

**KBF3L11** LIMIT SWITCH, K SERIES, ADJUSTABLE ROLLER LEVER, 1 BOTTOM CABLE ENTRY. electric DIMENSIONS TO EN 50047, PLASTIC BODY, CONTACTS 1NO+1NC SLOW ACTION. RUBBER ROLLER



| Product designation      | Adjustable roller<br>lever |
|--------------------------|----------------------------|
| Product type designation | KBF                        |
| General characteristics  |                            |
| Material                 |                            |

| Roller   Rubber     Contact   Rubber     Type of contact   1NO-t1NC Slow<br>action     Thermal current lth   A   10     IEC/EN 60947-5-1 designation   A600 Q600     Rated insulation voltage UI   V   690     Short-circuit protection with fuse   Class/A   10 gG/SC     Switching speed   min   m/s   0.5     max   m/s   1.5   15     EC Conventional free air thermal current Ith   A   10     Resistance per pole (average value)   mQ   <10     Mechanical features   Uoking bayonet insert   10     Operating head fixing   min   3   2.5     Tightening torque   Ncm   3   2.5     Tightening torque (Max)   Switch fixing   Nm   0.8     Ibin   7   10   10     Resistance per pole (ide screw fixing   Nm   0.8     Ibin   7   10   10     Goratact terminals   Nm   0.8 <t< th=""><th></th><th></th><th>Housing</th><th></th><th>Polymer<br/>thermoplastic</th></t<> |                          |                       | Housing |         | Polymer<br>thermoplastic |
|--|--------------------------|-----------------------|---------|---------|--------------------------|
| Contact characteristics     INO+1NC Slow action       Type of contact     1NO+1NC Slow action       Thermal current lth     A     10       IEC/EN 60947-5-1 designation     A600 Q600       Rated insulation voltage Uimp     V     690       Rated insulation voltage Uimp     V     6       Insulation class     II     10       Short-circuit protection with fuse     Class/A     10 gG/SC QUICK FUSE       Switching speed     min     m/s     1.5       IEC Conventional free air thermal current lth     A     10       Resistance per pole (average value)     mQ<<10  |                          |                       | Roller  |         | -                        |
| Type of contact       action         Thermal current lth       A       10         IEC/EN 60947-5-1 designation       A 600 0600         Rated insulation voltage U       V       690         Rated insulation voltage U       V       690         Rated insulation voltage U       V       690         Short-circuit protection with fuse       Class/A       10 gG/SC UCK FUSE         Switching speed       min <m's< td="">       0.5         mix       m/s       1.5         IEC Conventional free air thermal current Ith       A       10         Resistance per pole (average value)       mΩ       &lt;10</m's<>   | Contact characteristics  |                       |         |         |                          |
| IEC/EN 60947-5-1 designation A600 Q600<br>Rated insulation voltage Ui V 690<br>Rated insulation voltage Uimp kV 6<br>Insulation class UI 0<br>Short-circuit protection with fuse Class/A 10 gG/SC QUICK FUSE<br>Switching speed No.5<br>max m/s 1.5<br>IEC Conventional free air thermal current Ith A 10<br>Resistance per pole (average value) mΩ <10<br>Mechanical features<br>Operating head fixing Locking bayonet insert<br>Operating torque (Max)<br>Tightening torque (Max)<br>Switch fixing Nm 2.5<br>Ibin 22.1<br>Contact terminals Nm 0.8<br>Ibin 7<br>Conductor section AWG/Kcmil Nm 16<br>max 14<br>IEC min mm² 1or 2   | Type of contact          |                       |         |         |                          |
| Rated insulation voltage Ui       V       690         Rated impulse withstand voltage Uimp       kV       6         Insulation class       II       10 gG/SC QUICK FUSE         Switching speed       min       m/s       0.5         Switching speed       min       m/s       0.5         IEC Conventional free air thermal current lth       A       10         Resistance per pole (average value)       mΩ       <10  | Thermal current Ith      |                       |         | А       | 10                       |
| Rated impulse withstand voltage Uimp     kV     6       Insulation class     II       Short-circuit protection with fuse     Class/A     10 gG/SC<br>QUICK FUSE       Switching speed     min     m/s     0.5       max     m/s     1.5       IEC Conventional free air thermal current lth     A     10       Resistance per pole (average value)     mΩ     <10  | IEC/EN 60947-5-1 des     | ignation              |         |         | A600 Q600                |
| Insulation class     II       Short-circuit protection with fuse     Class/A     10 gG/SC<br>QUICK FUSE       Switching speed     min     m/s     0.5       Backgroup     min     m/s     1.5       IEC Conventional free air thermal current lth     A     10       Resistance per pole (average value)     mQ     <10  | Rated insulation voltag  | e Ui                  |         | V       | 690                      |
| Short-circuit protection with fuse       Class/A       10 gG/SC<br>QUICK FUSE         Switching speed       min       m/s       0.5         IEC Conventional free air thermal current lth       A       10         Resistance per pole (average value)       mQ       <10  | Rated impulse withstar   | nd voltage Uimp       |         | kV      | 6                        |
| Since clicult protection with ruse   Class/A   QUICK FUSE     Switching speed   min   m/s   0.5     max   m/s   1.5     IEC Conventional free air thermal current lth   A   10     Resistance per pole (average value)   mΩ   <10  | Insulation class         |                       |         |         | 11                       |
| min   m/s   0.5     IEC Conventional free air thermal current lth   A   10     Resistance per pole (average value)   mΩ   <10  | Short-circuit protection | with fuse             |         | Class/A | 10 gG/SC<br>QUICK FUSE   |
| max       m/s       1.5         IEC Conventional free air thermal current lth       A       10         Resistance per pole (average value)       mΩ       <10  | Switching speed          |                       |         |         |                          |
| IEC Conventional free air thermal current lth     A     10       Resistance per pole (average value)     mΩ     <10  |                          |                       | min     | m/s     | 0.5                      |
| Resistance per pole (average value)     mΩ     <10   |                          |                       | max     | m/s     | 1.5                      |
| Mechanical features     Locking bayonet insert       Operating head fixing     Locking bayonet insert       Operating torque     Ncm     3       Tightening torque (Max)     Switch fixing     Nrm     2.5       Libin     22.1     Ibin     22.1       Contact terminals     Nrm     0.8       Ibin     7     Body lid screw fixing     Nrm     0.8       Ibin     7     Conductor section     Nrm     16       AWG/Kcmil     min     16     max     14       IEC     min     min     mm     10r 2  |                          |                       |         |         |                          |
| Operating head fixing   Locking bayonet insert     Operating torque   Ncm   3     Operating torque (Max)   0/210   4.25     Tightening torque (Max)   Switch fixing   Nm   2.5     Ibin   22.1   1bin   22.1     Contact terminals   Nm   0.8     Ibin   7     Body lid screw fixing   Nm   0.8     Ibin   7     Conductor section   AWG/Kcmil   min     IEC   min   16     min   mm   14  |                          | verage value)         |         | mΩ      | <10                      |
| Operating nead fixing   insert     Operating torque   Ncm   3     ozin   4.25     Tightening torque (Max)   Switch fixing     Switch fixing   Nm   2.5     Ibin   22.1     Contact terminals   Nm   0.8     Ibin   7     Body lid screw fixing   Nm   0.8     Ibin   7     Conductor section   AWG/Kcmil   min     IEC   min   16     min   min   14   | Mechanical features      |                       |         |         |                          |
| Ncm     3       Tightening torque (Max)     Switch fixing       Switch fixing     Nm       2.5     Ibin       Ibin     22.1       Contact terminals     Nm       Body lid screw fixing     Nm       Nm     0.8       Ibin     7       Conductor section     Nm       AWG/Kcmil     min       IEC     min     16       min     14   | Operating head fixing    |                       |         |         |                          |
| Image: state of the system       ozin       4.25         Tightening torque (Max)       Switch fixing       Nm       2.5         Ibin       22.1       Ibin       22.1         Contact terminals       Nm       0.8         Ibin       7       Ibin       7         Body lid screw fixing       Nm       0.8         Ibin       7       Ibin       7         Conductor section       AWG/Kcmil       Integration       16         IEC       min       mm²       14  | Operating torque         |                       |         |         |                          |
| Tightening torque (Max)     Switch fixing     Nm     2.5       Ibin     22.1     Ibin     22.1       Contact terminals     Nm     0.8       Ibin     7     Ibin     7       Body lid screw fixing     Nm     0.8       Ibin     7     Ibin     7       Conductor section     AWG/Kcmil     min     16       IEC     min     14   |                          |                       |         | Ncm     | 3                        |
| Switch fixing         Switch fixing       Nm       2.5         Ibin       22.1         Contact terminals       Nm       0.8         Ibin       7         Body lid screw fixing       Nm       0.8         Ibin       7         Conductor section       AWG/Kcmil       Ibin         AWG/Kcmil       min       16         IEC       min       14  |                          |                       |         | ozin    | 4.25                     |
| Nm       2.5         Ibin       22.1         Contact terminals       Nm       0.8         Ibin       7         Body lid screw fixing       Nm       0.8         Ibin       7         Conductor section       Nm       16         Max       14         IEC       min       mm²  | Tightening torque (Max   |                       |         |         |                          |
| Ibin     22.1       Contact terminals     Nm     0.8       Ibin     7       Body lid screw fixing     Nm     0.8       Ibin     7       Conductor section     Nm     0.8       AWG/Kcmil     min     16       max     14       IEC     min     mm²       min     1or 2   |                          | Switch fixing         |         |         |                          |
| Contact terminals     Nm     0.8       Ibin     7       Body lid screw fixing     Nm     0.8       Ibin     7       Conductor section     AWG/Kcmil     16       min     14       IEC     min     mm²       min     10r 2  |                          |                       |         |         |                          |
| Nm     0.8       Ibin     7       Body lid screw fixing     Nm     0.8       Ibin     7       Conductor section     Nm     0.8       AWG/Kcmil     nin     7       IEC     nin     14       IEC     nin     nm²  |                          |                       |         | lbin    | 22.1                     |
| Ibin   7     Body lid screw fixing   Nm   0.8     Ibin   7     Conductor section   AWG/Kcmil   7     AWG/Kcmil   16     IEC   14     IEC   10r 2   |                          | Contact terminals     |         |         |                          |
| Body lid screw fixing     Nm     0.8       Ibin     7       Conductor section     AWG/Kcmil     I       AWG/Kcmil     16       IEC     14       IEC     10 r 2   |                          |                       |         |         |                          |
| Nm   0.8     Ibin   7     Conductor section   AWG/Kcmil     min   16     max   14     IEC   min   mm²  |                          |                       |         | Ibin    | /                        |
| Ibin       7         Conductor section       AWG/Kcmil       16         min       16       14         IEC       min       14   |                          | Body lid screw fixing |         | Nice    | 0.0                      |
| Conductor section        AWG/Kcmil     min     16       max     14       IEC     min     mmm²  |                          |                       |         |         |                          |
| AWG/Kcmil<br>min 16<br>max 14<br>IEC<br>min mm <sup>2</sup> 1 or 2   | Conductor section        |                       |         |         | 1                        |
| min 16<br>max 14<br>IEC<br>min mm <sup>2</sup> 1or 2   |                          | AW/G/Kcmil            |         |         |                          |
| max       14         IEC       min       mm²       1 or 2  |                          |                       | min     |         | 16                       |
| IEC min mm <sup>2</sup> 1or 2  |                          |                       |         |         |                          |
| min mm² 1or 2  |                          | IEC                   | max     |         | - ·                      |
|  |                          |                       | min     | mm²     | 1or 2                    |
|  |                          |                       |         |         |                          |

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding



ENERGY AND AUTOMATION

**KBF3L11** LIMIT SWITCH, K SERIES, ADJUSTABLE ROLLER LEVER, 1 BOTTOM CABLE ENTRY. electric DIMENSIONS TO EN 50047, PLASTIC BODY, CONTACTS 1NO+1NC SLOW ACTION. RUBBER ROLLER

| ENERGY AND AUTOMATION   |              |            | ROLLER                        |
|---|--------------|------------|-------------------------------|
| Cable connection  |              |            | Self-releasing screw terminal |
| Cable entry   |              |            | M20 on the<br>bottom          |
| Operations  |              |            |                               |
| Mechanical life   |              | cycles     | <1000000                      |
| Mechanical operation  |              | cycles/h   | 3600                          |
| Ambient conditions  |              |            |                               |
| Temperature   |              |            |                               |
| Operating temperature   |              | ° <b>0</b> | <u></u>                       |
|   | min          | °C         | -25                           |
|   | max          | °C         | +70                           |
| Storage temperature   | min          | °C         | -40                           |
|   | min<br>max   | °C         | -40<br>+70                    |
| Resistance & Protection                                       | IIIdX        | C          | +70                           |
| IP degree   |              |            |                               |
|   | Terminals    |            | IP20                          |
|   | Body housing |            | IP65                          |
| Pollution degree  |              |            | 3                             |
| Dimensions  |              |            |                               |
| Ø4.3<br>(0.16")<br>Ø4.3<br>(0.16")<br>Ø4.3<br>(0.16")<br>Ø4.3 |              |            |                               |

## Wiring diagrams

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(1.18)

KBF3L11

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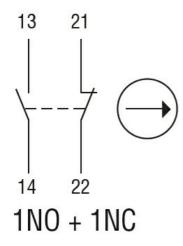
(1.18)

M20



LIMIT SWITCH, K SERIES, ADJUSTABLE ROLLER LEVER, 1 BOTTOM CABLE ENTRY. electric DIMENSIONS TO EN 50047, PLASTIC BODY, CONTACTS 1NO+1NC SLOW ACTION. RUBBER ROLLER

## Slow action



| Certifications and compliance |                  |                |  |
|-------------------------------|------------------|----------------|--|
| Compliance                    |                  |                |  |
|                               | CSA C22.2 n° 14  |                |  |
|                               | EN 50047         |                |  |
|                               | IEC/EN 60204-1   |                |  |
|                               | IEC/EN 60947-1   |                |  |
|                               | IEC/EN 60947-5-1 |                |  |
|                               | UL508            |                |  |
| Certificates                  |                  |                |  |
|                               | CCC              |                |  |
|                               | cULus            |                |  |
|                               | EAC              |                |  |
| ETIM classificatio            | n                |                |  |
|                               |                  | EC000030 - End |  |

ETIM 8.0

switch