

## FN12-12 (R) D/100-31.5 Indoor High Vacuum Load Switch



### ► General

|   |   |       |     |   |   |          |   |   |  |
|---|---|-------|-----|---|---|----------|---|---|--|
| F | N | 12-12 | (R) | D | / | 100-31.5 | - | □ |  |
|   |   |       |     |   |   |          |   |   | Mechanism mode: S cart, D electrical operated                  |
|   |   |       |     |   |   |          |   |   | Rated breaking current   |
|   |   |       |     |   |   |          |   |   | Rated current (A)  |
|   |   |       |     |   |   |          |   |   | Earthing switch  |
|   |   |       |     |   |   |          |   |   | With fuse  |
|   |   |       |     |   |   |          |   |   | Rated voltage (kV)   |
|   |   |       |     |   |   |          |   |   | Design code  |
|   |   |       |     |   |   |          |   |   | Indoor   |
|   |   |       |     |   |   |          |   |   | High voltage load switch - fuse combination electric appliance |

### ► Main Technical Parameter

| Number | Item  | Unit | Data   |                  |
|--------|---|------|--|------------------|
|        |   |      | FN12-12D/630   | FN12-12 (R)D/125 |
| 1      | Rated voltage                               | kV   | 12   |                  |
| 2      | Rated frequency                             | Hz   | 50   |                  |
| 3      | Rated current                               | A    | 630  | 100              |
| 4      | Imin power frequency withstand voltage      | kV   | Earthing to earthing and between phase 75, isolation fracture 85 |                  |
| 5      | Light impulse withstand voltage             | kV   | Earthing to earthing and between phase 42, isolation fracture 48 |                  |
| 6      | Rated thermal stable current                | kA   | 20 (4S)  |                  |
| 7      | Rated peak withstand stably current         | kA   | 50   |                  |
| 8      | Rated making current (peak)                 | kA   | 50   | 50               |
| 9      | Rated breaking current (expected value)     | kV   | 31.5   |                  |
| 10     | Critical breaking current max $1^2 \cdot T$ | Hz   | As per fuse characteristic curve                                 |                  |
| 11     | Min breaking current                        | A    | As per fuse characteristic curve                                 |                  |
| 12     | Rated shift current                         | kV   | 1.5  |                  |

# Vacuum Switch Series

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### 2. Combination electric appliance engineering parameter

| Item  | Unit | Data       |
|---|------|------------|
| Rated voltage   | kV   | 12         |
| Rated frequency   | Hz   | 50         |
| Fuse max rated current  | A    | 125        |
| Rated breaking ac current   | A    | 3150       |
| Fuse trigger switch on/off time   | ms   | $40 \pm 5$ |
| Rated short-circuit breaking current (effective value)  | kA   | 31.5       |
| Rated short-circuit making current (peak value)   | kA   | 50         |
| 1min power frequency withstand voltage:(Vacuum fracture, phase to phase, phase to earth/Isolation fracture) | kV   | 42/48      |
| Lightning surge withstand voltage:( vacuum fracture, phase to phase, phase to earth/Isolation fracture)     | kV   | 75/85      |
| Fuse ram output energy  | J    | 2-5        |

### 3. Mechanical characteristic technical parameter

| Item  | Unit         | Data          |
|---|--------------|---------------|
| Distance of moving contact and fixed contact                            | mm           | $10 \pm 1$    |
| Overtravel  | mm           | $4 \pm 0.5$   |
| Average closing speed   | m/s          | $0.6 \pm 0.2$ |
| Breaking opening speed(before distance of moving and fixed contact 6mm) | m/s          | $1.1 \pm 0.2$ |
| Three-phase contact closing/opening asynchronous                        | ms           | $\leq 2$      |
| Contact closing bounces time  | ms           | $\leq 2$      |
| Air distance between charged body and to earth                          | mm           | $\geq 125$    |
| Between upper and lower support main loop resistance                    | $\mu \Omega$ | $\leq 70$     |

### ► Overall and installation dimensions

