

RADE KONCAR CONTACTOR CNN100

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

Contactor type			CNN 100
lechanical endurance	make/brake operations	x10 ⁶	5
nsulation rating		V	1000
ermissible ambient ten	nperature	O°	from -25 to +55
Consumption of electro	magnet in cold state with Un		
AC operated	closing	VA	204
	P.F.		0.54
	closed	VA	16
	P.F.		0.26
DC operated	closing	W	200
	closed	W	3.5
oil voltage tolerances			0.85-1.1Un
uration of making and	breaking		
values are also valid for v	voltages of electromagnet from		
.8 to 1.1 Un for each in c	old and warm state).		
otal breaking time is add	ition of opening time and duration		
f electric arc.			
C 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
requency of switching	operations		
vithout thermal reley			
utilizat	ion category AC1	s/h	1000
	AC2, AC3	s/h	600
	AC4	s/h	200
vith thermal relay		s/h	15
1			9.6/5
Resistivity to shocks	(square shock)	g/ms	and
-			5.2/10
Short-circuit protection			
contactors without overloa	ad relays		
/lain circuit			
Vith fuse links			
acc. To IEC 60947-4-1	Type of coord. "1" gl/gG	А	160
DIN VDE 0660 Part 102	Type of coord. "2"	А	100
izes of connection con			
or contact without therma	I relay		
main circuit	Rigid solid	mm ²	
	standed	mm ²	25-70
			25-70
	multi-wire conductor with cable shoe	mm ²	-
	standed with cable lug	mm²	25-50
			-
	flatbar	mm	-
			-
	protective conductor with cable lug	mm²	-
	Screw		M8
	Screw head		\bigcirc
	Tightening torque	Nm	4-4.5
uxiliary circuit	0 0 11 1		
		2	
5	single-wire conductor		1_2 5
2	single-wire conductor	mm ²	1-2.5
	single-wire conductor multi-wire conductor with cable shoe Screw	mm ²	1-2.5 0.75-1.5 M3.5

Screw head Tightening torque	Nm	PZ2 0.8
Loadability of auxiliary contacts Reated continuous current Ith ; 40 °C	A	16
AC	٨	C
rated operational current le/AC15 230V 400V	AA	6 4
500V	A	2.5
690V	A	2.5
C		
ated operational current le/DC1; L/R ≤1ms 24V	A	10
110V	A	3.2
220V	A	0.9
440V 600V	AA	0.33 0.22
		10
rated operational current le/DC13 for 24V 110V	AA	10 1.8
220V	Â	0.9
440V	A	0.27
600V	A	0.18
Load carrying capacity of the main contacts		
ated continuus current ith ; 35C AC1 utilization category	A	135
rated current le/AC1	А	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:100.000 rated curent le/AC4	А	36
atings 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 le	A	
(electrical endurance amounts to 0.1 milion switching operations)		
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 6uH:50 Hz		
(minimum inductive reactance between two capacitors switched on in parallel amounts to $6\mu\text{H};$ 50 Hz	kvar	
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μ H;50 Hz for 230V	kvar kvar	-
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V	kvar	-
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μ H;50 Hz for 230V		- - -
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V	kvar kvar	- - -
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor ntermitent operation AC2	kvar kvar	- - -
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor ntermitent operation AC2 stator current at duty factor in intermitent periodic duty	kvar kvar kvar	- - -
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor ntermitent operation AC2 stator current at duty factor in intermitent periodic duty 20%	kvar kvar kvar	- - - 135
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40%	kvar kvar kvar A A	110
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20%	kvar kvar kvar	
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80%	kvar kvar kvar A A A	110 100
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation	kvar kvar kvar A A A	110 100
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation	kvar kvar kvar A A A	110 100
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μ H;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty 10% 20%	kvar kvar kvar A A A A	110 100 90 193 193
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% 80% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty 10% 20% Image: Correct of the corret	kvar kvar kvar A A A A A A	110 100 90 193 193 173
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V for 230V 400V 500V 690V Application in stator circuit of motor ntermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor 20% 40% 60% Note that the operation is not circuit of motor 10% 20% 40% for current at duty factor in intermittent periodic duty 10% 20% 40% 60% Image: the operation in the operation 10% 20% 40% 60% 60%	kvar kvar kvar A A A A A A A A A	110 100 90 193 193 173 158
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V for 230V 400V 500V 690V Application in stator circuit of motor 690V Application in stator circuit of motor 20% atom current at duty factor in intermitent periodic duty 20% Application in rotor circuit of motor 80% Application in rotor circuit of motor 10% ntermittent operation 10% rotor current at duty factor in intermittent periodic duty 10% Image: Comparison of the comparison 10% Comparison of the comparison 20% Application in rotor circuit of motor 10% Comparison of the comparison 20% Comparison of the comparison 20% Application in rotor circuit of motor 10% Comparison of the comparison 20% Application in state of the comparison 20%	kvar kvar kvar A A A A A A A A A A A	110 100 90 193 193 173 173 158 138
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V for 230V 400V 500V 690V 690V Application in stator circuit of motor 10% 60% attor current at duty factor in intermittent periodic duty 10% 20% Application in rotor circuit of motor 10% 80% Application in rotor circuit of motor 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for duty factor in intermittent periodic duty 10% 20% for duty factor in intermittent periodic duty 80% 80%	kvar kvar kvar A A A A A A A A A	110 100 90 193 193 173 158
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V for 230V 400V 500V 690V 690V Application in stator circuit of motor 690V 690V Application in stator circuit of motor 20% 40% intermitent operation AC2 20% 40% stator current at duty factor in intermitent periodic duty 20% 40% Application in rotor circuit of motor 10% 80% Application in rotor circuit of motor 10% 20% intermittent operation 10% 20% contor current at duty factor in intermittent periodic duty 10% 20% duty factor in intermittent periodic duty 10% 80% continuous operation 80% 80%	kvar kvar kvar A A A A A A A A A A A	110 100 90 193 193 173 158 138 138 138
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V for 230V 400V 500V 690V 690V Application in stator circuit of motor 10% 60% attor current at duty factor in intermittent periodic duty 10% 20% Application in rotor circuit of motor 10% 80% Application in rotor circuit of motor 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for current at duty factor in intermittent periodic duty 10% 20% for duty factor in intermittent periodic duty 10% 20% for duty factor in intermittent periodic duty 80% 80%	kvar kvar kvar A A A A A A A A A A A A A A A A	110 100 90 193 193 173 173 158 138
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V for 230V 400V 500V 690V Application in stator circuit of motor 690V Application in stator circuit of motor 20% stator current at duty factor in intermitent periodic duty 20% Application in rotor circuit of motor 80% Application in rotor circuit of motor 10% intermittent operation 10% rotor current at duty factor in intermittent periodic duty 10% for 20% 40% 60% 80% 80% continuous operation 80% permissible voltage of motionless rotor starting	kvar kvar kvar A A A A A A A A A A V	110 100 90 193 193 173 158 138 138 138 138
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty $ 10\% \\ 20\% \\ 40\% \\ 60\% \\ 80\% \\ continuous operation permissible voltage of motionless rotorstartingregulationcounter current breakingLoadability by direct current$	kvar kvar kvar A A A A A A A A A A A V V V	110 100 90 193 193 173 158 138 138 138 1800 880
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty 10% 20% 40% 60% 80% continuous operation permissible voltage of motionless rotor starting regulation counter current breaking Codability by direct current DC1 utilization category,non-inductive loads LR≤1 ms	kvar kvar kvar A A A A A A A A A A A V V V	110 100 90 193 193 173 158 138 138 138 1800 880
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty 10% 20% 40% 60% 80% continuous operation permissible voltage of motionless rotor starting regulation counter current breaking Loadability by direct current DC1 utilization category,non-inductive loads LR≤1 ms rated operational current le	kvar kvar kvar A A A A A A A A A A A V V V	110 100 90 193 193 173 158 138 138 138 1800 880
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty 10% 20% 40% 60% 80% continuous operation permissible voltage of motionless rotor starting regulation counter current breaking Loadability by direct current DC1 utilization category,non-inductive loads LR≤1 ms rated operational current le	kvar kvar kvar A A A A A A A A A A V V V V	110 100 90 193 193 173 158 138 138 138 1800 880 750
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty 10% 20% 40% 60% 80% continuous operation permissible voltage of motionless rotor starting regulation counter current breaking Loadability by direct current DC1 utilization category,non-inductive loads LR≤1 ms rated operational current le through one pole for 24 V 60 V 110 V	kvar kvar kvar A A A A A A A A A V V V V	110 100 90 193 193 173 158 138 138 138 1800 880 750 90 75 12
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty 10% 20% 40% 60% 80% continuous operation permissible voltage of motionless rotor starting regulation counter current breaking Loadability by direct current DC1 utilization category,non-inductive loads LR≤1 ms rated operational current le through one pole for 24 V 60 V 110 V 220 V	kvar kvar kvar A A A A A A A A A A V V V V V V V	110 100 90 193 193 173 158 138 138 138 1800 880 750 90 75 12 2.5
(minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz for 230V 400V 500V 690V Application in stator circuit of motor intermitent operation AC2 stator current at duty factor in intermitent periodic duty 20% 40% 60% 80% Application in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic duty 10% 20% 40% 60% 80% continuous operation permissible voltage of motionless rotor starting regulation counter current breaking Loadability by direct current DC1 utilization category,non-inductive loads LR≤1 ms rated operational current le through one pole for 24 V 60 V 110 V	kvar kvar kvar A A A A A A A A A A V V V V V V V	110 100 90 193 193 173 158 138 138 138 1800 880 750 90 75 12

through three poles connected in series	for 24 V	А	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 le				
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	А	90	
	60 V	А	90	
	110 V	A	90	
	220 V	A	3.8	
	440 V	A	0.7	
	600 V	A	0.4	
	600 V	A	0.4	_

