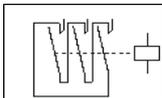




RADE KONCAR CONTACTOR **CNM315**
315A/160kW (AC3, 400V/50Hz); 390A(AC1)

Contactor type			CNM 315	
Mechanical endurance	make/brake operations		x10 ⁶	3
Insulation rating			V	1000
Permissible ambient temperature			°C	from -25 to +55
Consumption of electromagnet in cold state with Un				
AC operated	closing		VA	1340
	P.F.			0,41
	closed		VA	84
DC operated	P.F.			0,25
	closing		W	1180
	closed		W	8
Coil voltage tolerances				0.85-1.1Un
duration of making and breaking				
(values are also valid for voltages of electromagnet from 0.8 to 1.1 Un 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	20 to 50
	opening time		ms	10 to 30
	duration of electric arc		ms	10 to 15
DC operated	closing time		ms	30 to 100
	opening time		ms	15 to 30
	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	500
		AC4	s/h	250
with thermal relay				
			s/h	15
Resistivity to shocks (square shock)				g/ms
				10/5.6 and 5/12
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	500
DIN VDE 0660 Part 102	Type of coord. "2"		A	315
Sizes of connection conductors				
for contact without thermal relay				
main circuit	Rigid solid		mm ²	
	standed		mm ²	-
	multi-wire conductor with cable shoe		mm ²	-
	standed with cable lug		mm ²	2x150
	flatbar		mm	2x25x3
	protective conductor with cable lug		mm ²	50-120
auxiliary circuit	Screw			M10
	Screw head			
	Tightening torque		Nm	4
	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} ; 35C		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	8
	220V	A	2
	440V	A	0,6
	600V	A	0,4
rated operational current I _e /DC13	for 24V	A	10
	110V	A	2,4
	220V	A	1,1
	440V	A	0,32
	600V	A	0,21
Load carrying capacity of the main contacts			
rated continuous current I _{th} ; 35C		A	390
AC1 utilization category			
rated current I _e /AC1		A	350
AC2 and AC3 utilization categories	for 230V	kW	90
(slip-ring and cage motors at 50Hz)	400V	kW	160
	690V	kW	200
AC4 utilization category			
(electrical endurance of contacts:120.000)			
rated current	I _e /AC4	A	125
ratings of squirrel-cage motors at 50Hz for	230V	kW	35
	400V	kW	65
	500V	kW	76
	690V	kW	100
Load carrying capacity of contactors at swiyching on and off of a.c. capacitors			
(electrical endurance amounts to 0.1 million switching operations)	I _e	A	
ratings of individual capacitors at 50 Hz for through one pole	230V	kvar	90
	400V	kvar	150
	500V	kvar	190
	690V	kvar	150
ratings of capacitor banks (minimum inductive reactance between two capacitors switched on in parallel amounts to 6μH;50 Hz)			
	for 230V	kvar	66
	400V	kvar	115
	500V	kvar	145
	690V	kvar	115
Application in stator circuit of motor			
intermittent operation AC2			
stator current at duty factor in intermittent periodic duty	20%	A	462
	40%	A	367
	60%	A	327
	80%	A	300
Application in rotor circuit of motor			
intermittent operation			
rotor current at duty factor in intermittent periodic duty	10%	A	864
	20%	A	730
	40%	A	580
	60%	A	517
	80%	A	474
continuous operation		A	474
permissible voltage of motionless rotor			
	starting	V	2000
	regulation	V	1000
	counter current breaking	V	880
Loadability by direct current			
DC1 utilization category,non-inductive loads LR≤1 ms			
rated operational current I _e 55°C			
through one pole	for 24 V	A	300
	60 V	A	300
	110 V	A	33
	220 V	A	3,8
	440 V	A	0,9
	600 V	A	0,6



through three poles connected in series	for 24 V	A	400
	60 V	A	400
	110 V	A	400
	220 V	A	400
	440 V	A	11
	600 V	A	5,2
utilization categories DC3 to DC5 series and shunt motors ($L/R \leq 15$ ms)			
rated operational current I_e 55° C through one pole	for 24 V	A	35
	60 V	A	11
	110 V	A	3
	220 V	A	0,6
	440 V	A	0,18
	600 V	A	0,12
through three poles connected in series	for 24 V	A	400
	60 V	A	400
	110 V	A	400
	220 V	A	400
	440 V	A	1,4
	600 V	A	0,75

CNM 315

