# KISSLING HIGH VOLTAGE BATTERY DISCONNECT SWITCH 

## Seamlessly Switches the Power for Safe Maintenance

Designed to meet the rigorous demands of the industrial and commercial transportation industry, TE's high voltage (HV) battery disconnect switches from the KISSLING product family are robust solutions to provide the utmost safety through disconnecting power for safe maintenance.

They are now available in multiple versions: 250 A (without High Voltage Interlock) and 400 A / 500 A (with High Voltage Interlock).

Engineered to TE's high standards, our HV battery switches are built to withstand extreme conditions, boasting an IP67 and IP6K9K protection class. With a high resistance to shock and vibration as well as an operating temperature range of $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$, they are ideal for high power applications commonly found in the truck, bus, agricultural, construction, fork-lift, marine, and other industrial vehicle markets.

Equipped with signal orange actuators designed for HV applications, our manual battery disconnect switches are capable of handling continuous currents up to 500 A and a voltage of 1000VDC @ 7000m. This makes them highly reliable and suitable for demanding tasks in all areas of the vehicle.

By using these switches, technicians can safely disconnect the power circuit from the battery to the equipment, ensuring a secure working environment.

As the market continues to evolve, we will continue to expand the product offerings in this series with additional models to enable you to stay efficient and ahead of your industry.

## SPECIFICATION

| Technical Data | 250 A / 400 A / 500 A |
| :---: | :---: |
| Case material Cover / Base plate | PA GF black |
| Switch lever material | PA GF orange RAL 2003 |
| Min. insulating resistance | 100M $\Omega$ |
| Dielectric withstanding voltage | Up to 3000VAC-1 min. |
| Max. contact voltage drop at nominal load | 150 mV (at end of life) |
| Operating voltage | up to 1000VDC @ 7000m (no switching under load) |
| Duty rating at minimum wire section | 250 A / 400 A / 500 A |
| Minimum wire section | 250 A - min $70 \mathrm{~mm}^{2}$ 400 A - min $150 \mathrm{~mm}^{2}$ 500 A - min $240 \mathrm{~mm}^{2}$ |
| Overload rating (with contacts closed - overload not possible with contacts in motion) | $\begin{aligned} & 250 \mathrm{~A}=1000 \mathrm{~A}-30 \mathrm{~s}, 500 \mathrm{~A}-180 \mathrm{~s} \\ & 400 \mathrm{~A}=2000 \mathrm{~A}-10 \mathrm{~s}, 1600 \mathrm{~A}-90 \mathrm{~s}, 1200 \mathrm{~A}-240 \mathrm{~s} \\ & 500 \mathrm{~A}=2500 \mathrm{~A}-10 \mathrm{~s}, 2000 \mathrm{~A}-90 \mathrm{~s}, 1500 \mathrm{~A}-240 \mathrm{~s} \end{aligned}$ |
| Sealing | IP67 and IP6K9K |
| Vibration | 4G / 10-2000Hz |
| Shock | 25G / 15ms \\| 50G / 6ms |
| Temperature range | $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ |
| Mounting position | any orientation |
| Switch lever | $\begin{aligned} & 250 \text { A - non-removable or lockable } \\ & \text { (depending on model) } \\ & 400 \text { A / 500A - removable and lockable } \end{aligned}$ |
| Max torque (main terminals) | $12-13 \mathrm{Nm}$ (250 A), $20-25 \mathrm{Nm}$ ( $400 \mathrm{~A} / 500 \mathrm{~A}$ ) |
| Auxiliary contact (ONLY for $400 \mathrm{~A} / 500 \mathrm{~A}$ models) |  |
| Continuous current | 5 A |
| Nominal voltage | 24 VDC |
| Min. switching capacity | $12 \mathrm{VDC} / 10 \mathrm{~mA}$ |

## ORDERING INFORMATION

| TE Part Number | KISSLING Part Number | AMP Rating | Handle Type | Auxiliary Contacts |
| :--- | :---: | :---: | :---: | :---: | :---: |
| K1167316 | $35 H-210-000-$ OR-900 | 250 A | Removable, not Lockable | No |
| K1167328 | $35 \mathrm{H}-210-051-$ OR-900 | 250 A | Non-removable, Lockable <br> (requires aligned tab on panel) | No |
| K5000037 | $35 \mathrm{H}-411-0100-$ OR210-0001 | 400 A | Removable and/or Lockable <br> (integrated) | Yes, HVIL function |
| K5000038 | $35 \mathrm{H}-511-0100-$ OR210-0001 | 500 A | Removable and/or Lockable <br> (integrated) | Yes, HVIL function |

## CIRCUITS

250 A


400 A / 500 A


## AVAILABLE WITH BLOWOUT MAGNETS ON SOME MODELS

Blowout magnets provide arc suppression for enhanced ability to switch with load present at HV voltage levels. Please refer to product drawings and specifications for exact capabilities and limitations of each PN.

## Specific to the 400 A / 500 A:

- When operating the shift lever from the OFF to the ON position, the main contacts $1 / 2$ initially close and than the auxiliary contacts $13 / 14$
- When operating the shift lever from ON to OFF position, the auxiliary contacts $13 / 14$ open before the main contact $1 / 2$.


## TECHNICAL DRAWINGS

250 A:

NON-REMOVA BLE HANDLE


REMOVABLE HANDLE


400 A / 500 A:


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