

## RADE KONCAR CONTACTOR CNN50 50A/22kW (AC3, 400V/50Hz); 85A(AC1)

Contactor type			CNN 50
Mechanical endurance	make/brake operations	x10 <sup>6</sup>	5
nsulation rating		V	1000
Permissible ambient tem		°C	from -25 to +55
Consumption of electron	nagnet in cold state with Un		
AC operated	closing	VA	155
	P.F.		0,6
	closed	VA	12
	P.F.		0,29
DC operated	closing	W	90
D - 11 14 4 - 1	closed	W	3,5
Coil voltage tolerances	huadrina		0.85-1.1Un
0.8 to 1.1 Un for each in co	oltages of electromagnet from		
1 Caparatad	alasing time		10 to 24
AC operated	closing time	ms ms	10 to 24 7 to 10
	opening time duration of electric arc	ms ms	7 to 10
DC operated	closing time	ms	15 to 40
20 operated	opening time	ms	100 to 120
	duration of electric arc	ms	100 to 120
		1110	
requency of switching	operations		
without thermal reley			
utilizati	on category AC1	s/h	1000
	AC2, AC3	s/h	750
	AC4	s/h	250
with thermal relay		s/h	15
Resistivity to shocks	(square shock)	g/ms	9,2/5 and 5,4/10
Short-circuit protection contactors without overloa Main circuit With fuse links	d relays		0, 1110
acc. To IEC 60947-4-1	Type of coord. "1" gl/gG	Α	80
OIN VDE 0660 Part 102	Type of coord. "2"	A	40
Sizes of connection condo or contact without therma			
nain circuit	Rigid solid	$mm^2$	1x6-50
nan onoun	stranded	mm²	2x6-25
	multi-wire conductor with cable shoe	mm <sup>2</sup>	1x6-35
	standed with cable lug	mm²	2x6-16
	flatbar	mm	-
	protective conductor with cable lug	mm²	-
	Screw		M6
	Screw head		PZ2
	Tightening torque	Nm	3-4
uxiliary circuit	J - 1		
	single-wire conductor	$mm^2$	1-2.5
	multi-wire conductor with cable shoe	mm <sup>2</sup>	
		mm	0.75-1.5
	Screw Screw head		M3.5 PZ2
	Screw head	NIma	
	Tightening torque	Nm	0,8

Rated continuous current lth; 35C		A	16
AC rated operational current le/AC15	230V	A	6
rated operational current le/AC13	400V	Ä	4
	500V	A	2,5
	690V	A	2,5
DC	- 11.		
rated operational current le/DC1; L/R ≤1ms	24V 110V	A A	10 3,2
	220V	A	0,9
	440V	A	0,33
	600V	A	0,22
rated operational current le/DC13	for 24V	A	10
rated operational current le/DO13	110V	Ä	1,8
	220V	А	0,9
	440V	A	0,27
Load carrying capacity of the main contacts	600V	A	0,18
rated continuus current ith; 35C		А	85
AC1 utilization category			
rated current le/AC1	for 020V/	A	85
AC2 and AC3 utilization categories (slip-ring and cage motors at 50Hz)	for 230V <b>400V</b>	kW <b>kW</b>	15 <b>22</b>
(Silp-ining and Cage Motors at SUMZ)	<b>400V</b> 690V	kW	33
AC4 utilization category		NYY	
(electrical endurance of contacts:120.000			
rated curent	le/AC4	А	24
ratings of squirrel-cage motors at 50Hz for	230V	kW	6,9
g_ 3. equ eage	400V	kW	12
	500V	kW	15,8
Load samulan assaults of as it is	690V	kW	20,8
Load carrying capacity of contactors at switching on and off of a.c. capacitors	le	А	
(electrical endurance amounts to 0.1 milion switc		A	
ratings of individual capacitors at 50 Hz for	230V	kvar	-
	400V	kvar	-
	500V		
		kvar	-
	690V	kvar kvar	-
ratings of capacitor banks (minimum inductive reactance between two capa switched on in parallel amounts to 6μH;50 Hz	690V acitors	kvar kvar	-
(minimum inductive reactance between two capa	690V acitors for 230V 400V	kvar kvar kvar	
(minimum inductive reactance between two capa	690V acitors	kvar kvar	- - - - -
(minimum inductive reactance between two capa switched on in parallel amounts to 6μH;50 Hz Application in stator circuit of motor	690V acitors for 230V 400V 500V	kvar kvar kvar kvar	-
(minimum inductive reactance between two capa	690V acitors for 230V 400V 500V 690V	kvar kvar kvar kvar	-
(minimum inductive reactance between two capa switched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2	690V acitors for 230V 400V 500V 690V c duty 20%	kvar kvar kvar kvar kvar	- - - - -
(minimum inductive reactance between two capa switched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2	690V acitors  for 230V 400V 500V 690V  c duty 20% 40%	kvar kvar kvar kvar kvar	98
(minimum inductive reactance between two capa switched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2	690V  acitors  for 230V	kvar kvar kvar kvar kvar	98 87
(minimum inductive reactance between two capaswitched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2 stator current at duty factor in intermitent periodic	690V acitors  for 230V 400V 500V 690V  c duty 20% 40%	kvar kvar kvar kvar kvar	98
(minimum inductive reactance between two capa switched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2	690V acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%	kvar kvar kvar kvar kvar	98 87
(minimum inductive reactance between two capaswitched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2 stator current at duty factor in intermitent periodic periodic intermittent operation in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic intermittent periodic intermittent intermittent periodic intermittent p	690V  acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%	kvar kvar kvar kvar A A A	98 87 80
(minimum inductive reactance between two capaswitched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2 stator current at duty factor in intermitent periodical period	690V  acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%	kvar kvar kvar kvar A A A	98 87 80 163 163
(minimum inductive reactance between two capaswitched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2 stator current at duty factor in intermitent periodic periodic intermittent operation in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic intermittent periodic intermittent intermittent periodic intermittent p	690V acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%  c duty 10% 20% 40% 40%	kvar kvar kvar kvar A A A A	98 87 80 163 163 155
(minimum inductive reactance between two capaswitched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2 stator current at duty factor in intermitent periodic periodic intermittent operation in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic intermittent periodic intermittent intermittent periodic intermittent p	690V  acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%	kvar kvar kvar kvar A A A	98 87 80 163 163
(minimum inductive reactance between two capaswitched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2 stator current at duty factor in intermitent periodic intermittent operation rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic intermittent at duty factor in intermittent periodic intermittent operation rotor current at duty factor in intermittent periodic intermittent operation operation operation operation in intermittent periodic intermittent operation	690V  acitors  for 230V 400V 500V 690V  c duty  20% 40% 60% 80%  c duty  10% 20% 40% 60% 60% 60%	kvar kvar kvar kvar A A A A	98 87 80 163 163 155 138
(minimum inductive reactance between two capaswitched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2 stator current at duty factor in intermitent periodic intermittent operation rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic intermittent intermittent	690V  acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%  c duty 10% 20% 40% 60% 80%	kvar kvar kvar kvar A A A A A A	98 87 80 163 163 155 138 127 127
(minimum inductive reactance between two capaswitched on in parallel amounts to 6μH;50 Hz  Application in stator circuit of motor intermittent operation AC2 stator current at duty factor in intermitent periodic intermittent operation rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodic intermittent at duty factor in intermittent periodic intermittent operation rotor current at duty factor in intermittent periodic intermittent operation operation operation operation in intermittent periodic intermittent operation	690V  acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%  c duty 10% 20% 40% 60% 80%  starting	kvar kvar kvar kvar A A A A A V	98 87 80 163 163 155 138 127 127
Application in stator circuit of motor intermittent operation rotor circuit of motor intermittent operation AC2 stator current at duty factor in intermittent periodic intermittent operation or corcuit of motor intermittent operation rotor current at duty factor in intermittent periodic intermittent operation or current at duty factor in intermittent periodic continuous operation opermissible voltage of motionless rotor	690V  acitors  for 230V 400V 500V 690V  c duty  20% 40% 60% 80%  c duty  10% 20% 40% 60% 80%  starting regulation	kvar kvar kvar kvar A A A A A A	98 87 80 163 163 155 138 127 127
Application in stator circuit of motor intermittent operation actor current at duty factor in intermittent operation rotor current at duty factor in intermittent periodic intermittent operation actor current at duty factor in intermittent periodic intermittent operation rotor current at duty factor in intermittent periodic intermittent at duty factor in intermittent periodic continuous operation permissible voltage of motionless rotor	690V  acitors  for 230V 400V 500V 690V  c duty  20% 40% 60% 80%  c duty  10% 20% 40% 60% 80%  starting regulation current breaking	kvar kvar kvar kvar kvar  A A A A A V V	98 87 80 163 163 155 138 127 127 1500 750
Application in stator circuit of motor intermittent operation at duty factor in intermittent operation AC2 stator current at duty factor in intermittent periodicity for current at duty factor in intermittent periodicity factor in inter	690V  acitors  for 230V 400V 500V 690V  c duty  20% 40% 60% 80%  c duty  10% 20% 40% 60% 80%  starting regulation current breaking	kvar kvar kvar kvar kvar  A A A A A V V	98 87 80 163 163 155 138 127 127 1500 750
Application in stator circuit of motor intermittent operation at duty factor in intermittent periodication in rotor circuit of motor intermittent operation AC2 stator current at duty factor in intermittent periodication in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodication in rotor current intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current	690V  acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%  c duty 10% 20% 40% 60% 80%  starting regulation current breaking	kvar kvar kvar kvar kvar A A A A V V V	98 87 80 163 163 155 138 127 127 1500 750 660
Application in stator circuit of motor intermittent operation at duty factor in intermittent operation AC2 stator current at duty factor in intermittent periodicity for current at duty factor in intermittent periodicity factor in inter	690V  acitors  for 230V 400V 500V 690V  c duty  20% 40% 60% 80%  c duty  10% 20% 40% 60% 80%  starting regulation current breaking	kvar kvar kvar kvar kvar  A A A A A V V	98 87 80 163 163 155 138 127 127 1500 750
Application in stator circuit of motor intermittent operation at duty factor in intermittent periodication in rotor circuit of motor intermittent operation AC2 stator current at duty factor in intermittent periodication in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodication in rotor current intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current	690V  acitors  for 230V 400V 500V 690V  c duty  20% 40% 60% 80%  c duty  10% 20% 40% 60% 80%  starting regulation current breaking current breaking  for 24 V 60 V 110 V	kvar kvar kvar kvar A A A V V V V	98 87 80 163 163 155 138 127 127 1500 750 660
Application in stator circuit of motor intermittent operation at duty factor in intermittent periodication in rotor circuit of motor intermittent operation AC2 stator current at duty factor in intermittent periodication in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodication in rotor current intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current	690V  acitors  for 230V 400V 500V 690V  c duty  20% 40% 60% 80%  c duty  10% 20% 40% 60% 80%  starting regulation current breaking current breaking current breaking current breaking current breaking current breaking	kvar kvar kvar kvar kvar  A A A A V V V V	98 87 80 163 163 155 138 127 127 1500 750 660
Application in stator circuit of motor intermittent operation at duty factor in intermittent periodication in rotor circuit of motor intermittent operation AC2 stator current at duty factor in intermittent periodication in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodication in rotor current intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current	690V  acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%  c duty 10% 20% 40% 60% 80%  starting regulation current breaking regulation current breaking  for 24 V 60 V 110 V 220 V 440 V	kvar kvar kvar kvar kvar  kvar  V V V V	98 87 80 163 163 155 138 127 127 1500 750 660
Application in stator circuit of motor intermittent operation at duty factor in intermittent periodication in rotor circuit of motor intermittent operation AC2 stator current at duty factor in intermittent periodication in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodication in rotor current intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current	690V  acitors  for 230V 400V 500V 690V  c duty  20% 40% 60% 80%  c duty  10% 20% 40% 60% 80%  starting regulation current breaking current breaking current breaking current breaking current breaking current breaking	kvar kvar kvar kvar kvar  A A A A V V V V	98 87 80 163 163 155 138 127 127 1500 750 660
Application in stator circuit of motor intermittent operation at duty factor in intermittent periodication in rotor circuit of motor intermittent operation AC2 stator current at duty factor in intermittent periodication in rotor circuit of motor intermittent operation rotor current at duty factor in intermittent periodication in rotor current intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in rotor current at duty factor in intermittent periodication in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current intermittent periodication in intermittent periodication current at duty factor in intermittent periodication current	690V  acitors  for 230V 400V 500V 690V  c duty 20% 40% 60% 80%  c duty 10% 20% 40% 60% 80%  starting regulation current breaking regulation current breaking  for 24 V 60 V 110 V 220 V 440 V	kvar kvar kvar kvar kvar  kvar  V V V V	98 87 80 163 163 155 138 127 127 1500 750 660

CNN 50	CNN 50 + BP 2 (BP 4)	CNN 50 + 2xBP3		Drilling plan (mm)
		600 V	A	0,35
		440 V	A A	3,5 0,6
		110 V 220 V	A	70
		60 V	A	70
through three poles connected in series		for 24 V	A	70
		600 V	Α	0,08
		440 V	Α	0,1
		220 V	Α	0,2
		110 V	Α	0,75
		60 V	Α	2
rated operationa		for 24 V	А	5
	ories DC3 to DC5 t motors (L/R ≤ 15 ms)			
		600 V	Α	1
		440 V	A	3
		220 V	Α	70
		110 V	Α	70









