



Rated insulation voltage Ui IEC/EN         V         1000           Rated impulse withstand voltage Uimp         kV         8           Operational frequency         min         Hz         25           max         Hz         400           EC Conventional free air thermal current Ith         A         115           EC max current le in DC1 with L/R ≤ 1ms with 3 poles in series         400V         A         115           EC max current for 10s (iff Image)         400V         A         15           800V         A         45         1000V         A         35           800V         A         45         400V         A         45           90V Month Lime         Min DON         A         45         400V         A         45           90V Month Lime         Min DON         A         45         400V         A         40         40V         40V         A         20         40V         A         10V         40V         40V         40V	Product designation				Power contactor
Number of poles         Nr. 3           Rated insulation voltage Ui IEC/EN         V 1000           Rated insulation voltage Uimp         kV 8           Operational frequency         min Hz 2 55 max Hz 400           IEC Conventional free air thermal current Ith         A 115           EC max current Ie in DC1 with L/R ≤ 1ms with 3 poles in series         400V A 100 600V A 75 800V A 45 1000V A 35           EC max current for 10s (IEC/EN60947-1)         A 640           Protection fuse         gG (IEC) A 30 400           Resistance per pole (average value)         mΩ 0.6           Power dissipation per pole (average value)         mΩ 0.6           Power dissipation per pole (average value)         min Nm 4 max Nm 5 max Nm 6 max Nm 1 min 10 in 0.8 max Nm 1 min 10 in 0.74           Max number of wires simultaneously connectable         Nr. 2           Conductor section         max max Nm 2 max Nm 1 max 1.5 max Nm 1 max 1.5 max 1	Product type designa	ation			BFD65
Rated insulation voltage Ui IEC/EN   V   1000	Contact characteristic	CS CS			
Rated impulse withstand voltage Uimp   kV   8	Number of poles			Nr.	3
Department   Paragraph   P	Rated insulation volta	age Ui IEC/EN		V	1000
min   Hz   25 max   Hz   400     EC Conventional free air thermal current Ith	Rated impulse withst	and voltage Uimp		kV	8
EC Conventional free air thermal current Ith   EC max current le in DC1 with L/R ≤ 1ms with 3 poles in series	Operational frequence	y .			
EC Conventional free air thermal current Ith   EC max current le in DC1 with L/R ≤ 1ms with 3 poles in series   400V   A   100   600V   A   75   800V   A   45   1000V   A   35   1000V   A			min	Hz	25
EC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			max	Hz	400
400	IEC Conventional fre	e air thermal current Ith		Α	115
Short-time allowable current for 10s (IEC/EN60947-1)	IEC max current le in	DC1 with L/R ≤ 1ms with 3 poles in series			
Short-time allowable current for 10s (IEC/EN60947-1)			400V	Α	100
1000V   A   35			600V	Α	75
Short-time allowable current for 10s (IEC/EN60947-1)			800V	Α	45
Protection fuse   gG (IEC)			1000V	Α	35
Prover terminal protection according to IEC/EN 60529   Prover dissipation per pole (average value)   mΩ   0.6	Short-time allowable	current for 10s (IEC/EN60947-1)		Α	640
A   M (IEC)   A   80	Protection fuse				
A   M (IEC)   A   80			gG (IEC)	Α	125
Power dissipation per pole (average value)   Ith   W   7.9     Tightening torque for terminals   min   Nm   4     max   Nm   5     min   Ibin   2.95     max   Ibin   3.69     Tightening torque for coil terminal   min   Nm   0.8     max   Nm   1     min   Ibin   0.8     max   Ibin   0.74     Max number of wires simultaneously connectable   Nr.   2     Conductor section   AWG/Kcmil   max   2     Flexible w/o lug conductor section   min   mm²   1.5     max   max   35     Flexible c/w lug conductor section   min   mm²   3.5     Power terminal protection according to IEC/EN 60529   IP20 front			• , ,		80
Power dissipation per pole (average value)   Ith W 7.9     Tightening torque for terminals   min   Nm   4     max   Nm   5     min   Ibin   2.95     max   Ibin   3.69     Tightening torque for coil terminal   min   Nm   0.8     max   Nm   1     min   Ibin   0.8     max   Ibin   0.74     Max number of wires simultaneously connectable   Nr   2     Conductor section   AWG/Kcmil   max   2     Flexible w/o lug conductor section   min   mm²   1.5     max   mm²   3.5     Flexible c/w lug conductor section   min   mm²   1.5     max   mm²   3.5     Power terminal protection according to IEC/EN 60529   IP20 front	Resistance per pole	(average value)		mΩ	0.6
Min   Nm   4   Max   Nm   5   Min   1   Nm   1   Nm   1   Nm   1   Nm   Nm					
Min   Nm   4   max   Nm   5   min   Ibin   2.95   max   Ibin   3.69		, , ,	Ith	W	7.9
Max   Nm   5   min   Ibin   2.95   max   Ibin   3.69	Tightening torque for	terminals			
Max   Nm   5   min   Ibin   2.95   max   Ibin   3.69			min	Nm	4
Max   Ibin   3.69			max	Nm	
Tightening torque for coil terminal			min	Ibin	2.95
min   Nm   0.8   max   Nm   1   min   Ibin   0.8   max   Ibin   0.74				Ibin	
min   Nm   0.8   max   Nm   1   min   Ibin   0.8   max   Ibin   0.74	Tightening torque for	coil terminal			
Max   Nm   1   min   Ibin   0.8   max   Ibin   0.74			min	Nm	0.8
max Ibin 0.74           Max number of wires simultaneously connectable         Nr. 2           Conductor section         max 2           Flexible w/o lug conductor section         min mm² 1.5 max mm² 35           Flexible c/w lug conductor section         min mm² 1.5 max mm² 35           Power terminal protection according to IEC/EN 60529         IP20 front			max		
max Ibin 0.74           Max number of wires simultaneously connectable         Nr. 2           Conductor section         max 2           Flexible w/o lug conductor section         min mm² 1.5 max mm² 35           Flexible c/w lug conductor section         min mm² 1.5 max mm² 35           Power terminal protection according to IEC/EN 60529         IP20 front			min	Ibin	0.8
Max number of wires simultaneously connectable         Nr.         2           Conductor section         max         2           Flexible w/o lug conductor section         min mm² 1.5 max mm² 35           Flexible c/w lug conductor section         min mm² 1.5 max mm² 35           Power terminal protection according to IEC/EN 60529         IP20 front					
AWG/Kcmil   max   2	Max number of wires	simultaneously connectable		Nr.	
AWG/Kcmil    max   2     Flexible w/o lug conductor section   min   mm²   1.5     max   mm²   35     Flexible c/w lug conductor section   min   mm²   1.5     max   mm²   35     Power terminal protection according to IEC/EN 60529   IP20 front	Conductor section	·			
max   2		AWG/Kcmil			
Flexible w/o lug conductor section  min mm² 1.5 max mm² 35  Flexible c/w lug conductor section  min mm² 1.5 max mm² 35  Flexible c/w lug conductor section  min mm² 1.5 max mm² 35  Power terminal protection according to IEC/EN 60529  IP20 front			max		2
min mm² 1.5   max mm² 35		Flexible w/o lug conductor section	·		
max   mm²   35		3	min	mm²	1.5
Flexible c/w lug conductor section  min mm² 1.5  max mm² 35  Power terminal protection according to IEC/EN 60529  IP20 front					
min mm² 1.5 max mm² 35  Power terminal protection according to IEC/EN 60529  IP20 front		Flexible c/w lug conductor section			
max mm² 35 Power terminal protection according to IEC/EN 60529  IP20 front			min	mm²	1.5
Power terminal protection according to IEC/EN 60529 IP20 front					
<u> </u>	Power terminal prote	ction according to IEC/EN 60529			
Mechanical realures	Mechanical features	5.15.1. 355513111g to 125/211 00020			20

Operating position



	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	12476
Conductor section			
AWG/kcmil conductor section			
	max		2
Operations			4500000
Mechanical life		cycles	15000000
Safety related data			
Performance level B10d according to EN/ISO 13489-1	mechanical load	cycles	15000000
EMC compatibility			yes
AC coil operating			
Rated AC voltage at 50/60Hz		V	230
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
pick-up			
	min	%Us	80
	max	%Us	110
drop-out	!	0/11-	00
	min	%Us %Us	20 55
of 50/60Hz coil powered at 60Hz	max	7005	55
pick-up			
ріск-ир	min	%Us	85
	max	%Us	110
drop-out		,,,,,	
1 1	min	%Us	20
	max	%Us	55
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz			
	in-rush	VA	210
	holding	VA	15
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	195
(65)	holding	VA	13
of 60Hz coil powered at 60Hz		1.74	040
	in-rush	VA	210
Dissipation at holding ≤20°C 50Hz	holding	VA W	15 5
Max cycles frequency		VV	5
Mechanical operation		cycles/h	3600
Operating times		Cyclc3/11	3000
Average time for Us control			
in AC			
Closing NO			
	min	ms	12
	max	ms	28
Opening NO			
· -	min	ms	8
	max	ms	22
in DC			

115

3

AC current



Closing No	Э
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	min	ms	40
	max	ms	85
Opening NO			
	min	ms	20
	max	ms	55

# UL technical data

General USE

Contactor
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4 poles in series DC1			
	600V	Α	100

### Ambient conditions

Temperature

Operating temperature

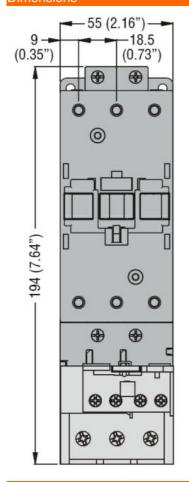
	min	°C	-50	
	max	°C	70	
Storage temperature				
	min	°C	-60	
	max	°C	80	
		m	3000	

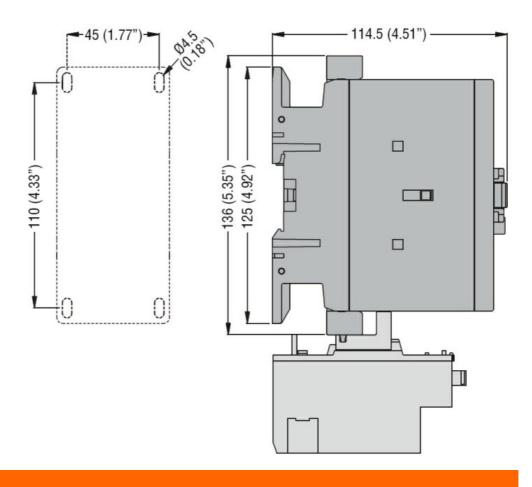
# Resistance & Protection

Pollution degree

Dimensions

Max altitude

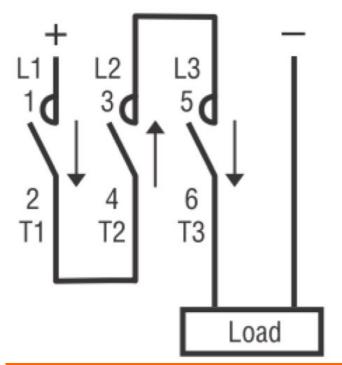


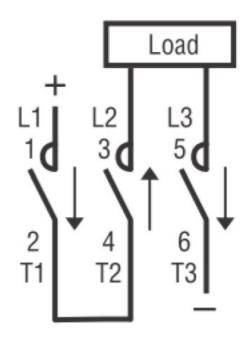


### Wiring diagrams



**ENERGY AND AUTOMATION** 





# 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

### ETIM classification

ETIM 8.0

BFD6500A230

EC002552 -Power contactor, DC switching