

Switchgear keyword / name	ORDER DSG NXAIR 3 CB NXAIR	Customer	DSG		
Switchgear number	NXAIR-126832	Contact Person	Thijs, Michael		
		Org. unit	RC-BE SI EA SO PM PM 1		
Offer number 1	Offer number 2	Order number 1	Order number 2	Factory number	
		9501319884 Pos. 10	4520107556	7024046358	

Technical Switchgear Data

Version	Standard
Standard	IEC
Rated voltage	7.2 kV
Operating voltage	6.3 kV
Rated short-duration power frequ. Voltage (phase/phase, phase/earth, open contact gap)	20 kV
Rated lightning impulse voltage	60 kV
Rated frequency	50 Hz
Busbar system	Single Busbar
Rated normal current	2500 A
Cross-section	2x100x10 mm
Busbar partition	Without
Insulation	Without
Ambient temperature	35 °C
Maximum current	2580 A
Rated short-time withstand current	31.5 kA
Rated peak withstand current	80 kA
Rated short-circuit duration	1 s
Neutral point connection	Solidly earthed neutral
Resistance to internal arc faults	IAC / 1 s without rapid shutdown
Degree of protection	IP3XD
Type of installation	Freestanding
Seismic tested version	Without
Vibration resistant design	Without
Marine certification / design	Without

Switchgear Design

Secondary system	Browser 2016
Height of LV compartment	630 mm
Partition	With
Screw type terminals for ring loops at the top	Without
Cable entry LV cables from top	Without
Special edge protection for wiring of auxiliary circuits	Without
Special fixing of harness in LV- box	Without
Heater in switching device compartment	Without
Heater in connection compartment	Without
Colour	Standard RAL 7035
Number of the RAL-colour	Without
Powder coating of rear side	Without
Primary contacts	Silver-plated
Bus and earthing bar	Bare copper
Primary components silicone free	Without
LV- wiring and channels halogen free	With
Language of instructions / labels	English
Labels on shutters	Without
Additional earthing between truck and earthing bar	Without
Additional earthing bar in switching device compartment	Without
Additional earthing between LV door and frame	With
Additional earthing between HV door and frame	With

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Pressure relief duct to release gases out of the switchgear room	With
Design version	Withdrawable part design
Mimic Diagram	IEC
Wire harness in CB with doubled insulation (Z-B58)	Without
Handrails on panel's front side	Without
Handrail on rear side cover	Without
Door retainer for HV door / LV door	Without
IR Window	Without
Bottom plate made of insulating material (without drillings)	Without
Circuit breaker with 2.shunt release 3AY1410 (new version)	With
Scope of order	Panels complete
Door cutouts with European concept	Without
Transport units	1 panel

Switchgear Freight and Packing

Scope of order	Panels complete
Transport units (TU)	1 panel
Packing	Truck packing (Wooden Pallet polyethylene sheet covering the cubicle)
IPPC required	Without
Incoterms	DAP (for EU countries)

Switchgear Factory Acceptance Test

Factory acceptance test (FAT)	without
Special tests	without
Number of test units for special test	without
Duration of factory acceptance test (FAT)	without
Pre-commissioning by customer	without
Presence of factory staff during the pre-commissioning	without
Duration of pre-commissioning	without

Switchgear Engineering

Engineering type	System Engineering
Reference no. for frame contract/replicated switchgear	Without
Reference no.	Without
Approval of the wiring diagrams	Without
Duration of approval (days)	Without
Approval LV-layout	Without
CT/VT calculation in CT-Dim	Without
Number of cores	Without
Drafting of Protection, Control Metering and Indication scheme (PCMI 2)	Without
Tripping matrix	Without
Single Line diagram in DIN A0 format, including list of CTs and VTs	Without
CT/VT List	Without

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Auxiliary Load calculation - AC	Without
Auxiliary Load calculation - DC	Without
Communication cable list (switchgear internal)	Without
CAD system other than ELCAD (to be confirmed by Engineering)	Without
Special Wire Marking (eg. Costs for engineering component of Equipotential markers)	Without
Documentation with customer-specific graphic (e.g. customer logo or cover sheet)	Without
Documentation with customer-specific cover sheet	Without
Documentation with customer-specific CAD-procedure	Without
Documentation with customer-specific drawing numbering system	Without
Panel wise schematic diagrams at the milestone "DD submission for approval"	Without
Documentation according to special designation system (eg. KKS)	Without
Documentation according to the New Standard (IEC 81346)	Without
Documentation in a language other than English or SPC language (to be confirmed by Engineering)	Without
AC/DC scheme	Without
Adaptation of existing documents in case of switchgear extension	Without
Heat Dissipation	Without
Logic diagram	Without
Cost for application of non-Standard terminals (form pages, logic etc)	Without
Number of terminals	Without
LV cabling to external components	Without
SIPROTEC Set 1	Without
Number of parameter settings	Without
Level	Without
Device	Without
SIPROTEC Set 2	Without
Number of parameter settings	Without
Level	Without
Device	Without
SIPROTEC Set 3	Without
Number of parameter settings	Without
Level	Without
Device	Without
Preparation of I/O matrix for IEC 61850 cross panel interlocking	Without
Number of parameter settings	Without
Costs for 2nd and subsequent revisions	With
As Built revision	With
Number of panels to be edited	3
Documentation with customer specific CAD form sheets	Without

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Travel for engineering support in country of customer (only Europe)	Without
Number of days	Without

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Panels with typical =LZ02

Circuit breaker panel (1250 A)

Line no.	20
Row	A
Position	+L02
BB	BB1
Absorber	Without
Duct release	Without
Duct direction	Without
Panel designation 1	3x1x240mm2
Panel designation 2	Without
Panel type	Intermediate panel
Transport unit	Without
Width of panel	800 mm
Switchgear height	2350 mm
Door hinge	Left

Typical =LZ02 Circuit breaker panel (1250 A)

Rated normal current	1250 A
Max. operating current	1330 A

consisting of the following components:

BB : Voltage transformer

Version	3 x 1-pole with earth-fault winding
Design of encapsulation	cast-resin insulated
Primary voltage	6.3 / $\sqrt{3}$ kV
Secondary voltage 1st core	100 / $\sqrt{3}$ V
Rating and class 1st core	20 VA / Cl. 0.2
Secondary voltage 2nd core	N/A
Rating and class 2nd core	Without
Earth-fault winding voltage	100 / 3 V
Earth-fault winding rating / class	90 VA / 6P
Type of voltage transformer	Single-pole design, Type 4MR1
Routine test certificate	With
Language	English
Silicone-free version	Without
Halogen-free wires	With
Additional Test Voltage 0.8 x Up	Without
Additional features	Without
German type examination certificate	Without
German declaration of conformity	Without

SD : Circuit breaker withdrawable unit

Mechanism	Hand operated
Voltage of truck drive	Without
Electromagnetic interlock	With
Voltage of interlock	AC 230 V
Mechanical locking device withdrawable part	Padlocking facility with padlock
Ronis-Key interlocking system	Without

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Ronis-Key interlocking - release condition	Without
Marine application DNV-GL	Without
Mechanical locking device HV door	Padlocking facility with padlock
Cap for pushbutton ON	With
Cap for pushbutton OFF	Without
LV plug-in connector	with signal
Rated operating sequence	O - 0.3s - CO - 15s - CO
Circuit Breaker Type	Circuit Breaker
Rated CB voltage	12.0 kV
Rated CB short-time withstand current	31.5 kA
Rated CB current	1600 A
Release combinations	1 shunt release
Auxiliary switch contacts	12 NO + 12 NC
Operating voltage	AC 230 V
1st release	AC 230 V
2nd release	Without
3rd release	Without
Closing solenoid	AC 230 V
Operation down to -25°C	Without

CC : Panel connection

Type of panel connection	Cable
Connection direction	From bottom
Number of cables	3 cables per phase
Size of primary cable termination	Single-core cable <= 300 mm ²
Cross-section	Without
Deep bottom pan	Without
IR-Inspection window on rear cover	Without
Bottomplate of non-magnetic material	Without

CC : Current transformer

Number of cores	3 x 1 core in L1/L2/L3
Rated short circuit	31.5 kA / 1 s
Type of current transformer	Block type current transformer 4MA72-PL
Primary current 1st core	1250 A
Secondary current 1st core	1 A
Power 1st core	5 VA
Class 1st core	Cl. 5P / 20
Primary current 2nd core	Without
Secondary current 2nd core	Without
Power 2nd core	Without
Class 2nd core	Without
Primary current 3rd core	Without
Secondary current 3rd core	Without
Power 3rd core	Without
Class 3rd core	Without
German type examination certificate (only by westeuropean supplier)	Without
German declaration of conformity	Without
1.2 x rated current	Without
Routine test certificate	With
Routine test certificate language	English

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Silicone-free version	Without
Halogen free wiring	With
max. core fill number (all cores)	53
calculated core fill number (all cores)	19

CC : Earthing switch

Short circuit withstand current and duration	31.5 kA / 3s
Operating mechanism type	Hand operated
Voltage of motor drive	Without
Electromagnetic interlock	With
Voltage of interlock	AC 230 V
Mechanical padlocking	Padlocking facility with padlock
Ronis-Key interlocking system	Without
Ronis-Key interlocking - release condition	Without

CC : Capacitive voltage indicator

Design	CAPDIS S1+
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Panels with typical =LZ03

Circuit breaker panel (2000 A)

Line no.	10
Row	A
Position	+L01
BB	BB1
Absorber	Without
Duct release	With
Duct direction	Rear
Panel designation 1	5x1x630mm2
Panel designation 2	Without
Panel type	End panel left
Transport unit	Without
Width of panel	800 mm
Switchgear height	2300 mm
Door hinge	Left

Typical =LZ03 Circuit breaker panel (2000 A)

Rated normal current	2000 A
Max. operating current	2145 A

consisting of the following components:

SD : natural ventilation

Component selected

SD : Circuit breaker withdrawable unit

Mechanism	Hand operated
Voltage of truck drive	Without
Electromagnetic interlock	With
Voltage of interlock	AC 230 V
Mechanical locking device withdrawable part	Padlocking facility with padlock
Ronis-Key interlocking system	Without
Ronis-Key interlocking - release condition	Without
Marine application DNV-GL	Without
Mechanical locking device HV door	Padlocking facility with padlock
Cap for pushbutton ON	Without
Cap for pushbutton OFF	Without
LV plug-in connector	without signal
Rated operating sequence	O - 0.3s - CO - 15s - CO
Circuit Breaker Type	Circuit Breaker
Rated CB voltage	12.0 kV
Rated CB short-time withstand current	31.5 kA
Rated CB current	2500 A
Release combinations	1 shunt release
Auxiliary switch contacts	12 NO + 12 NC
Operating voltage	AC 230 V
1st release	AC 230 V
2nd release	Without
3rd release	Without

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Closing solenoid	AC 230 V
Operation down to -25°C	Without

CC : Panel connection

Type of panel connection	Cable
Connection direction	From bottom
Number of cables	5 cables per phase
Size of primary cable termination	Single-core cable <= 630 mm ²
Cross-section	Without
Deep bottom pan	Without
IR-Inspection window on rear cover	Without
Bottomplate of non-magnetic material	Without

CC : Current transformer

Number of cores	3 x 2 cores in L1/L2/L3
Rated short circuit	31.5 kA / 1 s
Type of current transformer	Block type current transformer 4MA72-S2
Primary current 1st core	2000 A
Secondary current 1st core	1 A
Power 1st core	5 VA
Class 1st core	Cl. 5P / 20
Primary current 2nd core	2000 A
Secondary current 2nd core	1 A
Power 2nd core	5 VA
Class 2nd core	Cl. 0.2 / FS5
Primary current 3rd core	Without
Secondary current 3rd core	Without
Power 3rd core	Without
Class 3rd core	Without
German type examination certificate (only by westeuropean supplier)	Without
German declaration of conformity	Without
1.2 x rated current	Without
Routine test certificate	With
Routine test certificate language	English
Silicone-free version	Without
Halogen free wiring	With
max. core fill number (all cores)	82
calculated core fill number (all cores)	40

CC : Earthing switch

Short circuit withstand current and duration	31.5 kA / 3s
Operating mechanism type	Hand operated
Voltage of motor drive	Without
Electromagnetic interlock	With
Voltage of interlock	AC 230 V
Mechanical padlocking	Without
Ronis-Key interlocking system	Without
Ronis-Key interlocking - release condition	Without

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Panels with typical =LZ04

Circuit breaker panel (1250 A)

Line no.	30
Row	A
Position	+L03
BB	BB1
Absorber	Without
Duct release	Without
Duct direction	Without
Panel designation 1	3x1x240mm2
Panel designation 2	Without
Panel type	End panel right
Transport unit	Without
Width of panel	800 mm
Switchgear height	2300 mm
Door hinge	Left

Typical =LZ04 Circuit breaker panel (1250 A)

Rated normal current	1250 A
Max. operating current	1330 A

consisting of the following components:

SD : Circuit breaker withdrawable unit

Mechanism	Hand operated
Voltage of truck drive	Without
Electromagnetic interlock	With
Voltage of interlock	AC 230 V
Mechanical locking device withdrawable part	Padlocking facility with padlock
Ronis-Key interlocking system	Without
Ronis-Key interlocking - release condition	Without
Marine application DNV-GL	Without
Mechanical locking device HV door	Padlocking facility with padlock
Cap for pushbutton ON	With
Cap for pushbutton OFF	Without
LV plug-in connector	with signal
Rated operating sequence	O - 0.3s - CO - 15s - CO
Circuit Breaker Type	Circuit Breaker
Rated CB voltage	12.0 kV
Rated CB short-time withstand current	31.5 kA
Rated CB current	1600 A
Release combinations	1 shunt release
Auxiliary switch contacts	12 NO + 12 NC
Operating voltage	AC 230 V
1st release	AC 230 V
2nd release	Without
3rd release	Without
Closing solenoid	AC 230 V
Operation down to -25°C	Without

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CC : Panel connection

Type of panel connection	Cable
Connection direction	From bottom
Number of cables	3 cables per phase
Size of primary cable termination	Single-core cable <= 300 mm ²
Cross-section	Without
Deep bottom pan	Without
IR-Inspection window on rear cover	Without
Bottomplate of non-magnetic material	Without

CC : Current transformer

Number of cores	3 x 1 core in L1/L2/L3
Rated short circuit	31.5 kA / 1 s
Type of current transformer	Block type current transformer 4MA72-PL
Primary current 1st core	1250 A
Secondary current 1st core	1 A
Power 1st core	5 VA
Class 1st core	Cl. 5P / 20
Primary current 2nd core	Without
Secondary current 2nd core	Without
Power 2nd core	Without
Class 2nd core	Without
Primary current 3rd core	Without
Secondary current 3rd core	Without
Power 3rd core	Without
Class 3rd core	Without
German type examination certificate (only by westeuropean supplier)	Without
German declaration of conformity	Without
1.2 x rated current	Without
Routine test certificate	With
Routine test certificate language	English
Silicone-free version	Without
Halogen free wiring	With
max. core fill number (all cores)	53
calculated core fill number (all cores)	19

CC : Earthing switch

Short circuit withstand current and duration	31.5 kA / 3s
Operating mechanism type	Hand operated
Voltage of motor drive	Without
Electromagnetic interlock	With
Voltage of interlock	AC 230 V
Mechanical padlocking	Padlocking facility with padlock
Ronis-Key interlocking system	Without
Ronis-Key interlocking - release condition	Without

CC : Capacitive voltage indicator

Design	CAPDIS S1+
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