BF50000E230

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 500A, AC/DC COIL, 100...250VAC/DC



Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith ≤ 40°C		A	700
Operational current Ie			
	AC-1 (≤40°C)	A	600
	AC-1 (≤55°C)	A	590
	AC-1 (≤70°C)	A	510
	AC-3 (≤440V ≤55°C)	A	500
	AC-4 (400V)	A	230
Rated operational power AC-3 (T≤55°C)			
	230V	kW	160
	400V	kW	250
	415V	kW	250
	440V	kW	250
	500V	kW	355
	690V	kW	400
	1000V	kW	200
Rated operational current AC-3 (T≤55°C)			
	230V	A	500
	400V	A	500
	415V	A	500
	440V	A	500
	500V	A	488
	690V	A	400
	1000V	A	200
Rated operational power AC-1 (T≤40°C)			
	230V	kW	265
	400V	kW	461
	500V	kW	507
	690V	kW	795
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	75V	A	650
	110V	A	320
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	75V	A	650
	110V	A	550
	220V	A	450
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	75V	A	650
	110V	A	600

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	220V	A	600
	330V	A	450
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	A	650
	110V	A	600
	220V	A	600
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	550
	110V	A	320
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	550
	110V	A	550
	220V	A	450
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
	460V	A	450
Short-time allowable current for 10s (IEC/EN60947-1)		A	4050
Protection fuse			
	gG (IEC)	A	800
	aM (IEC)	A	500
Making capacity (RMS value)		A	5000
Breaking capacity at voltage			
	440V	A	5000
	500V	A	3904
	690V	A	3200
Resistance per pole (average value)		mΩ	0.09
Power dissipation per pole (average value)			
	Ith	W	49
	AC-3	W	25
Tightening torque for terminals			
	min	Nm	55
	max	Nm	55
	min	lbin	486
	max	lbin	486
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	7.1
	max	lbin	8.8
Power terminal protection according to IEC/EN 60529			IP00
Mechanical features			
Operating position			
	normal		Vertical plan
	allowable		±30°
Fixing			Screw

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Operations				
Mechanical life			cycles	5000000
Electrical life			cycles	600000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
		rated load	cycles	600000
		mechanical load	cycles	5000000
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz				
		min	V	100
		max	V	250
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
	of 50/60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
AC average coil consumption at 20°C				
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	390
		holding	VA	12
	of 50/60Hz coil powered at 60Hz			
		in-rush	VA	390
		holding	VA	12
Dissipation at holding ≤20°C 50Hz			W	4
DC coil operating				
DC rated control voltage				
		min	V	100
		max	V	250
max			V	250
DC operating voltage				
	pick-up			
		min	%Us	85 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	390
		holding	W	4
Max cycles frequency				
Mechanical operation			cycles/h	1000
Operating times				
Average time for Us control				
	in AC			
	Closing NO			

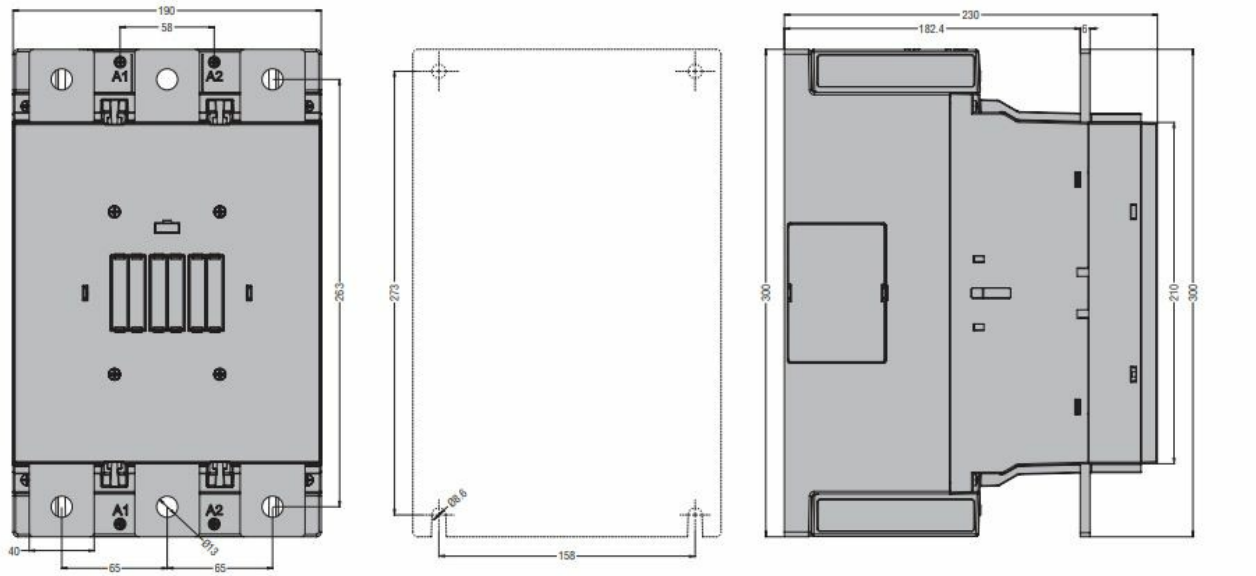
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			min	ms	95
			max	ms	135
		Opening NO			
			min	ms	40
			max	ms	53
UL technical data					
Rated operational voltage AC (UL)				V	600
Yielded mechanical performance					
	for three-phase AC motor				
			200/208V	HP	150
			220/240V	HP	200
			460/480V	HP	400
			575/600V	HP	500
General USE					
	Contactor				
			AC current	A	700
Short-circuit protection fuse, 600V					
	High fault				
			Short circuit current	kA	100
			Fuse rating	A	800
			Fuse class		L
	Standard fault				
			Short circuit current	kA	30
			Fuse rating	A	1000
			Fuse class		L
Ambient conditions					
Temperature					
	Operating temperature				
			min	°C	-40
			max	°C	70
	Storage temperature				
			min	°C	-50
			max	°C	80
Max altitude				m	3000
Resistance & Protection					
Pollution degree					3
Dimensions					

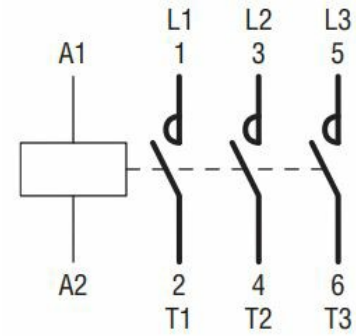
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Wiring diagrams



Certifications and compliance

Compliance

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

Certificates

cULus

ETIM classification

ETIM 8.0	EC000066 - Power contactor, AC switching

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