
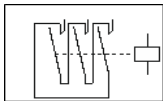




RADE KONCAR CONTACTOR CNN100
100A/55kW (AC3, 400V/50Hz); 115A(AC1)
 In conformity with standard IEC 60947-4-1

Contactor type			CNN 100		
Mechanical endurance	make/brake operations		$\times 10^6$	5	
Insulation rating			V	1000	
Permissible ambient temperature			$^{\circ}\text{C}$	from -25 to +55	
Consumption of electromagnet in cold state with U_n					
AC operated	closing		VA	204	
	P.F.			0.54	
DC operated	closed		VA	16	
	P.F.			0.26	
DC operated	closing		W	200	
	closed		W	3.5	
Coil voltage tolerances			0.85-1.1 U_n		
duration of making and breaking					
(values are also valid for voltages of electromagnet from 0.8 to 1.1 U_n for each in cold and warm state).					
Total breaking time is addition of opening time and duration of electric arc.					
AC operated	closing time		ms	9 to 35	
	opening time		ms	9 to 15	
	duration of electric arc		ms	10 to 15	
DC operated	closing time		ms	20 to 50	
	opening time		ms	120 to 150	
	duration of electric arc		ms	10 to 15	
Frequency of switching operations					
without thermal relay					
utilization category	AC1		s/h	1000	
	AC2, AC3		s/h	600	
	AC4		s/h	200	
with thermal relay					
			s/h	15	
Resistivity to shocks (square shock)			g/ms	9.6/5 and 5.2/10	
Short-circuit protection					
contactors without overload relays					
Main circuit					
With fuse links					
acc. To IEC 60947-4-1	Type of coord. "1" gl/gG		A	160	
DIN VDE 0660 Part 102	Type of coord. "2"		A	100	
Sizes of connection conductors					
for contact without thermal relay					
main circuit	Rigid solid		mm^2		
		standed	mm^2	25-70	
	multi-wire conductor with cable shoe		mm^2		-
		standed with cable lug	mm^2		25-50
	flatbar		mm		-
					-
		protective conductor with cable lug	mm^2		-
auxiliary circuit	Screw			M8	
	Screw head				
	Tightening torque	Nm		4-4.5	
auxiliary circuit	single-wire conductor		mm^2	1-2.5	
	multi-wire conductor with cable shoe		mm^2	0.75-1.5	
	Screw			M3.5	

Screw head Tightening torque		Nm	PZ2 0.8
Loadability of auxiliary contacts			
Rated continuous current I _{th} ; 40 °C		A	16
AC			
rated operational current I _e /AC15	230V	A	6
	400V	A	4
	500V	A	2.5
	690V	A	2.5
DC			
rated operational current I _e /DC1; L/R ≤1ms	24V	A	10
	110V	A	3.2
	220V	A	0.9
	440V	A	0.33
	600V	A	0.22
rated operational current I _e /DC13	for 24V	A	10
	110V	A	1.8
	220V	A	0.9
	440V	A	0.27
	600V	A	0.18
Load carrying capacity of the main contacts			
rated continuous current I _{th} ; 35C		A	135
AC1 utilization category			
rated current I _e /AC1		A	115
AC2 and AC3 utilization categories			
	for 230V	kW	30
(slip-ring and cage motors at 50Hz)	400V	kW	55
	690V	kW	67
AC4 utilization category			
(electrical endurance of contacts:120.000)			
rated current	I _e /AC4	A	36
ratings of squirrel-cage motors at 50Hz for	230V	kW	8.7/10.4
	400V	kW	17/18
	500V	kW	21/24
	690V	kW	20/30
Load carrying capacity of contactors at swiyching on and off of a.c. capacitors			
(electrical endurance amounts to 0.1 milion switching operations)		I _e	A
ratings of individual capacitors at 50 Hz	for 230V	kvar	-
through one pole	400V	kvar	-
	500V	kvar	-
	690V	kvar	-
ratings of capacitor banks			
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz)			
	for 230V	kvar	-
	400V	kvar	-
	500V	kvar	-
	690V	kvar	-
Application in stator circuit of motor			
intermittent operation AC2			
stator current at duty factor in intermitent periodic duty			
	20%	A	135
	40%	A	110
	60%	A	100
	80%	A	90
Application in rotor circuit of motor			
intermittent operation			
rotor current at duty factor in intermitten periodic duty			
	10%	A	193
	20%	A	193
	40%	A	173
	60%	A	158
	80%	A	138
continuous operation		A	138
permissible voltage of motionless rotor			
	starting	V	1800
	regulation	V	880
	counter current breaking	V	750
Loadability by direct current			
DC1 utilization category,non-inductive loads LR≤1 ms			
rated operational current I _e			
through one pole	for 24 V	A	90
	60 V	A	75
	110 V	A	12
	220 V	A	2.5
	440 V	A	0.6
	600 V	A	0.48



through three poles connected in series	for 24 V	A	100
	60 V	A	100
	110 V	A	100
	220 V	A	100
	440 V	A	6
	600 V	A	3.4
utilization categories DC3 to DC5 series and shunt motors ($L/R \leq 15$ ms)			
rated operational current I_e through one pole	for 24 V	A	6
	60 V	A	3
	110 V	A	1.25
	220 V	A	0.35
	440 V	A	0.15
	600 V	A	0.1
through three poles connected in series	for 24 V	A	90
	60 V	A	90
	110 V	A	90
	220 V	A	3.8
	440 V	A	0.7
	600 V	A	0.4

