

Product designation Product type designation			Power contactor B180
Contact characteristics			БТОО
Number of poles		Nr.	3
Rated insulation voltage Ui IEC/EN		V	1000
Rated impulse withstand voltage Uimp		kV	8
Operational frequency		100	
oporational noquency	min	Hz	25
	max	Hz	400
IEC Conventional free air thermal current Ith		Α	275
Operational current le			
'	AC-1 (≤40°C)	Α	275
	AC-1 (≤55°C)	Α	250
	AC-1 (≤70°C)	Α	200
	AC-3 (≤440V ≤55°C)	Α	185
	AC-4 (400V)	Α	65
Rated operational power AC-3 (T≤55°C)			
	230V	kW	57
	400V	kW	100
	415V	kW	108
	440V	kW	115
	500V	kW	123
	690V	kW	144
	1000V	kW	103
Rated operational power AC-1 (T≤40°C)			
	230V	kW	95
	400V	kW	160
	500V	kW	213
150	690V	kW	298
IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series	75)/		000
	75V	A	260
	110V	A	120
	220V	A	_
	330V 460V	A A	_ _
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series	400 V		
TEO THAN OUT ON TOO I WILL ETT 2 THIS WILL 2 POICS IT SELICS	75V	Α	260
	110V	A	170
	220V	A	150
	330V	Α	_
	460V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
	75V	Α	260
	110V	Α	170
	220V	Α	170



	330V	Α	150
	460V	Α	_
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	75V	Α	260
	110V	A	170
	220V	Α	170
	330V	A	170
150 DOS DOS WILLIAM WILLIAM IN A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	460V	Α	150
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	75V	Α	180
	110V	Α	90
	220V	Α	_
	330V	Α	_
	460V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	75V	Α	180
	110V	A	140
	220V	A	100
	330V	A	_
	460V	Α	
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series			
	75V	Α	180
	110V	Α	160
	220V	Α	140
	330V	Α	100
	460V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	100 V	- / \	
120 max current le in 200-200 with 2/13 13ms with 4 poles in series	75V	۸	180
		A	
	110V	A	160
	220V	Α	160
	330V	Α	160
	460V	Α	100
Short-time allowable current for 10s (IEC/EN60947-1)		Α	1500
Protection fuse			
	gG (IEC)	Α	315
	aM (IEC)	Α	200
Making capacity (RMS value)	(-)	Α	1850
Breaking capacity at voltage		- , ,	1000
Distancy supports at voltage	440V	٨	1850
		A	
	500V	A	1600
	690V	Α	1480
Resistance per pole (average value)		mΩ	0.3
Power dissipation per pole (average value)			
	Ith	W	20.3
	AC-3	W	9.7
Tightening torque for terminals			,
	min	Nm	18
	max	Nm	18
	min	Ibin	13.3
The first of the first of the self-the self-the first of the self-the self-	max	lbin	13.3
Tightening torque for coil terminal			
	min	Nm	1
	max	Nm	1



AWG/Kcmil max 300 kcmil Power terminal protection according to IEC/EN 60529 1P00 Mechanical features 1P00 Mechanical			min	Ibin	0.74
Conductor section AWG/Kcmil max 300 kcmil Proposer terminal protection according to IEC/EN 60529 IP00 IP00 Machanical features IP00			max	lbin	0.74
AWG/Kcmil max 300 kcmil Power terminal protection according to IEC/EN 60529 1P00 Mechanical features 1P00 Mechanical	Max number of wires si	multaneously connectable		Nr.	2
Power terminal protection according to IEC/EN 60529 IPO0 IPO0	Conductor section				
Power terminal protection according to IEC/EN 60529 IPO0 IP		AWG/Kcmil			
Normal allowable Normal allo			max		
Operating position Normal allowable with 230° wortical plan 130° with 230° wortical plan 130° with 230° wortical plan 130° wortical plan 13		ion according to IEC/EN 60529			IP00
Normal N					
Section	Operating position		_		
Screw Screw Screw Screw Screw State Stat					
Weight	— ·		allowable		
Operations Mechanical life cycles 10000000 Electrical life cycles 1000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1000000 Mirror contats according to IEC/EN 609474-4-1 yes 10000000 EMC compatibility yes yes AC coil operating wester and the compatibility of the coil powered at 50Hz pick-up win %Us 80 AC operating voltage of 50/60Hz coil powered at 60Hz pick-up min %Us 80 Max %Us 60 0 0 60 0					
Mechanical life Cycles 10000000 Electrical life Cycles 10000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load Cycles 10000000 Mirror contats according to IEC/EN 609474-4-1 rated load Cycles 10000000 Mirror contats according to IEC/EN 609474-4-1 yes Mechanical load Cycles 10000000 Mirror contats according to IEC/EN 609474-4-1 yes Mechanical load Cycles 10000000 Mirror contats according to IEC/EN 609474-4-1 yes Mechanical load Cycles 10000000 Mirror contats according to IEC/EN 609474-4-1 yes Mechanical load Cycles 10000000 Mirror contats according to IEC/EN 609474-4-1 yes Mechanical load Cycles 10000000 Mirror contats according to IEC/EN 609474-4-1 yes Mechanical load Mechanical load Yes Mecha				g	5450
Electrical life	•			avalaa	1000000
Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1000000 mechanical load cycles 10000000 mechanical load yeles 100000000 mechanical load yeles 10000000 mechanical load yeles yeles yeles yeles yeles yeles 10000000 mechanical load yeles 10000000 mechanical load yeles y					
Performance level B10d according to EN/ISO 13489-1 rated load cycles 10000000 Mirror contats according to IEC/EN 609474-4-1 EMC compatibility Rated AC voltage at 50/60Hz For 50/60Hz coil powered at 50Hz Pick-up of 50/60Hz coil powered at 60Hz Pick-up for 60Hz coil powered at 60Hz Pick-up According According voltage of 50/60Hz coil powered at 60Hz Pick-up According voltage According voltage of 50/60Hz coil powered at 60Hz Pick-up According voltage According voltage According voltage of 50/60Hz coil powered at 60Hz Pick-up According voltage According vol				cycles	1000000
Mirror contats according to IEC/EN 609474-4-1	-	Id according to FN/ISO 13489-1			
Mirror contats according to IEC/EN 609474-4-1 Yes	i chomiance level DTC	a according to ETWICO 10403-1	rated load	cycles	1000000
Mirror contats according to IEC/EN 609474-4-1 EMC compatibility Rated AC voltage at 50/60Hz of 50/60Hz coil powered at 50Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 110 drop-out min %Us 80 max %Us 110 drop-out min %Us 20 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 80 max %Us 60 of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 60 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300				-	
EMC compatibility yes AC coil operating Rated AC voltage at 50/60Hz 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 10 of 50/60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 80 max %Us 110 drop-out min %Us 20 max %Us 110 drop-out min %Us 20 max %Us 60 of 60Hz coil powered at 60Hz pick-up min %Us 20 max %Us 110 drop-out min %Us 20 max %Us 110 drop-out min %Us 80 max %Us 10 drop-out	Mirror contats according	a to IEC/EN 609474-4-1	moonamoa ioau	0,0100	
AC coil operating Rated AC voltage at 50/60Hz V 24		9 10 12 0/211 000 11 1 1 1			
Rated AC voltage at 50/60Hz V 24					700
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 80 max %Us 110 drop-out min %Us 80 max %Us 60 of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 80 max %Us 60 of 60Hz coil powered at 60Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 80 max %Us 110 drop-out min %Us 80 max %Us 110 drop-out min %Us 80 max %Us 60 AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300 holding VA 10)/60Hz		V	24
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 80 max %Us 110 drop-out 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 80 max %Us 100 of 50/60Hz coil powered at 50Hz pick-up min %Us 80 max %Us 110 drop-out min %Us 80 max %Us 110 drop-out min %Us 80 max %Us 10 drop-out min %Us 80 max %Us 10 drop-out min %Us 80 max %Us 110 drop-out 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 300 holding VA 10 of 50/60Hz coil powered at 60Hz					
Pick-up Min WUs 80 Max WUs 110 Morp-out Min WUs 20 Max WUs 60 Morp-out Morp-ou	3 1 1131	of 50/60Hz coil powered at 50Hz			
Max Mus 80 max Mus 110 Mus 80 max Mus 110 Mus 20 max Mus 60 Mus Mus 60 Mus Mus 60 Mus Mus 60 Mus Mus Mus 60 Mus		•			
Min WUS 20 Max WUS 60			min	%Us	80
min %Us 20 max %Us 60			max	%Us	110
max %Us 60		drop-out			
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 80 max %Us 110 drop-out min %Us 20 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 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300 in-rush VA			min	%Us	20
Pick-up min %Us 80 max %Us 110 Max min m			max	%Us	60
Min %Us 80 max %Us 110		•			
Max %Us 110		pick-up			
drop-out min %Us 20 max %Us 60					
min %Us 20 max %Us 60			max	%Us	110
max %Us 60		arop-out		0/11-	20
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 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300					
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 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300 holding VA 300		of 60Hz coil powered at 60Hz	max	/oUS	UU
min %Us 80 max %Us 110					
Max %Us 110		ριοκ-αρ	min	%Hs	80
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 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300					
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300		drop-out	max	,000	
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300		a. 3p 34.	min	%Us	20
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300					
of 50/60Hz coil powered at 50Hz in-rush VA 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300	AC average coil consu	mption at 20°C			
in-rush VA 300 holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300	Ü	•			
holding VA 10 of 50/60Hz coil powered at 60Hz in-rush VA 300		·	in-rush	VA	300
of 50/60Hz coil powered at 60Hz in-rush VA 300					
		of 50/60Hz coil powered at 60Hz			
holdina VA 10			in-rush	VA	300
			holding	VA	10



Dissipation at holding ≤20°C 50Hz			W	10
DC coil operating DC rated control voltage			V	24
DC operating voltage			v	
pick-up				
·		min	%Us	80
		max	%Us	110
drop-out				
		min	%Us	20
Average coil consumption ≤20°C		max	%Us	60
Average con consumption \$20 C		in-rush	W	300
		holding	W	10
Max cycles frequency		Horamy	,,	1.0
Mechanical operation			cycles/h	2400
Operating times				
Average time for Us control				
in AC				
	Closing NO			00
		min	ms	60
	Opening NO	max	ms	100
	Opening NO	min	ms	25
		max	ms	60
in DC				
	Closing NO			
		min	ms	60
		max	ms	100
	Opening NO			
		min	ms	25
UL technical data		max	ms	60
Rated operational voltage AC (UL)			V	600
Full-load current (FLA) for three-ph	ase AC motor		v	
, , , , , , , , , , , , , , , , , , , ,		at 480V	Α	180
		at 600V	Α	144
Yielded mechanical performance				_
for three-p	hase AC motor			
		200/208V	HP	60
		220/230V	HP	75 150
General USE		575/600V	HP	150
Contactor				
Contactor		AC current	Α	275
Short-circuit protection fuse, 600V		2 2 2		
Standard fa	ault			
		Short circuit current	kA	10
		Fuse rating	Α	500
		Fuse class		RK5
Ambient conditions				
Temperature	40 mm a maki ina			
Operating	temperature	min	°C	-50
		max	°C	-50 70
		HUA		. •



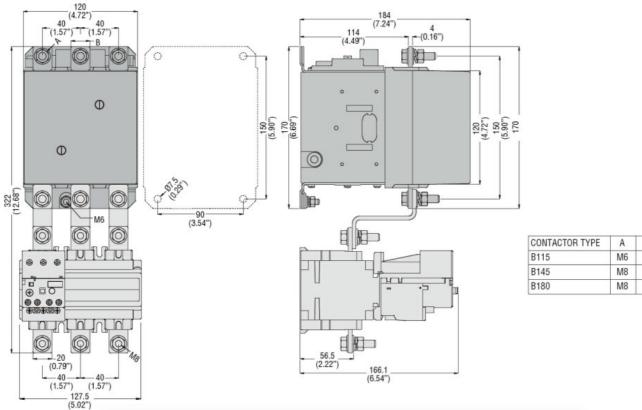
Storage temperature			
	min	°C	-60
	max	°C	80
		m	3000

Resistance & Protection

Pollution degree

Dimensions

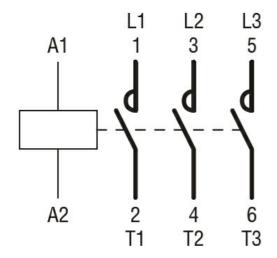
Max altitude



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

3

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



11B1800024

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 185A, AC/DC COIL,

	UL 60947-4-1	
Certificates		
	CCC	
	cULus	
	EAC	
ETIM classification		

ETIM 8.0

EC000066 -Power contactor, AC switching