

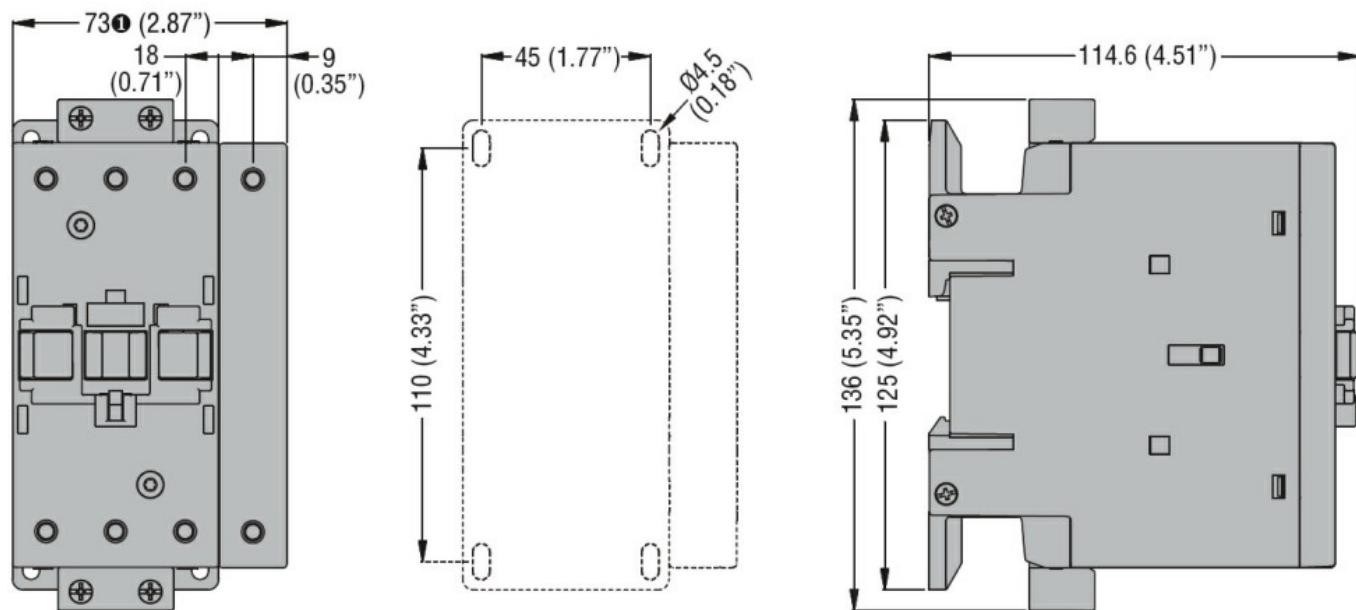


Product designation	Power contactor		
Product type designation	BF40		
Contact characteristics			
Number of poles	Nr.	4	
Rated insulation voltage Ui IEC/EN	V	1000	
Rated impulse withstand voltage Uimp	kV	8	
Operational frequency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		A	70
Operational current Ie			
	AC-1 ($\leq 40^{\circ}\text{C}$)	A	70
	AC-1 ($\leq 55^{\circ}\text{C}$)	A	60
	AC-1 ($\leq 70^{\circ}\text{C}$)	A	50
	AC-3 ($\leq 440\text{V} \leq 55^{\circ}\text{C}$)	A	40
	AC-4 (400V)	A	24
Rated operational current AC-3 ($T \leq 55^{\circ}\text{C}$)			
	230V	A	40
	400V	A	40
	415V	A	40
	440V	A	40
	500V	A	33
	690V	A	32
	1000V	A	21
Rated operational power AC-1 ($T \leq 40^{\circ}\text{C}$)			
	230V	kW	26
	400V	kW	46
	500V	kW	58
	690V	kW	79
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series			
	$\leq 24\text{V}$	A	40
	48V	A	35
	75V	A	30
	110V	A	8
	220V	A	—
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series			
	$\leq 24\text{V}$	A	48
	48V	A	48
	75V	A	45
	110V	A	42
	220V	A	5
IEC max current Ie in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series			
	$\leq 24\text{V}$	A	48
	48V	A	48
	75V	A	48

	110V	A	44
	220V	A	56
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series			
	$\leq 24V$	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	70
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 1 poles in series			
	$\leq 24V$	A	27
	48V	A	23
	75V	A	19
	110V	A	3
	220V	A	—
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 2 poles in series			
	$\leq 24V$	A	32
	48V	A	30
	75V	A	27
	110V	A	22
	220V	A	5
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 3 poles in series			
	$\leq 24V$	A	40
	48V	A	40
	75V	A	38
	110V	A	27
	220V	A	32
IEC max current I_e in DC3-DC5 with $L/R \leq 15\text{ms}$ with 4 poles in series			
	$\leq 24V$	A	—
	48V	A	—
	75V	A	—
	110V	A	—
	220V	A	40
Short-time allowable current for 10s (IEC/EN60947-1)			A 400
Protection fuse			
	gG (IEC)	A	100
	aM (IEC)	A	50
Making capacity (RMS value)			A 400
Breaking capacity at voltage			
	440V	A	320
	500V	A	265
	690V	A	256
Resistance per pole (average value)			$\text{m}\Omega$ 0.8
Power dissipation per pole (average value)			
	I _{th}	W	3.9
	AC-3	W	1.3
Tightening torque for terminals			
	min	Nm	4
	max	Nm	5
	min	I _{bin}	2.95
	max	I _{bin}	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1

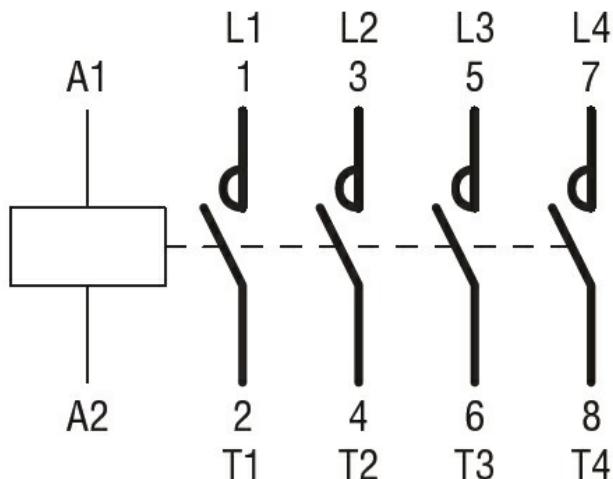
		min	Ibin	0.8
		max	Ibin	0.74
Max number of wires simultaneously connectable				Nr. 2
Conductor section				
AWG/Kcmil		max		2
Flexible w/o lug conductor section				
	min	mm ²	1.5	
	max	mm ²	35	
Flexible c/w lug conductor section				
	min	mm ²	1.5	
	max	mm ²	35	
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position				
	normal allowable		Vertical plan	
			±30°	
Fixing				Screw / DIN rail
			35mm	
Weight				g 1240
Operations				
Mechanical life				cycles 15000000
Electrical life				cycles 1500000
Safety related data				
Performance level B10d according to EN/ISO 13489-1				
	rated load	cycles	1500000	
	mechanical load	cycles	15000000	
EMC compatibility				yes
AC coil operating				
Rated AC voltage at 60Hz				V 24
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	210	
	holding	VA	15	
Dissipation at holding ≤20°C 50Hz				W 5
Max cycles frequency				
Mechanical operation				cycles/h 3600
Operating times				
Average time for Us control				
in AC				
Closing NO				
	min	ms	12	
	max	ms	28	
Opening NO				
	min	ms	8	
	max	ms	22	

in DC			
Closing NO	min	ms	40
	max	ms	85
Opening NO	min	ms	20
	max	ms	55
UL technical data			
Rated operational voltage AC (UL)			V 600
Full-load current (FLA) for three-phase AC motor		at 480V	A 40
		at 600V	A 32
Yielded mechanical performance			
for single-phase AC motor	110/120V	HP	3
	230V	HP	7.5
for three-phase AC motor	200/208V	HP	10
	220/230V	HP	15
		460/480V	HP 30
		575/600V	HP 30
General USE			
Contactor		AC current	A 70
Short-circuit protection fuse, 600V			
High fault	Short circuit current	kA	100
	Fuse rating	A	150
	Fuse class		J
Standard fault	Short circuit current	kA	5
	Fuse rating	A	150
	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
Resistance & Protection			
Pollution degree			3
Dimensions			



① BF80T2 82mm/3.23"

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