



Product designation
Product type designation

Power contactor
BF95

Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage U_i IEC/EN	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I_{th}	A	140
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 140
	AC-1 ($\leq 55^\circ\text{C}$)	A 115
	AC-1 ($\leq 70^\circ\text{C}$)	A 100
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A 95
	AC-4 (400V)	A 45
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW 30
	400V	kW 55
	415V	kW 55
	440V	kW 55
	500V	kW 75
	690V	kW 90
	1000V	kW 45
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 140
	48V	A 140
	75V	A 100
	110V	A 10
	220V	A –
	IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$
48V		A 140
75V		A 140
110V		A 110
220V		A 12
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series		$\leq 24\text{V}$
	48V	A 140
	75V	A 155
	110V	A 120
	220V	A 125
	IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$
48V		A 140

	75V	A	155
	110V	A	140
	220V	A	140
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	140
	48V	A	44
	75V	A	36
	110V	A	6
	220V	A	–
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	140
	48V	A	63
	75V	A	60
	110V	A	55
	220V	A	7
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	140
	48V	A	115
	75V	A	90
	110V	A	85
	220V	A	76
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	140
	48V	A	110
	75V	A	110
	110V	A	105
	220V	A	95
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Short-time allowable current for 10s (IEC/EN60947-1)		A	760
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Protection fuse			
	gG (IEC)	A	160
	aM (IEC)	A	100
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Making capacity (RMS value)		A	1200
<hr/>			
Breaking capacity at voltage			
	440V	A	1100
	500V	A	775
	690V	A	745
<hr/>			
Resistance per pole (average value)		mΩ	0.45
<hr/>			
Power dissipation per pole (average value)			
	I _{th}	W	8.8
	AC3	W	4.1
<hr/>			
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
<hr/>			
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
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Conductor section			
	AWG/Kcmil		
	max		2/0

Flexible w/o lug conductor section	min	mm ²	1.5
	max	mm ²	70
Flexible c/w lug conductor section	min	mm ²	1.5
	max	mm ²	70
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	2060
Conductor section	AWG/kcmil conductor section		
	max		2/0
Auxiliary contact characteristics			
Thermal current I _{th}		A	140
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1400000
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	20
	max	V	48
Rated AC voltage at 50/60Hz		V	24
AC operating voltage	of 50/60Hz coil powered at 50Hz		
	pick-up		
	min	%Us	85 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	85 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	70...175
	holding	VA	1.7...3.5
	of 50/60Hz coil powered at 60Hz		
	in-rush	VA	70...175
	holding	VA	1.7...3.5
	of 60Hz coil powered at 60Hz		
	in-rush	VA	70...175
	holding	VA	1.7...3.5
Dissipation at holding ≤20°C 50Hz		W	1.3...1,5
DC coil operating			
DC rated control voltage			

		min	V	20
		max	V	48
DC rated control voltage			V	24
DC operating voltage				
	pick-up	min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	70...80
		holding	W	1.3...1.5

Max cycles frequency

Mechanical operation			cycles/h	1500
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Operating times

Average time for Us control				
	in AC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms
	in DC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms

UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	30
		220/230V	HP	30
		460/480V	HP	60
		575/600V	HP	75

General USE

Contactor				
		AC current	A	150
Short-circuit protection fuse, 600V				
	High fault			
		Short circuit current	kA	100
		Fuse rating	A	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	A	250
		Fuse class		RK5

Ambient conditions

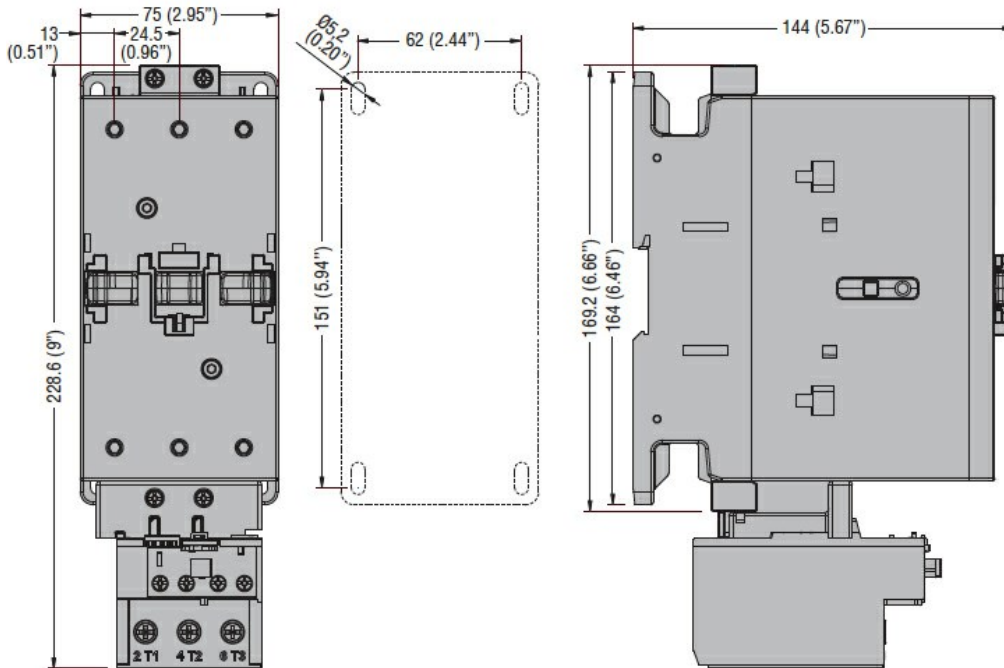
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70

Storage temperature

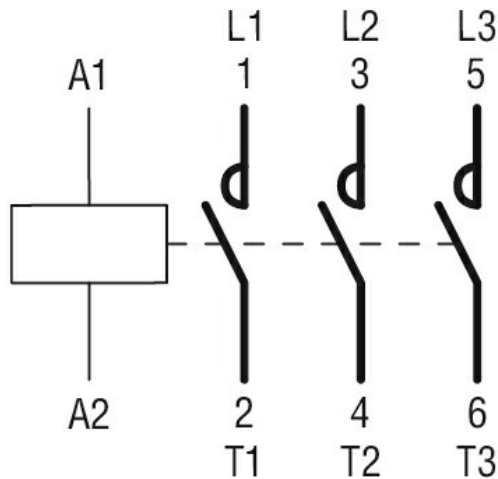
min	°C	-60
max	°C	+80
	m	3000

Max altitude

Dimensions [mm (in)]



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

- CCC
- cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching



Product designation
Product type designation

Power contactor
BF95

Contact characteristics

Number of poles	Nr.	3
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Rated impulse withstand voltage U _{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I _{th}	A	140
Operational current I _e	AC-1 (≤40°C)	A 140
	AC-1 (≤55°C)	A 115
	AC-1 (≤70°C)	A 100
	AC-3 (≤440V ≤55°C)	A 95
	AC-4 (400V)	A 45
Rated operational power AC-3 (T≤55°C)	230V	kW 30
	400V	kW 55
	415V	kW 55
	440V	kW 55
	500V	kW 75
	690V	kW 90
	1000V	kW 45
IEC max current I _e in DC1 with L/R ≤ 1ms with 1 poles in series	≤24V	A 140
	48V	A 140
	75V	A 100
	110V	A 10
	220V	A –
	IEC max current I _e in DC1 with L/R ≤ 1ms with 2 poles in series	≤24V
48V		A 140
75V		A 140
110V		A 110
220V		A 12
IEC max current I _e in DC1 with L/R ≤ 1ms with 3 poles in series		≤24V
	48V	A 140
	75V	A 155
	110V	A 120
	220V	A 125
	IEC max current I _e in DC1 with L/R ≤ 1ms with 4 poles in series	≤24V
48V		A 140

	75V	A	155
	110V	A	140
	220V	A	140
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series	≤24V	A	140
	48V	A	44
	75V	A	36
	110V	A	6
	220V	A	–
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	≤24V	A	140
	48V	A	63
	75V	A	60
	110V	A	55
	220V	A	7
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	≤24V	A	140
	48V	A	115
	75V	A	90
	110V	A	85
	220V	A	76
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	A	140
	48V	A	110
	75V	A	110
	110V	A	105
	220V	A	95
<hr/>			
Short-time allowable current for 10s (IEC/EN60947-1)		A	760
<hr/>			
Protection fuse	gG (IEC)	A	160
	aM (IEC)	A	100
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Making capacity (RMS value)		A	1200
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Breaking capacity at voltage	440V	A	1100
	500V	A	775
	690V	A	745
<hr/>			
Resistance per pole (average value)		mΩ	0.45
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Power dissipation per pole (average value)	I _{th}	W	8.8
	AC3	W	4.1
<hr/>			
Tightening torque for terminals	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
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Tightening torque for coil terminal	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
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Conductor section	AWG/Kcmil		
		max	2/0

Flexible w/o lug conductor section	min	mm ²	1.5
	max	mm ²	70
Flexible c/w lug conductor section	min	mm ²	1.5
	max	mm ²	70
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	2060
Conductor section	AWG/kcmil conductor section		
	max		2/0
Auxiliary contact characteristics			
Thermal current I _{th}		A	140
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1400000
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	60
	max	V	110
Rated AC voltage at 50/60Hz		V	110
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	70...175
	holding	VA	1.7...3.5
	of 50/60Hz coil powered at 60Hz		
	in-rush	VA	70...175
	holding	VA	1.7...3.5
	of 60Hz coil powered at 60Hz		
	in-rush	VA	70...175
	holding	VA	1.7...3.5
Dissipation at holding ≤20°C 50Hz		W	1.3...1,5
DC coil operating			
DC rated control voltage			

		min	V	60
		max	V	110
DC rated control voltage			V	110
DC operating voltage				
	pick-up	min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	70...80
		holding	W	1.3...1.5

Max cycles frequency

Mechanical operation			cycles/h	1500
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Operating times

Average time for Us control				
	in AC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms
	in DC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms

UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	30
		220/230V	HP	30
		460/480V	HP	60
		575/600V	HP	75

General USE

Contactor				
		AC current	A	150
Short-circuit protection fuse, 600V				
	High fault			
		Short circuit current	kA	100
		Fuse rating	A	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	A	250
		Fuse class		RK5

Ambient conditions

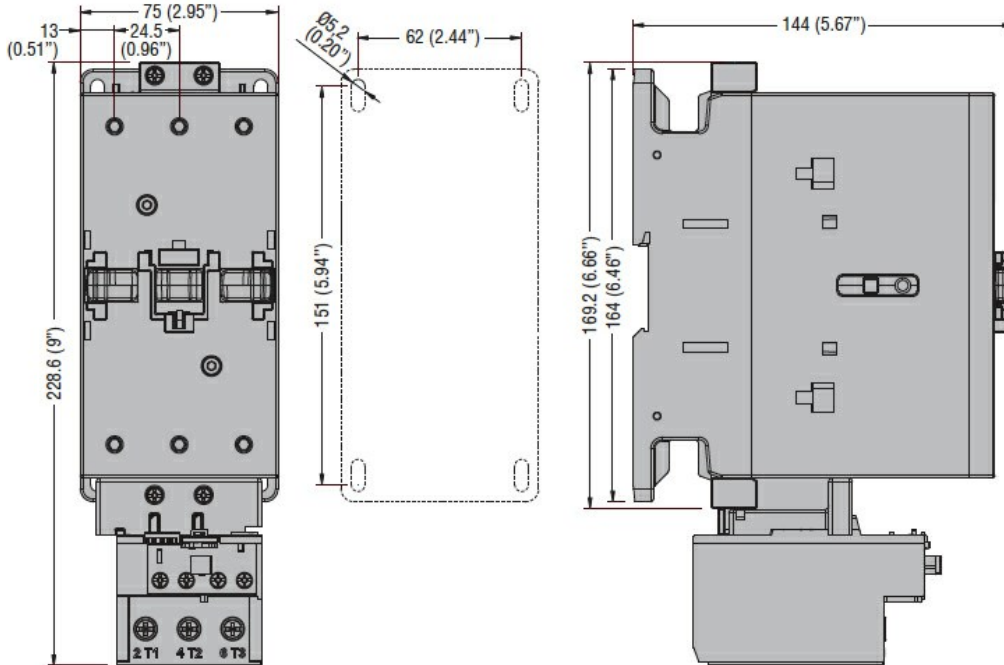
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70

Storage temperature

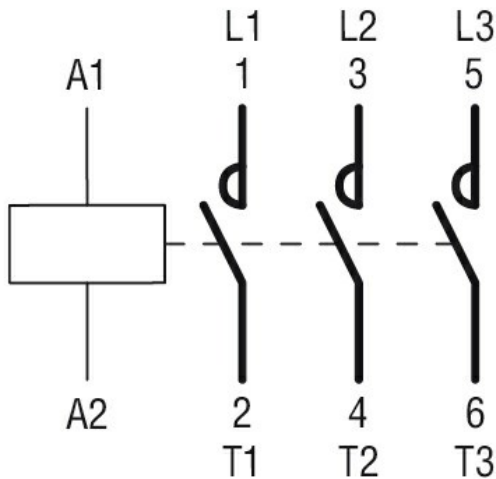
min	°C	-60
max	°C	+80
	m	3000

Max altitude

Dimensions [mm (in)]



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

CCC
cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching



Product designation
Product type designation

Power contactor
BF95

Contact characteristics

Number of poles	Nr.	3
Rated insulation voltage U_i IEC/EN	V	1000
Rated impulse withstand voltage U_{imp}	kV	8
Operational frequency	min	Hz 25
	max	Hz 400
IEC Conventional free air thermal current I_{th}	A	140
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 140
	AC-1 ($\leq 55^\circ\text{C}$)	A 115
	AC-1 ($\leq 70^\circ\text{C}$)	A 100
	AC-3 ($\leq 440\text{V} \leq 55^\circ\text{C}$)	A 95
	AC-4 (400V)	A 45
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	230V	kW 30
	400V	kW 55
	415V	kW 55
	440V	kW 55
	500V	kW 75
	690V	kW 90
	1000V	kW 45
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	$\leq 24\text{V}$	A 140
	48V	A 140
	75V	A 100
	110V	A 10
	220V	A –
	IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	$\leq 24\text{V}$
48V		A 140
75V		A 140
110V		A 110
220V		A 12
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series		$\leq 24\text{V}$
	48V	A 140
	75V	A 155
	110V	A 120
	220V	A 125
	IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	$\leq 24\text{V}$
48V		A 140

	75V	A	155
	110V	A	140
	220V	A	140
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	140
	48V	A	44
	75V	A	36
	110V	A	6
	220V	A	–
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IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	140
	48V	A	63
	75V	A	60
	110V	A	55
	220V	A	7
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	140
	48V	A	115
	75V	A	90
	110V	A	85
	220V	A	76
<hr/>			
IEC max current I _e in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	140
	48V	A	110
	75V	A	110
	110V	A	105
	220V	A	95
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Short-time allowable current for 10s (IEC/EN60947-1)		A	760
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Protection fuse			
	gG (IEC)	A	160
	aM (IEC)	A	100
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Making capacity (RMS value)		A	1200
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Breaking capacity at voltage			
	440V	A	1100
	500V	A	775
	690V	A	745
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Resistance per pole (average value)		mΩ	0.45
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Power dissipation per pole (average value)			
	I _{th}	W	8.8
	AC3	W	4.1
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Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
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Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
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Conductor section			
	AWG/Kcmil		
	max		2/0

Flexible w/o lug conductor section	min	mm ²	1.5
	max	mm ²	70
Flexible c/w lug conductor section	min	mm ²	1.5
	max	mm ²	70
Power terminal protection according to IEC/EN 60529			IP20 front
Mechanical features			
Operating position	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	2060
Conductor section	AWG/kcmil conductor section		
	max		2/0
Auxiliary contact characteristics			
Thermal current I _{th}		A	140
Operations			
Mechanical life		cycles	15000000
Electrical life		cycles	1400000
AC coil operating			
Rated AC voltage at 50/60Hz, 60Hz	min	V	100
	max	V	250
Rated AC voltage at 50/60Hz		V	230
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	70...175
	holding	VA	1.7...3.5
	of 50/60Hz coil powered at 60Hz		
	in-rush	VA	70...175
	holding	VA	1.7...3.5
	of 60Hz coil powered at 60Hz		
	in-rush	VA	70...175
	holding	VA	1.7...3.5
Dissipation at holding ≤20°C 50Hz		W	1.3...1,5
DC coil operating			
DC rated control voltage			

		min	V	100
		max	V	250
DC rated control voltage			V	230
DC operating voltage				
	pick-up	min	%Us	80 Us min
		max	%Us	110 Us max
	drop-out			
		max	%Us	≤70 Us min
Average coil consumption ≤20°C				
		in-rush	W	70...80
		holding	W	1.3...1.5

Max cycles frequency

Mechanical operation			cycles/h	1500
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Operating times

Average time for Us control				
	in AC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms
	in DC			
		Closing NO		
			min	ms
			max	ms
		Opening NO		
			min	ms
			max	ms

UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	30
		220/230V	HP	30
		460/480V	HP	60
		575/600V	HP	75

General USE

Contactor				
		AC current	A	150
Short-circuit protection fuse, 600V				
	High fault			
		Short circuit current	kA	100
		Fuse rating	A	200
		Fuse class		J
	Standard fault			
		Short circuit current	kA	10
		Fuse rating	A	250
		Fuse class		RK5

Ambient conditions

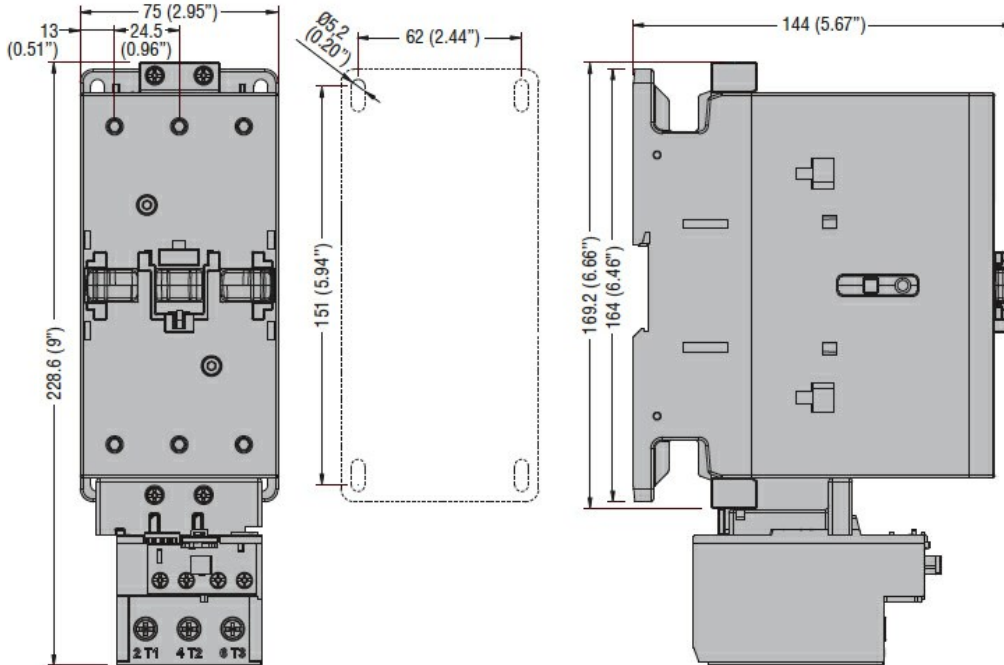
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70

Storage temperature

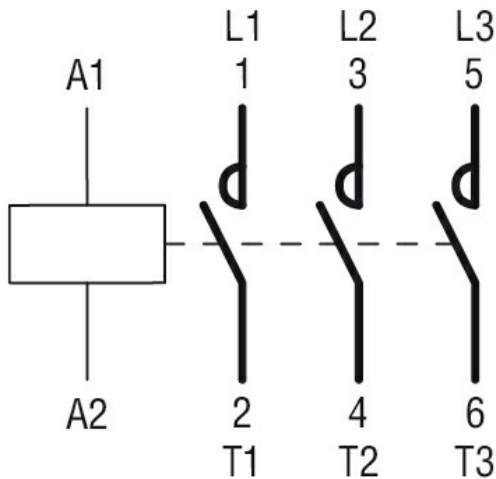
min	°C	-60
max	°C	+80
	m	3000

Max altitude

Dimensions [mm (in)]



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

CCC
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ETIM classification

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