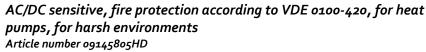


## DATA SHEET

# residual current circuit-breaker DFS 4 063-4/0,10-HP HD







#### **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. Devices in the DFS 4 series are compact four-pole residual current circuit-breakers for single-phase or three-phase networks. In the standard version, they only occupy four division units. The AC/DC-sensitive switches detect smooth DC residual currents and all other residual currents in accordance with DIN VDE 0664-400. Switches of the HP (Heat Pump) series have been specially developed for the protection of heat pumps. The protection level of the AC/DC sensitive residual current circuit breaker meets all requirements of heat pump manufacturers. In addition, the HP-optimised short-time delay ensures increased system availability. 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. Devices in the standard design are intended for monitoring circuits with a rated voltage of 230 V, 400 V and a rated frequency of 50 Hz. 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**

AC/DC sensitive for residual currents with frequencies and mixed frequencies from o Hz to 20 kHz, fire protection according to VDE 0100-420, complete functionality with mains voltages from at least 50 V AC on any two active conductors, high short-circuit resistance, ouble-sided double-decker terminals for large conductor cross-section and busbar connection, switching position indicator, multifunction control toggle with three positions: "on", "off", "triggered", any neutral conductor position

#### Mounting

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

### **Applications**

RCCBs of the variant HP are suitable for private, commercial and industrial installations with TN-S-, TT- and TN-C-S systems which use heat pumps.

#### Notes

suitable for use in 50 Hz AC networks, not intended for use 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

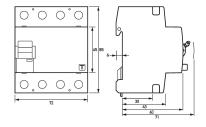
#### Technical Data

Technical Data	DFS 4 063-4/0,10-HP HD
Series	DFS 4 HP HD
Number of poles	4
Residual current type	B+
Rated current (AC)	6 <sub>3</sub> A
Rated residual current I∆n	0.1 A
Short-time delayed	true
Selective	false

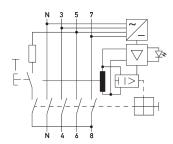
min. Operating voltage range of test circuit max. Operating voltage (Type A)AC operation) Minimum rated operating voltage (Type B) Operation) Non-trip time 13 ms Tripping frequency 0 kHz 30 kHz Maximum disconnection times internal consumption max. 3 W  Specification load circuit Specification load disconnect contact min. Contact opening A mm Rated voltage (AC) 730 V, 400 V Rated voltage (AC) 730 V, 400 V Rated dison-tircuit current 6 kA Surge current strength 7 max. Total rated switching capacity Rated insulation voltage A 400 V Rated insulation voltage A 400 V Rated insulation voltage Rated inpulse withstand voltage Rated inpulse voltage (AC) Current heal toss per current path  Discovery 9 0 kl2 Current heal toss per current path  Discovery 9 0 kl2 Current heal toss per current path  Discovery 9 0 kl2 Current heal toss per current path  Discovery 9 0 kl2 Current heal toss per current path  Discovery 9 0 kl2 Current heal toss per current path  Discovery 9 0 kl2 Current heal toss per current path  Discovery 9 0 kl2 Current heal toss per current path  Discovery 9 0 kl2 Current heal toss per current path  Discovery 9 0 kl2 Current	Technical Data	DFS 4 063-4/0,10-HP HD
test circuit  Minimum rated 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  13 ms  Tropping frequency  0 Hz 20 kHz  Maximum disconnection times  1 Libris 300 ms; 5 Libris 40 ms  Internal consumption  Rated voltage (Type A)AC  Specification  Industry		
test circuit  Minimum rated operating voltage (Type A/AC operation)  Minimum rated operating voltage (Type A/AC operation)  Non-trip time  13 ms  Tripping frequency  0 Hz 20 kHz  Maximum disconnection times  1 1 l∆n: ≤ 300 ms; 5 1 l∆n: ≤ 40 ms  Internal consumption  max. 3.3W  Internal consumption  Nod direcuit  Specification  load disconnect contact  ini. Contact opening  Rated voltage (AC)  330 V, 400 V  Rated current (AC)  6 g A  Rated surrent (AC)  Rat	test circuit	
voltage (Type A)AC operation) Minimum rated operating voltage (Type B operation) Non-trip pime 13 ms Tripping frequency 0 Hz 20 kHz Maximum disconnection times 1 - I.An: \$ 300 ms; 5 - I.An: \$ 40 ms Internal consumption Max. 1.3 W  Internal consumption Inad direcut Specification Indeed direcut Specification Incontact opening 4 mm Rated voltage (AC) 230 V, 400 V Rated current (AC) 63 A Rated surrent (AC) 63 A Rated short-circuit current 6 KA Surge current strength 3 kA max. Total rated switching capacity Rated insulation voltage 4 400 V Rated insulation voltage Rated voltage (AC) Back-up fuse Vpp  9 G Sobret-circuit backup-fuse SCPD Back-up fuse Vpp  9 G Sorew-type terminal top and bottom (load circuit) Neutral conductor position Protection against direct contact DSUV V3, VDE 0660-514, finger and back-of-hand proof Connection C1 Maximum 2 (conductors of same type and cross-section) number of conductors per terminal Cross section AWG, flexible 1-wire: 1,5 mm² 50 mm²; 2-wire: 1,5 mm² 16 mm² Cross section AWG, flexible 15 1 Cross section AWG, flexible 15 1 Tightening torque 2.5 Mm 3 Mm General data Operating position optional max. Operating position max. Operating altitude above MSL Mechanical endurance Inn., 2000 cycles Surrounding atmosphere Narion Americal endurance Inn., 2000 cycles Surrounding atmosphere Narion Americal endurance Inn., 2000 cycles Surrounding atmosphere		440 V
Minimum rated operation works go (Type B operation)  Non-trip time  13 ms  Tripping frequency  0 Hz20 kHz  Maximum disconnection times  Internal consumption  max. 1.3 W  Ioad circuit  Specification  Ioad disconnect contact  min. Contact opening  4 mm  Rated voltage (AC)  23 oV, 40 oV  Rated disort. circuit current  6 kA  Surge current (AC)  6 3 A  Rated short-circuit current  6 kA  Surge current strength  max. Total rated switching  capacity  Rated insulation voltage  4 kV  Rated insulation voltage  4 kV  Rated frequency  50 Hz  Current hact loss per current  3 a.1 W  Thermal Backup-fuse SCPD  5 A  Short-circuit backup-fuse SCPD  5 Backup fuse type  5 G  Sorrew-type terminal top and bottom (load circuit)  Neutral conductor position  1 eft  Protection against direct contact  Connection Cs. 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 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 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 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 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 m		o V AC
voltage (Type B operation)  Non-trip time  13 ms  Tripping frequency  Alamismum disconnection times  Internal consumption  Rate J 1 Man: \$ 300 ms; \$ 1 km : \$ 40 ms  Internal consumption  Rate J 1 Mm: \$ 300 ms; \$ 1 km : \$ 40 ms  Internal consumption  Rate J 1 Mm: \$ 300 ms; \$ 1 km : \$ 40 ms  India disconnect contact  India disconnection contact contact  India		50 V AC
Tripping frequency Maximum disconnection times Internal consumption    Maximum disconnection times   1-16n : \$ 900 ms; \$ 1-16n : \$ 40 ms		<b>5</b>
Maximum disconnection times Internal consumption Index 1.3 W  Specification Iload direcuit  Specification Iload disconnect contact Iload Iloa	Non-trip time	
Internal consumption	Tripping frequency	0 Hz 20 kHz
Ioad circuit   Specification   Ioad disconnect contact		1 · IΔn: ≤ 300 ms; 5 · IΔn: ≤ 40 ms
Specification   Iload disconnect contact   min. Contact opening   4 mm	Internal consumption	
min. Contact opening Rated Voltage (AC) Rated voltage (AC) Rated current (AC) Rated short-circuit current Rated current strength Rated short-circuit current Rated current strength Rated short-circuit switching Rated insulation voltage Rated insul		
Rated voltage (AC) Rated current (AC) Rated short-circuit current  6 kA Surge current strength 3 kA max. Total rated switching capacity Rated insulation voltage Rated impulse withstand voltage Rated impulse withstand voltage Rated impulse withstand voltage Rated frequency So Hz Current heat loss per current path Thermal Backup-fuse OCPD 63 A Short-circuit backup-fuse SCPD 9 GG Sorew-type terminal top and bottom (load circuit) Retrail 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 advictor per terminal 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 Cross section AWG, stranded 15 1 Cross section AWG, flexible 15 1 Cross section AWG, plexible 16 1 Cross section AWG, plexible 17 1 Cross section AWG, plexible 18 1 Cross section AWG, plexible 19 1 Cros	<u>'</u>	
Rated current (AC) 63 A Rated short-circuit current 6 kA Surge current strength 3 kA max. Total rated switching 630 A Rated insulation voltage 4,60 V Rated insulation voltage 4,60 V Rated insulation voltage 7,50 Hz Rated insulation voltage 8,3 LW Rated frequency 50 Hz Current heat loss per current 3,1 W Path 100 A Rack-up fuse Vype 9 Rack-up fuse Vype 100 Use 100 A Rack-up fuse Vype 100 A Ra		· · · · · · · · · · · · · · · · · · ·
Rated short-circuit current  Surge current strength  3 kA  Surge current strength  3 kA  630 A  capacity  Rated insulation voltage  4,00 V  Rated insulation voltage  4,00 V  Rated insulation voltage  A kV  Rated insulation voltage  50 HZ  Current heat loss per current  path  Thermal Backup-fuse OCPD  63 A  Short-circuit backup-fuse SCPD  100 A  Back-up fuse type  9G  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  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, sfexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  nax. Operating platitude above  MSL  Mechanical endurance  India Quo V  A kV  A volume 1.5 kar 1 min. 4000 cycles  Harsh environmental conditions		
Surge current strength  max. Total rated switching capacity Rated insulation voltage  Rated frequency  So 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  Reft  Protection against direct contact  DGUV V3, VDE 0660-514, finger and back-of-hand proof  Connection C1 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  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  Cross section AWG, flexible  16 1  Cross section AWG, flexible  17 1  Cross section AWG, flexible  18 1  Cross section AWG, flexible  19 1  Cross section AWG, flexible  19 1  Cross section AWG, flexible  10 1  Cross section AWG, flexible  11 1  Cross section AWG, flexible  12 1  Cross section AWG, flexible  13 1  Cross section AWG, flexible  14 1  Cross section AWG, flexible  15 1  Cross section AWG, flexible  16 1  Cross section AWG, flexible  17 1  Cross section AWG, flexible  18 1		
max. Total rated switching capacity  Rated insulation voltage Rated ins		
Rated insulation voltage Rated insulation voltage Rated inspulse withstand voltage Rated frequency So Hz Current heat loss per current path  Thermal Backup-fuse OCPD 63 A Short-circuit backup-fuse SCPD 100 A Back-up fuse type 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 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 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 AWG, flexible 15 1 Cross section AWG, flexible with ferrule Tightening torque 2.5 Nm 3 Nm General data Operating position optional max. Operating altitude above MSL Mechanical endurance Fine Average Averag		
Rated impulse withstand voltage Rated frequency 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 AWG, solid 15 1 Cross section AWG, stranded 15 1 Cross section AWG, flexible with ferrule Tightening torque Question from the first fir	capacity	
Rated frequency  Current heat loss per current 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  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 AWG, solid  1-wire: 1.5 mm² 50 mm²; 2-wire: 1.5 mm² 16 mm²  Cross section AWG, flexible  151  Cross section AWG, flexible  151  Cross section AWG, flexible  151  Cross section AWG, flexible with ferrule  Tightening torque  Ceneral data  Operating position  optional  max. Operating altitude above  MSL  Mechanical endurance  min. 4000 cycles  Electrical endurance  min. 4000 cycles  Surrounding atmosphere		
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 standed 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, stranded 15 1 Cross section AWG, stranded 15 1 Cross section AWG, flexible 15 1 Tightening torque 2.5 Nm 3 Nm General data Operating position nax. Operating altitude above MSL Mechanical endurance min. 4000 cycles Electrical endurance min. 2000 cycles Surrounding atmosphere		
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 left Protection against direct contact DGUV V3, VDE 0660-514, finger and back-of-hand proof Connection C3 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 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 AWG, flexible 15 1 Cross section AWG, flexible with ferrule Tightening torque 2.5 Nm 3 Nm General data Operating position optional max. Operating altitude above MSL Mechanical endurance min. 4000 cycles Electrical endurance min. 2000 cycles Surrounding atmosphere		
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 o66o-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  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  optional  max. Operating altitude above MSL  Mechanical endurance  min. 4000 cycles  Electrical endurance  harsh environmental conditions		3.1 W
Back-up fuse type   gG  screw-type terminal top and bottom (load circuit)  Neutral conductor position  Protection against direct contact  DGUV V3, VDE o66o-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  Cross section AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  optional  max. Operating altitude above MSL  Mechanical endurance  min. 4000 cycles  Electrical endurance  Marsh environmental conditions	Thermal Backup-fuse OCPD	6 <sub>3</sub> A
Screw-type terminal top and bottom (load circuit)   Neutral conductor position   left	Short-circuit backup-fuse SCPD	100 Å
Neutral conductor position  Protection against direct contact  DGUV V3, VDE o66o-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  Cross section AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  max. Operating altitude above MSL  Mechanical endurance  min. 4000 cycles  Electrical endurance  Surrounding atmosphere	Back-up fuse type	
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 AWG, solid  15 1  Cross section AWG, stranded  Cross section AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  nax. Operating altitude above  MSL  Mechanical endurance  min. 4000 cycles  Electrical endurance  min. 2000 cycles  Surrounding atmosphere		
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, flexible  Cross section AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  optional  max. Operating altitude above  MSL  Mechanical endurance  min. 4000 cycles  Electrical endurance  harsh environmental conditions	· · · · · · · · · · · · · · · · · · ·	
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  Cross section AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  optional  max. Operating altitude above MSL  Mechanical endurance  min. 4000 cycles  Electrical endurance  min. 2000 cycles  Surrounding atmosphere		
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, flexible  15 1  Cross section AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  max. Operating altitude above  MSL  Mechanical endurance  Inin. 4000 cycles  Electrical endurance  harsh environmental conditions	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 AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  max. Operating altitude above MSL  Mechanical endurance  Electrical endurance  Surrounding atmosphere  harsh environmental conditions	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  Cross section AWG, stranded  15 1  Cross section AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  max. Operating altitude above MSL  Mechanical endurance  Electrical endurance  Surrounding atmosphere  process  15 1  15 1  16 1  17 1  18 1  19 1  10 1  10 1  10 1  11 1  12 1  13 1  14 1  15 1  15 1  15 1  16 1  17 1  18 1  19 1  10 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  Cross section AWG, flexible  15 1  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  max. Operating altitude above MSL  Mechanical endurance  Electrical endurance  Surrounding atmosphere  15 1  16 1  17 1  18 1  19 1  19 1  10 1  10 1  10 1  10 1  11 1  12 1  13 1  14 1  15 1  15 1  16 1  17 1  18 1  19 1  19 1  10	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, flexible  Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  max. Operating altitude above MSL  Mechanical endurance  Electrical endurance  Surrounding atmosphere  15 1  2.5 Nm 3 Nm  General data  Optional  2000 m  MSL  Mechanical endurance  min. 4000 cycles  min. 2000 cycles  harsh environmental conditions	Cross section AWG, solid	15 1
Cross section AWG, flexible with ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  max. Operating altitude above MSL  Mechanical endurance  Electrical endurance  Surrounding atmosphere  15 1  16 1  17 1  18 1  19 1  19 1  10 1  1	-	15 1
ferrule  Tightening torque  2.5 Nm 3 Nm  General data  Operating position  max. Operating altitude above  MSL  Mechanical endurance  Electrical endurance  Surrounding atmosphere  page 12.5 Nm 3 Nm  optional  2000 m  min. 4000 cycles  min. 2000 cycles  harsh environmental conditions	Cross section AWG, flexible	15 1
General data Operating position optional max. Operating altitude above MSL  Mechanical endurance min. 4000 cycles Electrical endurance min. 2000 cycles Surrounding atmosphere harsh environmental conditions		15 1
Operating position optional max. Operating altitude above MSL  Mechanical endurance min. 4000 cycles  Electrical endurance min. 2000 cycles  Surrounding atmosphere harsh environmental conditions	Tightening torque	2.5 Nm 3 Nm
max. Operating altitude above MSL  Mechanical endurance  Electrical endurance  Surrounding atmosphere  max. Operating altitude above  min. 2000 m  min. 4000 cycles  min. 2000 cycles  harsh environmental conditions		General data
MSL  Mechanical endurance min. 4000 cycles  Electrical endurance min. 2000 cycles  Surrounding atmosphere harsh environmental conditions		optional
Electrical endurance min. 2000 cycles  Surrounding atmosphere harsh environmental conditions		2000 m
Surrounding atmosphere harsh environmental conditions	Mechanical endurance	min. 4000 cycles
3 1	Electrical endurance	min. 2000 cycles
Storage temperature -35 °C 75 °C		harsh environmental conditions
	Storage temperature	-35 °C 75 °C

Technical Data	DFS 4 063-4/0,10-HP HD
Ambient temperature	-25 °C 60 °C
Climate resistance	according to IEC 60068-2-30: humid heat / cyclic (25 °C / 55 °C; 93 % / 97 % RH)
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	0.452 kg
Design requirements/Standards	VDE 0664-10, VDE 0664-400, ÖVE/ÖNORM E 8601
Degree of pollution	2
Certifications	VDE

## **Dimensions**



# Wiring example



Dimensional drawing Group view

Wiring diagram