



Contact characteristics

Number of poles	Nr.	4
Rated insulation voltage U _i IEC/EN	V	690
Rated impulse withstand voltage U _{imp}	kV	6
Operational frequency		
	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I _{th} ≤ 40°C	A	45
Operational current I _e		
	AC-1 (≤40°C)	A 45
	AC-1 (≤55°C)	A 36
	AC-1 (≤70°C)	A 32
	AC-3 (≤440V ≤55°C)	A 26
	AC-4 (400V)	A 11.5
Rated operational power AC-1 (T≤40°C)		
	230V	kW 17
	400V	kW 30
	500V	kW 37
	690V	kW 51
IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series		
	≤24V	A 25
	48V	A 21
	75V	A 18
	110V	A 6
	220V	A –
IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series		
	≤24V	A 28
	48V	A 28
	75V	A 25
	110V	A 22
	220V	A 2
IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series		
	≤24V	A 28
	48V	A 28
	75V	A 25
	110V	A 24
	220V	A 20
IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series		
	≤24V	A 28
	48V	A 28
	75V	A 25
	110V	A 24
	220V	A 26
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		
	≤24V	A 18

	48V	A	15
	75V	A	13
	110V	A	2
	220V	A	–
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	20
	48V	A	20
	75V	A	18
	110V	A	13
	220V	A	3
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	25
	48V	A	25
	75V	A	20
	110V	A	18
	220V	A	19
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	30
	48V	A	30
	75V	A	25
	110V	A	20
	220V	A	15
Short-time allowable current for 10s (IEC/EN60947-1)		A	210
Protection fuse			
	gG (IEC)	A	50
	aM (IEC)	A	32
Making capacity (RMS value)		A	260
Breaking capacity at voltage			
	440V	A	208
	500V	A	184
	690V	A	168
Resistance per pole (average value)		mΩ	2
Power dissipation per pole (average value)			
	I _{th}	W	4
	AC-3	W	1.4
Tightening torque for terminals			
	min	Nm	2.5
	max	Nm	3
	min	lbin	1.8
	max	lbin	2.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8
	max	lbin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
AWG/Kcmil			
	max		6
Flexible w/o lug conductor section			
	min	mm ²	2.5
	max	mm ²	16
Flexible c/w lug conductor section			

		min	mm ²	1
		max	mm ²	10
Flexible with insulated spade lug conductor section				
		min	mm ²	1
		max	mm ²	16
Power terminal protection according to IEC/EN 60529				IP20 when properly wired
Cable stripping length				
	main circuit	mm		10
	command circuit	mm		8
Mechanical features				
Operating position				
	normal allowable			Vertical plan ±30°
Fixing				Screw / DIN rail 35mm
Weight			g	665
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1600000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
	rated load	cycles		1600000
	mechanical load	cycles		20000000
EMC compatibility				yes
DC coil operating				
DC rated control voltage			V	48
DC operating voltage				
	pick-up	min	%Us	80
		max	%Us	125
	drop-out	min	%Us	10
		max	%Us	40
Average coil consumption ≤20°C				
	in-rush	W		5.4
	holding	W		5.4
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us control in AC				
	Closing NO	min	ms	8
		max	ms	24
	Opening NO	min	ms	5
		max	ms	15
	Closing NC	min	ms	9
		max	ms	20
	Opening NC	min	ms	9
		max	ms	17

in DC

Closing NO

min	ms	54
max	ms	66

Opening NO

min	ms	14
max	ms	17

UL technical data

Rated operational voltage AC (UL)	V	600
-----------------------------------	---	-----

Full-load current (FLA) for three-phase AC motor

at 480V	A	21
at 600V	A	22

Yielded mechanical performance

for single-phase AC motor

110/120V	HP	2
230V	HP	5

for three-phase AC motor

200/208V	HP	7.5
220/240V	HP	7.5
460/480V	HP	15
575/600V	HP	20

General USE

Contactor

AC current	A	45
------------	---	----

Short-circuit protection fuse, 600V

High fault

Short circuit current	kA	100
Fuse rating	A	100
Fuse class		J

Standard fault

Short circuit current	kA	5
Fuse rating	A	100

Ambient conditions

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

m	3000
---	------

Resistance & Protection

Pollution degree

3

Dimensions



Wiring diagrams



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1
CSA C22.2 n° 60947-4-1
IEC/EN 60335-2-89
IEC/EN/BS 60947-1
IEC/EN/BS 60947-4-1
UL 60947-1
UL 60947-4-1

Certificates

CCC
CSA C22.2 n. 60335-2-40:22 LZGH A2L
CSA C22.2 No. 60335-2-89:21 LZGH A2L
cULus
EAC

UL 60335-2-40 LZGH A2L

UL 60335-2-89 LZGH A2L

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching