**ENERGY AND AUTOMATION** 

## FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 700A, AC/DC COIL, 110... 125VAC/DC



Number of poles       nr.       4         Rated insulation voltage Ui       V       1000         Rated impulse withstand voltage Uimp       kV       8         Operating frequency       Operational frequency min Operational frequency min Operational frequency max       Hz       25         Conventional free air thermal current Ith       A       700         Operational current AC1 (≤40°C)       A       700         Operational current AC3 (≤440V ≤55°C)       A       520         Operational current AC4 (400V)       A       175         Rated operational power AC1 (T≤40°C)       230V kW 252       400V kW 438         500V kW 575       500V kW 575       690V kW 755	Product designation Product type designation			Power contactor B500
Rated insulation voltage Ui         V         1000           Rated impulse withstand voltage Uimp         kV         8           Operating frequency         Operational frequency min	Contact characteristics			
Rated impulse withstand voltage Ulimp	Number of poles		nr.	4
Operating frequency         Operational frequency min Operational frequency min Operational frequency max         Hz by 400         255           Conventional free air thermal current lth         A 700         A 700           Operating current         Operational current AC1 (≤40°C) A 520         A 520           Operational current AC3 (≤440V ≤55°C) A 520         Operational current AC4 (400V) A 175           Rated operational power AC1 (T≤40°C)         230V kW 252         400V kW 438           400V kW 438         500V kW 575         575           690V kW 755         690V kW 755         575           Rated operational power AC3 (T≤55°C)         230V kW 290         415V kW 306           440V kW 290         415V kW 306         367           440V kW 328         500V kW 416         100V kW 312           Short-time allowable current for 10s (IEC/EN60947-1)         A 4050         A 4050           Protection fuse         gG (IEC) A 800         800           Making capacity (RMS value)         B Feaking capacity 440V A 500         A 500           Breaking capacity 500V A 5600         B Feaking capacity 500V A 5600         A 500           Breaking capacity 500V A 5600         B 5000         A 6300           Breaking capacity 500V A 5600         A 5000           Breaking capacity 500V A 5600	Rated insulation voltage Ui		V	1000
Operational frequency min   Hz   25   Operational frequency max   Hz   400   Operating current   AC   (≤40°C)   A   700   Operating current   Operational current AC   (≤40°C)   A   700   Operational current AC   (≤40°C)   A   520   Operational current AC   (≤40°C)   A   175   Operational current AC   (400°C)   A   175   Operational	Rated impulse withstand voltage Uimp		kV	8
Operational frequency max   Hz   400	Operating frequency			
Conventional free air thermal current lth         A         700           Operating current         Operational current AC1 (≤40°C)         A         700           Operational current AC3 (≤440V ≤55°C)         A         520           Operational current AC4 (400V)         A         175           Rated operational power AC1 (T≤40°C)         230V         kW         252           400V         kW         438         500V         kW         575           690V         kW         575         690V         kW         755           Rated operational power AC3 (T≤55°C)         230V         kW         290           440V         kW         290         415V         kW         306           440V         kW         328         500V         kW         367         690V         kW         312           Short-time allowable current for 10s (IEC/EN60947-1)         A         4050 <td></td> <td>Operational frequency min</td> <td>Hz</td> <td>25</td>		Operational frequency min	Hz	25
Operating current         Operating current AC1 (≤40°C)         A         700           Operational current AC3 (≤440∨ ≤55°C)         A         520           Operational current AC4 (400∨)         A         175           Rated operational power AC1 (T≤40°C)           230V         kW         438           500V         kW         575           690V         kW         755           Rated operational power AC3 (T≤55°C)           230V         kW         156           400V         kW         290           415V         kW         306           440V         kW         328           500V         kW         367           690V         kW         416           400V         kW         312           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)         Breaking capacity 440V         A         6300           Breaking capacity (800V         A         5600		Operational frequency max	Hz	400
Operational current AC1 (≤40°C)	Conventional free air thermal current Ith		Α	700
Operational current AC3 (≤440V ≤55°C) A 520   Operational current AC4 (400V) A 175	Operating current			
Operational current AC4 (400V)		Operational current AC1 (≤40°C)	Α	700
Rated operational power AC1 (T≤40°C)  230V kW 252 400V kW 438 500V kW 575 690V kW 755  Rated operational power AC3 (T≤55°C)  Rated operational power AC3 (T≤55°C)  230V kW 156 400V kW 290 415V kW 306 440V kW 328 500V kW 367 690V kW 416 1000V kW 312  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)  Breaking capacity 440V A 500 Breaking capacity 440V A 500 Breaking capacity 500V A 5000 Breaking capacity 500V A 5000 Breaking capacity 690V A 5000		Operational current AC3 (≤440V ≤55°C)	Α	520
230V kW 252     400V kW 438     500V kW 575     690V kW 755     Rated operational power AC3 (T≤55°C)     230V kW 156     440V kW 290     415V kW 306     4440V kW 328     500V kW 367     690V kW 312     500V kW 367     690V kW 416     690V kW 416     600V kW 367     690V kW 367		Operational current AC4 (400V)	Α	175
A00V   kW   438   500V   kW   575   690V   kW   755	Rated operational power AC1 (T≤40°C)			
S00V kW 755     Rated operational power AC3 (T≤55°C)			kW	
Rated operational power AC3 (T≤55°C)         Rated operational power AC3 (T≤55°C)       230V kW 156         400V kW 290       415V kW 306         415V kW 367       4690V kW 328         500V kW 367       690V kW 416         1000V kW 312         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 6300         Breaking capacity 440V A 6300         Breaking capacity 500V A 5000         Breaking capacity 690V A 5000         Resistance per pole (average value)       mΩ 0.14         Power dissipation per pole (average value)       mΩ 0.14         Power dissipation pole (average value) Ith AC3 W 35         Tightening torque for terminals         min Nm 35 max Nm 35 min Ibft 25.8			kW	438
Rated operational power AC3 (T≤55°C)  230V kW 156 400V kW 290 415V kW 306 446V kW 328 500V kW 367 690V kW 416 1000V kW 312  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 6300  Breaking capacity at voltage  Breaking capacity 440V A 6300  Breaking capacity 500V A 5600 Breaking capacity 500V A 5000  Resistance per pole (average value) mΩ 0.14  Power dissipation pole (average value) Ith W 68.6 AC3 W 35  Tightening torque for terminals  min Nm 35 max Nm 35 max Nm 35 min lbft 25.8		500V	kW	575
230V kW   156   400V kW   290   415V kW   306   4440V kW   328   500V kW   367   690V kW   416   1000V kW   312   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   6300   Breaking capacity at voltage   Breaking capacity 440V   A   6300   Breaking capacity 500V   A   5600   Breaking capacity 690V   A   5000   Resistance per pole (average value)   Power dissipation pole (average value)   Ith   W   68.6   AC3   W   35   Tightening torque for terminals   min   Nm   35   max   Nm   35   min   Ibft   25.8   Experimental   Experimenta		690V	kW	755
400V kW 290	Rated operational power AC3 (T≤55°C)			
415V		230V	kW	156
440V		400V	kW	290
Soov   kW   367   690V   kW   416   1000V   kW   312				
690V kW 416   1000V kW 312			kW	
1000V kW 312				
Short-time allowable current for 10s (IEC/EN60947-1)				
Protection fuse    gG (IEC)				
G (IEC)	,	0947-1)	Α	4050
Making capacity (RMS value)	Protection fuse			
Making capacity (RMS value)  Breaking capacity at voltage  Breaking capacity 440V A 6300  Breaking capacity 500V A 5600  Breaking capacity 690V A 5000  Resistance per pole (average value)  Power dissipation per pole (average value)  Power dissipation pole (average value) Ith W 68.6  AC3 W 35  Tightening torque for terminals  min Nm 35  max Nm 35  min Ibft 25.8		_ · · · · ·	Α	
Breaking capacity at voltage  Breaking capacity 440V A 6300 Breaking capacity 500V A 5600 Breaking capacity 690V A 5000  Resistance per pole (average value)  Power dissipation per pole (average value)  Power dissipation pole (average value) Ith W 68.6 AC3 W 35  Tightening torque for terminals  min Nm 35 max Nm 35 min Ibft 25.8		aM (IEC)		
Breaking capacity 440V A 5600 Breaking capacity 500V A 5600 Breaking capacity 690V A 5000  Resistance per pole (average value)  Power dissipation per pole (average value)  Power dissipation pole (average value) Ith W 68.6 AC3 W 35  Tightening torque for terminals  min Nm 35 max Nm 35 min Ibft 25.8			A	6300
Breaking capacity 500V A 5600 Breaking capacity 690V A 5000  Resistance per pole (average value)  Power dissipation per pole (average value)  Power dissipation pole (average value) Ith W 68.6 AC3 W 35  Tightening torque for terminals  min Nm 35 max Nm 35 min Ibft 25.8	Breaking capacity at voltage			
Breaking capacity 690V A 5000 Resistance per pole (average value)  Power dissipation per pole (average value)  Power dissipation pole (average value) Ith W 68.6 AC3 W 35  Tightening torque for terminals  min Nm 35 max Nm 35 min Ibft 25.8				
Resistance per pole (average value)  Power dissipation per pole (average value)  Power dissipation pole (average value) Ith W 68.6 AC3 W 35  Tightening torque for terminals  min Nm 35 max Nm 35 min Ibft 25.8		- · · · · · · · · · · · · · · · · · · ·		
Power dissipation per pole (average value)  Power dissipation pole (average value) Ith W 68.6 AC3 W 35  Tightening torque for terminals  min Nm 35 max Nm 35 min Ibft 25.8		Breaking capacity 690V		
Power dissipation pole (average value) Ith W 68.6 AC3 W 35  Tightening torque for terminals  min Nm 35 max Nm 35 min Ibft 25.8			mΩ	0.14
AC3 W 35  Tightening torque for terminals  min Nm 35  max Nm 35  min lbft 25.8	Power dissipation per pole (average value)			
Tightening torque for terminals  min Nm 35  max Nm 35  min lbft 25.8		, , , , , , , , , , , , , , , , , , , ,		
min Nm 35 max Nm 35 min Ibft 25.8		AC3	W	35
max Nm 35 min lbft 25.8	Tightening torque for terminals			
min lbft 25.8				
max lbft 25.8				
		max	Ibft	25.8

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### FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 700A, AC/DC COIL, 110... 125VAC/DC

max number of wires s	imultaneously connectable		nr.	2
Conductor section	indicateously connectable		111.	
Conductor Section	AWG			
	AWG	max		2x 500 kcmil
Power terminal protect	tion according to IEC/EN 60529	max		IP00
Auxiliary contact chara	-			11 00
Operational current AC			Α	700
Operating current DC1				
3		110V	Α	Screw
Ambient conditions				
Temperature				
•	Operating temperature			
		min	°C	-50
		max	°C	70
	Storage temperature			
	•	min	°C	-60
		max	°C	80
Max altitude			m	3000
Operating position				
		normal		Vertical plan
		allowable		±30°
Mounting				Screw
Weight			g	20.91
Operations				
Mechanical life			Cycles	5000000
Electrical life			Cycles	700000
Safety related data				
Performance level B10	od according to EN/ISO 13489-1		<b>.</b>	
		rated load	Cicli	700000
NA' ( )		mechanical load	Cicli	5000000
	ng to IEC/EN 609474-4-1			yes
EMC compatibility				yes
AC coil operating				
AC operating voltage	of FO/COLLE and required at FOLLE			
	of 50/60Hz coil powered at 50Hz			
	pick-up	min	%Us	0.8
		max	%Us %Us	1.1
	drop-out	IIIdA	/003	1.1
	diop-out	min	%Us	0.2
		max	%Us	0.6
	of 50/60Hz coil powered at 60Hz	max		3-5
	pick-up			
	, <del></del>	min	%Us	0.8
		max	%Us	1.1
	drop-out			
	•	min	%Us	0.2
		max	%Us	0.6
		παλ	, , , ,	
AC operating voltage		max	,,,,,	
AC operating voltage	of 50/60Hz coil powered at 50Hz	тисх		
AC operating voltage	of 50/60Hz coil powered at 50Hz	in-rush	VA	400
AC operating voltage	of 50/60Hz coil powered at 50Hz			400 18

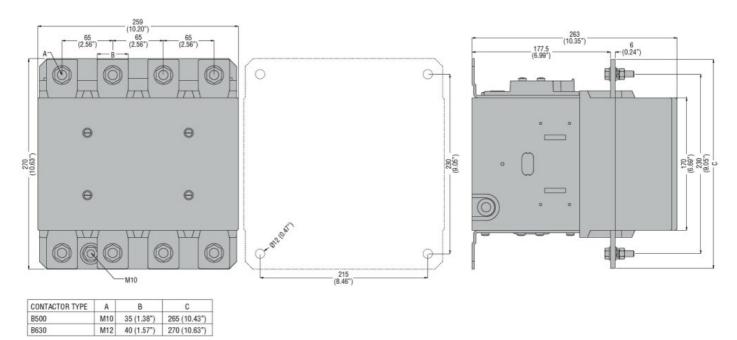
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# electric FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 700A, AC/DC COIL, 110... 125VAC/DC

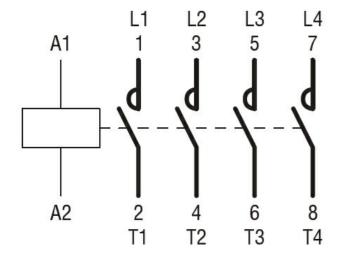
			in-rush	VA	400
			holding	VA	18
Dissipation at holding	≤20°C 50Hz			W	18
DC coil operating					
DC rated control voltage	je				
			min	V	24
DC operating voltage					
	pick-up				
			min	%Us	0.8
			max	%Us	1.10
	drop-out				
			min	%Us	0.2
			max	%Us	0.60
Average coil consuption	on ≤20°C				
			in-rush	W	400
			holding	W	18
Max cycles frequency					
Mechanical operations				Cycles/h	1200
Operating times					
Average time for Us co					
	in AC				
		Closing NO			
			min	ms	110
		0 ' 110	max	ms	180
		Opening NO			0.0
			min	ms	60
	DO		max	ms	100
	in DC	Closing NO			
		Closing NO	min	me	110
				ms ms	180
		Opening NO	max	ms	100
		Opening NO	min	ms	60
					100
UL technical data			max	ms	100
General USE					
CONOTAL COL	Contactor				
	Contactor		AC current	Α	700
Other features			710 00110111	,,	. 55
Pollution degree					3
Dimensions					

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 700A, AC/DC COIL, 110... 125VAC/DC





#### Wiring diagrams



### Certifications and compliance

Certifications

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

Compliance

CCC

cULus

EAC

#### ETIM 6 classification

EC000066 - Power contactor, AC switching