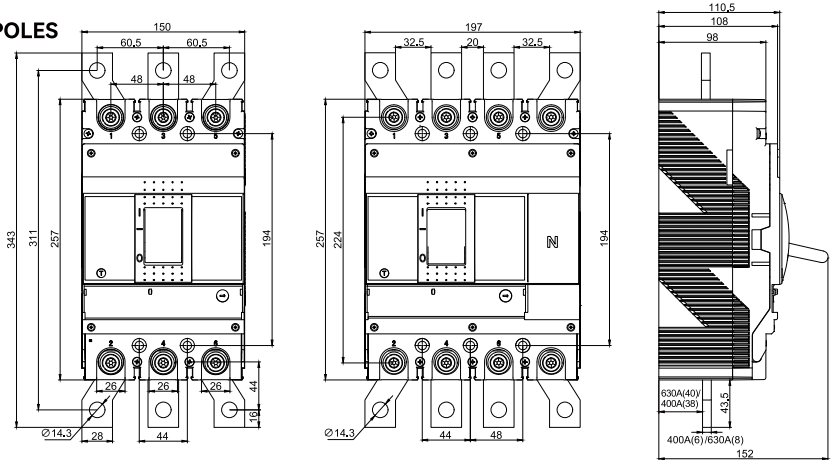


MCCB With Spreader Link Dimensions

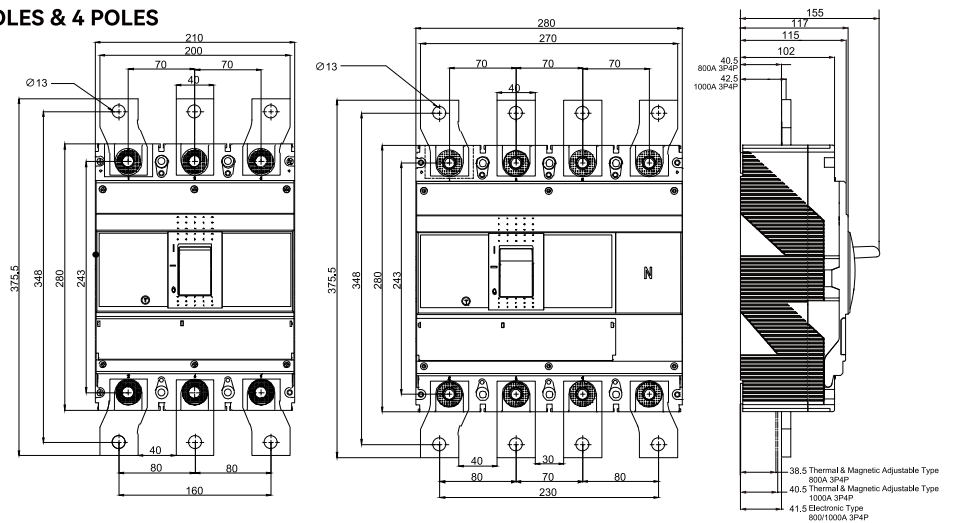
■ Front connection

Note: All dimensions are in mm

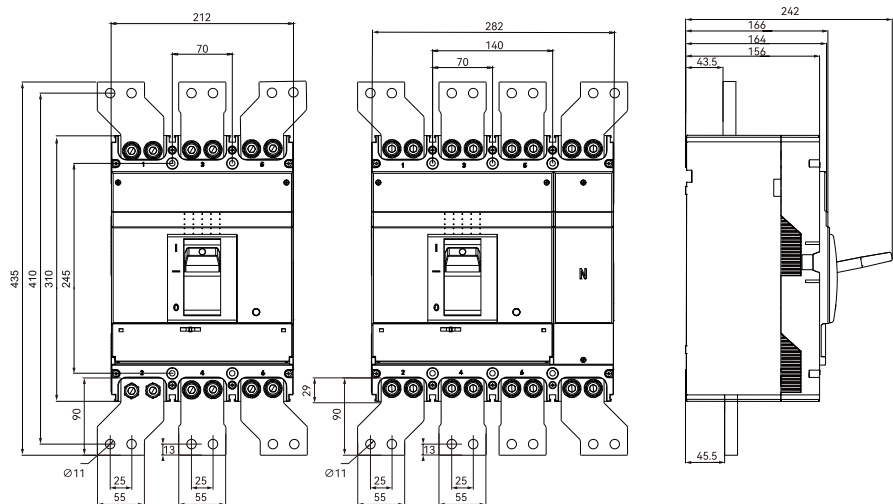
KWN3/3s/3sm/3E/i3E-400A/630A 3 POLES & 4 POLES



KWN3/3s/3sm/3E/i3E-800/1000A 3 POLES & 4 POLES



KWN3E-1600A 3 POLES & 4 POLES

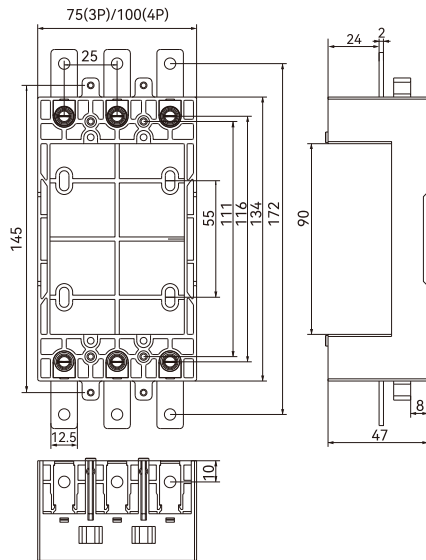


Plug-in MCCB Mounting Dimensions

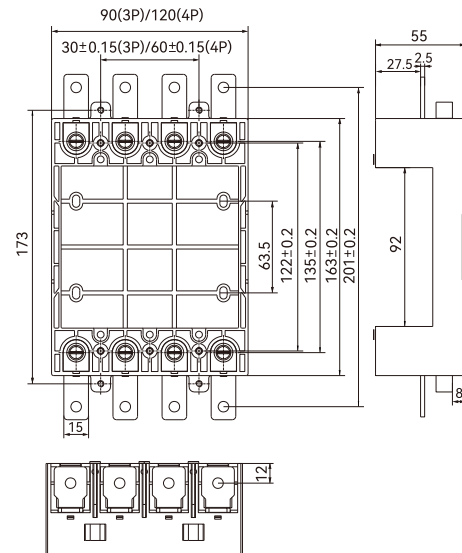
■ Front connection(mm)

Note: All dimensions are in mm

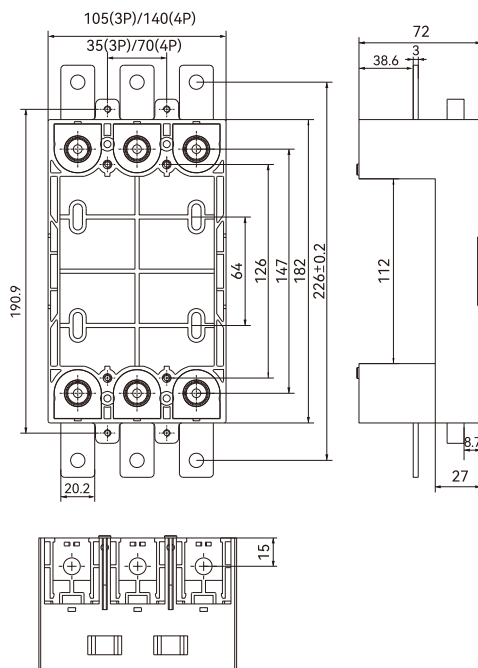
KWN3-125



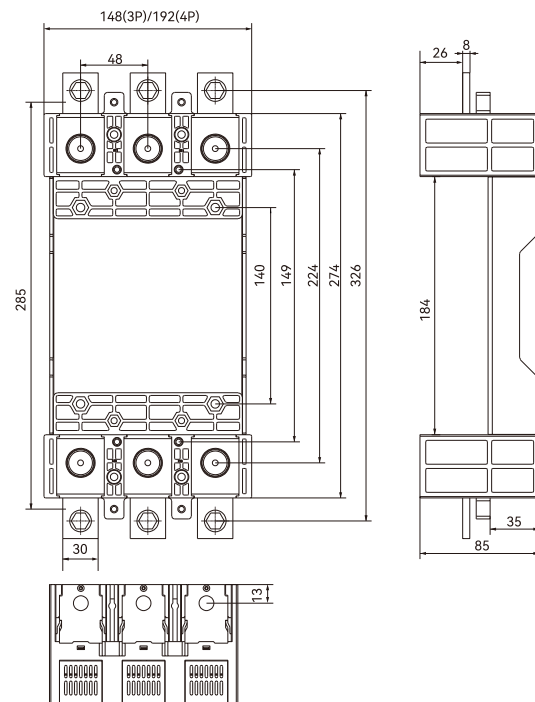
KWN3-160



KWN3-250

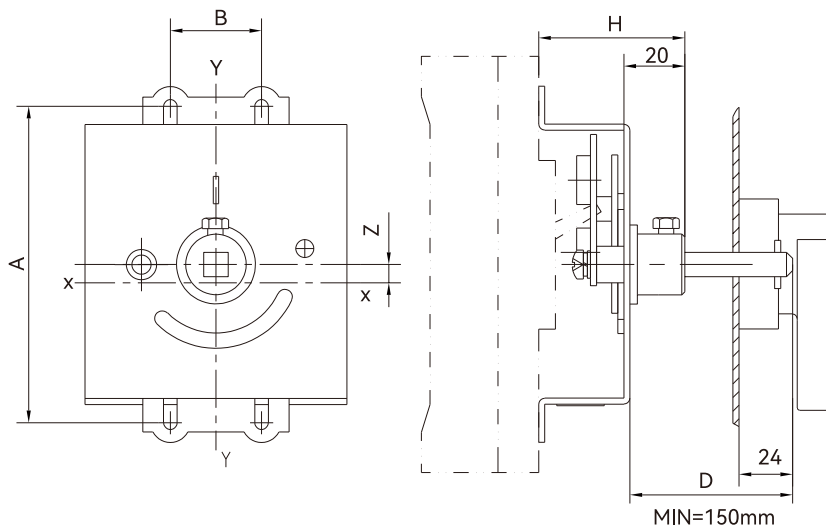


KWN3-400/630



Rotary handle operating mechanism Dimensions

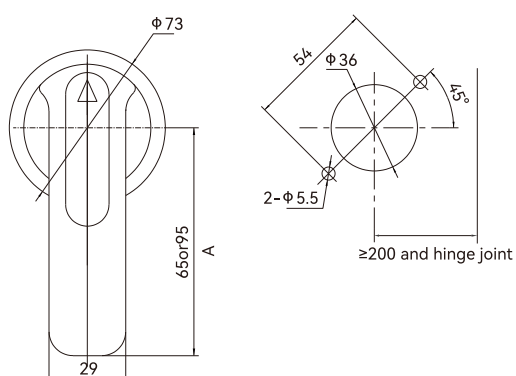
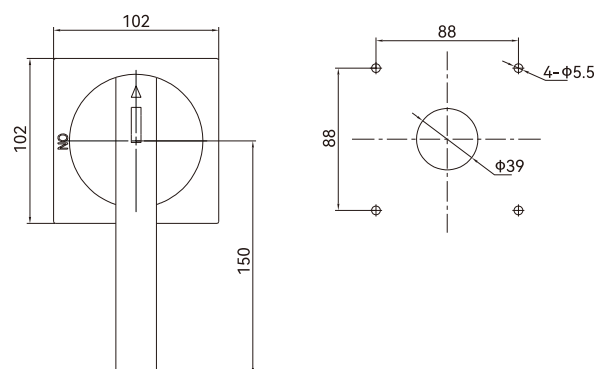
■ Mounting with MCCB dimensions(mm)



Model Number	Frame size	Installation dimensions			
		A	B	H	Z
CS1-125/KWN3	KWN3-125	111	25	53	0
CS1-160/KWN3	KWN3-160	122	30	58	
CS1-250/KWN3	KWN3-250	144	35	63	
CS1-400/KWN3	KWN3-400/630	221.5	44	77	
CS1-800/KWN3	KWN3-800/1000	245	198		
CS1-1600/KWN3	KWN3-1600	70	275	94	

■ Handle and door cutting dimensions(mm)

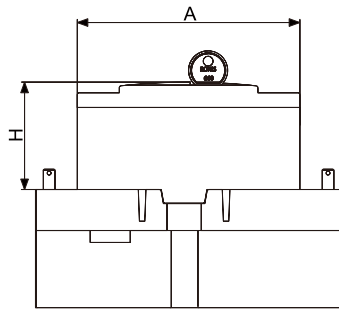
Round handle dimensions



Frame size	A
KWN3-125~1000	65/95

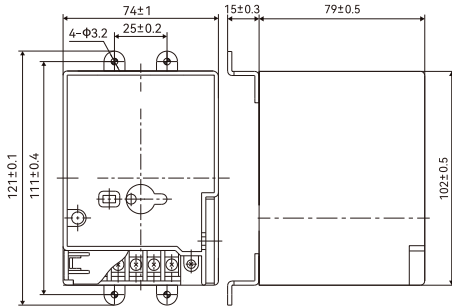
Frame size	A
KWN3-1600	150

Motor Mounted with MCCB Dimensions

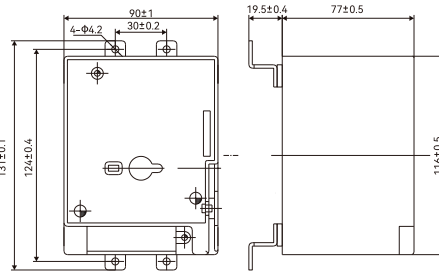


Frame size	A	H
KWN3-125	102	94
KWN3-160	116	96.5
KWN3-250	116	119
KWN3-400/630	176	144
KWN3-800/1000	176	149
KWN3-1600	176	139

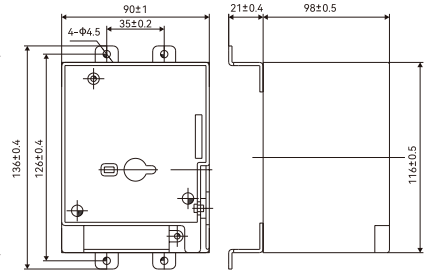
CD2-125/KWN3



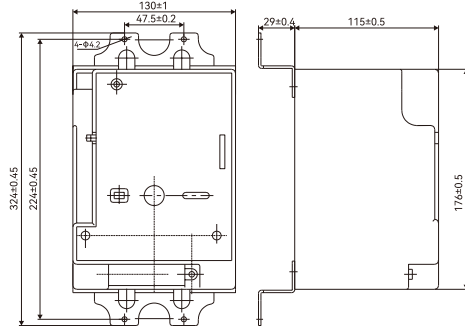
CD2-160/KWN3



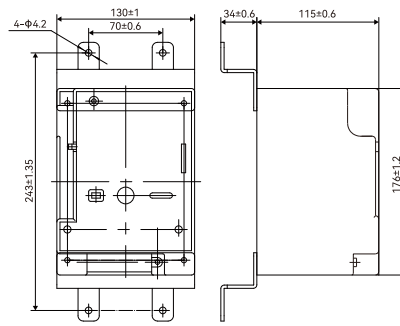
CD2-250/KWN3



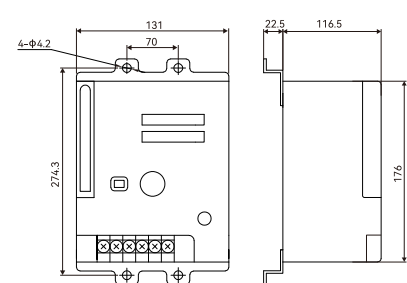
CD2-400/630 KWN3



CD2-800/1000 KWN3



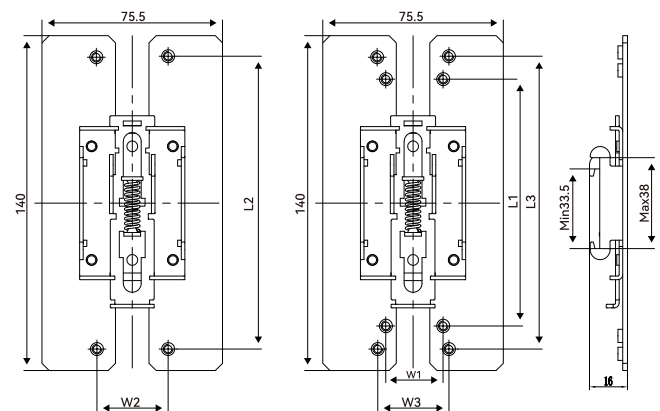
CD2-1600 KWN3



DIN Rail adaptator with MCCB Dimensions

■ Dimensions(mm)

Frame size	KWN3-125		KWN3-160		KWN3-250	
Dimensions	L1	W1	L2	W2	L3	W3
mm	111	25	122	30	126	35



Accessory installation and lead direction



OF (Auxiliary contact)



SD (Alarm switch)

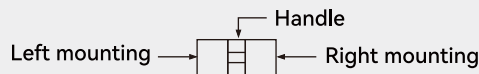
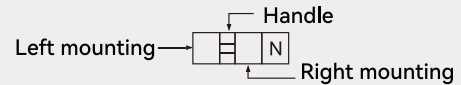


MX (Shunt trip)

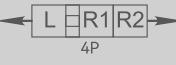


MN (Under-voltage release)

Illustrate



□ SD ■ OF ○ MN ● MX △ SD+OF ▲ TWO SETS OF → Lead direction

Item	Accessories	3P		4P		
		250A	125A,160A,400A, 630A,800A/1000A	125A	250A	160A,400A,630A, 800A/1000A
KWN3 (125-1000A Frame) KWN3s (125-1000A Frame) KWN3sm (160-1000A Frame) KWN3E (160-1000A Frame) iKWN3E (160-1000A Frame)  3P  4P Note: R2 can be installed with OF, TWO OF	SD					
	MX					
	OF					
	MN					
	SD+OF					
	TWO OF					
	MX,OF					
	MX,SD					
	MX,SD+OF					
	MX,TWO OF					
	MX,MN					
	MN,OF					
	MN,SD					
	MN,SD+OF					
	MN,TWO OF					
	OF,SD					
	OF,MX					
	OF,SD+OF					
	OF,TWO OF					
	OF,MN					
	SD,OF					
	SD,MX					
	SD,SD+OF					
	SD,TWO OF					
	SD,MN					
	SD+OF,OF					
	SD+OF,SD					
	SD+OF,MX					
	SD+OF,TWO OF					
	SD+OF,MN					
	TWO OF,OF					
	TWO OF,SD					
	TWO OF,MX					
	TWO OF,SD+OF					
	TWO OF,MN					

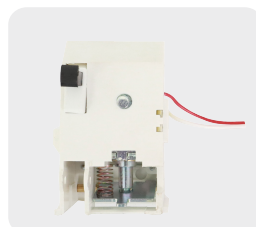
Accessory installation and lead direction



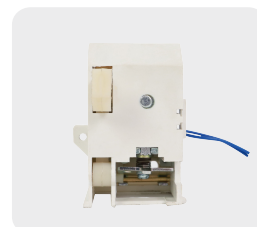
OF (Auxiliary contact)



SD (Alarm switch)

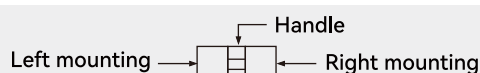
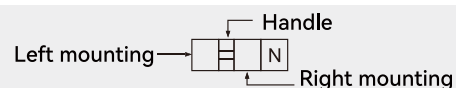


MX (Shunt trip)



MN(Under-voltage release)

Illustrate



□ SD ■ OF ○ MN ● MX △ SD+OF ▲ TWO SETS OF → Lead direction

Item	Accessories	3P	4P
		1600A	1600A
<div> <div> <div>KWN3E (1600A Frame)</div> <div> <div>3P</div> </div> </div> <div> <div> <div>4P</div> </div> <div>Note:R2 can be installed with OF,TWO OF</div> </div> </div>	SD		
	MX		
	OF		
	MN		
	SD+OF		
	TWO OF		
	MX,OF		
	MX,SD		
	MX,SD+OF		
	MX,TWO OF		
	MN,OF		
	MN,SD		
	MN,SD+OF		
	MN,TWO OF		
	MX,OF		
	MN,OF		
	MX,SD		
	MN,SD		
	MX,TWO OF		
	MN,TWO OF		

Accessory Code

Accessory Name	Tripping Type	Instantaneous Release	Combined Release
None		200	300
Alarm switch		208	308
Shunt trip		210	310
Auxiliary Contact		220	320
Under-voltage Release		230	330
Shunt trip Auxiliary Contact		240	340
Shunt trip & Under-voltage Release		250	350
2 Sets of Auxiliary Contacts		260	360
Auxiliary Contact & Under-voltage Release		270	370
Alarm switch & Shunt trip		218	318
Alarm switch & Auxiliary Contact		228	328
Under-voltage Release & Alarm switch		238	338
Auxiliary Contact, Alarm switch & Shunt trip		248	348
2 Sets of Auxiliary Contacts & Alarm switch		268	368
Under-voltage Release, Auxiliary Contact & Alarm switch		278	378