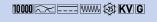


## DATA SHEET

residual current circuit-breaker
DFS 4 063-4/0,30-B SK MI HD
AC/DC sensitive type B, for mobile installations, for harsh
environments
Article number 09146892HD





#### **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. They also have large two-tier terminals for large conductor cross-sections, a practical multi-functional switch toggle and can be provided with labels using free-of-charge software. Type B residual current circuitbreakers 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 0 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 left

#### 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

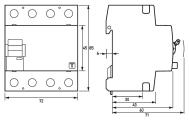
automatic reclosing devices DFA, terminal caps KA, information stickers HAS, auxiliary switches DHi, restart locks DFS WES, software DBS

### Technical Data

Series  DFS 4 B SK MI HD  Number of poles  Residual current type  B  Tripping characteristic cuve  Residual current type  B  Tripping characteristic cuve  Residual current tAla  DC tripping threshold  Short-time delayed  true  Selective  false  min. Operating voltage range of test circuit  max. Operating voltage range of test circuit  Minimum rated operating object of test circuit  Tripping frequency  O thz 150 kHz  Maximum disconnection times  1 · I.An. 3 goo ms; 5 · I.An. 4 go ms  Internal consumption  Rose object of test circuit  I obd disconnect contact  min. Contact opening  Rated divolage (AC)  Rated divolage (AC)  Rated divolage (AC)  Rated current tAC)  Gay A  Rated divolage (AC)  Rated impulse withstand voltage  Rated impulse withst	Technical Data	DFS 4 063-4/0,30-B SK MI HD
Residual current type  Fitiping characteristic curve  SK Rated current (AC)  G G A Rated residual current LIAn  O C tripping threshold  Short-time delayed  true  Selective  Galse  Incomparity voltage range of test circuit  Minimum rated operating of the story of test circuit  Minimum rated operating of test circuit  Minimum rated operating  O V AC  voltage (Type A)AC operation)  Minimum rated operating  voltage (Type B) operation)  Non-trip time  10 ms  Tripping frequency  10 Hz 150 kHz  Maximum disconnection times  1 - 1/12n : 35 om Ts; 1/4n : 44 om Ts  Internal consumption  Inded directive  Specification  Ioad directive  Ioad directive  Specification  Ioad directive	Series	
Residual current type  B Tripping characteristic curve  SK Rated current (AC)  65 A Rated residual current Lfan  0.3 A  DC tripping threshold Short-time delayed True  Selective false min. Operating voltage range of test circuit  Minimum rated operating ovoltage (rype A/AC operation) Minimum rated operating ovoltage (rype Bo peration) Non-trip time  Tripping frequency  0 to 2 350 kHz Maximum disconnection times 1 · 1/Δin : 39 om mis; 5 · 1/Δin : 34 om ms Internal consumption  Ioad directiv  Specification Ioad directiv  Specification Ioad disconnect contact min. Contact opening A, mm Rated voltage (A/C) Rated ovoltage (A/C) Rated Short-circuit current So kA  Surge current (A/C) Rated short-circuit current So kA  Surge current strength Back-up fuse discutify Rated insulation voltage A, kV  Rated insulation voltage A, kV  Rated insulation voltage Rated impulse withstand voltage Rated insulation voltage A, kV  Rated insulation voltage Rated insulation vol	Number of poles	4
Rated current (AC) Rated residual current I\(\triangle \) 0.3 A  Del tripping threshold Short: time delayed true Selective min. Operating voltage range of test circuit max. Operating voltage range of test circuit max. Operating voltage range of test circuit max. Operating voltage range of test circuit min. Operating voltage range of test circuit Minimum rated operating voltage (Type A/AC operation) Minimum rated operating voltage (Type A/AC operation) Non-trip time 10 ms Tripping frequency 11 Lian: 30 om 5, 5 - I\(\triangle \) 1 Lian: 40 om 5  Maximum disconnection times 11 Lian: 3 soo ms, 5 - I\(\triangle \) 1 Lian: 40 om 5  Internal consumption max. 2.2 W  Total circuit Specification load disconnect contact min. Contact opening 4, mm Rated voltage (AC) 230 V, 400 V Rated current (AC) Rated current (AC) Rated current (AC) Rated solvate, and the solvate of the sol	Residual current type	
Rated residual current I∆n DC tripping threshold DC tripping threshold DC tripping threshold The Max Selective This Selective	Tripping characteristic curve	SK
Rated residual current I∆n  DC tripping threshold  Selective  Tince Portating voltage range of test circuit  Tax. Operating voltage range of test circuit  Minimum rated operating  Voltage (Type AlAC operation)  voltage (Type AlAC	Rated current (AC)	6 <sub>3</sub> A
DC tripping threshold Short-time delayed Short-time delayed True Short-time delayed True Table This delayed The Manage of test circuit This delayed This description of the true of test circuit This delayed operating This delayed operation This delayed opera	Rated residual current IΔn	
Short-time delayed true Selective false Inin. Operating voltage range of test circuit  Minimum rated operating of voltage (Type A/AC Operation)  Minimum rated operating voltage (Type A/AC Operation)  Minimum rated operating voltage (Type NAC Operation)  Non-trip time  10 ms  Tripping frequency  0 Hz 150 kHz  Maximum disconnection times  1 - 1 Δin : ≤ 300 ms, 5 : 1 Δin : ≤ 40 ms  Internal consumption  Max. 2.2 W    Doad circuit	DC tripping threshold	
min. Operating voltage range of test circuit max. Operating voltage range of test circuit max. Operating voltage range of test circuit Minimum rated operating voltage (Type A/AC operation) Minimum rated operating voltage (Type A/AC operation) Minimum rated operating voltage (Type A/AC operation) Non-trip time  10 ms 10 ms 11 libric 3 por ms; 5: libric 4 or ms Internal consumption  12 libric 3 por ms; 5: libric 4 or ms Internal consumption  13 libric 3 por ms; 5: libric 4 or ms Internal consumption  14 mm Rate all disconnect contact  15 pecification  16 dad circuit  Specification  16 dad circuit  Specification  17 libric 3 por ms; 5: libric 4 or ms Internal consumption  18 max. 2.2 W  19 load circuit  Specification  19 load circuit  Specification  10 load disconnect contact  10 load circuit  Specification  10 load circuit  10 load		true
test circuit  max. Operating voltage range of test circuit  Minimum rated operating voltage (Type A)AC operation)  Minimum rated operating so VAC voltage (Type B operation)  Minimum rated operation	Selective	false
test circuit  Minimum rated operating voltage (Type A/AC operation)  Minimum rated operating voltage (Type A/AC operation)  Non-trip time  10 ms  7 ipping frequency  0 Hz 150 kHz  Maximum disconnection times Internal consumption  max. 2.2 W  Specification Ioad circuit  Specification Ioad disconnect contact  min. Contact opening  4 mm  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 insulation voltage Rated inpulse withstand voltage Rated finpulse withstand voltage Rated finpulse withstand voltage  Current heat loss per current path  7 in Park (So Hz  Short-circuit backup-fuse OCPD  8 ackup-fuse OCPD  9 ackup-fuse Type  9 connection Cal Maximum 2 (conductors per terminal)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE o66o-51a, finger and back-of-hand proof  Connection Cal Maximum 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 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 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 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 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 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 solid		200 V
voltage (Type A/AC operation)         Minimum rated operating voltage (Type B operation)         Non-trip time       1 oms         Tripping frequency       0 Hz 150 kHz         Maximum disconnection times       1 · làn's - 300 ms; 5 · làn's - 40 ms         Internal consumption       max. 2.2 W         Specification       load circuit         Specification       load disconnect contact         min. Contact opening       4 mm         Rated voltage (AC)       230 V, 400 V         Rated current (AC)       63 A         Rated short-circuit current       10 kA         Surge current strength       3 kA         max. Total rated switching capacity       630 A         Rated inspulse withstand voltage       4 kV         Rated impulse withstand voltage       4 kV         Rated impulse withstand voltage       4 kV         Rated frequency       50 Hz, 60 Hz         Current heat loss per current path       3.1 W         Thermal Backup-fuse OCPD       63 A         Short-circuit backup-fuse SCPD       100 A         Back-up fuse type       gG         Screw-type terminal top and bottom (load circuit)         Neutral conductor position       left         Protection against direct contact <t< td=""><td></td><td>440 V</td></t<>		440 V
voltage (Type B operation)       10 ms         Non-trip time       10 ms         Tripping frequency       0 Hz 150 kHz         Maximum disconnection times       1 · I∆n: ≤ 300 ms, 5 · I∆n: ≤ 40 ms         Internal consumption       max. 2.2 W         Specification       load disconnect contact         min. Contact opening       4 mm         Rated voltage (AC)       230 V, 400 V         Rated current (AC)       63 A         Rated short-circuit current       10 kA         Surge current strength       3 kA         max. Total rated switching       630 A         capacity       3         Rated insulation voltage       4 kV         Rated insulation voltage       4 kV         Rated frequency       50 Hz, 60 Hz         Current heat loss per current       3.1 W         path       3.1 W         Phort-circuit backup-fuse OCPD       63 A         Short-circuit backup-fuse SCPD       9G         Back-up fuse type       9G         screw-type terminal top and bottom (load circuit)         Neutral conductor position       left         Protection against direct contact       DGUV V3, VDE 666-514, finger and back-of-hand proof         Connection C1 Maximum       2 (conduct	voltage (Type A/AC operation)	o V AC
Tripping frequency  Maximum disconnection times  1 · I Δn: s 300 ms; 5 · I Δn: s 40 ms  Internal consumption  max. 2.2 W    Internal consumption   Ioad dircuit   Specification   Ioad disconnect contact	voltage (Type B operation)	50 V AC
Maximum disconnection times       1 · I∆n: ≤ 300 ms; 5 · I∆n: ≤ 40 ms         Internal consumption       max. 2.2 W         Ioad circuit         Specification       load disconnect contact         min. Contact opening       4 mm         Rated voltage (AC)       230 V, 400 V         Rated durrent (AC)       63 A         Rated short-circuit current       10 kA         Surge current strength       3 kA         max. Total rated switching       630 A         capacity       4 kV         Rated insulation voltage       4 kV         Rated insulation voltage       4 kV         Rated frequency       50 Hz, 60 Hz         Current heat loss per current path       3.1 W         Thermal Backup-fuse OCPD       63 A         Short-circuit backup-fuse SCPD       100 A         Back-up fuse type       gG         Screw-type terminal top and bottom (load circuit)         Neutral conductor position       left         Protection against direct contact       DGUV V3, VDE 0660-514, finger and back-of-hand proof         Connection C1 Maximum number of conductors per terminal       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 sect	· · · · · · · · · · · · · · · · · · ·	
Internal consumption    Image: 2.2 W   Image: 2.2 W		<u> </u>
Specification   Specificatio	Maximum disconnection times	1 · IΔn: ≤ 300 ms; 5 · IΔn: ≤ 40 ms
Specification load disconnect contact min. Contact opening Rated voltage (AC) Rated current (AC) Rated short-circuit current  Surge current strength  max. Total rated switching capacity Rated insulation voltage Rated insulation voltage Rated insulation voltage Rated insulation 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 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 AWG, solid  Cross section AWG, solid  Cross section AWG, solid  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	Internal consumption	
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 frequency 50 Hz, 60 Hz  Current heat loss per current path Thermal Backup-fuse OCPD 63 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 AWG, solid 15 1  Cross section AWG, stranded 15 1		load circuit
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 insulation voltage  Rated impulse withstand voltage  Rated impulse withstand voltage  Rated impulse withstand voltage  Rated insulation sper current gath  Thermal Backup-fuse OCPD  63 A  Short-circuit backup-fuse OCPD  83 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  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	•	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 impulse withstand voltage  Rated frequency  50 Hz, 60 Hz  Current heat loss per current path  Thermal Backup-fuse OCPD  63 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  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	·	<u> </u>
Rated short-circuit current  Surge current strength  3 kA  max. Total rated switching capacity  Rated insulation 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  63 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 tranded  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  max. Total rated switching 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  63 A  Short-circuit backup-fuse SCPD  100 A  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  left  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 current (AC)	6 <sub>3</sub> A
max. Total rated switching capacity  Rated insulation 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  63 A  Short-circuit backup-fuse SCPD  100 A  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  left  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, stranded	Rated short-circuit current	10 kA
Capacity  Rated insulation voltage  Rated impulse withstand voltage  Rated frequency  So Hz, 60 Hz  Current heat loss per current path  Thermal Backup-fuse OCPD  63 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 0600-514, 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  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 impulse withstand voltage  Rated frequency  50 Hz, 60 Hz  Current heat loss per current path  Thermal Backup-fuse OCPD  63 A  Short-circuit backup-fuse SCPD  100 A  Back-up fuse type  gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  left  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  Consection 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		6 <sub>3</sub> 0 A
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 AWG, solid  15 1  Cross section AWG, stranded  15 1	_	400 V
Current heat loss per current path  Thermal Backup-fuse OCPD  63 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  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	Rated impulse withstand voltage	4 kV
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  left  Protection against direct contact  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 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  left  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		3.1 W
Back-up fuse type  screw-type terminal top and bottom (load circuit)  Neutral conductor position  left  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	Thermal Backup-fuse OCPD	6 <sub>3</sub> A
Screw-type terminal top and bottom (load circuit)  Neutral conductor position  left  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  15 1	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	Back-up fuse type	gG
Protection against direct contact  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  15 1		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  15 1	Neutral conductor position	left
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  15 1	Protection against direct contact	DGUV V <sub>3</sub> , VDE o660-514, finger and back-of-hand proof
Connecting capacity flexible  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  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 15 1	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, stranded 15 1	Cross section AWG, solid	151
	Cross section AWG, stranded	
	Cross section AWG, flexible	15 1

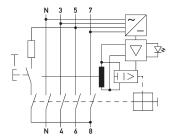
Technical Data	DFS 4 063-4/0,30-B SK MI HD
Cross section AWG, flexible with ferrule	15 1
Tightening torque	2.5 Nm 3 Nm
	General data
Operating position	optional
max. Operating altitude above MSL	2000 m
Mechanical endurance	min. 5000 cycles
Electrical endurance	min. 2000 cycles
Surrounding atmosphere	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	85 mm
Depth	75 mm
Installation depth	69 mm
Module widths	4
Weight	o.489 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

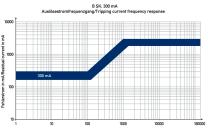


Dimensional drawing Group view

## Wiring example



# Diagrams



Characteristic B SK 300 mA

Wiring diagram