



Product designation

Power contactor

Product type designation

B500

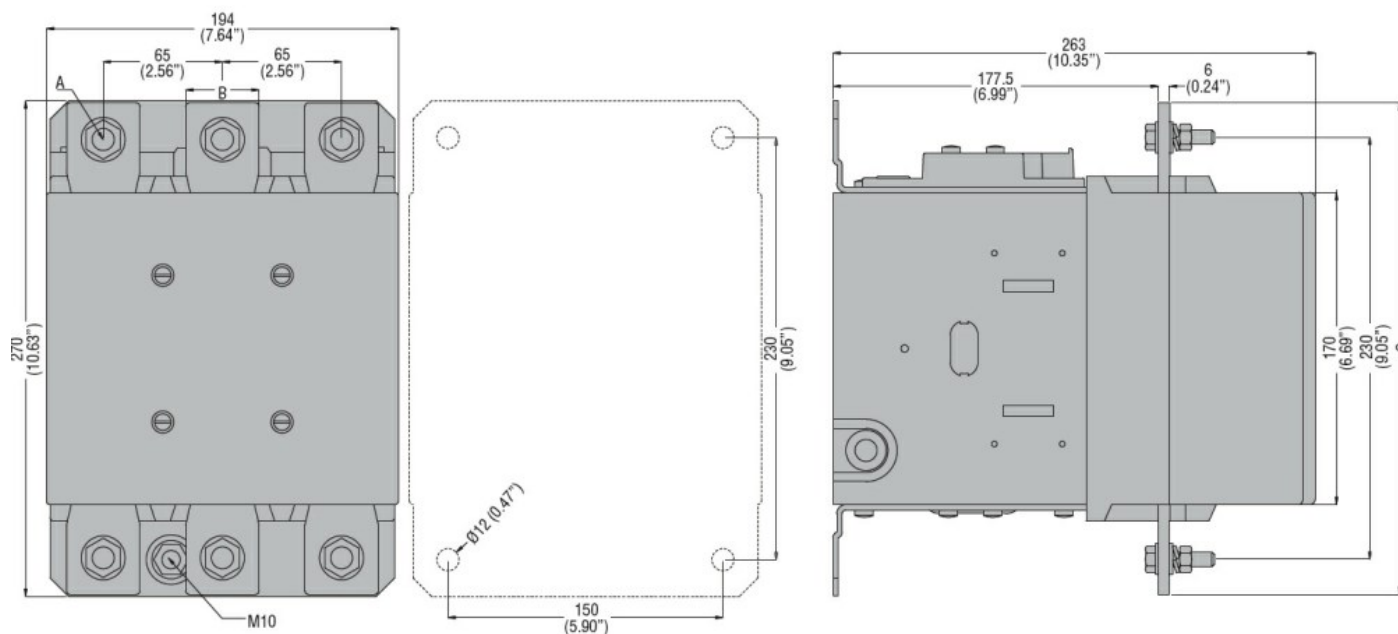
Contact characteristics

Number of poles	Nr.	3
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	700
Operational current I_e	AC-1 ($\leq 40^\circ\text{C}$)	A 700
	AC-1 ($\leq 55^\circ\text{C}$)	A 550
	AC-1 ($\leq 70^\circ\text{C}$)	A 500
	AC-3 ($\leq 440\text{V } \leq 55^\circ\text{C}$)	A 520
	AC-4 (400V)	A 240
Rated operational power AC-3 ($T \leq 55^\circ\text{C}$)	400V	kW 290
Rated operational power AC-1 ($T \leq 40^\circ\text{C}$)	230V	kW 252
	400V	kW 438
	500V	kW 575
	690V	kW 755
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 1 poles in series	75V	A 650
	110V	A 320
	220V	A --
	330V	A --
	460V	A --
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 2 poles in series	75V	A 650
	110V	A 550
	220V	A 450
	330V	A --
	460V	A --
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 3 poles in series	75V	A 650
	110V	A 600
	220V	A 600
	330V	A 450
	460V	A --
IEC max current I_e in DC1 with $L/R \leq 1\text{ms}$ with 4 poles in series	75V	A 650
	110V	A 600
	220V	A 600

	330V	A	600
	460V	A	450
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	A	550
	110V	A	320
	220V	A	--
	330V	A	--
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	A	550
	110V	A	550
	220V	A	450
	330V	A	--
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
	460V	A	--
IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series			
	75V	A	550
	110V	A	550
	220V	A	550
	330V	A	450
	460V	A	450
Short-time allowable current for 10s (IEC/EN60947-1)		A	4050
Protection fuse			
	gG (IEC)	A	800
	aM (IEC)	A	500
Making capacity (RMS value)		A	5000
Breaking capacity at voltage			
	440V	A	5000
	500V	A	4500
	690V	A	4000
Resistance per pole (average value)		mΩ	0.14
Power dissipation per pole (average value)			
	Ith	W	68.6
	AC-3	W	35
Tightening torque for terminals			
	min	Nm	35
	max	Nm	35
	min	Ibin	25.8
	max	Ibin	25.8
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1
	min	Ibin	0.74
	max	Ibin	0.74
Max number of wires simultaneously connectable		Nr.	2
Conductor section			
	AWG/Kcmil		
	max		2x 500 kcmil

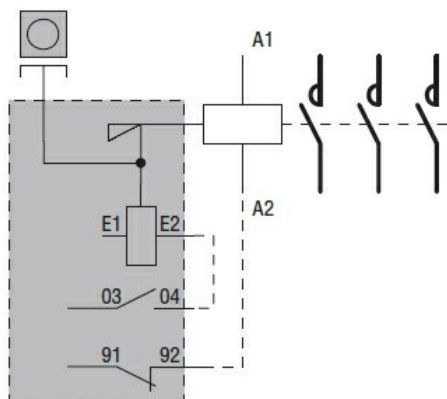
Power terminal protection according to IEC/EN 60529			IP00	
Mechanical features				
Operating position		normal allowable	Vertical plan ±30°	
Fixing		Screw		
Weight		g	1880	
Operations				
Mechanical life		cycles	5000000	
Electrical life		cycles	700000	
Safety related data				
Performance level B10d according to EN/ISO 13489-1		rated load mechanical load	cycles	700000
			cycles	5000000
Mirror contats according to IEC/EN 609474-4-1		Yes		
EMC compatibility		yes		
AC coil operating				
Rated AC voltage at 50/60Hz, 60Hz		min	V	380
		max	V	415
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	60
of 50/60Hz coil powered at 60Hz pick-up		min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	60
of 60Hz coil powered at 60Hz pick-up		min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	60
AC average coil consumption at 20°C				
of 50/60Hz coil powered at 50Hz		in-rush	VA	400
		holding	VA	18
of 50/60Hz coil powered at 60Hz		in-rush	VA	400
		holding	VA	18
Dissipation at holding ≤20°C 50Hz		W	18	
DC coil operating				
DC rated control voltage		min	V	380

		max	V	415
DC operating voltage				
pick-up		min	%Us	80
		max	%Us	110
drop-out		min	%Us	20
		max	%Us	60
Average coil consumption ≤20°C				
		in-rush	W	400
		holding	W	18
Max cycles frequency				
Mechanical operation			cycles/h	1200
Operating times				
Average time for Us control				
in AC	Closing NO	min	ms	110
		max	ms	180
	Opening NO	min	ms	60
		max	ms	100
in DC		min	ms	110
	Closing NO	max	ms	180
		min	ms	60
	Opening NO	max	ms	100
UL technical data				
Rated operational voltage AC (UL)			V	600
General USE				
Contactor		AC current	A	700
Short-circuit protection fuse, 600V				
Standard fault		Short circuit current	kA	18
		Fuse rating	A	1200
		Fuse class		L
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				



CONTACTOR TYPE	A	B	C
B500	M10	35 (1.38")	265 (10.43")
B630	M12	40 (1.57")	270 (10.63")

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 60947-1

UL 60947-4-1

Certificates

cULus

ETIM classification

ETIM 8.0

EC000066 -
Power contactor,
AC switching