



Product designation Product type designation			Power contactor BF25
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
·	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	25
	AC-4 (400V)	Α	10
Rated operational power AC-3 (T≤55°C)	, ,		
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			_
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18





EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
\$24V		220V	Α	12
ABV	IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
75V		≤24V	Α	_
110V		48V	Α	_
EEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series   \$24V   A   15   48V   A   13   75V   A   13   110V   A   2   220V   A   −		75V	Α	_
SEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		110V	Α	_
\$\frac{\fir}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\		220V	Α	_
A 8 V A 13   75 V A 13   75 V A 2   2   220 V A -	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
75 V		≤24V	Α	15
110V   A   2   220V   A		48V	Α	13
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		75V	Α	13
Section   Sec		110V	Α	2
≤24V		220V	Α	_
≤24V	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
48V	· ·	≤24V	Α	18
75V				
110V				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
SEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
\$\qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qqquad \qqqq \qqqqq \qqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqqq	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201	- , ,	
A 8 V A 22   75 V A 18   110 V A 15   220 V A 8   110 V A 15   220 V A 18   110 V A	person	≤24V	Α	22
75V				
110V   A   15   220V   A   8				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series				
Section   Sec				
\$\frac{\frac{24V}{48V}}{48V}	IFC may current le in DC3-DC5 with L/R < 15ms with 4 notes in series	220 V		
ABV   A   -	120 max outfork to in 200 200 with 2/11 = 10m3 with 4 poles in 30m3	<24\/	Δ	_
75V				
110V				
Short-time allowable current for 10s (IEC/EN60947-1)				_
Short-time allowable current for 10s (IEC/EN60947-1)				_
Protection fuse   gG (IEC)	Short-time allowable current for 10s (IEC/EN60947-1)	220 V		
Making capacity (RMS value)			,,	200
Making capacity (RMS value)		aG (IFC)	Α	50
Making capacity (RMS value)       A 250         Breaking capacity at voltage       440 V A 200 500 V A 184 690 V A 102         Resistance per pole (average value)       mΩ 2.5         Power dissipation per pole (average value)       lth W 2.6 AC3 W 1.6         Tightening torque for terminals       min Nm 1.5 max Nm 1.8 min lbin 1.1 max lbin 1.5         Tightening torque for coil terminal       min Nm 0.8				
Breaking capacity at voltage	Making capacity (RMS value)	aivi (i20)		
440V   A   200   500V   A   184   690V   A   102	<u> </u>		,,	200
Soov   A   184   690V   A   102		440\/	Α	200
Resistance per pole (average value)   mΩ   2.5				
Resistance per pole (average value)   mΩ   2.5				
Power dissipation per pole (average value)  Ith W 2.6 AC3 W 1.6  Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8	Resistance per pole (average value)	330 V		
Ith   W   2.6   AC3   W   1.6			11122	0
AC3   W   1.6	1 oner alsoipation per pole (average value)	Ith	۱۸/	2.6
Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8				
min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8	Tightening torque for terminals	AUS	v V	1.0
max Nm   1.8   min   Ibin   1.1   max   Ibin   1.5	rightering torque for terminals	min	Nm	1 5
min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8				
Tightening torque for coil terminal  max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8				
Tightening torque for coil terminal min Nm 0.8				
min Nm 0.8	Tightoning targue for coil terminal	max	IIIII	1.0
	rightening torque for contenninal	min	Nim	0.0
max inm 1				
antin Ultim 0.0				
min Ibin 0.8		min	niai	۵.8



Name of the second	size. Managarah ang satah la	max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	ANNO III amail			
	AWG/Kcmil	may		10
	Elevible w/e lug conductor coction	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max	111111	0
	Tiexible 6/W lag conductor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	max		•
	- ionale man meanated opage range conductor	min	mm²	1
		max	mm²	4
D (	1'			IP20 when
Power terminal protec	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	360
Conductor section				
	AWG/kcmil conductor section			
		max		10
-	acteristics	max		
Thermal current Ith		max	A	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation	max	A	
Thermal current Ith IEC/EN 60947-5-1 de	esignation			10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V	A	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	esignation	230V 400V	A A	10 A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	esignation 15	230V	A	10 A600 - P600
Thermal current lth IEC/EN 60947-5-1 de Operating current AC	esignation 15	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V	A A	10 A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V	A A A	10 A600 - P600 3 1.9 1.4
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V	A A A	10 A600 - P600 3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V	A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V	A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	10 A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC  Operating current DC  Electrical life	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	10 A600 - P600 3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC  Operating current DC  Electrical life Safety related data	esignation 15 12 13	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	10 A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC  Operating current DC  Electrical life Safety related data	esignation 15	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC  Operating current DC  Electrical life Safety related data	esignation 15 12 13 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles cycles	10 A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC  Operating current DC  Operating current DC  Operating current DC  Operating current DC  Electrical life Electrical life Safety related data Performance level B1	esignation 15  12  13  Od according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 12000000
	esignation 15 12 13 10d according to EN/ISO 13489-1	230V 400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	10 A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000



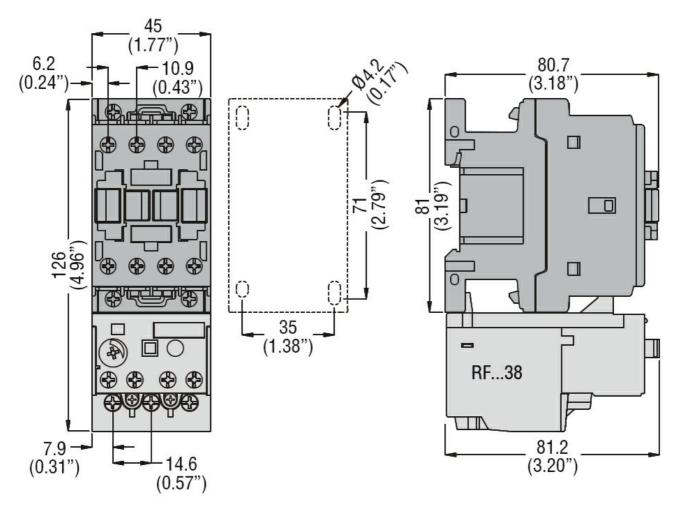
Rated AC voltage at			V	24
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
	In a section	max	%Us	110
	drop-out		0/11-	00
		min	%Us	20
	of FO/COLLE and recovered at COLLE	max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		max	%Us	110
	drop-out	Illax	/005	110
	diop-out	min	%Us	20
		max	%Us	55
C average coil cons	sumption at 20°C	max	7000	
C average con cons	of 50/60Hz coil powered at 50Hz			
	51 50/501 12 6011 powered at 501 12	in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz	airig	*/ 1	<del>-</del>
	2. 35,551.12 351. powords at 00112	in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz	3		
	, , , , , , , , , , , , , , , , , , , ,	in-rush	VA	75
		holding	VA	9
Dissipation at holding	1 < 20°C 50Hz		147	2.5
	1 = 20 0 001 12		W	2.5
Max cycles frequency			VV	2.5
Max cycles frequency Mechanical operation	/		cycles/h	
Mechanical operation	/			
Mechanical operation Operating times	control			
Mechanical operation Operating times	/			
Mechanical operation Operating times	control		cycles/h	3600
Mechanical operation Operating times	control in AC	O min	cycles/h ms	3600
Mechanical operation Operating times	control in AC Closing N	min max	cycles/h	3600
Mechanical operation Operating times	control in AC	min max NO	cycles/h ms ms	3600 8 24
Mechanical operation Operating times	control in AC Closing N	min max NO min	cycles/h  ms  ms  ms	3600 8 24 10
Mechanical operation Operating times	control in AC Closing N Opening N	min max NO min max	cycles/h ms ms	3600 8 24
Mechanical operation Operating times	control in AC Closing N	min max NO min max	cycles/h  ms  ms  ms  ms	3600 8 24 10 20
Mechanical operation Operating times	control in AC Closing N Opening N	min max NO min max C	ms ms ms ms ms	3600 8 24 10 20
Mechanical operation Operating times	control in AC Closing N Opening N Closing N	min max NO min max C min max	cycles/h  ms  ms  ms  ms	3600 8 24 10 20
	control in AC Closing N Opening N	min max NO min max C min max NC	ms ms ms ms ms	3600 8 24 10 20 14 28
Mechanical operation  Operating times	control in AC Closing N Opening N Closing N	min max NO min max C min max NC min max	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7
Mechanical operation Derating times Average time for Us o	control in AC Closing N Opening N Closing N	min max NO min max C min max NC	ms ms ms ms ms	3600 8 24 10 20 14 28
Mechanical operation Dperating times Average time for Us of	control in AC  Closing N  Opening N  Closing N  Opening N	min max NO min max C min max NC min max	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7
Mechanical operation Dperating times Average time for Us of	control in AC Closing N Opening N Closing N	min max NO min max C min max NC min max	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of	control in AC  Closing N  Opening N  Closing N  Opening N	min max NO min max C min max NC min max NC at 480V	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of JL technical data Full-load current (FLA	control in AC  Closing N  Opening N  Closing N  Opening N  Opening N	min max NO min max C min max NC min max	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of	control in AC Closing N Opening N Closing N Opening N Opening N Opening N	min max NO min max C min max NC min max NC at 480V	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of JL technical data Full-load current (FLA	control in AC  Closing N  Opening N  Closing N  Opening N  Opening N	min max NO min max C min max NC min max at 480V at 600V	ms ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of  JL technical data Full-load current (FLA	control in AC Closing N Opening N Closing N Opening N Opening N Opening N	min max NO min max C min max NC min max AC at 480V at 600V	ms ms ms ms ms A A	3600 8 24 10 20 14 28 7 18 21 17
Mechanical operation Dperating times Average time for Us of JL technical data Full-load current (FLA	control in AC  Closing N  Opening N  Closing N  Opening N  Opening N  A) for three-phase AC motor  Derformance for single-phase AC motor	min max NO min max C min max NC min max at 480V at 600V	ms ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of Us of Operating times Average time for Us of Operating times Operation	control in AC Closing N Opening N Closing N Opening N Opening N Opening N	min max NO min max C min max NC min max AC at 480V at 600V	ms ms ms ms ms A A	3600 8 24 10 20 14 28 7 18



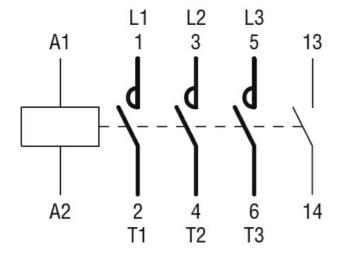


220/230V					
S75/600V			220/230V	HP	7.5
Contactor			460/480V	HP	15
Contactor   AC current			575/600V	HP	15
AC current	General USE				
Auxiliary contacts  AC voltage		Contactor			
AC voltage			AC current	Α	32
AC voltage		Auxiliary contacts			
DC voltage   V   250     DC current		•	AC voltage	V	600
DC current			AC current	Α	10
Short-circuit protection fuse, 600V   High fault   Short circuit current   Fuse rating   A   60   Fuse class   J   Standard fault   Short circuit current   Fuse rating   A   100   Fuse class   J   Standard fault   Short circuit current   Fuse rating   A   100   Machine   Too   Too   Machine   Machine			DC voltage	V	250
High fault			DC current	Α	1
High fault	Short-circuit protect	tion fuse, 600V			
Fuse rating Fuse class	·				
Standard fault   Short circuit current   KA   5   Fuse rating   A   100		· ·	Short circuit current	kA	100
Standard fault   Short circuit current   KA   5   Fuse rating   A   100			Fuse rating	Α	60
Short circuit current   Fuse rating   Fuse rating   A   100			Fuse class		J
Fuse rating		Standard fault			
Contact rating of auxiliary contacts according to UL         A600 - P600           Ambient conditions           Temperature           Min °C -50 max °C 70           Storage temperature           min °C -60 max °C 80           Max altitude           Resistance & Protection           Pollution degree			Short circuit current	kA	5
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         3			Fuse rating	Α	100
Temperature	Contact rating of au	ixiliary contacts according to UL			A600 - P600
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	Ambient conditions				
min min max         °C -50 max         -50 max         °C 70           Storage temperature           min °C -60 max         °C 80           Max altitude         m 3000           Resistance & Protection           Pollution degree         3	Temperature				
min min max         °C -50 max         -50 max         °C 70           Storage temperature           min °C -60 max         °C 80           Max altitude         m 3000           Resistance & Protection           Pollution degree         3	·	Operating temperature			
Storage temperature           min or company or c			min	°C	-50
min or company         -60 max or company           Max altitude         m 3000           Resistance & Protection           Pollution degree         3			max	°C	70
min or company         -60 max or company           Max altitude         m 3000           Resistance & Protection           Pollution degree         3		Storage temperature			
Max altitude m 3000  Resistance & Protection  Pollution degree 3			min	°C	-60
Resistance & Protection Pollution degree 3			max	°C	80
Pollution degree 3	Max altitude			m	3000
Pollution degree 3	Resistance & Prote	ection			
					3
	Dimensions				

### THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 24VAC, 1NO AUXILIARY CONTACT



### 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



#### BF2510A024

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 24VAC, 1NO AUXILIARY CONTACT

cULus			
FΔC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching





Product designation			Power contactor
Product type designation			BF25
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	25
	AC-4 (400V)	Α	10
Rated operational power AC-3 (T≤55°C)			
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
· · · · · · · · · · · · · · · · · · ·	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
·	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18





EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
\$24V		220V	Α	12
ABV	IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
75V		≤24V	Α	_
110V		48V	Α	_
EEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series   \$24V   A   15   48V   A   13   75V   A   13   110V   A   2   220V   A   −		75V	Α	_
SEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		110V	Α	_
\$\frac{\fir}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\		220V	Α	_
A 8 V A 13   75 V A 13   75 V A 2   2   220 V A -	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
75 V		≤24V	Α	15
110V   A   2   220V   A		48V	Α	13
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		75V	Α	13
Section   Sec		110V	Α	2
≤24V		220V	Α	_
≤24V	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
48V	· ·	≤24V	Α	18
75V				
110V				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
SEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
\$\qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qqquad \qqqq \qqqqq \qqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqqq	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201	- , ,	
A 8 V A 22   75 V A 18   110 V A 15   220 V A 8   110 V A 15   220 V A 18   110 V A	person	≤24V	Α	22
75V				
110V   A   15   220V   A   8				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series				
Section   Sec				
\$\frac{\frac{24V}{48V}}{48V}	IFC may current le in DC3-DC5 with L/R < 15ms with 4 notes in series	220 V		
ABV   A   -	120 max outfork to in 200 200 with 2/11 = 10m3 with 4 poles in 30m3	<24\/	Δ	_
75V				
110V				
Short-time allowable current for 10s (IEC/EN60947-1)				_
Short-time allowable current for 10s (IEC/EN60947-1)				_
Protection fuse   gG (IEC)	Short-time allowable current for 10s (IEC/EN60947-1)	220 V		
Making capacity (RMS value)			,,	200
Making capacity (RMS value)		aG (IFC)	Α	50
Making capacity (RMS value)       A 250         Breaking capacity at voltage       440 V A 200 500 V A 184 690 V A 102         Resistance per pole (average value)       mΩ 2.5         Power dissipation per pole (average value)       lth W 2.6 AC3 W 1.6         Tightening torque for terminals       min Nm 1.5 max Nm 1.8 min lbin 1.1 max lbin 1.5         Tightening torque for coil terminal       min Nm 0.8				
Breaking capacity at voltage	Making capacity (RMS value)	aivi (i20)		
440V   A   200   500V   A   184   690V   A   102	<u> </u>		,,	200
Soov   A   184   690V   A   102		440\/	Α	200
Resistance per pole (average value)   mΩ   2.5				
Resistance per pole (average value)   mΩ   2.5				
Power dissipation per pole (average value)  Ith W 2.6 AC3 W 1.6  Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8	Resistance per pole (average value)	330 V		
Ith   W   2.6   AC3   W   1.6			11122	0
AC3   W   1.6	1 oner alsoipation per pole (average value)	Ith	۱۸/	2.6
Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8				
min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8	Tightening torque for terminals	AUS	v V	1.0
max Nm   1.8   min   Ibin   1.1   max   Ibin   1.5	rightering torque for terminals	min	Nm	1 5
min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8				
Tightening torque for coil terminal  max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8				
Tightening torque for coil terminal min Nm 0.8				
min Nm 0.8	Tightoning targue for coil terminal	max	IIIII	1.0
	rightening torque for contenninal	min	Nim	0.0
max inm 1				
antin Ultim 0.0				
min Ibin 0.8		min	niai	۵.8



May number of uites	signultan a cual u a cun a ctala la	max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AVA/C/I/cmil			
	AWG/Kcmil	may		10
	Flexible w/o lug conductor section	max		10
	r lexible w/o lug corludctor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		
	r toxubio o, ir rag corradotor cocuerr	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
		min	mm²	1
		max	mm²	4
Dower terminal protect	ation according to IEC/EN COECO			IP20 when
Power terminal protec	ction according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	362
Conductor section				
	AWG/kcmil conductor section			
A Was a sector to the	and the second	max		10
Auxiliary contact chara	acteristics			
-			۸	10
Thermal current Ith			Α	10 4600 P600
Thermal current Ith IEC/EN 60947-5-1 de	signation		Α	10 A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	signation	2201/		A600 - P600
Thermal current Ith IEC/EN 60947-5-1 de	signation	230V	A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de	signation	400V	A A	A600 - P600 3 1.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	signation 15		A	A600 - P600 3
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	signation 15	400V 500V	A A A	3 1.9 1.4
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	signation 15	400V	A A	A600 - P600 3 1.9
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	signation 15	400V 500V 110V	A A A	3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	signation 15	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	signation 15	400V 500V 110V 24V 48V	A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC	signation 15	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	signation 15	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	signation 15	400V 500V 110V 24V 48V 60V 110V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Thermal current lth IEC/EN 60947-5-1 de Operating current AC Operating current DC	signation 15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC	signation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC	signation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC  Operating current DC  Operating current DC  Electrical life	signation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	signation 15 12 13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC  Operations Mechanical life Electrical life Safety related data	signation 15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC  Operations Mechanical life Electrical life Safety related data	signation 15 12 13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC  Operating current DC  Operating current DC  Electrical life Safety related data Performance level B1	signation  12  13  Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC Operating current DC  Operations Mechanical life Electrical life Safety related data Performance level B1  Mirror contats accordi	signation  12  13  Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000
Thermal current Ith IEC/EN 60947-5-1 de Operating current AC Operating current DC Operating current DC  Operating current DC  Operating current DC  Operating current DC  Electrical life Electrical life Safety related data Performance level B1	signation  12  13  Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 12000000



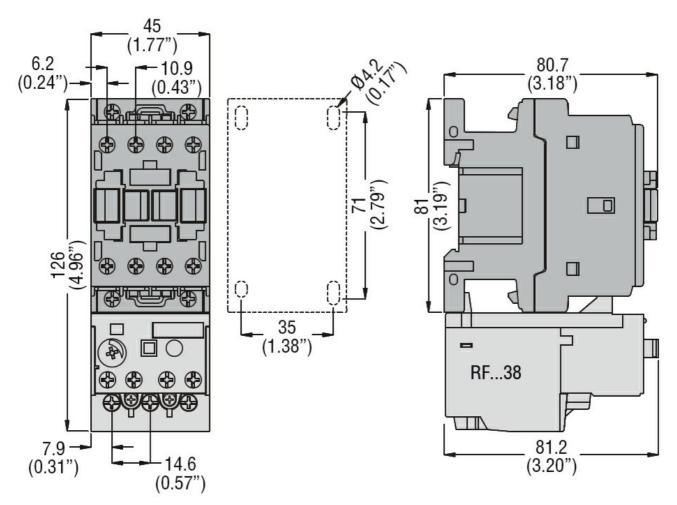
Rated AC voltage at			V	48
AC operating voltage				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
	L	max	%Us	110
	drop-out		0/11-	00
		min	%Us	20
	of FO/COLLE poil powered at COLLE	max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		max	%Us	110
	drop-out	IIIax	/003	110
	diop-out	min	%Us	20
		max	%Us	55
C average coil cons	sumption at 20°C	max	7000	
a avoluge con cons	of 50/60Hz coil powered at 50Hz			
	51 50/001 12 0011 powered at 501 12	in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz	nolaring	*/ \	<del>-</del>
	01 00/001 12 0011 powerou at 001 12	in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz	5		
		in-rush	VA	75
		holding	VA	9
Dissipation at holding	1 < 20°C 50Hz		W	2.5
	1 = 20 0 001 12		٧V	2.0
Max cycles frequency			VV	2.0
Max cycles frequency Mechanical operation	/		cycles/h	
Mechanical operation	/			
Mechanical operation Operating times	/			
Mechanical operation Operating times	/			
Mechanical operation Operating times	control		cycles/h	3600
Mechanical operation Operating times	control in AC	n min	cycles/h ms	3600
Mechanical operation Operating times	control in AC Closing NC	min max	cycles/h	3600
Mechanical operation Operating times	control in AC	min max O	cycles/h ms ms	3600 8 24
Mechanical operation Operating times	control in AC Closing NC	min max O min	cycles/h  ms  ms  ms	3600 8 24 10
Mechanical operation Operating times	control in AC Closing NC Opening No	min max O min max	cycles/h ms ms	3600 8 24
Mechanical operation Operating times	control in AC Closing NC	min max O min max	ms ms ms ms	3600 8 24 10 20
Mechanical operation Operating times	control in AC Closing NC Opening No	min max O min max : min max : min	cycles/h  ms ms ms ms ms	3600 8 24 10 20
Mechanical operation Operating times	control in AC Closing NC Opening NC	min max O min max c min max c min max	ms ms ms ms	3600 8 24 10 20
Mechanical operation Operating times	control in AC Closing NC Opening No	min max  O min max  max  max	ms ms ms ms ms	3600 8 24 10 20 14 28
Mechanical operation Operating times	control in AC Closing NC Opening NC	min max  O min max  max  min max  min max  min max  min max  min max	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7
Mechanical operation Derating times Average time for Us o	control in AC Closing NC Opening NC	min max  O min max  max  max	ms ms ms ms ms	3600 8 24 10 20 14 28
Mechanical operation Dperating times Average time for Us of	control in AC Closing NC Opening NC Closing NC	min max  O min max  max  min max  min max  min max  min max  min max	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7
Mechanical operation Dperating times Average time for Us of	control in AC Closing NC Opening NC	min max C min max C min max C min max	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us o	control in AC Closing NC Opening NC Closing NC	min max  min max  min max  min max  min max  at 480V	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of JL technical data Full-load current (FLA	control in AC Closing NC Opening NC Closing NC Closing NC Opening Nc Opening Nc	min max C min max C min max C min max	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of	control in AC  Closing NC  Opening NC  Closing NC  Closing NC  Opening Nc  Opening Nc  A) for three-phase AC motor	min max  min max  min max  min max  min max  at 480V	ms ms ms ms ms ms	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of JL technical data Full-load current (FLA	control in AC Closing NC Opening NC Closing NC Closing NC Opening Nc Opening Nc	min max  min max  min max  min max  min max  at 480V at 600V	ms ms ms ms ms ms as	3600 8 24 10 20 14 28 7 18
Mechanical operation Dperating times Average time for Us of JL technical data Full-load current (FLA	control in AC  Closing NC  Opening NC  Closing NC  Closing NC  Opening Nc  Opening Nc  A) for three-phase AC motor	min max  min max  min max  min max  min max  at 480V at 600V	ms ms ms ms ms A A	3600 8 24 10 20 14 28 7 18 21 17
Mechanical operation Dperating times Average time for Us of JL technical data Full-load current (FLA	control in AC  Closing NC  Opening NC  Closing NC  Closing NC  Opening NC  Opening NC  A) for three-phase AC motor  Derformance for single-phase AC motor	min max  min max  min max  min max  min max  at 480V at 600V	ms ms ms ms ms ms as	3600 8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of Us of Operating times Average time for Us of Operating times Operation	control in AC  Closing NC  Opening NC  Closing NC  Closing NC  Opening Nc  Opening Nc  A) for three-phase AC motor	min max  min max  min max  min max  min max  at 480V at 600V	ms ms ms ms ms A A	3600 8 24 10 20 14 28 7 18



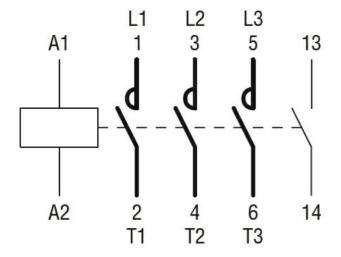


220/230V					
S75/600V			220/230V	HP	7.5
Contactor			460/480V	HP	15
Contactor   AC current			575/600V	HP	15
AC current	General USE				
Auxiliary contacts  AC voltage		Contactor			
AC voltage			AC current	Α	32
AC voltage		Auxiliary contacts			
DC voltage   V   250     DC current		·	AC voltage	V	600
DC current			AC current	Α	10
Short-circuit protection fuse, 600V   High fault   Short circuit current   Fuse rating   A   60   Fuse class   J   Standard fault   Short circuit current   Fuse rating   A   100   Fuse class   J   Standard fault   Short circuit current   Fuse rating   A   100   Machine   Too   Too   Machine   Machine			DC voltage	V	250
High fault			DC current	Α	1
High fault	Short-circuit protect	tion fuse, 600V			
Fuse rating Fuse class	·				
Standard fault   Short circuit current   KA   5   Fuse rating   A   100		· ·	Short circuit current	kA	100
Standard fault   Short circuit current   KA   5   Fuse rating   A   100			Fuse rating	Α	60
Short circuit current   Fuse rating   Fuse rating   A   100			Fuse class		J
Fuse rating		Standard fault			
Contact rating of auxiliary contacts according to UL         A600 - P600           Ambient conditions           Temperature           Min °C -50 max °C 70           Storage temperature           min °C -60 max °C 80           Max altitude           Resistance & Protection           Pollution degree			Short circuit current	kA	5
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         3			Fuse rating	Α	100
Temperature	Contact rating of au	ixiliary contacts according to UL			A600 - P600
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	Ambient conditions				
min min max         °C -50 max         -50 max         °C 70           Storage temperature           min °C -60 max         °C 80           Max altitude         m 3000           Resistance & Protection           Pollution degree         3	Temperature				
min min max         °C -50 max         -50 max         °C 70           Storage temperature           min °C -60 max         °C 80           Max altitude         m 3000           Resistance & Protection           Pollution degree         3	·	Operating temperature			
Storage temperature           min or company or c			min	°C	-50
min or company         -60 max or company           Max altitude         m 3000           Resistance & Protection           Pollution degree         3			max	°C	70
min or company         -60 max or company           Max altitude         m 3000           Resistance & Protection           Pollution degree         3		Storage temperature			
Max altitude m 3000  Resistance & Protection  Pollution degree 3			min	°C	-60
Resistance & Protection Pollution degree 3			max	°C	80
Pollution degree 3	Max altitude			m	3000
Pollution degree 3	Resistance & Prote	ection			
					3
	Dimensions				

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 48VAC, 1NO AUXILIARY CONTACT



### 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



#### BF2510A048

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 48VAC, 1NO AUXILIARY CONTACT

cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching







Contact characteristics   Number of poles   Nr. 3     Rated insulation voltage Ui IEC/EN   V 690     Rated insulation voltage Uimp   KV 6     Operational frequency   min Hz 25     max Hz 400     IEC Conventional frequency   min Hz 400     IEC Conventional frequency   min Hz 400     IEC Conventional frequency   Min Hz 400     IEC Conventional current Ith   A 32     Operational current Ie   AC-1 (≤40°C)   A 32     AC-1 (≤55°C)   A 23     AC-3 (≤440°S5°C)   A 25     AC-3 (≤440°S5°C)   A 25     AC-4 (400°V)   A 10     Rated operational power AC-3 (T≤55°C)     AC-3 (≤440°V)   A 10     Rated operational power AC-3 (T≤55°C)     AC-3 (≤440°V)   A 10     Rated operational power AC-3 (T≤55°C)     AC-3 (≤40°V)   A 10     Rated operational power AC-3 (T≤55°C)     AC-3 (≤40°V)   A 10     AC-3 (≤40	Product designation Product type designation			Power contactor BF25
Rated insulation voltage Ui IEC/EN         V         690           Rated impulse withstand voltage Uimp         kV         6           Operational frequency         min         Hz         25           imax         Hz         400         400           IEC Conventional free air thermal current Ith         A         32           Operational current Ie         AC-1 (≤40°C)         A         32           AC-1 (≤55°C)         A         26         AC-1 (≤55°C)         A         26           AC-1 (≤40°C)         A         23         AC-1 (≤55°C)         A         23         AC-1 (≤55°C)         A         23         AC-1 (≤55°C)         A         26         AC-1 (≤40°C)         A         23         AC-1 (≤55°C)         A         26         AC-1 (≤55°C)         A         26         AC-1 (≤55°C)         A         26         AC-1 (≤60°C)         A         23         AC-3 (≤40°C)         A         20         AC-4 (400°C)         A         15         AC-4 (400°C)         A         15         AC-4 (400°C)         AC-4 (400°C)<				
Rated impulse withstand voltage Ulmp	Number of poles		Nr.	3
The state of the propertional frequency         min max         Hz by 400         Hz by 400 </td <td>Rated insulation voltage Ui IEC/EN</td> <td></td> <td>V</td> <td>690</td>	Rated insulation voltage Ui IEC/EN		V	690
The company is a second state of the company is a second state	Rated impulse withstand voltage Uimp		kV	6
EC Conventional free air thermal current Ith	Operational frequency			
EC Conventional free air thermal current Ith		min	Hz	25
Operational current le         AC-1 (≤40°C)       A       32         AC-1 (≤55°C)       A       26         AC-1 (570°C)       A       23         AC-3 (\$4400 x55°C)       A       25         AC-4 (4000V)       A       10         Rated operational power AC-3 (T≤55°C)         230V kW 12.5         415v kW 13.4       440V kW 13.4         500V kW 15       690V kW 11         Rated operational power AC-1 (T≤40°C)         230V kW 16       20         690v kW 26       690v kW 26         690v kW 36       1         IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series         ≤24V A 20       A         48V A 23       75V A 23         110v A 6       220v A 1         220v A 1       1         IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series         ≤24V A 23         75V A 23         110v A 16         220v A 1         IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series         ≤24V A 23         48V A 23         75V A 23         48V A 23         48V A 23		max	Hz	400
AC-1 (≤40°C) A 32 AC-1 (≤55°C) A 26 AC-1 (≤70°C) A 23 AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 18 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	IEC Conventional free air thermal current Ith		Α	32
AC-1 (S55°C)	Operational current le			
AC-1 (≤70°C) A 23 AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 15 690V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤40°C)	Α	32
AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤55°C)	Α	26
AC-4 (400V)		AC-1 (≤70°C)	Α	23
Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 21 500V kW 21 500V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-3 (≤440V ≤55°C)	Α	25
230V   kW   7   400V   kW   12.5   415V   kW   13.4   446V   kW   13.4   446V   kW   13.4   500V   kW   15   690V   kW   11   15   690V   kW   11   16   690V   kW   21   500V   kW   26   690V   kW   36   690V   kW   30   600V   kW   30   60V		AC-4 (400V)	Α	10
400V   kW   12.5   415V   kW   13.4   440V   kW   13.4   440V   kW   13.4   440V   kW   15   500V   kW   15   690V   kW   11     1	Rated operational power AC-3 (T≤55°C)			
A15V   kW   13.4     440V   kW   13.4     440V   kW   13.4     500V   kW   15     690V   kW   11     Rated operational power AC-1 (T≤40°C)     230V   kW   12     400V   kW   21     500V   kW   26     690V   kW   36      IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series     524V   A   20     48V   A   18     75V   A   18     110V   A   6     220V   A   -   IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series     524V   A   23     48V   A   23     110V   A   16     220V   A   1     IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series     524V   A   23     110V   A   16     220V   A   1     IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series     524V   A   23     48V   A   23     75V   A   23     48V   A   23     48V   A   23     75V   A   23     48V   A   23     75V   75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V   75V     75V     75V   75V     75V   75V     75V   75V     75V   75V     75V     75V   75V     75V   75V     75V   75V     75V   75V     75V     75V   75V     75V   75V     75V   75V     75V   75V     75V     75V   75V     75V   75V     75V   75V     75V   75V     75V		230V	kW	7
A40V   kW   13.4     500V   kW   15     690V   kW   11     Rated operational power AC-1 (T≤40°C)     230V   kW   12     400V   kW   21     500V   kW   26     690V   kW   36     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		400V	kW	12.5
Soov   kW   15   690V   kW   11		415V	kW	13.4
Rated operational power AC-1 (T≤40°C)   230V   kW   12   400V   kW   21   500V   kW   26   690V   kW   36		440V	kW	13.4
Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 75V A 23 110V A 16 220V A 1		500V	kW	15
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		690V	kW	11
	Rated operational power AC-1 (T≤40°C)			
S00V kW 36		230V	kW	12
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   ≤24V		400V	kW	21
Section   Sec		500V	kW	26
		690V	kW	36
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V   A   18   110V   A   6   220V   A   -			Α	20
110V   A   6   220V   A   -		48V	Α	18
EC max current le in DC1 with L/R $\leq$ 1ms with 2 poles in series   $\leq$ 24V   A   23   48V   A   23   75V   A   23   110V   A   16   220V   A   1			Α	18
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   ≤24V			Α	6
		220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
IEC max current le in DC1 with L/R $\leq$ 1ms with 3 poles in series $ \leq 24V \qquad A \qquad 23 \\ 48V \qquad A \qquad 23 \\ 75V \qquad A \qquad 23 $				
≤24V A 23 48V A 23 75V A 23		220V	A	1
48V A 23 75V A 23	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
75V A 23				
110V A 18				
		110V	Α	18





EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
\$24V		220V	Α	12
ABV	IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
75V		≤24V	Α	_
110V		48V	Α	_
EEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series   \$24V   A   15   48V   A   13   75V   A   13   110V   A   2   220V   A   −		75V	Α	_
SEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		110V	Α	_
\$\frac{\fir}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\		220V	Α	_
A 8 V A 13   75 V A 13   75 V A 2   2   220 V A -	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
75 V		≤24V	Α	15
110V   A   2   220V   A		48V	Α	13
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		75V	Α	13
Section   Sec		110V	Α	2
≤24V		220V	Α	_
≤24V	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
48V	· ·	≤24V	Α	18
75V				
110V				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
SEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
\$\qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qqquad \qqqq \qqqqq \qqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqqq	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201	- , ,	
A 8 V A 22   75 V A 18   110 V A 15   220 V A 8   110 V A 15   220 V A 18   110 V A	person	≤24V	Α	22
75V				
110V   A   15   220V   A   8				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series				
Section   Sec				
\$\frac{\frac{24V}{48V}}{48V}	IFC may current le in DC3-DC5 with L/R < 15ms with 4 notes in series	220 V		
ABV   A   -	120 max outfork to in 200 200 with 2/11 = 10m3 with 4 poles in 30m3	<24\/	Δ	_
75V				
110V				
Short-time allowable current for 10s (IEC/EN60947-1)				_
Short-time allowable current for 10s (IEC/EN60947-1)				_
Protection fuse   gG (IEC)	Short-time allowable current for 10s (IEC/EN60947-1)	220 V		
Making capacity (RMS value)			,,	200
Making capacity (RMS value)		aG (IFC)	Α	50
Making capacity (RMS value)       A 250         Breaking capacity at voltage       440 V A 200 500 V A 184 690 V A 102         Resistance per pole (average value)       mΩ 2.5         Power dissipation per pole (average value)       lth W 2.6 AC3 W 1.6         Tightening torque for terminals       min Nm 1.5 max Nm 1.8 min lbin 1.1 max lbin 1.5         Tightening torque for coil terminal       min Nm 0.8				
Breaking capacity at voltage	Making capacity (RMS value)	aivi (i20)		
440V   A   200   500V   A   184   690V   A   102	<u> </u>		,,	200
Soov   A   184   690V   A   102		440\/	Α	200
Resistance per pole (average value)   mΩ   2.5				
Resistance per pole (average value)   mΩ   2.5				
Power dissipation per pole (average value)  Ith W 2.6 AC3 W 1.6  Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8	Resistance per pole (average value)	330 V		
Ith   W   2.6   AC3   W   1.6			11122	0
AC3   W   1.6	1 oner alsoipation per pole (average value)	Ith	۱۸/	2.6
Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8				
min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8	Tightening torque for terminals	AUS	v V	1.0
max Nm   1.8   min   Ibin   1.1   max   Ibin   1.5	rightering torque for terminals	min	Nm	1 5
min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8				
Tightening torque for coil terminal  max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8				
Tightening torque for coil terminal min Nm 0.8				
min Nm 0.8	Tightoning targue for coil terminal	max	IIIII	1.0
	rightening torque for contenninal	min	Nim	0.0
max inm 1				
antin Ultim 0.0				
min Ibin 0.8		min	niai	۵.8



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	A1440/44 11			
	AWG/Kcmil			40
	Clavible w/s has penductor castion	max		10
	Flexible w/o lug conductor section	min	mm²	1
		min	mm² mm²	1 6
	Flexible c/w lug conductor section	max	111111	0
	r lexible 6/w rug corrudctor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			•
	r loxiloto mar inculated opado lag contactor cociten	min	mm²	1
		max	mm²	4
	t'			IP20 when
Power terminal protect	etion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
				35mm
Weight			g	360
Conductor section				
	AWG/kcmil conductor section			
A 112		max		10
Auxiliary contact chara	acteristics			
The arms of accuracy talks			۸	10
Thermal current Ith	aignation		Α	10 4600 B600
IEC/EN 60947-5-1 de	•		Α	10 A600 - P600
IEC/EN 60947-5-1 de	•	2201/		A600 - P600
IEC/EN 60947-5-1 de	•	230V	A	A600 - P600 3
IEC/EN 60947-5-1 de	•	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - P600 3
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V	A A A	3 1.9 1.4
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V	A A A	3 1.9 1.4 5.7
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V	A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
IEC/EN 60947-5-1 de	12	400V 500V 110V 24V 48V 60V 110V	A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25
IEC/EN 60947-5-1 de Operating current AC  Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
IEC/EN 60947-5-1 de Operating current AC  Operating current DC  Operating current DC  Operating current DC	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC  Mechanical life	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC  Electrical life	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	12	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	12 13 Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	12 13  Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000 12000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1 Mirror contats accordi	12 13 Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000 12000000 200000000 yes
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B1	12 13  Od according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000 12000000

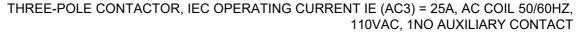


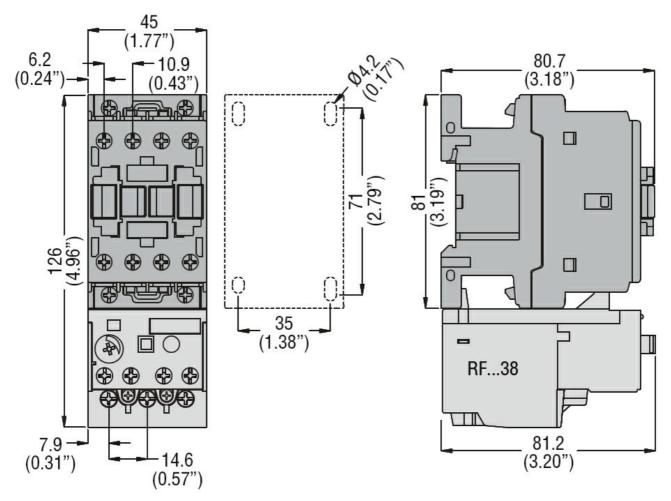
	t 50/60Hz		V	110
AC operating voltag				
	of 50/60Hz coil powered at 50Hz			
	pick-up		0/11-	0.0
		min	%Us %Us	80 110
	drop-out	max	%US	110
	drop out	min	%Us	20
		max	%Us	55
	of 50/60Hz coil powered at 60Hz		,,,,,	
	, pick-up			
		min	%Us	85
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55
C average coil co	nsumption at 20°C			
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz		١./٨	70
		in-rush	VA	70 6.5
	of COUz goil nowared at COUz	holding	VA	6.5
	of 60Hz coil powered at 60Hz	in-rush	VA	75
		holding	VA VA	9
Dissipation at holdi	ng <20°C 50Hz	Holding	W	2.5
Max cycles frequen	-		**	2.0
Mechanical operation			cycles/h	3600
			cycles/h	3600
Operating times	on		cycles/h	3600
Operating times	on		cycles/h	3600
perating times	on s control		cycles/h	3600
Operating times	on s control in AC	min	cycles/h ms	8
Operating times	on s control in AC Closing NO	min max		
Operating times	on s control in AC	max	ms ms	8 24
perating times	on s control in AC Closing NO	max min	ms ms	8 24 10
Operating times	on s control in AC Closing NO Opening NO	max	ms ms	8 24
Operating times	on s control in AC Closing NO	max min max	ms ms ms	8 24 10 20
Operating times	on s control in AC Closing NO Opening NO	max min max min	ms ms ms ms	8 24 10 20
Operating times	on s control in AC Closing NO Opening NO Closing NC	max min max	ms ms ms	8 24 10 20
Mechanical operation  Deperating times  Average time for Use	on s control in AC Closing NO Opening NO	max min max min max	ms ms ms ms	8 24 10 20 14 28
Operating times	on s control in AC Closing NO Opening NO Closing NC	max min max min max min	ms ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us	on s control in AC Closing NO Opening NO Closing NC	max min max min max	ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us  JL technical data	s control in AC  Closing NO  Opening NO  Closing NC  Opening NC	max min max min max min	ms ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us  JL technical data	on s control in AC Closing NO Opening NO Closing NC	max min max min max min	ms ms ms ms ms	8 24 10 20 14 28
Operating times Average time for Us  JL technical data	s control in AC  Closing NO  Opening NO  Closing NC  Opening NC	max min max min max min max	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us  JL technical data	s control in AC Closing NO Opening NO Closing NC Opening NC Opening NC	max min max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Operating times Average time for Us  JL technical data  Full-load current (F	s control in AC Closing NO Opening NO Closing NC Opening NC Opening NC	max min max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Derating times Average time for Us  JL technical data  Full-load current (F	s control in AC  Closing NO  Opening NO  Closing NC  Opening NC  Opening NC  I performance	max min max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Derating times Average time for Us  JL technical data Full-load current (F	s control in AC  Closing NO  Opening NO  Closing NC  Opening NC  Opening NC  I performance	min max min max min max min max at 480V at 600V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Derating times Average time for Us  JL technical data  Full-load current (F	s control in AC  Closing NO  Opening NO  Closing NC  Opening NC  Opening NC  I performance	max min max min max min max at 480V at 600V	ms ms ms ms ms ms A	8 24 10 20 14 28 7 18



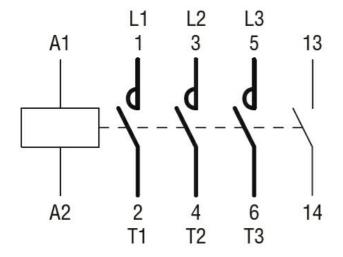


		220/230V	HP	7.5
		460/480V	HP	15
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
	•	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
•	High fault			
	-	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of aux	xiliary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ction			
Pollution degree				3
Dimensions				
		<u> </u>		





### 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



#### BF2510A110

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 110VAC, 1NO AUXILIARY CONTACT

cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching



Product designation			Power contactor
Product type designation			BF25
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	25
	AC-4 (400V)	Α	10
Rated operational power AC-3 (T≤55°C)			
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
D-4-1	690V	kW	11
Rated operational power AC-1 (T≤40°C)	0001/		40
	230V	kW	12
	400V 500V	kW kW	21 26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	090 V	N V V	30
120 max current le in 201 with 2/102 mis with 1 poles in series	≤24V	Α	20
	48V	A	18
	75V	A	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
·	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18
	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	A	_
150 H. P. P. P. P. P. F. F. W. A. S. W.	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in seri	les		



		≤24V	Α	15	
		48V	Α	13	
		75V	Α	13	
		110V	Α	2	
		220V	A	_	
IEC may ourrent to in I	DC2 DC5 with L/D < 15mg with 2 polog in soriog	220 V			
iec max current le in t	DC3-DC5 with L/R ≤ 15ms with 2 poles in series	40.41.4		4.0	
		≤24V	Α	18	
		48V	Α	18	
		75V	Α	16	
		110V	Α	10	
		220V	Α	2	
IEC max current le in [	DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
		≤24V	Α	22	
		48V	Α	22	
		75V	Α	18	
		110V	A	15	
150	200 205 111 1 (2 : 45 - 111 4 1 1 1 1	220V	Α	8	
IEC max current le in l	DC3-DC5 with L/R ≤ 15ms with 4 poles in series		_		
		≤24V	Α	_	
		48V	Α	_	
		75V	Α	_	
		110V	Α	_	
		220V	Α	_	
Short-time allowable c	eurrent for 10s (IEC/EN60947-1)		Α	200	
Protection fuse	unentie: 100 (i=0,=ito00 ii i)				
1 1010011011 1400		gG (IEC)	Α	50	
				25	
Malian canada (DMO		aM (IEC)	A		
Making capacity (RMS	•		Α	250	
<b>–</b>					
Breaking capacity at vo	oltage				
Breaking capacity at vo	oltage	440V	Α	200	
Breaking capacity at vo	oltage	440V 500V	A A	200 184	
Breaking capacity at vo	oltage				
Resistance per pole (a		500V	Α	184	
Resistance per pole (a	average value)	500V	A A	184 102	
	average value)	500V 690V	A A mΩ	184 102 2.5	
Resistance per pole (a	average value)	500V 690V	A A mΩ W	184 102 2.5 2.6	
Resistance per pole (a Power dissipation per	average value) pole (average value)	500V 690V	A A mΩ	184 102 2.5	
Resistance per pole (a	average value) pole (average value)	500V 690V Ith AC3	A A mΩ W W	184 102 2.5 2.6 1.6	
Resistance per pole (a Power dissipation per	average value) pole (average value)	500V 690V Ith AC3	A A mΩ W W	184 102 2.5 2.6 1.6	
Resistance per pole (a Power dissipation per	average value) pole (average value)	S00V 690V Ith AC3 min max	A A mΩ W W	184 102 2.5 2.6 1.6 1.5 1.8	
Resistance per pole (a Power dissipation per	average value) pole (average value)	S00V 690V Ith AC3 min max min	A A MΩ W W Nm Nm Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1	
Resistance per pole (a Power dissipation per Tightening torque for te	average value) pole (average value) erminals	S00V 690V Ith AC3 min max	A A mΩ W W	184 102 2.5 2.6 1.6 1.5 1.8	
Resistance per pole (a Power dissipation per	average value) pole (average value) erminals	S00V 690V Ith AC3 min max min	A A MΩ W W Nm Nm Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1	
Resistance per pole (a Power dissipation per Tightening torque for te	average value) pole (average value) erminals	S00V 690V Ith AC3 min max min	A A MΩ W W Nm Nm Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1	
Resistance per pole (a Power dissipation per Tightening torque for te	average value) pole (average value) erminals	Soov 690V Ith AC3 min max min max	A A MΩ W W Nm Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1	
Resistance per pole (a Power dissipation per Tightening torque for te	average value) pole (average value) erminals	S00V 690V Ith AC3 min max min max	A A MΩ W W Nm Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5	
Resistance per pole (a Power dissipation per Tightening torque for te	average value) pole (average value) erminals	Ith AC3  min max min max min max	A A MΩ W W Nm Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5	
Resistance per pole (a Power dissipation per Tightening torque for to Tightening torque for continuous for the torque for the	erminals  coil terminal	S00V 690V Ith AC3 min max min max	A A MΩ W W Nm Nm Ibin Ibin Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5 0.8 0.74	
Resistance per pole (a Power dissipation per Tightening torque for to Tightening torque for compared to the	average value) pole (average value) erminals	Ith AC3  min max min max min max	A A MΩ W W Nm Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5	
Resistance per pole (a Power dissipation per Tightening torque for to Tightening torque for continuous for the torque for the	average value) pole (average value) erminals coil terminal	Ith AC3  min max min max min max	A A MΩ W W Nm Nm Ibin Ibin Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5 0.8 0.74	
Resistance per pole (a Power dissipation per Tightening torque for to Tightening torque for compared to the	erminals  coil terminal	Ith AC3 min max min max min max min max min max	A A MΩ W W Nm Nm Ibin Ibin Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5 0.8 0.74	
Resistance per pole (a Power dissipation per Tightening torque for to Tightening torque for compared to the	everage value)  pole (average value)  erminals  coil terminal  simultaneously connectable  AWG/Kcmil	Ith AC3  min max min max min max	A A MΩ W W Nm Nm Ibin Ibin Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5 0.8 0.74	
Resistance per pole (a Power dissipation per Tightening torque for to Tightening torque for compared to the	average value) pole (average value) erminals coil terminal	Soov 690V Ith AC3 min max min max min max min max	A A MΩ W W Nm Nm Ibin Ibin Nm Ibin Ibin Nr.	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5 0.8 0.74 2	
Resistance per pole (a Power dissipation per Tightening torque for to Tightening torque for compared to the	everage value)  pole (average value)  erminals  coil terminal  simultaneously connectable  AWG/Kcmil	Ith AC3  min max	A A MΩ W W Nm Ibin Ibin Nm Ibin Ibin Nm Ibin Ibin	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5 0.8 0.74 2	
Resistance per pole (a Power dissipation per Tightening torque for to Tightening torque for compared to the	everage value)  pole (average value)  erminals  coil terminal  simultaneously connectable  AWG/Kcmil	Soov 690V Ith AC3 min max min max min max min max	A A MΩ W W Nm Nm Ibin Ibin Nm Ibin Ibin Nr.	184 102 2.5 2.6 1.6 1.5 1.8 1.1 1.5 0.8 0.74 2	



	Flexible c/w lug conductor section			
	Ğ	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	on		
	, ,	min	mm²	1
		max	mm²	4
				IP20 when
Power terminal protect	tion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
				Screw / DIN rail
Fixing				35mm
Weight			g	360
Conductor section				
	AWG/kcmil conductor section			
	, www. j. kommin doma dotto. God alom	max		10
Auxiliary contact chara	cteristics	III CA		
Thermal current Ith			Α	10
IEC/EN 60947-5-1 des	signation		,,	A600 - P600
Operating current AC1				7,000 1 000
Operating current ACT	3	230V	Α	3
		400V	A	1.9
		500V		1.4
On a ratio a august DC4	0	3007	Α	1.4
Operating current DC1	2	440)/	۸	F 7
0	0	110V	A	5.7
Operating current DC1	3	0.41/		<i>-</i>
		24V	A	5.7
		48V	Α	2.9
		60V	Α	2.3
		110V	Α	1.25
		125V	Α	1.1
		220V	Α	0.55
		600V	Α	0.2
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1200000
Safety related data				
Performance level B10	Od according to EN/ISO 13489-1			
		rated load	cycles	1200000
		mechanical load	cycles	20000000
Mirror contats according	ng to IEC/EN 609474-4-1			yes
EMC compatibility	·			yes
AC coil operating				
Rated AC voltage at 60	OHz		V	230
AC operating voltage				
, 3	of 60Hz coil powered at 60Hz			
	pick-up			
	proit up	min	%Us	80
		max	%Us	110
	drop-out	Παλ	/003	110
	αιορ-σαι	min	%Us	20
			%Us	55
		max	/005	JJ



AC average coil consu	motion at 20°C			
AC average con consu	of 60Hz coil powered at 60Hz			
	or dorne dorn powered at dorne	in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times			.,	
Average time for Us co	ontrol			
· ·	in AC			
	Closing NO			
	ŭ	min	ms	8
		max	ms	24
	Opening NO			
	, ,	min	ms	10
		max	ms	20
	Closing NC			
	· ·	min	ms	14
		max	ms	28
	Opening NC			
	, ,	min	ms	7
		max	ms	18
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
,	·	at 480V	Α	21
		at 600V	Α	17
Yielded mechanical pe	rformance			
•	for single-phase AC motor			
	3 1	110/120V	HP	2
		230V	HP	3
	for three-phase AC motor			
	•	200/208V	HP	7.5
		220/230V	HP	7.5
		460/480V	HP	15
		575/600V	HP	15
General USE				_
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
	<b>,</b>	AC voltage	V	600
		AC current	Ä	10
		DC voltage	V	250
		DC current	A	1
Short-circuit protection	fuse, 600V			
·	High fault			
	•	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	A	100
Contact rating of auxilia	ary contacts according to UL		- •	A600 - P600
Ambient conditions				
Temperature				



AC switching



Operating 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
ETIM classification			
			EC000066 -
ETIM 8.0			Power contactor.





Product designation			Power contactor
Product type designation			BF25
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	25
	AC-4 (400V)	Α	10
Rated operational power AC-3 (T≤55°C)			
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
· · · · · · · · · · · · · · · · · · ·	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
·	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18



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≤24V A - 48V A - 75V A - 110V A - 220V A -				
\$24V		220V	Α	12
48V	IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
75		≤24V	Α	_
110V		48V	Α	_
EC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series   \$24V		75V	Α	_
EC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series   \$24V   A   15		110V	Α	_
\$24V		220V	Α	_
48V	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
75V		≤24V	Α	15
110V		48V	Α	13
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series   S24V		75V	Α	13
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		110V	Α	2
\$24V		220V	Α	_
\$24V	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
48V   A   18   75V   A   16   110V   A   10   220V   A   2   2   2   2   2   2   2   2   2	·	≤24V	Α	18
75V				
110V   A   10   220V   A   2   2   2   2   2   48V   A   22   48V   A   22   48V   A   22   48V   A   22   75V   A   18   110V   A   15   220V   A   8   2   2   2   2   2   2   2   2   2				
EEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series   \$24V				
Section   Se				
\$24V	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 7	- , ,	
A 8		≤24V	Α	22
75V				
110V   A   15   220V   A   8   8   8   8   8   8   8   8   8				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series   S24V				
Section   Se				
\$24V	IFC may current le in DC3-DC5 with L/R < 15ms with 4 noles in series	220 V		
48V	TEO HIGA GUITORIC TO IN 200 200 WILL ETT = TOTAL WILL 4 POICE III SCHOO	<24\/	Δ	_
T5V				
110V				
Short-time allowable current for 10s (IEC/EN60947-1)				_
Short-time allowable current for 10s (IEC/EN60947-1)				_
Protection fuse    gG (IEC)	Short-time allowable current for 10s (IEC/EN60947-1)	220 1		
Part			,,	
Making capacity (RMS value)	1 100000011 1000	aG (IFC)	Α	50
Making capacity (RMS value)				
Breaking capacity at voltage	Making capacity (RMS value)	divi (IEO)		
440V			,,	
Soov   A   184   690V   A   102   102   102   103		440\/	Α	200
Resistance per pole (average value)   mΩ   2.5				
Resistance per pole (average value)   mΩ   2.5				
Power dissipation per pole (average value)    Ith   W   2.6     AC3   W   1.6     Tightening torque for terminals    min   Nm   1.5     max   Nm   1.8     min   Ibin   1.1     max   Ibin   1.5     Tightening torque for coil terminal    min   Nm   0.8     max   Nm   1	Resistance per pole (average value)	000 V		
Ith   W   2.6   AC3   W   1.6			11122	2.0
AC3 W 1.6	1 ower alsolpation per pole (average value)	lth	۱۸/	2.6
Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8 max Nm 1				
min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8 max Nm 1	Tightening torque for terminals	AUS	v v	1.0
max         Nm         1.8           min         Ibin         1.1           max         Ibin         1.5   Tightening torque for coil terminal           min         Nm         0.8           max         Nm         1	rightering torque for terminals	min	Nm	1 5
min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8 max Nm 1				
max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8  max Nm 1				
Tightening torque for coil terminal  min Nm 0.8  max Nm 1				
min Nm 0.8 max Nm 1	Tightoning targue for coil terminal	max	nıaı	1.0
max Nm 1	rightening torque for con terminal	:	Nima	0.0
min idin 0.8				
		min	niai	υ.δ



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_		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AMA # # #			
	AWG/Kcmil	may		10
	Flexible w/o lug conductor section	max		10
	Flexible w/o lug colluctor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		
	r toxilore of it rug contactor cocilor.	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
	, ,	min	mm²	1
		max	mm²	4
Dower terminal protec	ction according to IEC/EN 60529			IP20 when
	ction according to IEC/EN 00329			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight				358
Conductor section			g	330
Conductor Section	AWG/kcmil conductor section			
	AVVG/RCITIII CONductor Section	max		10
Auxiliary contact char	acteristics	max		10
•			Α	10
Thermal current Ith			_	10
Thermal current Ith IEC/EN 60947-5-1 de	esignation		^	
IEC/EN 60947-5-1 de	_ •		A	A600 - P600
	_ •	230V	A	
IEC/EN 60947-5-1 de	_ •	230V 400V		A600 - P600
IEC/EN 60947-5-1 de	_ •		A	A600 - P600 3
IEC/EN 60947-5-1 de	15	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V	A A A	A600 - P600 3 1.9 1.4
Operating current DC	15	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4
Operating current DC	15	400V 500V 110V 24V 48V	A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9
Operating current DC	15	400V 500V 110V 24V 48V 60V	A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V	A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000
Operating current DC Operations Mechanical life Electrical life Safety related data	15 12 13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 1200000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level BC Mirror contats accord	15 12 13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 1200000  1200000 yes
Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 1200000



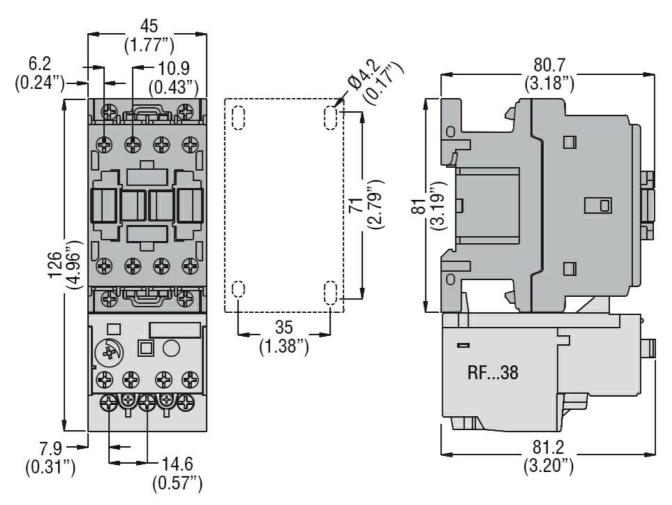
Rated AC voltage at 5	50/60Hz			V	230
AC operating voltage					_
	of 50/60Hz coil powered at 50	)Hz			
	pick-u	ıp			
			min	%Us	80
			max	%Us	110
	drop-	out			
			min	%Us	20
			max	%Us	55
	of 50/60Hz coil powered at 60				
	pick-u	ıp	•	0/11-	0.5
			min	%Us	85
	dron	0.1. <del>1</del>	max	%Us	110
	drop-	out	min	%Us	20
			min max	%Us	55
AC average coil cons	umption at 20°C		IIIax	7003	
AU average con cons	of 50/60Hz coil powered at 50	)H <sub>7</sub>			
	or 50/00112 con powered at 50	/I IZ	in-rush	VA	75
			holding	VA	9
	of 50/60Hz coil powered at 60	)H7	Holding	V/ \	
	01 00/00112 0011 powered at 00	71 12	in-rush	VA	70
			holding	VA	6.5
	of 60Hz coil powered at 60Hz				
	o. oo. := oo poo ou at oo. :=		in-rush	VA	75
			holding	VA	9
Dissipation at holding	≤20°C 50Hz		<u> </u>	W	2.5
Max cycles frequency					
Mechanical operation				cycles/h	3600
Mechanical operation Operating times				cycles/h	3600
Mechanical operation	ontrol			cycles/h	3600
Mechanical operation Operating times				cycles/h	3600
Mechanical operation Operating times	ontrol in AC	ng NO		cycles/h	
Mechanical operation Operating times	ontrol in AC	ng NO	min	ms	8
Mechanical operation Operating times	ontrol in AC Closir		min max		
Mechanical operation Operating times	ontrol in AC Closir	ng NO ing NO	max	ms ms	8 24
Mechanical operation Operating times	ontrol in AC Closir		max min	ms ms	8 24 10
Mechanical operation Operating times	ontrol in AC Closir Open	ing NO	max	ms ms	8 24
Mechanical operation Operating times	ontrol in AC Closir Open		max min max	ms ms ms	8 24 10 20
Mechanical operation Operating times	ontrol in AC Closir Open	ing NO	max min max min	ms ms ms ms	8 24 10 20
Mechanical operation Operating times	ontrol in AC Closir Open Closir	ing NO	max min max	ms ms ms	8 24 10 20
Mechanical operation Operating times	ontrol in AC Closir Open Closir	ing NO	max min max min max	ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times	ontrol in AC Closir Open Closir	ing NO	max min max min max min	ms ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times Average time for Us of	ontrol in AC Closir Open Closir	ing NO	max min max min max	ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times Average time for Us of the control of the co	ontrol in AC Closir Open Closir	ing NO	max min max min max min	ms ms ms ms ms	8 24 10 20 14 28
Mechanical operation Operating times Average time for Us of the control of the co	ontrol in AC Closir Open Closir	ing NO	max min max min max min max	ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of the control of the co	ontrol in AC Closir Open Closir	ing NO	max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of the second o	ontrol in AC Closir Open Closir Open Open Open	ing NO	max min max min max min max	ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of the control of the co	ontrol in AC Closir Open Closir Open Open ) for three-phase AC motor erformance	ing NO	max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of the control of the co	ontrol in AC Closir Open Closir Open Open Open	ing NO	max min max min max at 480V at 600V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of the control of the co	ontrol in AC Closir Open Closir Open Open ) for three-phase AC motor erformance	ing NO	max min max min max at 480V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of the second o	ontrol in AC  Closin  Open  Closin  Open  Open  of three-phase AC motor  erformance for single-phase AC motor	ing NO	max min max min max min max  at 480V at 600V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18
Mechanical operation Operating times Average time for Us of the second o	ontrol in AC Closir Open Closir Open Open ) for three-phase AC motor erformance	ing NO	max min max min max min max  at 480V at 600V	ms ms ms ms ms ms	8 24 10 20 14 28 7 18



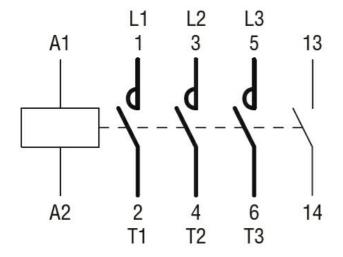


220/230V					
S75/600V HP 15   S75/600V HP 16   S75/			220/230V	HP	7.5
Contactor			460/480V	HP	15
Contactor			575/600V	HP	15
AC current	General USE				
Auxiliary contacts  AC voltage		Contactor			
AC voltage			AC current	Α	32
AC current   A   10     DC voltage   V   250     DC current   A   1     DC voltage   DC current   A   1     Short-circuit current   KA   100     Fuse rating   A   60     Fuse class   J     Standard fault     Short circuit current   KA   5     Fuse rating   A   100     Contact rating of auxiliary contacts according to UL   A600 - P600     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		Auxiliary contacts			
DC voltage   V   250     DC current		·	AC voltage	V	600
DC current			AC current	Α	10
Short-circuit protection fuse, 600V   High fault   Short circuit current   Fuse rating   A   60   Fuse class   J   Standard fault   Short circuit current   Fuse rating   A   100   Fuse class   J   Standard fault   Short circuit current   Fuse rating   A   100   A			DC voltage	V	250
High fault			DC current	Α	1
High fault	Short-circuit protect	tion fuse, 600V			
Fuse rating Fuse class					
Standard fault   Short circuit current   KA   5   Fuse rating   A   100		-	Short circuit current	kA	100
Standard fault   Short circuit current   KA   5   Fuse rating   A   100			Fuse rating	Α	60
Short circuit current   Fuse rating   Fuse rating   A   100			Fuse class		J
Fuse rating		Standard fault			
Contact rating of auxiliary contacts according to UL         A600 - P600           Ambient conditions           Temperature           Min °C -50 max °C 70           Storage temperature           min °C -60 max °C 80           Max altitude           Resistance & Protection           Pollution degree			Short circuit current	kA	5
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			Fuse rating	Α	100
Temperature	Contact rating of au	ixiliary contacts according to UL			A600 - P600
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	Ambient conditions				
min min max         °C -50 max         -50 max         °C 70           Storage temperature           min °C -60 max         °C 80           Max altitude         m 3000           Resistance & Protection           Pollution degree         3	Temperature				
min min max         °C -50 max         -50 max         °C 70           Storage temperature           min °C -60 max         °C 80           Max altitude         m 3000           Resistance & Protection           Pollution degree         3	·	Operating temperature			
Storage temperature           min         °C         -60           max         °C         80           Max altitude         m         3000           Resistance & Protection           Pollution degree         3			min	°C	-50
min %C         -60           max %C         80           Max altitude         m         3000           Resistance & Protection         3           Pollution degree         3			max	°C	70
min %C         -60           max %C         80           Max altitude         m         3000           Resistance & Protection         3           Pollution degree         3		Storage temperature			
Max altitude m 3000  Resistance & Protection  Pollution degree 3			min	°C	-60
Resistance & Protection Pollution degree 3			max	°C	80
Pollution degree 3	Max altitude			m	3000
	Resistance & Prote	ection			
	Pollution degree	_			3





### 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



#### BF2510A230

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 230VAC, 1NO AUXILIARY CONTACT

cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching



Product designation Product type designation			Power contactor BF25
Contact characteristics			D. 20
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
-1	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	25
	AC-4 (400V)	Α	10
Rated operational power AC-3 (T≤55°C)	,		
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18
	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in se	220V	Α	



≤24V	Α	15
48V	Α	13
75V	Α	13
110V	Α	2
	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		
≤24V	Α	18
48V	Α	18
75V	Α	16
110V	Α	10
220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series		
≤24V	Α	22
48V	Α	22
75V	Α	18
110V	Α	15
220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		
≤24V	Α	_
48V	Α	_
75V	Α	_
110V	Α	_
220V	Α	_
Short-time allowable current for 10s (IEC/EN60947-1)	Α	200
Protection fuse		
gG (IEC)	Α	50
aM (IEC)	Α	25
Making capacity (RMS value)	A	250
Breaking capacity at voltage		200
440V	Α	200
500V	A	184
690V	A	102
Resistance per pole (average value)	mΩ	2.5
Power dissipation per pole (average value)	147	0.0
Ith	W	2.6
AC3	W	1.6
Tightening torque for terminals		
min	Nm	1.5
max	Nm	1.8
min	lbin	1.1
max	Ibin	1.5
Tightening torque for coil terminal		
min	Nm	0.8
max	Nm	1
min	Ibin	0.8
max	lbin	0.74
Max number of wires simultaneously connectable	Nr.	2
Conductor section		
AWG/Kcmil		
max		10
Flexible w/o lug conductor section		
min	mm²	1
		•
max	mm²	6



	Flexible c/w lug conductor section			
	-	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	on		
	1 3	min	mm²	1
		max	mm²	4
				IP20 when
Power terminal protecti	ion according to IEC/EN 60529			properly wired
Mechanical features				
Operating position				
1 01		normal		Vertical plan
		allowable		±30°
		anomabio		Screw / DIN rail
Fixing				35mm
Weight			g	360
Conductor section			9	
Conductor Section	AWG/kcmil conductor section			
	AVVG/RCITIII COTIQUETOI SECTION	may		10
Auxiliary contact charac	atoriotico.	max		10
Thermal current Ith	Clensucs		۸	10
	in a dia a		Α	10
IEC/EN 60947-5-1 des				A600 - P600
Operating current AC1	b		_	
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DC12	2			
		110V	Α	5.7
Operating current DC13	3			
		24V	Α	5.7
		48V	Α	2.9
		60V	Α	2.3
		110V	Α	1.25
		125V	Α	1.1
		220V	Α	0.55
		600V	Α	0.2
Operations				
Mechanical life			cycles	20000000
Electrical life			cycles	1200000
Safety related data			Oy 0100	1200000
	d according to EN/ISO 13489-1			
T CHOITHANGE ICVOLD TO	d according to ETV/100 10400 1	rated load	cycles	1200000
		mechanical load	cycles	2000000
Mirror contata accordin	a to IEC/EN 600474 4 4	medianical load	Cycles	
	g to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating	N. I.—		\/	220
Rated AC voltage at 60	JUIZ		V	230
AC operating voltage	of COLLs as it assumed at COLL			
	of 60Hz coil powered at 60Hz			
	pick-up		0/11	0.0
		min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55



**ENERGY AND AUTOMATION** 

AC average coil consu	motion at 20°C			
AC average con consu	of 60Hz coil powered at 60Hz			
	or dorne dorn powered at dorne	in-rush	VA	75
		holding	VA	9
Dissipation at holding	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times			.,	
Average time for Us co	ontrol			
· ·	in AC			
	Closing NO			
	ŭ	min	ms	8
		max	ms	24
	Opening NO			
	, ,	min	ms	10
		max	ms	20
	Closing NC			
	· ·	min	ms	14
		max	ms	28
	Opening NC			
	, ,	min	ms	7
		max	ms	18
UL technical data				
Full-load current (FLA)	for three-phase AC motor			
,	·	at 480V	Α	21
		at 600V	Α	17
Yielded mechanical pe	rformance			
•	for single-phase AC motor			
	3 1	110/120V	HP	2
		230V	HP	3
	for three-phase AC motor			
	•	200/208V	HP	7.5
		220/230V	HP	7.5
		460/480V	HP	15
		575/600V	HP	15
General USE				_
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
	<b>,</b>	AC voltage	V	600
		AC current	Ä	10
		DC voltage	V	250
		DC current	A	1
Short-circuit protection	fuse, 600V			
·	High fault			
	•	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	A	100
Contact rating of auxilia	ary contacts according to UL		- •	A600 - P600
Ambient conditions				
Temperature				



AC switching



Operating te	emperature
--------------	------------

opolating tompolation			
	min	°C	-50
	max	°C	70
Storage temperature			_
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
ETIM classification			
			EC000066 -
ETIM 8.0			Power contactor,





Product designation			Power contactor
Product type designation			BF25
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	25
	AC-4 (400V)	Α	10
Rated operational power AC-3 (T≤55°C)			
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
· · · · · · · · · · · · · · · · · · ·	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
·	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18





EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
\$24V		220V	Α	12
ABV	IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
75V		≤24V	Α	_
110V		48V	Α	_
EEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series   \$24V   A   15   48V   A   13   75V   A   13   110V   A   2   220V   A   −		75V	Α	_
SEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series		110V	Α	_
\$\frac{\fir}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\		220V	Α	_
A 8 V A 13   75 V A 13   75 V A 2   2   220 V A -	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
75 V		≤24V	Α	15
110V   A   2   220V   A		48V	Α	13
EC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		75V	Α	13
Section   Sec		110V	Α	2
≤24V		220V	Α	_
≤24V	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
48V	· ·	≤24V	Α	18
75V				
110V				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
SEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series				
\$\qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qqquad \qqqq \qqqqq \qqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqqqq	IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	2201	- , ,	
A 8 V A 22   75 V A 18   110 V A 15   220 V A 8   110 V A 15   220 V A 18   110 V A	person	≤24V	Α	22
75V				
110V   A   15   220V   A   8				
EC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series				
Section   Sec				
\$\frac{\frac{24V}{48V}}{48V}	IFC may current le in DC3-DC5 with L/R < 15ms with 4 notes in series	220 V		
ABV   A   -	120 max outfork to in 200 200 with 2/11 = 10m3 with 4 poles in 30m3	<24\/	Δ	_
75V				
110V				
Short-time allowable current for 10s (IEC/EN60947-1)				_
Short-time allowable current for 10s (IEC/EN60947-1)				_
Protection fuse   gG (IEC)	Short-time allowable current for 10s (IEC/EN60947-1)	220 V		
Making capacity (RMS value)			,,	200
Making capacity (RMS value)		aG (IFC)	Α	50
Making capacity (RMS value)       A 250         Breaking capacity at voltage       440 V A 200 500 V A 184 690 V A 102         Resistance per pole (average value)       mΩ 2.5         Power dissipation per pole (average value)       lth W 2.6 AC3 W 1.6         Tightening torque for terminals       min Nm 1.5 max Nm 1.8 min lbin 1.1 max lbin 1.5         Tightening torque for coil terminal       min Nm 0.8				
Breaking capacity at voltage	Making capacity (RMS value)	aivi (i20)		
440V	<u> </u>		,,	200
Soov   A   184   690V   A   102		440\/	Α	200
Resistance per pole (average value)   mΩ   2.5				
Resistance per pole (average value)   mΩ   2.5				
Power dissipation per pole (average value)  Ith W 2.6 AC3 W 1.6  Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8	Resistance per pole (average value)	330 V		
Ith   W   2.6   AC3   W   1.6			11122	
AC3   W   1.6	1 oner alsoipation per pole (average value)	Ith	۱۸/	2.6
Tightening torque for terminals  min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8				
min Nm 1.5 max Nm 1.8 min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8	Tightening torque for terminals	AUS	v V	1.0
max Nm   1.8   min   Ibin   1.1   max   Ibin   1.5	rightering torque for terminals	min	Nm	1 5
min Ibin 1.1 max Ibin 1.5  Tightening torque for coil terminal min Nm 0.8				
Tightening torque for coil terminal  max Ibin 1.5  Tightening torque for coil terminal  min Nm 0.8				
Tightening torque for coil terminal min Nm 0.8				
min Nm 0.8	Tightoning targue for coil terminal	max	IIIII	1.0
	rightening torque for contenninal	min	Nim	0.0
max inm 1				
antin Ultim 0.0				
min Ibin 0.8		min	niai	۵.8



		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section	AMA #4			
	AWG/Kcmil	may		10
	Flexible w/o lug conductor section	max		10
	Flexible w/o lug conductor section	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section	max		
	r toxible of Wing corrector coolier.	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section			
	1 3	min	mm²	1
		max	mm²	4
Power terminal prote	ction according to IEC/EN 60529			IP20 when
	ction according to IEC/EN 60329			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	362
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact char	acteristics			
Thermal current Ith			Α	10
memai cunent im			, .	. •
IEC/EN 60947-5-1 de	esignation			A600 - P600
	_ •			
IEC/EN 60947-5-1 de	_ •	230V	A	
IEC/EN 60947-5-1 de	_ •	230V 400V		A600 - P600
IEC/EN 60947-5-1 de Operating current AC	15		A	A600 - P600 3
IEC/EN 60947-5-1 de	15	400V 500V	A A	A600 - P600 3 1.9
Operating current DC	15	400V	A A	A600 - P600 3 1.9
IEC/EN 60947-5-1 de Operating current AC	15	400V 500V 110V	A A A	A600 - P600 3 1.9 1.4 5.7
Operating current DC	15	400V 500V 110V 24V	A A A	A600 - P600 3 1.9 1.4 5.7
Operating current DC	15	400V 500V 110V 24V 48V	A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9
Operating current DC	15	400V 500V 110V 24V 48V 60V	A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V	A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55
Operating current DC Operating current DC Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1
Operating current DC	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A Cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DC Operations Mechanical life Electrical life Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000
Operating current DC Operations Mechanical life Electrical life Safety related data	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 12000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 12000000
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level Bc Mirror contats accord	15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 1200000  1200000 yes
Operating current DC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	112 113 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	A600 - P600  3 1.9 1.4  5.7  5.7 2.9 2.3 1.25 1.1 0.55 0.2  20000000 1200000 12000000



Rated AC voltage a	t 50/60Hz		V	400
AC operating voltag				
	of 50/60Hz coil powered at 50Hz			
	pick-up			
		min	%Us	80
	1	max	%Us	110
	drop-out		0/11-	00
		min	%Us	20
	of FO/GOLLT and powered at GOLLT	max	%Us	55
	of 50/60Hz coil powered at 60Hz			
	pick-up	min	%Us	85
		max	%Us	110
	drop-out	Παλ	/003	110
	drop out	min	%Us	20
		max	%Us	55
C average coil coi	nsumption at 20°C		,,,,,	
	of 50/60Hz coil powered at 50Hz			
		in-rush	VA	75
		holding	VA	9
	of 50/60Hz coil powered at 60Hz	9		
	•	in-rush	VA	70
		holding	VA	6.5
	of 60Hz coil powered at 60Hz			
	·	in-rush	VA	75
				•
		holding	VA	9
Dissipation at holdir	ng ≤20°C 50Hz	holding	VA W	2.5
Dissipation at holdir	-	holding	W	2.5
Max cycles frequen Mechanical operation	су	holding		2.5
Max cycles frequen Mechanical operation Decrating times	cy on	holding	W	2.5
Max cycles frequen Mechanical operation Decrating times	on s control	holding	W	2.5
Max cycles frequen Mechanical operation Operating times	cy on s control in AC	holding	W	2.5
Max cycles frequen Mechanical operation Operating times	on s control		W cycles/h	2.5 3600
Max cycles frequen Mechanical operation Operating times	cy on s control in AC	min	W cycles/h ms	2.5 3600
Max cycles frequen Mechanical operation Operating times	cy on s control in AC Closing NO		W cycles/h	2.5 3600
Max cycles frequen Mechanical operation Operating times	cy on s control in AC	min max	W cycles/h ms ms	2.5 3600 8 24
Max cycles frequen Mechanical operation Decrating times	cy on s control in AC Closing NO	min max min	W cycles/h ms ms	2.5 3600 8 24 10
Max cycles frequen Mechanical operation Decrating times	cy on s control in AC Closing NO Opening NO	min max	W cycles/h ms ms	2.5 3600 8 24
Max cycles frequen Mechanical operation Decrating times	cy on s control in AC Closing NO	min max min max	W cycles/h ms ms ms	2.5 3600 8 24 10 20
Max cycles frequen Mechanical operation Operating times	cy on s control in AC Closing NO Opening NO	min max min max min	W cycles/h ms ms ms ms	2.5 3600 8 24 10 20
Max cycles frequen Mechanical operation Decrating times	cy on  s control in AC  Closing NO  Opening NO  Closing NC	min max min max	W cycles/h ms ms ms	2.5 3600 8 24 10 20
Max cycles frequen Mechanical operation Decrating times	cy on s control in AC Closing NO Opening NO	min max min max min max	w cycles/h ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequen Mechanical operation Decrating times	cy on  s control in AC  Closing NO  Opening NO  Closing NC	min max min max min	W cycles/h ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequent Mechanical operation Operating times Everage time for Us	cy on  s control in AC  Closing NO  Opening NO  Closing NC	min max min max min max min	w cycles/h ms ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequent Mechanical operation Operating times Average time for Us May and the May and the M	cy on  s control in AC  Closing NO  Opening NO  Closing NC	min max min max min max min	w cycles/h ms ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequent Mechanical operation Operating times Average time for Us May and the May and the M	cy on  s control in AC  Closing NO  Opening NO  Closing NC  Opening NC	min max min max min max min	w cycles/h ms ms ms ms ms	2.5 3600 8 24 10 20 14 28
Max cycles frequent Mechanical operation Operating times Average time for Us May and the May and the M	cy on  s control in AC  Closing NO  Opening NO  Closing NC  Opening NC	min max min max min max min max	w cycles/h ms ms ms ms ms	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequent Mechanical operation Operating times Average time for Us Marian de Marian Marian de Marian Marian de Marian Marian de Marian de Marian Marian de Marian de Marian Marian de Marian de Mari	cy on s control in AC Closing NO Opening NO Closing NC Opening NC Opening NC	min max min max min max min max	W cycles/h ms ms ms ms ms ms A	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequent Mechanical operation Operating times Average time for Us Average time for Us Tull-load current (Fl	cy on s control in AC Closing NO Opening NO Closing NC Opening NC Opening NC	min max min max min max min max	W cycles/h ms ms ms ms ms ms A	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequent Mechanical operation Operating times Average time for Us Average time for Us Tull-load current (Fl	cy on  s control in AC  Closing NO  Opening NO  Closing NC  Opening NC  A) for three-phase AC motor	min max min max min max min max	W cycles/h ms ms ms ms ms ms A	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequent Mechanical operation Operating times Average time for Us Average time for Us Tull-load current (Fl	cy on  s control in AC  Closing NO  Opening NO  Closing NC  Opening NC  A) for three-phase AC motor	min max min max min max at 480V at 600V	w cycles/h ms ms ms ms ms ms A A	2.5 3600 8 24 10 20 14 28 7 18
Max cycles frequent Mechanical operation Operating times Exverage time for Use May be a supported to the support of the suppor	cy on  s control in AC  Closing NO  Opening NO  Closing NC  Opening NC  A) for three-phase AC motor	min max min max min max at 480V at 600V	W cycles/h ms ms ms ms ms A A HP	2.5 3600 8 24 10 20 14 28 7 18 21 17

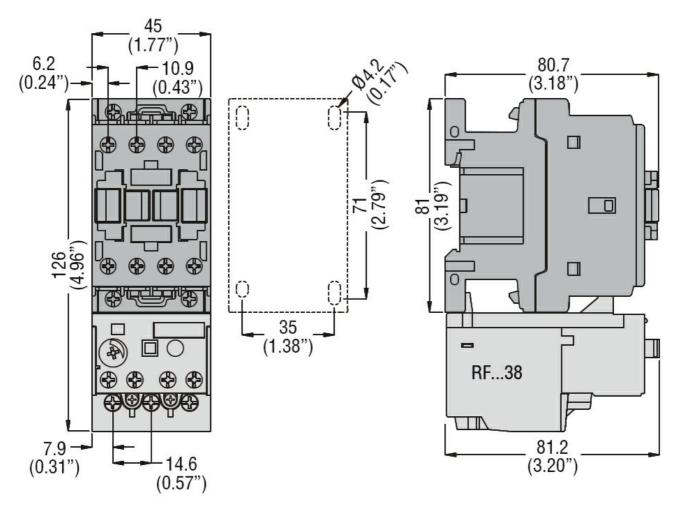




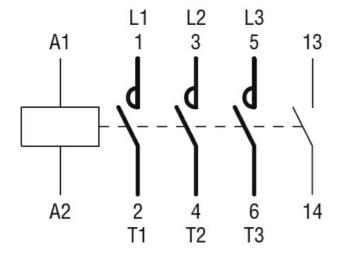
		220/230V	HP	7.5
		460/480V	HP	15
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
	•	AC voltage	V	600
		AC current	Α	10
		DC voltage	V	250
		DC current	Α	1
Short-circuit protect	ion fuse, 600V			
•	High fault			
	-	Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of aux	xiliary contacts according to UL			A600 - P600
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Prote	ction			
Pollution degree				3
Dimensions				
		<u> </u>		

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT



### 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



#### BF2510A400

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 50/60HZ, 400VAC, 1NO AUXILIARY CONTACT

cULus			
EAC			

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching







Product designation Power contactor Product type designation BF25 Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 690 k۷ Rated impulse withstand voltage Uimp 6 Operational frequency Нъ 25 min Hz 400 max IEC Conventional free air thermal current Ith 32 Α Operational current le AC-1 (≤40°C) Α 32 AC-1 (≤55°C) Α 26 AC-1 (≤70°C) Α 23 AC-3 (≤440V ≤55°C) Α 25 AC-4 (400V) 10 Rated operational power AC-3 (T≤55°C) 7 230V kW 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11 Rated operational power AC-1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 26 690V kW 36 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 20 48V Α 18 75V Α 18 110V Α 6 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 23 48V Α 23 75V 23 Α 110V Α 16 220V Α 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V 23 Α 23 48V Α 75V Α 23 110V 18





	220V	Α	12	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	_	
	48V	Α	_	
	75V	Α	_	
	110V	Α	_	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				_
	≤24V	Α	15	
	48V	Α	13	
	75V	Α	13	
	110V	Α	2	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
·	≤24V	Α	18	
	48V	Α	18	
	75V	Α	16	
	110V	Α	10	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 0	,,		
TEO HIEX GUITOR TO IT DOG DOG WILL ETT = TOHIS WILL O POIGS III SCHOO	≤24V	Α	22	
	48V	A	22	
	75V	A	18	
	110V	A	15	
	220V	A	8	
IFC may augrent to in DC2 DC5 with L/D < 15mg with 4 notes in corios	220 V	Α	0	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	۸		
	≤24 V 48 V	A	_	
	46 V 75 V	A	_	
		A	_	
	110V 220V	A	_	
Chart time allowable compart for 40 - (IFO/FNC0047.4)	220 V	A	_	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse	. (150)		50	
	gG (IEC)	A	50	
	aM (IEC)	Α	25	
Making capacity (RMS value)		Α	250	
Breaking capacity at voltage				
	440V	Α	200	
	500V	Α	184	
	690V	Α	102	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	lth	W	2.6	
	AC3	W	1.6	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	





	a simultana ayalı yazına etabla	max	Ibin Nr.	0.74
Conductor section	s simultaneously connectable		INF.	
Conductor section	AWG/Kcmil			
	AWG/Remii	max		10
	Flexible w/o lug conductor section	max		10
	Tionale wie lag conducter coolers	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
	Ç	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	า		
		min	mm²	1
		max	mm²	4
Power terminal prote	ection according to IEC/EN 60529			IP20 when
·	colon according to 120/214 00020			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
Maight			~	35mm 356
Weight Conductor section			g	330
Conductor section	AWG/kcmil conductor section			
	AVVG/KCMIII CONDUCTOR Section	max		10
Auxiliary contact cha	ractoristics	Шах		10
Thermal current Ith	racionstico		Α	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current A	-			
Oberalliu current Al				
Operating current At	510	230V	Α	3
Operating current A		230V 400V	A A	3 1.9
Operating current At				
		400V	Α	1.9
		400V	Α	1.9
Operating current Do	D12	400V 500V	A A	1.9 1.4
Operating current Do	D12	400V 500V	A A	1.9 1.4
Operating current Do	D12	400V 500V 110V	A A	1.9 1.4 5.7
Operating current Do	D12	400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
Operating current Do	D12	400V 500V 110V 24V 48V	A A A	1.9 1.4 5.7 5.7 2.9
Operating current Do	D12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current Do	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current Do	D12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current Do Operating current Do Operations	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current Do Operating current Do Operations Mechanical life	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DO Operating current DO Operations Mechanical life Electrical life	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data	C12 C13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data	C12 C13 C13 C10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data Performance level B	C12 C13 C10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data Performance level B	C12 C13 C13 C10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000



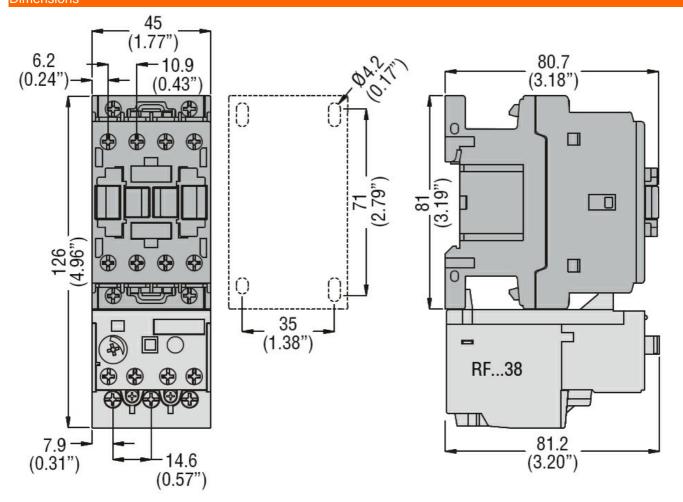


Rated AC voltage at 60Hz		V	24
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up			
	min	%Us	80
	max	%Us	110
drop-out			
	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz			
·	in-rush	VA	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz	<u> </u>	W	2.5
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times		2, 3.30/11	
Average time for Us control			
in AC			
Closing NO			
Closing NO	min	me	8
	max	ms ms	24
Opening NO	IIIax	ms	24
Opening NO	min	m o	10
	min	ms	10
Olasia a NO	max	ms	20
Closing NC			4.4
	min	ms	14
0N0	max	ms	28
Opening NC	!		7
	min	ms	7
Official Made Land	max	ms	18
JL technical data			
Full-load current (FLA) for three-phase AC motor			
	at 480V	Α	21
	at 600V	Α	17
Yielded mechanical performance			
for single-phase AC motor			
	110/120V	HP	2
	230V	HP	3
for three-phase AC motor			
	200/208V	HP	7.5
	220/230V	HP	7.5
	460/480V	HP	15
	575/600V	HP	15
General USE			
Contactor			
	AC current	Α	32
Auxiliary contacts			
,	AC voltage	V	600
	AC current	A	10
		V	250
	DC voltage	V A	250 1
Short-circuit protection fuse, 600V		V A	250 1



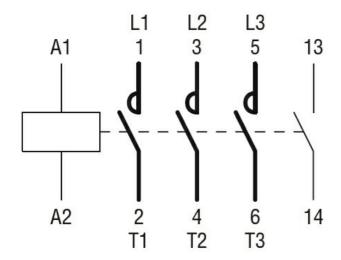


		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
Standard fault				
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxiliary contacts acc	cording to UL			A600 - P600
Ambient conditions				
Temperature				
Operating tem	perature			
		min	°C	-50
		max	°C	70
Storage tempo	erature			
		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/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

#### ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching







Product designation Power contactor Product type designation BF25 Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 690 k۷ Rated impulse withstand voltage Uimp 6 Operational frequency min Нъ 25 Hz 400 max IEC Conventional free air thermal current Ith 32 Α Operational current le AC-1 (≤40°C) Α 32 AC-1 (≤55°C) Α 26 AC-1 (≤70°C) Α 23 AC-3 (≤440V ≤55°C) Α 25 AC-4 (400V) 10 Rated operational power AC-3 (T≤55°C) 7 230V kW 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11 Rated operational power AC-1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 26 690V kW 36 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 20 48V Α 18 75V Α 18 110V Α 6 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 23 48V Α 23 75V 23 Α 110V Α 16 220V Α 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V 23 Α 23 48V Α 75V Α 23 110V 18





	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	
	75V	A	
			<del>-</del>
	110V	Α	_
	220V	A	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	15
	48V	Α	13
	75V	Α	13
	110V	Α	2
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series		- , ,	
TEO max current le in DOS-DOS with E/TC = TSINS with 2 poles in series	<241/	۸	10
	≤24V	A	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	A	15
150 DOO DOO 111 / D 4 45 111 4 1 1 1 1	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series		_	
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse			
1 Totoblion Tubb	aG (IEC)	۸	50
	gG (IEC)	A	50
	aM (IEC)	Α	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)		<b>-</b>	-
siosipation por poro (arorago raido)	lth	W	2.6
	AC3	W	
Tightonia a tour co fou tour is -1-	AU3	٧V	1.6
Tightening torque for terminals	_		
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	Ibin	1.5
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1
	min	Ibin	0.8
	111111	IDIII	0.0





May number of wires	a simultan aqualy aqua atable	max	Ibin Nr.	0.74
Conductor section	s simultaneously connectable		INF.	
Conductor section	AWG/Kcmil			
	AWG/Remiii	max		10
	Flexible w/o lug conductor section	max		10
	Tionble wie lag conductor couldn	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
	Ç	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	า		
		min	mm²	1
		max	mm²	4
Power terminal prote	ection according to IEC/EN 60529			IP20 when
<u> </u>				properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
_		allowable		±30°
Fixing				Screw / DIN rail
Weight				35mm 362
Conductor section			9	302
Conductor section	AWG/kcmil conductor section			
	AVVG/KCITIII CONDUCTOR Section	max		10
Auxiliary contact cha	racteristics	IIIdx		10
Thermal current Ith	racionatios		А	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current AC	-			
, ,		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating ourrent D(	12			
Operating current by	J12			
Operating current Do	512	110V	Α	5.7
		110V	Α	5.7
		110V 24V	A A	5.7
		24V 48V 60V	А	5.7 2.9 2.3
		24V 48V 60V 110V	A A	5.7 2.9 2.3 1.25
· ·		24V 48V 60V 110V 125V	A A A A	5.7 2.9 2.3 1.25 1.1
		24V 48V 60V 110V 125V 220V	A A A A	5.7 2.9 2.3 1.25 1.1 0.55
Operating current DO		24V 48V 60V 110V 125V	A A A A	5.7 2.9 2.3 1.25 1.1
Operating current DO Operations		24V 48V 60V 110V 125V 220V	A A A A A	5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DO  Operations  Mechanical life		24V 48V 60V 110V 125V 220V	A A A A A A cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DO  Operations  Mechanical life  Electrical life		24V 48V 60V 110V 125V 220V	A A A A A	5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DO  Operations  Mechanical life  Electrical life  Safety related data	C13	24V 48V 60V 110V 125V 220V	A A A A A A cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DO Operations Mechanical life Electrical life Safety related data		24V 48V 60V 110V 125V 220V 600V	A A A A A A cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operating current DO  Operations  Mechanical life  Electrical life  Safety related data	210d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A A Cycles cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operating current DO Operations Mechanical life Electrical life Safety related data Performance level B	C13 C13 C10d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A A cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 1200000 20000000
	210d according to EN/ISO 13489-1	24V 48V 60V 110V 125V 220V 600V	A A A A A A Cycles cycles	5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000



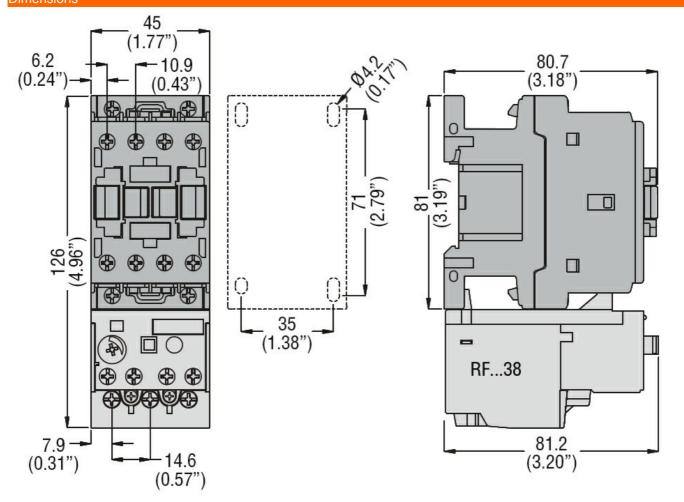


Rated AC voltage at 60	0Hz		V	48
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil consu				
	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
		holding	VA	9
Dissipation at holding :	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co				
	in AC			
	Closing NO			
		min	ms	8
	0	max	ms	24
	Opening NO			
		min	ms	10
	01 1 110	max	ms	20
	Closing NC			
		min	ms	14
	0 1 110	max	ms	28
	Opening NC			_
		min	ms	7
III ta abuda al alata		max	ms	18
UL technical data	for three phase AC motor			
Full-load current (FLA)	for three-phase AC motor	ot 400\/	٨	04
		at 480V	A	21
Vialdad maabaniaal na	who we are a	at 600V	A	17
Yielded mechanical pe				
	for single-phase AC motor	110/120V	ПD	2
		110/120V 230V	HP HP	2
	for three phase AC mater	2307	пг	J
	for three-phase AC motor	200/2001	ПD	7.5
		200/208V	HP	7.5
		220/230V	HP	7.5
		460/480V	HP	15
0		575/600V	HP	15
General USE	Contactor			
	Contactor	AO	٨	20
	Auvillant apptagt	AC current	A	32
	Auxiliary contacts	A 0 1		000
		AC voltage	V	600
		AC current	A	10
		DC voltage	V	250
01 1		DC current	A	1
Short-circuit protection				
	High fault			



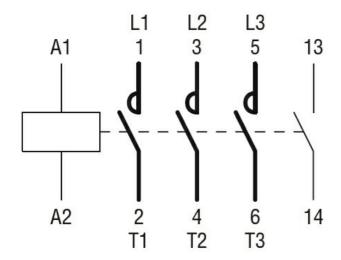


		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
Standard fault				
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxiliary contacts acc	cording to UL			A600 - P600
Ambient conditions				
Temperature				
Operating tem	perature			
		min	°C	-50
		max	°C	70
Storage tempo	erature			
		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/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

EAC

#### ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching







Product designation Power contactor Product type designation BF25 Contact characteristics Nr. 3 Number of poles Rated insulation voltage Ui IEC/EN ٧ 690 k۷ Rated impulse withstand voltage Uimp 6 Operational frequency Нъ 25 min Hz 400 max IEC Conventional free air thermal current Ith 32 Α Operational current le AC-1 (≤40°C) Α 32 AC-1 (≤55°C) Α 26 AC-1 (≤70°C) Α 23 AC-3 (≤440V ≤55°C) Α 25 AC-4 (400V) 10 Rated operational power AC-3 (T≤55°C) 7 230V kW 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11 Rated operational power AC-1 (T≤40°C) 230V kW 12 400V kW 21 500V kW 26 690V kW 36 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V Α 20 48V Α 18 75V Α 18 110V Α 6 220V Α IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V Α 23 48V Α 23 75V 23 Α 110V Α 16 220V Α 1 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V 23 Α 23 48V Α 75V Α 23 110V 18





	220V	Α	12	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	_	
	48V	Α	_	
	75V	Α	_	
	110V	Α	_	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				_
	≤24V	Α	15	
	48V	Α	13	
	75V	Α	13	
	110V	Α	2	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
·	≤24V	Α	18	
	48V	Α	18	
	75V	Α	16	
	110V	Α	10	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 0	,,		
TEO HIEX GUITOR TO IT DOG DOG WILL ETT = TOHIS WILL O POIGS III SCHOO	≤24V	Α	22	
	48V	A	22	
	75V	A	18	
	110V	A	15	
	220V	A	8	
IFC may augrent to in DC2 DC5 with L/D < 15mg with 4 notes in corios	220 V	Α	0	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	۸		
	≤24 V 48 V	A	_	
	46 V 75 V	A	_	
		A	_	
	110V 220V	A	_	
Chart time allowable compart for 40 - (IFO/FNC0047.4)	220 V	A	_	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse	. (150)		50	
	gG (IEC)	A	50	
	aM (IEC)	Α	25	
Making capacity (RMS value)		Α	250	
Breaking capacity at voltage				
	440V	Α	200	
	500V	Α	184	
	690V	Α	102	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	lth	W	2.6	
	AC3	W	1.6	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	lbin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	





	a simultana ayalı yazına etabla	max	Ibin Nr.	0.74
Conductor section	s simultaneously connectable		INF.	
Conductor section	AWG/Kcmil			
	AWG/Remii	max		10
	Flexible w/o lug conductor section	max		10
	Tionale wie lag conductor coolers	min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
	Ç	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	า		
		min	mm²	1
		max	mm²	4
Power terminal prote	ection according to IEC/EN 60529			IP20 when
·	colon according to 120/214 00020			properly wired
Mechanical features				
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail
Maight			~	35mm 356
Weight Conductor section			g	330
Conductor section	AWG/kcmil conductor section			
	AVVG/KCMIII CONDUCTOR Section	max		10
Auxiliary contact cha	ractoristics	Шах		10
Thermal current Ith	racionstico		Α	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current A	-			
Oberalliu current Al				
Operating current At	510	230V	Α	3
Operating current A		230V 400V	A A	3 1.9
Operating current At				
		400V	Α	1.9
		400V	Α	1.9
Operating current Do	D12	400V 500V	A A	1.9 1.4
Operating current Do	D12	400V 500V	A A	1.9 1.4
Operating current Do	D12	400V 500V 110V	A A	1.9 1.4 5.7
Operating current Do	D12	400V 500V 110V 24V	A A A	1.9 1.4 5.7 5.7
Operating current Do	D12	400V 500V 110V 24V 48V	A A A	1.9 1.4 5.7 5.7 2.9
Operating current Do	D12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current Do	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current Do	D12	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current Do Operating current Do Operations	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current Do Operating current Do Operations Mechanical life	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current DO Operating current DO Operations Mechanical life Electrical life	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data	C12 C13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data	D12	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data	C12 C13 C13 C10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data Performance level B	C12 C13 C10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operating current Do Operating current Do Operations Mechanical life Electrical life Safety related data Performance level B	C12 C13 C13 C10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000



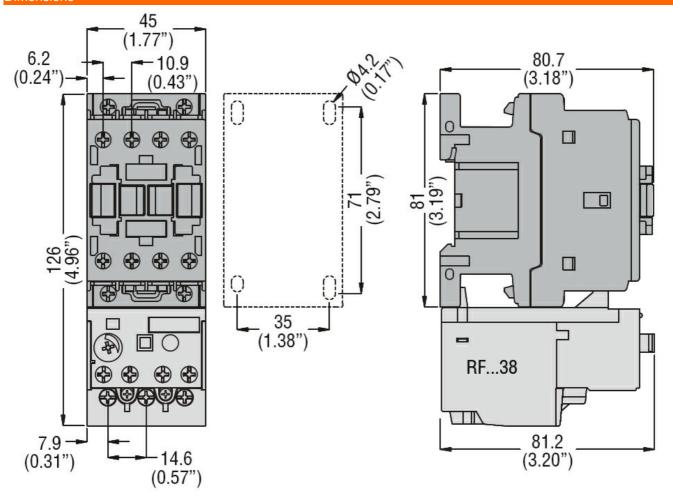


Rated AC voltage at 60	0Hz		V	120
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
		max	%Us	55
AC average coil consu	•			
	of 60Hz coil powered at 60Hz			
		in-rush	VA	75
		holding	VA	9
Dissipation at holding:	≤20°C 50Hz		W	2.5
Max cycles frequency				
Mechanical operation			cycles/h	3600
Operating times				
Average time for Us co				
	in AC			
	Closing NO			
		min	ms	8
	0	max	ms	24
	Opening NO			
		min	ms	10
	OL : NO	max	ms	20
	Closing NC			
		min	ms	14
	Ossailas NO	max	ms	28
	Opening NC			7
		min	ms	7
UL technical data		max	ms	18
	for three phase AC motor			
ruii-ioau current (FLA)	for three-phase AC motor	at 480V	Α	21
		at 600V	A	17
Yielded mechanical pe	orformanco	at 000 v		17
nelueu mechanicai pe				
	for single-phase AC motor	110/120V	HP	2
		230V	HP	3
	for three-phase AC motor	250 V	1 11	
	ioi illiee-pilase AO Illoloi	200/208V	HP	7.5
		220/230V	HP	7.5 7.5
		460/480V	HP	15
		575/600V	HP	15
General USE		3.0,000 1		. •
Conordi COL	Contactor			
	OS. Madioi	AC current	Α	32
	Auxiliary contacts	7.0 ourion		<u></u>
	Additional of the control of the con	AC voltage	V	600
		AC current	A	10
		DC voltage	V	250
		DC current	A	1
Short-circuit protection	fuse 600V	DO GUITOIR		•
Short shoult protection	High fault			
	i iigii iddit			





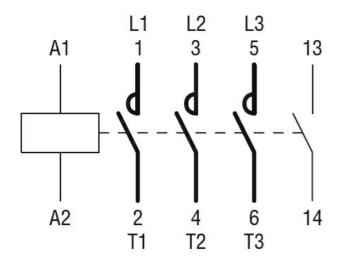
	Short circuit current	kA	100
	Fuse rating	Α	60
	Fuse class		J
Standard fault			·
	Short circuit current	kA	5
	Fuse rating	Α	100
Contact rating of auxiliary contacts according to UL			A600 - P600
Ambient conditions			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			



Wiring diagrams

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 60HZ, 120VAC, 1NO AUXILIARY CONTACT



#### 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

EAC

ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching







Product designation			Power contactor
Product type designation			BF25
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
	(≤40°C)	Α	32
	(≤55°C)	Α	26
	(≤70°C)	Α	23
AC-3 (≤440V		Α	25
	(400V)	Α	10
Rated operational power AC-3 (T≤55°C)			
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	23
	48V	Α	23
	-10 V		
	75V	Α	23





	220V	Α	12	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	_	
	48V	Α	_	
	75V	Α	_	
	110V	Α	_	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				_
	≤24V	Α	15	
	48V	Α	13	
	75V	Α	13	
	110V	Α	2	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
·	≤24V	Α	18	
	48V	Α	18	
	75V	Α	16	
	110V	Α	10	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 0	,,		
TEO HIEX GUITOR TO IT DOG DOG WILL ETT = TOHIS WILL O POIGS III SCHOO	≤24V	Α	22	
	48V	A	22	
	75V	A	18	
	110V	A	15	
	220V	A	8	
IFC may augrent to in DC2 DC5 with L/D < 15mg with 4 notes in corios	220 V	Α	0	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	۸		
	≤24 V 48 V	A	_	
	46 V 75 V	A	_	
		A	_	
	110V 220V	A	_	
Chart time allowable compart for 40 - (IFO/FNC0047.4)	220 V	A	_	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse	. (150)		50	
	gG (IEC)	A	50	
	aM (IEC)	Α	25	
Making capacity (RMS value)		Α	250	
Breaking capacity at voltage				
	440V	Α	200	
	500V	Α	184	
	690V	Α	102	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	lth	W	2.6	
	AC3	W	1.6	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	





		max	lbin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
	=	max		10
	Flexible w/o lug conductor section		2	
		min	mm²	1
	EL 21 / 1 / 2	max	mm²	6
	Flexible c/w lug conductor section			4
		min	mm²	1
	Fig. 2.1. 20. See Table Level 1.1. Constitution of the	max	mm²	4
	Flexible with insulated spade lug conductor section		2	4
		min	mm²	1
		max	mm²	4 ID00t
Power terminal prote	ction according to IEC/EN 60529			IP20 when properly wired
Mechanical features				ртороту птос
Operating position				
		normal		Vertical plan
		allowable		±30°
Fixing				Screw / DIN rail 35mm
Weight			g	348
Conductor section				
	AWG/kcmil conductor section			
		max		10
Auxiliary contact cha	racteristics			
Thermal current Ith			Α	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current AC	C15			
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DO	C12			
		110V	Α	5.7
Operating current DO	213			
		24V	Α	5.7
		48V	Α	2.9
		60V	Α	2.3
		110V	Α	1.25
		110V 125V	A A	1.25
		125V	Α	1.1
Operations		125V 220V	A A	1.1 0.55
· ·		125V 220V	A A	1.1 0.55
Mechanical life		125V 220V	A A A	1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data		125V 220V	A A A cycles	1.1 0.55 0.2 20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	125V 220V	A A A cycles	1.1 0.55 0.2 20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	125V 220V	A A A cycles	1.1 0.55 0.2 20000000
Mechanical life Electrical life Safety related data	-	125V 220V 600V	A A A cycles	1.1 0.55 0.2 20000000 1200000
Mechanical life Electrical life Safety related data Performance level B	me	125V 220V 600V rated load	A A A cycles cycles	1.1 0.55 0.2 20000000 1200000 1200000 20000000
Mechanical life Electrical life Safety related data Performance level B	-	125V 220V 600V rated load	A A A cycles cycles	1.1 0.55 0.2 20000000 1200000



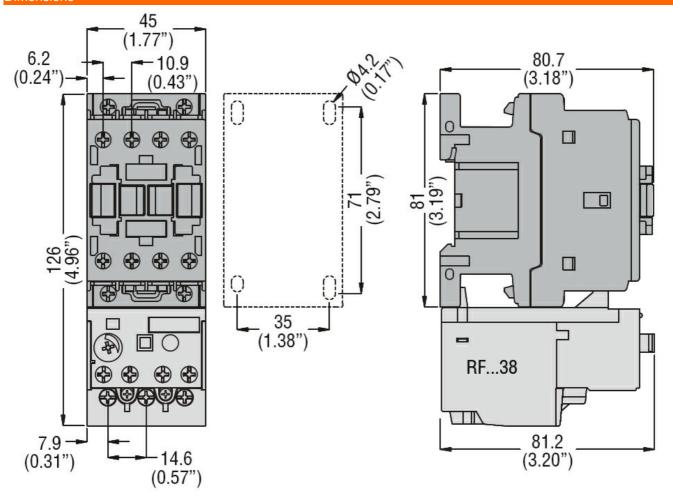


Rated AC voltage at 6	50Hz		V	220
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out			
		min	%Us	20
AO		max	%Us	55
AC average coil cons				
	of 60Hz coil powered at 60Hz	in ruch	VA	75
		in-rush holding	VA VA	75 9
Dissipation at holding	<20°C 50H-7	Holding	W	2.5
Max cycles frequency			VV	2.0
Mechanical operation			cycles/h	3600
Operating times			0,0100/11	
Average time for Us of	control			
	in AC			
	Closing NO			
	<b>3</b> -	min	ms	8
		max	ms	24
	Opening NO			
		min	ms	10
		max	ms	20
	Closing NC			
		min	ms	14
		max	ms	28
	Opening NC			_
		min	ms	7
III. to obsigal data		max	ms	18
UL technical data	.) for three-phase AC motor			
ruii-ioau curient (FLA	n) for three-phase AC motor	at 480V	Α	21
		at 600V	A	17
Yielded mechanical p	erformance	at 000 v		17
riolada modifambai p	for single-phase AC motor			
	Tot onigle pridee the frieder	110/120V	HP	2
		230V	HP	3
	for three-phase AC motor			
	•	200/208V	HP	7.5
		220/230V	HP	7.5
		460/480V	HP	15
		575/600V	HP	15
General USE				
	Contactor			
		AC current	Α	32
	Auxiliary contacts			
		AC voltage	V	600
		AC current	A	10
		DC voltage	V	250
01 - 4 - 2 - 2 - 4 - 2	. ( 000)/	DC current	Α	1
Short-circuit protectio				
	High fault			





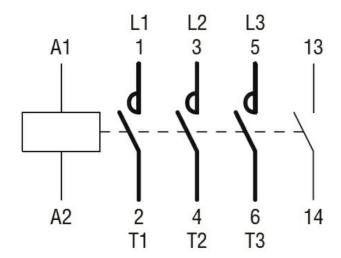
	Short circuit current	kA	100
	Fuse rating	Α	60
	Fuse class		J
Standard fault			·
	Short circuit current	kA	5
	Fuse rating	Α	100
Contact rating of auxiliary contacts according to UL			A600 - P600
Ambient conditions			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			



Wiring diagrams

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 60HZ, 220VAC, 1NO AUXILIARY CONTACT



#### 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

EAC

ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching







Product type designation  Contact characteristics  Number of poles  Rated insulation voltage Ui IEC/EN  Rated impulse withstand voltage Uimp  Operational frequency  IEC Conventional free air thermal current Ith  Operational current Ie  AC  Rated operational power AC-3 (T≤55°C)	min max  AC-1 (≤40°C) AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)  230V 400V	Nr. V kV Hz Hz A A A A A A KW	3 690 6 25 400 32 32 26 23 25 10
Number of poles Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Operational frequency  IEC Conventional free air thermal current Ith Operational current le	Max  AC-1 (≤40°C) AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)  230V	V kV Hz A A A A A	690 6 25 400 32 32 26 23 25
Rated insulation voltage Ui IEC/EN Rated impulse withstand voltage Uimp Operational frequency  IEC Conventional free air thermal current Ith Operational current Ie	Max  AC-1 (≤40°C) AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)  230V	V kV Hz A A A A A	690 6 25 400 32 32 26 23 25
Rated impulse withstand voltage Uimp Operational frequency  IEC Conventional free air thermal current Ith Operational current le  AC	Max  AC-1 (≤40°C) AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)  230V	Hz Hz A A A A A	6 25 400 32 32 26 23 25
Operational frequency  IEC Conventional free air thermal current Ith  Operational current le  AC	Max  AC-1 (≤40°C) AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)  230V	Hz Hz A A A A A	25 400 32 32 26 23 25
IEC Conventional free air thermal current Ith Operational current le  AC	Max  AC-1 (≤40°C) AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)  230V	A A A A A	400 32 32 26 23 25
Operational current le	Max  AC-1 (≤40°C) AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)  230V	A A A A A	400 32 32 26 23 25
Operational current le	AC-1 (≤40°C) AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)	A A A A	32 32 26 23 25
Operational current le	AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)	A A A A	32 26 23 25
AC	AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)	A A A	26 23 25
	AC-1 (≤55°C) AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)	A A A	26 23 25
	AC-1 (≤70°C) C-3 (≤440V ≤55°C) AC-4 (400V)	A A A	23 25
	C-3 (≤440V ≤55°C) AC-4 (400V) 230V	A A	25
	AC-4 (400V) 230V	Α	
Rated operational power AC-3 (T≤55°C)	230V		10
Rated operational power AC-3 (T≤55°C)		k\//	
		k\//	
	400\/	1 X V V	7
	400 V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18





	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max carron to in 200 200 with E/X = Tome with 1 poles in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
IFO	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	10.43.4	•	4.0
	≤24V	A	18
	48V	A	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	A	_
	220V	A	_
Short-time allowable current for 10s (IEC/EN60947-1)	220 V		200
			200
Protection fuse	~O (IFO)	۸	50
	gG (IEC)	A	50
	aM (IEC)	<u>A</u>	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
	Ith	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
	min	Nm	1.5
	max	Nm	1.8
	min	lbin	1.1
	max	lbin	1.5
Tightening torque for coil terminal	HUX		
Tigitto ining to iquo for confictininal	min	Nm	0.8
		Nm	0.6 1
	max		
	min	lbin	8.0





		max	Ibin	0.74
	simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
	=	max		10
	Flexible w/o lug conductor section		2	
		min	mm²	1
		max	mm²	6
	Flexible c/w lug conductor section			
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	_		
		min	mm²	1
		max	mm²	4
Power terminal prote	ection according to IEC/EN 60529			IP20 when
				properly wired
Mechanical features Operating position				
Operating position		normal		Vertical plan
		allowable		±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	346
Conductor section			9	040
Solidación section	AWG/kcmil conductor section			
	AWO/Remii conductor section	max		10
Auxiliary contact cha	racteristics	max		10
Thermal current Ith			Α	10
EC/EN 60947-5-1 d	esignation		- , ,	A600 - P600
Operating current AC				7.000 1.000
oporating ourroint / to		230V	Α	3
		400V	A	1.9
		500V	A	1.4
Operating current DO	212	0001	,,	1.1
oporating ourrorn De		110V	Α	5.7
		1101		0.1
Operating current DO	113			
Operating current DO	C13	24\/	Δ	5.7
Operating current DO	213	24V 48V	A A	5.7 2.9
Operating current D0	C13	48V	Α	2.9
Operating current D0	C13	48V 60V	A A	2.9 2.3
Operating current D0	C13	48V 60V 110V	A A A	2.9 2.3 1.25
Operating current D0	C13	48V 60V 110V 125V	A A A	2.9 2.3 1.25 1.1
Operating current D0	C13	48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55
	C13	48V 60V 110V 125V	A A A	2.9 2.3 1.25 1.1
Operations	213	48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life	213	48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life	213	48V 60V 110V 125V 220V	A A A A	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data		48V 60V 110V 125V 220V	A A A A A cycles	2.9 2.3 1.25 1.1 0.55 0.2
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A Cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operations Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operations Mechanical life Electrical life Safety related data Performance level B	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A Cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000 1200000 20000000
	10d according to EN/ISO 13489-1	48V 60V 110V 125V 220V 600V	A A A A A Cycles cycles	2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000



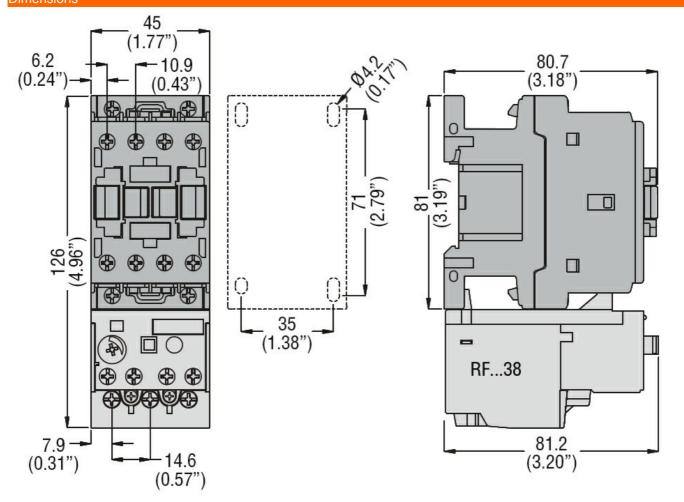


Rated AC voltage at			V	575
AC operating voltage				
	of 60Hz coil powered at 60Hz			
	pick-up			
		min	%Us	80
		max	%Us	110
	drop-out		0/11-	0.0
		min	%Us	20
AC average coil cons	sumption at 20°C	max	%Us	55
AC average con cons	•			
	of 60Hz coil powered at 60Hz	in-rush	VA	75
		holding	VA VA	9
Dissipation at holdinເ	z <20°C 50Hz	Holding	W	2.5
Max cycles frequency			VV	2.5
Mechanical operation			cycles/h	3600
Operating times			oyole3/11	3000
Average time for Us	control			
wordyc mile for Os	in AC			
	Closing NO			
	Closing IVC	min	ms	8
		max	ms	24
	Opening NO		•	
	3 3	min	ms	10
		max	ms	20
	Closing NC			
	·	min	ms	14
		max	ms	28
	Opening NC			
		min	ms	7
		max	ms	18
UL technical data				
Full-load current (FL/	A) for three-phase AC motor			
		at 480V	Α	21
		at 600V	Α	17
Yielded mechanical բ				
	for single-phase AC motor			
		110/120V	HP	2
		230V	HP	3
	for three-phase AC motor	000/000:		<b>-</b> -
		200/208V	HP	7.5
		220/230V	HP	7.5
		460/480V	HP	15
Conoral LICE		575/600V	HP	15
General USE	Contactor			
	Contactor	AC 01177054	٨	22
	Auviliany contacts	AC current	Α	32
	Auxiliary contacts	AC valtage	\/	600
		AC voltage	V	600
		AC current	A	10
		DC voltage	V	250
Short circuit protection	on fund 600V	DC current	Α	1
Short-circuit protection				
	High fault			





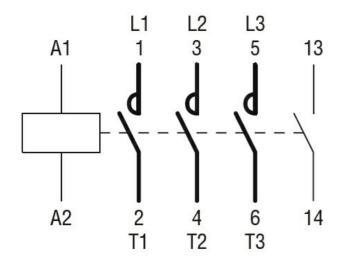
		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
Standard fault				
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxiliary contacts acc	cording to UL			A600 - P600
Ambient conditions				
Temperature				
Operating tem	perature			
		min	°C	-50
		max	°C	70
Storage tempo	erature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection				
Pollution degree				3
Dimensions				



Wiring diagrams

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 60HZ, 575VAC, 1NO AUXILIARY CONTACT



#### 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

EAC

ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching







			•
Product designation			Power contactor
Product type designation			BF25
Contact characteristics			
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	690
Rated impulse withstand voltage Uimp		kV	6
Operational frequency			
	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	32
Operational current le			
	AC-1 (≤40°C)	Α	32
	AC-1 (≤55°C)	Α	26
	AC-1 (≤70°C)	Α	23
	AC-3 (≤440V ≤55°C)	Α	25
	AC-4 (400V)	Α	10
Rated operational power AC-3 (T≤55°C)			
	230V	kW	7
	400V	kW	12.5
	415V	kW	13.4
	440V	kW	13.4
	500V	kW	15
	690V	kW	11
Rated operational power AC-1 (T≤40°C)			
	230V	kW	12
	400V	kW	21
	500V	kW	26
	690V	kW	36
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
	≤24V	Α	20
	48V	Α	18
	75V	Α	18
	110V	Α	6
	220V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	16
	220V	Α	1
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	≤24V	Α	23
	48V	Α	23
	75V	Α	23
	110V	Α	18





	220V	Α	12	
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
	≤24V	Α	_	
	48V	Α	_	
	75V	Α	_	
	110V	Α	_	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series				_
	≤24V	Α	15	
	48V	Α	13	
	75V	Α	13	
	110V	Α	2	
	220V	Α	_	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series				
·	≤24V	Α	18	
	48V	Α	18	
	75V	Α	16	
	110V	Α	10	
	220V	Α	2	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	220 0	,,		
TEO HIEX GUITOR TO IT DOG DOG WILL ETY = TOHIS WILL O POIGS III SCHOO	≤24V	Α	22	
	48V	A	22	
	75V	A	18	
	110V	A	15	
	220V	A	8	
IFC may augrent to in DC2 DC5 with L/D < 15mg with 4 notes in corios	220 V	Α	0	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	≤24V	۸		
	≤24 V 48 V	A	_	
	46 V 75 V	A	_	
		A	_	
	110V 220V	A	_	
Chart time allowable compart for 40 - (IFO/FNC0047.4)	220 V	A	_	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200	
Protection fuse	. (150)		50	
	gG (IEC)	A	50	
	aM (IEC)	Α	25	
Making capacity (RMS value)		Α	250	
Breaking capacity at voltage				
	440V	Α	200	
	500V	Α	184	
	690V	Α	102	
Resistance per pole (average value)		mΩ	2.5	
Power dissipation per pole (average value)				
	lth	W	2.6	
	AC3	W	1.6	
Tightening torque for terminals				
	min	Nm	1.5	
	max	Nm	1.8	
	min	Ibin	1.1	
	max	Ibin	1.5	
Tightening torque for coil terminal				
	min	Nm	0.8	
	max	Nm	1	
	min	lbin	0.8	





Ma	See Record Control 1	max	Ibin	0.74
	s simultaneously connectable		Nr.	2
Conductor section	AVAIC // / : !			
	AWG/Kcmil	may		10
	Florible w/s lug conductor costion	max		10
	Flexible w/o lug conductor section	min	mm²	1
		min max	mm²	6
	Flexible c/w lug conductor section	IIIax	111111	0
	Flexible C/W lug colludctor section	min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section	IIIax	111111	4
	Flexible with insulated spade lug conductor section	min	mm²	1
		max	mm²	4
		IIIdX	ШШ	IP20 when
Power terminal prote	ection according to IEC/EN 60529			properly wired
Mechanical features				property whed
Operating position				
Sporaling position		normal		Vertical plan
		allowable		±30°
		anowabic		Screw / DIN rai
Fixing				35mm
Veight			g	352
Conductor section				
Jonadolor Gootlon	AWG/kcmil conductor section			
	7 (V G/Komiii denadatar deditari	max		10
Auxiliary contact cha	racteristics	max		10
Thermal current Ith			Α	10
EC/EN 60947-5-1 d	asimatica			
CC/CN 0034/=:)=1 0	esignation			A600 - P600
				A600 - P600
		230V	Δ	
		230V 400V	A A	3
		400V	Α	3 1.9
Operating current AC	C15			3
Operating current AC	C15	400V 500V	A A	3 1.9 1.4
Operating current AC	C15	400V	Α	3 1.9
Operating current AC	C15	400V 500V 110V	A A	3 1.9 1.4 5.7
Operating current AC	C15	400V 500V 110V 24V	A A A	3 1.9 1.4 5.7
Operating current AC	C15	400V 500V 110V 24V 48V	A A A A	3 1.9 1.4 5.7 5.7 2.9
Operating current AC	C15	400V 500V 110V 24V 48V 60V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3
Operating current AC	C15	400V 500V 110V 24V 48V 60V 110V	A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25
Operating current AC	C15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current AC	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55
Operating current AC Operating current DC Operating current DC	C15	400V 500V 110V 24V 48V 60V 110V 125V	A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1
Operating current AC  Operating current DC  Operating current DC	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC  Operating current DC  Operating current DC  Operations  Mechanical life  Electrical life	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	C12 C13	400V 500V 110V 24V 48V 60V 110V 125V 220V	A A A A A A A A Cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2
Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	C15	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000
Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data	C12 C13 C13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000
Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	C12 C13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 12000000 12000000
Operating current AC Operating current DC Operating current DC Operating current DC Operations Mechanical life Electrical life Safety related data Performance level B	C12 C13 C13 10d according to EN/ISO 13489-1	400V 500V 110V 24V 48V 60V 110V 125V 220V 600V	A A A A A A A Cycles cycles	3 1.9 1.4 5.7 5.7 2.9 2.3 1.25 1.1 0.55 0.2 20000000 1200000



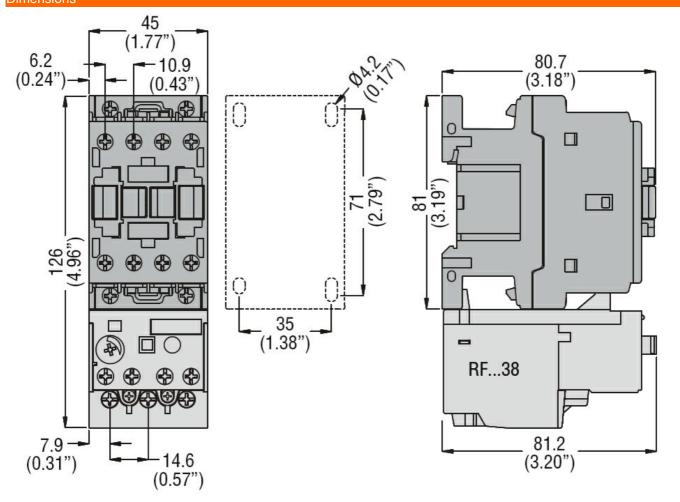


Rated AC voltage at 60	)Hz			V	230
AC operating voltage					
	of 60Hz coil powered a				
		pick-up			
			min	%Us	80
			max	%Us	110
		drop-out			
			min	%Us	20
			max	%Us	55
AC average coil consur					
	of 60Hz coil powered a	t 60Hz			
			in-rush	VA	75
			holding	VA	9
Dissipation at holding ≤	≦20°C 50Hz			W	2.5
Max cycles frequency					
Mechanical operation				cycles/h	3600
Operating times					
Average time for Us co	ntrol				
	in AC				
		Closing NO			
			min	ms	8
			max	ms	24
		Opening NO			
			min	ms	10
			max	ms	20
		Closing NC			
		· ·	min	ms	14
			max	ms	28
		Opening NC			
			min	ms	7
			max	ms	18
UL technical data					
Full-load current (FLA)	for three-phase AC moto	or			
			at 480V	Α	21
			at 600V	Α	17
Yielded mechanical per	rformance				
·	for single-phase AC mo	otor			
	<b>U</b> 1		110/120V	HP	2
			230V	HP	3
	for three-phase AC mo	tor	<u> </u>		
			200/208V	HP	7.5
			220/230V	HP	7.5
			460/480V	HP	15
			575/600V	HP	15
General USE			<del>-</del>		
	Contactor				
	- ·		AC current	Α	32
	Auxiliary contacts			<u> </u>	
			AC voltage	V	600
			AC current	Å	10
			DC voltage	V	250
			DC current	Ā	1
Short-circuit protection	fuse 600V		20 ouriont	,,	•
Short official protection	High fault				
	i ligit tault				





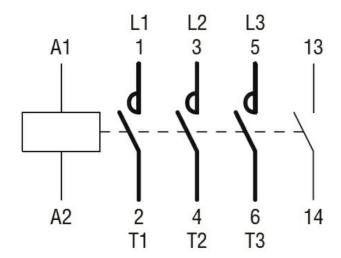
		Short circuit current	kA	100
		Fuse rating	Α	60
		Fuse class		J
Standard fault				
		Short circuit current	kA	5
		Fuse rating	Α	100
Contact rating of auxiliary contacts acc	cording to UL			A600 - P600
Ambient conditions				
Temperature				
Operating tem	perature			
		min	°C	-50
		max	°C	70
Storage tempo	erature			
		min	°C	-60
		max	°C	80
Max altitude			m	3000
Resistance & Protection				
Pollution degree				3
Dimensions				



Wiring diagrams

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 60HZ, 230VAC, 1NO AUXILIARY CONTACT



#### 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

EAC

ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching







Contact characteristics         Nr.         3           Rated insulation voltage UI IEC/EN         V         690           Rated insulation voltage Uimp         kV         6           Operational frequency         min         Hz         25           max         Hz         400         Below that the state of the st	Product designation			Power contactor
Number of poles	Product type designation			BF25
Rated insulation voltage Ui IEC/EN         V         690           Rated impulse withstand voltage Uimp         kV         6           Operational frequency         min         Hz         25           IEC Conventional free air thermal current Ith         A         32           Operational current Ie         AC-1 (≤40°C)         A         22           AC-1 (≤55°C)         A         26         AC-1 (≤70°C)         A         23           AC-3 (≤440V ≤55°C)         A         25         AC-4 (400V)         A         10           Rated operational power AC-3 (T≤55°C)         230V kW         10         10         10           Rated operational power AC-3 (T≤40°C)         230V kW         12.5         415V kW         13.4         440V kW         13.4         440V kW         13.4         440V kW         13.4         500V kW         15         690V kW         15         690V kW         15         690V kW         21         500V kW         22         690V kW         21         500V kW         23         48         48         48         48         48         48         48         48         48         48         48         48         48         48         48         48         48         48				
Rated impulse withstand voltage Uimp	· · · · · · · · · · · · · · · · · · ·		Nr.	3
Operational frequency         min max by Hz max         Hz max Hz hz Hz         400           IEC Conventional free air thermal current lth         A 32           Operational current le           AC-1 (≤40°C) A 32 AC-1 (≤55°C) A 26 AC-1 (≤70°C) A 23 AC-3 (≤440V ≤55°C) A 25 AC-3 (4400V) ≤55°C) A 25 AC-4 (400V) A 10           Rated operational power AC-3 (T≤55°C)           230V kW 7           400V kW 12.5         415V kW 13.4 A40V kW 13.4 A40V kW 13.4 A40V kW 15.5 A40V kW 15 A40V kW 21 A40V kW 21 A40V kW 21 A40V kW 21 A40V kW 26 A40V k	Rated insulation voltage Ui IEC/EN			690
EC Conventional free air thermal current lth	Rated impulse withstand voltage Uimp		kV	6
EC Conventional free air thermal current Ith	Operational frequency			
EC Conventional free air thermal current lith		min	Hz	25
Operational current le         AC-1 (≤40°C)       A       32         AC-1 (≤55°C)       A       26         AC-1 (570°C)       A       23         AC-3 (≤440V ≤55°C)       A       25         AC-4 (400V)       A       10         Rated operational power AC-3 (T≤5°C)         230V       kW       7         400V       kW       13.4         440V       kW       13.4         440V       kW       13.4         440V       kW       11         Rated operational power AC-1 (T≤40°C)         230V       kW       12         400V       kW       21         500V       kW       21         500V       kW       21         400V       kW       21         500V       kW       26         690V       kW       21         500V       kW       26         690V       kW       23         48V       A       18         75V       A       23         48V       A       23         48V       A       23		max	Hz	400
AC-1 (≤40°C)	IEC Conventional free air thermal current Ith		Α	32
AC-1 (≤55°C)   A   26   AC-1 (≤70°C)   A   23   AC-3 (≤440V ≤55°C)   A   25   AC-4 (400V)   A   10	Operational current le			
AC-1 (≤70°C)		AC-1 (≤40°C)	Α	32
AC-3 (≤440V ≤55°C) A 25 AC-4 (400V) A 10  Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 21 400V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-1 (≤55°C)	Α	26
AC-4 (400V)		AC-1 (≤70°C)	Α	23
Rated operational power AC-3 (T≤55°C)  230V kW 7 400V kW 12.5 415V kW 13.4 440V kW 13.4 500V kW 15 690V kW 15 690V kW 11  Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A −  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series		AC-3 (≤440V ≤55°C)	Α	25
230V   kW   7   400V   kW   12.5   415V   kW   13.4   440V   kW   13.4   500V   kW   15   690V   kW   15   690V   kW   11   11   11   11   11   11   12   12   13   14   14   14   15   15   15   690V   kW   11   11   12   13   14   15   15   15   15   690V   kW   12   400V   kW   21   500V   kW   26   690V   kW   36   15   15   15   15   15   15   15   1		AC-4 (400V)	Α	10
400V   kW   12.5   415V   kW   13.4   440V   kW   13.4   440V   kW   13.4   440V   kW   15   690V   kW   15   690V   kW   11   11     11   11     11     11     11     11     11     11     11     11	Rated operational power AC-3 (T≤55°C)			
415V		230V	kW	7
A440V   kW   13.4     500V   kW   15     690V   kW   11     Rated operational power AC-1 (T≤40°C)     230V   kW   12     400V   kW   21     500V   kW   26     690V   kW   36     IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		400V	kW	12.5
Soov   kW   15   690V   kW   11		415V	kW	13.4
Rated operational power AC-1 (T≤40°C)   230V   kW   12   400V   kW   21   500V   kW   26   690V   kW   36		440V	kW	13.4
Rated operational power AC-1 (T≤40°C)  230V kW 12 400V kW 21 500V kW 26 690V kW 36  IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series  ≤24V A 20 48V A 18 75V A 18 110V A 6 220V A -  IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series  ≤24V A 23 48V A 23 75V A 23 110V A 16 220V A 1  IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series  ≤24V A 23 48V A 23 110V A 16 220V A 1		500V	kW	15
		690V	kW	11
	Rated operational power AC-1 (T≤40°C)			
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   S24V   A   20   48V   A   18   75V   A   18   110V   A   6   220V   A   -      IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   S24V   A   23   48V   A   23   110V   A   16   220V   A   1      IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series   S24V   A   23   110V   A   16   220V   A   1      IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series   S24V   A   23   48V   A		230V	kW	12
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series		400V	kW	21
SEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series   S24V		500V	kW	26
		690V	kW	36
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
T5V   A   18   110V   A   6   220V   A   -		≤24V	Α	20
110V   A   6   220V   A   -		48V	Α	18
EC max current le in DC1 with L/R $\leq$ 1ms with 2 poles in series   $\leq$ 24V   A   23   48V   A   23   75V   A   23   110V   A   16   220V   A   1		75V	Α	18
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series   ≤24V		110V	Α	6
		220V	Α	_
	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
		≤24V	Α	23
		48V	Α	23
EC max current le in DC1 with L/R $\leq$ 1ms with 3 poles in series   $\leq$ 24V A 23 48V A 23 75V A 23		75V	Α	23
IEC max current le in DC1 with L/R $\leq$ 1ms with 3 poles in series $ \leq 24V \qquad A \qquad 23 \\ 48V \qquad A \qquad 23 \\ 75V \qquad A \qquad 23 $		110V	Α	16
≤24V A 23 48V A 23 75V A 23		220V	Α	1
48V A 23 75V A 23	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
75V A 23		≤24V	Α	23
		48V	Α	23
110V A 18		75V	Α	23
		110V	Α	18





	220V	Α	12
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
·	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
The max sarront to in 200 200 with 270 = Tome with 1 poles in conce	≤24V	Α	15
	48V	A	13
	75V	A	13
	110V	A	2
150	220V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series	.0.01		
	≤24V	Α	18
	48V	Α	18
	75V	Α	16
	110V	Α	10
	220V	Α	2
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	≤24V	Α	22
	48V	Α	22
	75V	Α	18
	110V	Α	15
	220V	Α	8
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
The max carrent to in 200 200 mai 2/( = 10me mai ) poise in come	≤24V	Α	_
	48V	A	_
	75V	A	_
	110V	A	_
	220V		<del>-</del>
Object times allowed a surrout for AOS (IFO/FNCOOAT A)	220 V	A	
Short-time allowable current for 10s (IEC/EN60947-1)		Α	200
Protection fuse	0 (150)		
	gG (IEC)	Α	50
	aM (IEC)	A	25
Making capacity (RMS value)		Α	250
Breaking capacity at voltage			
	440V	Α	200
	500V	Α	184
	690V	Α	102
Resistance per pole (average value)		mΩ	2.5
Power dissipation per pole (average value)			
· · · · · · · · · · · · · · · · · · ·	Ith	W	2.6
	AC3	W	1.6
Tightening torque for terminals			
G G I I I I I I I I I I I I I I I I I I	min	Nm	1.5
	max	Nm	1.8
	min	Ibin	1.1
		lbin	1.5
Tightoning torque for coil terminal	max	ווטוו	1.0
Tightening torque for coil terminal	t.·	NI	0.0
	min	Nm	0.8
	max	Nm	1
	min	lbin	0.8





		max	lbin	0.74
	s simultaneously connectable		Nr.	2
Conductor section				
	AWG/Kcmil			
		max		10
	Flexible w/o lug conductor section		•	
		min	mm²	1
	<del></del>	max	mm²	6
	Flexible c/w lug conductor section		2	
		min	mm²	1
		max	mm²	4
	Flexible with insulated spade lug conductor section		2	
		min	mm²	1
		max	mm²	4
Power terminal prote	ection according to IEC/EN 60529			IP20 when
Machanical factures	- -			properly wired
Mechanical features Operating position				
Operating position		normal		Vertical plan
		allowable		±30°
		allowable		Screw / DIN rail
Fixing				35mm
Weight			g	354
Conductor section			9	001
Solidation Scotlon	AWG/kcmil conductor section			
	7 W O/Komiii oondaddor ooddon	max		10
Auxiliary contact cha	racteristics	THOX		. 0
Thermal current Ith			А	10
IEC/EN 60947-5-1 d	esignation			A600 - P600
Operating current AC				
		230V	Α	3
		400V	Α	1.9
		500V	Α	1.4
Operating current DO	C12			
		110V	Α	5.7
Operating current DO	213			
. 5		24V	Α	5.7
		48V	Α	2.9
		60V	Α	2.3
		110V	Α	1.25
		125V	Α	1.1
			A A	1.1 0.55
		125V		
Operations		125V 220V	Α	0.55
		125V 220V	Α	0.55
Mechanical life		125V 220V	A A	0.55 0.2
Mechanical life Electrical life		125V 220V	A A cycles	0.55 0.2 20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	125V 220V	A A cycles	0.55 0.2 20000000
Mechanical life Electrical life Safety related data	10d according to EN/ISO 13489-1	125V 220V 600V	A A cycles	0.55 0.2 20000000 1200000
Mechanical life Electrical life Safety related data		125V 220V	A A cycles cycles	0.55 0.2 20000000
Mechanical life Electrical life Safety related data Performance level B	me	125V 220V 600V rated load	A A cycles	0.55 0.2 20000000 1200000 1200000 20000000
		125V 220V 600V rated load	A A cycles cycles	0.55 0.2 20000000 1200000



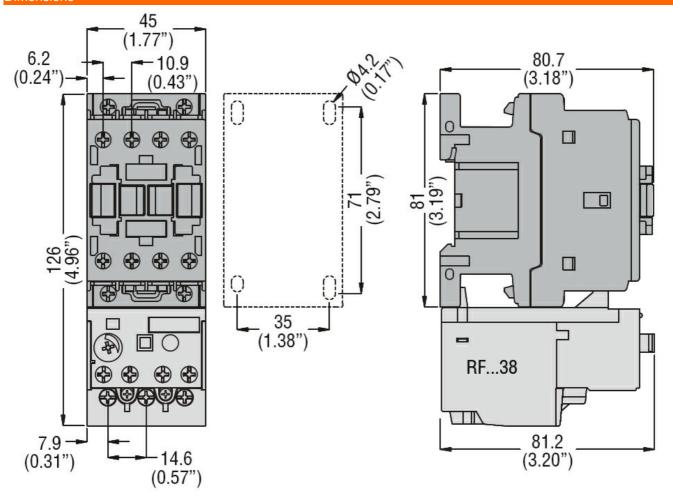


Rated AC voltage at 60Hz		V	460
AC operating voltage			
of 60Hz coil powered at 60Hz			
pick-up			
	min	%Us	80
	max	%Us	110
drop-out			
	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
of 60Hz coil powered at 60Hz			
	in-rush	VA	75
	holding	VA	9
Dissipation at holding ≤20°C 50Hz		W	2.5
Max cycles frequency			
Mechanical operation		cycles/h	3600
Operating times			
Average time for Us control			
in AC			
Closing NO			•
	min	ms	8
On aution NO	max	ms	24
Opening NO			4.0
	min	ms	10
Closing NC	max	ms	20
Closing NC	min	mo	14
	min max	ms ms	28
Opening NC	IIIax	1113	20
Spering No.	min	ms	7
	max	ms	18
UL technical data			
Full-load current (FLA) for three-phase AC motor			
, , ,	at 480V	Α	21
	at 600V	Α	17
Yielded mechanical performance			
for single-phase AC motor			
<b>V</b> 1	110/120V	HP	2
	230V	HP	3
for three-phase AC motor			
·	200/208V	HP	7.5
	220/230V	HP	7.5
	460/480V	HP	15
	575/600V	HP	15
General USE			
Contactor			
	AC current	Α	32
Auxiliary contacts			
·	AC voltage	V	600
	AC current	Α	10
	DC voltage	V	250
	DC current	Α	1
Short-circuit protection fuse, 600V			
enert enealt protection race, ede v			





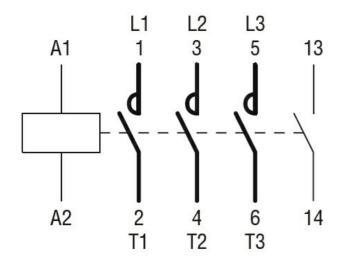
	Short circuit current	kA	100
	Fuse rating	Α	60
	Fuse class		J
Standard fault			·
	Short circuit current	kA	5
	Fuse rating	Α	100
Contact rating of auxiliary contacts according to UL			A600 - P600
Ambient conditions			
Temperature			
Operating temperature			
	min	°C	-50
	max	°C	70
Storage temperature			
	min	°C	-60
	max	°C	80
Max altitude		m	3000
Resistance & Protection			
Pollution degree			3
Dimensions			



Wiring diagrams

**ENERGY AND AUTOMATION** 

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 25A, AC COIL 60HZ, 460VAC, 1NO AUXILIARY CONTACT



#### 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

EAC

ETIM classification

**ETIM 8.0** 

EC000066 -Power contactor, AC switching