

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

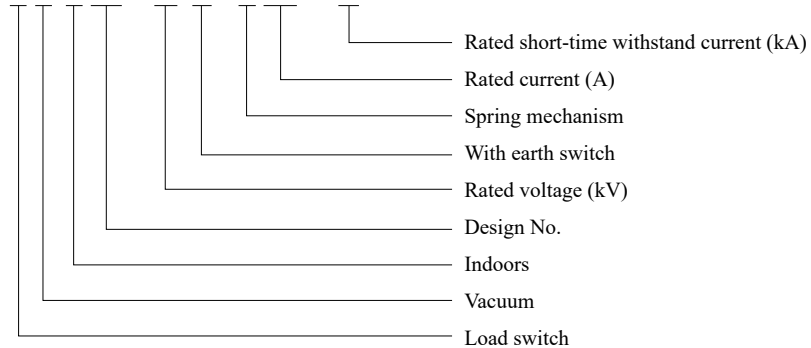


1 Product overview

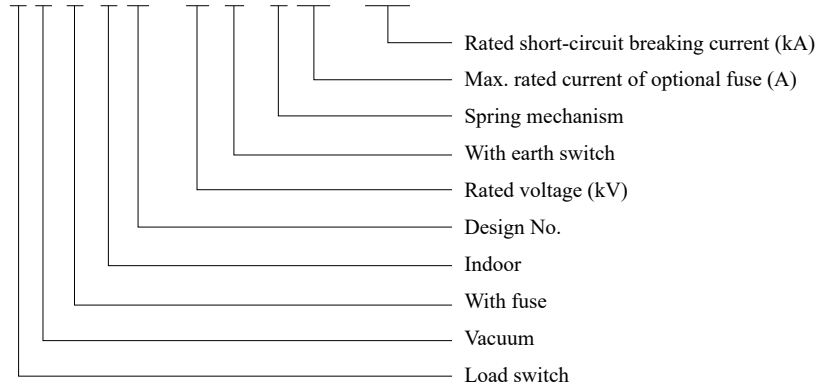
- 1.1 Used in the 10kV, 50Hz three-phase power distribution system for control and protection of power equipment such as transformer, cables, and overhead lines, especially suitable for terminal substations and box-type substations used in urban network and rural network and for control and protection 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

F Z N 25 - 12 D / T 630 - 20



F Z R N 25 - 12 D / T 200 - 31.5



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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	kV	42	
			Break voltage		48	
			Vacuum break voltage		30	
		Lightning impulse withstand voltage (peak)	Voltage to ground, Phase-phase voltage		75	
			Break voltage		85	
5	Rated circuit-breaker withstand current (thermal stability current)			kA	20	--
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			μΩ	≤170	≤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.

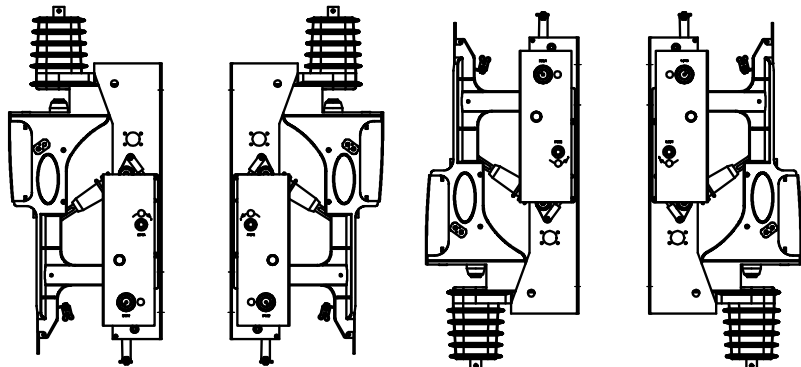
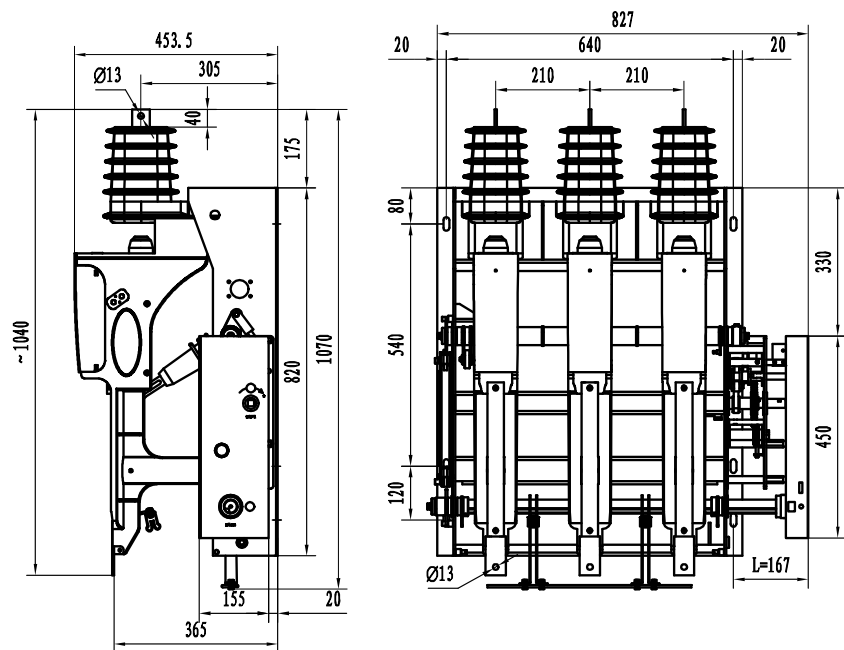
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5 Technical features of product

- 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

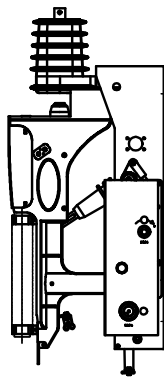
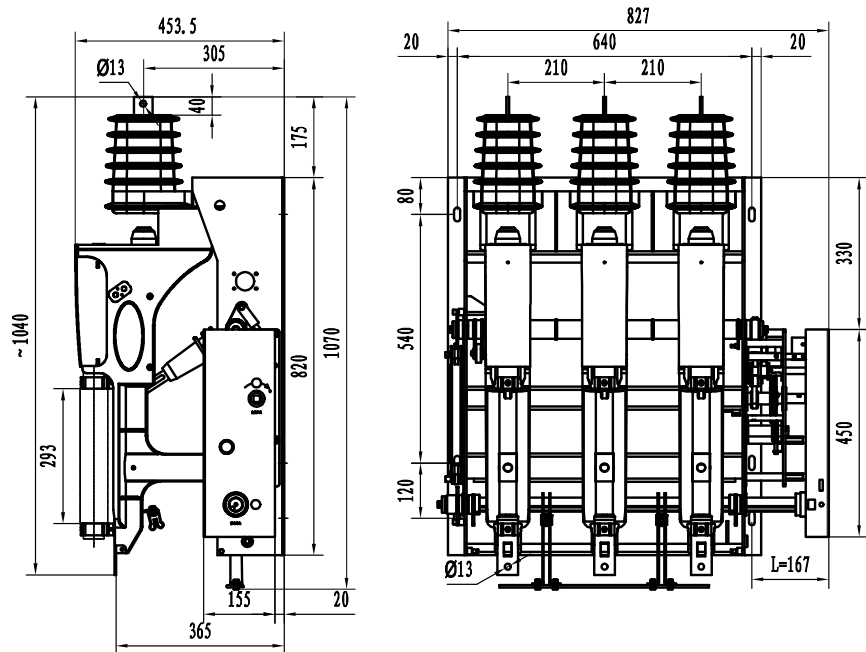
Front side mounted
for right operation

Reverse side mounted
for left operation

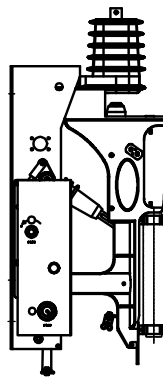
Reverse side mounted
for right operation

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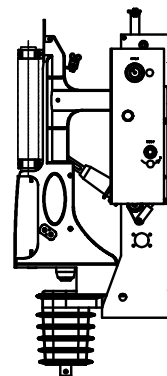
6.2 Load switch – fuse-combination unit



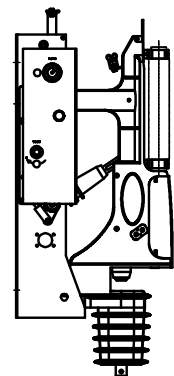
Front side mounted
for left operation



Front side mounted
for right operation



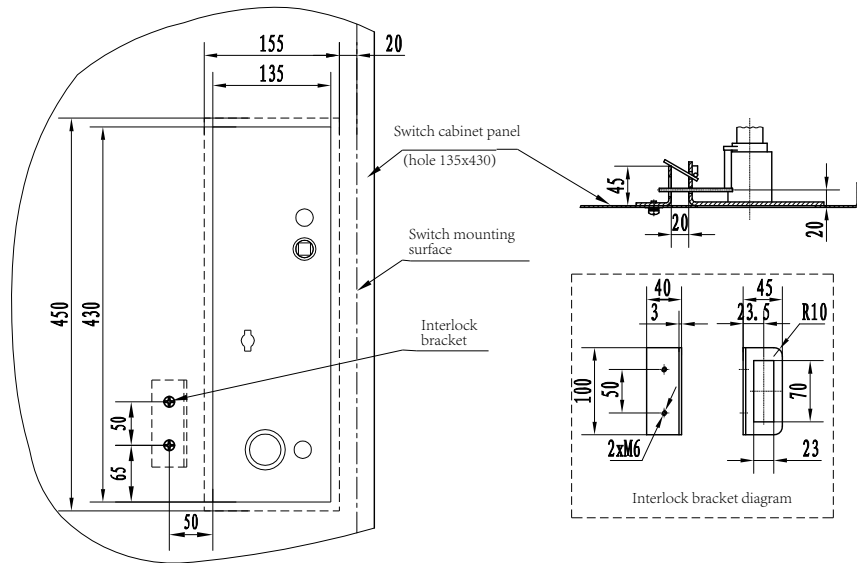
Reverse side mounted
for left operation



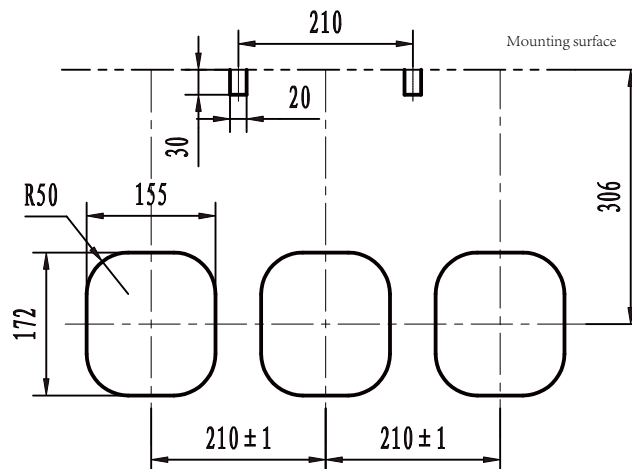
Reverse side mounted
for right operation

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



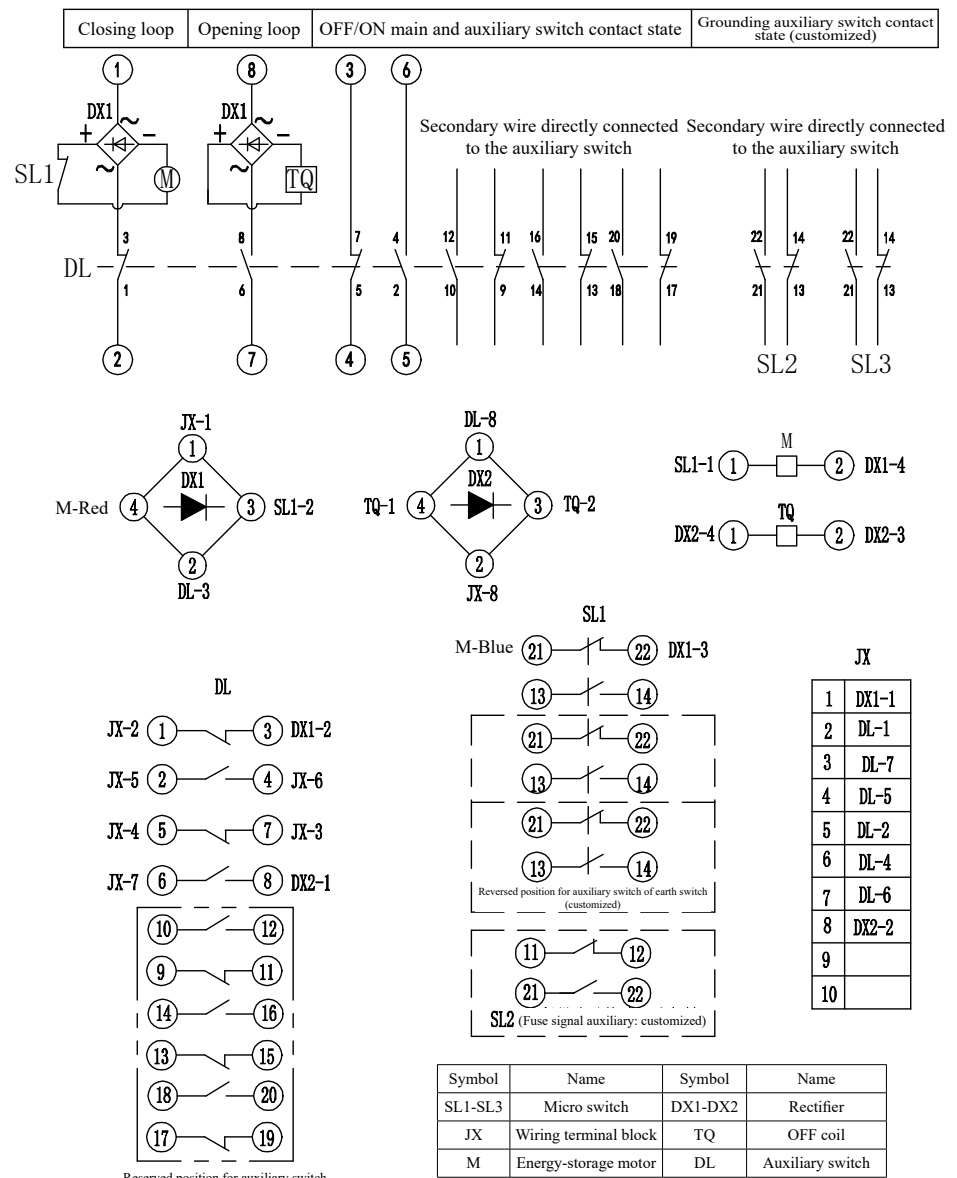
6.4 Diagram of holes on baffle



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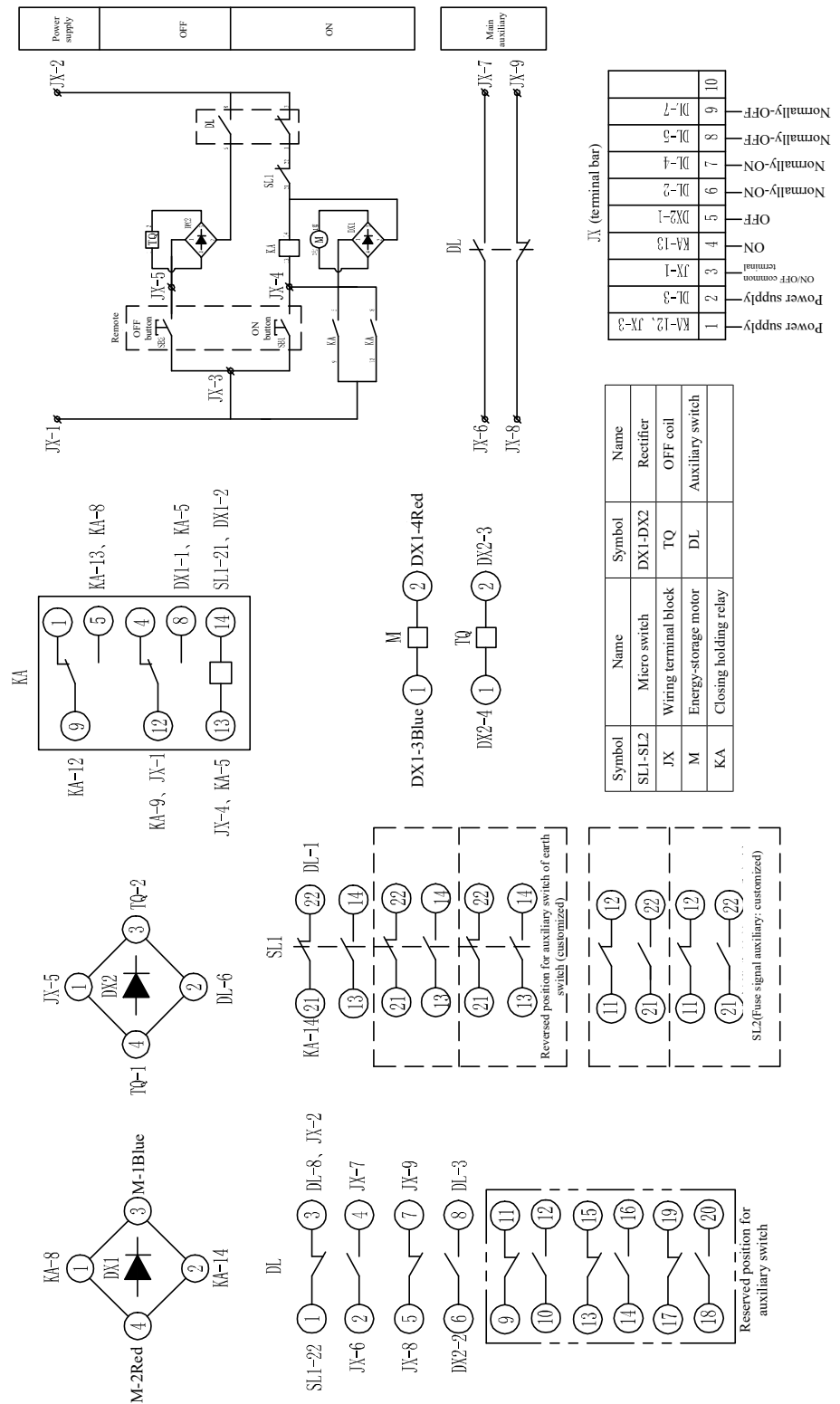
7 Secondary scheme diagram

7.1 Electric type (without holding relay)



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7.1 Electric (with holding relay)



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– Fuse-Combination Unit

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"/> TENGEN's standard scheme (see catalog) <input type="checkbox"/> No-standard scheme (scheme should be provided)	
Outline dimensions	<input type="checkbox"/> TENGEN's standard scheme (see catalog) <input type="checkbox"/> No-standard scheme (scheme should be provided)	
Other special requirements	<div style="float: right; text-align: right;"> Ordering unit (seal) Sign: Confirmation date: Tel: </div>	

Note:

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