



Product designation				Power contactor
Product type designation				11BF50
<b>Contact characteristics</b>				
Number of poles	Nr.			3
Rated insulation voltage U <sub>i</sub> IEC/EN	V			1000
Rated impulse withstand voltage U <sub>imp</sub>	kV			8
Operational frequency	min	Hz		25
	max	Hz		400
IEC Conventional free air thermal current I <sub>th</sub>	A			90
Operational current I <sub>e</sub>	AC-1 (≤40°C)	A		90
	AC-3 (≤440V ≤55°C)	A		50
	AC-4 (400V)	A		28
Rated operational power AC-1 (T≤40°C)	230V	kW		34
	400V	kW		59
	500V	kW		74
	690V	kW		98
Short-time allowable current for 10s (IEC/EN60947-1)	A			390
Protection fuse	gG (IEC)	A		100
	aM (IEC)	A		50
Making capacity (RMS value)	A			800
Breaking capacity at voltage	440V	A		800
	500V	A		660
	690V	A		500
Resistance per pole (average value)	mΩ			0.8
Power dissipation per pole (average value)	I <sub>th</sub>	W		6.5
	AC3	W		2
Tightening torque for terminals	min	Nm		4
	max	Nm		5
	min	I <sub>bin</sub>		2.95
	max	I <sub>bin</sub>		3.7
Tightening torque for coil terminal	min	Nm		0.8
	max	Nm		1
	min	I <sub>bft</sub>		0.8
	max	I <sub>bft</sub>		0.74
Max number of wires simultaneously connectable	Nr.			1
Conductor section	Flexible w/o lug conductor section			

	min	mm <sup>2</sup>	6
	max	mm <sup>2</sup>	50
Flexible c/w lug conductor section			
	min	mm <sup>2</sup>	6
	max	mm <sup>2</sup>	50
Power terminal protection according to IEC/EN 60529			IP20 front
<b>Mechanical features</b>			
Operating position			
	normal allowable		Vertical plan ±30°
Fixing			Screw / DIN rail 35mm
Weight		g	1360
<b>Operations</b>			
Mechanical life		cycles	15000000
Electrical life		cycles	1500000
<b>Safety related data</b>			
Performance level B10d according to EN/ISO 13489-1			
	rated load	cycles	1500000
	mechanical load	cycles	15000000
Mirror contacts according to IEC/EN 60947-4-1			Yes
EMC compatibility			Yes
<b>AC coil operating</b>			
Rated AC voltage at 50/60Hz		V	230
AC operating voltage			
of 50/60Hz coil powered at 50Hz			
	pick-up		
	min	%Us	80
	max	%Us	110
	drop-out		
	min	%Us	20
	max	%Us	55
of 50/60Hz coil powered at 60Hz			
	pick-up		
	min	%Us	80
	max	%Us	110
	drop-out		
	min	%Us	40
	max	%Us	55
AC average coil consumption at 20°C			
of 50/60Hz coil powered at 50Hz			
	in-rush	VA	200
	holding	VA	18
of 50/60Hz coil powered at 60Hz			
	in-rush	VA	200
	holding	VA	15
of 60Hz coil powered at 60Hz			
	in-rush	VA	220
	holding	VA	18
Dissipation at holding ≤20°C 50Hz			W 6
<b>DC coil operating</b>			
Average coil consumption ≤20°C			
	in-rush	W	45
	holding	W	75

**Max cycles frequency**

Mechanical operation cycles/h 3600

**Operating times**

Average time for Us control

in AC

Closing NO

min	ms	13
max	ms	28

Opening NO

min	ms	6
max	ms	19

in DC

Closing NO

min	ms	40
max	ms	85

Opening NO

min	ms	20
max	ms	55

**UL technical data**

Full-load current (FLA) for three-phase AC motor

at 480V	A	40
at 600V	A	41

Yielded mechanical performance

for single-phase AC motor

110/120V	HP	5
230V	HP	10

for three-phase AC motor

200/208V	HP	10
220/230V	HP	15
460/480V	HP	30
575/600V	HP	40

General USE

Contactor

AC current	A	90
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**Ambient conditions**

Temperature

Operating temperature

min	°C	-50
max	°C	70

Storage temperature

min	°C	-60
max	°C	80

Max altitude

m	3000
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**Resistance & Protection**

Pollution degree

3

**Certifications and compliance**

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN 60947-1

IEC/EN 60947-4-1

UL 60947-1

UL 60947-4-1

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Certificates

CCC

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CSA

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cULus

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EAC