BF11500A024

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 50/60HZ, 24VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 50/60Hz			V	24
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
of 50/60Hz coil powered at 60Hz				
pick-up				
		min	%Us	85
		max	%Us	110
drop-out				
		min	%Us	40
		max	%Us	55
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz				
		in-rush	VA	300
		holding	VA	20
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	275
		holding	VA	17
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16

		max	ms	32
	Opening NO			
		min	ms	9
		max	ms	24

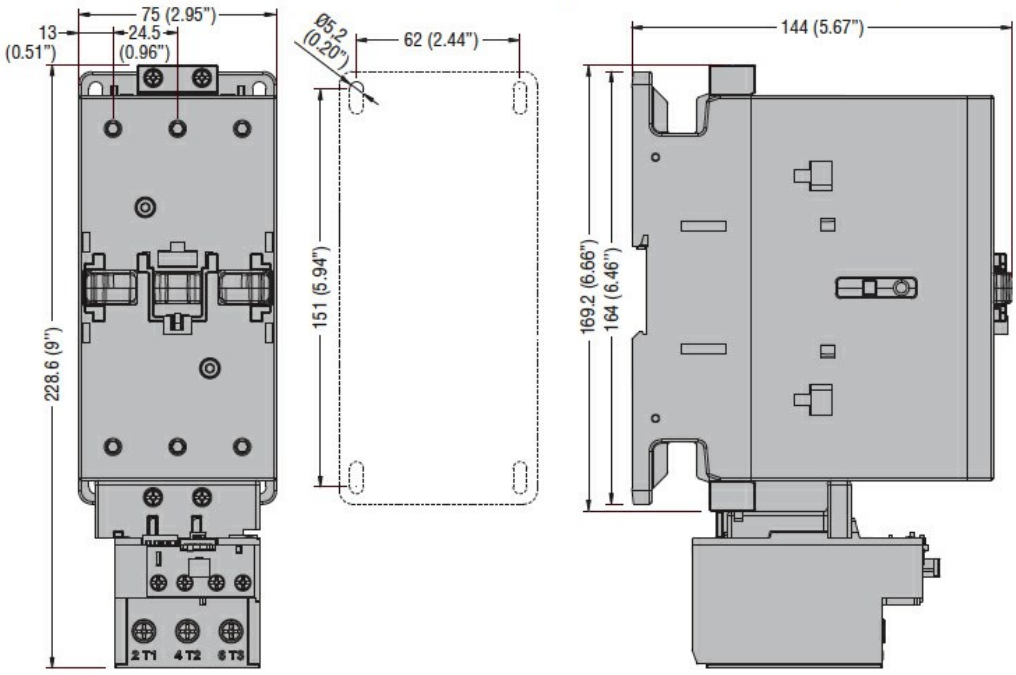
UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75
		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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
Max altitude			m	3000

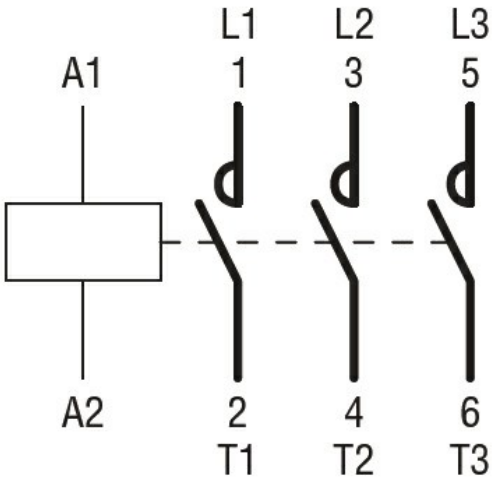
Dimensions



Wiring diagrams

BF11500A024

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 50/60HZ, 24VAC



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

BF11500A048

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 50/60HZ, 48VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 50/60Hz			V	48
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
of 50/60Hz coil powered at 60Hz				
pick-up				
		min	%Us	85
		max	%Us	110
drop-out				
		min	%Us	40
		max	%Us	55
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz				
		in-rush	VA	300
		holding	VA	20
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	275
		holding	VA	17
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16

		max	ms	32
	Opening NO			
		min	ms	9
		max	ms	24

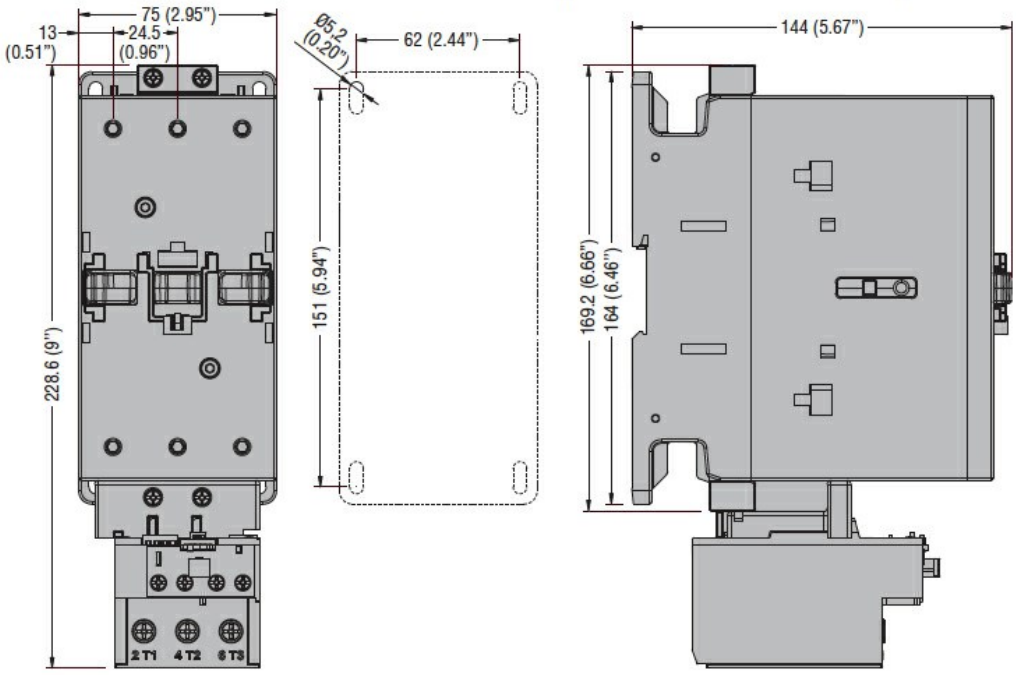
UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75
		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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

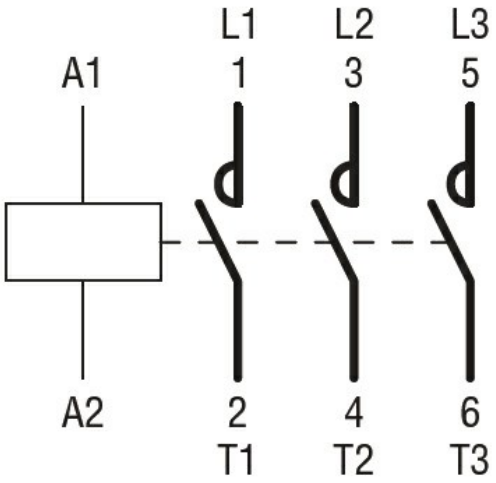
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A110

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 50/60HZ, 110VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 50/60Hz			V	110
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
of 50/60Hz coil powered at 60Hz				
pick-up				
		min	%Us	85
		max	%Us	110
drop-out				
		min	%Us	40
		max	%Us	55
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz				
		in-rush	VA	300
		holding	VA	20
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	275
		holding	VA	17
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16

		max	ms	32
	Opening NO			
		min	ms	9
		max	ms	24

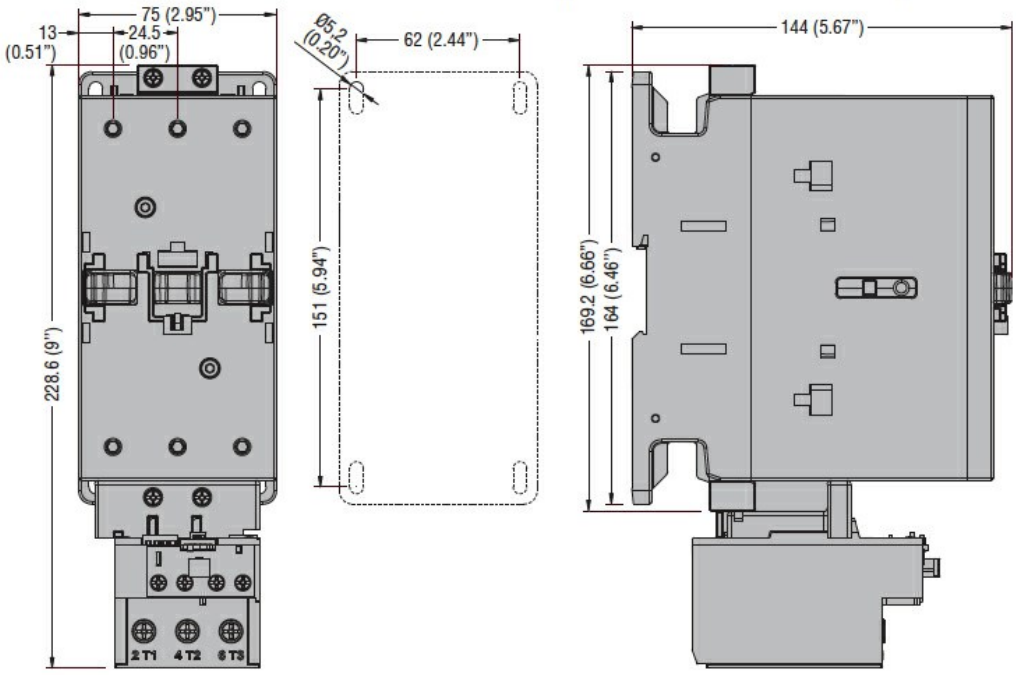
UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75
		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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

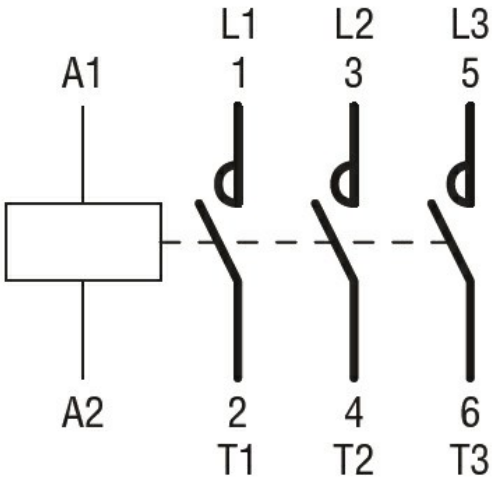
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A230

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 50/60HZ, 230VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 50/60Hz			V	230
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
of 50/60Hz coil powered at 60Hz				
pick-up				
		min	%Us	85
		max	%Us	110
drop-out				
		min	%Us	40
		max	%Us	55
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz				
		in-rush	VA	300
		holding	VA	20
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	275
		holding	VA	17
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16

		max	ms	32
	Opening NO			
		min	ms	9
		max	ms	24

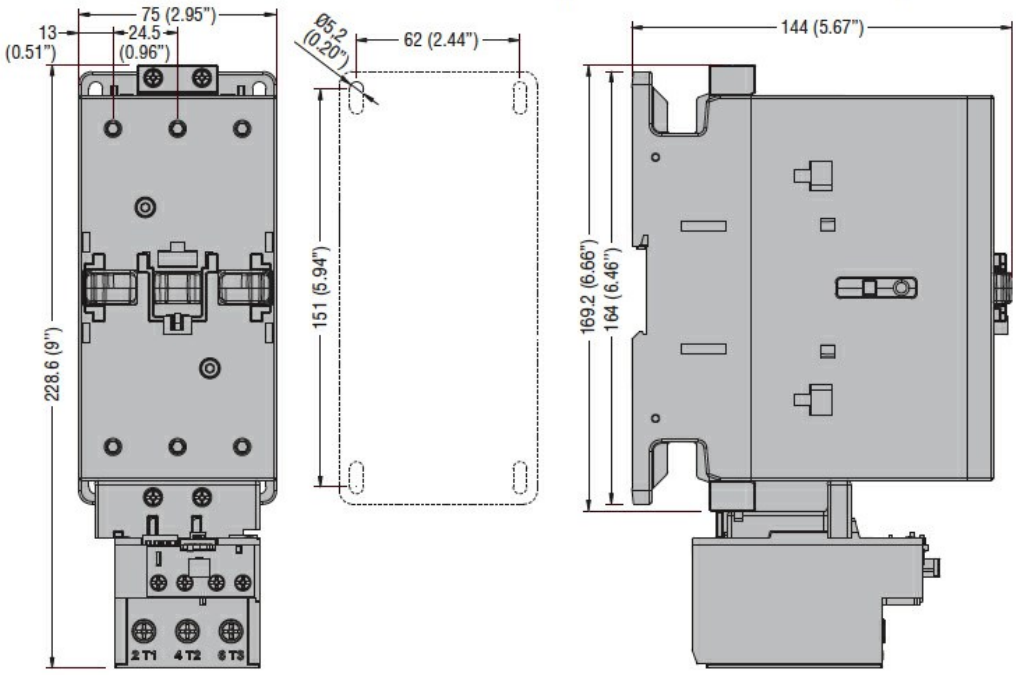
UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75
		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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
Max altitude			m	3000

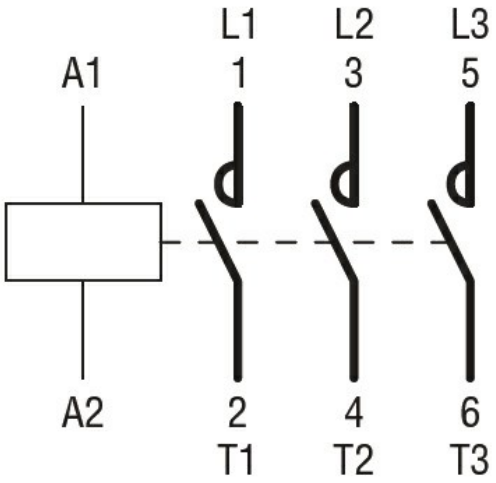
Dimensions



Wiring diagrams

BF11500A230

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 50/60HZ, 230VAC



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

BF11500A400

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 50/60HZ, 400VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 50/60Hz			V	400
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
of 50/60Hz coil powered at 60Hz				
pick-up				
		min	%Us	85
		max	%Us	110
drop-out				
		min	%Us	40
		max	%Us	55
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz				
		in-rush	VA	300
		holding	VA	20
of 50/60Hz coil powered at 60Hz				
		in-rush	VA	275
		holding	VA	17
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16

		max	ms	32
	Opening NO			
		min	ms	9
		max	ms	24

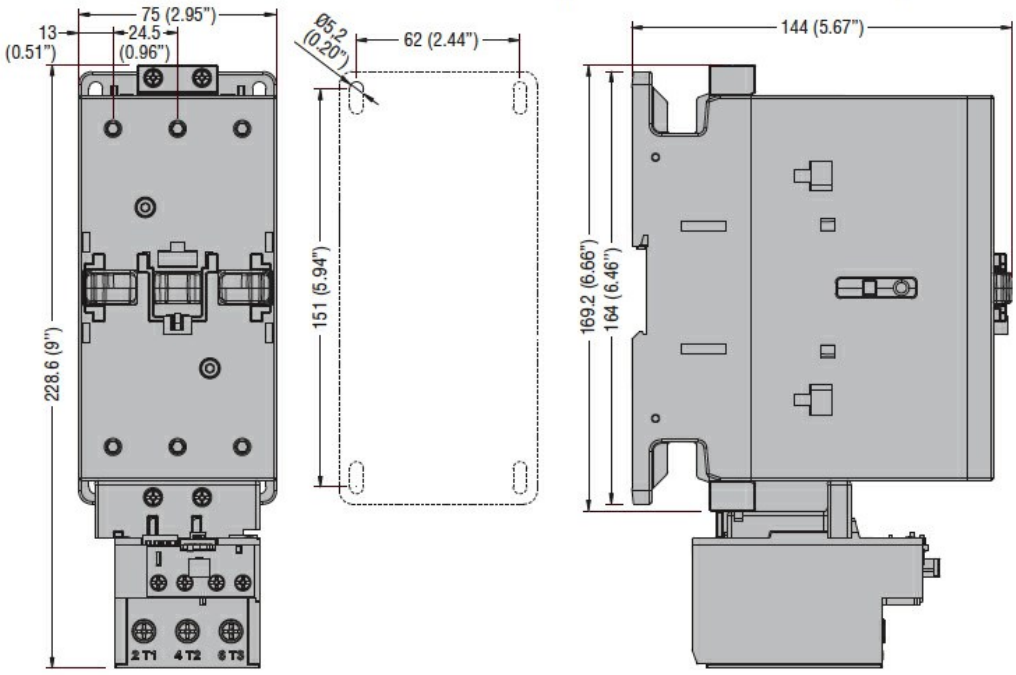
UL technical data

Yielded mechanical performance				
	for three-phase AC motor			
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75
		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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

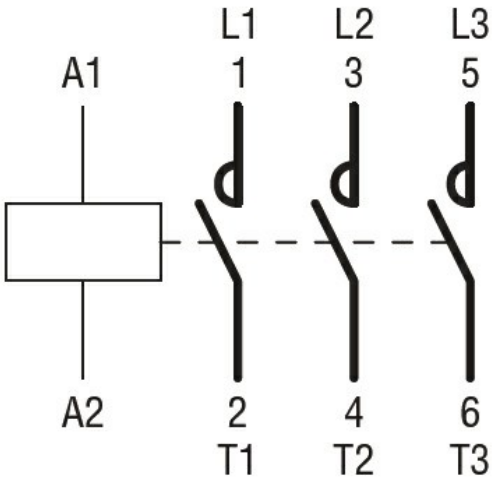
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A02460

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 60HZ, 24VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

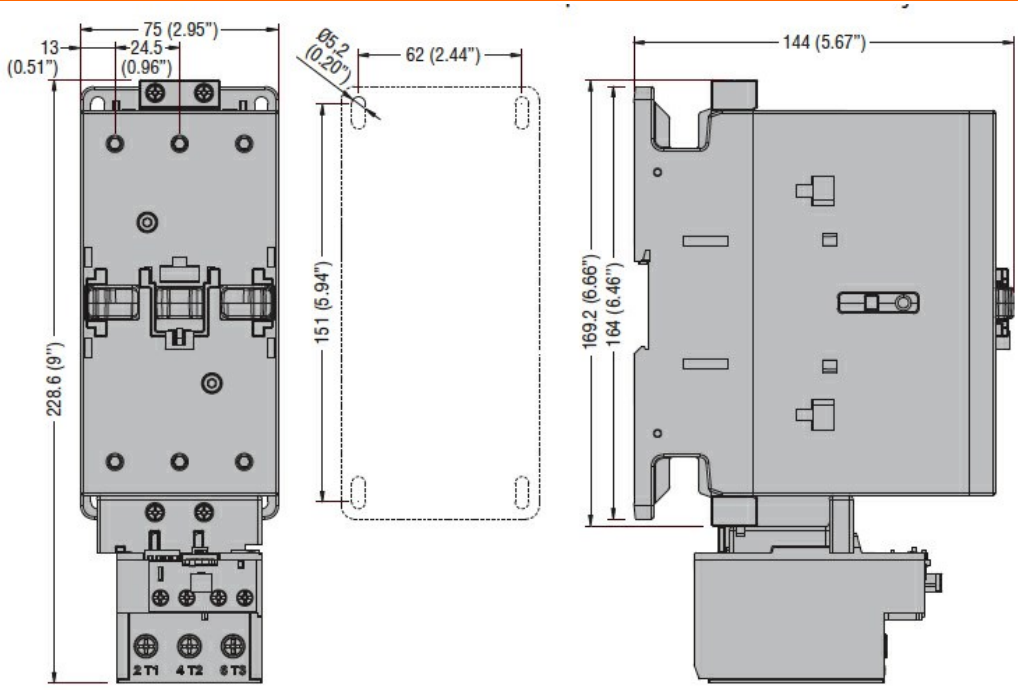
Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 60Hz			V	24
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
drop-out				
		max	%Us	55
of 60Hz coil powered at 60Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16
		max	ms	32
Opening NO				
		min	ms	9
		max	ms	24
UL technical data				
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75

		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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

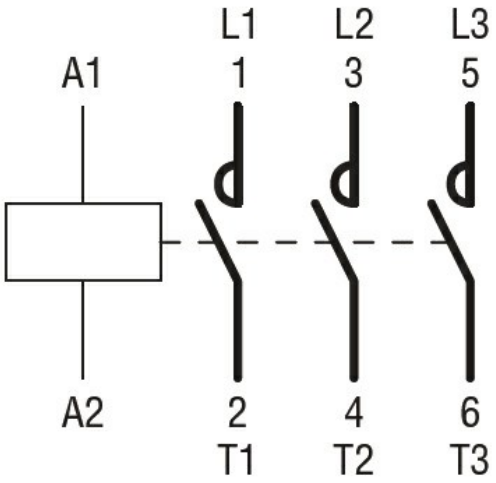
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A04860

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 60HZ, 48VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

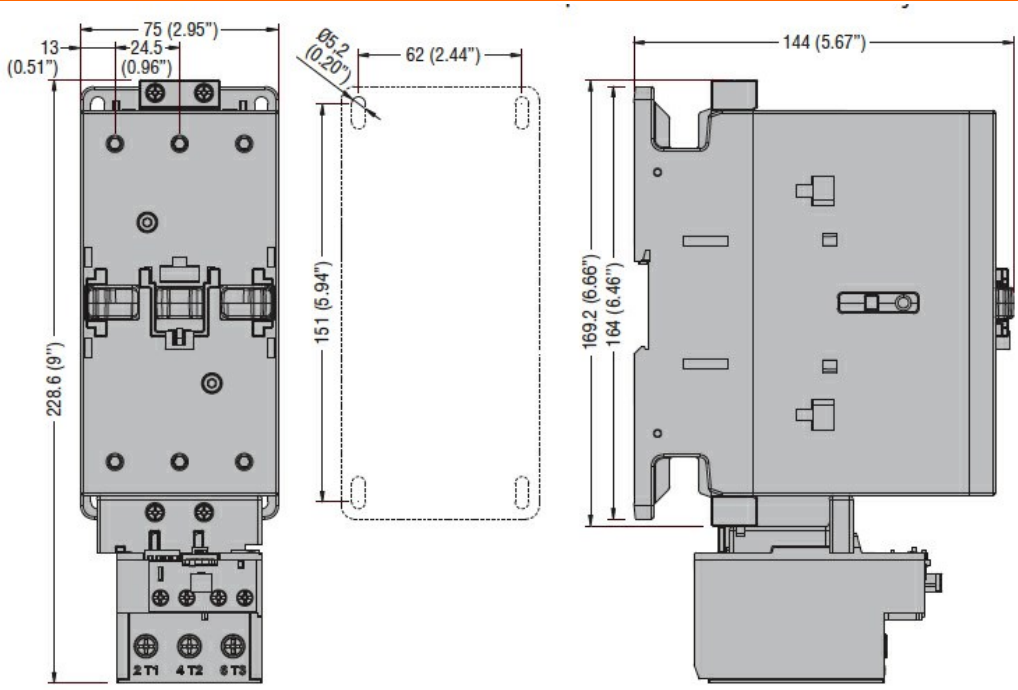
Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 60Hz			V	48
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
drop-out				
		max	%Us	55
of 60Hz coil powered at 60Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16
		max	ms	32
Opening NO				
		min	ms	9
		max	ms	24
UL technical data				
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75

		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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

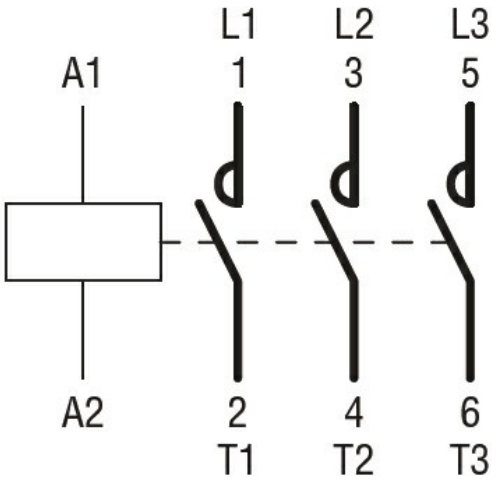
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A12060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 60HZ, 120VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

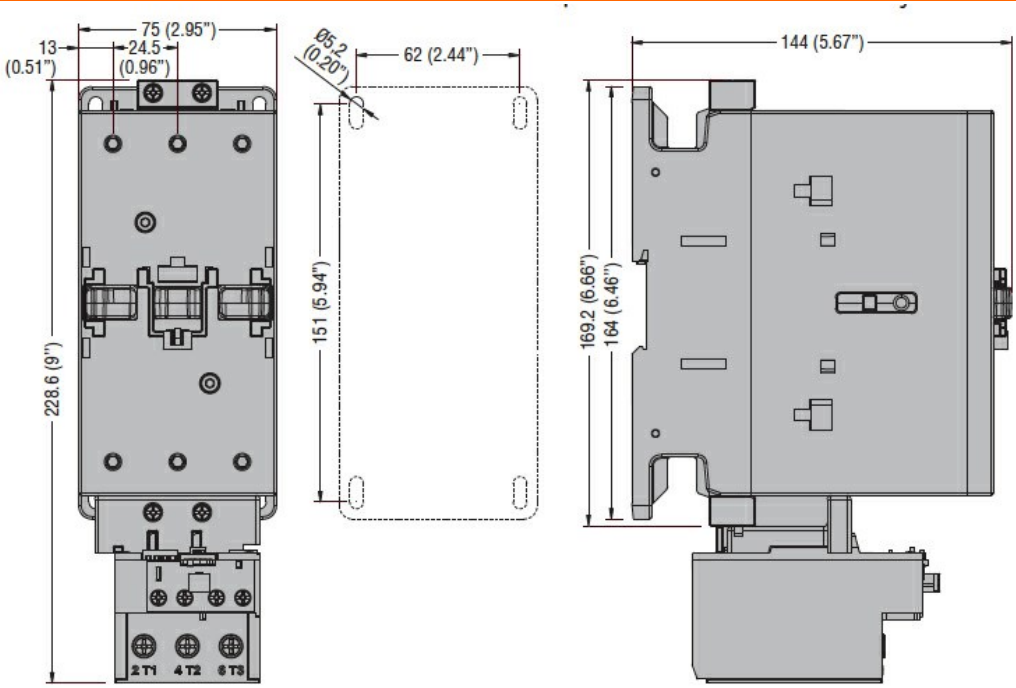
Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 60Hz			V	120
AC operating voltage				
of 60Hz coil powered at 60Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16
		max	ms	32
Opening NO				
		min	ms	9
		max	ms	24
UL technical data				
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75
		575/600V	HP	100
General USE				
Contactor				

		AC current	A	165
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

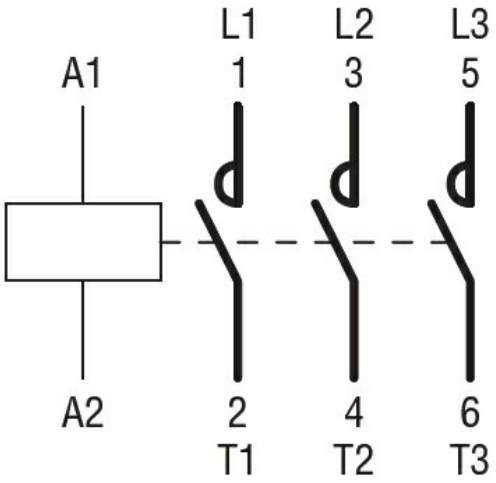
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A22060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 60HZ, 220VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

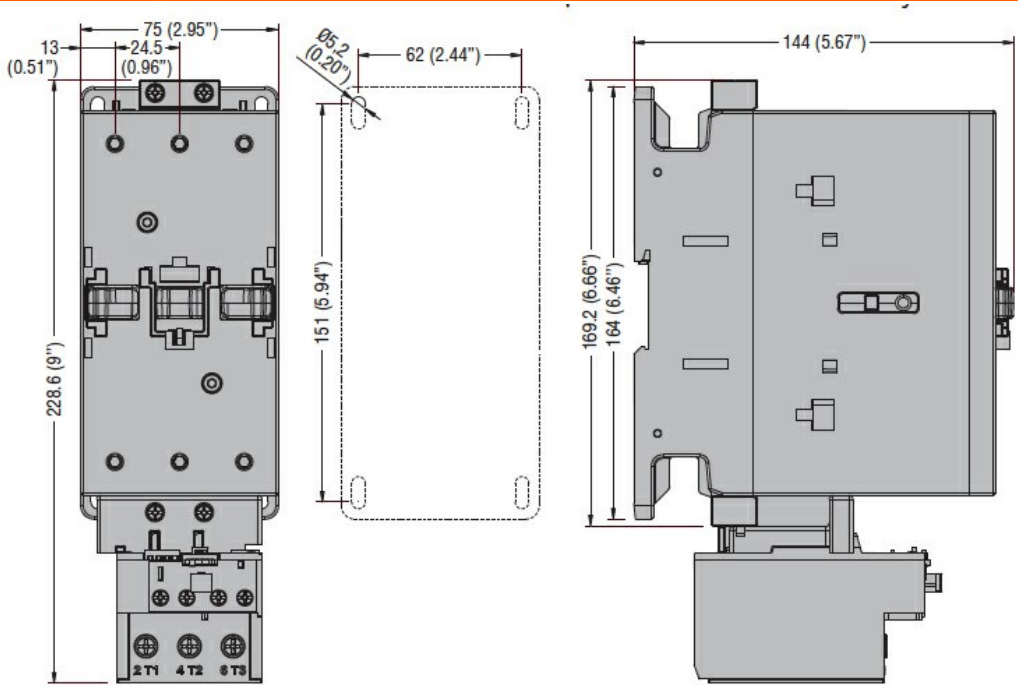
Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 60Hz			V	220
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
drop-out				
		max	%Us	55
of 60Hz coil powered at 60Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16
		max	ms	32
Opening NO				
		min	ms	9
		max	ms	24
UL technical data				
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75

		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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

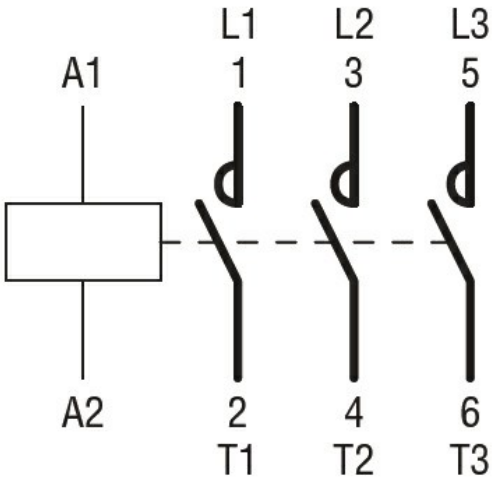
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A23060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 60HZ, 230VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

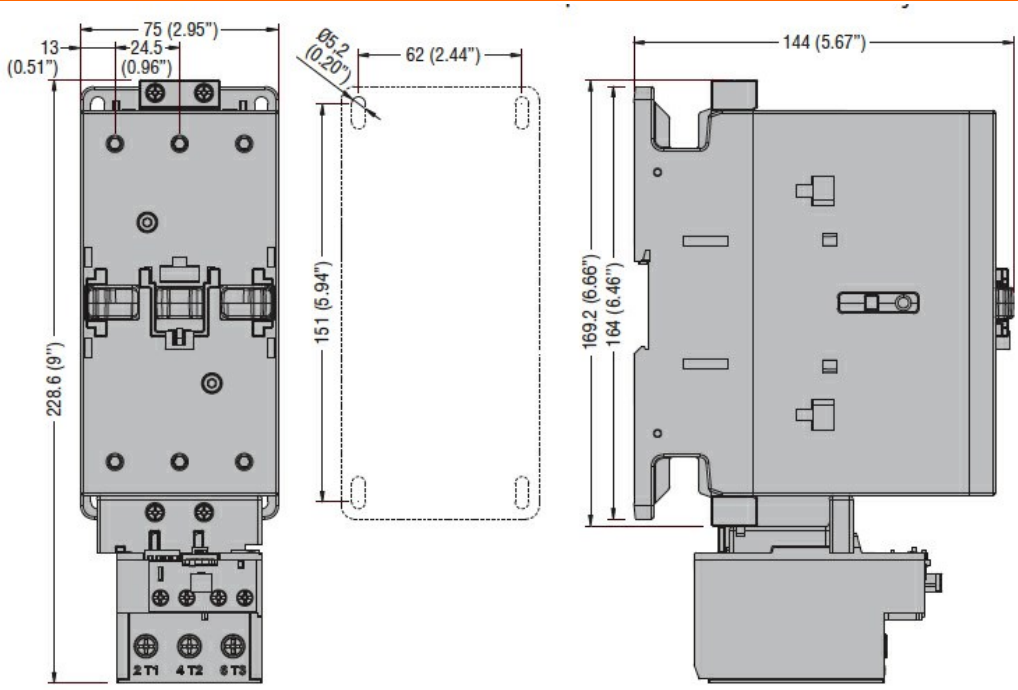
Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 60Hz			V	230
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
drop-out				
		max	%Us	55
of 60Hz coil powered at 60Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16
		max	ms	32
Opening NO				
		min	ms	9
		max	ms	24
UL technical data				
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75

		575/600V	HP	100
General USE				
	Contactor			
		AC current	A	165
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

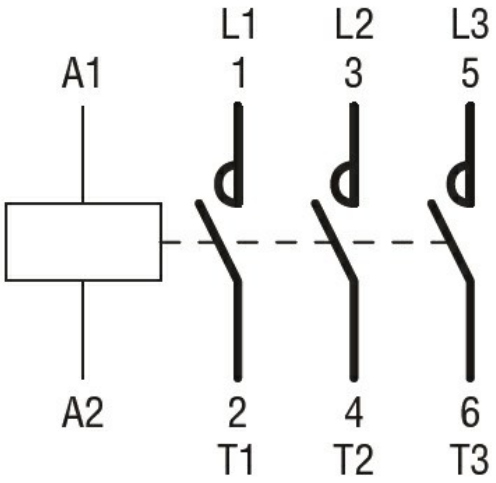
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A46060

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 60HZ, 460VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.59
	max	lbin	0.74
Conductor section			
AWG/Kcmil			
	max		2/0

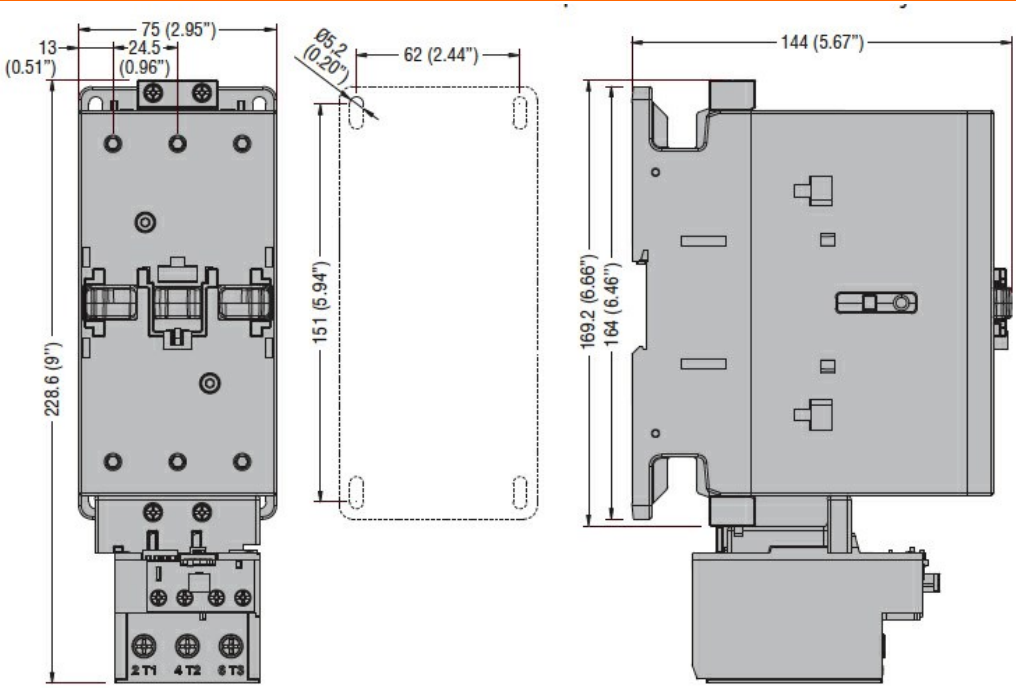
Flexible w/o lug conductor section				
		min	mm²	1.5
		max	mm²	70
Flexible c/w lug conductor section				
		min	mm²	1.5
		max	mm²	70
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 60Hz			V	460
AC operating voltage				
of 60Hz coil powered at 60Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16
		max	ms	32
Opening NO				
		min	ms	9
		max	ms	24
UL technical data				
Yielded mechanical performance				
for three-phase AC motor				
		200/208V	HP	40
		220/230V	HP	40
		460/480V	HP	75
		575/600V	HP	100
General USE				
Contactor				

		AC current	A	165
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

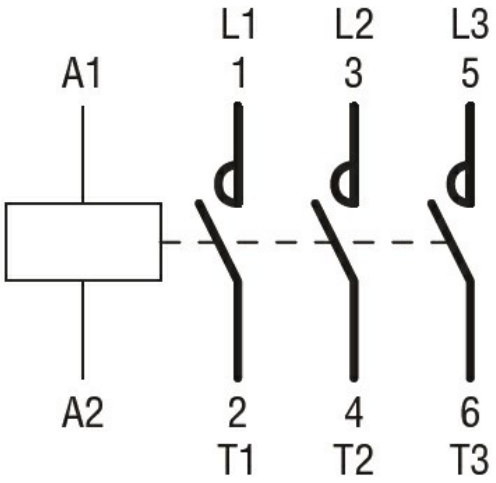
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



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

BF11500A57560

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 115A, AC COIL 60HZ, 575VAC

Product designation			Power contactor
Product type designation			BF115
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		A	160
Operational current Ie			
	AC-1 (≤40°C)	A	160
	AC-1 (≤55°C)	A	130
	AC-1 (≤70°C)	A	115
	AC-3 (≤440V ≤55°C)	A	115
	AC-4 (400V)	A	54
Rated operational power AC-3 (T≤55°C)			
	230V	kW	37
	400V	kW	55
	415V	kW	55
	440V	kW	55
	500V	kW	75
	690V	kW	110
	1000V	kW	55
IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	120
	110V	A	10
	220V	A	–
IEC max current Ie in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	130
	220V	A	14
IEC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	A	160
	48V	A	160
	75V	A	160
	110V	A	140
	220V	A	145
IEC max current Ie in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	A	160
	48V	A	160

	75V	A	160
	110V	A	160
	220V	A	160
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	A	160
	48V	A	50
	75V	A	40
	110V	A	6
	220V	A	–
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	A	160
	48V	A	72
	75V	A	65
	110V	A	65
	220V	A	7
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	A	160
	48V	A	150
	75V	A	100
	110V	A	100
	220V	A	92
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	A	160
	48V	A	120
	75V	A	120
	110V	A	125
	220V	A	115
Short-time allowable current for 10s (IEC/EN60947-1)		A	920
Protection fuse			
	gG (IEC)	A	200
	aM (IEC)	A	125
Making capacity (RMS value)		A	1500
Breaking capacity at voltage			
	440V	A	1200
	500V	A	850
	690V	A	905
Resistance per pole (average value)		mΩ	0.45
Power dissipation per pole (average value)			
	Ith	W	11.5
	AC3	W	6.0
Tightening torque for terminals			
	min	Nm	6
	max	Nm	7
	min	lbin	4.4
	max	lbin	5.2
Tightening torque for coil terminal			
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Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	2020
Conductor section				
AWG/kcmil conductor section				
		max		2/0
Operations				
Mechanical life			cycles	15000000
Electrical life			cycles	1200000
AC coil operating				
Rated AC voltage at 60Hz			V	575
AC operating voltage				
of 50/60Hz coil powered at 50Hz				
drop-out				
		max	%Us	≤70 Us min
of 60Hz coil powered at 60Hz				
pick-up				
		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
		max	%Us	55
AC average coil consumption at 20°C				
of 60Hz coil powered at 60Hz				
		in-rush	VA	300
		holding	VA	20
Dissipation at holding ≤20°C 50Hz			W	1.3…1,5
Max cycles frequency				
Mechanical operation			cycles/h	1500
Operating times				
Average time for Us control				
in AC				
Closing NO				
		min	ms	16
		max	ms	32
Opening NO				
		min	ms	9
		max	ms	24
UL technical data				
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for three-phase AC motor				
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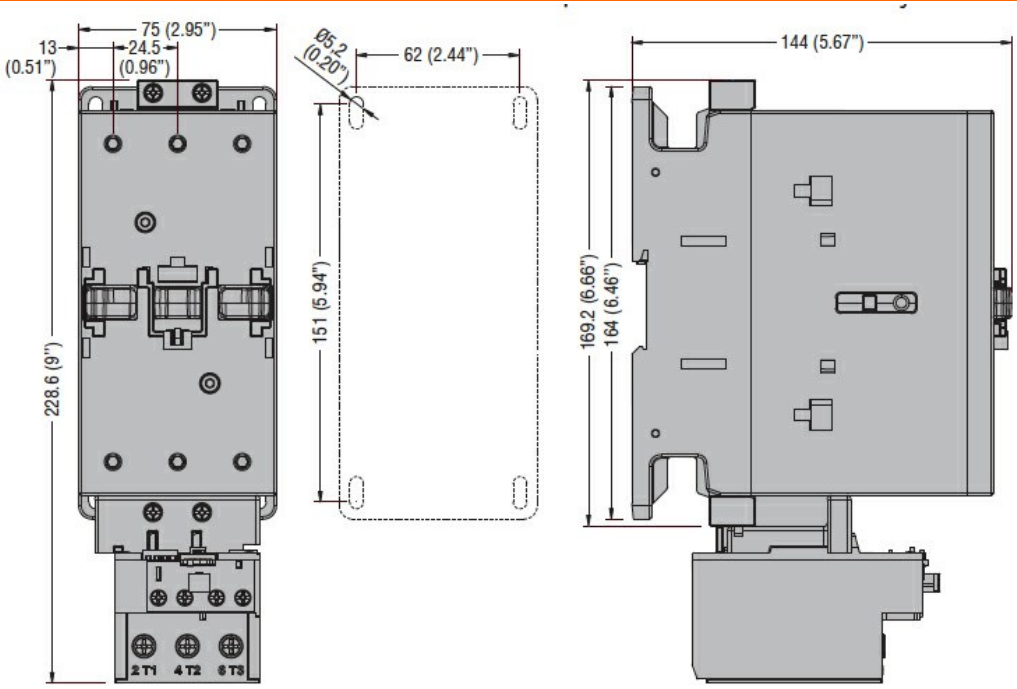
		Fuse class		RK5

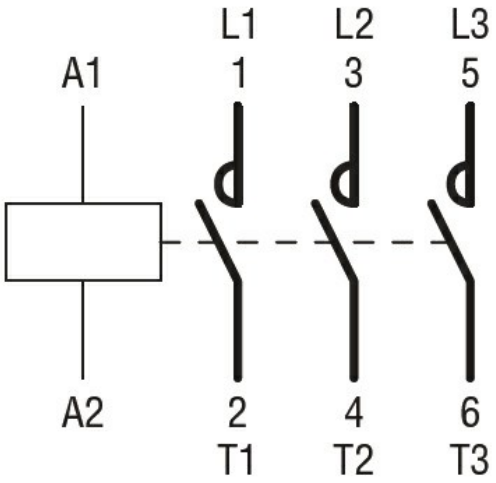
Ambient conditions

Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	+80
Max altitude			m	3000

Dimensions



Wiring diagrams



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