



Telegon DC Isolators for Photovoltaic applications





Spec Sheet: ZFV32

- Compact 4P **non polarized** isolator **32A** rated up to **1500V DC**.
- **Fault-make load-break switch operation**, ideal for DC systems.
- DIN profile complete with direct mounted padlockable handle.
- Terminals rated to IP20.
- Oxidation proof contacts with up to 16mm² cable capacity.

Application: PV array isolators.

Certification: EN 60947.3, UL 508, File E332938.



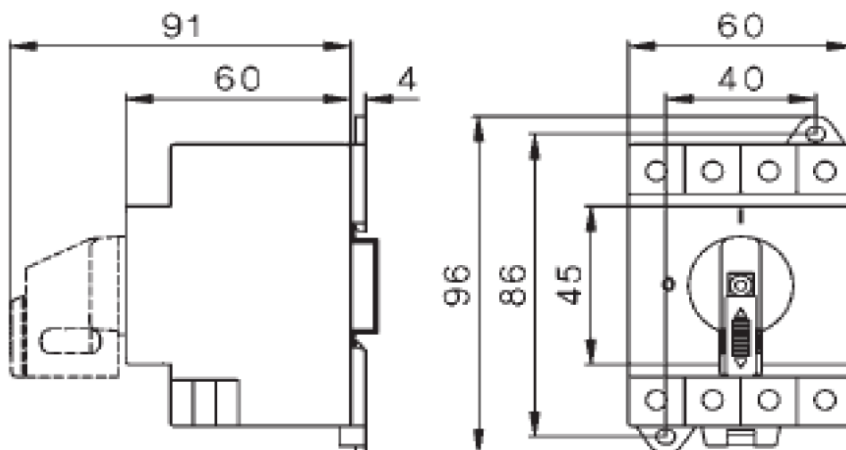
Dimensions & Ratings

<i>Free air thermal current (I_{th})</i>	32A
<i>Rated insulation pollution degree III (U_i)</i>	1000V
<i>Rated insulation pollution degree II (U_i)</i>	1500V
<i>Rated impulse withstand voltage (U_{imp})</i>	8kV
<i>Ambient temperature Enclosed</i>	-40 to +45
<i>Maximum Fuse (A)</i>	80
<i>Rated Conditional Short-cct Current</i>	5kA
<i>Rated Short-cct Making Capacity</i>	1.7kA
<i>Short Time Withstand (1sec)</i>	1kA
<i>Power Loss / pole</i>	4.0W
<i>Mechanical Endurance</i>	10,000
<i>Weight</i>	0.2kg
<i>Operating torque</i>	1.7Nm
<i>Connection torque</i>	1.2 – 1.8Nm
<i>Cable Size mm²</i>	4-16



The contact ratings need to be read in conjunction with AS5033-2012 Appendix B5 for floating PV systems with transformerless inverters. See over.

Dimensions





Spec Sheet: ZFV32x2

- Compact 8P **non polarized** isolator up to **32A** and up to **1500V DC**.
- **Fault-make load-break switch operation**, ideal for DC systems.
- DIN profile complete with direct mounted padlockable handle.
- Terminals rated to IP20
- Oxidation proof contacts with up to 16mm² cable capacity.

Application: PV array isolators.

Certification: EN 60947.3, UL 508, File E332938.



Ratings

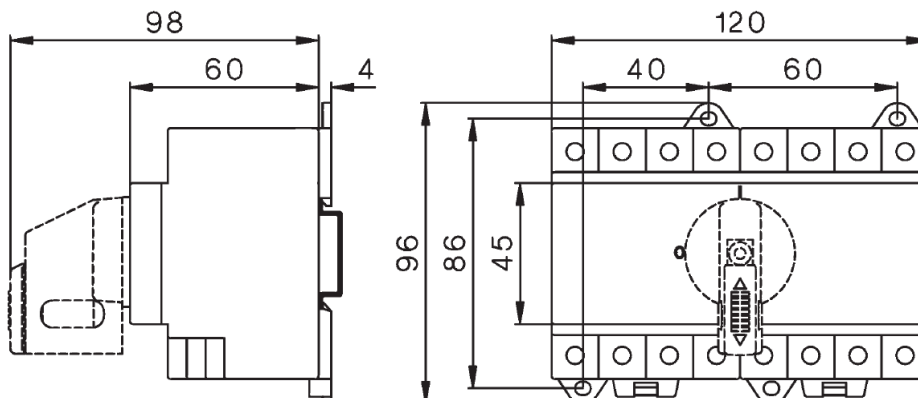
<i>Free air thermal current (I_{th})</i>	32A
<i>Rated insulation pollution degree III (U_i)</i>	1000V
<i>Rated insulation pollution degree II (U_i)</i>	1500V
<i>Rated impulse withstand voltage (U_{imp})</i>	8kV
<i>Ambient temperature Enclosed</i>	-40 to +45
<i>Maximum Fuse (A)</i>	80
<i>Max padlock shank size</i>	5mm
<i>Rated Conditional Short-cct Current</i>	5kA
<i>Rated Short-cct Making Capacity</i>	1.7kA
<i>Short Time Withstand (1sec)</i>	1kA
<i>Power Loss / pole</i>	4.0W
<i>Mechanical Endurance</i>	10,000
<i>Weight</i>	0.4kg
<i>Operating torque</i>	3.4Nm
<i>Connection torque</i>	1.2 – 1.8Nm
<i>Cable Size mm²</i>	4-16



The contact ratings need to be read in conjunction with AS5033-2012 Appendix B5 for floating PV systems with transformerless inverters. See over.

Dimensions

Dimensions in mm





Spec Sheet: ZFV32EL

- Compact enclosed 4P **non polarized** isolator **32A** rated up to **1500V DC**.
- **Fault-make load-break switch operation**, ideal for DC systems.
- Padlockable handle and external mounting position.
- Oxidation proof contacts with up to 16mm² cable capacity.
- IP65 protection and UV stabilised.

Application: PV array isolators.

Certification: EN 60947.3, UL 508, File E332938.



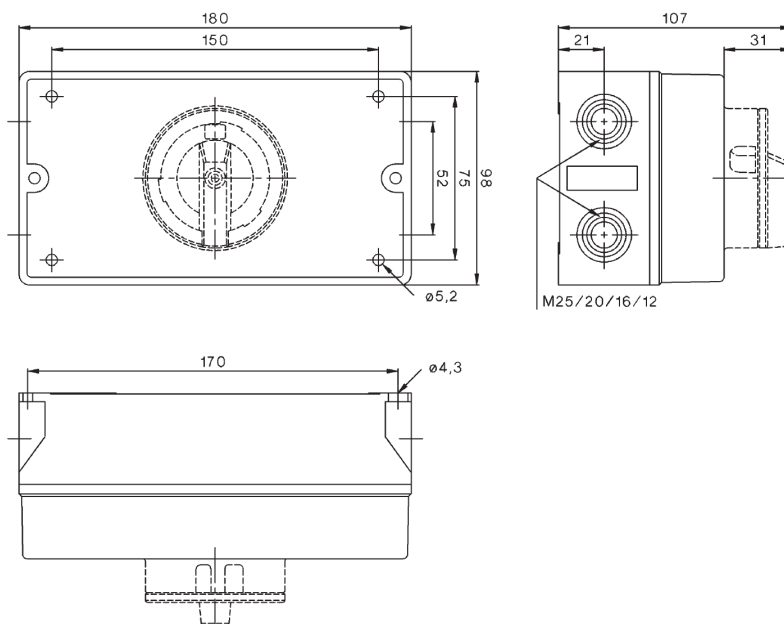
Dimensions & Ratings

<i>Free air thermal current (I_{th})</i>	32A
<i>Rated insulation pollution degree III (U_i)</i>	1000V
<i>Rated insulation pollution degree II (U_i)</i>	1500V
<i>Rated impulse withstand voltage (U_{imp})</i>	8kV
<i>Ambient temperature Enclosed</i>	-40 to +45
<i>Maximum Fuse (A)</i>	80
<i>Rated Conditional Short-cct Current</i>	5kA
<i>Rated Sshort-cct Making Capacity</i>	1.7kA
<i>Short Time Withstand (1sec)</i>	1kA
<i>Power Loss / pole</i>	4.0W
<i>Mechanical Endurance</i>	10,000
<i>Weight</i>	0.2kg
<i>Operating torque</i>	1.7Nm
<i>Connection torque</i>	1.2 – 1.8Nm
<i>Cable Size mm²</i>	4-16

The contact ratings need to be read in conjunction with AS5033-2012 Appendix B5 for floating PV systems with transformerless inverters. See over.



Dimensions





ZFV32 - Technical Data

Data according to IEC 60947-3,
VDE 0660, GB1448.3 (CCC China)



Main Contacts		Type	ZFV32		
Rated thermal current I_{the}		A	32	Making & Breaking 5x operations	
Rated insulation voltage $U^{(1)}$		V	1000		
Rated insulation voltage $U^{(2)}$		V	1500		
Distance of contacts (per pole)		mm	8		
Rated operational current I_e					
DC21A and DC21B	1 pole A1		27	40.5	
		300V	A	27	40.5
		400V	A	16	24
		500V	A	13	19.5
		600V	A	10	15
		800V	A	5	7.5
L/R = 1ms			2.5	3.75	
DC21B	2 poles in series A2		32	48	
		500V	A	32	48
		600V	A	32	48
		700V	A	27	40.5
		800V	A	23	34.5
		900V	A	20	30
		1000V	A	13	19.5
		1200V	A	10	15
			5	7.5	
2 poles in series + 2 poles parallel A2+2			58	87	
		500V	A	58	87
		600V	A	50	75
		700V	A	27	40.5
		800V	A	23	34.5
		900V	A	20	30
		1000V	A	13	19.5
		1200V	A	10	15
			5	7.5	
3 poles in series A3			32	48	
		500V	A	32	48
		600V	A	32	48
		700V	A	32	48
		800V	A	32	48
		900V	A	32	48
		1000V	A	32	48
		1200V	A	16	24
			13	19.5	
3 poles in series + 2 poles parallel A3 + 2			58	87	
		500V	A	58	87
		600V	A	50	75
		700V	A	45	67.5
		800V	A	45	67.5
		900V	A	45	67.5
		1000V	A	45	67.5
		1200V	A	16	24
			13	19.5	
4 poles in series A4			32	48	
		500V	A	32	48
		600V	A	32	48
		700V	A	32	48
		800V	A	32	48
		900V	A	32	48
		1000V	A	32	48
		1200V	A	32	48
			23	34.5	
4 poles in series + 2 poles parallel A4 + 2			58	87	
		500V	A	58	87
		600V	A	58	87
		700V	A	58	87
		800V	A	58	87
		900V	A	58	87
		1000V	A	58	87
		1200V	A	50	75
			23	34.5	

1) Suitable at overvoltage category I to III, pollution degree 3 (standard-industry): $U_{imp} = 8kV$.

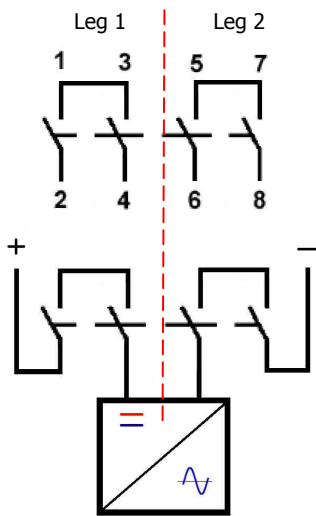
2) Suitable at overvoltage category I to III, pollution degree 2 (min. IP55): $U_{imp} = 8kV$.



PV Isolators

Complies with AS/NZ 5033
(as per CEC Technical note Oct 2010)

Configuration 1

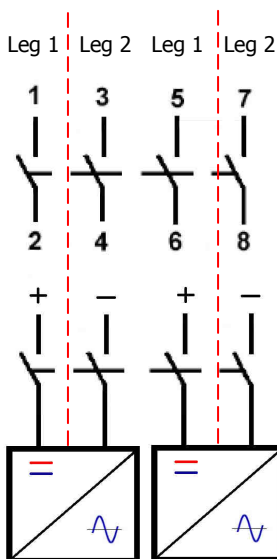


Rating per leg (2 contacts in series)

500V	600V	700V	800V	900V	1000V
32A	32A	27A	23A	20A	13A



Configuration 2



Rating per leg (1 contacts in series)

250V	300V	350V	400V	450V	500V
32A	32A	27A	23A	20A	13A



Spec Sheet: ZFV55

Features:

- Compact **non polarized** isolator **55A** rated up to **1500V DC**.
- **Fault-make load-break switch operation**, ideal for DC systems.
- DIN profile complete with direct mounted padlockable handle.
- Terminals rated to IP20.
- Oxidation proof contacts with up to 16mm² cable capacity.
- **Application:** PV array isolators.
- **Certification:** IEC 60947-1 & 3



Dimensions & Ratings

Free air thermal current (I_{th})	55A
Rated insulation pollution degree III (U_i)	1000V
Rated insulation pollution degree II (U_i)	1500V
Rated impulse withstand voltage (U_{imp})	8kV
Ambient temperature Enclosed	-40 to +45



Rated Operational Current DC21B*

(according to IEC 60947.3 and VDE 0660)

at 600V DC	55A
at 700V DC	55A
at 800V DC	55A
at 900V DC	55A
at 1000V DC	55A
at 1200V DC	32A
at 1500V DC	15A

Maximum Fuse (A) 125A

Rated Conditional Short-cct Current 5kA

Mechanical Endurance 10,000

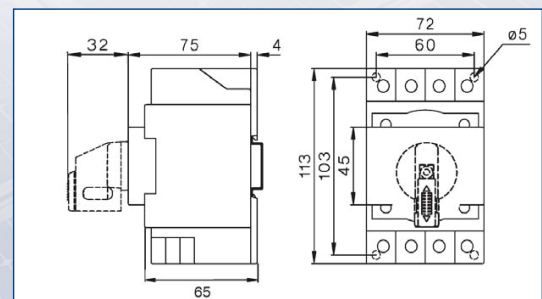
Weight 0.3kg

Connection torque 2.5 - 3Nm

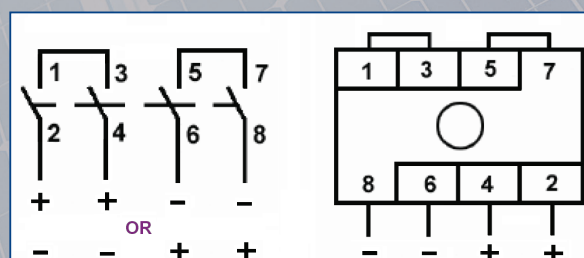
Cable Size mm² 2.5 - 16 (without

cable termination)

*(time constant 1ms resistive load + moderate overload)





CONNECTIONS



ZFV55 Series - Technical Data

Data according to IEC 60947-3 DC21B



Main Contacts		Type	ZFV55		
Rated thermal current I_{the}		A	55		
Rated insulation voltage U_i		V	1500		
Rated Operational voltage U_i		V	1500		
Rated impulse withstand voltage		V	6kV		
Tightening torque (M5 screw)		Nm	2.5 - 3.0		
Max cable size (flexible)		mm ²	16		
Rated operational current I_e	Voltage Rating (DC)		Making & Breaking DC21B	Making & Breaking 5 x operations	
DC21B	1 pole	500V	A	25.0	37.5
		600V	A	20.0	30.0
		700V	A	15.0	22.5
		800V	A	10.0	15.0
		900V	A	8.0	12.0
	 2 pole in series	1000V	A	6.0	9.0
		500V	A	55.0	82.5
		600V	A	55.0	82.5
		700V	A	55.0	82.5
		800V	A	45.0	67.5
 4 pole in series	900V	A	35.0	52.5	
	1000V	A	25.0	37.5	
	1500V	A	15.0	22.5	
	500V	A	55.0	82.5	
	600V	A	55.0	82.5	
	700V	A	55.0	82.5	
	800V	A	55.0	82.5	
	900V	A	55.0	82.5	
	1000V	A	55.0	82.5	
	1500V	A	15.0	22.5	

Notes:

For the requirements of AS 5033 2012 Appendix B, with 2 x contacts in series in Positive (+) and 2 x contacts in series in the negative (-):

900V $V_{OC\ ARRAY\ MAX}$ 4 x strings with I_{sc} max of 8.9A (before Table 4.2 of AS 5033 2014)

1000V $V_{OC\ ARRAY\ MAX}$ 3 x Strings with I_{sc} max of 8.9A (before Table 4.2 of AS 5033 2014)

1. If the series bridges are removed then the above ratings are not applicable.

2. $V_{OC\ ARRAY\ MAX} = V_{OC\ ARRAY} + Y_v (T_{min} \times T_{STC}) M$ (as per Clause 4.2 of AS5033 2014)

Spec Sheet: TFV5011

- Compact 2P **non polarized** isolator **50A** rated up to **1000V DC**.
- **Fault-make load-break switch operation**, ideal for DC systems.
- Padlockable handle with terminals rated to IP20.
- DIN profile for mounting in any DIN slot.
- Rotary oxidation proof contacts.
- Up to 2 x 4mm² cables or 1 x 10mm² fork lug.

Application: PV array isolators.

Certification: IEC 60947.3, UL 508, File E332938.



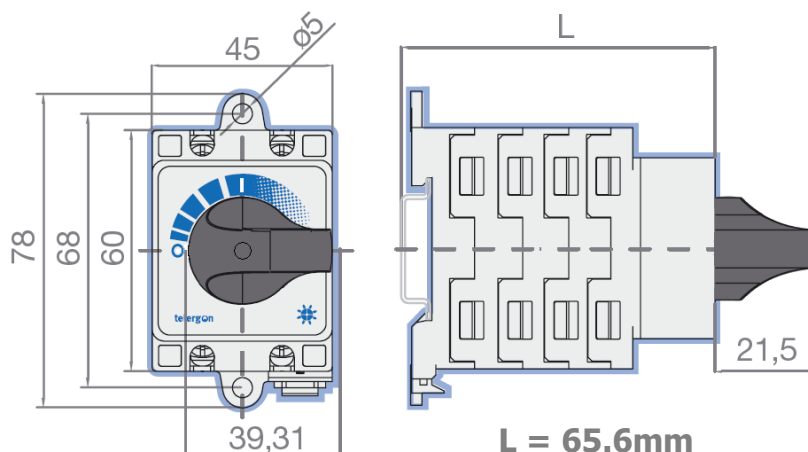
Dimensions & Ratings

<i>Free air thermal current (I_{th})</i>	50A
<i>Rated insulation voltage (U_i)</i>	1500V
<i>Rated operational voltage (U_e)</i>	1000V
<i>Rated impulse withstand voltage (U_{imp})</i>	6kV
<i>Ambient temperature (I_{th})</i>	-30 to +50
<i>Rated Short-cct Making Capacity</i>	1.4kA
<i>Short Time Withstand (1sec)</i>	1.0kA
<i>Short-time withstand current (1 hour)</i>	62.5
<i>Mechanical Endurance</i>	30,000
<i>Weight</i>	0.2kg
<i>Operating torque</i>	4Nm
<i>Connection torque</i>	1.5 – 2.0Nm
<i>Cable Size mm²</i>	2x4mm

The contact ratings need to be read in conjunction with AS5033-2012 Appendix B5 for floating PV systems with transformerless inverters. See over.



Dimensions





Spec Sheet: TFV5022

- Compact 4P **non polarized** isolator **50A** rated up to **1000V DC**.
- **Fault-make load-break switch operation**, ideal for DC systems.
- Padlockable handle with terminals rated to IP20.
- DIN profile for mounting in any DIN slot.
- Rotary oxidation proof contacts.
- Up to 2 x 4mm² cables or 1 x 10mm² fork lug.

Application: PV array isolators.

Certification: IEC 60947.3, UL 508, File E332938.



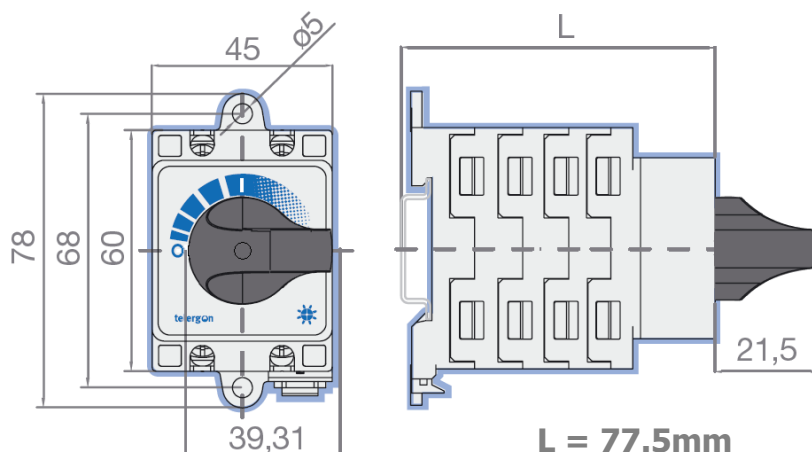
Dimensions & Ratings

<i>Free air thermal current (I_{th})</i>	50A
<i>Rated insulation voltage (U_i)</i>	1500V
<i>Rated operational voltage (U_e)</i>	1000V
<i>Rated impulse withstand voltage (U_{imp})</i>	6kV
<i>Ambient temperature (I_{th})</i>	-30 to +50
<i>Rated Short-cct Making Capacity</i>	1.4kA
<i>Short Time Withstand (1sec)</i>	1.0kA
<i>Short-time withstand current (1 hour)</i>	62.5
<i>Mechanical Endurance</i>	30,000
<i>Weight</i>	0.24kg
<i>Operating torque</i>	4Nm
<i>Connection torque</i>	1.5 – 2.0Nm
<i>Cable Size mm²</i>	2x4mm



The contact ratings need to be read in conjunction with AS5033-2012 Appendix B5 for floating PV systems with transformerless inverters. See over.

Dimensions





TFV50 Series - Technical Data

Data according to IEC 60947-3 DC21B



Main Contacts	Type	TFV Series
Rated thermal current I_{the}	A	50.0
Rated insulation voltage U_i	V	1500
Rated Operational voltage U_i	V	1000
Rated impulse withstand voltage	V	6kV
Distance of contacts (per pole)	mm	9.0

Rated operational current I_e	Voltage Rating (DC)	Type	Making & Breaking DC21B	Making & Breaking 5x operations	
DC21B	1 pole	200V	A	50.0	75.0
		250V	A	40.0	60.0
		300V	A	25.0	37.5
		450V	A	10.0	15.0
		500V	A	8.0	12.0
2 pole in series	400V	A	50.0	75.0	
	500V	A	40.0	60.0	
	600V	A	25.0	37.5	
3 pole in series	850V	A	10.0	15.0	
	1000V	A	8.0	12.0	
	400V	A	50.0	75.0	
	500V	A	50.0	75.0	
	600V	A	50.0	75.0	
4 pole in series	800V	A	32.0	48.0	
	900V	A	25.0	37.5	
	1000V	A	20.0	30.0	
	400V	A	50.0	75.0	
	500V	A	50.0	75.0	
	600V	A	50.0	75.0	
5 x operations	800V	A	50.0	75.0	
	900V	A	50.0	75.0	
	1000V	A	40.0	60.0	

Fault Break Rating for 1 pole

Complies with requirements of AS5033 – Appendix B2 Clause d

Test Report No: TFV 4 Chambers_DC_2013_11_11

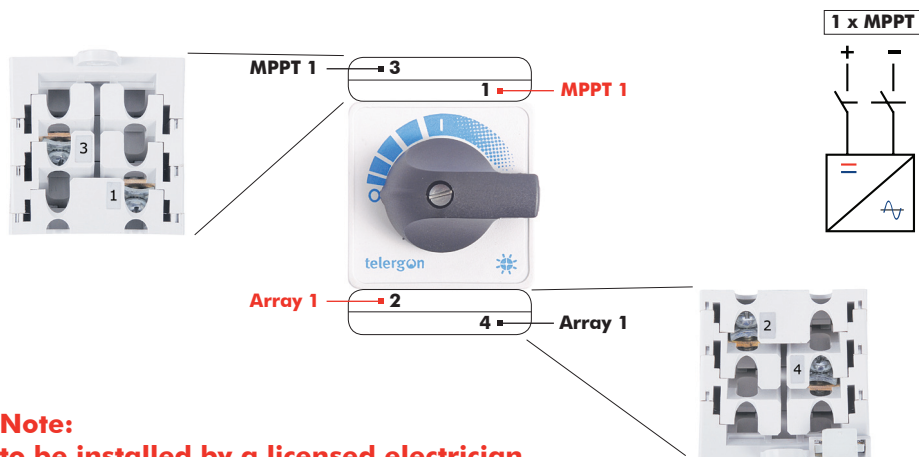
5 x operations	1 pole	Voltage	Type	Value
		600V	A	11.0

Notes:

- 1) The TFV series has been tested to IEC 60947.3 as per the requirements of AS5033 clause 4.3.5.1
- 2) The "Fault Break Rating" is a requirement of AS 5033 Appendix B5. Should a switch be used to isolate and break under these fault conditions it should be replaced to ensure guaranteed performance.

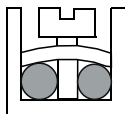
TFV5011 Wiring Instructions

CONNECTIONS



Note:
to be installed by a licensed electrician.

CONNECTIONS



Stranded or flex cable (without sleeves)	2 x 1.0 - 6mm ²
Stranded or flex cable (with sleeves)	2 x 1.0 - 4mm ²
Crimp fork lugs (width)	min 6mm - max 10mm
Crimp fork lugs (thickness)	min 0.5mm - max 2mm
Fork lugs 4 - 6mm ² (pack of 100)	GFU4*
Fork lugs 10mm ² (pack of 100)	ANE2U4
Fork lugs 16mm ² (pack of 100)	ANE3U4
Tightening torque	1.5 - 2.0Nm

*Recommended

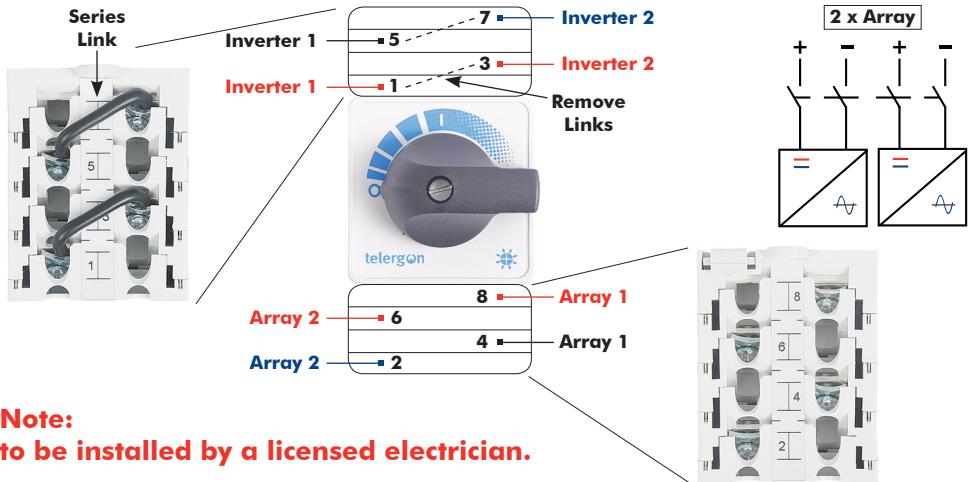
FINAL CHECKLIST PRIOR TO ENERGISING

- Check correct cable / terminal combination, APPLICATION.
- Check correct terminal tightening torque applied, SCREW TENSION.
- Check cable is tight in terminal, and secure.
- Cable strain relief to AS3000 with no excess stress on terminals.
- Switch electrical test to AS5033.

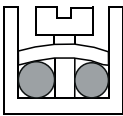


TFV5022 Wiring Instructions

CONNECTIONS



CONNECTIONS



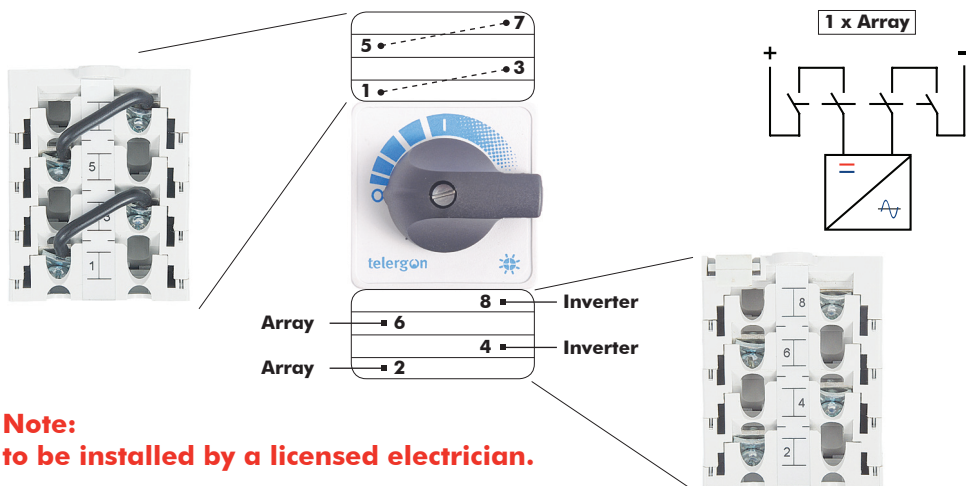
Stranded or flex cable (without sleeves)	2 x 1.0 - 6mm ²
Stranded or flex cable (with sleeves)	2 x 1.0 - 4mm ²
Crimp fork lugs (width)	min 6mm - max 10mm
Crimp fork lugs (thickness)	min 0.5mm - max 2mm
Fork lugs 4 - 6mm ² (pack of 100)	GFU4
Fork lugs 10mm ² (pack of 100)	ANE2U4
Fork lugs 16mm ² (pack of 100)	ANE3U4
Tightening torque	1.5 - 2.0Nm

FINAL CHECKLIST PRIOR TO ENERGISING

- Check correct cable / terminal combination, APPLICATION.
- Check correct terminal tightening torque applied, SCREW TENSION.
- Check cable is tight in terminal, and secure.
- Cable strain relief to AS3000 with no excess stress on terminals.
- Switch electrical test to AS5033.

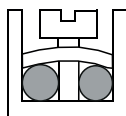
TFV5022 Wiring Instructions

CONNECTIONS



Note:
to be installed by a licensed electrician.

CONNECTIONS



Stranded or flex cable (without sleeves)	2 x 1.0 - 6mm ²
Stranded or flex cable (with sleeves)	2 x 1.0 - 4mm ²
Crimp fork lugs (width)	min 6mm - max 10mm
Crimp fork lugs (thickness)	min 0.5mm - max 2mm
Fork lugs 4 - 6mm ² (pack of 100)	GFU4
Fork lugs 10mm ² (pack of 100)	ANE2U4
Fork lugs 16mm ² (pack of 100)	ANE3U4
Tightening torque	1.5 - 2.0Nm

FINAL CHECKLIST PRIOR TO ENERGISING

- Check correct cable / terminal combination, APPLICATION.
- Check correct terminal tightening torque applied, SCREW TENSION.
- Check cable is tight in terminal, and secure.
- Cable strain relief to AS3000 with no excess stress on terminals.
- Switch electrical test to AS5033.

Data sheet:
DC-Load break switch
Model S5000 – 100A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (40 °C)	125A
Rated insulation voltage U _i (V)	1000
Rated impulse withstand voltage U _{imp} (kV)	8

DC Rated operational current I_e (A)		
Voltage (DC)	Category of operation	I _e
400 V	DC21B	125
600 V	DC21B	125
800 V	DC21B	125
900 V	DC21B	125
1000 V	DC21B	100

Standards. IEC 60947-1&3

Quality Telergon, S.A.U.

ISO 9001 & 14001	TÜVRheinland®
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Testing as per IEC 60947-3

Arsenal Research	arsenal research Ein Unternehmen der Austrian Research Centers
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Short-circuit behaviour

Short-circuit making capacity (peak value)	I _{cm}	20kA
Short-time withstand current (1 sec) (rms)	I _{cw}	12kA
Conditional short-circuit current (rms value)		100kA
Maximum cut-off current (peak value)		33kA

Connection capacity

Bar (Thickness / Width) (mm)	7/25
Rigid cable (mm ²)	185
Max. Connecting copper bar (mm)	25
Tightening torque (N·m)	13

Mechanical data

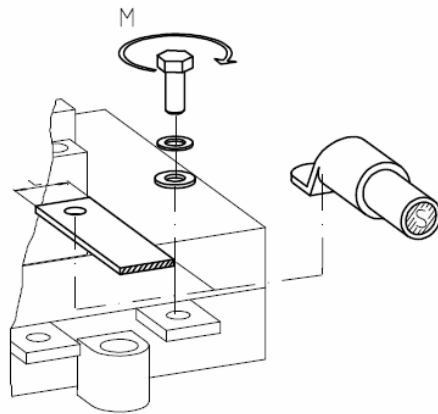
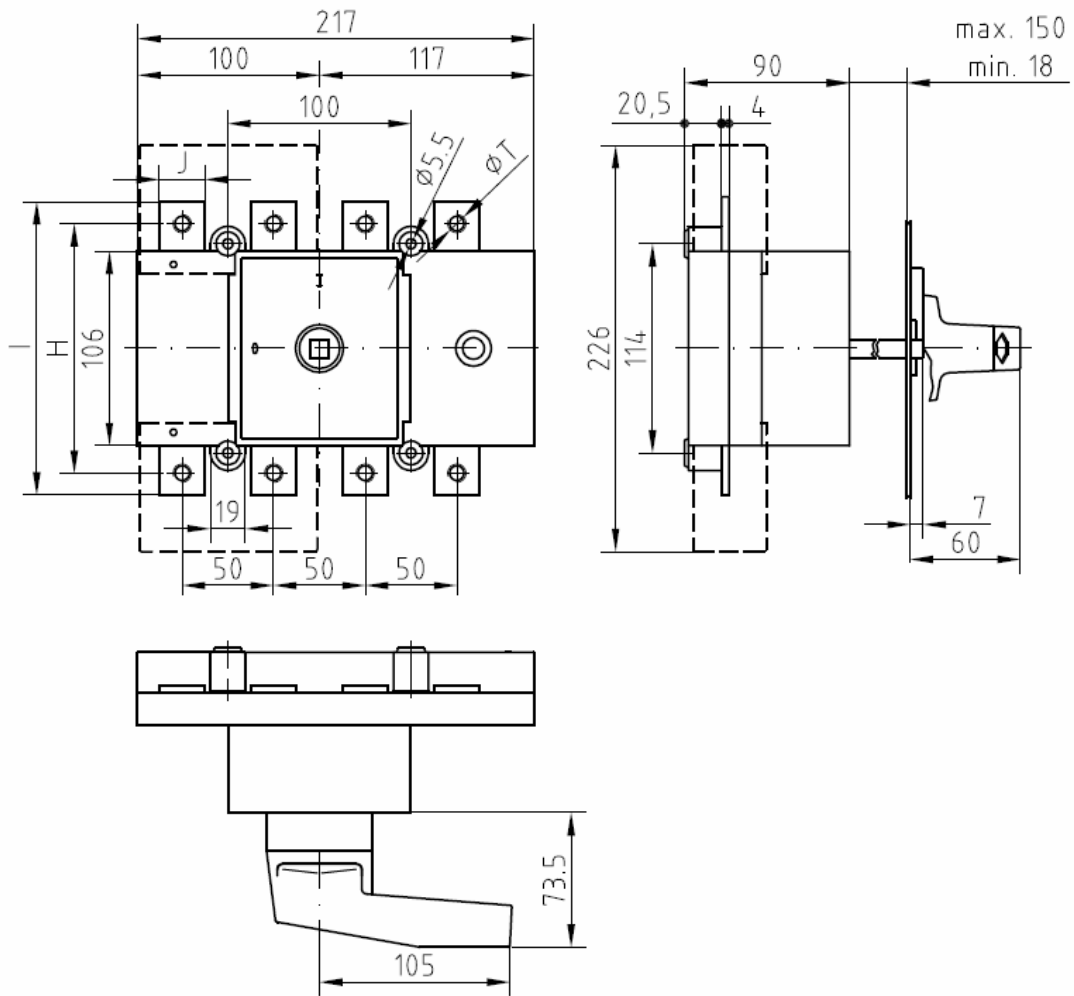
Minimum number of operations (as per standard) without load	20000
Maximum weight (4 pole molded case) (kg)	1,9

Codes

Case size (A)	Poles	Code	Code for direct handle
Size 1	4P	S5-01254PR0	DS-EI11

- Accessories:** Panel handle - DS-EN11
 Bridging links - DS-PI11
 Protective plate - DS-CU12
 Auxiliary contact - D5LAU01

Dimensions



S5000	I_{th}	H	I	J	ϕT	M N×m	S max. (Cu) mm ²	H max. (Cu) mm	L max. (Cu) mm
1	125A	130	150	20	M8	13	185	7	25

Data sheet:
DC-Load break switch
Model S5000 – 160A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (40 °C)	200A
Rated insulation voltage U _i (V)	1000
Rated impulse withstand voltage U _{imp} (kV)	8

DC Rated operational current I_e (A)		
Voltage (DC)	Category of operation	I _e
400 V	DC21B	200
600 V	DC21B	200
800 V	DC21B	180
900 V	DC21B	160
1000 V	DC21B	160

Standards: IEC 60947-1&3

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Testing as per IEC 60947-3

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Short-circuit behaviour

Short-circuit making capacity (peak value)	I _{cm}	20kA
Short-time withstand current (1 sec) (rms)	I _{cw}	12kA
Conditional short-circuit current (rms value)		100kA
Maximum cut-off current (peak value)		33kA

Connection capacity

Bar (Thickness / Width) (mm)	7/25
Rigid cable (mm ²)	185
Max. Connecting copper bar (mm)	25
Tightening torque (N·m)	13

Codes

Case size (A)	Poles	Code	Code for direct handle
Size 1	4P	S5-02004PR0	DS-EI11

Mechanical data

Minimum number of operations (as per standard) without load	20000
Maximum weight (4 pole molded case) (kg)	1,9

- Accessories:** Panel handle - DS-EN11
 Bridging links - DS-PI11
 Auxiliary contact - D5LAU01
 Protective plate - DS-CU12
 Terminal shrouds – See below

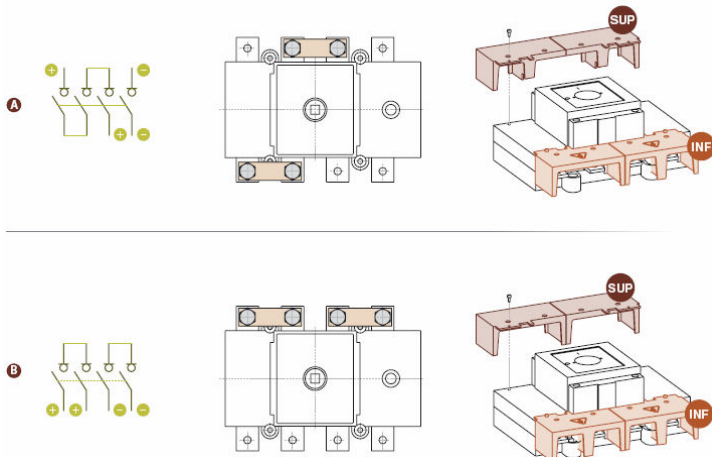
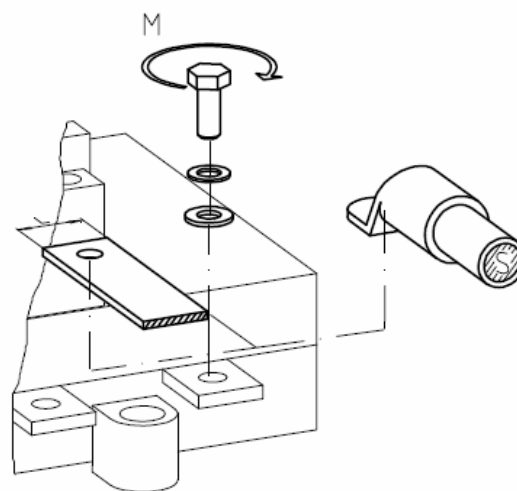
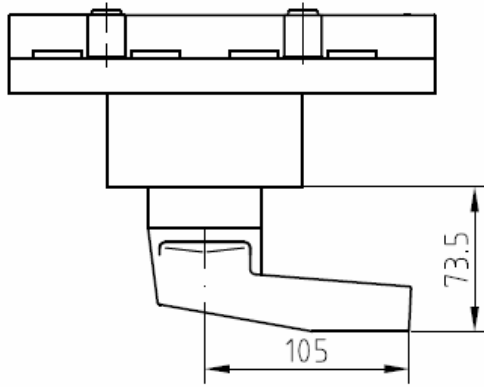
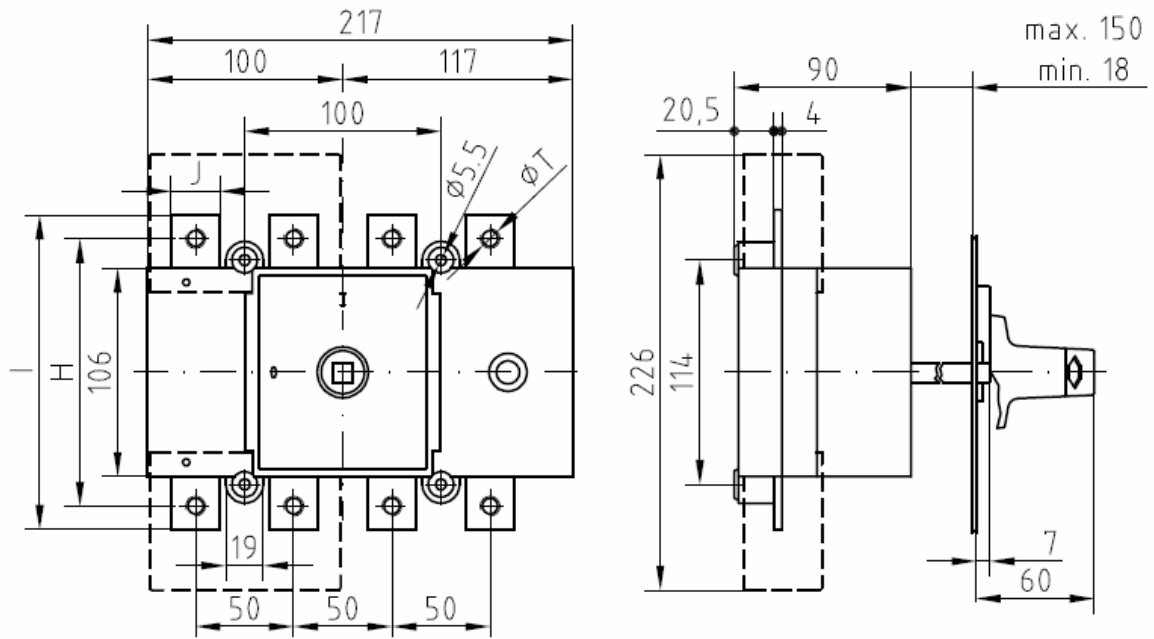


	Diagram	
	A	B
	DS-CU180U	DS-CU100U
	DS-CU190U	DS-CU11

Dimensions



S5000	I_{th}	H	I	J	ϕT	M N×m	S max. (Cu) mm ²	I	
								H max. (Cu) mm	L max. (Cu) mm
1	200A	130	150	20	M8	13	185	7	25

Data sheet:
DC-Load break switch
Model S5000 – 250A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (40 °C)	315A
Rated insulation voltage U _i (V)	1000
Rated impulse withstand voltage U _{imp} (kV)	8

DC Rated operational current I_e (A)		
Voltage (DC)	Category of operation	I _e
400 V	DC21B	315
600 V	DC21B	315
800 V	DC21B	280
900 V	DC21B	260
1000 V	DC21B	250

Standards. IEC 60947-1&3

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Short-circuit behaviour

Short-circuit making capacity (peak value)	I _{cm}	20kA
Short-time withstand current (1 sec) (rms)	I _{cw}	12kA
Conditional short-circuit current (rms value)		100kA
Maximum cut-off current (peak value)		33kA

Connection capacity

Bar (Thickness / Width) (mm)	7/25
Rigid cable (mm ²)	185
Max. Connecting copper bar (mm)	25
Tightening torque (N·m)	18

Codes

Case size (A)	Poles	Code	Code for direct handle
Size 1	4P	S5-03154PR0	DS-EI11

Mechanical data

Minimum number of operations (as per standard) without load	20000
Maximum weight (4 pole molded case) (kg)	1,9

- Accessories:** Panel handle - DS-EN11
 Bridging links - DS-PI11
 Auxiliary contact - D5LAU01
 Protective plate - DS-CU12
 Terminal shrouds – See below

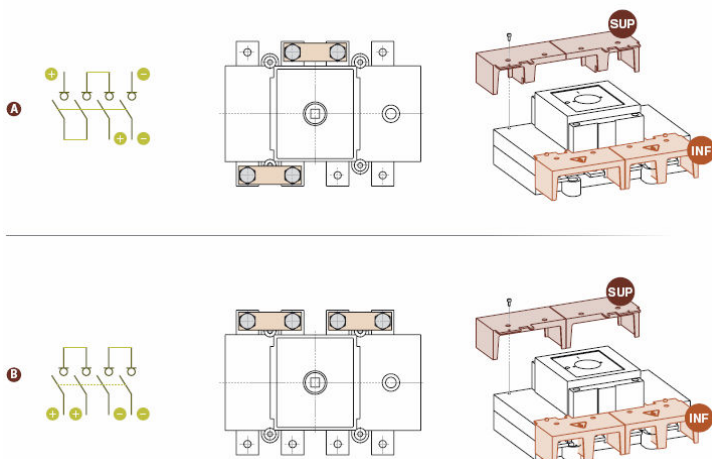
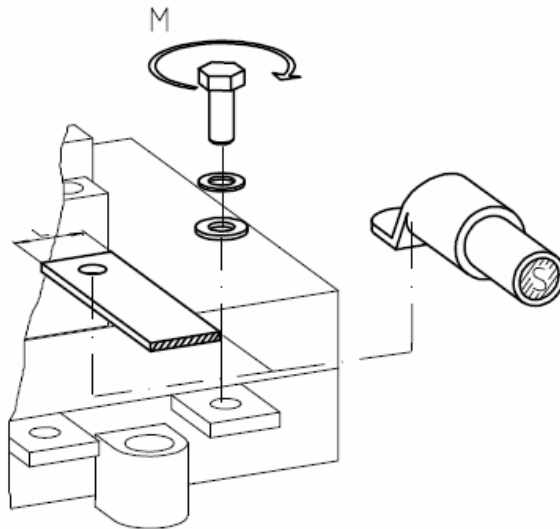
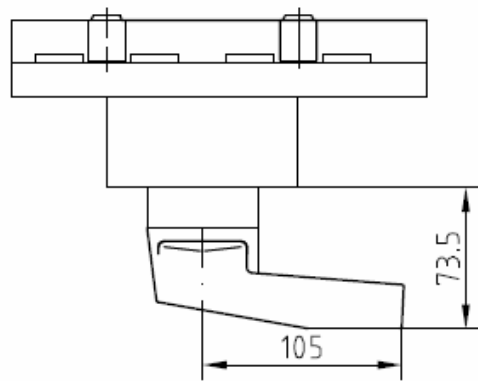
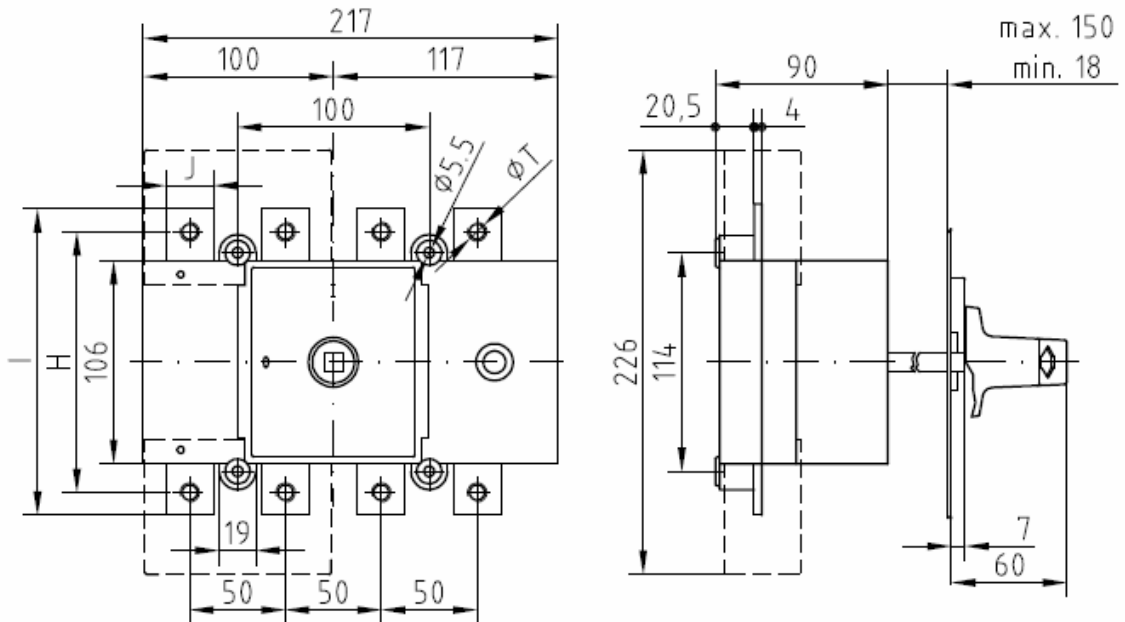


	Diagram	
	A	B
SUP	DS-CU180U	DS-CU100U
INF	DS-CU190U	DS-CU11

Dimensions



S5000	I _{th}	H	I	J	φT	M N×m	S max. (Cu)mm ²		
								H max. (Cu)mm	L max. (Cu)mm
1	315A	143	167	25	M10	18	185	7	25

Data sheet:
DC-Load break switch
Model S5000 – 400A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (40 °C)	400A
Rated insulation voltage U _i (V)	1000
Rated impulse withstand voltage U _{imp} (kV)	8

DC Rated operational current I_e (A)		
Voltage (DC)	Category of operation	I _e
400 V	DC21B	400
600 V	DC21B	400
800 V	DC21B	400
900 V	DC21B	400
1000 V	DC21B	400

Standards: IEC 60947-1&3

Short-circuit behaviour

Short-circuit making capacity (peak value)	I _{cm}	20kA
Short-time withstand current (1 sec) (rms)	I _{cw}	12kA
Conditional short-circuit current (rms value)		100kA
Maximum cut-off current (peak value)		33kA

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Connection capacity

Bar (Thickness / Width) (mm)	7/40
Rigid cable (mm ²)	185
Max. Connecting copper bar (mm)	40
Tightening torque (N·m)	24

Testing as per IEC 60947-3

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Codes

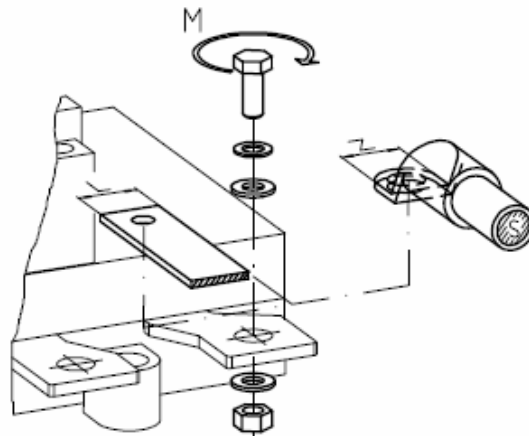
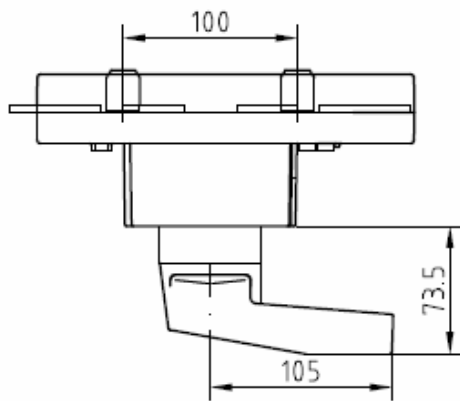
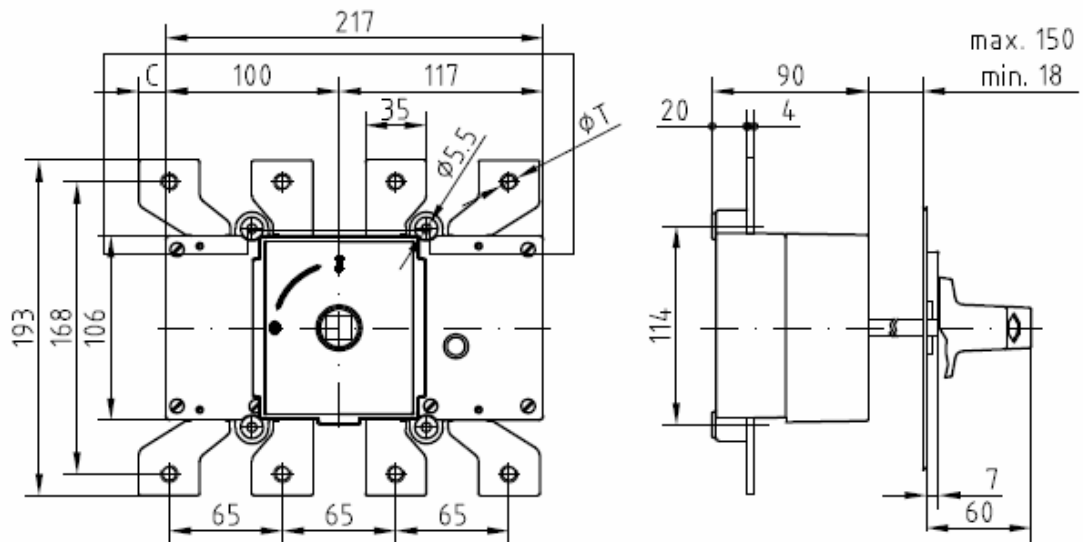
Case size (A)	Poles	Code	Code for direct handle
Size 1	4P	S5-04004PC0	DS-EI11

Mechanical data

Minimum number of operations (as per standard) without load	20000
Maximum weight (4 pole molded case) (kg)	1,9

- Accessories:** Panel handle - DS-EN11
 Bridging links - DS-PI14
 Protective plate - DS-CU12
 Auxiliary contact - D5LAU01

Dimensions



S5000	I_{th}	C		ϕT	M N×M	S max. (Cu) mm ²	Z max.	H max. / L max. (Cu) mm	
		3P	4P					H max. (Cu) mm	L max. (Cu) mm
1	400A	-	15	M10	24	240	44	6	40

Data sheet:

DC-Load break switch Model S5000 – 500A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (-30 to 50 °C) 630A

Rated insulation voltage U_i (V) 1000
Rated impulse withstand voltage U_{imp} (kV) 12

DC Rated operational current I_e (A)

Voltage (DC)	Category of operation	I _e
400 V	DC21B	630
600 V	DC21B	630
800 V	DC21B	600
900 V	DC21B	600
1000 V	DC21B	500

*** Please consult for other voltages and/or category of operation*

Standards. IEC 60947-1 & 3

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ISO 9001 & 14001



Management System
ISO 9001:2008
ISO 14001:2004
www.tuv.com
ID 9105053481

Short-circuit behaviour

Short-circuit making capacity (peak value) I _{cm}	26kA
Short-time withstand current (1 sec) (rms) I _{cw}	16kA
Conditional short-circuit current (rms value)	100kA
Maximum cut-off current (peak value)	39kA

Connection capacity

Bar (Thickness / Width) (mm)	2X5/40
Rigid cable (mm ²)	2X240
Max. Connecting copper bar (mm)	40
Tightening torque (N·m)	24

Testing as per IEC 60947-3. Approvals

Austrian Institute of
Technology



Mechanical data

Minimum number of operations (as per standard) without load	10000
Maximum weight (4 pole molded case) (kg)	4,5

Codes

Case size (A)	Poles	Code	Code for direct handle
Size 2	4P	S5-06304PR0	DS-LI21

Accessories

Panel handle	DS-LA21
Bridging links	DS-PI21
Protective plate	DS-CU22
Auxiliary contact	D5LAU01

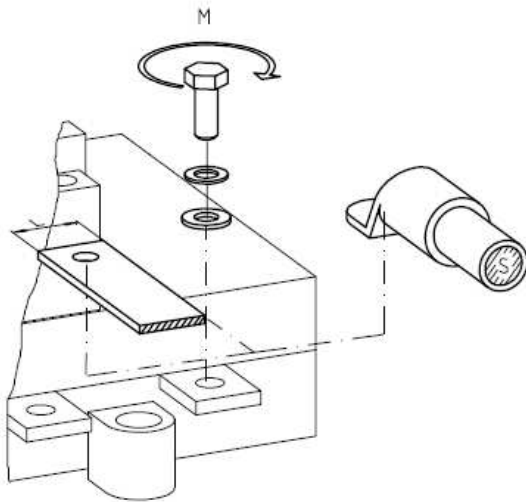
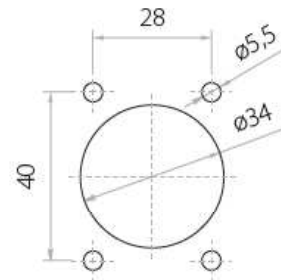
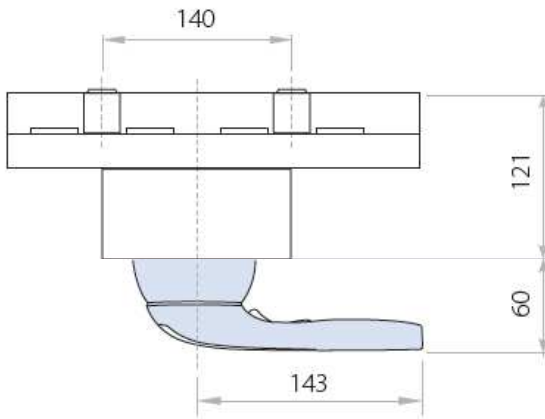
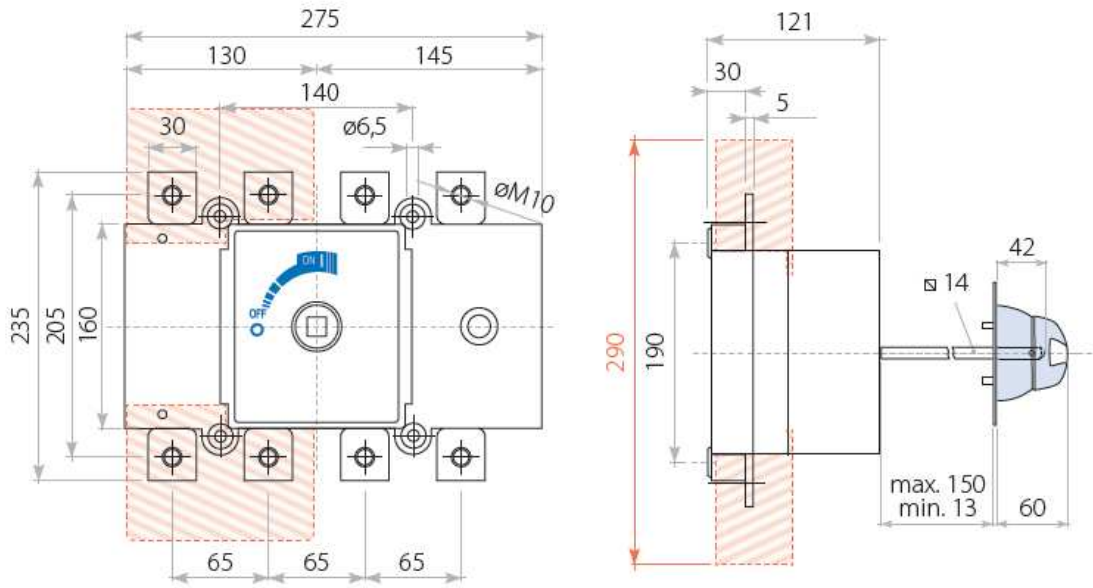
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**DC Switch-Disconnecter
S5-06304PR0**

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Data subject to change without
notice (printed: 19/08/2013)

Dimensions



S5000	I _{th}	A	C	E	F	G	H	I	J	K	L	M	N	O	R		øP	Q	øT	M N×m	S max. (Cu) mm ²	H max. L max. (Cu) mm (Cu) mm	
															MAX	MIN.						H	L
2	630A	275	65	130	145	160	205	235	30	290	245	5	30	121	119	18	6,5	25	M10	24	2x240	2x5	40

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**DC Switch-Disconnecter
S5-06304PR0**

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Data sheet:

DC-Load break switch Model S5000 – 500A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (-30 to 50 °C) 630A

Rated insulation voltage U_i (V) 1000
Rated impulse withstand voltage U_{imp} (kV) 12

DC Rated operational current I_e (A)

Voltage (DC)	Category of operation	I _e
400 V	DC21B	630
600 V	DC21B	630
800 V	DC21B	600
900 V	DC21B	600
1000 V	DC21B	500

*** Please consult for other voltages and/or category of operation*

Standards. IEC 60947-1 & 3

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ISO 9001 & 14001



Management System
ISO 9001:2008
ISO 14001:2004
www.tuv.com
ID 9105053481

Short-circuit behaviour

Short-circuit making capacity (peak value) I _{cm}	26kA
Short-time withstand current (1 sec) (rms) I _{cw}	16kA
Conditional short-circuit current (rms value)	100kA
Maximum cut-off current (peak value)	39kA

Connection capacity

Bar (Thickness / Width) (mm)	2X5/40
Rigid cable (mm ²)	2X240
Max. Connecting copper bar (mm)	40
Tightening torque (N·m)	24

Testing as per IEC 60947-3. Approvals

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Mechanical data

Minimum number of operations (as per standard) without load	10000
Maximum weight (4 pole molded case) (kg)	4,5

Codes

Case size (A)	Poles	Code	Code for direct handle
Size 2	4P	S5-06304PR0	DS-LI21

Accessories

Panel handle	DS-LA21
Bridging links	DS-PI21
Protective plate	DS-CU22
Auxiliary contact	D5LAU01

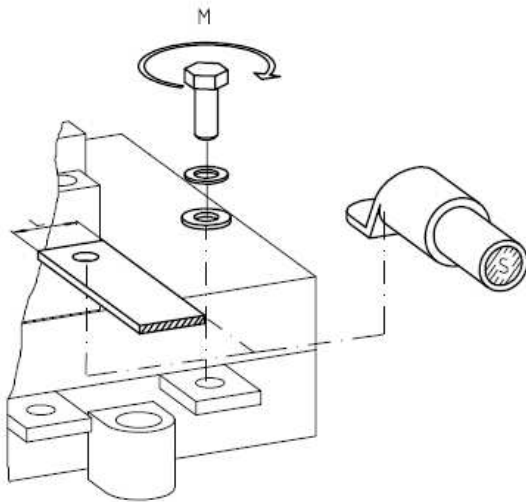
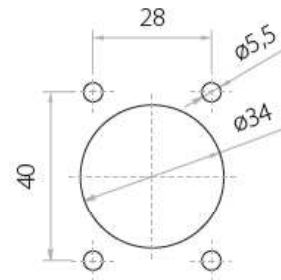
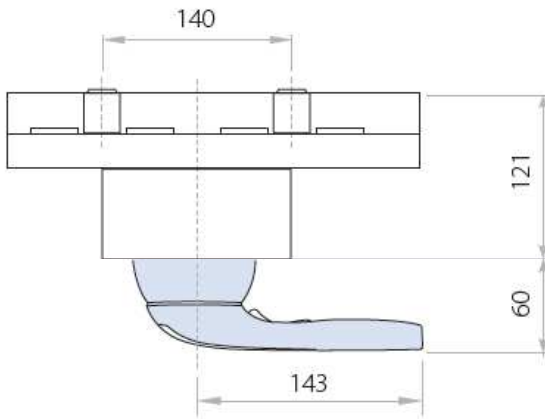
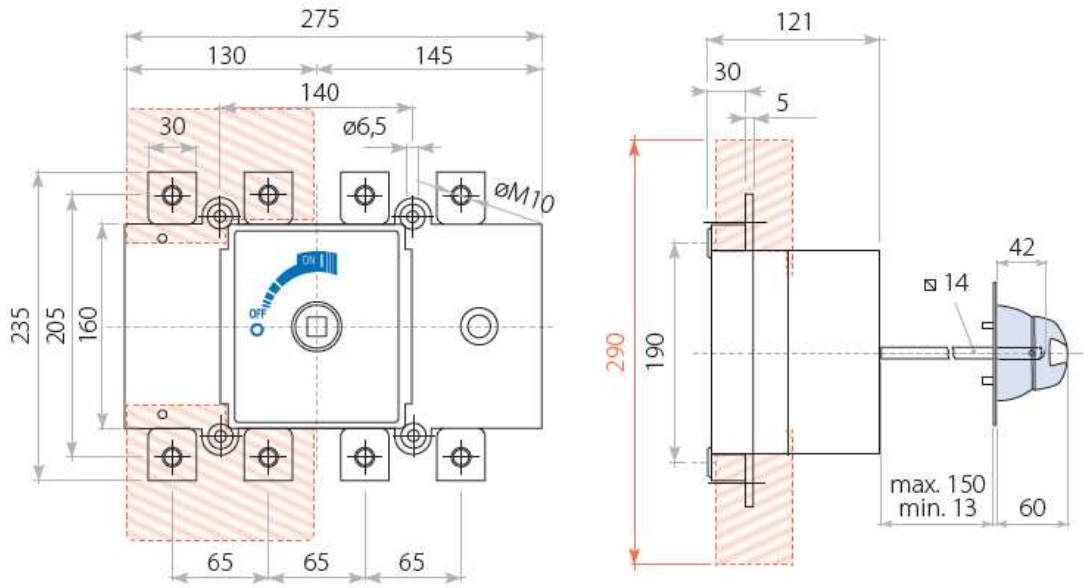
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**DC Switch-Disconnecter
S5-06304PR0**

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Data subject to change without
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Dimensions



S5000	I _{th}	A	C	E	F	G	H	I	J	K	L	M	N	O	R		øP	Q	øT	M N×m	S max. (Cu) mm ²	H max. L max. (Cu) mm (Cu) mm	
															MAX	MIN.							
2	630A	275	65	130	145	160	205	235	30	290	245	5	30	121	119	18	6,5	25	M10	24	2x240	2x5	40

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**DC Switch-Disconnecter
S5-06304PR0**

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Data sheet:
DC-Load break switch
Model S5000 – 630A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (40 °C)	800A
Rated insulation voltage U _i (V)	1000
Rated impulse withstand voltage U _{imp} (kV)	12

DC Rated operational current I_e (A)		
Voltage (DC)	Category of operation	I _e
400 V	DC21B	800
600 V	DC21B	800
800 V	DC21B	775
900 V	DC21B	700
1000 V	DC21B	630

Standards: IEC 60947-1&3

Short-circuit behaviour

Short-circuit making capacity (peak value)	I _{cm}	26kA
Short-time withstand current (1 sec) (rms)	I _{cw}	16kA
Conditional short-circuit current (rms value)		100kA
Maximum cut-off current (peak value)		39kA

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Connection capacity

Bar (Thickness / Width) (mm)	2*5/40
Rigid cable (mm ²)	2*240
Max. Connecting copper bar (mm)	240
Tightening torque (N·m)	24

Testing as per IEC 60947-3

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Codes

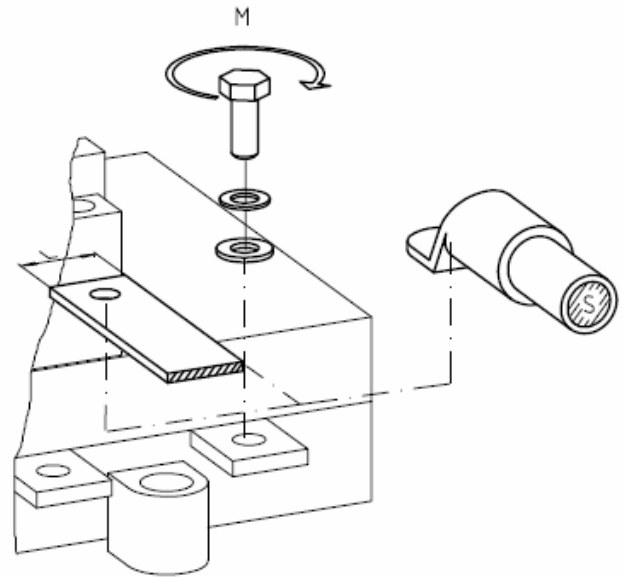
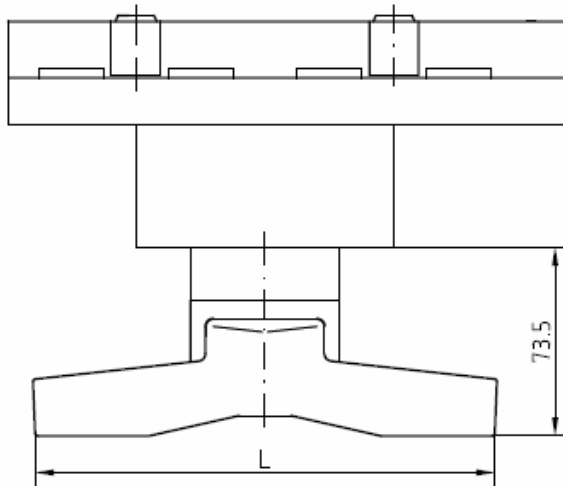
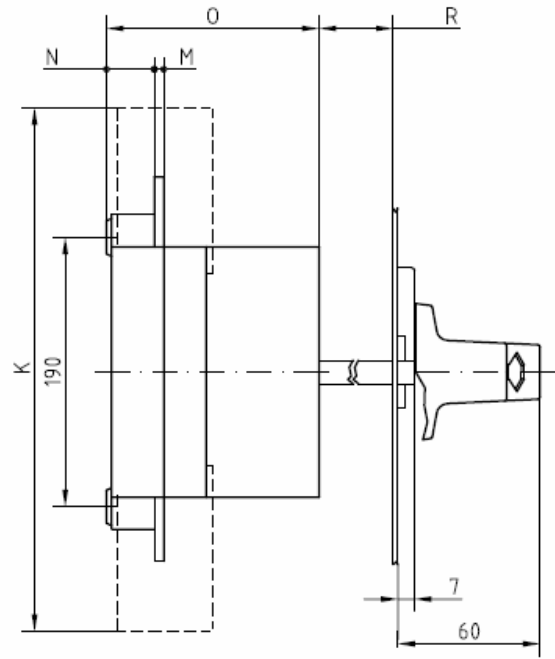
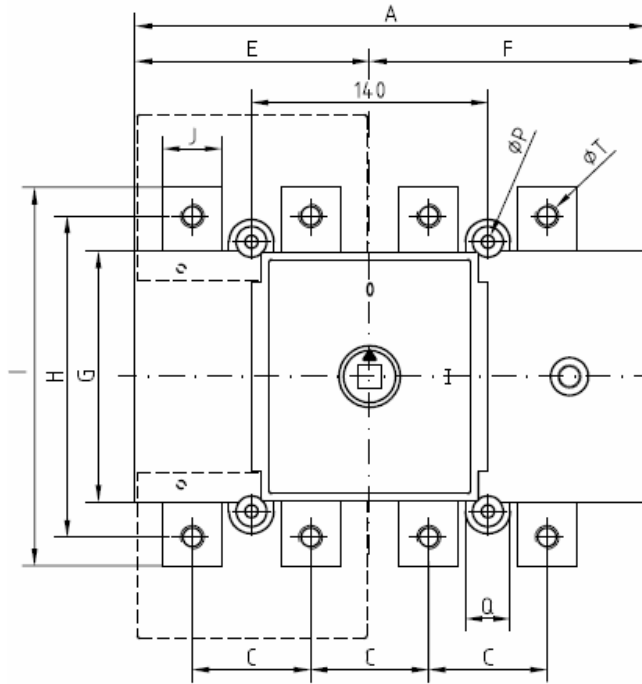
Case size (A)	Poles	Code	Code for direct handle
Size 2	4P	S5-08004PC0	DS-EI21

Mechanical data

Minimum number of operations (as per standard) without load	10000
Maximum weight (4 pole molded case) (kg)	4,5

Accessories: Panel handle - DS-EN21
 Bridging links - DS-PI21
 Protective plate - DS-CU22
 Auxiliary contact - D5LAU01

Dimensions



S5000	I_{th}	A	C	E	F	G	H	I	J	K	L	M	N	O	R		ϕP	Q	ϕT	M N x m	S max. (Cu) mm ²	H max. L max. (Cu) mm (Cu) mm	
															MAX	MIN						H	L
2	800A	275	65	130	145	160	205	235	30	290	245	5	30	121	119	18	6,5	25	M10	24	2x240	2x5	50

Data sheet:
DC-Load break switch
Model S5000 – 850A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (40 °C)	1250A
Rated insulation voltage U _i (V)	1000
Rated impulse withstand voltage U _{imp} (kV)	12

DC Rated operational current I_e (A)		
Voltage (DC)	Category of operation	I _e
400 V	DC21B	1250
600 V	DC21B	1250
800 V	DC21B	1000
900 V	DC21B	870
1000 V	DC21B	850

Standards. IEC 60947-1&3

Short-circuit behaviour

Short-circuit making capacity (peak value)	I _{cm}	60kA
Short-time withstand current (1 sec) (rms)	I _{cw}	25kA
Conditional short-circuit current (rms value)		72kA
Maximum cut-off current (peak value)		55kA

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Connection capacity

Bar (Thickness / Width) (mm)	2*10/50
Rigid cable (mm ²)	2*300
Max. Connecting copper bar (mm)	300
Tightening torque (N·m)	45

Testing as per IEC 60947-3

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Mechanical data

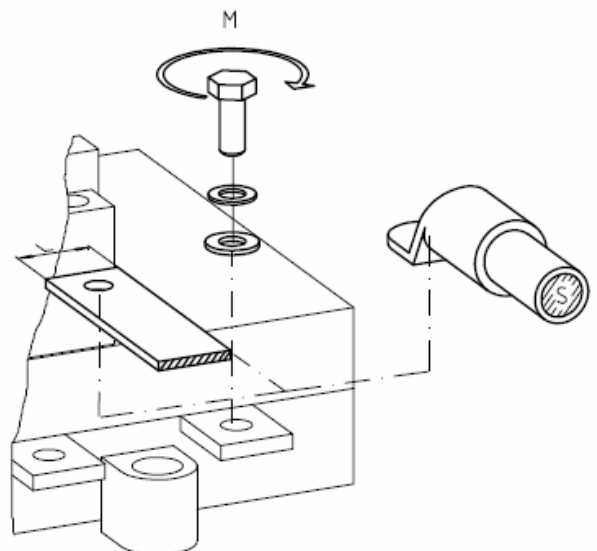
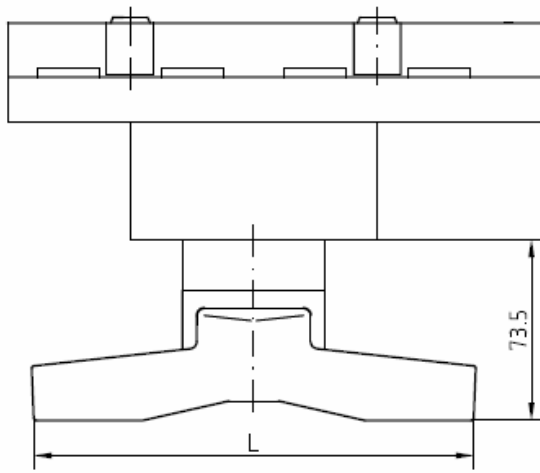
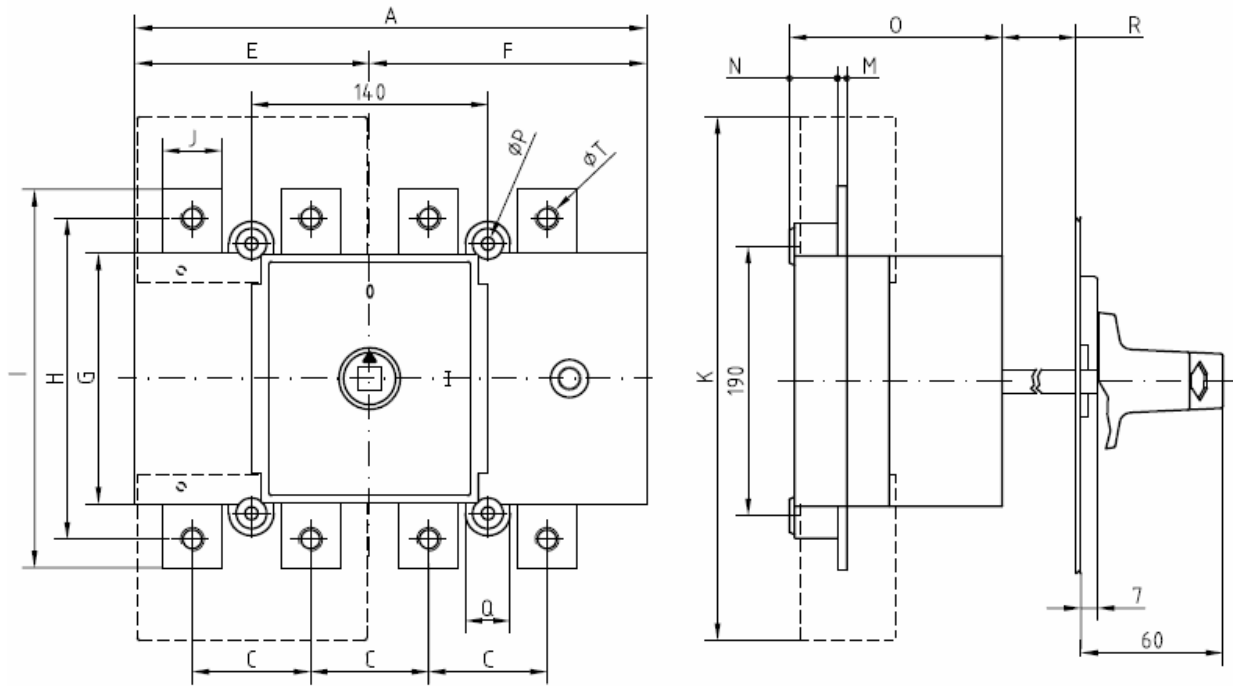
Minimum number of operations (as per standard) without load	10000
Maximum weight (4 pole molded case) (kg)	7,6

Codes

Case size (A)	Poles	Code	Code for direct handle
Size 3	4P	S5-12504PC0	DS-EI31

Accessories: Panel handle - DS-EN31
 Bridging links - DS-PI31
 Auxiliary contact - D5LAU01

Dimensions



S5000	I _{th}	A	C	E	F	G	H	I	J	K	L	M	N	O	R		φP	Q	φT	M N×m	S max. (Cu) mm ²	L	
															MAX	MIN						H max. (Cu) mm	L max. (Cu) mm
3	1250A	325	75	150	175	190	250	290	40	340	285	8	39	137	108	18	9	30	M14	45	2×300	2×10	50

Data sheet:
DC-Load break switch
Model S5000 – 1250A 1000V DC21B



Electrical data (according to IEC 60947-3)

Thermal current I_{th} (40 °C)	1800A
Rated insulation voltage U _i (V)	1000
Rated impulse withstand voltage U _{imp} (kV)	12

DC Rated operational current I_e (A)		
Voltage (DC)	Category of operation	I _e
400 V	DC21B	1800
600 V	DC21B	1800
800 V	DC21B	1500
900 V	DC21B	1350
1000 V	DC21B	1250

Standards. IEC 60947-1&3

Short-circuit behaviour

Short-circuit making capacity (peak value)	I _{cm}	100kA
Short-time withstand current (1 sec) (rms)	I _{cw}	50kA

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Connection capacity

Bar (Thickness / Width) (mm)	2*7/80
Rigid cable (mm ²)	--
Max. Connecting copper bar (mm)	--
Tightening torque (N·m)	55

Codes

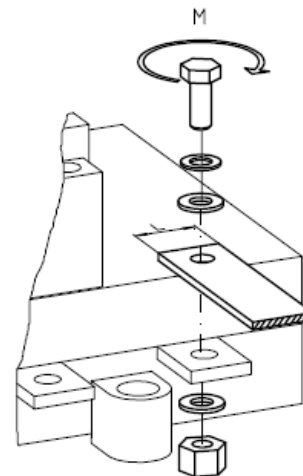
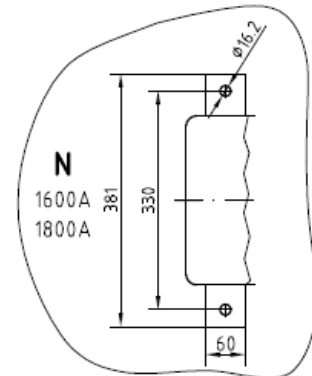
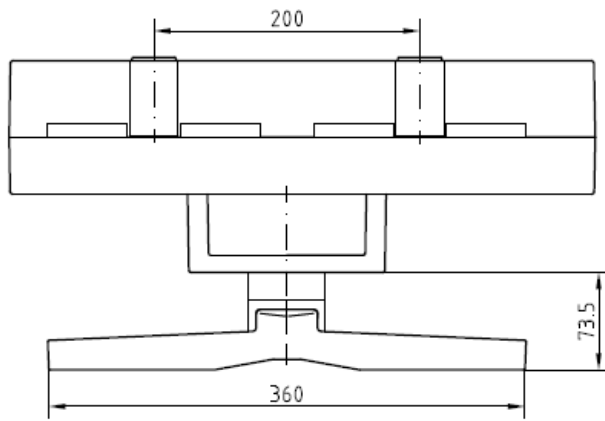
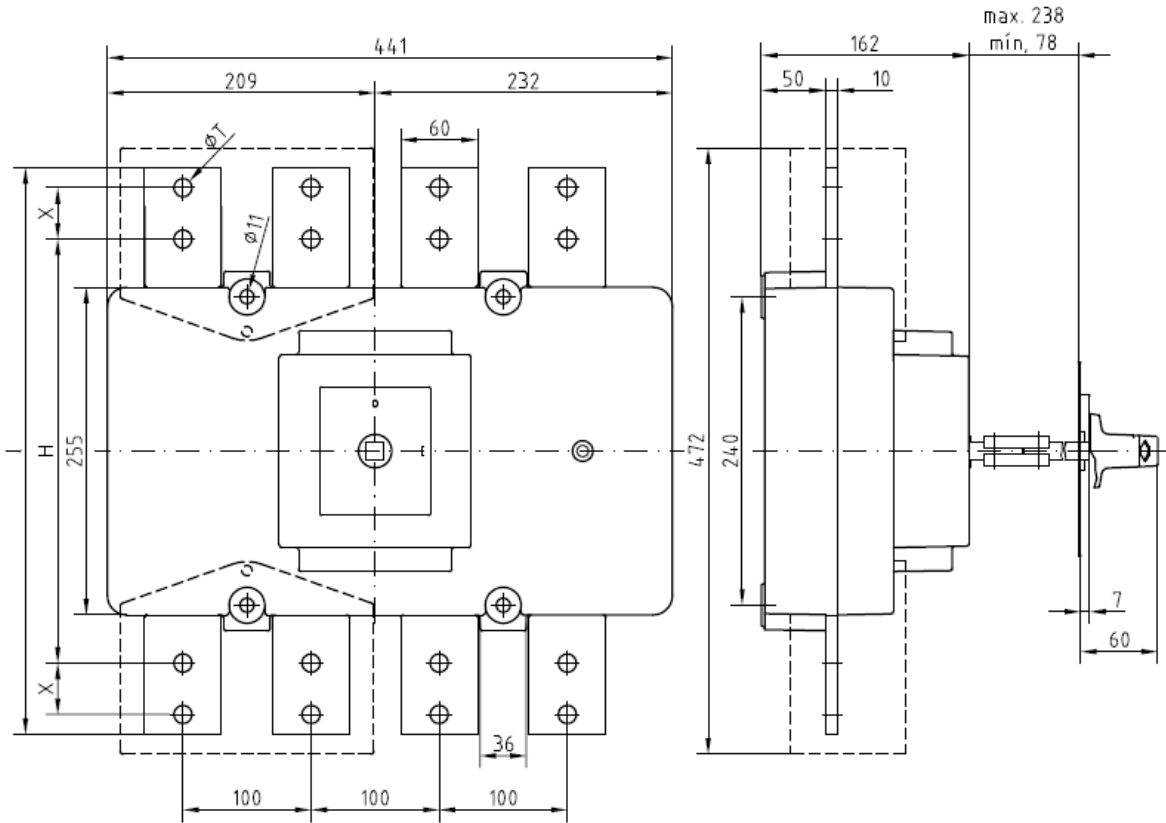
Case size (A)	Poles	Code	Code for direct handle
Size 4	4P	S5-18004PS0	DS-EI41

Mechanical data

Minimum number of operations (as per standard) without load	1000
Maximum weight (4 pole molded case) (kg)	20,8

Accessories: Panel handle - DS-EN41
 Bridging links - DS-PI41
 Auxiliary contact - D5LAU01

Dimensions



S5000	I _{th}	H	l	X	φT	M	H max. (Cu) mm		L max. (Cu) mm	
							N × m	H max. (Cu) mm	L max. (Cu) mm	
4	1800 A	330	441	40	14,1	M14	55	2 × 7	80	