




**Catalogue numbers - Accessories**

**Auxiliary Contacts <sup>①</sup>**

	Description	Contact configuration	Catalogue numbers
	Side mounting	1 N.O. 1 N.C.	C320MCS11
	Top mounting	1 N.O. 1 N.C. 2 N.O. 2 N.C.	C320MCF11 C320MCF20 C320MCF02

<sup>①</sup> Top and side mounted auxiliary contact blocks can not be used together.

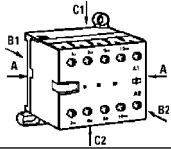
**Accessories**

	Description	Voltage	Catalogue numbers
	Supressors	24 - 60Vdc 50 - 250Vdc 200 - 420Vdc	C320MSS1 C320MSS2 C320MSS3
	Identification markers		C320MCM1

## Mini Series - 4 and 5.5kW

## Technical data - Contactors

Contactor	CE12BN & CE52BN				CE12CN & CE52CN					
Specifications	IEC 947-4-1, IEC947-5-1				IEC947-4-1					
Rated insulation voltage $U_i$	690V				500V					
Air temperature (close to contactor)										
Fitted with a thermal O/L relay	25 to +50j C				25 to +50j C					
Without thermal O/L relay	25 to +55j				25 to +55j C					
For storage	40 to +80j C				40 to +80j C					
Climatic withstand										
Acc. to DIN 50 017	Humidity in alternative climate				Humidity in alternative climate KFW					
Acc. to UTE C 63-100	30 cycles, specification 1				30 cycles, specification 1					
Mounting positions	All positions				All positions					
Mechanical durability										
Operating cycles	10 million				10 million					
Maximum switching frequency										
AC-1	300 cycles/h				300 cycles/h					
DC-1, DC-3, DC-5, AC-2, AC-3, AC-15, DC-13	600 cycles/h									
Rated operational voltage $U_e$	12 - 500V ac				12 - 500V ac					
Rated operational current $I_e$ /AC-1, AC-3	AC-1/ $I_e$ (A)		AC-2, AC-3		AC-1/ $I_e$ (A)		AC-2, AC-3			
Rated operational power at:	55j C	40j C	$I_e$ (A)	P (kW)	55j C	40j C	$I_e$ (A)	P (kW)		
220/240V	16	20	9	2.2	16	20	12/11	3		
380/440V	16	20	9/8	4.0	16	20	12/11	5.5		
500V	12	12	5.5	3.0	12	12	7.0	4		
Shock withstand	$1/2$ sinusoidal shock for 10ms: no change in contact position				$1/2$ sinusoidal shock for 10ms: no change in contact position					
Standard mounting position: position 1										
Shock directions	A	B1	B2	C1	C2	A	B1	B2	C1	C2
Making position	20g	20g	20g	20g	20g	20g	20g	20g	20g	20g
Breaking position	10g	20g	20g	20g	20g	10g	20g	20g	20g	20g
Operating time	B6	BC6	K6	KC6	B7	BC7				
Between coil energisation and:	(ms)				(ms)					
N.O. contact closing/N.C. contact opening	14 - 26	14 - 26	14 - 26	14 - 26	14 - 26	14 - 26	(ms)			
Between coil de-energisation and:										
N.O. contact opening/N.C. contact closing	16 - 40	4 - 10	16 - 40	4 - 10	16 - 40	4 - 10				
Heat dissipation per pole	2W at 20A				2W at 20A					
Short-circuit protection (for contactors without add-on thermal O/L relay)										
Type fuses gG (gl) - co-ordination:										
Type 1	20A				25A					
Type 2	20A				20A					
Coil consumption (average value)										
ac pull-in/holding	3.5VA				3.5VA					
dc pull-in/holding	3.5W				3.5W					



Shock directions  
Making position  
Breaking position

## Technical data - Built-in or add-on auxiliary contact blocks

Rated operational voltage $U_e$	12 - 240V dc 12 - 500V ac	Rated operational current $I_e$ / DC-13	24V 60V 110V 220/240V	1.5A 0.5A 0.4A 0.04
Conventional free air thermal current $I_{th}$	6A	Min. switching capacity of auxiliary contacts	⊕ 17V and ⊕ 5mA	
Short-circuit protection, type fuses gG (gl)	10A			
Rated operational current $I_e$ / AC-15				
220/240V	4A			
380/440V	3A			
500V	2A			