# 1 Phase electronic contactor (SC 1)



- Rated operational voltage up to 600VAC 50/60 Hz
- Rated operational current up to 15/30A/50/63A AC-1
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 22.5, 45, or 90 mm
- LED Status indication
- Meets EN 60947-4-3 requirements
- Requires no additional components
- Built-in varistor protection
- IP-20 Protection

						-	P-20 Pro	tection				
Item se	election a	and tech	nical spe	ecificat	tions							
Load AC-1/51 Heating- element	Load AC-3 Motor	Load AC-55b Lamp	Load AC-56a Trans- former	Contro		Item number 12-240VAC 5 Line Voltage	50/60Hz	Item number 24-480VAC 5 Line Voltage	0/60Hz	Item numb 24-600VAC Line Voltag	50/60Hz	Module- width
454	15A	454	454	5-24 VI	DC	SC 1 DD 231	5	SC 1 DD 401	5	SC 1 DD 60	)15-1*	22.5mm
15A	10A by 600 VAC	15A	15A	24-230	VAC/DC	SC 1 DA 231	5 SC 1 DA 4015 SC 1 DA			SC 1 DA 60	15-1*	22.5mm
224	1.54	004	454	5-24 VI	DC	SC 1 DD 233	30	SC 1 DD 403	0	SC 1 DD 60	)30	45mm
30A	15A	20A	15A	24-230	VAC/DC	SC 1 DA 233	0	SC 1 DA 403	0	SC 1 DA 60	30	45mm
				5-24 VI	DC	SC 1 DD 235	50	SC 1 DD 405	0	SC 1 DD 60	)50	90mm
50A	15A	20A	15A	24-230	VAC/DC	SC 1 DA 235	0	SC 1 DA 405	0	SC 1 DA 60	50	90mm
				5-24 VI	DC	SC 1 DD 236	3*	SC 1 DD 406	3*	SC 1 DD 60	)63*	90mm
63A	30A	40A	30A	24-230	VAC/DC	SC 1 DA 236	3*	SC 1 DA 406	3*	SC 1 DA 60	63*	90mm
Output	load spe	ecificatio	on	<u>'</u>						1		1
Leakage	current				1mA ACm	nax.	Min. operational current				10mA	
Duty cycl	le				100%							
Contro	I termina	ıl specifi	cations									
SC 1 DD	XXXX (DC	;)					SC 1 DA	XXXX (AC/DC	)			
Control v	oltage				5-24 VDC	5-24 VDC Control voltage					24-230 VA	C/DC
Pick-up v	oltage max	<b>.</b> .			4.25 VDC Pick-up voltage max.					20.4 VAC/DC		
Drop-out	voltage mi	n.			1.5 VDC Drop-out vo			t voltage min.			7.2 VAC/D	С
Control c	urrent volta	ıge			15 mA@2	24 VDC	Control cu	ırrent / power r	nax.		6 mA / 1.5VA@24 VD0	
Max. con	itrol voltage				32 VDC		Max. control voltage				253 VAC/DC	
Respons	e time max				1/2 cycle		Response	time max.	1 cycle			
Therma	al specifi	cation										
Power dis	ssipation for	continuou	s operation	PDmax	1.2 W/A			in ambient temports is limited eithe				
Power di	ssipation fo	r intermitte	ent operatio	n PD	1.2 W/A x	dutycycle		ycle as shown i				,
Cooling r	method				Natural co	onvection	By 40°C		By 50 <sup>o</sup> C		By 60°C	
Mounting	ı				Vertical +	/-30 <sup>0</sup>	100% load	Duty-cycle 100%	80% load Du	ty-cycle max. 0.8	70% load Du	uty-cycle max. 0.6
Operating	g temperatu	ıre range E	EN 60947-4	-3	-5°C to 4	0°C	Environ	ment				
Max. operating temperature with current derating					60°C		Degree of	protection	IP 20	Pollution d	legree	3
Storage t	temperature	EN 60947	7-4-3		-20 <sup>O</sup> C to	80 <sup>0</sup> C	Approv	 al		1		I
Insulat	ion spec	ification	s					lo. 508. But no	ot SC1 DX 6	6015-1 + SC1	DX XX63	
Rated ins	sulation volt	tage			Ui 660 \	/olt	UL:Use th	ermal overload en protected b	protection	as required b	y the Nation	
Rated im	pulse withs	tand voltaç	ge		Uimp. 4	kVolt	266% of r	notor FLA, this t more than 5,0	device is ra	ated for use o	n a circuit ca	pable of deli
Installatio	on catagory				1 111			surroundina te			.s. 55, 555 V	aamiuiii.

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Installation catagory

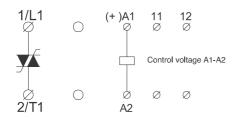
Maximum surrounding temperature 40°C.

# 1 Phase electronic contactor (SC 1)

# Wiring specifications

### SC 1 DX XXXX

11-12: for UP62 or other wiring purposes



### Short-circuit protection by fuses

Two type of short-circuit protection can be used:

### Short-circuit protection by fuses

Fuse short-circuit protection is divided into 2 levels Type 1 or Type 2

 Co-ordination Type 1: Short-circuit protects the installation

 SC 1 DX XX15
 Protection max. 50A gL/gG

 SC 1 DX XX15-1
 Protection max. 50A gL/gG

 SC 1 DX XX30
 Protection max. 50A gL/gG

 SC 1 DX XX50
 Protection max. 50A gL/gG

 SC 1 DX XX63A
 Protection max. 80A gL/gG

Co-ordination Type 2: Short-circuit protects the installation and the semi conductors inside the motor controller

 SC 1 DX XX15
 Protection max. i²t of the fuse
 1800 A²S

 SC 1 DX XX15-1
 Protection max. i²t of the fuse
 1800 A²S

 SC 1 DX XX30
 Protection max. i²t of the fuse
 1800 A²S

 SC 1 DX 6030
 Protection max. i²t of the fuse
 6300 A²S

 SC 1 DX XX50
 Protection max. i²t of the fuse
 6300 A²S

 SC 1 DX 6050
 Protection max. i²t of the fuse
 6300 A²S

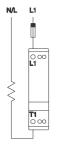
 SC 1 DX XX63
 Protection max. i²t of the fuse
 6300 A²S

 SC 1 DX 6063
 Protection max. i²t of the fuse
 6300 A²S

Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

# Short Circuit Protection with standard fuse for SC1DX...15



# Short Cicuit Protection for SC1 DX XX15 (15 A Type) Co-ordination Type 2

Line Voltage up to 480 V. Due to the over sized Output SCR's the contactor is fully protected by a standard fuse up to 16 A. Operating Class gL/gG...

# No need for Ultra Fast Fuses

Max Load at 230 V: 3.5 kW Max Load at 400 V: 6.0 kW Max Load at 480 V: 7.2 kW

# EMC

This component meets the requirements of the product standard EN 60947-4-3 and is CE marked according to this standard. This products has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods.

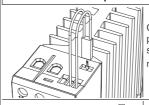
# **Utilisation Categories (EN 60947-4-3)**

AC - 55a Switching of electric discharge lamp controls

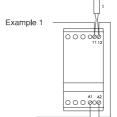
AC - 55b Switching of incandescent lamps

AC - 56a Switching of transformers

# Thermal overload protection (see also page 44)



Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62

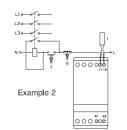


The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

### Note:

When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.



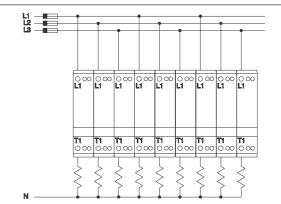
The thermostat is connected in series with the control circuit of the main contactor.

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

### Note:

A manual reset is necessary to restart this circuit.

# Common Short Circuit Protection SC 1 DX XX15



# Short Cicuit Protection for several Contactors e.g. SC1 DX XX15

Max Fuse 50 A gL/gG for Short Circuit Coordination type 1

# SC1 DX 2315 / SC 1 DX 4015

Max Fuse 1800 A<sup>2</sup>s e.g. Siemens SILIZED 5SD4 60 Short Circuit Coordination type 2

# SC1 DX 6015

Max Fuse 450 A<sup>2</sup>s e.g. Siemens SILIZED 5SD4 50 Short Circuit Coordination type 2

# Dimensions (se also page 44)

Type	Н	D	W
22.5 mm module	94 mm	124.3 mm	22.5 mm
45 mm module	94 mm	124.3 mm	45 mm

# Mounting and cable wiring information

Mounting information see page 44 / Cable wiring see page 45

# 1 Phase electronic contactor (RC 11 Heatingelement)



- Rated operational voltage up to 480VAC 50/60 Hz
- Rated operational current up to 10/15/30/50/63A AC-1
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 22.5, 45 or 90 mm
- LED Status indication
- Meets EN 60947-4-3 requirements
- Requires no additional components
- Built-in varistor protection
- IP-20 Protection

Load AC-1/51 Heating- element	Control voltage	Item number by 12-240VAC 50/60Ha Line Voltage	_	Load in kW by 230V	EAN Nr. 5705 609	Item number by 24-480VAC 50/60Hz Line Voltage		ad kW 400V	EAN Nr. 5705 609	Module-wid	lth
10A	5-24 VDC	RC 11 DD 2310		2.3 kW	002 152					W = 22.5mm	1
	5-24 VDC	RC 11 DD 2315		Max.	002169	RC 11 DD 4015	Ma	ıv	002 206	W = 22.5mm	
15A	24-230 VAC/DC	RC 11 DA 2315		3.5 kW 002 077		RC 11 DA 4015	6.0	002 114	W = 22.5mm	1	
	5-24 VDC	RC 11 DD 2330	RC 11 DD 2330		002 176	RC 11 DD 4030		X.	002 213	W = 45mm	
30A	24-230 VAC/DC	RC 11 DA 2330		Max. 6.9 kW 002 084		RC 11 DA 4030		0 kW	002 121	W = 45mm	
504	5-24 VDC	RC 11 DD 2350		Max.	002 183	RC 11 DD 4050	Ma	ıx.	002 220	W = 90mm	
50A	24-230 VAC/DC	RC 11 DA 2350	1		002 091	RC 11 DA 4050	20.	.0 kW	002 138	W = 90mm	
CO.A.	5-24 VDC	RC 11 DD 2363			002 190	RC 11 DD 4063	Ma		002 237	W = 90mm	
63A	24-230 VAC/DC	RC 11 DA 2363		14.5 kW	002 107	RC 11 DA 4063	25.	.2 kW	002 145	W = 90mm	
Output	load specifica	tion									
Leakage	current		1mA	ACmax.		Min. operational current	t			10mA	
Duty cycle				100%							
Contro	l terminal spec	ifications									
RC 11 DI	O XXXX (DC)					RC 11 DA XXXX (AC/E	OC)				
Control vo	oltage		5-24	VDC		Control voltage				24-230 VAC/E	OC
Pick-up v	oltage max.		4.25 VDC			Pick-up voltage max.				20.4 VAC/DC	
Drop-out	voltage min.		1.5 VDC			Drop-out voltage min.		7.2 VAC/DC			
Control co	urrent voltage RC	11 DD 2310	8 mA@24 VDC			Control current / power		8 mA / 2.5VA	@24 VDC		
Control c	urrent voltage RC	11 DD XXXX	15 mA@24 VDC			Max. control voltage				253 VAC/DC	
Max. con	trol voltage		32 VDC			Response time max.		1 cycle			
Response	e time max.		1/2 cycle								
Therma	al specification	1									
Power dis	sipation for continu	ous operation PDmax	1.2 V	V/A		Operation in ambient ten dissipation is limited eith					
Power dis	ssipation for interm	ittent operation PD	1.2 V	V/A x dutyo	cycle	the duty-cycle as shown	in the ta	ble. Ma	x.cycle time	15min.	
Cooling n	nethod		Natu	ral convect	tion	By 40 <sup>0</sup> C	By 50 <sup>0</sup>	'C		By 60°C	
Mounting			Verti	cal +/-30 <sup>0</sup>		100% load Duty-cycle 100%	80% loa	ad Duty-c	ycle max. 0.8	65% load Duty-cy	ycle max. 0.6
Operating	temperature rang	e EN 60947-4-3	-5°C	to 40 <sup>o</sup> C		Environment					3
Max. operating temperature with current derating			60 <sup>0</sup> C		ľ	Degree of protection	IP:	20	Pollution de	egree	
Storage to	emperature EN 609	947-4-3	-20 <sup>0</sup>	C to 80°C							
Insulati	on specification	ons	1								
Rated insulation voltage				660 Volt							
Rated imp	oulse withstand vol	tage	Uim	p. 4 kVolt							
Installatio	n catagory		III								

# 1 Phase electronic contactor (RC 11 Heatingelement)

# Wiring specifications

# 

# Short-circuit protection by fuses

Two type of short-circuit protection can be used:

# Short-circuit protection by fuses

Fuse short-circuit protection is divided into 2 levels Type 1 or Type 2

# Co-ordination Type 1: Short-circuit protects the installation RC 11 DX 2310 Protection max. 16A gL/gG RC 11 DX XX15 Protection max. 50A gL/gG RC 11 DX XX30 Protection max. 50A gL/gG RC 11 DX XX50 Protection max. 50A gL/gG RC 11 DX XX63 Protection max. 80A gL/gG

**Co-ordination Type 2:** Short-circuit protects the installation and the semi-conductors inside the motor controller

RC 11 DX 2310	Protection max. i2t of the fuse	180 A <sup>2</sup> S
RC 11 DX XX15	Protection max. i2t of the fuse	610 A <sup>2</sup> S
RC 11 DX XX30	Protection max. i2t of the fuse	610 A <sup>2</sup> S
RC 11 DX XX50	Protection max. i2t of the fuse	1800 A <sup>2</sup> S
RC 11 DX XX63	Protection max. i2t of the fuse	6300 A <sup>2</sup> S

Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

# **EMC**

This component meets the requirements of the product standard EN 60947-4-3 and is CE marked according to this standard. This products has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods.

# Utilisation Categories (EN 60947-4-3)

AC - 51	Switching	of resistive	loads
70 01	CWITCHINIS	OI ICOIOLIVC	iouuo

AC - 55a Switching of electric discharge lamp controls

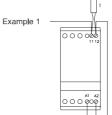
AC - 55b Switching of incandescent lamps

AC - 56a Switching of transformers

# Thermal overload protection (see also page 44)



Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62

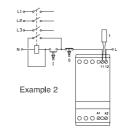


The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

### Note:

When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.



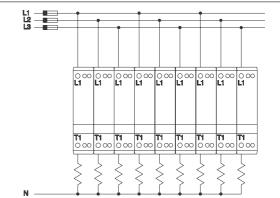
The thermostat is connected in series with the control circuit of the main contactor

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

### Note:

A manual reset is necessary to restart this circuit.

# Common Short Circuit Protection RC 11 DX XX15



# Dimensions (see also page 44)

Туре	Н	D	W
22.5 mm module	94 mm	124.3 mm	22.5 mm
45 mm module	94 mm	124.3 mm	45 mm
90 mm module	94 mm	124.3 mm	90 mm

# Mounting and cable wiring information

Mounting information see page 44 / Cable wiring see page 45

# 1 Phase electronic contactor (SC 1 L for domestic applications)



- Electronic contactor for use in domestic applications
- Rated operational voltage up to 480VAC 50/60 Hz
- Rated operational current up to 30 or 50A AC-1
- Control voltage from 24-230 VAC/DC
- Compact modular design 45 or 90 mm
   Meets EN50081-1 / EN50082-2 requirements
   Built-in varistor protection
   IP-20 Protection

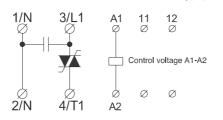
Item se	election a	and tech	nical spe	ecifica	tions									
Load AC-1/51 Heating- element	Load AC-3 Motor	Load AC-55b Lamp	Load AC-56a Trans- former	Contro		Item number 110-230VAC Line Voltage	50/60Hz	Item numbe 380-415VAC Line Voltage	50/					Module- width
30A	15A			24-230	VAC/DC	SC 1 DA 233	0 L	SC 1 DA 403	30 L					45mm
50A	15A			24-230	VAC/DC	SC 1 DA 235	0 L							90mm
Output	load spe	ecificatio	n											
Min. oper	ational cur	rent			10 mA		Filter capa	capacitor / 110-230 VAC					1uF	
Leakage current					1 mA AC	max.	Filter capa	acitor current /	110-	230 VA	С		85/105 mA	
							Filter capa	acitor / 400 VA	C				0.68uF	
							Filter capa	acitor current /	400	VAC			100/120 m/	Ą
Load power by 30A/110-120VAC					3.3kW		Load pow	er by 50A/230	VAC				11.5kW	
Load power by 50A/110-120VAC					5.5kW		Load power by 30A/400VAC					12kW		
Load power by 30A/230VAC					6.9kW									
Contro	I termina	l specifi	cations											
Control ve	oltage				24-230 VA	AC/DC	Control cu	ırrent / power	max.				6 mA / 2.5\	/A@24 VE
Pick-up v	oltage max				20.4 VAC	/DC	Max. cont	rol voltage					253 VAC/D	С
Drop-out	voltage mir	٦.			7.2 VAC/E	C	Response time max.					1 cycle		
Therma	al specifi	cation												
Power dis	sipation for	continuous	operation	PDmax	1.2 W/A			in ambient tem						
Power dis	ssipation fo	r intermitte	nt operatio	n PD	1.2 W/A x	dutycycle	the duty-c	cle as shown	in the	table. I	Max.	cycle time	e 15min.	,
Cooling n	nethod				Natural co	nvection	By 40°C		Ву	50°C			By 60°C	
Mounting					Vertical +/	-30 <sup>o</sup>	100% load	Duty-cycle 100%	80% load Duty-cycle max. 0.8		max. 0.8	70% load Dut	y-cycle max. (	
Operating	g temperatu	ire range E	EN 60947-4	-3	-5 <sup>O</sup> C to 40	o <sub>o</sub> C	Environ	ment	•					
Max. oper	ating tempe	rature with	current dera	iting	60°C		Degree of	protection		IP 20	P	ollution d	legree	3
Storage t	emperature	EN 60947	7-4-3		-20 <sup>o</sup> C to 8	30°C	EMC				1			1
Insulati	ion spec	ifications	S					onent meets						
Rated ins	sulation volt	age			Ui 660 V	olt	this stand	'-4-3 / EN5008 ard. This prod	ucts	has bee	en de	signed fo	or class B equ	ipment.
Rated imp	pulse withs	tand voltag	je		Uimp. 4 k	Volt	Meets EN50081-1 / EN50082-2 requirements. (use of the product in domestic environments)							
Installatio	n catagory				III			,						

# 1 Phase electronic contactor (SC 1 L for domestic applications)

# Wiring specifications

# SC 1 DA XXXX L

11-12: for UP62 or other wiring purposes



# Short-circuit protection by fuses

Two type of short-circuit protection can be used:

# Short-circuit protection by fuses

Short-circuit protection is divided into 2 levels Type 1 or Type 2

Co-ordination Type 1: Short-circuit protects the installation SC 1 DX 2330 L Protection max. 50A gL/gG SC 1 DX 2350 L / 4030 L Protection max. 50A gL/gG

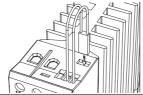
**Co-ordination Type 2:** Short-circuit protects the installation and the semi-conductors inside the motor controller

SC 1 DX XX30 Protection max. i<sup>2</sup>t of the fuse 1800 A<sup>2</sup>S SC 1 DX XX50 Protection max. i<sup>2</sup>t of the fuse 1800 A<sup>2</sup>S

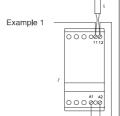
Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

# Thermal overload protection (see also page 44)



Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62

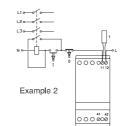


The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

### Note:

When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.



The thermostat is connected in series with the control circuit of the main contactor.

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

### Note:

A manual reset is necessary to restart this circuit.

# Mounting and cable wiring information

Mounting information see page 44 / Cable wiring see page 45

# Applications hints SC 1 DA .... L

1-Phase 230 VAC	1-Phase 400 VAC	3-Phase with N / 230 VAC	3-Phase without N / 400 VAC
SC 1 DA 2330 L = 6.9 kW Max  SC 1 DA 2350 L = 11.5 kW Max  N L1	SC 1 DA 4030 L = 12 kW Max  L L	3 x SC 1 DA 2330 L = 20.7 kW Max 3 x SC 1 DA 2350 L = 34.5 kW Max  N L1	3 x SC 1 DA 4030 L = 36 kW Max
W 475 000	₩ 47 000	₩ 471 ∅ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	# 20 coo   # 20 coo

Type H D	W
45 mm module 94 mm 124.3 m	m 45 mm
90 mm module 94 mm 124.3 m	m 90 mm

# 1 Phase dual pole electronic contactor (SC 2)



Item selection and technical specifications

- Rated operational voltage up to 600VAC 50/60 Hz
- Rated operational current up to 30/50A AC-1 (accumulated)
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 45 or 90 mm
- LED Status indication
- Meets EN 60947-4-3 requirements
- Requires no additional components
- Built-in varistor protection
- IP-20 Protection

Load AC-1/51 Heating- element	Load AC-3 Motor	Load AC-55b Lamp	Load AC-56a Trans- former	Contro voltag		Item number 12-240VAC 5 Line Voltage	0/60Hz	Item numbe 24-480VAC Line Voltage	50/60Hz	24-6	numbe 00VAC Voltage	50/60Hz	Module width	
30A1	15A	20A	15A	5-24 VI	OC OC	SC 2 DD 233	0	SC 2 DD 403	30	SC 2	DD 60	30	45mm	
accumulated	IJA			24-230	VAC/DC	SC 2 DA 2330	0	SC 2 DA 4030			DA 603	30	45mm	
50A1	450	20A	15A	5-24 VI	DC DC	SC 2 DD 235	0	SC 2 DD 4050 SC 2 DD 60				50	90mm	
50A <sup>1</sup> accumulated	15A	20/4	134	24-230	VAC/DC	SC 2 DA 2350	0	SC 2 DA 4050 SC 2 DA 6				50	90mm	
<sup>1</sup> The indic	ated loads	are accumu	lated. E.g. th	ne total s	um of the cu	urrent in L1 & L2	(1x30A or 2	x15A)						
Output	load sp	ecificatio	n											
Leakage	current				1mA ACm	ax.	Min. opera	ational current				10mA		
Duty cycle 10														
Contro	l termina	al specifi	cations		ı		1							
SC 2 DD	XXXX (DO	C)					SC 2 DA	XXXX (AC/DC	)					
Control voltage					5-24 VDC		Control voltage					24-230 VAC/DC		
Pick-up v	oltage max	Κ.			4.25 VDC		Pick-up voltage max.					20.4 VAC/DC		
Drop-out	voltage mi	n.			1.5 VDC		Drop-out v	voltage min.				7.2 VAC/DC	:	
Control c	urrent volta	age			15 mA@2	4 VDC	Control cu	ırrent / power ı	max.			6mA / 1.5VA	\@24 VD	
Max. con	trol voltage	9			32 VDC		Max. control voltage					253 VAC/DC		
Response	e time max	ζ.			1/2 cycle		Response time max.				1 cycle			
Therma	al specif	ication			<u> </u>							<u>'</u>		
Power dis	sipation fo	r continuous	s operation	PDmax	2.2 W/A a	ccumulated		in ambient tem						
Power dis	ssipation fo	or intermitte	nt operation	n PD	2.2 W/A x	dutycycle		ycle as shown i	,	0			by reduc	
Cooling n	nethod				Natural co	onvection	By 40 <sup>o</sup> C		By 50 <sup>o</sup> C			By 60°C		
Mounting					Vertical +/	-30°	100% load	Duty-cycle 100%	80% load Du	ity-cycle m	nax. 0.8	70% load Duty	-cycle max.	
Operating	g temperat	ure range E	EN 60947-4	-3	-5 <sup>O</sup> C to 40	o <sub>o</sub> C	Environ	ment				I		
Max. operating temperature with current derating					60°C			protection	IP 20	Poll	lution de	egree	3	
Storage t	torage temperature EN 60947-4-3 -20°C to 80°C							•	1	1. ***			1 -	
Insulati	ion spec	ification	s				Approva							
Rated insulation voltage Ui 660 Volt							UL:Use thermal overload protection as required by the National Electric Code. When protected by a non-time delay K5 or H Class fuse, rated							
Rated impulse withstand voltage Uimp. 4 kVolt							266% of motor FLA, this device is rated for use on a circuit capable of deli							

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vering not more than 5,000 rms. symmetrical amperes, 600 V maximum.

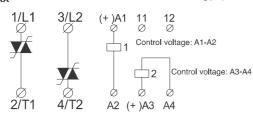
Maximum surrounding temperature 40°C.

# 1 Phase dual pole electronic contactor (SC 2)

# Wiring specifications

# SC 2 DX XXXX

11-12: for UP62 or other wiring purposes



# Short-circuit protection by fuses

Two type of short-circuit protection can be used:

# Short-circuit protection by fuses

Short-circuit protection is divided into 2 levels Type 1 or Type 2

 Co-ordination Type 1: Short-circuit protects the installation

 SC 2 DX XX30
 Protection max. 50A gL/gG

 SC 2 DX XX50
 Protection max. 50A gL/gG

**Co-ordination Type 2:** Short-circuit protects the installation and the semi-conductors inside the motor controller

SC 2 DX XX30 Protection max. i²t of the fuse 1800 A²S SC 2 DX XX50 Protection max. i²t of the fuse 1800 A²S

Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

# **EMC**

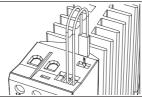
This component meets the requirements of the product standard EN 60947-4-3 and is CE marked according to this standard.

This products has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods.

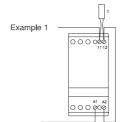
# Dimensions (se also page 44)

Type	н	D	W
45 mm module	94 mm	124.3 mm	45 mm

# Thermal overload protection (see also page 44)



Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62

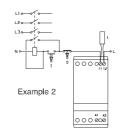


The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

### Note:

When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.



The thermostat is connected in series with the control circuit of the main contactor.

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

# Note:

A manual reset is necessary to restart this circuit.

# **Utilisation Categories (EN 60947-4-3)**

AC - 51 Switching of resistive loads

AC - 55a Switching of electric discharge lamp controls

AC - 55b Switching of incandescent lamps

AC - 56a Switching of transformers

# Mounting and cable wiring information

Mounting information see page 44 / Cable wiring see page 45

# 1 Phase dual pole electronic contactor (RC 22 Heatingelement)



- Rated operational voltage up to 480VAC 50/60 Hz
- Rated operational current up to 30 / 50A AC-1 (accumulated)
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 45 or 90 mm
- LED Status indication
- Meets EN 60947-4-3 requirements
- Requires no additional componentsBuilt-in varistor protection
- IP-20 Protection

Item se	lection and ted	chnical specificat	tions	5							
Load AC-1/51 Heating- element	Control voltage	Item number by 12-240VAC 50/60H Line Voltage	z	Load in kW by 230V	EAN Nr. 5705 609	Item number by 24-480VAC 50/60Hz Line Voltage	ir	oad n kW oy 400V	EAN Nr. 5705 609	Module-wid	th
30A1	5-24 VDC	RC 22 DD 2330		Max.	002 282	RC 22 DD 4030	N	Лах.	002 305	W = 45mm	
accumulated	24-230 VAC/DC	RC 22 DA 2330		6.9 kW	002 244	RC 22 DA 4030	1	2.0 kW	002 268	W = 45mm	
50A <sup>1</sup>	5-24 VDC	RC 22 DD 2350		Max.	002 374	RC 22 DD 4050	N	Лах.	002 312	W = 90mm	
accumulated	24-230 VAC/DC	RC 22 DA 2350		11.5 kW	002 336	RC 22 DA 4050	2	0.0 kW	002 275	W = 90mm	
<sup>1</sup> The indic	ated loads are accur	mulated. E.g. the total s	sum of	f the current	in L1 & L2	(1x30A / 1x 50A or 2x15A	/ 2x25/	A)			
Output	load specifica	tion									
Leakage current				A ACmax.		Min. operational curren	t			10mA	
Duty cycle				%							
Control	terminal spec	ifications									
RC 22 DD XXXX (DC)						RC 22 DA XXXX (AC/I	OC)				
Control vo	oltage		5-24	4 VDC		Control voltage				24-230 VAC/E	C
Pick-up v	oltage max.		4.25	5 VDC		Pick-up voltage max.				20.4 VAC/DC	
Drop-out	voltage min.		1.5 VDC			Drop-out voltage min.		7.2 VAC/DC			
Control cu	urrent voltage		15 mA@24 VDC			Control current / power		8mA / 2.5VA@	924 VDC		
Max. cont	trol voltage		32 VDC			Max. control voltage		253 VAC/DC			
Response	e time max.		1/2 cycle			Response time max.	1 cycle				
Therma	al specification										
Power dis	sipation for continue	ous operation PDmax	1.2	W/A accum	ulated	Operation in ambient ter dissipation is limited eith					
Power dis	ssipation for intermi	ttent operation PD	1.2	W/A x dutyo	cycle	the duty-cycle as shown					,
Cooling m	nethod		Nati	ural convec	tion	By 40°C	By 50	o <sub>o</sub> c		By 60°C	
Mounting			Vert	tical +/-30 <sup>0</sup>		100% load Duty-cycle 100%	80% I	load Duty-c	ycle max. 0.8	65% load Duty-cy	cle max. 0.65
Operating	temperature range	e EN 60947-4-3	-500	C to 40 <sup>o</sup> C		Environment	'				
Max. opera	ating temperature wi	th current derating	60 <sup>0</sup>	С		Degree of protection	IF	P 20	Pollution de	earee	3
Storage to	emperature EN 609	947-4-3	-200	C to 80°C			1"				1 -
Insulati	on specificatio	ons									
Rated ins	ulation voltage		Ui	660 Volt							

Uimp. 4 kVolt

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Rated impulse withstand voltage

# 1 Phase dual pole electronic contactor (RC 22 Heatingelement)

# Wiring specifications

# 

A2 (+)A3 A4

# Short-circuit protection by fuses

Two type of short-circuit protection can be used:

### Short-circuit protection by fuses

Short-circuit protection is divided into 2 levels Type 1 or Type 2

 Co-ordination Type 1: Short-circuit protects the installation

 RC 22 DX XX30
 Protection max. 50A gL/gG

 RC 22 DX XX50
 Protection max. 50A gL/gG

**Co-ordination Type 2:** Short-circuit protects the installation and the semi-conductors inside the motor controller

RC 22 DX XX30 Protection max. i<sup>2</sup>t of the fuse 610 A<sup>2</sup>S RC 22 DX XX50 Protection max. i<sup>2</sup>t of the fuse 1800 A<sup>2</sup>S

Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

# EMC

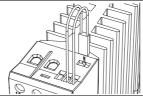
This component meets the requirements of the product standard EN 60947-4-3 and is CE marked according to this standard.

This products has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods,

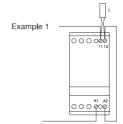
# Mounting and cable wiring information

Mounting information see page 44 / Cable wiring see page 45

# Thermal overload protection (see also page 44)



Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62

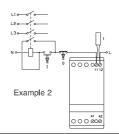


The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

### Note:

When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.



The thermostat is connected in series with the control circuit of the main contactor

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

# Note:

A manual reset is necessary to restart this circuit.

# **Utilisation Categories (EN 60947-4-3)**

AC - 51 Switching of resistive loads

AC - 55a Switching of electric discharge lamp controls

AC - 55b Switching of incandescent lamps

AC - 56a Switching of transformers

Type	Н	D	W
45 mm module	94 mm	124.3 mm	45 mm
90 mm module	94 mm	124.3 mm	90 mm



# 3 Phase dual pole electronic contactor (RC 32 Heatingelement)



- Rated operational voltage up to 480VAC 50/60 Hz
- Rated operational current up to 15 / 25A AC-1
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 45 or 90 mm
- LED Status indication
- Meets EN 60947-4-3 requirements
- Requires no additional components
- Built-in varistor protection
- IP-20 Protection

Load AC-1/51 Heating- element	g- Voltage 12-240VAC 50/60Hz		z	Load in kW by 230V	EAN Nr. 5705 609	Item number by 24-480VAC 50/60Hz Line Voltage	Load in kW by 400V	EAN Nr. 5705 609	Module-widt	h	
5-24 VDC						RC 32 DD 4015	Max.	002 428	W = 45mm		
15A	24-230 VAC/DC				RC 32 DA 4015	10.4 kW	002 404	W = 45mm			
054	5-24 VDC					RC 32 DD 4025	Max.	002 435	W = 90mm		
25A	24-230 VAC/DC					RC 32 DA 4025	17.3 kW	002 411	W = 90mm		
Output	load specifica	tion			'		'	'			
Leakage current			1mA	ACmax.		Min. operational current		10mA			
Duty cycle			1009	%							
Contro	l terminal spec	ifications									
RC 32 DD 40XX (DC)					RC 32 DA 40XX (AC/DC)						
Control voltage			5-24 VDC			Control voltage		24-230 VAC/DC			
Pick-up v	oltage max.		4.25 VDC			Pick-up voltage max.		20.4 VAC/DC			
Drop-out	voltage min.		1.5 VDC			Drop-out voltage min.		7.2 VAC/DC			
Control c	urrent voltage		20 mA@24 VDC			Control current / power		8mA / 2.5VA@	24 VDC		
Max. con	trol voltage		32 VDC			Max, control voltage		253 VAC/DC			
Response	e time max.		1/2 cycle Response time max.						1 cycle		
Therma	al specification										
Power dis	ssipation for continue	ous operation PDmax	2.4 W/A			Operation in ambient temperatures exceeding 40°C is possible if the power dissipation is limited either by reducing the steady-state current or by reducin					
Power dis	ssipation for intermi	ttent operation PD	2.4 W/A x dutycycle		1	the duty-cycle as shown					
Cooling r	nethod		Natural convection		tion	By 40 <sup>o</sup> C	By 50°C		By 60°C		
Mounting			Vertical +/-300		-	100% load Duty-cycle 100%	80% load Duty-cycle max. 0.8		65% load Duty-cycle max. 0.68		
Operating temperature range EN 60947-4-3		e EN 60947-4-3	-5°C to 40°C			Environment					
Max. operating temperature with current derating			60°C		L	Degree of protection	IP 20	Pollution de	egree	3	
Storage temperature EN 60947-4-3		-20°C to 80°C		-	3	1	1		1		
Insulat	ion specification	ons									
Rated ins	sulation voltage		Ui	660 Volt							
Rated impulse withstand voltage			Uim	np. 4 kVolt							
Installation catagory			III								

# 3 Phase dual pole electronic contactor (RC 32 Heatingelement)

# Wiring specifications

# 11-12: for UP62 or other wiring purposes 1/L1 3/L2 5/L3 (+)A1 11 12 Control voltage: A1-A2 2/T1 4/T2 6/T3 A2

# Short-circuit protection by fuses

Two type of short-circuit protection can be used:

### Short-circuit protection by fuses

Short-circuit protection is divided into 2 levels Type 1 or Type 2

 Co-ordination Type 1: Short-circuit protects the installation

 RC 32 DX 4015
 Protection max. 50A gL/gG

 RC 32 DX 4025
 Protection max. 50A gL/gG

**Co-ordination Type 2:** Short-circuit protects the installation and the semi-conductors inside the motor controller

RC 32 DX 4015 Protection max. i<sup>2</sup>t of the fuse RC 32 DX 4025 Protection max. i<sup>2</sup>t of the fuse 610 A<sup>2</sup>S 610 A<sup>2</sup>S

Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

# EMC

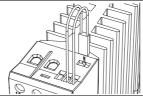
This component meets the requirements of the product standard EN 60947-4-3 and is CE marked according to this standard.

This products has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods,

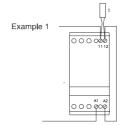
# Mounting and cable wiring information

Mounting information see page 44 / Cable wiring see page 45

# Thermal overload protection (see also page 44)



Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62

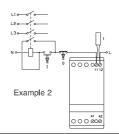


The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

### Note:

When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.



The thermostat is connected in series with the control circuit of the main contactor

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

# Note:

A manual reset is necessary to restart this circuit.

# **Utilisation Categories (EN 60947-4-3)**

AC - 51 Switching of resistive loads

AC - 55a Switching of electric discharge lamp controls

AC - 55b Switching of incandescent lamps

AC - 56a Switching of transformers

Type	Н	D	W
45 mm module	94 mm	124.3 mm	45 mm
90 mm module	94 mm	124.3 mm	90 mm



# 3 Phase electronic contactor (SC 3)



- Rated operational voltage up to 600VAC 50/60 Hz
- Rated operational current up to 10 / 20 A AC-1
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 45 or 90 mm
- LED Status indication
- Meets EN 60947-4-3 requirements
- Requires no additional components
- Built-in varistor protection
- IP-20 Protection

Item se	election	and tech	nical spe	cificat	ions									
Load AC-1/51 Heating- element	Load AC-3 Motor	Load AC-55b Lamp	Load AC-56a Trans- former	Control voltage		Item number 12-240VAC 5 Line Voltage			50/60Hz 24-600VAC		DOVAC	50/60Hz	Module width	
				5-24 VI	4 VDC SC 3 DD 23		0 SC 3 DD 4010 S			SC 3 DD 6010		45mm		
10A	10A	10A	5A	24-230	VAC/DC	SC 3 DA 2310	0 SC 3 DA 4010			SC 3 DA 6010		10	45mm	
20.4	10.4	104		5-24 VI	OC .	SC 3 DD 232	0	SC 3 DD 402	20		SC 3	DD 60	20	90mm
20A	10A	10A	5A	24-230 VAC/DC		SC 3 DA 2320	)	SC 3 DA 402	20		SC 3	DA 60	20	90mm
Output	load sp	ecificatio	n											
Leakage current 1r				1mA ACm	ıax.	Min. opera	ational current					10mA		
Duty cycle				100%										
Contro	I termina	al specifi	cations											
SC 3 DD XXXX (DC)					sc		SC 3 DA XXXX (AC/DC)							
Control voltage				5-24 VDC		Control voltage						24-230 VAC/DC		
Pick-up voltage max.				4.25 VDC		Pick-up voltage max.					20.4 VAC/DC			
Drop-out voltage min.				1.5 VDC		Drop-out voltage min.					7.2 VAC/DO	)		
Control c	urrent volta	age			15 mA@24 VDC		Control current / power max.					6mA / 1.5V/	4@24 VE	
Max. con	trol voltage	Э			32 VDC Max. control voltage			rol voltage					253 VAC/D	Э
Respons	e time max	. (ON/OFF	)		1/2 cycle		Response time max. (ON/OFF)				1 cycle			
Therm	al specif	ication												
Power dis	ssipation fo	r continuous	s operation	PDmax	3.3 W/A		Operation in ambient temperatures exceeding 40°C is possible if the pow dissipation is limited either by reducing the steady-state current or by redu							
Power di	ssipation fo	or intermitte	nt operation	n PD	3.3 W/A x dutycycle		the duty-cycle as shown in the table. Max.c			Max.cy	cle time	15min.	,	
Cooling method					Natural convection		By 40°C By		By 50 <sup>o</sup> C		By 60°C			
Mounting			Vertical +/-30 <sup>0</sup>		100% load Duty-cycle 100% 80% load Duty-cy		ry-cycle max. 0.8 70% load Duty-cycle		y-cycle max.					
Operating temperature range EN 60947-4-3			-5°C to 40°C		Environment					<u>'</u>				
Max. operating temperature with current derating				60°C				Poll	Pollution degree		3			
Storage temperature EN 60947-4-3			-20°C to 80°C		Approva	al			1			I		
Insulat	ion spec	ification	S				cUL Std N							
Rated ins	sulation vol	tage			Ui 660 V	/olt	UL: Use thermal overload protection as required by the National Electric Code. When protected by a non-time delay K5 or H Class fuse, rated							
Rated impulse withstand voltage			Uimp, 4 l	kVolt	266% of motor FLA, this device is rated for use on a circuit capable of d									



vering not more than 5,000 rms. symmetrical amperes, 600 V maximum.

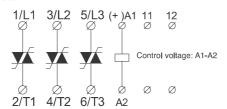
Maximum surrounding temperature 40°C.

# 3 Phase electronic contactor (SC 3)

# Wiring specifications

# SC 3 DX XXXX

11-12: for UP62 or other wiring purposes



# Short-circuit protection by fuses

Two type of short-circuit protection can be used:

### Short-circuit protection by fuses

Short-circuit protection is divided into 2 levels Type 1 or Type 2

Co-ordination Type 1: Short-circuit protects the installation SC 3 DX XX10 Protection max. 50A gL/gG SC 3 DX XX20 Protection max. 50A gL/gG

**Co-ordination Type 2:** Short-circuit protects the installation and the semi-conductors inside the motor controller

SC 3 DX XX10 Protection max. i<sup>2</sup>t of the fuse 610 A<sup>2</sup>S SC 3 DX XX20 Protection max. i<sup>2</sup>t of the fuse 610 A<sup>2</sup>S

Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

# EMC

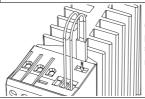
This component meets the requirements of the product standard EN 60947-4-3 and is CE marked according to this standard.

This products has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods.

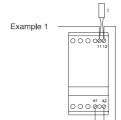
# Mounting and cable wiring information

Mounting information see page 44 / Cable wiring see page 45

# Thermal overload protection (see also page 44)



Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62

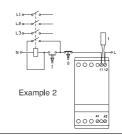


The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

# Note:

When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.



The thermostat is connected in series with the control circuit of the main contactor

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

**Note:** A manual reset is necessary to restart this circuit.

# **Utilisation Categories (EN 60947-4-3)**

AC - 51 Switching of resistive loads

AC - 55a Switching of electric discharge lamp controls

AC - 55b Switching of incandescent lamps

AC - 56a Switching of transformers

Type	Н	D	W
45 mm module	94 mm	124.3 mm	45 mm

# 3 Phase electronic contactor (RC 33 Heatingelement)



- Rated operational voltage up to 480VAC 50/60 Hz
- Rated operational current up to 10 / 20A AC-1
- Control voltage from 5-24 VDC or 24-230 VAC/DC
- Compact modular design 45 or 90 mm
- LED Status indication
- Meets EN 60947-4-3 requirements
  Requires no additional components
  Built-in varistor protection
- IP-20 Protection

	election and tec	chnical specificat	tions	1					1	<u> </u>	
Load AC-1/51 Heating- element	Control voltage	Item number by 12-240VAC 50/60Hz Line Voltage		in kW 5705 60	EAN Nr. 5705 609		i	∟oad n kW oy 400V	EAN Nr. 5705 609	Module-width	
104	5-24 VDC	RC 33 DD 2310	Max.		002 367	RC 33 DD 4010	N	Max.	002 381	W = 45mm	
10A	24-230 VAC/DC	RC 33 DA 2310		4.0 kW	002 329	RC 33 DA 4010	6	6.9 kW	002 343	W = 45mm	
20A	5-24 VDC	RC 33 DD 2320		Max.	002 374	RC 33 DD 4020	N	Лах.	002 398	W = 90mm	
20A	24-230 VAC/DC	RC 33 DA 2320		8.0 kW	002 336	RC 33 DA 4020	1	13.9 kW	002 350	W = 90mm	
Output	load specifica	tion									
Leakage	current		1mA	ACmax.		Min. operational current	t			10mA	
Duty cycl	е		100	%							
Contro	l terminal spec	ifications									
RC 33 DI	D XXXX (DC)					RC 33 DA XXXX (AC/E					
Control ve	oltage		5-24 VDC			Control voltage				24-230 VAC/DC	
Pick-up voltage max.			4.25 VDC			Pick-up voltage max.			20.4 VAC/DC		
Drop-out	voltage min.		1.5 VDC			Drop-out voltage min.				7.2 VAC/DC	
Control c	urrent voltage		25 mA@24 VDC		С	Control current / power max.				8mA / 2.5VA@	24 VDC
Max. con	trol voltage		32 VDC			Max. control voltage				253 VAC/DC	
Response	e time max. (ON/OI	FF)	1/2 cycle			Response time max. (ON/OFF)				1 cycle	
Therma	al specification										
Power dis	ssipation for continue	ous operation PDmax	3.6 W/A			Operation in ambient ten					
Power dis	ssipation for intermi	ittent operation PD	3.6 W/A x dutycycle		cycle	the duty-cycle as shown in the table. Max.cycle tir			x.cycle time	, ,	
Cooling n	nethod		Natural convection		tion	By 40°C	By 50°C			By 60°C	
Mounting		Vertical +/-300			100% load Duty-cycle 100%	80% load Duty-cycle max. 0.8		65% load Duty-cycle max. 0.65			
Operating temperature range EN 60947-4-3		-5°C to 40°C			Environment						
Max. operating temperature with current derating			60°C			Degree of protection		P 20	Pollution de	egree	3
Storage temperature EN 60947-4-3			-20 <sup>C</sup>	C to 80°C			<u> </u>				ı
Insulati	ion specificatio	ons									
Rated insulation voltage		Ui	660 Volt								
Rated impulse withstand voltage			Uin	np. 4 kVolt							
			1								

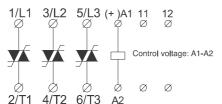
III

# 3 Phase electronic contactor (RC 33 Heatingelement)

# Wiring specifications

# RC 33 DX XXXX

11-12: for UP62 or other wiring purposes



# Short-circuit protection by fuses

Two type of short-circuit protection can be used:

### Short-circuit protection by fuses

Short-circuit protection is divided into 2 levels Type 1 or Type 2

Co-ordinationType 1: Short-circuit protects the installationRC 3 DX XX10Protection max. 50A gL/gGRC 3 DX XX20Protection max. 50A gL/gG

**Co-ordination Type 2:** Short-circuit protects the installation and the semi-conductors inside the motor controller

RC 3 DX XX10 Protection max. i<sup>2</sup>t of the fuse 610 A<sup>2</sup>S RC 3 DX XX20 Protection max. i<sup>2</sup>t of the fuse 610 A<sup>2</sup>S

Fuses from e.g. Ferraz, Siba, Bussmann can be used as short-circuit protection Type 2

More information concerning Co-ordination Type 2 see page 45

# **EMC**

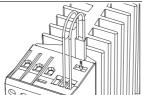
This component meets the requirements of the product standard EN 60947-4-3 and is CE marked according to this standard.

This products has been designed for class A equipment. Use of the product in domestic environments may cause radio interference, in which case the user may be required to employ additional mitigation methods.

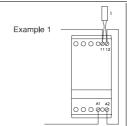
# Mounting and cable wiring information

Mounting information see page 44 / Cable wiring see page 45

# Thermal overload protection (see also page 44)



Optional thermal overload protection is possible by inserting a thermostat in a slot on the right hand side of the electronic contactor. Type number UP62

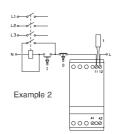


The thermostat can be connected in series with the control circuit of the electronic contactor.

When the temperature of the heatsink exceeds 90°C the electronic contactor will switch Off.

### Note:

When the temperature has dropped approx. 30°C the electronic contactor will automatically be switched on again.



The thermostat is connected in series with the control circuit of the main contactor.

When the temperature of the heatsink exceeds 90°C the main contactor will switch Off.

**Note:** A manual reset is necessary to restart this circuit.

# **Utilisation Categories (EN 60947-4-3)**

AC - 51 Switching of resistive loads

AC - 55a Switching of electric discharge lamp controls

AC - 55b Switching of incandescent lamps

AC - 56a Switching of transformers

Type	Н	D	W
45 mm module	94 mm	124.3 mm	45 mm
90 mm module	94 mm	124.3 mm	90 mm

