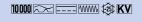


# DATA SHEET

residual current circuit-breaker
DFS 4 040-4/0,03-B SK MI R HD
AC/DC sensitive type B, for mobile installations, for harsh
environments
Article number 09134893HD





#### **Function**

Residual current circuit-breakers (RCCBs) are components for implementing protective measure "Automatic disconnection of the power supply" as per VDE 0100 part 410 or corresponding international installation regulations. Series DFS 4 devices are compact two or fourpole residual current circuit-breakers. In the standard design, they only take up four module width units of space. Although DFS 4 devices for AC and pulsating DC residual currents are actually designed for three-phase networks, they can also be used in single-phase networks. However, in addition to these, special variants are also available for single or three-phase operation in the form of the AC/DC sensitive designs (type B, type B+). In spite of the compact dimensions, a number of different tripping currents and characteristics are available at rated currents, depending on the design, up to 125 A. All devices are available in the "HD" design, which is especially suitable for use in extreme environments (tunnels, swimming pools, etc.) They also have large two-tier terminals for large conductor cross-sections, a practical multifunctional switch toggle and can be provided with pre-prepared labels using free-of-charge software. Type B residual current circuit-breakers detect smooth DC residual currents and all other residual currents at frequencies up to 150,000 Hz. The operating voltage required for this is taken from the mains supply. Correct power supply is ensured when the voltage between the mains conductors is ≥ 50 V. Pulsating and AC residual currents are detected independent of the mains voltage. For residual current circuit-breakers with characteristic curve SK, the frequency response of the tripping current is designed so that residual currents with high frequencies, such as in the clock frequency range for frequency converters, as opposed to the rated frequency are detected with significantly reduced sensitivity. Undesired trips caused by leakage currents can therefore be widely avoided. However, fire protection depending on the rated residual current of the switch (0.03 A, 0.1 A or 0.3 A) is only provided for residual currents with frequencies up to 1 kHz, 300 Hz or 100 Hz, while the devices with tripping current frequency response B+ or NK offer protection over the entire tripping frequency range up to 20 kHz or 150 kHz, respectively. The MI variant is also equipped with a tripping threshold of 6 mA for DC residual currents additional to the AC/ DC sensitivity of Type B or B+. This prevents pre-magnetisation of upstream RCCBs Type A or F, so that they can continue to fulfil their protective function. With an airtight, encapsulated tripping mechanism from a special alloy and the stainless steel latch, residual current circuit-breakers in HD design are protected, in particular from corrosion, corrosive gases, moisture and extreme temperature fluctuations.

### **Features**

High level of immunity against leakage and residual currents due to operational conditions from frequency 1 kHz and higher, AC/DC sensitive for residual currents with frequencies and mixed frequencies of o Hz (smooth direct current) up to 150 kHz, high availability even of voltage-independent detection of smooth DC residual current and AC residual current with frequencies not equal to 50/60 Hz thanks to full functional compatibility with mains voltages from at least 50 V AC on any two active conductors, mains-voltage-independent tripping when type A residual currents occur, compact design for all rated currents, high short-circuit resistance, double-sided two-tier terminals for large conductor cross-section and busbar, switch position indicator, viewing window for labels, multifunction switch toggle with three positions: "on", "off" and "tripped", Neutral conductor position right

#### Mounting

quick fastening to mounting rail, any installation position, supply preferably from above

### **Applications**

Ideally suited for mobile use in power distributors e.g. for rental equipment, where upstream RCCBs of an unknown type are present. Due to the low DC tripping threshold, the AC-DC sensitive RCCB version MI also can be operated downstream of an RCCB Type A or F, Commercial and industrial installations with TT, TN-S and TN-C-S systems, where power electronics equipment is used without galvanic isolation from the mains, e.g. frequency converters, switching power supplies, high-frequency converters, photovoltaic installations and UPS equipment with frequency converters without transformers.

### Notes

suitable for use in 50 Hz AC networks, RCCBs for other frequencies available upon request, Not designed for use in direct current networks or on the output side of controlled electrical equipment such as frequency converters.

## Accessories

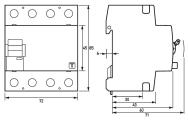
automatic reclosing devices DFA, terminal caps KA, information stickers HAS, auxiliary switches DHi, restart locks DFS WES, software

## Technical Data

Series  DFS 4 B SK MIHD  Number of poles  4  Residual current type  B  Tripping characteristic curve  SK  Rated current (AC)  40 A  Rated current (AC)  Short-time delayed  Selective  false min. Operating voltage range of test circuit  Minimum rated operating voltage (Type B operation)  Tripping frequency  Internal consumption  max. 2.2 W  Specification  Joad disconnect contact  Internal consumption  max 2.2 W  Specification  Joad disconnect contact  A mm  Rated voltage (AC)  230 V, 400 V  Rated current (AC)  40 A  Rated short-circuit current  30 kA  Surge current strength  3 kA  4 kV  Rated impulse withstand voltage  Sobre-type terminal top and bottom (load circuit)  Thermal Backup-fuse OCPD  40 A  Short-circuit backup-fuse OCPD  5 kort-circuit backup-fuse SCPD  5 cort-circuit fuse and bottom (load circuit)  Ripht  Frotection against direct contact  DGUV V3, VDE o660-514, finger and back-of-hand proof  Connecting capacity flexible  1 k-wire: 1,5 mm² 50 mm², 2 k-wire: 1,	Technical Data	DFS 4 040-4/0,03-B SK MI R HD
Residual current type SK Tripping characteristic curve SK Rated current (AC) Ao A Rated residual current I\(\triangle \) Robert (AC) Rated (Robert Robert Robe	Series	
Residual current type  Tripping characteristic curve  SK  Rated current (AC)  4o A  Rated residual current I\(\triangle \)  Short-time delayed  true  Selective  false  min. Operating voltage range of test circuit  max. Operating voltage range of test circuit  notationsumption  Tripping frequency  OHZ 150 kHZ  Internal consumption  Ioad disconnect contact  min. Contact opening  4, mm  Rated voltage (AC)  Rated voltage (AC)  Rated voltage (AC)  Rated voltage (AC)  Rated short-circuit current  10 kA  Surge current strength  3 kA  max. Total rated switching  capacity  Rated insulation voltage  Rated short-circuit backupting  Rated	Number of poles	4
Tripping characteristic curve Rated current (AC) Rated current (AC) Rated residual current \( \text{LAC}\) Rated provides a construction of the second o	Residual current type	
Rated current (AC) Rated residual current IDn O.03 A Short-time delayed True Selective min. Operating voltage range of test circuit max. Operating voltage range of test circuit policies of the circuit circuit specification load disconnect contact min. Contact opening at max. 2.2 W  Specification load disconnect contact min. Contact opening at max and circuit specification load disconnect contact min. Contact opening at max at voltage (AC) ago V, 400 V Rated current (AC) ago A asted short-circuit current askad short-circuit current askad short-circuit current askad short-circuit current askad frequency at voltage at volt		SK
Rated residual current I∆n Short-time delayed Selective min. Operating voltage range of test circuit max. Operating voltage range of test circuit Minimum rated operating voltage (Type B operation) Tripping frequency OHz150 kHz Internal consumption Max. 2.2 W Internal consumption Max. 2.2 W Internal consumption Internal con		40 A
Short-time delayed true false false false min. Operating voltage range of test circuit max. Operating voltage range of test circuit max. Operating voltage range of test circuit sets circuit sets circuit false test circuit false		· · · · · · · · · · · · · · · · · · ·
Selective min. Operating voltage range of test circuit max. Operating voltage (Type B operation) Tripping frequency Internal consumption  max. 2.2 W  Joan Circuit  Specification Joad disconnect contact min. Contact opening A, mm  Rated voltage (AC) Rated current (AC) Ao A  Rated short-circuit current Active range of test contact Surge current strength Again Active range Rated insulation voltage A, W  Rated insulation voltage A, W  Rated insulation voltage A, W  Rated impulse withstand voltage Rated frequency Solta, Goltz  Current heat loss per current path Demail Backup-fuse OCPD Ao A  Short-circuit backup-fuse SCPD Back-up fuse type  Sorew-type terminal top and bottom (load circuit)  Neutral conductor position Protection against direct contact DGUV 3, VDE o660-514, finger and back-of-hand proof Connection C1 Maximum number of conductors per terminal Cross section Solid 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section slanded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, stranded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, stranded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, stranded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, stranded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, stranded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, stranded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, stranded	Short-time delayed	<del>-</del>
test circuit  max. Operating voltage range of test circuit  Minimum rated operating voltage (Type B operation)  Tripping frequency	·	false
Minimum rated operation  Minimum rated operation  Tripping frequency  Internal consumption  max. 2.2 W  Internal consumption  Max. 2.2 W  Internal consumption  Ioad circuit  Specification  Ioad circuit  Specification  Ioad circuit  Specification  Ioad circuit  Specification  Ioad disconnect contact  Minimum Contact opening  Rated voltage (AC)  Rated voltage (AC)  Rated current (AC)  Rated current (AC)  Rated short-circuit current  Ioaka  Surge current strength  Max. Total rated switching  Lapacity  Rated insulation voltage  Rated insulation voltage  Rated frequency  So Hz, 6o Hz  Current heat loss per current  path  Thermal Backup-fuse OCPD  Ao A  Short-circuit backup-fuse SCPD  Back-up fuse type  G  Screw-type terminal top and bottom (load circuit)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum  number of conductors per terminal  Cross section against direct contact  DGUV S, VDE 0660-514, finger and back-of-hand proof  Connection C2 Maximum  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  Cross section AWG, solid		150 V
voltage (Type B operation) Tripping frequency	, , ,	250 V
Internal consumption max. 2.2 W    Specification   Sold circuit		50 V AC
Internal consumption max. 2.2 W    Specification   Solad circuit	Tripping frequency	o Hz 150 kHz
Specification load disconnect contact  min. Contact opening Rated voltage (AC) Rated current (AC) Rated short-circuit current  10 kA  Surge current strength Surge current strength Rated insulation voltage Rated frequency So Hz, 60 Hz  Current heat loss per current path Thermal Backup-fuse OCPD Ao A  Short-circuit backup-fuse SCPD Back-up fuse type  Screw-type terminal top and bottom (load circuit)  Neutral conductor position Protection against direct contact DGUV V3, VDE 0660-514, finger and back-of-hand proof Connection C1 Maximum number of conductors per terminal Cross section solid 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section stranded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, solid 15 1  Cross section AWG, stranded	Internal consumption	max. 2.2 W
min. Contact opening Rated voltage (AC) Rated current (AC) Rated current (AC) Rated short-circuit current  10 kA Surge current strength 3 kA max. Total rated switching capacity Rated insulation voltage Rated insulation voltage Rated impulse withstand voltage Rated impulse withstand voltage Rated impulse withstand voltage Rated frequency 50 Hz, 60 Hz Current heat loss per current path Thermal Backup-fuse OCPD 40 A Short-circuit backup-fuse SCPD 100 A Back-up fuse type gG screw-type terminal top and bottom (load circuit) Neutral conductor position Protection against direct contact DGUV V3, VDE 0660-514, finger and back-of-hand proof Connection C1 Maximum number of conductors per terminal Cross section Solid 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section solid 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, solid 15 1		load circuit
Rated voltage (AC)  Rated current (AC)  Rated short-circuit current  10 kA  Surge current strength 3 kA  max. Total rated switching capacity  Rated insulation voltage 400 V  Rated insulation voltage 4 kV  Rated impulse withstand voltage Rated frequency 50 Hz, 60 Hz  Current heat loss per current path  Thermal Backup-fuse OCPD 40 A  Short-circuit backup-fuse SCPD 100 A  Back-up fuse type 9G  screw-type terminal top and bottom (load circuit)  Neutral conductor position Protection against direct contact DGUV V3, VDE 0660-514, finger and back-of-hand proof Connection C1 Maximum number of conductors per terminal  Cross section Solid 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Connecting capacity flexible 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section stranded 1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm² Cross section AWG, solid 15 1  Cross section AWG, solid	Specification	load disconnect contact
Rated current (AC)  Rated short-circuit current  10 kA  Surge current strength  3 kA  max. Total rated switching capacity  Rated insulation voltage  Rated insulation voltage  Rated impulse withstand voltage  Rated frequency  50 Hz, 60 Hz  Current heat loss per current path  Thermal Backup-fuse OCPD  40 A  Short-circuit backup-fuse SCPD  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1	min. Contact opening	4 mm
Rated short-circuit current  10 kA  Surge current strength  3 kA  max. Total rated switching capacity  Rated insulation voltage  Rated impulse withstand voltage  Rated impulse withstand voltage  Rated frequency  Current heat loss per current path  Thermal Backup-fuse OCPD  40 A  Short-circuit backup-fuse SCPD  Back-up fuse type  g  screw-type terminal top and bottom (load circuit)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, solid  Cross section AWG, solid  15 1	Rated voltage (AC)	230 V, 400 V
Surge current strength  max. Total rated switching capacity  Rated insulation voltage  Rated impulse withstand voltage  Rated impulse withstand voltage  Rated frequency  Current heat loss per current path  Thermal Backup-fuse OCPD  Short-circuit backup-fuse SCPD  Back-up fuse type  GG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, solid  15 1	Rated current (AC)	40 A
max. Total rated switching capacity  Rated insulation voltage  Rated impulse withstand voltage  Rated frequency  50 Hz, 60 Hz  Current heat loss per current path  Thermal Backup-fuse OCPD  40 A  Short-circuit backup-fuse SCPD  100 A  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  right  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum  12 (conductors of same type and cross-section)  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, solid  15 1	Rated short-circuit current	10 kA
capacity Rated insulation voltage Rated impulse withstand voltage Rated impulse withstand voltage Rated frequency So Hz, 60 Hz Current heat loss per current path Thermal Backup-fuse OCPD 40 A Short-circuit backup-fuse SCPD Back-up fuse type G Screw-type terminal top and bottom (load circuit) Neutral conductor position Protection against direct contact DGUV V3, VDE 0660-514, finger and back-of-hand proof Connection C1 Maximum number of conductors per terminal Cross section solid 1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm² Cross section stranded 1-wire: 1.5 mm² 50 mm², 2-wire: 1.5 mm² 16 mm² Cross section AWG, solid 15 1 Cross section AWG, stranded	Surge current strength	3 kA
Rated insulation voltage  Rated impulse withstand voltage  Rated frequency  So Hz, 60 Hz  Current heat loss per current path  Thermal Backup-fuse OCPD  40 A  Short-circuit backup-fuse SCPD  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	max. Total rated switching	500 A
Rated impulse withstand voltage Rated frequency  50 Hz, 60 Hz  Current heat loss per current path  Thermal Backup-fuse OCPD  40 A  Short-circuit backup-fuse SCPD  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	capacity	
Rated frequency  Current heat loss per current path  Thermal Backup-fuse OCPD  40 A  Short-circuit backup-fuse SCPD  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Rated insulation voltage	400 V
Current heat loss per current path  Thermal Backup-fuse OCPD  Short-circuit backup-fuse SCPD  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  right  Protection against direct contact  DGUV V3, VDE o660-514, finger and back-of-hand proof  Connection C1 Maximum  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Rated impulse withstand voltage	4 kV
path Thermal Backup-fuse OCPD  Short-circuit backup-fuse SCPD  100 A  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  right  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 Maximum  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Rated frequency	50 Hz, 60 Hz
Short-circuit backup-fuse SCPD  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  right  Protection against direct contact  DGUV V3, VDE o660-514, finger and back-of-hand proof  Connection C1 Maximum  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	•	1.3 W
Back-up fuse type  screw-type terminal top and bottom (load circuit)  Neutral conductor position  right  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  2 (conductors of same type and cross-section)  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Thermal Backup-fuse OCPD	40 A
Screw-type terminal top and bottom (load circuit)  Neutral conductor position  right  Protection against direct contact  DGUV V3, VDE o66o-514, finger and back-of-hand proof  2 (conductors of same type and cross-section)  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Short-circuit backup-fuse SCPD	100 A
Neutral conductor position  Protection against direct contact  DGUV V3, VDE o660-514, finger and back-of-hand proof  2 (conductors of same type and cross-section)  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Back-up fuse type	gG
Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  2 (conductors of same type and cross-section)  number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded		screw-type terminal top and bottom (load circuit)
Connection C1 Maximum number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Neutral conductor position	right
number of conductors per terminal  Cross section solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Protection against direct contact	DGUV V3, VDE o66o-514, finger and back-of-hand proof
Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded  15 1	number of conductors per	2 (conductors of same type and cross-section)
Cross section stranded  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, solid  15 1  Cross section AWG, stranded	Cross section solid	1-wire: 1.5 mm <sup>2</sup> 50 mm <sup>2</sup> ; 2-wire: 1.5 mm <sup>2</sup> 16 mm <sup>2</sup>
Cross section AWG, solid 15 1 Cross section AWG, stranded 15 1	Connecting capacity flexible	1-wire: 1.5 mm <sup>2</sup> 50 mm <sup>2</sup> ; 2-wire: 1.5 mm <sup>2</sup> 16 mm <sup>2</sup>
Cross section AWG, stranded 15 1	Cross section stranded	1-wire: 1.5 mm <sup>2</sup> 50 mm <sup>2</sup> ; 2-wire: 1.5 mm <sup>2</sup> 16 mm <sup>2</sup>
	Cross section AWG, solid	151
Cross section AWG flexible	Cross section AWG, stranded	15 1
15 1	Cross section AWG, flexible	15 1

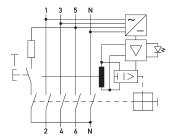
Technical Data	DFS 4 040-4/0,03-B SK MI R HD
Cross section AWG, flexible with ferrule	15 1
Tightening torque	2.5 Nm 3 Nm
	General data
Operating position	optional
max. Operating altitude above MSL	2000 M
Mechanical endurance	min. 5000 cycles
Electrical endurance	min. 2000 cycles
Surrounding atmosphere	harsh environmental conditions
Storage temperature	-35 °C 75 °C
Ambient temperature	-25 °C 60 °C
Climate resistance	according to IEC 60068-2-30: humid heat / cyclic (25 °C / 55 °C; 93 % / 97 % RH)
Shock resistance	20 g / 20 ms Duration
Fatigue limit	> 5 g (f ≤ 8o Hz, duration > 30 min.)
Housing type	distribution board housing
Installation type	Mounting rail (35 mm)
Housing material	thermoplastic
Protection class	IP20 (installed: IP40)
sealable	true
Width	72 mm
Height	8 <sub>5</sub> mm
Depth	75 mm
Installation depth	69 mm
Module widths	4
Weight	o.487 kg
Design requirements/Standards	VDE 0664-10, VDE 0664-40, ÖVE/ÖNORM E 8601, DIN EN 61008-1, EN 62423
Degree of pollution	2

# Dimensions

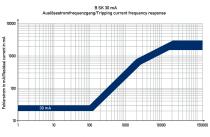


Dimensional drawing Group view

# Wiring example



# Diagrams



Characteristic B SK 30 mA

Wiring diagram