

COMPLETE TYPE TESTS

No B25-21-AV-01E_SDDSv1-CERT

Applicant Contactum Ltd

2 Blackmoor Lane. Croxley Green Business Park, Watford

London WD18 8GA. United Kingdom

Manufacturer Alfanar Electrical Systems

Madinet alfanar, 3rd Industrial City

P.O. Box 564. Riyadh 11383. Saudi Arabia

Product Consumer Units SDDS Defender 2.0

Designation: Contactum Defender 2.0

Main ratings: Rated Current: 100 A

Rated Insulation Voltage: 400 V Rated Operation Voltage: 230 V Rated Frequency: 50 Hz Rated Impulse Voltage: 4 kV

Fulfills the type-test requirements of:

Standard BS EN 61439-3:2012 Edition 1.0

Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA

with Fuse - 10.12 - 10.13

Test results are described in the following documents:

Type test report No: **B25-21-AV-01E_SDDSv1**

Certificate issued on 6th September 2021

Electronic signature

Luis Martínez Cancela Head of Electrical Equipment Laboratory



° TECNALIA

This certificate, issued by TECNALIA, implies exclusively type test compliance of the product range for which tested objects are representative. Certificate and associated type test report may be issued either in electronic or printed form.

3azón Social / ELINDACTÓN TECNALIA RESFARCH & INNOVATION Nº E-69 Registro de Eundaciones del Gobierno Vasco C.E. G4897576

TYPE TEST CERTIFICATE



BS-EN 61439-3 Clauses	Clause Description	Tested ratings
10.2.2	Resistance to corrosion	Severity A. Indoor
10.2.3.1	Verification of thermal stability of enclosures	NA, metallic enclosure
10.2.3.2	Verification of the resistance of insulating materials to abnormal heat and fire due to internal electric effects	960°C for insulating materials supporting live elements 650°C for insulating materials not supporting live elements
10.2.6	Mechanical impact	IKO5
10.2.7	Marking	NA for indoor use
10.3	Degree of protection of assembly	IP4X (only for the top) IP2XC
10.4	Clearances and creepage distances	Clearance > 3 mm (Uimp=4kV) Creepage distances > 4 mm (Ui=400V) Pollution degree 2, material group Illa
10.5.2	Effective earth continuity between the exposed conductive parts of the assembly and the protective circuit	Resistance < 0.1Ω
10.5.3	Short-circuit withstand strength of the protective circuit	Icc 6 kA at 230 V
10.6	Incorporation of switching devices and components	as per standard
10.7	Internal electrical circuits and connectors	as per standard
10.8	Terminals for external conductors	as per standard
10.9.2	Power-frequency withstand voltage	Utest 1890V for Ui=400V
10.9.3	Impulse withstand voltage	Utest 4.8kV for Uimp=4kV
10.10	Verification of the complete assembly	Incoming Unit: 100 A Outgoing Units: 3.6, 6.4, 10, 18, 24, 38 A Rated diversity factor 1
10.11	Short-circuit withstand strength	Icw 10kA, 0.1s (comb busbar) Icc 6kA at 230V (neutral busbar) Icc 6kA at 230V (incoming busbar) Icc 6kA and 10 kA at 230V (outgoings)
Annex ZB	16 kA test with Fuse	16kA at 230V
10.12	Electromagnetic compatibility (EMC)	NA; no electronic circuits
10.13	Mechanical operation	50 operations



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Extension of qualification SDDS Range with Cat Nos:

S#	Cat#
151	SDDS06111AMS
152	SDDS06111AMS-P01
153	SDDS06111ASPMS
154	SDDS06111ASPMS-P01
155	SDDS06166AMS
156	SDDS06166AMS-P01
157	SDDS06166ASPMS
158	SDDS06166ASPMS-P01
159	SDDS08111AMS
160	SDDS08111AMS-P01
161	SDDS08111ASPMS
162	SDDS08111ASPMS-P01
163	SDDS08166AMS
164	SDDS08166AMS-P01
165	SDDS08166ASPMS
166	SDDS08166ASPMS-P01
167	SDDS10111AMS
168	SDDS10111AMS-P01
169	SDDS10111ASPMS
170	SDDS10166ASPMS
171	SDDS10111ASPMS-P01
172	SDDS10166ASPMS-P01
173	SDDS10166AMS
174	SDDS10166AMS-P01
175	SDDS12111AMS
176	SDDS12111AMS-P01

S#	Cat#
177	SDDS12111ASPMS
178	SDDS12111ASPMS-P01
179	SDDS12166AMS
180	SDDS12166AMS-P01
181	SDDS12166ASPMS
182	SDDS12166ASPMS-P01
183	SDDS14111AMS
184	SDDS14111AMS-P01
185	SDDS14111ASPMS
186	SDDS14111ASPMS-P01
187	SDDS14166AMS
188	SDDS14166AMS-P01
189	SDDS14166ASPMS
190	SDDS14166ASPMS-P01
191	SDDS16111AMS
192	SDDS16111AMS-P01
193	SDDS16111ASPMS
194	SDDS16111ASPMS-P01
195	SDDS16166AMS
196	SDDS16166AMS-P01
197	SDDS16166ASPMS
198	SDDS16166ASPMS-P01
199	SDDS18111AMS
200	SDDS18111AMS-P01
201	SDDS38111AMS
202	SDDS38111ASPMS



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COMPLETE TYPE TESTS

No B25-21-AV-01E_FDDSv1-CERT

Applicant Contactum Ltd

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London WD18 8GA. United Kingdom

Manufacturer Alfanar Electrical Systems

Madinet alfanar, 3rd Industrial City

P.O. Box 564. Riyadh 11383. Saudi Arabia

Product Consumer Units FDDS Defender 2.0

Designation: Contactum Defender 2.0

Main ratings: Rated Current: 80 A

Rated Insulation Voltage: 400 V
Rated Operation Voltage: 230 V
Rated Frequency: 50 Hz
Rated Impulse Voltage: 4 kV

Fulfills the type-test requirements of:

Standard BS EN 61439-3:2012 Edition 1.0

Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA

with Fuse - 10.12 - 10.13

Test results are described in the following documents:

Type test report No: **B25-21-AV-01E_FDDSv1**

Certificate issued on 6th September 2021

Electronic signature

Luis Martínez Cancela Head of Electrical Equipment Laboratory



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TYPE TEST CERTIFICATE



BS-EN		
61439-3	Clause Description	Tested ratings
Clauses	3.000 2.000.p.00.	
10.2.2	Resistance to corrosion	Severity A. Indoor
10.2.3.1	Verification of thermal stability of enclosures	NA, metallic enclosure
10.2.3.2	Verification of the resistance of insulating materials to abnormal heat and fire due to internal electric effects	960°C for insulating materials supporting live elements 650°C for insulating materials not supporting live elements
10.2.6	Mechanical impact	IK05
10.2.7	Marking	NA for indoor use
10.3	Degree of protection of assembly	IP4X (only for the top) IP2XC
10.4	Clearances and creepage distances	Clearance > 3 mm (Uimp=4kV) Creepage distances > 4 mm (Ui=400V) Pollution degree 2, material group Illa
10.5.2	Effective earth continuity between the exposed conductive parts of the assembly and the protective circuit	Resistance < 0.1 Ω
10.5.3	Short-circuit withstand strength of the protective circuit	Icc 6 kA at 230 V
10.6	Incorporation of switching devices and components	as per standard
10.7	Internal electrical circuits and connectors	as per standard
10.8	Terminals for external conductors	as per standard
10.9.2	Power-frequency withstand voltage	Utest 1890V for Ui=400V
10.9.3	Impulse withstand voltage	Utest 4.8kV for Uimp=4kV
10.10	Verification of the complete assembly	Incoming Unit: 80 A Outgoing Units: 5.5, 5.5, 6, 15, 24, 24 A Rated diversity factor 1
10.11	Short-circuit withstand strength	Icw 10kA, 0.1s (comb busbar) Icc 6kA at 230V (neutral busbar) Icc 6kA at 230V (incoming busbar) Icc 6kA and 10 kA at 230V (outgoings)
Annex ZB	16 kA test with Fuse	16kA at 230V
10.12	Electromagnetic compatibility (EMC)	NA; no electronic circuits
10.13	Mechanical operation	50 operations



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Extension of qualification

FDDS Range with Cat Nos:

S#	Cat#
115	FDDS06188AMS
116	FDDS06188AMS-P01
117	FDDS06188ASPMS
118	FDDS06188ASPMS-P01
119	FDDS06166AMS
120	FDDS06166AMS-P01
121	FDDS06166ASPMS
122	FDDS06166ASPMS-P01
123	FDDS08188AMS
124	FDDS08188AMS-P01
125	FDDS08188ASPMS
126	FDDS08188ASPMS-P01
127	FDDS08166AMS
128	FDDS08166AMS-P01
129	FDDS08166ASPMS
130	FDDS08166ASPMS-P01
131	FDDS10188AMS
132	FDDS10188AMS-P01

11111111111111
Cat#
FDDS10188ASPMS
FDDS10166ASPMS
FDDS10188ASPMS-P01
FDDS10166ASPMS-P01
FDDS10166AMS
FDDS10166AMS-P01
FDDS12188AMS
FDDS12188AMS-P01
FDDS12188ASPMS
FDDS12188ASPMS-P01
FDDS12166AMS
FDDS12166AMS-P01
FDDS12166ASPMS
FDDS12166ASPMS-P01
FDDS14188AMS
FDDS14188AMS-P01
FDDS14166AMS
FDDS14166AMS-P01



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Manufacturer Alfanar Electrical Systems

Madinet alfanar, 3rd Industrial City

P.O. Box 564. Riyadh 11383. Saudi Arabia

Product Consumer Units FDD Defender 2.0

Designation: Contactum Defender 2.0

Main ratings: Rated Current: 80 A

Rated Insulation Voltage: 400 V Rated Operation Voltage: 230 V Rated Frequency: 50 Hz Rated Impulse Voltage: 4 kV

Fulfills the type-test requirements of:

Standard BS EN 61439-3:2012 Edition 1.0

Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA

with Fuse - 10.12 - 10.13

Test results are described in the following documents:

Type test report No: **B25-21-AV-01E_FDDv1**

Certificate issued on 6th September 2021

Electronic signature

Luis Martínez Cancela Head of Electrical Equipment Laboratory



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TYPE TEST CERTIFICATE



BS-EN 61439-3 Clauses	Clause Description	Tested ratings
10.2.2	Resistance to corrosion	Severity A. Indoor
10.2.3.1	Verification of thermal stability of enclosures	NA, metallic enclosure
10.2.3.2	Verification of the resistance of insulating materials to abnormal heat and fire due to internal electric effects	960°C for insulating materials supporting live elements 650°C for insulating materials not supporting live elements
10.2.6	Mechanical impact	IK05
10.2.7	Marking	NA for indoor use
10.3	Degree of protection of assembly	IP4X (only for the top) IP2XC
10.4	Clearances and creepage distances	Clearance > 3 mm (Uimp=4kV) Creepage distances > 4 mm (Ui=400V) Pollution degree 2, material group Illa
10.5.2	Effective earth continuity between the exposed conductive parts of the assembly and the protective circuit	Resistance < 0.1Ω
10.5.3	Short-circuit withstand strength of the protective circuit	Icc 6 kA at 230 V
10.6	Incorporation of switching devices and components	as per standard
10.7	Internal electrical circuits and connectors	as per standard
10.8	Terminals for external conductors	as per standard
10.9.2	Power-frequency withstand voltage	Utest 1890V for Ui=400V
10.9.3	Impulse withstand voltage	Utest 4.8kV for Uimp=4kV
10.10	Verification of the complete assembly	Incoming Unit: 80 A Outgoing Units: 12, 12, 15, 18, 23 A Rated diversity factor 1
10.11	Short-circuit withstand strength	Icw 10kA, 0.1s (comb busbar) Icc 6kA at 230V (neutral busbar) Icc 6kA at 230V (incoming busbar) Icc 6kA and 10 kA at 230V (outgoings)
Annex ZB	16 kA test with Fuse	16kA at 230V
10.12	Electromagnetic compatibility (EMC)	NA; no electronic circuits
10.13	Mechanical operation	50 operations



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Extension of qualification

FDD Range with Cat Nos:

S#	Cat#
47	FDD088SPMS
48	FDD088SPMS-P01
49	FDD108MS
50	FDD108MS-P01
51	FDD108SPMS
52	FDD108SPMS-P01
53	FDD128MS
54	FDD128MS-P01
55	FDD128SPMS
56	FDD128SPMS-P01

S#	Cat#
57	FDD148MS
58	FDD148MS-P01
59	FDD148SPMS
60	FDD148SPMS-P01
61	FDD168MS
62	FDD168MS-P01
63	FDD168SPMS
64	FDD168SPMS-P01
65	FDD188MS
66	FDD188MS-P01





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No B25-21-AV-01E_SDDv1-CERT

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Manufacturer Alfanar Electrical Systems

Madinet alfanar, 3rd Industrial City

P.O. Box 564. Riyadh 11383. Saudi Arabia

Product Consumer Units SDD Defender 2.0

Designation: Contactum Defender 2.0

Main ratings: Rated Current: 100 A

Rated Insulation Voltage: 400 V Rated Operation Voltage: 230 V Rated Frequency: 50 Hz Rated Impulse Voltage: 4 kV

Fulfills the type-test requirements of:

Standard BS EN 61439-3:2012 Edition 1.0

Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA

with Fuse - 10.12 - 10.13

Test results are described in the following documents:

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TYPE TEST CERTIFICATE



BS-EN 61439-3 Clauses	Clause Description	Tested ratings
10.2.2	Resistance to corrosion	Severity A. Indoor
10.2.3.1	Verification of thermal stability of enclosures	NA, metallic enclosure
10.2.3.2	Verification of the resistance of insulating materials to abnormal heat and fire due to internal electric effects	960°C for insulating materials supporting live elements 650°C for insulating materials not supporting live elements
10.2.6	Mechanical impact	IK05
10.2.7	Marking	NA for indoor use
10.3	Degree of protection of assembly	IP4X (only for the top) IP2XC
10.4	Clearances and creepage distances	Clearance > 3 mm (Uimp=4kV) Creepage distances > 4 mm (Ui=400V) Pollution degree 2, material group Illa
10.5.2	Effective earth continuity between the exposed conductive parts of the assembly and the protective circuit	Resistance < 0.1 Ω
10.5.3	Short-circuit withstand strength of the protective circuit	Icc 6 kA at 230 V
10.6	Incorporation of switching devices and components	as per standard
10.7	Internal electrical circuits and connectors	as per standard
10.8	Terminals for external conductors	as per standard
10.9.2	Power-frequency withstand voltage	Utest 1890V for Ui=400V
10.9.3	Impulse withstand voltage	Utest 4.8kV for Uimp=4kV
10.10	Verification of the complete assembly	Incoming Unit: 100 A Outgoing Units: 16, 28, 28, 28 A Rated diversity factor 1
10.11	Short-circuit withstand strength	Icw 10kA, 0.1s (comb busbar) Icc 6kA at 230V (neutral busbar) Icc 6kA at 230V (incoming busbar) Icc 6kA and 10 kA at 230V (outgoings)
Annex ZB	16 kA test with Fuse	16kA at 230V
10.12	Electromagnetic compatibility (EMC)	NA; no electronic circuits
10.13	Mechanical operation	50 operations



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Extension of qualification

SDD Range with Cat Nos

S#	Cat#
1	SDD026MS
2	SDD026MS-P01
3	SDD026SPMS
4	SDD026SPMS-P01
5	SDD041MS
6	SDD041MS-P01
7	SDD041SPMS
8	SDD041SPMS-P01
9	SDD046MS
10	SDD046MS-P01
11	SDD046SPMS
12	SDD046SPMS-P01
13	SDD061MS
14	SDD061MS-P01
15	SDD061SPMS
16	SDD061SPMS-P01
17	SDD081MS
18	SDD081MS-P01
19	SDD081SPMS
20	SDD081SPMS-P01
21	SDD101MS
22	SDD101MS-P01
23	SDD101SPMS

S#	Cat#
24	SDD101SPMS-P01
25	SDD121MS
26	SDD121MS-P01
27	SDD121SPMS
28	SDD121SPMS-P01
29	SDD141MS
30	SDD141MS-P01
31	SDD141SPMS
32	SDD141SPMS-P01
33	SDD161MS
34	SDD161MS-P01
35	SDD161SPMS
36	SDD161SPMS-P01
37	SDD181MS
38	SDD181MS-P01
39	SDD181SPMS
40	SDD181SPMS-P01
41	SDD201MS
42	SDD201MS-P01
43	SDD201SPMS
44	SDD201SPMS-P01
45	SDD221MS
46	SDD221MS-P01



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COMPLETE TYPE TESTS

No B25-21-AV-01E_SDRv1-CERT

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London WD18 8GA. United Kingdom

Manufacturer Alfanar Electrical Systems

Madinet alfanar, 3rd Industrial City

P.O. Box 564. Riyadh 11383. Saudi Arabia

Product Consumer Units SDR Defender 2.0

Designation: Contactum Defender 2.0

Main ratings: Rated Current: 100 A

Rated Insulation Voltage: 400 V Rated Operation Voltage: 230 V Rated Frequency: 50 Hz Rated Impulse Voltage: 4 kV

Fulfills the type-test requirements of:

Standard BS EN 61439-3:2012 Edition 1.0

Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA

with Fuse - 10.12 - 10.13

Test results are described in the following documents:

Type test report No: **B25-21-AV-01E_SDRv1**

Certificate issued on 6th September 2021

Electronic signature

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TYPE TEST CERTIFICATE



BS-EN 61439-3 Clauses	Clause Description	Tested ratings
10.2.2	Resistance to corrosion	Severity A. Indoor
10.2.3.1	Verification of thermal stability of enclosures	NA, metallic enclosure
10.2.3.2	Verification of the resistance of insulating materials to abnormal heat and fire due to internal electric effects	960°C for insulating materials supporting live elements 650°C for insulating materials not supporting live elements
10.2.6	Mechanical impact	IK05
10.2.7	Marking	NA for indoor use
10.3	Degree of protection of assembly	IP4X (only for the top) IP2XC
10.4	Clearances and creepage distances	Clearance > 3 mm (Uimp=4kV) Creepage distances > 4 mm (Ui=400V) Pollution degree 2, material group Illa
10.5.2	Effective earth continuity between the exposed conductive parts of the assembly and the protective circuit	Resistance < 0.1Ω
10.5.3	Short-circuit withstand strength of the protective circuit	Icc 6 kA at 230 V
10.6	Incorporation of switching devices and components	as per standard
10.7	Internal electrical circuits and connectors	as per standard
10.8	Terminals for external conductors	as per standard
10.9.2	Power-frequency withstand voltage	Utest 1890V for Ui=400V
10.9.3	Impulse withstand voltage	Utest 4.8kV for Uimp=4kV
10.10	Verification of the complete assembly	Incoming Unit: 100 A Outgoing Units: 3.5, 3.5, 5.5, 9, 11, 14, 17.5, 36 A Rated diversity factor 1
10.11	Short-circuit withstand strength	Icw 10kA, 0.1s (comb busbar) Icc 6kA at 230V (neutral busbar) Icc 6kA at 230V (incoming busbar) Icc 6kA and 10 kA at 230V (outgoings)
Annex ZB	16 kA test with Fuse	16kA at 230V
10.12	Electromagnetic compatibility (EMC)	NA; no electronic circuits
10.13	Mechanical operation	50 operations



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Extension of qualification

SDR Range with Cat Nos

S#	Cat#
67	SDR026AMS
68	SDR026AMS-P01
69	SDR046AMS
70	SDR046AMS-P01
71	SDR066AMS
72	SDR066AMS-P01
73	SDR086AMS
74	SDR086AMS-P01
75	SDR101AMS
76	SDR101AMS-P01
77	SDR106AMS
78	SDR106AMS-P01

S#	Cat#
79	SDR121AMS
80	SDR121AMS-P01
81	SDR141AMS
82	SDR141AMS-P01
83	SDR161AMS
84	SDR161AMS-P01
85	SDR181AMS
86	SDR181AMS-P01
87	SDR201AMS
88	SDR201AMS-P01
89	SDR221AMS
90	SDR221AMS-P01



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P.O. Box 564. Riyadh 11383. Saudi Arabia

Product Consumer Units SDS Defender 2.0

Designation: Contactum Defender 2.0

Main ratings: Rated Current: 100 A

Rated Insulation Voltage: 400 V
Rated Operation Voltage: 230 V
Rated Frequency: 50 Hz
Rated Impulse Voltage: 4 kV

Fulfills the type-test requirements of:

BS EN 61439-3:2012 Edition 1.0

Clauses 10.2.2 - 10.2.3.1 - 10.2.3.2 - 10.2.6 - 10.2.7 - 10.3 - 10.4 - 10.5.2 - 10.5.3 - 10.6 - 10.7 - 10.8 - 10.9.2 - 10.9.3 - 10.10 - 10.11 - Annex ZB 16 kA

with Fuse - 10.12 - 10.13

Test results are described in the following documents:

Type test report No: **B25-21-AV-01E_SDSv1**

Certificate issued on 6th September 2021

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Standard

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TYPE TEST CERTIFICATE



BS-EN 61439-3 Clauses	Clause Description	Tested ratings
10.2.2	Resistance to corrosion	Severity A. Indoor
10.2.3.1	Verification of thermal stability of enclosures	NA, metallic enclosure
10.2.3.2	Verification of the resistance of insulating materials to abnormal heat and fire due to internal electric effects	960°C for insulating materials supporting live elements 650°C for insulating materials not supporting live elements
10.2.6	Mechanical impact	IKO5
10.2.7	Marking	NA for indoor use
10.3	Degree of protection of assembly	IP4X (only for the top) IP2XC
10.4	Clearances and creepage distances	Clearance > 3 mm (Uimp=4kV) Creepage distances > 4 mm (Ui=400V) Pollution degree 2, material group Illa
10.5.2	Effective earth continuity between the exposed conductive parts of the assembly and the protective circuit	Resistance < 0.1Ω
10.5.3	Short-circuit withstand strength of the protective circuit	Icc 6 kA at 230 V
10.6	Incorporation of switching devices and components	as per standard
10.7	Internal electrical circuits and connectors	as per standard
10.8	Terminals for external conductors	as per standard
10.9.2	Power-frequency withstand voltage	Utest 1890V for Ui=400V
10.9.3	Impulse withstand voltage	Utest 4.8kV for Uimp=4kV
10.10	Verification of the complete assembly	Incoming Unit: 100 A Outgoing Units: 3.5, 3.5, 3.5, 9.5, 19, 19, 19, 23 A Rated diversity factor 1
10.11	Short-circuit withstand strength	Icw 10kA, 0.1s (comb busbar) Icc 6kA at 230V (neutral busbar) Icc 6kA at 230V (incoming busbar) Icc 6kA and 10 kA at 230V (outgoings)
Annex ZB	16 kA test with Fuse	16kA at 230V
10.12	Electromagnetic compatibility (EMC)	NA; no electronic circuits
10.13	Mechanical operation	50 operations



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Extension of qualification

SDS Range with Cat Nos:

S#	Cat#
91	SDS0811AMS
92	SDS0811AMS-P01
93	SDS0816AMS
94	SDS0816AMS-P01
95	SDS1011AMS
96	SDS1011AMS-P01
97	SDS1016AMS
98	SDS1016AMS-P01
99	SDS1211AMS
100	SDS1211AMS-P01
101	SDS1216AMS
102	SDS1216AMS-P01

S#	Cat#	
103	SDS1411AMS	
104	SDS1411AMS-P01	
105	SDS1416AMS	
106	SDS1416AMS-P01	
107	SDS1616AMS	
108	SDS1611AMS	
109	SDS1616AMS-P01	
110	SDS1611AMS-P01	
111	SDS1811AMS	
112	SDS1811AMS-P01	
113	SDS2011AMS	
114	SDS2011AMS-P01	



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