

Product designation				Power contactor
Product type designation				BFD80
Contact characteristics				
Number of poles	Nr.	4		
Rated insulation voltage U_i IEC/EN	V	1000		
Rated impulse withstand voltage U_{imp}	kV	8		
Operational frequency	min	Hz	25	
	max	Hz	400	
IEC Conventional free air thermal current I_{th}	A	115		
Operational current I_e	AC-1 ($\leq 55^\circ\text{C}$)		A	0
	IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series			
	400V	A	115	
	600V	A	100	
	800V	A	90	
	1000V	A	80	
Short-time allowable current for 10s (IEC/EN60947-1)			A	640
Protection fuse	gG (IEC)		A	125
	aM (IEC)		A	80
Resistance per pole (average value)			m Ω	0.6
Power dissipation per pole (average value)			I_{th}	W
				7.9
Tightening torque for terminals	min	Nm	4	
	max	Nm	5	
	min	I_{bin}	2.95	
	max	I_{bin}	3.69	
Tightening torque for coil terminal	min	Nm	0.8	
	max	Nm	1	
	min	I_{bin}	Prodotti finiti	
	max	I_{bin}	Prodotti finiti	
Max number of wires simultaneously connectable			Nr.	2
Conductor section	Flexible w/o lug conductor section			
	min	mm ²	1.5	
	max	mm ²	35	
	Flexible c/w lug conductor section			
	min	mm ²	1.5	
	max	mm ²	35	
Power terminal protection according to IEC/EN 60529				IP20 front
Mechanical features				
Operating position	normal allowable		Vertical plan $\pm 30^\circ$	
			Screw / DIN rail 35mm	
Fixing				
Weight			g	1240
Operations				
Mechanical life			cycles	15000000
Safety related data				

Performance level B10d according to EN/ISO 13489-1

	mechanical load	cycles	15000000
EMC compatibility			Yes
Rated AC voltage at 60Hz		V	230

AC coil operating

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 50/60Hz coil powered at 50Hz	in-rush	VA	210
	holding	VA	15
of 50/60Hz coil powered at 60Hz	in-rush	VA	195
	holding	VA	13
of 60Hz coil powered at 60Hz	in-rush	VA	210
	holding	VA	15

Dissipation at holding ≤20°C 50Hz

	W	5
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Max cycles frequency

Mechanical operation	cycles/h	3600
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Operating times

Average time for Us control			
in AC			
Closing NO	min	ms	12
	max	ms	28
Opening NO	min	ms	8
	max	ms	22
in DC			
Closing NO	min	ms	40
	max	ms	85
Opening NO	min	ms	20
	max	ms	55

UL technical data

General USE

Contactor	AC current	A	115
4 poles in series DC1	600V	A	100

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			
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 60947-4-1		
Certificates	cULus		
ETIM classification			
ETIM 8.0	EC002552 - Power contactor, DC switching		