



Product designation Power contactor Product type designation 8740 Contact type designation Number of poles N. 3 Rated insulation voltage Ui IEC/EN kV 800 Rated insulation voltage Uimp kV 8 Operational frequency min Hz 25 IEC Conventional free air thermal current Ith AC 1 (\$40°C) A 70 Operational current le AC-1 (\$40°C) A 70 AC-1 (\$40°C) A 60 AC-1 (\$70°C) A 60 AC-1 (\$400°C) A 60 AC-1 (\$400°C) A 40 A 70 AC-4 (4000°C) AC 4 (4000°C) A 40 40 A 40 A 70 A 40 A 40 <th></th> <th></th> <th></th> <th>10 10 10</th>				10 10 10
Product type designation Contact characteristics No. 3 Rated insulation voltage Ui IEC/EN Rated insulation voltage Uirp Rated Operational frequency Rated Conventional free air thermal current Ith A 70 Operational current Ie AC-1 (≤40°C) AC-1 (≤55°C) A 60 AC-1 (≤70°C) A 60 AC-1 (≤70°C) A 60 AC-4 (4000) AC-4 (4000) AC-4 (4000) RW 18.5 A150 AC-4 (4000) RW 22 A400 RW 22 A400 RW 22 A600 RW 22 A600 RW 22 A600 RW 22 A600 RW 25 B600 RW 26 A600 RW 36 B600 RW 79 IEC max current Ie in DC1 with L/R ≤ 1ms with 1 poles in series S24V A 48 A8 48	Product designation			Power contactor
Number of poles Number of	<u> </u>			
Number of poles	, , , , , , , , , , , , , , , , , , ,			
Rated insulation voltage Ui IEC/EN V 1000 Rated impulse withstand voltage Uimp kV 8 Operational frequency min Hz 25 IEC Conventional free air thermal current Ith A 70 Operational current le AC-1 (≤40°C) A 70 AC-1 (≤55°C) A 60 AC-1 (≤70°C) A 50 AC-3 (≤4400 ≤55°C) A 40 AC-4 (400V) A 24 Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 18.5 415V kW 22 440V kW 22 690V kW 22 690V kW 30 1000V kW 26 400V kW 26 400V kW 23 40V kW 26 40V kW 26 690V kW 23 40V kW 26 40V kW 28 1000V kW 58 690V kW			Nr.	3
Rated impulse withstand voltage Ulimp				
Operational frequency min max bitz Hz bitz 400 bitz IEC Conventional free air thermal current lth A 70 AC-1 (≤40°C) A 70 AC-1 (≤55°C) A 60 AC-1 (≤55°C) A 60 AC-1 (≤70°C) A 50 AC-3 (≤440V ≤55°C) A 40 AC-4 (400V) A 24 Rated operational power AC-3 (T≤55°C) 230V kW 11 A00V kW 18.5 A15V kW 22 A40V kW 30 A40V kW 30 A40V kW 40 A40V kW 46 A40V kW 4			kV	8
Min				
EC Conventional free air thermal current lith		min	Hz	25
Operational current le AC-1 (≤40°C) A 70 AC-1 (≤55°C) A 60 AC-1 (≤70°C) A 50 AC-3 (≤440V ≤55°C) A 40 AC-4 (400V) A 24 Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 18.5 415V kW 22 500V kW 22 690V kW 30 1000V kW 18.5 440V kW 22 690V kW 30 1000V kW 26 400V kW 48 400V kW 58 690V kW 79 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 40 48V A 48				
AC-1 (≤40°C)	IEC Conventional free air thermal current Ith		Α	70
AC-1 (≤40°C)	Operational current le			
AC-1 (≤55°C)	·	AC-1 (≤40°C)	Α	70
AC-1 (≤70°C) A 50 AC-3 (≤440V ≤55°C) A 40 AC-4 (400V) A 24 Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 18.5 415V kW 22 440V kW 22 500V kW 30 1000V kW 18.5 Rated operational power AC-1 (T≤40°C) 230V kW 26 400V kW 46 500V kW 58 690V kW 79 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 40 48V A 35 75V A 30 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 48 48V A 48 48V A 48 110V A 42 220V A 5 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 48 48V A 48 524V A				
AC-3 (≤440V ≤55°C) A 40 AC-4 (400V) A 24 Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 18.5 415V kW 22 440V kW 22 500V kW 30 1000V kW 18.5 Rated operational power AC-1 (T≤40°C) 230V kW 26 440V kW 46 500V kW 58 690V kW 58 690V kW 79 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series 524V A 40 48V A 35 75V A 30 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series 524V A 48 48V A 48 48V A 48 110V A 42 220V A 5 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 48 48V A 48 500V A 5 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 48 48V A 48 500V A 5 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 48 500V A 5 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series 524V A 48 48V A 48			Α	50
Rated operational power AC-3 (T≤55°C) 230V kW 11 400V kW 18.5 415V kW 22 440V kW 22 500V kW 30 1000V kW 30 1000V kW 18.5 Rated operational power AC-1 (T≤40°C) 230V kW 26 400V kW 46 500V kW 58 690V kW 79 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 40 48V A 35 75V A 30 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 48 48V A 48 75V A 45 110V A 48 75V A 48 75V A 45 110V A 48 75V A 48			Α	40
230V kW 11 400V kW 18.5 415V kW 22 440V kW 22 500V kW 22 500V kW 30 1000V kW 18.5 800V kW 30 1000V kW 18.5 800V kW 26 400V kW 46 500V kW 58 690V kW 79 800V kW 79 800V 800V		AC-4 (400V)	Α	24
230V kW 11 400V kW 18.5 415V kW 22 440V kW 22 500V kW 22 500V kW 30 1000V kW 18.5 800V kW 30 1000V kW 18.5 800V kW 26 400V kW 46 500V kW 58 690V kW 79 800V kW 79 800V 800V	Rated operational power AC-3 (T≤55°C)	,		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$, ,	230V	kW	11
440V kW 22 500V kW 22 690V kW 30 1000V kW 18.5		400V	kW	18.5
Soov kW 30 1000V kW 18.5		415V	kW	22
Rated operational power AC-1 (T≤40°C) 230V kW 26 4400V kW 46 500V kW 79		440V	kW	22
Rated operational power AC-1 (T≤40°C) 230V kW 26 400V kW 46 500V kW 58 690V kW 79		500V	kW	22
Rated operational power AC-1 (T≤40°C) 230V kW 26 400V kW 46 500V kW 58 690V kW 79 IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series ≤24V A 40 48V A 35 75V A 30 110V A 8 220V A - IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 48 48V A 48 48V A 48 110V A 48 48V A 48 75V A 45 110V A 42 220V A 5		690V	kW	30
		1000V	kW	18.5
	Rated operational power AC-1 (T≤40°C)			
EC max current le in DC1 with L/R \leq 1ms with 1 poles in series \leq 24V A 40 48V A 35 75V A 30 110V A 8 220V A -		230V	kW	26
EC max current le in DC1 with L/R ≤ 1ms with 1 poles in series				
Section Sec				
		690V	kW	79
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 1 poles in series			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			Α	
110V A 8 220V A -			Α	
EC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V				
IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series ≤24V A 48 48V A 48 75V A 45 110V A 42 220V A 5 IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 48 48V A 48				8
		220V	A	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	IEC max current le in DC1 with L/R ≤ 1ms with 2 poles in series			
IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series ≤24V A 48 48V A 48				
≤24V A 48 48V A 48		220V	Α	5
48V A 48	IEC max current le in DC1 with L/R ≤ 1ms with 3 poles in series			
75V A 48				
		75V	Α	48



	110V	Α	44
	220V	Α	56
IEC max current le in DC1 with L/R ≤ 1ms with 4 poles in series			
	≤24V	Α	_
	48V	Α	_
	75V	Α	_
	110V	Α	_
	220V	Α	70
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 1 poles in series			
	≤24V	Α	27
	48V	Α	23
	75V	Α	19
	110V	Α	3
·	220V	Α	_
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 2 poles in series			
	≤24V	Α	32
	48V	A	30
	75V	A	27
	110V	A	22
150 H. I. DOO DOE 191 I /D 4 45 H. I. I. I.	220V	Α	5
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 3 poles in series	40 AV		4.0
	≤24V	A	40
	48V	A	40
	75V	A	38
	110V 220V	A A	27 32
IEC may current to in DC2 DC5 with L/D < 15mg with 4 malos in parise	220 V	A	32
IEC max current le in DC3-DC5 with L/R ≤ 15ms with 4 poles in series	<24)/	۸	
	≤24V 48V	A A	_
	75V	A	_ _
	110V	A	_
	220V	A	40
Short-time allowable current for 10s (IEC/EN60947-1)	220 V	A	400
Protection fuse			100
1 Total of Trade	gG (IEC)	Α	100
	aM (IEC)	Α	50
Making capacity (RMS value)	aivi (i20)	A	400
Breaking capacity at voltage			100
2.com.ing capacity at rollage	440V	Α	320
	500V	A	265
	690V	Α	256
Resistance per pole (average value)		mΩ	0.8
Power dissipation per pole (average value)			
	Ith	W	3.9
	AC3	W	1.3
Tightening torque for terminals			
5 5 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	min	Nm	4
	max	Nm	5
	min	Ibin	2.95
	max	Ibin	3.69
Tightening torque for coil terminal			
	min	Nm	0.8
	max	Nm	1



BF4000E230

Max number of wires simultaneously connectable No.					
Max number of wires simultaneously connectable Nz. 2 Conductor section max 2 Flexible w/o lug conductor section min mm² 1.5 Flexible c/w lug conductor section min mm² 3.5 Power terminal protection according to IEC/EN 60529 mm² 1.5 Wed-charical features mm² 3.5 Operating position normal allowable 430° Fixing normal allowable 430° Fixing Scrow / DIN rail 35mm Weight g 1060 Conductor section max 2 AWG/kcmil conductor section max 2 Mechanical life cycles 1500000 Electrical life cycles 1500000 Safety related data rated load cycles 1500000 Mirror contats according to IEC/EN 609474-4-1 rated load cycles 1500000 Mirror contats according to IEC/EN 609474-4-1 min V 100 Mirror contats according to IEC/EN 609474-4-1 min			min		
AWG/Kcmil AWG/Kcmil AWG/Kcmil AWG/Kcmil AWG/Kcmil Flexible w/o lug conductor section min max mm² 1.5 max mm² 35 35 35 35 35 35 35 3			max		
AWG/Kcmil Flexible w/o lug conductor section Flexible w/o lug conductor section Flexible c/w lug conductor section Flexib		simultaneously connectable		Nr.	2
Piexible w/o lug conductor section	Conductor section	AMC/Kamil			
Flexible w/o lug conductor section min max mm² 1.5 max mm² 35		AVVG/RCIIII	may		2
Flexible c/w lug conductor section Flexible		Flexible w/o lug conductor section	max		
Flexible c/w lug conductor section min mm² 1.5 max mm² 35		e.a.e. u, e ia g con adoto. cocaen.	min	mm²	1.5
Minitary			max	mm²	35
Power terminal protection according to IEC/EN 60529		Flexible c/w lug conductor section			
Power terminal protection according to IEC/EN 60529 IP20 front Mechanical features			min		
Mechanical features Superiting position			max	mm²	
Operating position Noted plan allowable Vertical plan allowable Screw / DIN rail allowable Vertical plan allowable Vertical plan allowable Screw / DIN rail allowable Screw / DIN rail allowable Vertical plan Vertical plan Vertical plan allowable Vertic		ction according to IEC/EN 60529			IP20 front
Normal allowable Seriew Din rail allowable Seriew Din rail allowable Seriew Din rail allowable Seriew Din rail 35mm					
Fixing Screw / DIN rail S	Operating position		normal		Vertical plan
Fixing Weight Conductor section AWG/kcmil conductor section AWG/kcmil conductor section					
FIXING g 1060			anomasio		
AWG/kcmil conductor section max 2	Fixing				
AWG/kcmil conductor section max 2 2 2 2 2 2 2 2 2	Weight			g	1060
Operations Mechanical life cycles 15000000 Electrical life cycles 15000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 1500000 Mirror contats according to IEC/EN 609474-4-1 yes EMC compatibility yes AC coli operating Rated AC voltage at 50/60Hz, 60Hz min V 100 max V 250 AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 80 Us min max %Us 110 Us max drop-out min %Us 80 Us min max %Us 110 Us max drop-out min %Us 80 Us min max %Us 110 Us max drop-out min %Us 80 Us min max %Us 80 Us min max %Us 110 Us max drop-out min %Us 80 Us min max %Us 570 Us min AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz	Conductor section				
Operations Mechanical life cycles 15000000 Electrical life cycles 15000000 Safety related data Performance level B10d according to EN/ISO 13489-1 rated load cycles 15000000 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 100 max V 250 AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min WUS 80 Us min max %US 110 Us max drop-out max WUS 570 Us min max %US 80 Us min max Merchanical load cycles AC oycles 15000000 AC oycles 15000000 min V 100 max %US 80 Us min max Max WUS 110 Us max drop-out min WUS 80 Us min max AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120		AWG/kcmil conductor section			_
Mechanical life	O a servicio de la companya della companya della companya de la companya della co		max		2
Electrical life	•			ovoloo	15000000
Performance level B10d according to EN/ISO 13489-1 rated load cycles 1500000 mechanical load cycles 1500000 mechanical load cycles 1500000 mechanical load cycles 15000000 mechanical load cycles 150000000 mechanical load cycles 150000000 mechanical load cycles 150000000 cycles 150000000 cycles 150000000 cycles 150000000 cycles 1500000000000000000000000000000000000				-	
Performance level B10d according to EN/ISO 13489-1 rated load mechanical load cycles 1500000 mechanical load cycles 1500000 mechanical load cycles 15000000 mechanical load cycles 150000000 mechanical load cycles 150000000 mechanic				Cycles	1300000
rated load cycles 1500000 mechanical load cycles 1500000 mechanical load cycles 1500000 mechanical load cycles 15000000 mechanical load cycles	· ·	0d according to EN/ISO 13489-1			
Mirror contats according to IEC/EN 609474-4-1 yes		9	rated load	cycles	1500000
EMC compatibility AC coil operating Rated AC voltage at 50/60Hz, 60Hz Rated AC voltage at 50/60Hz, 60Hz of 50/60Hz coil powered at 50Hz pick-up min wus wus 110 Us max drop-out max wus ≤70 Us min max wus 110 Us max drop-out min wus 80 Us min max wus ≤70 Us min max wus 110 Us max drop-out max wus 110 Us max drop-out min wus 80 Us min max wus ≤70 Us min max wus 110 Us max drop-out max wus ≤70 Us min			mechanical load	cycles	15000000
Rated AC voltage at 50/60Hz, 60Hz min		ng to IEC/EN 609474-4-1			yes
Rated AC voltage at 50/60Hz, 60Hz min V 100 max V 250 AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 80 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min of 50/60Hz coil powered at 60Hz pick-up min %Us 80 Us min max %Us ≤70 Us min of 50/60Hz coil powered at 60Hz pick-up min %Us 80 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120					yes
Min V 100 max V 250	·				
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 80 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min of 50/60Hz coil powered at 60Hz pick-up min %Us 80 Us min max %Us ≤70 Us min min %Us 80 Us min max %Us 110 Us max drop-out min %Us 80 Us min max %Us 110 Us max drop-out and max %Us ≤70 Us min wax %Us ≤70 Us min max %Us ≤70 Us min in-rush VA 35120	Rated AC voltage at 5	60/60Hz, 60Hz			4.0.0
AC operating voltage of 50/60Hz coil powered at 50Hz pick-up min %Us 80 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min of 50/60Hz coil powered at 60Hz pick-up min %Us 80 Us min max %Us ≤70 Us min drop-out max %Us 110 Us max drop-out AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120					
of 50/60Hz coil powered at 50Hz pick-up min %Us 80 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min of 50/60Hz coil powered at 60Hz pick-up min %Us 80 Us min max %Us ≤70 Us min min %Us 80 Us min max %Us 110 Us max drop-out max %Us 110 Us max drop-out AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120	AC operating voltage		max	V	250
Pick-up min %Us 80 Us min max %Us 110 Us max	AC operating voltage	of 50/60Hz coil powered at 50Hz			
min %Us 80 Us min max %Us 110 Us max		•			
drop-out max %Us 110 Us max		provide	min	%Us	80 Us min
max %Us ≤70 Us min of 50/60Hz coil powered at 60Hz min %Us 80 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120			max	%Us	110 Us max
of 50/60Hz coil powered at 60Hz pick-up min %Us 80 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120		drop-out			
pick-up min %Us 80 Us min max %Us 110 Us max drop-out max %Us ≤70 Us min AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120			max	%Us	≤70 Us min
min %Us 80 Us min max %Us 110 Us max		•			
max %Us 110 Us max		pick-up	•	0/11-	00 He!
drop-out max %Us ≤70 Us min AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120					
Max %Us ≤70 Us min AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120		drop-out	max	%US	110 US Max
AC average coil consumption at 20°C of 50/60Hz coil powered at 50Hz in-rush VA 35120		αιορ-ουτ	max	%Us	≤70 Us min
of 50/60Hz coil powered at 50Hz in-rush VA 35120	AC average coil consi	umption at 20°C	max	,,,,,	· · · · · · · · · · · · · · · · · · ·
in-rush VA 35120		•			
holding VA 1.53.7		,	in-rush	VA	35120
			holding	VA	1.53.7



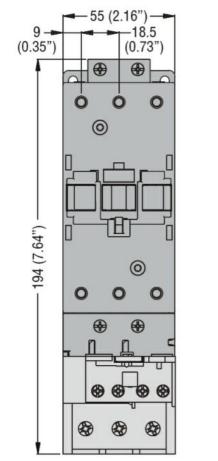
	of 50/60Hz coil pow	vered at 60Hz			
	01 30/001 12 0011 pon	7C1CG &t 00112	in-rush	VA	35120
			holding	VA	1.53.7
Dissipation at holding	≤20°C 50Hz			W	12.5
DC coil operating	-20 C CO. I.2			,,,	12.0
DC rated control voltage	ge				
•	J		min	V	100
			max	V	250
DC operating voltage					
, ,	pick-up				
			min	%Us	80 Us min
			max	%Us	110 Us max
	drop-out				
	•		max	%Us	≤70 Us min
Average coil consump	tion ≤20°C				
			in-rush	W	2368
			holding	W	1.21,9
Max cycles frequency					·
Mechanical operation				cycles/h	1500
Operating times					
Average time for Us co	ontrol				
-	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					
Full-load current (FLA)) for three-phase AC r	notor			
			at 480V	Α	40
			at 600V	Α	32
Yielded mechanical pe					
	for single-phase AC	motor			
			110/120V	HP	3
	-		230V	HP	7.5
	for three-phase AC	motor			
			200/208V	HP	10
			220/230V	HP	15
			460/480V	HP	30
			575/600V	HP	30
General USE	_				
	Contactor				
			AC current	Α	70
Short-circuit protection					
	High fault				
			Short circuit current	kA	100

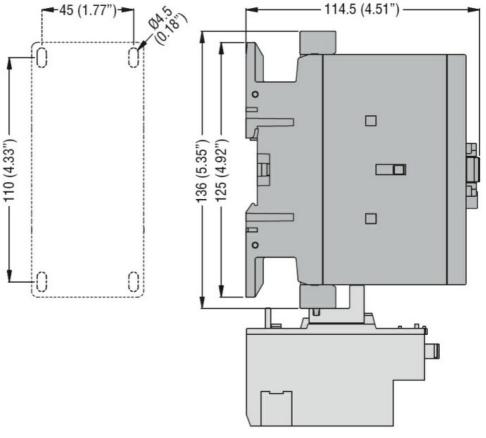


THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 40A, AC/DC COIL, 100...250VAC/DC

		Fuse rating	Α	150
		Fuse class		J
	Standard fault			
		Short circuit current	kA	5
		Fuse rating	Α	150
		Fuse class		RK5
Ambient conditions				
Temperature				
	Operating temperature			
		min	°C	-40
		max	°C	70
	Storage temperature			
		min	°C	-50
		max	°C	80
Max altitude			m	3000
Resistance & Protect	ion			
Pollution degree				3
Dimensions [mm (in)]				

Dimensions [mm (in)]

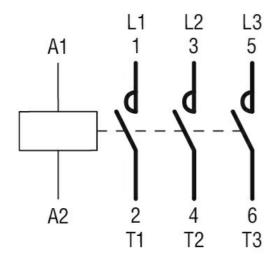




Wiring diagrams

ENERGY AND AUTOMATION

THREE-POLE CONTACTOR, IEC OPERATING CURRENT IE (AC3) = 40A, AC/DC COIL, 100...250VAC/DC



Certifications and compliance

Compliance

CSA C22.2 n° 60947-1

CSA C22.2 n° 60947-4-1

IEC/EN/BS 60947-1

IEC/EN/BS 60947-4-1

UL 60947-1

UL 60947-4-1

Certificates

CCC

cULus

ETIM classification

ETIM 8.0

EC000066 -Power contactor, AC switching