



Stock Code  
605066

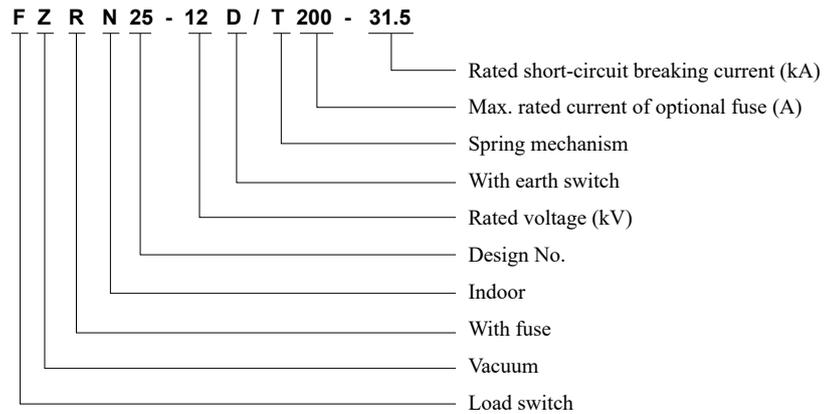
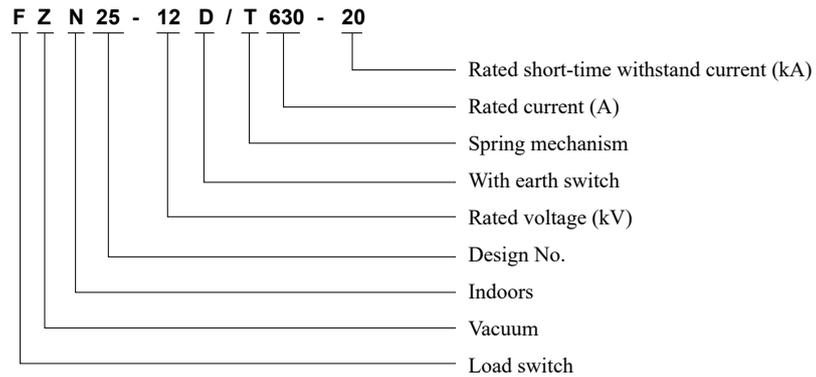
## FN12-12(D)/T630-20 Indoor High-Voltage AC Vacuum Load Switch FN25-12(D)/T200-31.5 Indoor High-Voltage AC Vacuum Load Switch – Fuse-Combination Unit



### 1 Product overview

- 1.1 Used in the 10kV, 50Hz three-phase power distribution system for control and protection of power equipment such as transformer, cables, and overhead lines, especially suitable for terminal substations and box-type substations used in urban network and rural network and for control and protection of ring network and dual radiant power supply unit.
- 1.2 Available standards
  - GB/T 3804-2004 High-voltage alternating-current switches for rated voltage above 3.6kV and less than 40.5kV
  - GB/T 16926-2009 High-voltage alternating current switch – fuse combinations

### 2 Type designation





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### 3 Product parameters

No.	Name		Unit	FZN25-12D	FZRN25-12D
1	Rated voltage		kV	12	12
2	Rated frequency		Hz	50	50
3	Rated current		A	630	200
4	Rated insulation level	Power frequency withstand voltage for 1 minute	Voltage to ground, Phase-phase voltage	42	
			Break voltage		
		Lightning impulse withstand voltage (peak)	Vacuum break voltage	30	
			Voltage to ground, Phase-phase voltage		
Break voltage	85				
5			Rated circuit-breaker withstand current (thermal stability current)		kA
6	Rated short-circuit duration (thermal stability current)	Load switch	S	4	--
		Earth switch		2	
7	Rated short-circuit making current (peak)		kA	50	--
8	Rated active load breaking current		A	630	--
	Rated closed-loop breaking current			630	--
	5% active load breaking current			31.5	--
	Rated charge current of cable			10	--
9	Breaking no-load transformer capacity		kVA	1600	
10	Rated short-circuit breaking current (current-limiting fuse)		kA	--	31.5
11	Rated transfer current or take-over current		A	--	2000
12	Mechanical life		次	10000	
13	Impactor output energy		J	--	2 ~ 5
14	Main circuit resistance		$\mu\Omega$	$\leq 170$	$\leq 300$

### 4 Working environment conditions

- 4.1 Ambient temperature: Upper limit: +40°C; Lower limit: -15°C;
- 4.2 The altitude does not exceed 1000m.
- 4.3 For relative air humidity, the daily mean is not greater than 95%, and the monthly mean is not greater than 90%;
- 4.4 The earthquake intensity does not exceed 8 degrees.
- 4.5 Installed in places free of fire, explosive risk, chemical corrosion, and violent vibration.
- 4.6 The installation site shall be free of flammable substance, explosive risk, chemical corrosion and violent vibration.

Please contact the manufacturer for customizing those failed to follow the normal working conditions.



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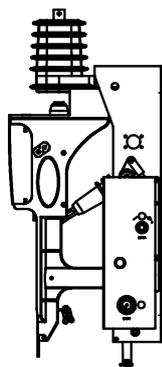
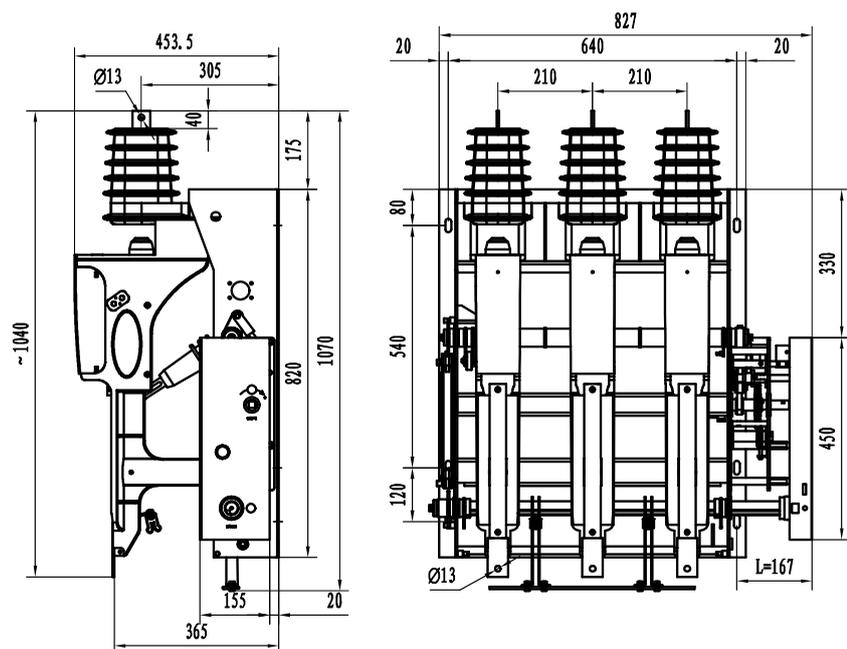
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### 5 Technical features of product

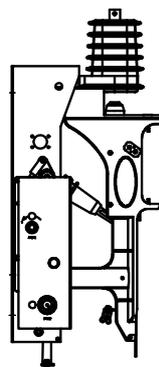
- 5.1 The vacuum extinction is used featuring with stable and reliable performance, long electrical life, high ON/OFF times, and strong closing and opening capacity;
- 5.2 The isolating switch, load switch and earth switch are integrated into the whole, with compact structure and small size;
- 5.3 The directly-acting isolating break and vacuum arc extinguish chamber are connected in series with the unique operating program linkage for one-time completion;
- 5.4 Load switch, earth switch, shutter and switch cabinet are interlocked mechanically by “five-prevention” to prevent mis-operation and to guarantee safe and reliable operation.

### 6 Outline and installation dimensions

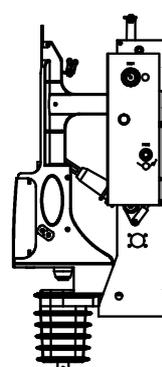
#### 6.1 Load switch



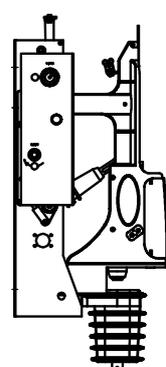
Front side mounted  
for left operation



Front side mounted  
for right operation



Reverse side mounted  
for left operation

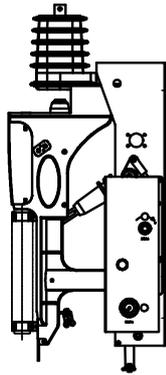
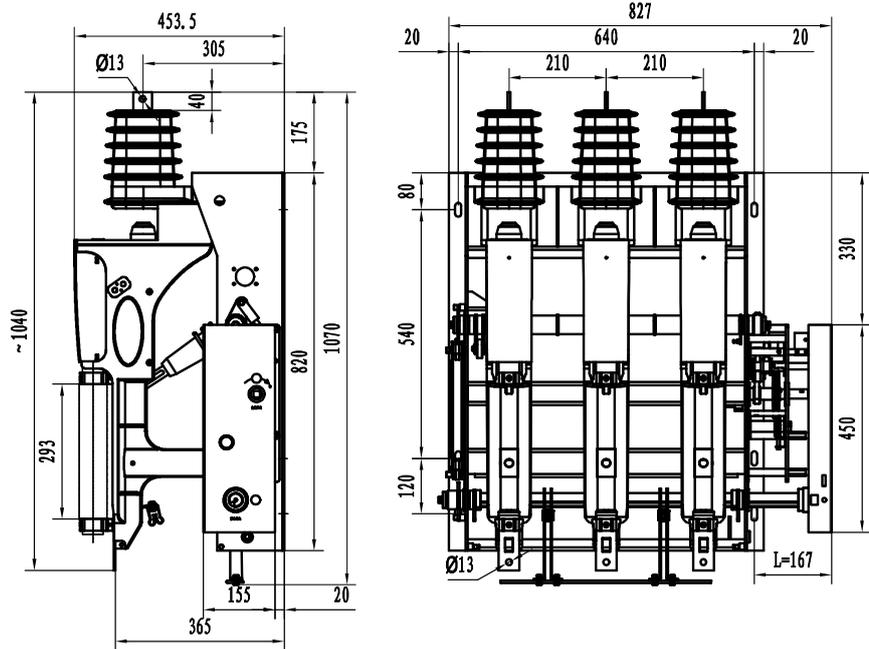


Reverse side mounted  
for right operation

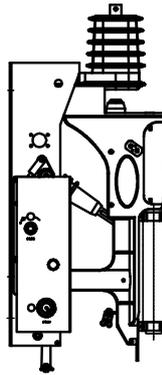


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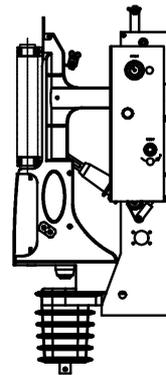
### 6.2 Load switch – fuse-combination unit



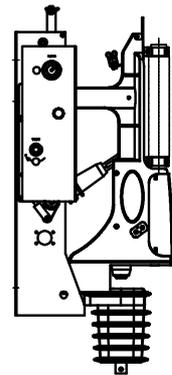
Front side mounted  
for left operation



Front side mounted  
for right operation



Reverse side mounted  
for left operation



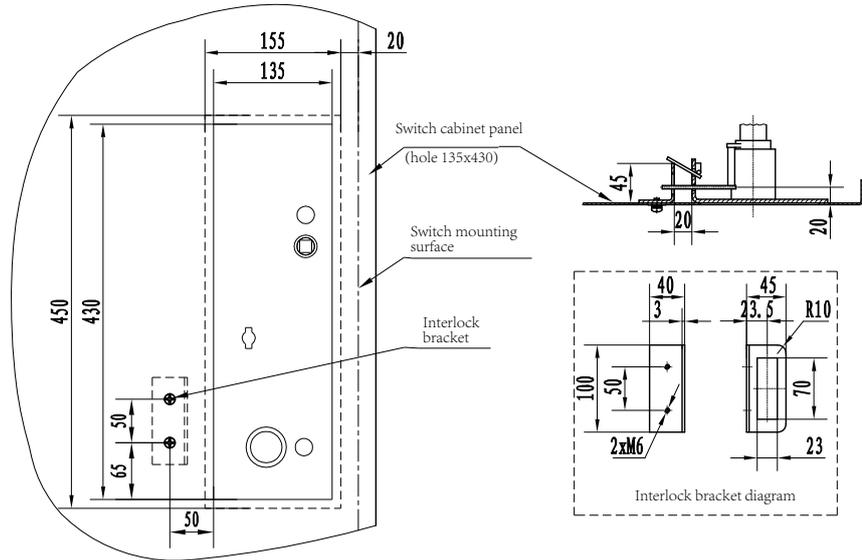
Reverse side mounted  
for right operation



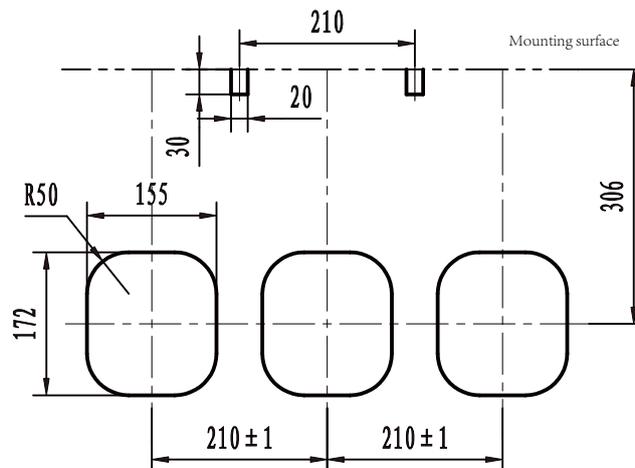
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### 6.3 Cabinet door opening and interlock installation diagram (front side mounted for right operation)



### 6.4 Diagram of holes on baffle

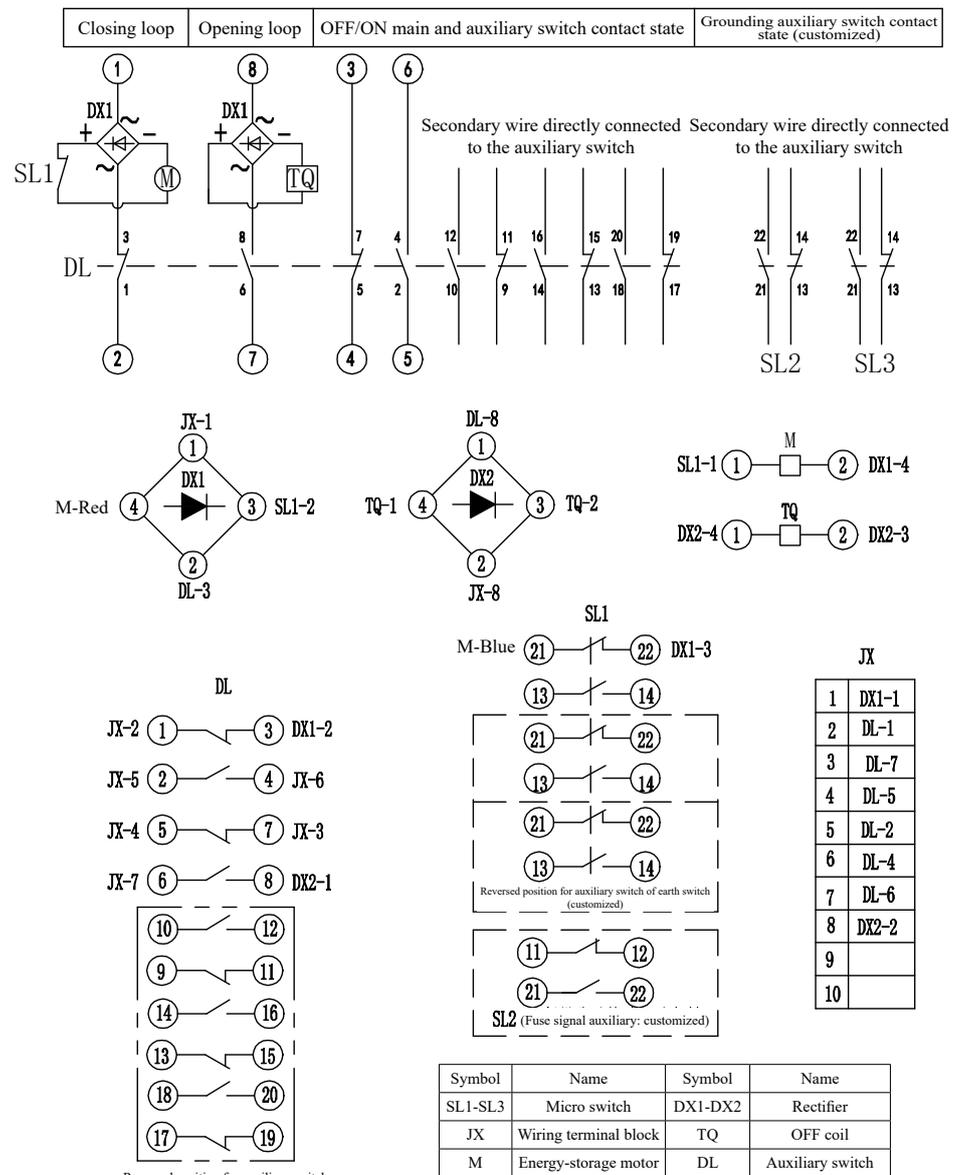




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### 7 Secondary scheme diagram

#### 7.1 Electric type (without holding relay)

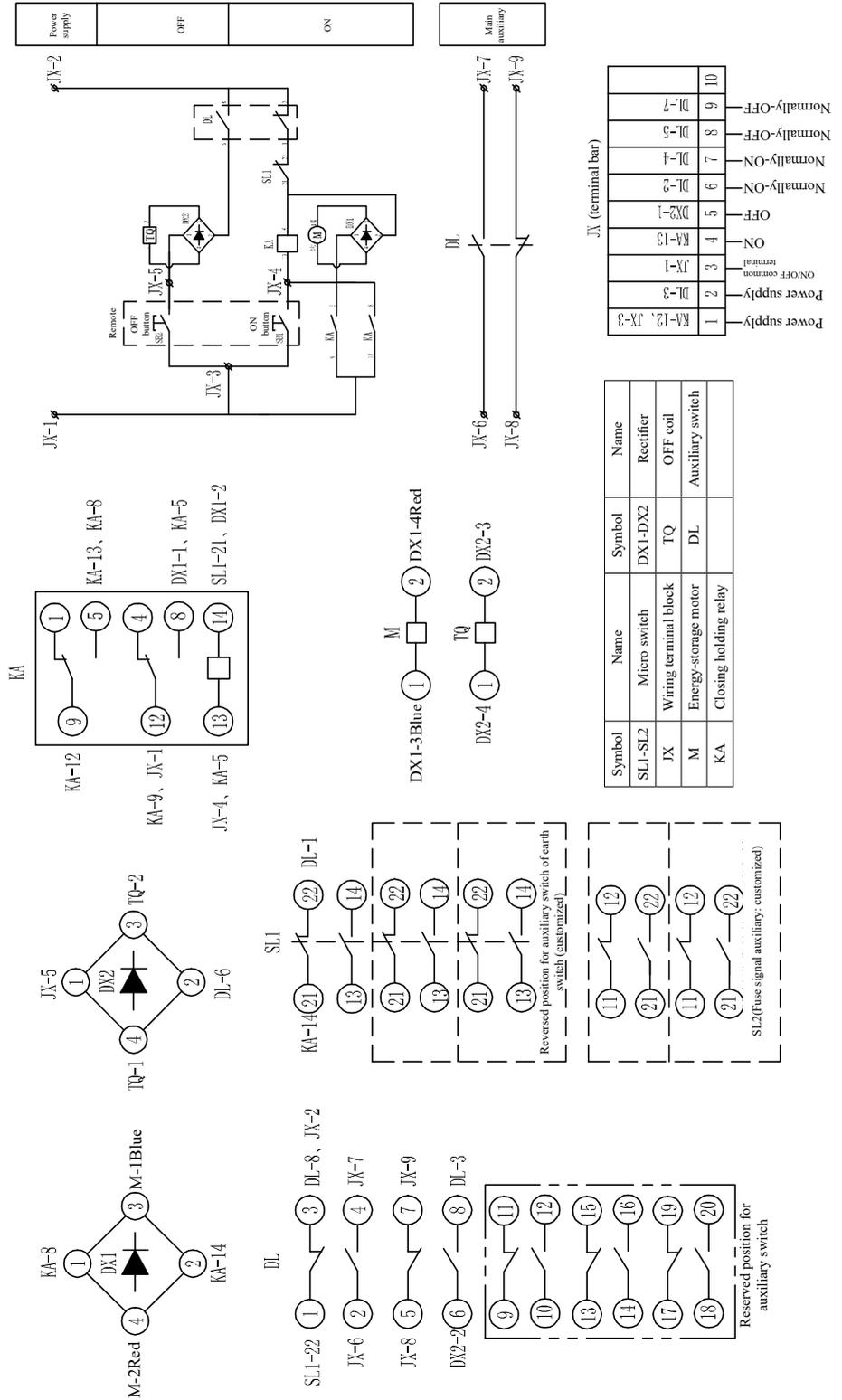




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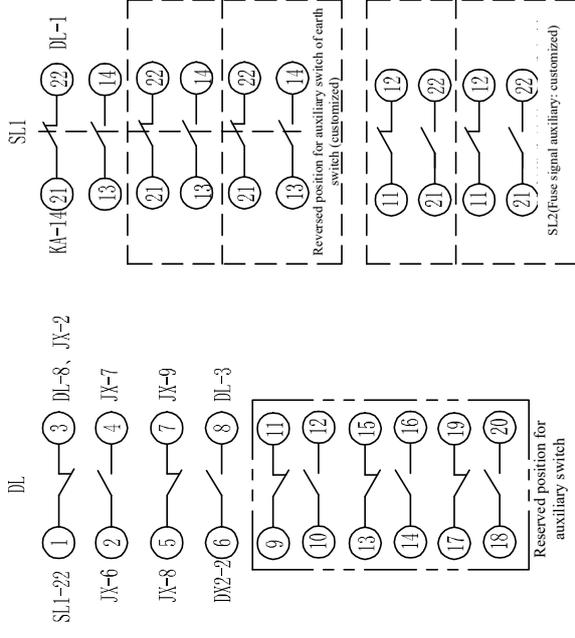
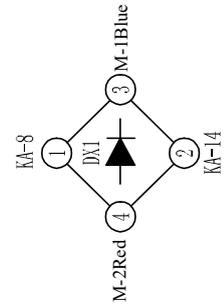
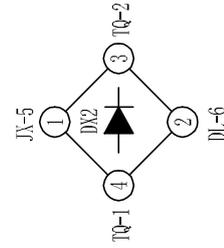
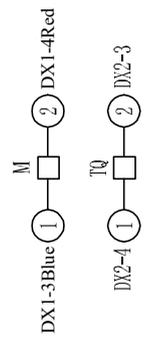
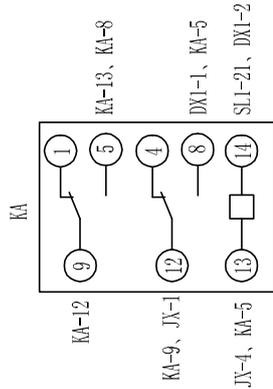
### 7.1 Electric (with holding relay)



JX (terminal bar)

Power supply	KA-12, JX-3	1
Power supply	DX-3	2
ON/OFF terminal	JX-1	3
ON terminal	KA-13	4
OFF	DX2-1	5
Normally-ON	DL-2	6
Normally-ON	DL-4	7
Normally-ON	DL-5	8
Normally-OFF	DL-7	9
Normally-OFF	DL-9	10

Symbol	Name	Symbol	Name
SL1-SL2	Micro switch	DX1-DX2	Rectifier
JX	Wiring terminal block	TQ	OFF coil
M	Energy-storage motor	DL	Auxiliary switch
KA	Closing holding relay		





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### 8 Order technology confirmation form

#### Order technology confirmation form for FZ(R)N25-12(D)

Determine your requirements according to the items listed in table below:

Product model	Load switch: <input type="checkbox"/> FZN25-12(D)/T630-20	
	Load switch – fuse-combination unit: <input type="checkbox"/> FZRN25-12(D)/T200-31.5	
Qty. (pcs)		
Installation method	<input type="checkbox"/> Front side mounted <input type="checkbox"/> Reverse side mounted <input type="checkbox"/> Wall-mounted Note: Side-mounted ABC phase sequence is far-middle-near layout	
Operation direction	<input type="checkbox"/> Right operation <input type="checkbox"/> Left operation	
Operation method	<input type="checkbox"/> Electric	<input type="checkbox"/> Without holding relay (standard configuration) <input type="checkbox"/> With holding relay
		<input type="checkbox"/> AC110V <input type="checkbox"/> DC110V <input type="checkbox"/> AC220V <input type="checkbox"/> DC220V
	<input type="checkbox"/> Manual <input type="checkbox"/> Manual with electric separation (operating voltage AC/DC _____)	
Grounding device	<input type="checkbox"/> With earth switch <input type="checkbox"/> Without earth switch	
Auxiliary switch of main switch	<input type="checkbox"/> Five-ON and Five-OFF <input type="checkbox"/> No (standard configuration for manual mode) <input type="checkbox"/> Others _____	
Grounding auxiliary switch	<input type="checkbox"/> Two-ON and Two-OFF <input type="checkbox"/> No (standard configuration) <input type="checkbox"/> Others _____	
Secondary wiring scheme	<input type="checkbox"/> Weisho Electric's standard scheme (see catalog)   No-standard scheme (scheme should be provided)	
Outline dimensions	<input type="checkbox"/> Weisho Electric's standard scheme (see catalog)   No-standard scheme (scheme should be provided)	
Other special requirements	Ordering unit (seal)  Sign: Confirmation date: Tel:	

Note:

1. If not ticked, all options shall be manufactured according to the Weisho Electric's standard configurations. 2. The load switch – fuse combination is not equipped with a fusible core.