





Number of poles	Product designation Product type designation			Power contactor B145
Number of poles Nr. 4 Rated insulation voltage Ui IEC/EN V 1000 Rated insulation voltage Uimp kV 8 Operational frequency min Hz 25 max Hz 400 4 IEC Conventional free air thermal current lth A 250 4 Operational current le AC-1 (\$40°C) A 250 AC-1 (\$55°C) A 235 AC-1 (\$56°C) A 190 AC-3 (\$4400 \$5°C) A 190 AC-3 (\$4400 \$5°C) A 190 AC-4 (4000) A 57 A 150 AC-4 (4000) A 57 Rated operational power AC-1 (T≤40°C) 230V kW 91 400V kW 150 Book vive 100 500V kW 196 690V kW 270 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V A 220 110V A 150 150 150 150 150 150 150				20
Rated insulation voltage Ui IEC/EN V 1000 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 imax Hz 400 400 IEC Conventional free air thermal current Ith A 250 Operational current Ie AC-1 (≤40°C) A 250 AC-1 (555°C) A 230 AC-1 (570°C) A 190 AC-3 (5400½55°C) A 190 AC-3 (5400½55°C) A 190 AC-4 (4000) A 57 A 190 AC-4 (4000) A 57 Rated operational power AC-1 (T≤40°C) 230V kW 91 400V kW 91 400V kW 150 500V kW 91 400V kW 91 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V A 220 110V A 150 220V A - 460V A - 16C A 220 150			Nr.	4
Rated impulse withstand voltage Ulimp				
Operational frequency min max Hz max Hz max				
Min Hz 25 Max Hz 400 EC Conventional free air thermal current lth A 250 Operational current le AC-1 (≤40°C) A 250 AC-1 (≤55°C) A 235 AC-1 (≤70°C) A 190 AC-3 (≤440V ≤55°C) A 150 AC-3 (≤440V ≤55°C) A 150 AC-4 (400V) A 57 Rated operational power AC-1 (T≤40°C) 230V kW 91 400V kW 150 500V kW 196 690V kW 270 EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series T5V A 220 110V A 110 220V A - 330V A - 460V A - 460V A 50 EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series T5V A 220 110V A 150 220V A - 330V A - 460V A - 460V A - 460V A 50 A				
EC Conventional free air thermal current Ith		min	Hz	25
EC Conventional free air thermal current lth				
Operational current le AC-1 (≤40°C) A 250 AC-1 (≤55°C) A 235 AC-1 (≤70°C) A 190 AC-3 (≤440V ≤55°C) A 150 AC-4 (400V) A 57 Rated operational power AC-1 (T≤40°C) 230V kW 91 400V kW 150 500V kW 150 500V kW 270 196 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V A 220 110V A 150 110V A 150 220V A 130 330V A - 460V IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 330V A 150 330V A 150 330V A 150 75V A 220 110V A 150 220V A 150 330V A 150	IEC Conventional free air thermal current Ith			
AC-1 (≤40°C)				
AC-1 (≤55°C) A 235 AC-1 (≤70°C) A 190 AC-3 (≤440V ≤55°C) A 150 AC-4 (400V) A 57 Rated operational power AC-1 (T≤40°C) 230V kW 91 400V kW 150 500V kW 196 690V kW 270 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V A 220 110V A 110 220V A - 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 75V A 220 110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 150 330V A - IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series		AC-1 (≤40°C)	Α	250
AC-1 (≤70°C)		,		
AC-3 (≤440V ≤55°C) A 150 AC-4 (400V) A 57 Rated operational power AC-1 (T≤40°C) 230V kW 91 400V kW 150 500V kW 196 690V kW 270 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V A 220 1110V A 110 220V A - 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 75V A 220 1110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 150 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series 75V A 220 110V A 150 220V A 150 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series				
AC-4 (400V) A 57 Rated operational power AC-1 (T≤40°C) 230V kW 91 400V kW 150 500V kW 196 690V kW 270 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V A 220 110V A 150 220V A 220V 110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 150 330V A 150 220V A 150 330V A 20V 1EC max current le in DC1 with L/R ≤ 1ms with 4 poles in series 75V A 220 110V A 150 220V A 150 330V A 150 220V A 150 110V A 150 220V A 150 330V A 150		` ,		
Rated operational power AC-1 (T≤40°C) 230V kW 91 400V kW 150 500V kW 196 690V kW 270 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V A 220 110V A 110 220V A - 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 75V A 220 110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 130 330V A - 460V A - IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 150 330V A 150 330V A 150 330V A 150 330V A 150 220V A 150 330V A 150 330V A 150 220V A 150 330V A 150 330V A 150 220V A 150 330V A 150 330V A 150 330V A 150		•		
230V kW 91	Rated operational power AC-1 (T<40°C)	710 1 (1001)	- , ,	
A00V kW 150 500V kW 196 690V kW 270	rated operational power 7.6 1 (1=40 0)	230\/	k\/\/	91
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V				
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 75V				
T5V				
75V	IFC may current le in DC1 with L/R < 1ms with 1 notes in series	030 V	KVV	210
	120 max current le in 201 with 2/1 = mis with 1 poles in series	75\/	Δ	220
				_
BEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 75V				_
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series				
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IFC may current le in DC1 with L/R < 1ms with 2 notes in series	400 V		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	TEO max current le in BOT with E/N = mis with 2 poles in series	75\/	Δ	220
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				
EC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 75V A 220 110V A 150 220V A 150 330V A 130 460V A −				
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series				_
	IEC may current le in DC1 with L/R < 1ms with 3 notes in series	400 V		
	ILC max current le in DCT with L/N 3 mis with 3 poles in series	75\/	۸	220
A60V A -				
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series 75V A 220 110V A 150 220V A 150 330V A 150				
75V A 220 110V A 150 220V A 150 330V A 150	IFC may current le in DC1 with L/R < 1ms with 4 notes in series	4001		
110V A 150 220V A 150 330V A 150	TEO THAN CUITCH TO IT DO I WITH LIN > THIS WITH 4 POICS IT SELICS	75\/	٨	220
220V A 150 330V A 150				
330V A 150				
400V A 130				
		4007	А	130





IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	Α	160
	110V	Α	80
	220V	Α	_
	330V	Α	_
	460V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
·	75V	Α	160
	110V	Α	120
	220V	Α	90
	330V	Α	_
	460V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
120 max carron to in 200 200 mai 2/11 Tomo mai o poloc in conce	75V	Α	160
	110V	A	140
	220V	A	120
	330V	A	90
	460V	A	
IEC may current to in DC2 DC5 with L/D < 15mg with 4 notes in series	4007	A	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	75\/	۸	400
	75V	A	160
	110V	Α	140
	220V	Α	140
	330V	Α	140
	460V	Α	90
Short-time allowable current for 10s (IEC/EN60947-1)		Α	1300
Protection fuse			
	gG (IEC)	Α	250
	aM (IEC)	Α	160
Making capacity (RMS value)		Α	1500
Breaking capacity at voltage			
	440V	Α	1500
	500V	Α	1400
	690V	Α	1200
Resistance per pole (average value)		mΩ	0.3
Power dissipation per pole (average value)			
, , ,	Ith	W	14.5
	AC-3	W	6.8
Tightening torque for terminals			
9 9 1	min	Nm	18
	(1111)		18
	min max	Nm	. •
	max	Nm Ibin	13.3
	max min	Ibin	13.3 13.3
Tightening torque for coil terminal	max		13.3 13.3
Tightening torque for coil terminal	max min max	lbin Ibin	13.3
Tightening torque for coil terminal	max min max min	Ibin Ibin Nm	13.3
Tightening torque for coil terminal	max min max min max	Ibin Ibin Nm Nm	13.3 1 1
Tightening torque for coil terminal	max min max min max min	Ibin Ibin Nm Nm Ibin	13.3 1 1 0.74
	max min max min max	Ibin Ibin Nm Nm Ibin Ibin	13.3 1 1 0.74 0.74
Max number of wires simultaneously connectable	max min max min max min	Ibin Ibin Nm Nm Ibin	13.3 1 1 0.74
Max number of wires simultaneously connectable Conductor section	max min max min max min	Ibin Ibin Nm Nm Ibin Ibin	13.3 1 1 0.74 0.74
Max number of wires simultaneously connectable	max min max min max min	Ibin Ibin Nm Nm Ibin Ibin	13.3 1 1 0.74 0.74 2
Tightening torque for coil terminal Max number of wires simultaneously connectable Conductor section AWG/Kcmil Power terminal protection according to IEC/EN 60529	max min max min max min	Ibin Ibin Nm Nm Ibin Ibin	13.3 1 1 0.74 0.74





Operating position

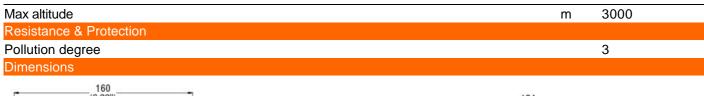
		normal allowable		Vertical plan ±30°
- ixing		allowable		Screw
Weight			g	9400
Conductor section			9	0.00
	NG/kcmil conductor section			
<i>,</i>	TO CONTROL OF THE CON	max		4/0
Operations				
Mechanical life			cycles	10000000
Electrical life			cycles	1100000
Safety related data				
-	ccording to EN/ISO 13489-1			
	3	rated load	cycles	1100000
		mechanical load	cycles	10000000
Mirror contats according to	DIEC/EN 609474-4-1		,	yes
EMC compatibility				yes
AC coil operating				,
Rated AC voltage at 50/60	Hz. 60Hz			
	·, · · -	min	V	220
		max	V	240
AC operating voltage		max	•	
	50/60Hz coil powered at 50Hz			
Oi	pick-up			
	piok up	min	%Us	80
		max	%Us	110
	drop-out	max	7000	110
	diop cut	min	%Us	20
		max	%Us	60
of.	50/60Hz coil powered at 60Hz	тах	7000	- 00
O1	pick-up			
	pion up	min	%Us	80
		max	%Us	110
	drop-out	max	7000	110
	diop out	min	%Us	20
		max	%Us	60
of	60Hz coil powered at 60Hz	max	,,,,,	
Oi	pick-up			
	bion ab	min	%Us	80
		max	%Us	110
	drop-out	max	,000	•
	3.5p 54t	min	%Us	20
		max	%Us	60
AC average coil consumpt	tion at 20°C	max	,,,,,	
•	50/60Hz coil powered at 50Hz			
Oi	55, 55. 12 55 porroi od di 501 12	in-rush	VA	300
		holding	VA	10
of	50/60Hz coil powered at 60Hz	noiding	٧/١	
OI.	35, 301 12 3011 poworou at 001 12	in-rush	VA	300
		holding	VA VA	10
Dissipation at holding ≤20°	°C 50Hz	Holding	W	10
JissiDatiOH at HUIUHIU ≥ZU	O JUI IZ		v v	10

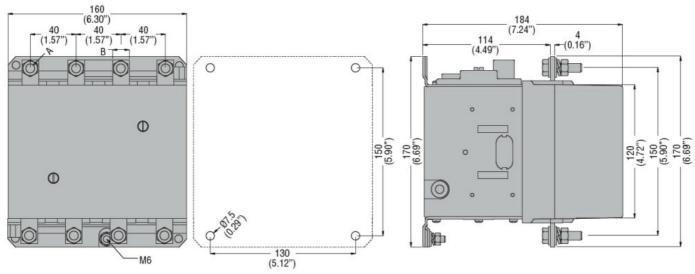




			min	V	220
DC on evotion weltone			max	V	240
DC operating voltage	pick-up				
	ρισκ-αρ		min	%Us	80
			max	%Us	110
	drop-out				
			min	%Us	20
Ā	·		max	%Us	60
Average coil consump	tion ≤20°C		in much	14/	200
			in-rush holding	W W	300 10
Max cycles frequency			Holding	VV	10
Mechanical operation				cycles/h	2400
Operating times				·	
Average time for Us co					
	in AC				
		Closing NO			60
			min	ms ms	60
		Opening NO	max	ms	100
		Opening 110	min	ms	25
			max	ms	60
	in DC				
		Closing NO			
			min	ms	60
		On an in a NO	max	ms	100
		Opening NO	min	ms	25
			max	ms	60
UL technical data					
Full-load current (FLA)	for three-phase AC mo	tor			
			at 480V	Α	124
			at 600V	Α	125
Yielded mechanical pe					
	for three-phase AC mo	υτοι	200/208V	HP	50
			200/200V 220/230V	пг HP	50
General USE			220/2001	* "	
· · · · · · · · · · · · · · · · · · ·	Contactor				
			AC current	Α	250
Short-circuit protection					
	Standard fault				_
			Short circuit current	kA ^	5
			Fuse rating Fuse class	Α	500 RK5
Ambient conditions			ruse ciass		IVIVO
Temperature					
•	Operating temperature)			
	· •		min	°C	-50
	-		max	°C	70
	Storage temperature			^ ^	
			min	°C	-60
			max	°C	80

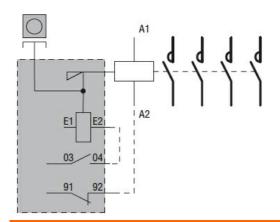






CONTACTOR TYPE	Α	В
B115	M6	15 (0.59")
B145	M8	20 (0.79")
B180	M8	20 (0.79")

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

CCC

cULus

EAC

ETIM classification



11B1454L0048C48

FOUR-POLE CONTACTOR, IEC OPERATING CURRENT ITH (AC1) = 250A, AC/DC COIL, ALREADY FITTED WITH MECHANICAL LATCH (G495), 48VAC/DC, MECHANICAL LATCH 48VDC

ETIM 8.0

EC000066 -Power contactor, AC switching