

■ Datasheet: Contactors 3-pole, CUBICO High, 40kW, 100A



■ SCHRACK-INFO

- Contactor with 230VAC or 24VAC drive and integrated auxiliary contacts
- Optional auxiliary contact blocks available
- According IEC/EN 60947-3

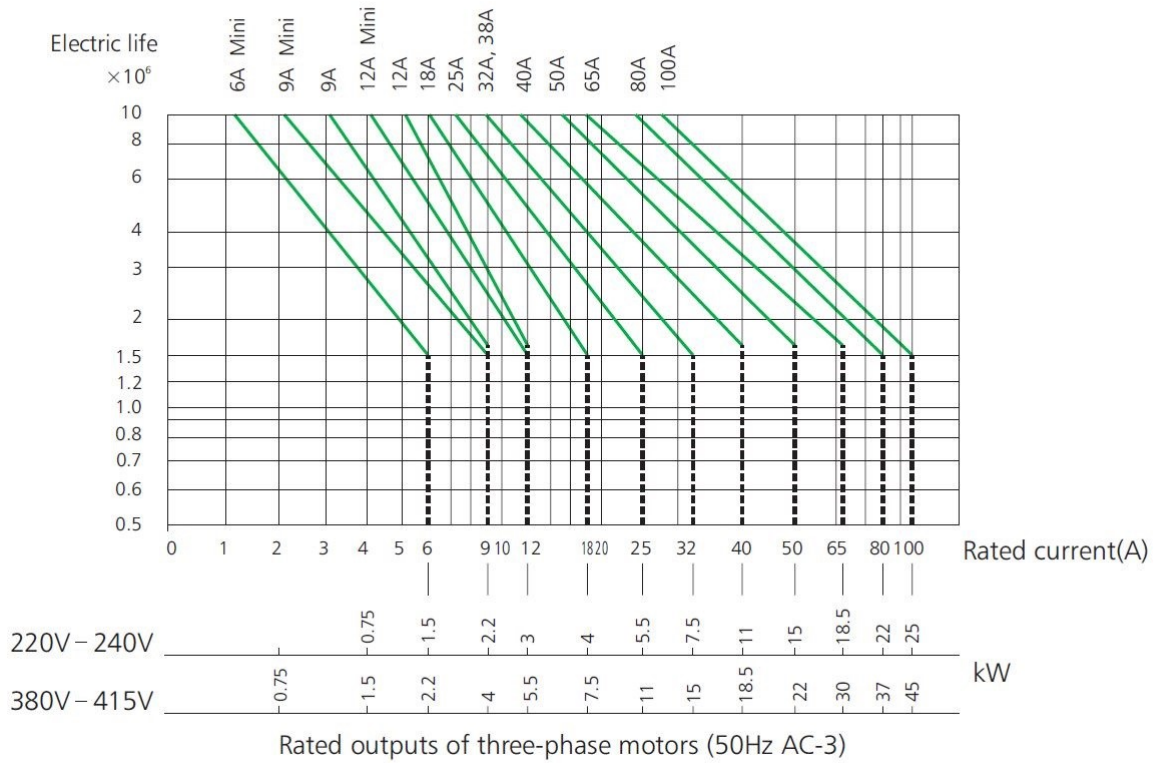
■ Technical datas

Standard		IEC/EN 60947-4-1
Rated insulation voltage		690V AC
Rated frequency		50/60Hz
Rated impulse withstand voltage		8kV
Overvoltage category		III
Rated current AC1		125A
Rated current AC3	230V	100A
	400V	100A
	415V	100A
	690V	49A
Rated current AC4	230V	100A
	400V	100A
	415V	100A
	690V	49A

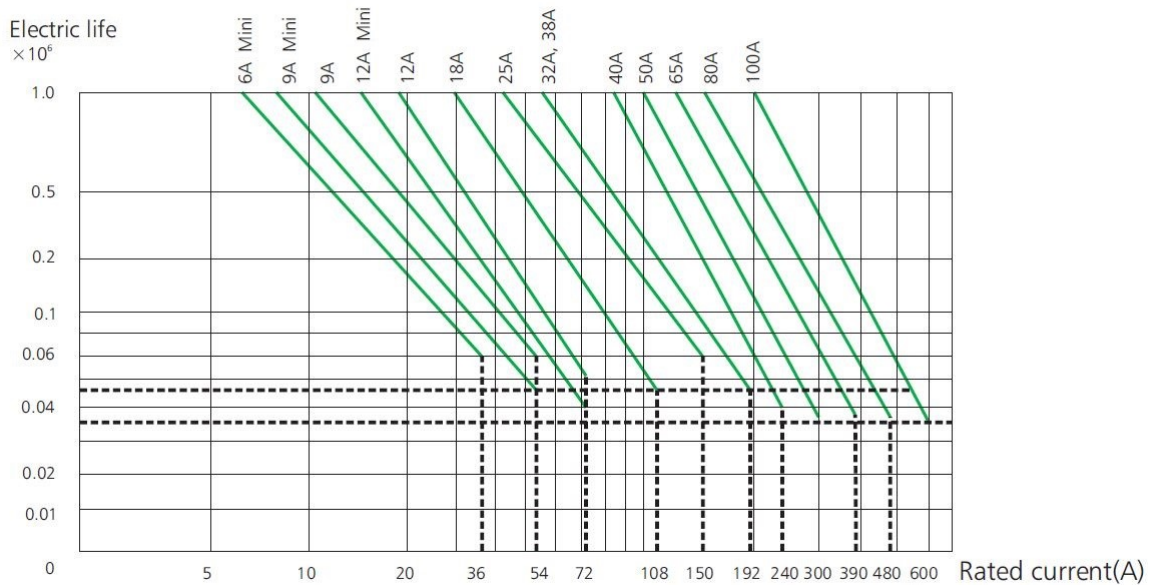
Rated making capacity		$10 \times I_e \text{ (AC3)} / 12 \times I_e \text{ (AC4)}$
Rated breaking capacity		$8 \times I_e \text{ (AC3)} / 10 \times I_e \text{ (AC4)}$
Short-time withstand current 10s		800A
Rated power AC3	230V	25kW
	400V	45kW
	415V	45kW
	690V	45kW
Operating frequency	AC3	1.200 operations/h
	AC4	120 operations/h
Electrical lifetime		1.200.000 operations
Mechanical lifetime		10.000.000 operations
Configuration of main contacts		
	3-pole	3NO
Configuration of auxiliary contacts		1NO and 1NC
Protection degree		IP20
Ambient air temperature		- 5C up to + 40°C
Storage temperature		- 25C up to + 55°C
Correction coefficient	40°C	1
	50°C	0,875
	60°C	0,75
	70°C	0,625
Altitude		2000m
Atmosphere conditions		50% humidity at +40°C
Installation position		plane and vertical +/- 22,5°
Coil voltage		230VAC or 24VAC
Coil acting range	attraction	85% - 110% $U_s$
	release	AC: 20%-70% $U_s$
Coil average power	start	250VA
	holding	30VA
Heat wastage		8W
Main contact action time	close	30ms
	disconnection	17ms

Terminal capacity of main circuit	flexible cable with ferrule	
	single cable	16 - 50mm <sup>2</sup>
	dual cable	10 - 35mm <sup>2</sup>
	Screw siz	M8
	Torque	6Nm
Terminal capacity of control circuit	flexible cable with ferrule	
	single cable	1 - 4mm <sup>2</sup>
	dual cable	1 - 2,5mm <sup>2</sup>
	rigid cable	
	single cable	1 - 4mm <sup>2</sup>
	dual cable	1 - 4mm <sup>2</sup>
	Screw size	M3,5
	Torque	1,2Nm
	Terminal capacity of auxiliary contacts	flexible cable with ferrule
single cable		1 - 4mm <sup>2</sup>
dual cable		1 - 2,5mm <sup>2</sup>
rigid cable		
single cable		1 - 4mm <sup>2</sup>
dual cable		1 - 4mm <sup>2</sup>
Screw size		M3,5
Torque		1,2Nm

Electrical life AC3



Electrical life AC4



Application in illumination circuit

Incandescent lamp			
W	A	μF	max. number of lamps per phase
60	0,27	-	296
75	0,34	-	235
100	0,45	-	177
150	0,68	-	117
200	0,71	-	88
300	1,4	-	57
500	2,3	-	34
750	3,4	-	23
1000	4,6	-	17

Single fluorescent lamp with starter, without compensation			
W	A	μF	max. number of lamps per phase
20	0,39	-	205
40	0,45	-	177
64	0,7	-	114
80	0,8	-	100
110	1,15	-	66

Single fluorescent lamp with starter, parallel compensation			
W	A	μF	max. number of lamps per phase
20	0,18	5	530
40	0,26	5	365
65	0,42	7	225
80	0,52	7	180
100	0,6	16	145
110	0,7	18	135

Fluorescent lamps in dual mounting with starter, without compensation			
W	A	μF	max. number of lamps per phase
2 x 20	2 x 0,22	-	180
2 x 40	2 x 0,41	-	96
2 x 65	2 x 0,67	-	58
2 x 80	2 x 0,82	-	48
2 x 110	2 x 1,10	-	36

Fluorescent lamps in dual mounting with starter, with compensation in series			
W	A	$\mu\text{F}$	max. number of lamps per phase
2 x 20	2 x 0,13	-	306
2 x 40	2 x 0,24	-	166
2 x 65	2 x 0,39	-	102
2 x 80	2 x 0,48	-	82
2 x 110	2 x 0,65	-	60

Single fluorescent lamp without starter, without compensation			
W	A	$\mu\text{F}$	max. number of lamps per phase
20	0,43	-	186
40	0,55	-	145
65	0,8	-	100
80	0,95	-	84
110	0,4	-	57

Single fluorescent lamp with starter, with parallel compensation			
W	A	$\mu\text{F}$	max. number of lamps per phase
20	0,19	5	421
40	0,29	5	275
65	0,46	7	173
80	0,57	7	140
110	0,79	16	101

Fluorescent lamp without starter, without compensation			
W	A	$\mu\text{F}$	max. number of lamps per phase
2 x 20	2 x 0,25	-	160
2 x 40	2 x 0,47	-	84
2 x 65	2 x 0,76	-	52
2 x 80	2 x 0,93	-	42
2 x 110	2 x 1,3	-	30

Fluorescent lamp in dual mounting without starter, with compensation in series			
W	A	μF	max. number of lamps per phase
2 x 20	2 x 0,15	-	234
2 x 40	2 x 0,26	-	152
2 x 65	2 x 0,43	-	92
2 x 80	2 x 0,53	-	74
2 x 110	2 x 0,72	-	54

Low press sodium vapor lamps with parallel compensation			
W	A	μF	max. number of lamps per phase
35	0,3	17	200
55	0,4	17	150
90	0,6	25	100
135	0,9	36	66
150	1	36	60
180	1,2	36	50
200	1,3	36	46

Low press sodium vapor lamps without compensation			
W	A	μF	max. number of lamps per phase
150	1,9	-	31
250	3,2	-	18
400	5	-	12
700	8,8	-	6
1000	12,4	-	4

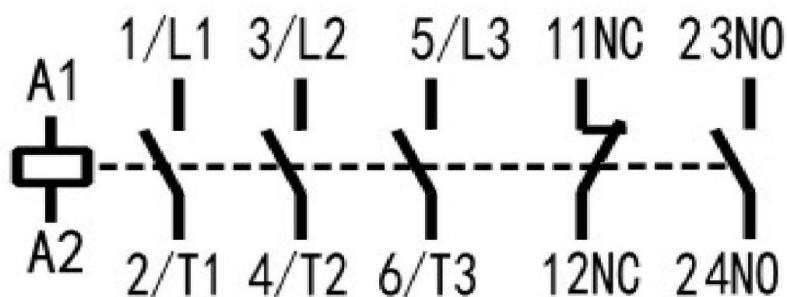
Low press sodium vapor lamps with parallel compensation			
W	A	μF	max. number of lamps per phase
150	0,84	20	71
250	1,4	32	42
400	2,2	48	27
700	3,6	96	15
1000	5,5	120	10

High press hydrargyrum lamps without compensation			
W	A	$\mu\text{F}$	max. number of lamps per phase
50	0,54	-	111
80	0,81	-	74
125	1,2	-	49
250	2,3	-	26
400	4,1	-	14
700	6,8	-	8
1000	9,9	-	6

High press hydrargyrum lamps with parallel compensation			
W	A	$\mu\text{F}$	max. number of lamps per phase
50	0,3	10	120
80	0,45	10	120
125	0,67	10	89
250	1,3	18	46
400	2,3	25	26
700	3,8	40	15
1000	5,5	60	10

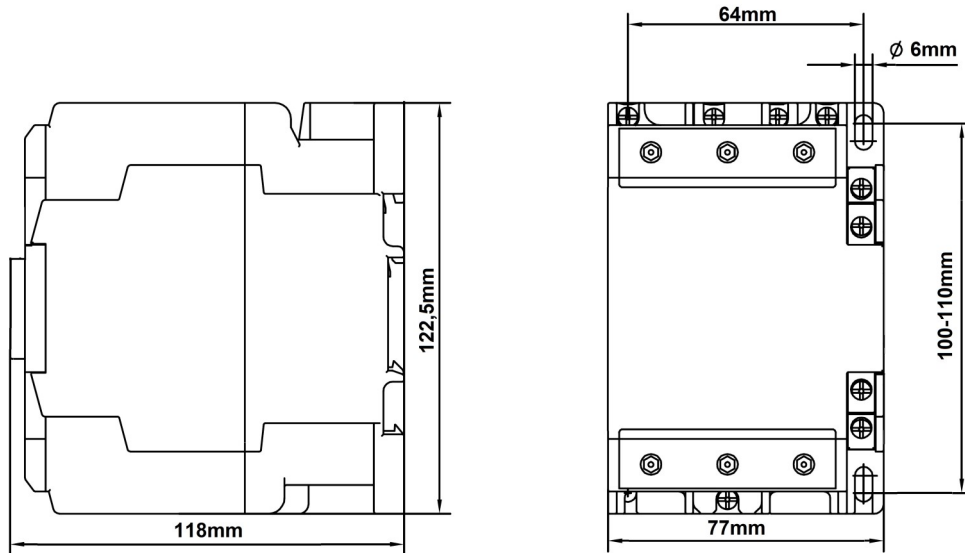
**■** Wiring diagram

3-pole, 1NO + 1NC



**Dimensions**

230VAC or 24VAC Coil



**Articles**

**Contactors 3-pole, CUBICO High, 40kW, 100A**

Description	order no.
Contactor 3-pole, CUBICO High, 40kW, 100A, 1NO+1NC, 230VAC	LZDH99B3--
Contactor 3-pole, CUBICO High, 40kW, 100A, 1NO+1NC, 24VAC	LZDH99B0--