

DC Disconnect Switch

DK Series



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ISO 9001 Certified Quality System

DK100165M0AWDSG



Disconnect switch

Technical data according to IEC 60947-3:2021

| Utilization category | | | PV1 (DC-21B) | PV2 |
|---|------|------|--------------|------|
| Rated operational voltage | Ue | V dc | 1200 | - |
| Rated operational current | Ie | A | 8 | - |
| Rated operational voltage (second rating) | Ue | V dc | 1000 | 1000 |
| Rated operational current (second rating) | Ie | A | 16 | 6 |
| Rated operational voltage (third rating) | Ue | V dc | 750 | 750 |
| Rated operational current (third rating) | Ie | A | 32 | 12 |
| Rated operational voltage (fourth rating) | Ue | V dc | - | 700 |
| Rated operational current (fourth rating) | Ie | A | - | 16 |
| Rated operational voltage (fifth rating) | Ue | V dc | 500 | - |
| Rated operational current (fifth rating) | Ie | A | 50 | - |
| Rated operational voltage (sixth rating) | Ue | V dc | - | - |
| Rated operational current (sixth rating) | Ie | A | - | - |
| Rated thermal current | Ith | A | 50 | |
| DC Poles | | Nr. | 10 | |
| Rated conditional short-circuit current | | kA | 5 | |
| Rated insulation voltage | Ui | V dc | 1500 | |
| Rated impulse withstand voltage | Uimp | kV | 8 | |
| Rated short-time withstand current (1 s) | Icw | A | 780 | |
| Rated short-circuit making capacity | Icm | kA | 1,4 | |
| Power loss per layer at 20 A / 50 A | | W | 0,2 / 1,25 | |
| Maximum size of the fuse for the short-circuit protection | gPV | A | 50 | |

Mechanical characteristics

| | | | |
|---------------------------------------|------|------------------------|--|
| Type of mounting | | | Double mounting Fixing with 4 screws 36x36 mm Back-side for DIN rail or 2 screws |
| Layers | | Nr. | 12 |
| Terminal screws orientation | | | Head up |
| External metal parts (screws, shaft) | | | Stainless steel |
| Cross-section of flexible/solid wires | Max. | mm ² AWG | 2x 6 2x 10 |
| Cross-section of wires with fork lug | Max. | mm ² AWG | 1x 16 1x 6 |

Minimum required fine wire cross-section: IEC 60947-1, table 9

| | | | |
|-----------------------------------|------|----|----------|
| Terminal screws type | | | M4 – PH2 |
| Terminal screws tightening torque | | Nm | 1,7 ±10% |
| Fixing screws tightening torque | | Nm | 1,1 ±10% |
| Panel thickness | Max. | mm | 4 |
| Net weight | | g | 620 |

Protection degree IEC 529 EN 60529

| | | | |
|-----------------|--|--|------|
| To the terminal | | | IP20 |
|-----------------|--|--|------|

Ambient conditions

| | | | |
|---------------------------------|--|----|----------------------|
| Pollution degree ins. | | | 2 |
| Operational ambient temperature | | °C | -30 ÷ +50 |
| Storage ambient temperature | | °C | -30 ÷ +85 |
| Damp heat test IEC 60068-2-30 | | | 90-100% RH at +55 °C |

Motor driven actuator

Motor characteristics

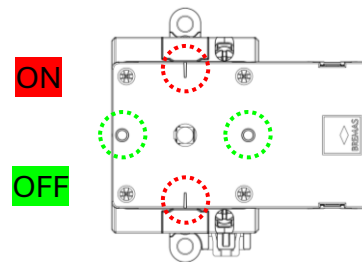
| | | | |
|------------------------------------|------|------|----------------------------------|
| Rated operational voltage | Ue | V dc | 24 ±5% |
| Rated operational current | Ie | A | 0,4 |
| Stall current | Max. | A | 1,4 |
| Free-load current | | A | 0,10 |
| Free-load speed | Max. | rpm | 20 ±3 |
| Rated load current | | A | 0,15 |
| Rated load speed | | rpm | 17,6 ±2 |
| Output power at Max. efficiency | | W | 1,55 |
| Terminal type | | | Solder (supplied with wiring) |
| Pre-soldered cables length | | mm | 300 |
| Protection degree to the terminals | | | IP00* |

Operating features

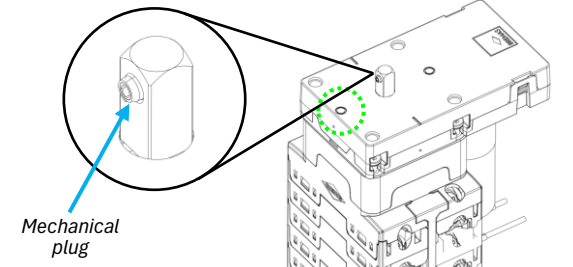
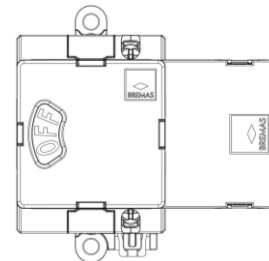
| | | | |
|------------------------------|---|--|--|
| Rotation direction | Clockwise (90deg) | | |
| Position (disconnect switch) | OFF at 09:00 and 03:00 o'clock ON at 12:00 and 06:00 o'clock | | |
| Position (status indicator) | Rotary disc with static window at 09:00 o'clock | | |

* Pre soldered wiring with heat-shrink sheath

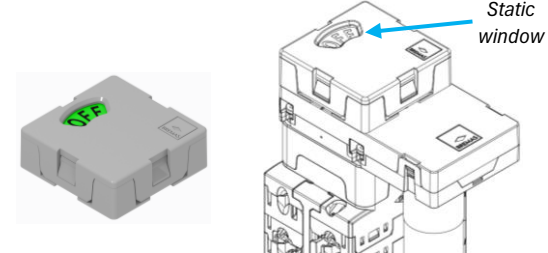
Position (disconnect switch)



Position (status indicator)



Mechanical plug



Static window

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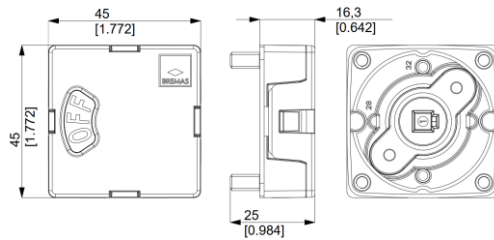
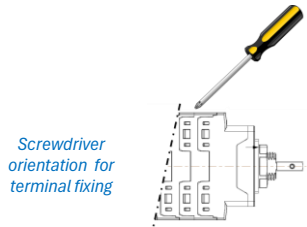
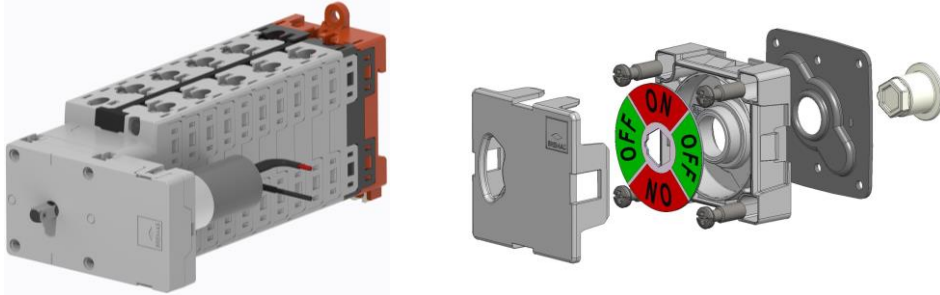
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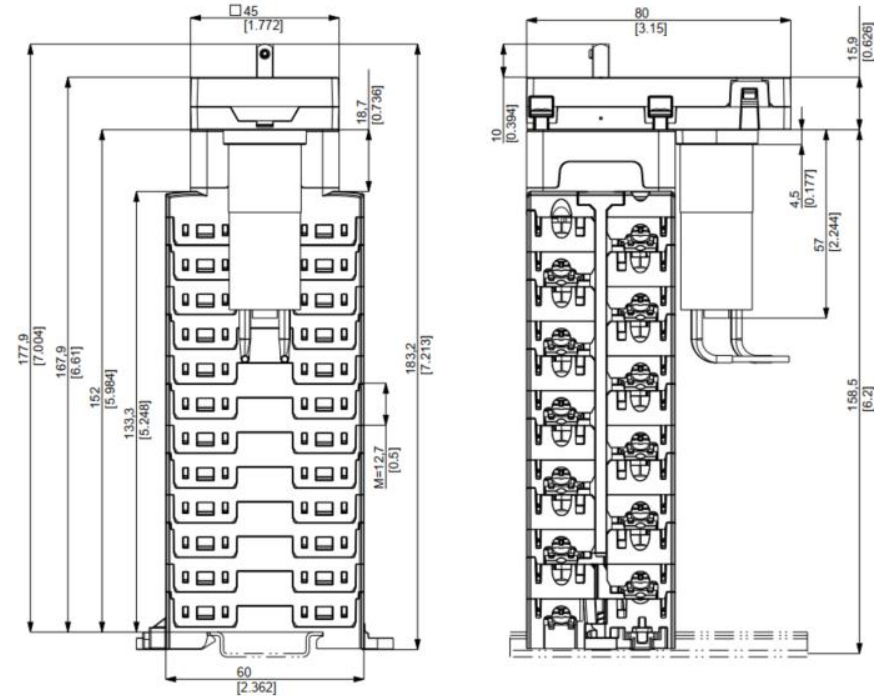


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Product image



Dimensions



Electrical Diagram



| | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | Layer |
| -5 | +5 | -4 | +4 | -3 | +3 | -2 | +2 | -1 | +1 | 14 | 12 | | | Marking |
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | |
| ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | | | |
| -5 | +5 | -4 | +4 | -3 | +3 | -2 | +2 | -1 | +1 | 13 | 11 | | | Marking |
| X | X | X | X | X | X | X | X | X | X | X | X | | | 0 / OFF |
| | | | | | | | | | | | | | | 1 / ON |

Power contacts

Used for Motor management

Drilling templates

