Siemens □□□ Series Service Manual

3RW4443-6BC44

1. Description

3RW4443-6BC44

2. Specifications

Specification	Value
Product	brand name SIRIUS
Product	feature
●	integrated bypass contact system Yes
●	Thyristors Yes
Product	function
●	Intrinsic device protection Yes
●	motor overload protection Yes
●	Evaluation of thermistor motor protection Yes
●	External reset Yes
●	Adjustable current limitation Yes
●	inside-delta circuit Yes
Product	component Motor brake output Yes
Insulation	voltage rated value V 690
Degree	of pollution 3, acc. to IEC 60947-4-2
Reference	code acc. to DIN EN 61346-2 Q
Reference	code acc. to DIN 40719 extended
according	to IEC 204-2 acc. to IEC 750
G	

3. Product Information

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3RW4443-6BC44 | Siemens | SIRIUS Soft Starter

Manufacturer : Siemens

Product No. : 3RW4443-6BC44

Product Type : SIRIUS Soft Starter

400 V

40°C standard

203 A

110 kW Inside-delta

352 A

200 kW 200-460 V AC

230 V AC Screw terminals

General technical data

Product brand name SIRIUS

Product feature

● integrated bypass contact system Yes

● Thyristors Yes

Product function

● Intrinsic device protection Yes

● motor overload protection Yes

● Evaluation of thermistor motor protection Yes

● External reset Yes

● Adjustable current limitation Yes

● inside-delta circuit Yes

Product component Motor brake output Yes

Insulation voltage rated value V 690

Degree of pollution 3, acc. to IEC 60947-4-2

Reference code acc. to DIN EN 61346-2 Q

Reference code acc. to DIN 40719 extended

according to IEC 204-2 acc. to IEC 750

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Power Electronics

Product designation Soft starter

Operating current

● at 40 °C rated value A 203

● at 50 °C rated value A 180

● at 60 °C rated value A 156

Operating current for three-phase motors at insidedelta circuit

● at 40 °C rated value A 352

● at 50 °C rated value A 312

● at 60 °C rated value A 270

Mechanical power output for three-phase motors

● at 230 V

— at standard circuit at 40 °C rated value W 55 000

— at inside-delta circuit at 40 °C rated value W 110 000

● at 400 V

— at standard circuit at 40 °C rated value W 110 000

— at inside-delta circuit at 40 °C rated value W 200 000

Yielded mechanical performance [hp] for three-phase

AC motor at 200/208 V at standard circuit at 50 °C

rated value

hp 50

Operating frequency rated value Hz 50 ... 60

Relative negative tolerance of the operating

frequency

% -10

Relative positive tolerance of the operating frequency % 10

Operating voltage at standard circuit rated value V 200 ... 460

Relative negative tolerance of the operating voltage

at standard circuit

% -15

Relative positive tolerance of the operating voltage at

standard circuit

% 10

Operating voltage at inside-delta circuit rated value V 200 ... 460

Relative negative tolerance of the operating voltage

at inside-delta circuit

% -15

Relative positive tolerance of the operating voltage at

inside-delta circuit

% 10

Minimum load [%] % 8

Adjustable motor current for motor overload

protection minimum rated value

A 40

Continuous operating current [% of Ie] at 40 °C % 115

Power loss [W] at operating current at 40 °C during

operation typical

W 89

Control circuit/ Control

Type of voltage of the control supply voltage AC

Control supply voltage frequency 1 rated value Hz 50

Control supply voltage frequency 2 rated value Hz 60

Relative negative tolerance of the control supply

voltage frequency

% -10

Relative positive tolerance of the control supply

voltage frequency

% 10

Control supply voltage 1 at AC

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● at 50 Hz rated value V 230

● at 60 Hz rated value V 230

Relative negative tolerance of the control supply

voltage at AC at 50 Hz

% -15

Relative positive tolerance of the control supply

voltage at AC at 50 Hz

% 10

Relative negative tolerance of the control supply

voltage at AC at 60 Hz

% -15

Relative positive tolerance of the control supply

voltage at AC at 60 Hz

% 10

Display version for fault signal Display

Mechanical data

Width mm 210

Height mm 230

Depth mm 298

Mounting type screw fixing

Mounting position with vertical mounting surface +/-90° rotatable, with

vertical mounting surface +/- 22.5° tiltable to the front

and back

Required spacing with side-by-side mounting

● upwards mm 100

● at the side mm 5

● downwards mm 75

Wire length maximum m 500

Number of poles for main current circuit 3

Connections/ Terminals

Type of electrical connection

● for main current circuit busbar connection

● for auxiliary and control current circuit screw-type terminals

Number of NC contacts for auxiliary contacts 0

Number of NO contacts for auxiliary contacts 3

Number of CO contacts for auxiliary contacts 1

Type of connectable conductor cross-sections for

main contacts for box terminal using the front

clamping point

● finely stranded with core end processing 70 ... 240 mm²

● finely stranded without core end processing 70 ... 240 mm²

stranded 95 ... 300 mm²

Type of connectable conductor cross-sections for

main contacts for box terminal using the back

clamping point

● finely stranded with core end processing 120 ... 185 mm²

● finely stranded without core end processing 120 ... 185 mm²

● stranded 120 ... 240 mm²

Type of connectable conductor cross-sections for

main contacts for box terminal using both clamping

points

● finely stranded with core end processing min. 2x 50 mm², max. 2x 185 mm²

● finely stranded without core end processing min. 2x 50 mm², max. 2x 185 mm²

● stranded max. 2x 70 mm², max. 2x 240 mm²

Type of connectable conductor cross-sections at

AWG conductors for main contacts for box terminal

● using the back clamping point 250 ... 500 kcmil

● using the front clamping point 3/0 ... 600 kcmil

● using both clamping points min. 2x 2/0, max. 2x 500 kcmil

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Type of connectable conductor cross-sections for

DIN cable lug for main contacts

● finely stranded 50 ... 240 mm²

● stranded 70 ... 240 mm²

Type of connectable conductor cross-sections for

auxiliary contacts

● solid 2x (0.5 ... 2.5 mm²)

● finely stranded with core end processing 2x (0.5 ... 1.5 mm²)

Type of connectable conductor cross-sections at

AWG conductors

● for main contacts 2/0 ... 500 kcmil

● for auxiliary contacts 2x (20 ... 14)

● for auxiliary contacts finely stranded with core

end processing

2x (20 ... 16)

Ambient conditions

Installation altitude at height above sea level m 5 000

Environmental category

● during transport acc. to IEC 60721 2K2, 2C1, 2S1, 2M2 (max. fall height 0.3 m)

● during storage acc. to IEC 60721 1K6 (only occasional condensation), 1C2 (no salt

mist), 1S2 (sand must not get inside the devices),

1M4

● during operation acc. to IEC 60721 3K6 (no formation of ice, no condensation), 3C3 (no

salt mist), 3S2 (sand must not get into the devices),

3M6

Ambient temperature

● during operation °C 60

during storage °C -25 ... +80

Derating temperature °C 40

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