



# WESTINGHOUSE CONTACTOR



## WCM Series

WCM Series - IEC Standard Contactors

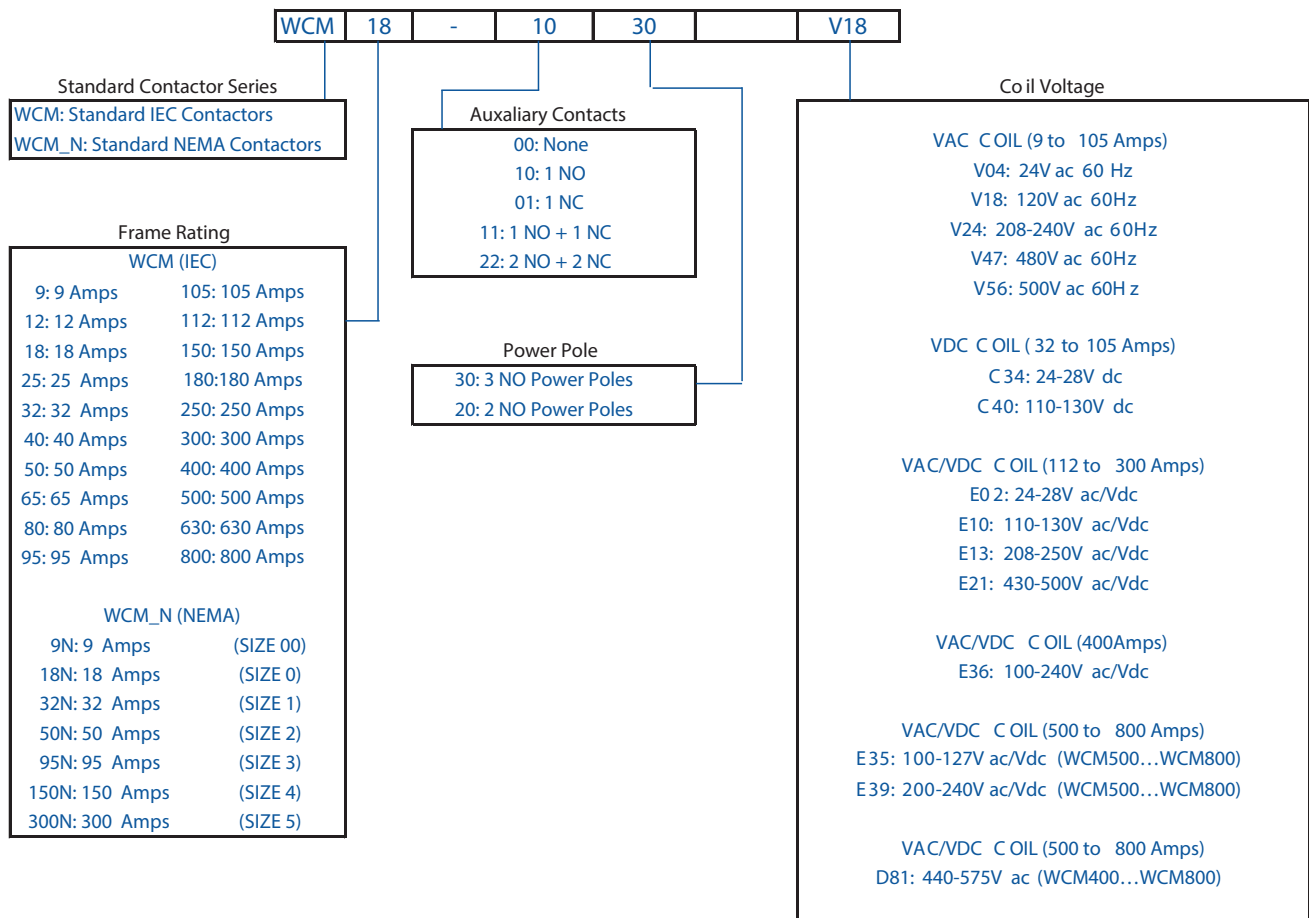
The WCM Series IEC Contactor was designed as a general purpose contactor taking into consideration the heavy demands and need for high reliability in modern industry. They are rated for inductive loads up to 800 AMPS @ 460V. WCM Contactors are compact in frame size allowing for optimization of valuable internal space within electrical enclosures. Reducing inventory is a “Snap” away with the WCM Series’ common accessories.



### Standard Features

- Panel mountable or 35mm DIN Rail up to the WCM105 Series
- Front and Side Mounting Auxiliary Contacts
- Finger-Touch IP20 Protection
- Wide Coil Voltage Protection AC or DC
- Mirror Contacts for “Safety-Related” Applications
- Mechanically linked Auxiliary Contacts

### WCM Catalog Number Sequence



# Contactors

## WCM Series - IEC Standard Contactors





<b>Catalog Number</b>	<b>WCM9</b>	<b>WCM12</b>	<b>WCM18</b>	<b>WCM25</b>	<b>WCM32</b>	<b>WCM40</b>	<b>WCM50</b>	<b>WCM65</b>	<b>WCM80</b>	<b>WCM95</b>	<b>WCM105</b>	
<b>Rated operational power Single-phase</b>												
115Vac	Hp	1/2	3/4	1	2	3	3	3	5	7 1/2	10	
230Vac	Hp	1 1/2	2	3	5	5	5	7 1/2	10	15	20	
<b>Three-phase</b>												
230Vac	Hp	3	3	5	7 1/2	10	15	15	20	25	30	
460Vac	Hp	5	7 1/2	10	15	20	30	40	50	50	60	
575Vac	Hp	7 1/2	10	15	15	25	25	40	50	60	75	
General Purpose	A Rating (AC-1)	25	25	32	45	60	60	90	110	110	140	
Inductive Motor Switching	(AC-3)	9	12	18	25	32	40	50	65	80	95	
<b>Overload relays</b>		0.28...0.4 0.4...0.63 0.56...0.8 0.8...1.2 1.2...1.8 1.8...2.8 2.8...4 4...6.3			5.6...8 7...10 8...12.5 10...15 11...17 15...23 22...32			25...40 32...50		40...57 50...63 57...70 63...80		63...80 75...97 90...112
	<b>Auxiliary contact blocks</b>		WBCXMF10 (1NO) WBCXMF01 (1NC)					WBLIM9-105 WBLIM.02 9-105 (2NC)				
<b>Mechanical interlock</b>												
<b>Electronic Relays</b>	<p><b>Timing Relays - WTR Series</b> (Please refer to Electronic Relays Section)</p>											
<b>Surge Suppressor</b>		<b>RC block:</b> WBAMRC4 D53 24-48 V 50/60Hz WBAMRC5 D55 50-127 V 50/60Hz WBAMRC6 D63 130-250 V 50/60Hz										
		<b>Varistor block:</b> WBAMV1 D68 270-380 V 50/60Hz WBAMV2 D73 400-510 V 50/60Hz				<b>RC block:</b> WBAMRC7 D53 24-48 V 50/60Hz WBAMRC8 D55 50-127 V 50/60Hz WBAMRC9 D63 130-250 V 50/60Hz  <b>Varistor block:</b> WBAMV1 D68 270-380 V 50/60Hz WBAMV2 D73 400-510 V 50/60Hz						

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WCM CONTACTOR

## WCM Series - IEC Standard Contactors

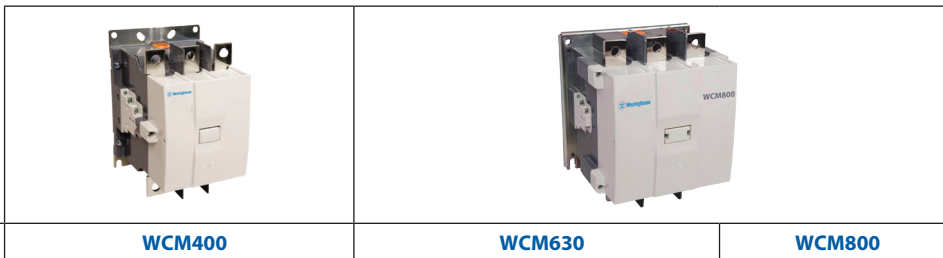
1 WCM CONTACTOR



Catalog Number	3 Poles	WCM112	WCM150	WCM180	WCM250	WCM300
<b>Rated operational power</b>						
<b>Single-phase</b>						
115Vac	Hp	-	-	-	-	-
230Vac	Hp	-	-	-	-	-
<b>Three-phase</b>						
230Vac	Hp	50	60	75	100	125
460Vac	Hp	100	125	150	200	250
575Vac	Hp	100	150	200	250	350
General Purpose Rating	A	180	225	225	350	410
Inductive/Motor Switching (AC3)		112	150	180	250	300
Overload relays	A	WR117-2D  75...97 90...112		WR317-1D  100...150 140...215 200...310 275...420		
Auxiliary contact blocks		 WBCXML11 (1NO+1NC) WBCXML20 (2NO) WBCXMRL11 (1NO+1NC) WBCXMRL20 (2NO)				
Mechanical interlock		 WBLIM112-300				
Surge suppressor		built-in with electronic module				

# Contactors

## WCM Series - IEC Standard Contactors



Catalog Number		WCM400	WCM630	WCM800
<b>Rated Optional Power</b>				
<b>Single-phase</b>				
220/230Vac	Hp	-	-	-
380Vac	Hp	-	-	-
<b>Three-phase</b>				
230Vac	Hp	150	250	300
460Vac	Hp	300	500	600
575Vac	Hp	300	500	600
General Purpose Rating	A	450	660	900
Inductive/Motor Switching AC-3		400	630	800

Overload relays	A	WR407-1D		400...600 560...840
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Auxiliary contact blocks			WBCXML11 WCM800 (1NO+1NC) WBCXMRL11 WCM800 (1NO+1NC)	
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Mechanical interlock		 WBLIM WCM400	 WBLIM WCM800	
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Surge suppressor		(Built-in with electronic module)		
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## WCM Series - IEC Standard Contactors

3 pole contactors with AC coil



WCM CONTACTOR

Maximum UL Horsepower						Auxiliary Contacts		Current Rating Amps	Catalog Number	Ref.No.	Multiplier
Single Phase		Three Phase				N.O.	N.C.				
115V	230V	200V	230V	460V	575V						
1/2	1 1/2	3	3	5	7 1/2	1	0	9	WCM9-10-30*	W605642	Z1
						0	1		WCM9-01-30*	W605643	
3/4	2	3	3	7 1/2	10	1	0	12	WCM12-10-30*	W605644	
						0	1		WCM12-01-30*	W605645	
1	3	5	5	10	15	1	0	18	WCM18-10-30*	W605646	
						0	1		WCM18-01-30*	W605647	
2	5	7 1/2	7 1/2	15	15	0	0	25	WCM25-00-30*	W605648	
3	5	10	10	20	25	0	0	32	WCM32-00-30*	W605649	
3	7 1/2	10	15	30	25	0	0	40	WCM40-00-30*	W605650	
3	10	15	15	40	40	0	0	50	WCM50-00-30*	W605651	
5	10	20	20	50	50	0	0	65	WCM65-00-30*	W605652	
7 1/2	15	20	25	50	60	0	0	80	WCM80-00-30*	W605653	
7 1/2	15	25	30	60	75	0	0	95	WCM95-00-30*	W605654	
10	20	30	40	75	75	0	0	105	WCM105-00-30*	W605655	

To complete the selection

- Replace "\*" with desired coil voltage from Coil Voltage Code Table

**\* AC COIL VOLTAGE CODE SELECTION FOR CONTACTORS WCM9...WCM105**

60 Hz	24V <sup>1)</sup>	48V	120V	208-240V	480V	600V
<b>CODE</b>	<b>V04</b>	<b>V10</b>	<b>V18</b>	<b>V24</b>	<b>V47</b>	<b>V56</b>
50 Hz	-	42V	110V	-	400-415V	500V

- Other coil voltages available upon request

### The Flexible Line from 5 to 75HP

The 5 to 75HP @ 460V range is differentiated by five frame sizes and only 4 varying widths, with the choice of either screw or DIN rail mounting. Westinghouse offers one of the most compact 75HP @ 460V contactors in the market.

### Coil Technology

Westinghouse Contactor AC coils have 4 terminals up to 30HP @ 460V, which allows an easy connection no matter the complexity of the application and wiring. From 32A up to 105A the contactors are equipped with an electronic circuit that provides an unmatched space saving solution, making the 50A through 105A contactors depth the same size.

# Contactors

## WCM Series - IEC Standard Contactors

### 3 pole contactors with DC coil



Maximum UL Horsepower						Auxiliary Contacts		Current Rating Amps	Catalog Number	Ref.No.	Multiplier
Single Phase		Three Phase				N.O.	N.C.				
115V	230V	200V	230V	460V	575V						
3	5	10	10	20	25	0	0	32	WCM32-00-30+	W605656	Z1
3	7 1/2	10	15	30	25	0	0	40	WCM40-00-30+	W605657	
3	10	15	15	40	40	0	0	50	WCM50-00-30+	W605658	
5	10	20	20	50	50	0	0	65	WCM65-00-30+	W605659	
7 1/2	15	20	25	50	60	0	0	80	WCM80-00-30+	W605660	
7 1/2	15	25	30	60	75	0	0	95	WCM95-00-30+	W605661	
10	20	30	40	75	75	0	0	105	WCM105-00-30+	W605662	

To complete the selection

- Replace "+" with desired coil voltage from Coil Voltage Code Table

#### + DC COIL VOLTAGE CODE SELECTION FOR CONTACTORS WCM9...105

#### FOR CONTACTORS WCM32...WCM105

Voltage	24-28V	110-130V
<b>CODE</b>	<b>C34</b>	<b>C40</b>



## WCM Series - IEC Standard Contactors

### 3 pole contactors with AC/DC electronic module coil



WCM CONTACTOR

Maximum UL Horsepower						Auxiliary Contacts		Current Rating Amps	Catalog Number	Ref.No.	Multiplier
Single Phase		Three Phase				N.O.	N.C.				
115V	230V	200V	230V	460V	575V						
-	-	40	50	100	100	2	2	112	WCM112-22-30#	W605663	Z1
-	-	50	60	125	150	2	2	150	WCM150-22-30#	W605664	
-	-	60	75	150	200	2	2	180	WCM180-22-30#	W605665	
-	-	75	100	200	250	2	2	250	WCM250-22-30#	W605666	
-	-	100	125	250	300	2	2	300	WCM300-22-30#	W605667	
-	-	125	150	300	300	2	2	400	WCM400-22-30^	W605668	
-	-	200	250	500	500	2	2	630	WCM630-22-30^	W605669	
-	-	200	300	600	600	2	2	800	WCM800-22-30^	W605670	

To complete the selection

- Replace "#" or "^" with desired coil voltage from Coil Voltage Code Table

#### # AC/DC COIL VOLTAGE CODE SELECTION FOR CONTACTORS WCM112, 150, 180, 250, 300

Voltage	24-28Vac/Vdc	110-130Vac/Vdc	208-250Vac/Vdc	430-500Vac/Vdc
<b>CODE</b>	<b>E02</b>	<b>E10</b>	<b>E13</b>	<b>E21</b>
Mounting on	WCM112-WCM300	WCM112-WCM300	WCM112-WCM300	WCM112-WCM300

#### ^ AC/DC COIL VOLTAGE CODE SELECTION FOR CONTACTORS WCM 400...800

Voltage	100-240Vac/100-220Vdc	100-127Vac/100-110Vdc	200-240Vac/200-220Vdc	440-575Vac
<b>CODE</b>	<b>E36</b>	<b>E35</b>	<b>E39</b>	<b>D82</b>
Mounting on	WCM400	WCM630-WCM800	WCM630-WCM800	WCM400-WCM800

### The Tough Line from 100 to 600HP

With reliability as our goal, Westinghouse contactors are modern and very compact, but they are also one of the most rugged line of contactors in the range from 100 to 600HP, assuring an extended life under the most challenging conditions of today's industry.

#### Accessories

Side mounted auxiliary contact blocks are common for all WCM contactors, from 5 to 250HP @ 460V.

#### Electronic Module

From 100 to 600HP @ 460V, Westinghouse offers contactors with electronic module for AC/DC Coil Applications. Such coils provide a smoother switching, therefore enhancing contactor's performance. Built-in surge suppressor is also standard.



## Contactors

### WCM Series - IEC Standard Contactors

#### 2 pole contactors with AC coil

Maximum UL Horsepower		Auxiliary Contacts		Current Rating Amps	Catalog Number	Ref.No.	Multiplier
Single Phase		N.O.	N.C.				
115V	230V						
1/2	1 1/2	0	0	9	<b>WCM9-00-20*</b>	<b>W605671</b>	Z1
3/4	2	0	0	12	<b>WCM12-00-20*</b>	<b>W605672</b>	
1	3	0	0	18	<b>WCM18-00-20*</b>	<b>W605673</b>	
2	5	0	0	25	<b>WCM25-00-20*</b>	<b>W605674</b>	
3	5	0	0	32	<b>WCM32-00-20*</b>	<b>W605675</b>	
3	7 1/2	0	0	40	<b>WCM40-00-20*</b>	<b>W605676</b>	
3	10	0	0	50	<b>WCM50-00-20*</b>	<b>W605677</b>	
5	10	0	0	65	<b>WCM65-00-20*</b>	<b>W605678</b>	
7 1/2	15	0	0	80	<b>WCM80-00-20*</b>	<b>W605679</b>	
7 1/2	15	0	0	95	<b>WCM95-00-20*</b>	<b>W605680</b>	
10	20	0	0	105	<b>WCM105-00-20*</b>	<b>W605681</b>	

To complete the selection

- Replace "\*" with desired coil voltage from Coil Voltage Code Table

#### FOR CONTACTORS WCM9...WCM105

##### \* AC COIL VOLTAGE CODE SELECTION

60 Hz	24V	120V	208-240V
<b>CODE</b>	<b>V04</b>	<b>V18</b>	<b>V24</b>
50 Hz	-	110V	-

### WCM-N Series - NEMA Rated Standard Contactor

The Westinghouse WCM\_N series NEMA rated contactor line has been designed for industrial duty and with reliability in mind. Rated for inductive loads up to 300 Amps or 200 Hp @ 460V, Westinghouse can offer the suitable contactor for your application.

Customers who are used to specifying contactors (and starters), by a particular NEMA Size (size 00, 0, 1, 2, 3, 4, 5), now can use the Westinghouse WCM\_N series, NEMA rated contactors. Customers get the ease of choosing the product, the reliability of Westinghouse quality, and still get the sophisticated arc quenching techniques to reduce excess heat on the contacts.

Given their compact footprints, WCM\_N contactors allow total panel space optimization, with only a few compact frame sizes from 5 to 200 Hp @ 460 V. Reducing inventory is a "snap" with WCM's common accessories. For example, side mounted auxiliary contact blocks are the same from 5 to 200 Hp @ 460 V.



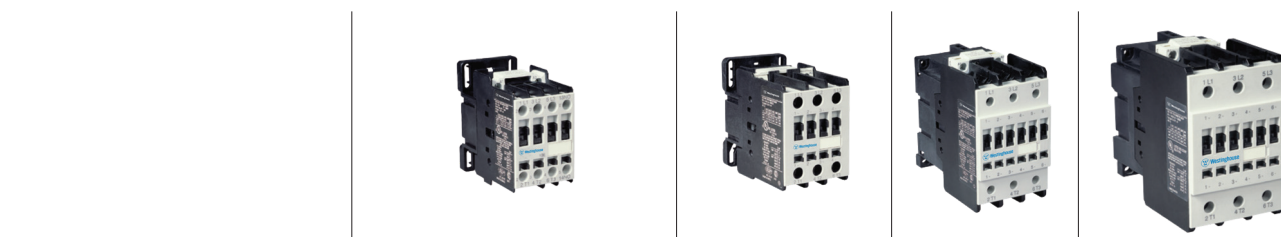
#### Standard Features

- Ease of choosing product
- Compact footprint
- Arc Quenching technique
- Reduced inventory with common accessories
- Adjustable thermal overload relay for motor protection
- Reliable Westinghouse Quality

NEMA Size	NEMA Continuous Amp rating	Westinghouse Continuous Amp rating	HP @ 230 V	HP @ 460 V
00	9	9	1.5	2
0	18	18	3	5
1	27	32	7.5	10
2	45	50	15	25
3	90	95	30	50
4	135	150	50	100
5	270	300	100	200

# Contactors

## WCM-N Series - NEMA Rated Standard Contactor



Catalog Number	WCM9N	WCM18N	WCM32N	WCM50N	WCM95N
NEMA Size	00	0	1	2	3
<b>Rated operational power</b>					
<b>Single-phase</b>					
115Vac Hp	1/3	1	3	3	7 1/2
230Vac Hp	1	3	5	7 1/2	15
<b>Three-phase</b>					
230Vac Hp	1 1/2	3	7 1/2	15	30
460Vac Hp	2	5	10	25	50
575Vac Hp	2	5	10	25	50
General Purpose A Rating	25	32	60	90	140

<b>Overload Relays</b>	<p>WRM40E</p> <p>0.4 ... 2.0 1.6 ... 8.0 5 ... 25 8 ... 40</p>	<p>WRM112E</p> <p>14 ... 56 28 ... 112</p>
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<b>Auxillary contact blocks</b>	<p>WBCXMF10 (1NO) WBCXMF01 (1NC)</p>	<p>WBCXML 11 (1NO+1NC) WBCXML 20 (2NO) WBCXMRL 11 (1NO+1NC) WBCXMRL 20 (2NO)</p>
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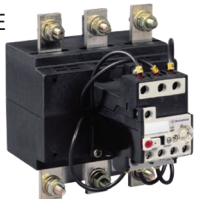


<b>Mechanical interlock</b>	<p>WBLIM9-105 WBLIM.02 9-105 (2NC)</p>
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<b>Electronic Relays</b>	<p>Timing Relays - WTR Series</p>
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<b>Surge suppressor</b>	<p>RC block: WBAMRC4 D53 24-48 V 50/60Hz WBAMRC5 D55 50-127 V 50/60Hz WBAMRC6 D63 130-250 V 50/60Hz</p> <p>Varistor block: WWBAMV1 D68 270-380 V 50/60Hz WWBAMV2 D73 400-510 V 50/60Hz</p>	<p>RC block: WWBAMRC7 D53 24-48 V 50/60Hz WWBAMRC8 D55 50-127 V 50/60Hz WWBAMRC9 D63 130-250 V 50/60Hz</p> <p>Varistor block: WWBAMV1 D68 270-380 V 50/60Hz WWBAMV2 D73 400-510 V 50/60Hz</p>
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## WCM-N Series - NEMA Rated Standard Contactor



Catalog Number	3 Poles	WCM150N	WCM300N
NEMA Sizes		4	5
<b>Rated operational power</b>			
<b>Single-phase</b>			
115Vac	Hp	-	-
230Vac	Hp	-	-
<b>Three Phase</b>			
230Vac	Hp	50	100
460Vac	Hp	100	200
575Vac	Hp	100	200
General Purpose Rating	A	225	410
Solid State Overload relays	A	 <p>WRM420E</p> <p>1 50...250 85...420</p>	
Auxiliary contact blocks		 <p>WBCXML11 (1NO+1NC) WBCXML20 (2NO) WBCXMRL11 (1NO+1NC) WBCXMRL20 (2NO)</p>	
Mechanical interlock		 <p>WBLIM112-300</p>	
Surge suppressor		built-in with electronic module	

1) Note: Some motors characteristics may vary according to each manufacturer.

## Contactors

WCM-N Series - NEMA Rated Standard Contactor

**3 POLE NEMA CONTACTORS WITH AC COIL**



NEMA Size	Maximum UL Horsepower						Auxiliary Contacts		Current Rating Amps	Catalog Number	Ref.No.	Multiplier
	Single Phase		Three Phase				N.O.	N.C.				
	115V	230V	200V	230V	460V	575V						
00	1/3	1	1.5	1.5	2	2	1	0	9	WCM9N-10-30*	W605682	Z1
							0	1		WCM9N-01-30*	W605683	
0	1	2	3	3	5	5	1	0	18	WCM18N-10-30*	W605684	
							0	1		WCM18N-01-30*	W605685	
1	2	3	7.5	7.5	10	10	0	0	32	WCM32N-00-30*	W605686	
2	3	7.5	10	15	25	25	0	0	50	WCM50N-00-30*	W605687	
3	7.5	15	25	30	50	50	0	0	95	WCM95N-00-30*	W605688	
4	-	-	40	50	100	100	2	2	150	WCM150N-22-30#	W605689	
5	-	-	75	100	200	200	2	2	300	WCM300N-22-30#	W605690	

**\* AC COIL VOLTAGE CODE SELECTION**

FOR CONTACTORS WCM9N...WCM95N

60 Hz	24V	120V	208-240V	480V	600V
<b>CODE</b>	<b>V04</b>	<b>V18</b>	<b>V24</b>	<b>V47</b>	<b>V56</b>
50 Hz	-	110V	-	400-415V	500V

**# AC / DC COIL VOLTAGE CODE SELECTION**

# FOR CONTACTORS: WCM150N, WCM300N

Voltage	24-28 Vac/Vdc	110-130 Vac/Vdc	208-250 Vac/Vdc	430-500 VAC/VDC
<b>CODE</b>	<b>E02</b>	<b>E10</b>	<b>E13</b>	<b>E21</b>

Notes:



- 1) WCM\_N Series - 9 to 95 A - AC COIL
- 2) WCM\_N Series - 150 to 300 A - AC/DC Coil with Electronic Module

## WCM-N Series - NEMA Rated Standard Contactor

### Accessories




1 WCM CONTACTOR

#### Auxiliary Contacts Block

Location/Description	Mounting on Contactors	Auxiliary Contacts		Catalog Number	Ref.No.	Multiplier	
		N.O.	N.C.				
	Front Mounting	WCM9...105	1	0	<b>WBCXMF10</b>	<b>W605691</b>	Z1
		WCM9N...95N	0	1	<b>WBCXMF01</b>	<b>W605692</b>	
	Side Mounting	WCM9...WCM300 WCM9N...300N	1	1	<b>WBCXML11</b>	<b>W605693</b>	
			2	0	<b>WBCXML20</b>	<b>W605694</b>	
Side Mounting, Second Block	Side Mounting, Second Block	WCM9...WCM300 WCM9N...300N	1	1	<b>WBCXMRL11</b>	<b>W605695</b>	
			2	0	<b>WBCXMRL20</b>	<b>W605696</b>	
Side Mounting, Second Block	Side Mounting, Second Block	WCM400...WCM800	1	1	<b>WBCXML11 WCM800</b>	<b>W605697</b>	
			1	1	<b>WBCXMRL11 WCM800</b>	<b>W605698</b>	

Maximum # of added auxiliary contacts per contactor frame size: Note that side mountable version has 2 aux. contacts per block. WCM9...25 = 4 aux. contacts; WCM32...40 = 6 aux. contacts; WCM50...300E = 8 aux. contacts.

#### Mechanical Interlock Block

Location/Description	Mounting on Contactors	Auxiliary Contacts		Catalog Number	Ref.No.	Multiplier	
		N.O.	N.C.				
	Side mounted between two contactors	WCM9...105	0	0	<b>WBLIM 9-105</b>	<b>W605699</b>	Z1
		WCM9N...95N	0	2	<b>WBLIM.02 9-105</b>	<b>W605700</b>	
	Bottom mounted	WCM112...300 1WCM150N WCM300N	0	0	<b>WBLIM 112-300</b>	<b>W605701</b>	
		WCM400	0	0	<b>WBLIM WCM400</b>	<b>W605702</b>	
	Bottom mounted	WCM630...WCM800	0	0	<b>WBLIM WCM800</b>	<b>W605703</b>	

Notes: For WCM9...WCM105 the mechanical interlock can be used to interlock different frame sizes. For WCM112...WCM300, the mechanical interlock has to be used with contactors that have the same mechanical frame size.

For WBLIM WCM800, a metal mount base is provided with this accessory for an accurate assembling of the contactors.

#### Surge Suppressors

Description	Mounting on Contactors	Voltage Range	Catalog Number	Ref. No.	Multiplier
Limits switching transients from contactor pick-up	WCM9...40 WCM9N...32N	24...48Vac	<b>WBAMRC4 D53</b>	<b>W605704</b>	Z1
		50...127Vac	<b>WBAMRC5 D55</b>	<b>W605705</b>	
		130...250Vac	<b>WBAMRC6 D63</b>	<b>W605706</b>	
	WCM50...105 WCM50N...95N	24...48Vac	<b>WBAMRC7 D53</b>	<b>W605707</b>	
		50...127Vac	<b>WBAMRC8 D55</b>	<b>W605708</b>	
		130...250Vac	<b>WBAMRC9 D63</b>	<b>W605709</b>	
	WCM9...105 WCM9N...95N	270 - 380Vac	<b>WBAMV D68</b>	<b>W605710</b>	
		400 - 510Vac	<b>WBAMV2 V73</b>	<b>W605711</b>	


Note: WCM112...300 with Electronic Module and WCM400...800 already have the surge suppressor built-in on the electronic module

## Contactors


### WCM Series - IEC Standard Contactors

#### Accessories

**Terminal Cover for WCM\_E Contactor Series**

Location/Description	Mounting on Contactors	Catalog Number	Ref.No.	Multiplier
 Protection for contactor terminals (3 covers per package)	WCM150	<b>WBMP WCM150</b>	<b>W605712</b>	Z1
	WCM180	<b>WBMP WCM180</b>	<b>W605713</b>	
	WCM300	<b>WBMP WCM300</b>	<b>W605714</b>	
	WCM400	<b>WBMP WCM400</b>	<b>W605715</b>	
	WCM630...WCM800	<b>WBMP WCM800</b>	<b>W605716</b>	

**Lugs for WCM Contactor Series (3 units per package)**


Description / Wire Range	Mounting on Contactors	Catalog Number	Ref.No.	Multiplier	
	300 MCM...6 AWG	WCM112...150	<b>WL1-S300</b>	Z1	
	300 MCM...6 AWG	WCM180	<b>WL2-S300</b>		<b>W605718</b>
	600 MCM...4 AWG	WCM250...WCM300	<b>LW1-S600</b>		<b>W605719</b>
	(2) 3-4/0 AWG	WCM400	<b>WBMJ WCM400</b>		<b>W605720</b>
	(2) 3/0-600 MCM	WCM630...WCM800	<b>WBMJ WCM800</b>		<b>W605721</b>



## WCM Series - IEC Standard Contactors

### Replacement Coil

1 WCM CONTACTOR

Description		Mounting on Contactors	Catalog Number	Ref.No.	Multiplier	
	Coil voltage code is required to complete part number	<b>AC COIL</b>		W605722		
		WCM9...25 WCM9N...18N	<b>WBCA4-25*</b>	W605723	Z1	
		WCM32...40 WCM32N	<b>WBCA4-40*</b>	W605724		
		WCM50...105 WCM50N...95N	<b>WBCA-105*</b>	W605725		
			<b>DC COIL<sup>2</sup></b>		W605726	
		WCM32...40	<b>WBCEC4-40+</b>	W605727	Z1	
		WCM50...105	<b>WBCEC-105+</b>	W605728		
			<b>AC/DC ELECTRONIC MODULE &amp; COIL<sup>1</sup></b>		W605729	
		WCM112...150 WCM150N	<b>WBCE-150#</b>	W605730	Z1	
			<b>WME-300#</b>	W605731		
			<b>WBCE-215#</b>	W605732		
		WCM180	<b>WME-300#</b>	W605733		
			<b>WBCE-300#</b>	W605734		
		WCM250...300 WCM300N	<b>WME-300#</b>	W605735		
		WCM400	<b>WBCE-400 ^</b>	W605736		
WCM630...800	<b>WBCE-800 ^</b>	W605737				

-1) Module (ME-) & Coil (BCE-) must be used together for a proper contactor operation.  
 -2) DC Option does not include NEMA Rated Contactors

**\* AC COIL VOLTAGE CODE SELECTION FOR CONTACTORS WCM9...WCM105, WCM150N, WCM300N, WCM9N...95**

60 Hz	24V	48V	120V	208-240V	277V	480V	600V
<b>CODE</b>	<b>V04</b>	<b>V10</b>	<b>V18</b>	<b>V24</b>	<b>V37</b>	<b>V47</b>	<b>V56</b>
50 Hz	-	42V	110V	-	230-240V	400-415V	500V

1) Stock available only for contactor version ...-10-30... and ...-00-30.... Example WCM9-10-30V24 or WCM50-00-30V24

**+ DC COIL VOLTAGE CODE SELECTION 1)**

**FOR CONTACTORS WCM32...WCM105**

Voltage	24-28V	110-130V
<b>CODE</b>	<b>C34</b>	<b>C40</b>

**# AC/DC COIL VOLTAGE CODE SELECTION - Electronic Contactor Required**

**FOR CONTACTORS WCM112, 150, 180, 250, 300, WCM150N, WCM300N**

Voltage	24-28Vac/Vdc	110-130Vac/Vdc	208-250Vac/Vdc	430-500Vac/Vdc
<b>CODE</b>	<b>E02</b>	<b>E10</b>	<b>E13</b>	<b>E21</b>
Mounting on	WCM112-WCM300	WCM112-WCM300	WCM112-WCM300	WCM112-WCM300

**^ AC/DC COIL VOLTAGE CODE SELECTION - Electronic Contactor Required**

**FOR CONTACTORS WCM400, 630, 800**












Voltage	100-240Vac/100-220Vdc	100-127Vac/100-110Vdc	200-240Vac/200-220Vdc	440-575Vac
<b>CODE</b>	<b>E36</b>	<b>E35</b>	<b>E39</b>	<b>D82</b>
Mounting on	WCM400	WCM630-WCM800	WCM630-WCM800	WCM400-WCM800

1) DC coils cannot be used in AC coil contactors due to difference in size of coil housing.












# Contactors

## WCM Series - IEC Standard Contactors

### Control circuit ratings - AC Coil

TYPE	WCM9	WCM12	WCM18	WCM25	WCM32	WCM40	WCM50	WCM65	WCM80	WCM95	WCM105	
<b>Rated Insulation Voltage <math>U_i</math></b>												
Acc. IEC; VDE 0660 [V]						1000						
Acc. UL; CSA [V]						600						
<b>Rated Operating Voltage <math>U_e</math></b>												
Acc. IEC; VDE 0660 [V]						690						
Acc. UL; CSA [V]						600						
<b>Standard Voltages 60Hz</b> [V]						24...600						
<b>Coil Operating limits</b>												
Monofrequency coils $xU_c$ [V]						0.85...1.1						
Pick-up $xU_c$ [V]	0.4...0.76				0.5...0.76		0.5...0.76					
Drop-out $xU_c$ [V]	0.25...0.65				0.3...0.65		0.25...0.6					
<b>Operating Time</b>												
Coil energization - N.O. [ms]	8...20				10...19		15...30					
Coil de-energization - N.O. [ms]	6...13				5...25		9...15					
<b>Coil Consumption</b>												
Single coils												
Sealed [VA]	4...7.2				6.6...12.5		13.1...19.1					
Inrush [VA]	70				98		255					
<b>Thermal Power Dissipation</b>												
60Hz [W]	2.6				4.3		8.0					
<b>Power Factor</b>												
Closed Cos phi	0.28				0.34		0.32					
Opened Cos phi	0.85				0.69		0.54					
<b>Stranded / Solid [AWG] (UL / CSA)</b>	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	

### Control circuit ratings - DC Coil

TYPE	WCM9	WCM12	WCM18	WCM25	WCM32	WCM40	WCM50	WCM65	WCM80	WCM95	WCM105	
<b>Rated Insulation Voltage <math>U_i</math></b>												
Acc. IEC; VDE 0660 [V]						1000						
Acc. UL; CSA [V]						600						
<b>Standard Voltages</b> [V]	12...440				24...240		24...240					
<b>Coil Operating limits</b>												
Pick-up $xU_c$ [V]	0.4...0.7				0.85...1.1							
Drop-out $xU_c$ [V]	0.15...0.4				0.45...0.75 0.15...0.45		0.7...0.8 0.4...0.6					
<b>Operating Time</b>												
Coil energization - N.O. [ms]	35...45				40...55		50...60					
Coil de-energization - N.O. [ms]	7...12				30...65		55...60					
<b>Coil Consumption</b>												
Sealed [W]	3.8...9.0				6		6.5					
Inrush [W]	3.8...9.0				240		340					
<b>Stranded / Solid [AWG] (UL / CSA)</b>	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	2x12-10 	

**WCM Series - IEC Standard Contactors**
**IEC Contactors - WCM Series**

TYPE		WCM112	WCM150	WCM180	WCM250	WCM300	WCM400	WCM630	WCM800
<b>Rated Insulation Voltage Ui</b>									
Acc. IEC; VDE 0660	[V]								1000
Acc. UL; CSA	[V]								600
<b>Rated Operating Voltage Ue</b>									
Acc. IEC; VDE 0660	[V]								690
Acc. UL; CSA	[V]								600
Standard Voltages 50Hz; 60Hz; DC	[V]								24...600
<b>Coil Operating limits</b>									
xUc	[V]		0.65...1.1					0.85...1.1	
Pick-up xUc	[V]		0.70...0.85					0.77...0.83	
Drop-out xUc	[V]		0.40...0.60					0.48...0.53	
<b>Operating Time</b>									
Coil energization - N.O.	[ms]	60...70	60...70	60...70	60...70	60...70	64...68	66...70	66...70
Coil de-energization - N.O.	[ms]	13...17	13...17	13...17	13...17	13...17	43...47	45...49	45...49
<b>Coil Consumption</b>									
Sealed AC	[VA]	14.8	14.8	14.1	14.1	14.1	14	17	29
Inrush AC	[VA]	213	213	214	229	229	571	1000	1000
Sealed DC	[VA]	2.4	2.4	2.4	2.5	2.5	14	17	29
Inrush DC	[VA]	166	166	154	171	171	571	1000	1000
<b>Thermal Power Dissipation</b>									
AC	[W]	3.9	3.9	3.8	3.7	3.7	4.7	4.9	5.3
DC	[W]	2.4	2.4	2.4	2.5	2.5	5.0	6.3	7.8

# Contactors

## WCM Series - IEC Standard Contactors

### Power Contacts

TYPE		WCM9	WCM12	WCM18	WCM25	WCM32	WCM40	WCM50	WCM65	WCM80	WCM95	WCM105	
<b>Standard UL/CSA Ratings</b>													
Rated Operating Voltage	[V]	600											
AC-1 (General Purpose)	[A]	25	25	32	32	60	60	90	110	110	140	140	
Switching Motor Loads													
Full Voltage - 50/60Hz													
1-phase	115V	[A]	9.8	13.8	16	24	34	34	56	56	80	80	100
	230V	[A]	10	12	17	28	28	28	40	50	68	68	88
	115V	[HP]	1/2	3/4	1	2	3	3	5	5	7-1/2	7-1/2	10
	230V	[HP]	1-1/2	2	3	5	5	7 1/2	10	10	15	15	20
3-phase	200V	[A]	11	11	17.5	25	32.2	32.2	48.3	62.1	62.1	78.2	92
	230V	[A]	9.6	9.6	15.2	22	28	42	42	54	68	80	104
	460V	[A]	7.6	11	14	21	27	40	52	65	65	77	96
	575V	[A]	9	11	17	17	27	27	41	52	62	77	77
	200V	[HP]	3	3	5	7-1/2	10	10	15	20	20	25	30
	230V	[HP]	3	3	5	7-1/2	10	15	15	20	25	30	40
	460V	[HP]	5	7-1/2	10	15	20	30	40	50	50	60	75
	575V	[HP]	7-1/2	10	15	15	25	25	40	50	60	75	75
Short Circuit Rating	600V [kA]	5	5	5	5	5	5	10	10	10	10	10	
<b>Standard IEC Ratings (IEC EN 60947)</b>													
Rated Operating Voltage	[V]	690						1000					
Rated Thermal Current Ith	[A]	25	25	32	45	60	60	90	110	110	140	140	
Switching Motor Loads													
AC-3 - 50/60Hz													
3-phase	220-240V	[A]	9	12	18	25	32	40	50	65	80	95	105
	380-400V	[A]	9	12	18	25	32	40	50	65	80	95	105
	415-440V	[A]	9	12	18	25	32	40	50	65	80	95	105
	500V	[A]	7.5	10.5	14	19	24	32	38	55	63	79	85
	660-690V	[A]	7	9	13	15	22	25	34	44	48	60	80
	220-240V	[kW]	2.2	3	4	7.5	9	11	15	18.5	22	25	30
	380-400V	[kW]	4	5.5	7.5	11	15	18.5	22	30	37	45	55
	415-440V	[kW]	4	5.5	7.5	11	15	22	25	37	45	50	55
	500V	[kW]	5.5	7.5	10	15	18.5	25	30	40	45	55	65
660-690V	[kW]	5.5	7.5	10	15	18.5	30	35	45	45	55	65	
<b>Maximum Switching Rate</b>													
AC-1	[ops/hr]	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	
AC-3	[ops/hr]	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	600	600	
no load	[ops/hr]	9,000	9,000	9,000	9,000	9,000	9,000	9,000	5,000	5,000	5,000	5,000	
<b>AC-4</b>													
200,000 operations; 50/60Hz	<= 690V [A]	5	7	8	12	16	18.5	23	30	37	44	50	
	220-230V [kW]	1.1	1.5	1.5	3	4	4.5	5.5	7.5	9.2	11	12.5	
	[HP]	1.5	2	2	4	5.4	6	7.5	10	12.5	15	17	
	380-400V [kW]	2.2	3	3.7	5.5	7.5	9.2	11	15	18.5	22	22	
	[HP]	3	4	5	7.5	10	12.5	15	20	25	30	30	
	415-440V [kW]	2.2	3.7	4.5	5.5	9.2	11	11	15	22	22	30	
	[HP]	3	5	6	7.5	12.5	15	15	20	30	30	40	
	500V [kW]	3	4	5.5	7.5	10	11	15	18.5	22	25	30	
	[HP]	4	5.4	7.5	10	13	15	20	25	30	33	40	
	660-690V [kW]	3	4.5	5.5	7.5	11	12.5	15	20	25	30	33	
	[HP]	4	6	7.5	10	15	17	20	27	33	40	45	

Power Contacts continued

## Power Contacts cont.

## WCM Series - IEC Standard Contactors

Type			WCM9	WCM12	WCM18	WCM25	WCM32	WCM40	WCM50	WCM65	WCM80	WCM95	WCM105
Breaking Capacity	Ue=400V	[A]	250	250	250	450	450	920	920	920	920	1050	1050
	Ue=500V	[A]	250	250	250	320	450	920	920	920	920	1050	1050
	Ue=690V	[A]	130	130	130	170	205	780	780	780	780	950	950
Impedance per Pole		[mW]	2.41	2.41	2.35	1.65	1.28	0.95	0.85	0.86	0.86	0.76	0.76
<b>Power Dissipation per Pole</b>													
	AC-1	[W]	1.47	1.47	2.46	3.34	4.6	3.42	6.86	10.40	10.40	14.89	14.89
	AC-3	[W]	0.19	0.34	0.78	1.03	1.31	1.52	2.12	3.63	5.5	6.86	8.37
<b>Short Time Current I<sub>cw</sub></b>													
	1 sec.	[A]	455	455	570	630	1010	1265	1580	2530	2530	3300	3300
	5 sec.	[A]	205	205	254	280	450	450	710	1130	1130	1485	1485
	10 sec.	[A]	144	144	180	200	320	400	500	800	800	1050	1050
	30 sec.	[A]	85	85	104	115	185	230	290	460	460	600	600
	1 min.	[A]	60	60	74	80	130	165	205	325	325	430	430
	3 min.	[A]	35	35	46	50	90	100	120	185	185	250	250
	Rec. time	[min.]	10	10	10	10	10	10	10	10	10	10	10
<b>Short Circuit Coordination</b>													
Acc. to IEC													
Coordination Type "1"	gL/gG	[A]	50	50	63	63	100	125	200	200	200	250	250
Coordination Type "2"	gL/gG	[A]	25	35	35	50	63	80	100	125	125	160	200
Acc. to UL/CSA	J Type	[A]	25	35	40	45	60	70	100	125	125	150	200

## Built-in Auxiliary Contacts

TYPE		WCM9	WCM12	WCM18
<b>Rated Insulation Voltage Ui</b>				
Acc. IEC; VDE 0660				[V]
				1000
Acc. UL; CSA				[V]
				600
<b>Rated Operating Voltage Ue</b>				
Acc. IEC; VDE 0660				[V]
				690
Acc. UL; CSA				[V]
				600
Rated Thermal Current I <sub>th</sub> ≤55°C				[A]
				20
<b>Rated Operating Current Ie</b>				
Acc. IEC 60947-5-1 / AC-15		110-127V		[A]
		220-240V		[A]
		380-400V		[A]
		415-450V		[A]
		500V		[A]
		660-690V		[A]
Acc. UL; CSA				A600
<b>Rated Operating Current Ie</b>				
Acc. IEC 60947-5-1 / DC-13		24V		[A]
		48V		[A]
		110V		[A]
		220V		[A]
		440V		[A]
Acc. UL; CSA				P600
<b>Making Capacity I<sub>m</sub></b>				
AC-15 / AC-11		Ue ≤ 690V 50/60Hz		[A]
				250
DC-13 / DC-11		Ue ≤ 440Vdc		[A]
				250
<b>Breaking Capacity I<sub>c</sub></b>				
AC-15 / AC-11		Ue ≤ 400V 50/60Hz		[A]
				250
DC-13 / DC-11		Ue ≤ 220Vdc		[A]
				2
<b>Short Circuit Protection with Fuses</b>				
Acc. IEC 60947-5-1 - gL/gG				[A]
				10
Minimum Switching Capacity				[V/mA]
				17/5
Electrical Endurance				Million ops.
				1
Mechanical Endurance				Million ops.
				10
Guaranteed Non-Overlap Time				[ms]
				1.5
Insulation Resistance				[MΩ]
				>10

1 WCM CONTACTOR

## Contactors

### WCM Series - IEC Standard Contactors

#### Power Contacts cont.

TYPE	Units		WCM112	WCM150	WCM180	WCM250	WCM300	WCM400	WCM630	WCM800
<b>NEMA Ratings</b>										
Rated Operating Voltage		[V]	600							
AC-1 (General Purpose)		[A]	170	170	200	300	400	450	660	900
Switching Motor Loads										
Full Voltage - 50/60Hz										
1-phase	115V	[A]	-	-	-	-	-	-	-	-
	230V	[A]	-	-	-	-	-	-	-	-
	115V	[HP]	-	-	-	-	-	-	-	-
	230V	[HP]	-	-	-	-	-	-	-	-
3-phase	200V	[A]	120	150	177	221	285	359	414	552
	230V	[A]	130	154	192	248	312	360	480	772
	460V	[A]	124	156	180	240	302	361	477	-
	575V	[A]	99	144	192	242	336	289	382	-
	200V	[HP]	40	50	60	75	100	125	150	200
	230V	[HP]	50	60	75	100	125	150	200	300
	460V	[HP]	100	125	150	200	250	300	400	600
575V	[HP]	100	150	200	250	350	300	400	600	
Short Circuit Rating	600V	[kA]	10	10	10	18	18	18	30	30
<b>Standard IEC Ratings (IEC/EN 60947)</b>										
Rated Operating Voltage		[V]	1000							
Rated Thermal Current Ith		[A]	180	225	225	350	350	450	660	900
<b>Switching Motor Loads</b>										
<b>AC-3 - 50/60Hz</b>										
3-phase	220-240V	[A]	112	150	180	250	300	400	630	800
	380-400V	[A]	112	150	180	250	300	400	630	800
	415-440V	[A]	112	150	180	250	300	400	630	800
	500V	[A]	95	130	155	220	265	350	500	720
	660-690V	[A]	82	110	135	185	220	300	420	630
	220-240V	[kW]	30	45	55	75	90	110	185	220
	380-400V	[kW]	55	75	90	132	160	220	330	450
	415-440V	[kW]	55	90	110	150	185	220	370	500
	500V	[kW]	55	90	110	160	200	220	330	500
	660-690V	[kW]	75	110	110	160	200	260	400	560
<b>Maximum Switching Rate</b>										
	AC-1	[ops/hr]	600	600	600	600	600	500	500	500
	AC-3	[ops/hr]	600	600	600	600	600	500	500	500
	no load	[ops/hr]	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

## WCM Series - IEC Standard Contactors

### Power Contact cont.

TYPE			WCM112	WCM150	WCM180	WCM250	WCM300	WCM400	WCM500	WCM630	WCM800
<b>AC-4</b>	<b>Voltage</b>	<b>Units</b>									
200,000 operations;  50/60Hz	<= 690V	[A]	50	55	58	100	130	-	-	-	-
	220-230V	[kW]	18.5	20	22	37	45	90	-	110	185
		[HP]	25	27	30	50	60	125	-	150	250
	380-400V	[kW]	30	33	37	55	75	150	-	220	330
		[HP]	40	44	50	75	100	200	-	300	450
	415-440V	[kW]	37	40	45	63	80	185	-	220	370
		[HP]	50	54	60	84	107	250	-	300	500
	500V	[kW]	40	45	50	75	90	-	-	-	-
		[HP]	54	60	67	100	121	-	-	-	-
660-690V	[kW]	45	50	55	90	100	-	-	-	-	
	[HP]	600	67	75	121	133	-	-	-	-	
Maximum Switching Rate		[ops/hr]	150	150	150	150	150	-	-	-	-
Making Capacity		[A]	1430	1820	2100	2600	3000	-	-	-	-
<b>Breaking Capacity</b>											
	Ue<=400V	[A]	1290	1350	1400	2000	-	4000	-	6300	8000
	Ue=500V	[A]	1290	1350	1400	2000	-	4000	-	6300	8000
Impedance per pole		[mW]	0.5	0.5	0.45	0.3	0.3	-	-	-	-
<b>Power Dissipation per Pole</b>											
	AC-1	[W]	16	25	21.6	35	45.7	-	-	-	-
	AC-3	[W]	6.2	11.1	13.8	17.9	25.7	-	-	-	-
<b>Short Time Current Icw</b>											
0°≤ 104°F	1 sec.	[A]	3165	3763	4649	4427	-	-	-	-	-
	5 sec.	[A]	1820	2164	2673	2546	-	-	-	-	-
	10 sec.	[A]	1430	1700	2100	2000	-	-	-	-	-
	30 sec.	[A]	826	980	1212	1155	-	-	-	-	-
	1 min.	[A]	584	694	857	816	-	-	-	-	-
	3 min.	[A]	337	401	495	471	-	-	-	-	-
	Recovery time	[min.]	10	10	10	10	10	-	-	-	-
<b>Short Circuit Coordination</b>											
<b>Acc. to IEC</b>											
Coordination type "1"	gL/gG	[A]	315	355	355	500	630	630	-	800	1000
Coordination type "2"	gL/gG	[A]	224	250	250	400	500	-	-	-	-
Acc. to UL/CSA	J Type	[A]	250	350	400	500	700	700	-	900	1100












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WCM CONTACTOR



# Contactors

## WCM Series - IEC Standard Contactors

### General Ratings

TYPE		WCM9	WCM12	WCM18	WCM25	WCM32	WCM40	WCM50	WCM65	WCM80	WCM95	WCM105	
Standards	Units	Devices according to International Standards IEC 60947-1 / 60947-4-1, European Standards EN 60947-1 / 60947-4-1, Underwriters Laboratories - UL 508; CSA C.22.2/14; VDE 0660/102											
<b>Rated Insulation Voltage Ui</b>													
Acc. IEC; VDE 0660	[V]	1000											
Acc. UL; CSA	[V]	600											
Rated Impulse Voltage Uimp													
Acc. IEC60947-1	[kV]	6						8					
Rated Operating Frequency	[Hz]	25...400											
Degree of Protection		Protection against direct contact Acc. VDE 0160 - Part. 100											
Main terminals		IP20						IP10					
Coil terminals													
Auxiliary terminals													
<b>Ambient Temperature</b>													
Storage		-55 to +80°C (-67 to +176°F)											
Operating		-25 to +55°C (-13 to +131°F)											
<b>Altitude</b>													
Up to 1,500m		Nominal values											
Pollution Degree		3											
Climatic Withstand		According to IEC 60680-2											
Mounting		35mm rail Acc. DIN EN 50 022											
<b>Vibration Resistance (5 to 200 Hz)</b>													
Contactors open	[g]	3	3	3	7.5	8	8	4.5	4.5	4.5	5	5	
Contactors closed at Uc	[g]	6	6	6	8	12	12	9	9	9	7	7	
<b>Mechanical Endurance</b>													
AC Coil	Million ops.	10											
Electrical Endurance AC-3	Million ops.	1.8	1.6	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	
<b>Shock Resistance (1/2 sin wave = 11ms)</b>													
Contactors open	[g]	8	8	8	8	7	7	6	6	6	6	6	
Contactors closed at Uc	[g]	12	12	12	12	12	12	10	10	10	10	10	
Weight	[kg]	0.30	0.30	0.30	0.30	0.52	0.54	1.11	1.12	1.13	1.45	1.47	
AC Coil	[lb]	0.65	0.65	0.65	0.65	1.15	1.19	2.44	2.47	2.49	3.20	3.24	
<b>Terminal Capacity</b>													
		<b>Cross/Slotted Combination</b>						<b>Allen Head</b>					
Fine - Stranded with sleeve	Top [mm <sup>2</sup> ]												
	Bottom [mm <sup>2</sup> ]	2x0.5-2.5	2x0.5-2.5	2x0.5-2.5	2x1-2.5	0.75-16	0.75-16	1-35	1-35	1-35	1.5-50	1.5-50	
Coarse - Stranded / Solid	Top [mm <sup>2</sup> ]	2x1-2.5	2x1-2.5	2x1-2.5	2x1-2.5	1-16	1-16	1.5-35	1.5-35	1.5-35	2.5-50	2.5-50	
	Bottom [mm <sup>2</sup> ]	or 2x2.5-6	or 2x2.5-6	or 2x2.5-6	or 2x2.5-10	1.5-16	1.5-16	6-35	6-35	6-35	6-35	6-35	
Stranded / Solid (UL / CSA)	Top [AWG]	2x20-12	2x20-12	2x20-12	2x18-12	18-6	18-6	16-2	16-2	16-2	16-1	16-1	
	Bottom [AWG]	or 2x12-10	or 2x12-10	or 2x12-10	or 2x12-8	16-6	16-6	14-2	14-2	14-2	10-2	10-2	
Drive Size		Screwdriver - Phillips #2						5/32" (4mm.)					
Tightening Torque	lb-in (Nm)	8.9...15 (1...1.7)	8.9...15 (1...1.7)	8.9...15 (1...1.7)	14.2...26.6 (1.6...3)	22.1...35.4 (2.5...4)	22.1...35.4 (2.5...4)	35.4...53.1 (4...6)	35.4...53.1 (4...6)	35.4...53.1 (4...6)	44.3...57.5 (5...6.5)	44.3...57.5 (5...6.5)	

**WCM Series - IEC Standard Contactors**
**General Ratings**

TYPE	WCM112	WCM150	WCM180	WCM250	WCM300	WCM400	WCM630	WCM800	
Standards Units	Devices according to International Standards IEC 60947-1 / 60947-4-1, European Standards EN 60947-1 / 60947-4-1, Underwriters Laboratories - UL 508; CSA C.22.2/14; VDE 0660/102								
<b>Rated Insulation Voltage Ui</b>									
Acc. IEC; VDE 0660	[V]	1000							
Acc. UL; CSA	[V]	600							
<b>Rated Impulse Voltage Uimp</b>									
Acc. IEC60947-1	[kV]	8							
Rated Operating Frequency	[Hz]	25...400							
Degree of protection		Protection against direct contact acc. VDE 0160 - Part. 100							
Main terminals		IP00							
Coil terminals		IP20							
Auxiliary terminals		IP20							
<b>Ambient Temperature</b>									
Storage		-55 to +80 °C (-67 to +176°F)							
Operating		-25 to +55 °C (-13 to +131°F)							
<b>Altitude</b>									
Up to 1,500m		Nominal values							
Other altitudes								up to 2000m	
Pollution Degree		3							
Climatic withstand		According to IEC 68-2							
Mounting		Screw to panel							
<b>Vibration Resistance (5 to 200 Hz)</b>									
Contactors open	[g]	4							
Contactors closed at Uc	[g]	4							
<b>Mechanical Endurance</b>									
AC Coil	Million ops.	10					5		
Electrical Endurance AC-3	Million ops.	1.1	1.1	1.0	1.0	1.0	0.5		
<b>Shock Resistance (1/2 sin wave = 11ms)</b>									
Contactors open	[g]	3							
Contactors closed at Uc	[g]	3							
<b>Weight</b>									
AC/DC Coil	[kg]	2.54	2.54	4.04	6.14	6.14	9.2	22.4	22.4
	[lb]	5.60	5.60	8.91	13.54	13.54	20	49	49
<b>Terminal Capacity</b>									
Fine - Stranded with sleeve	[mm <sup>2</sup> ]	2 x (25-70)		2 x (50-120)	2 x (50-150)		1 x 150	1 x 240	1 x 240
AWG wires with end sleeve		1 x 300 or 2 x 107			1 x 500 or 2 x 300		Nº2 30x5	Nº2 50x5	Nº2 60x5
Busbars	[mm]	2 x (15 x 3)		2 x (20 x 3)	2 x (30 x 5)		-	-	-
Tightening Torque	lb-in (Nm)	47.8-53.1(5.4-6)		123.9-141.6(14-16)	203.6-230.1(23-26)		203.6(23)	504.5(57)	504.5(57)

**1 WCM CONTACTOR**

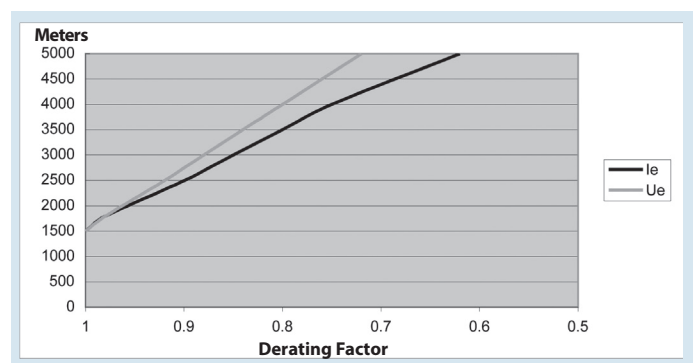
# Contactors

## WCM Series - IEC Standard Contactors Auxiliary contact block ratings

TYPE			WBCXMF	WBCXML	WBCXMRL	WBLIM.02
<b>Rated Insulation Voltage Ui</b>						
Acc. IEC; VDE 0660	[V]			1000		
Acc. UL; CSA	[V]			600		
<b>Rated Operating Voltage Ue</b>						
Acc. IEC; VDE 0660	[V]			690		
Acc. UL; CSA	[V]			600		
Rated Thermal Current Ith <=55°C	[A]			10		
<b>Rated Operating Current Ie</b>						
Acc. IEC 60947-5-1 / AC-15	110-127V	[A]		6		
	220-240V	[A]		6		
	380-400V	[A]		4		
	415-450V	[A]		3.5		
	500V	[A]		2.5		
	660-690V	[A]		1.5		
Acc. UL; CSA				A600		
<b>Rated Operating Current Ie</b>						
Acc. IEC 60947-5-1 / DC-13	24V	[A]		4		
	48V	[A]		2		
	110V	[A]		0.7		
	220V	[A]		0.3		
	440V	[A]		0.15		
Acc. UL; CSA				Q600		
<b>Making Capacity Im</b>						
AC-15 / AC-11	Ue <= 400V 50/60Hz	[A]		90		
DC-13 / DC-11	Ue <= 220Vdc	[A]		90		
<b>Breaking Capacity Ie</b>						
AC-15 / AC-11	Ue <= 400V 50/60Hz	[A]		60		
DC-13 / DC-11	Ue <= 220Vdc	[A]		0.95		
<b>Short Circuit Protection with Fuses</b>						
Acc. IEC 60947-5-1 - gL/gG		[A]		10		
Minimum Switching Capacity		[V/mA]		17/5		
Electrical Endurance		Million ops.		1		
Mechanical Endurance		Million ops.		10		
Guaranteed Non-Overlap Time		[ms]		1.5		
Insulation Resistance		[MOhm]		>10		

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WCM CONTACTOR

### Graphic Altitude



**NOTE:**

Altitude compensation in WCM Series contactors, considers a factor according to which the rated power must be reduced.

The derating of the permissible operating power for installation altitudes above 1,500 m (5,000 ft) is calculated according to:

$$\text{Total derating} = \text{Derating}_{\text{current}} \times \text{Derating}_{\text{voltage}}$$

Example: Altitude: 3,000 m (10,000 ft):

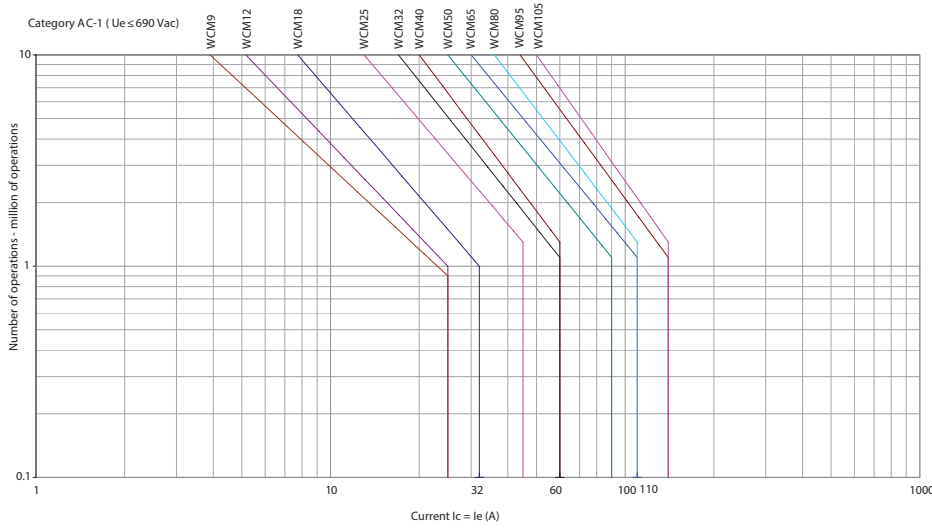
Derating current K1 = 0.85

Derating voltage K2 = 0.88

$$\text{Total derating} = 0.85 \times 0.88 = 0.75 \times \text{HP}$$

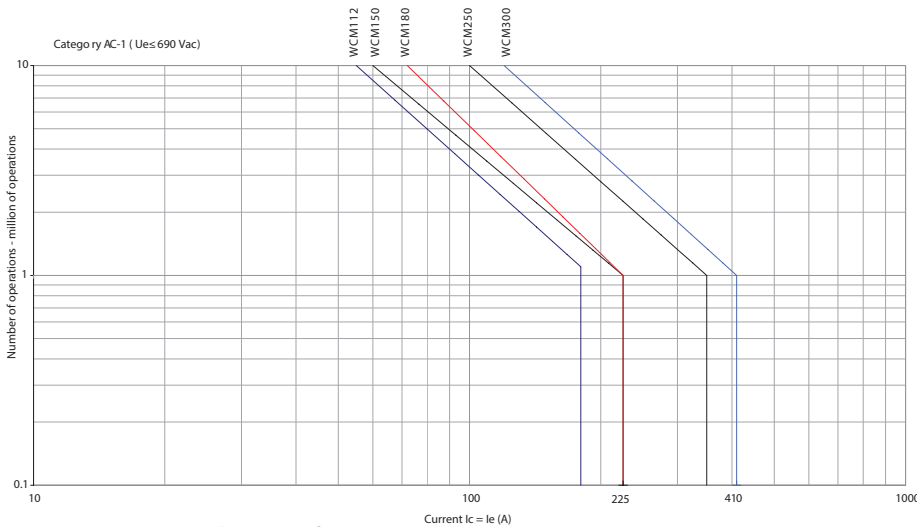
## WCM Series - IEC Standard Contactors

### AC-1: WCM9...105 Electric Lifespan



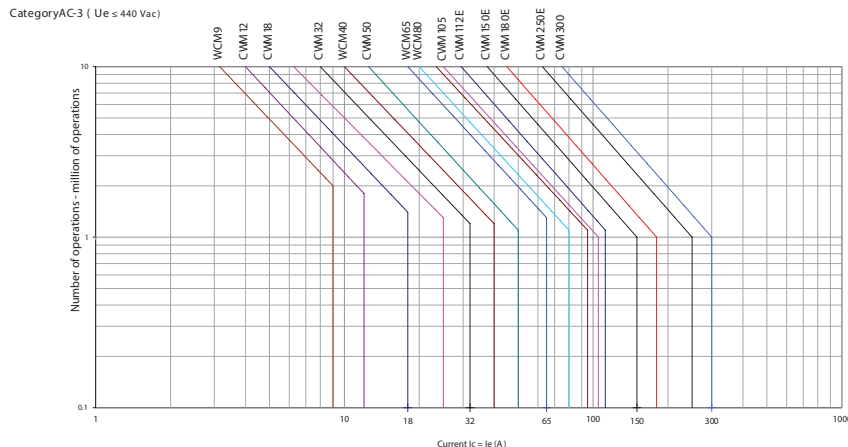
Control of resistive circuits (power factor  $\geq 0.95$ )  
The current broken ( $I_c$ ) in category AC-1 is equal to the current ( $I_e$ ) drawn by the load.

### AC-1: WCM112...300 Electric Lifespan



Control of resistive circuits (power factor  $\geq 0.95$ )  
The current broken ( $I_c$ ) in category AC-1 is equal to the current ( $I_e$ ) drawn by the load.

### AC-3: WCM9...300 Electric Lifespan

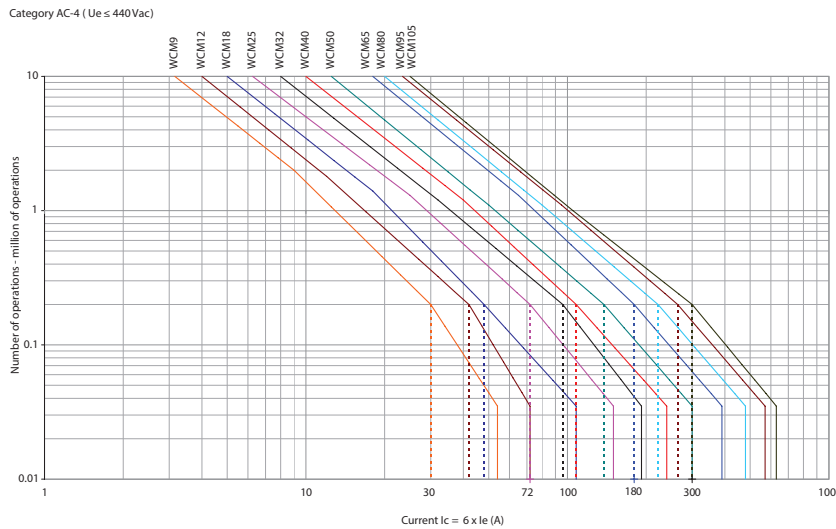


Control of 3-phase asynchronous squirrel cage motors with breaking while running. The current broken ( $I_c$ ) in category AC-3 is equal to the operational current of the motor ( $I_e$ ).

# Contactors

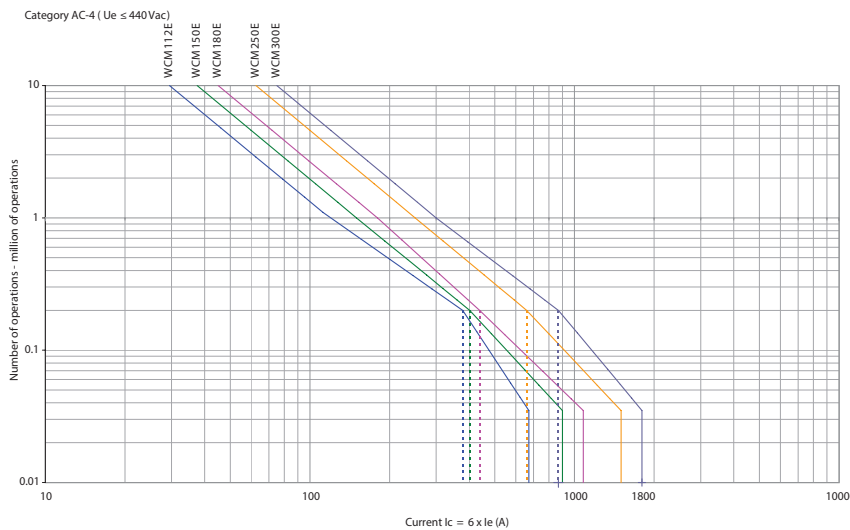
## WCM Series - IEC Standard Contactors

### AC-4: WCM9...105 Electric Lifespan



Control of 3-phase asynchronous squirrel cage motors with breaking while motor stalled. The current broken ( $I_c$ ) in category AC-4 is equal to 6 times the operational current of the motor ( $I_e$ ).

### AC-4: WCM112...300 Electric Lifespan



Control of 3-phase asynchronous squirrel cage motors with breaking while motor stalled. The current broken ( $I_c$ ) in category AC-4 is equal to 6 times the operational current of the motor ( $I_e$ ).

In many applications there is a mixture of AC-3 and AC-4 duty. For these applications the electric lifespan of a particular contactor can be estimated using the formula:

$$E = \frac{AC3}{1 - \left(\frac{P}{100}\right) + \left(\frac{P}{100} \times \frac{AC3}{AC4}\right)}$$

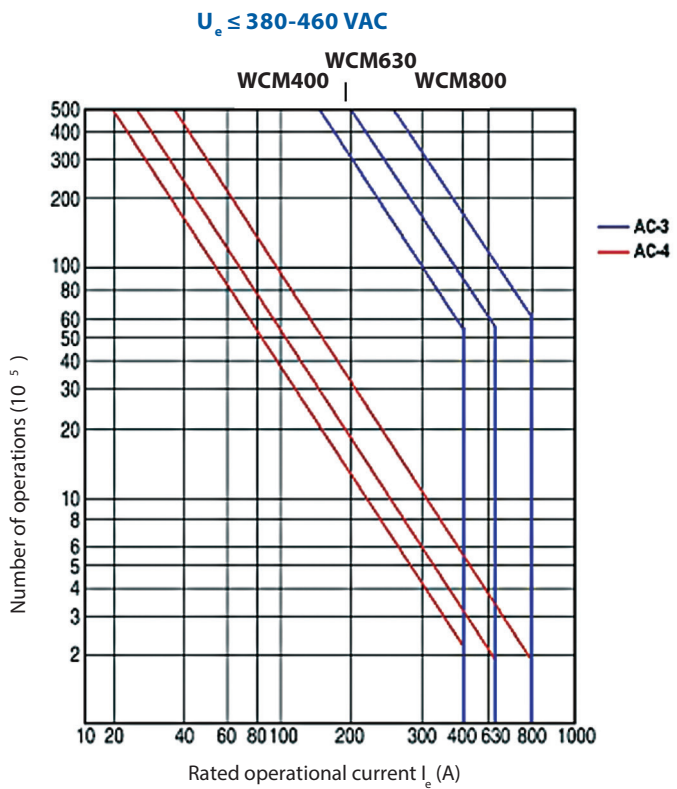
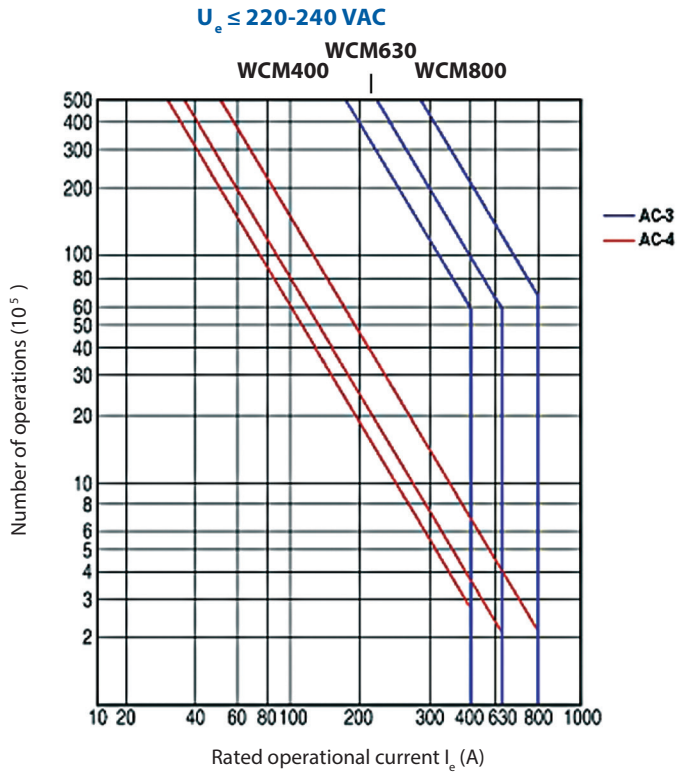
E= Estimated electric lifespan for mixed duty application.

AC-3= Number of electrical operations taken from the AC-3 Duty life curve.

AC-4= Number of electrical operations taken from the AC-4 Duty life curve.

P= Proportion of AC-4 operations to total operations for the application, expressed as a percentage.

## WCM Series - IEC Standard Contactors

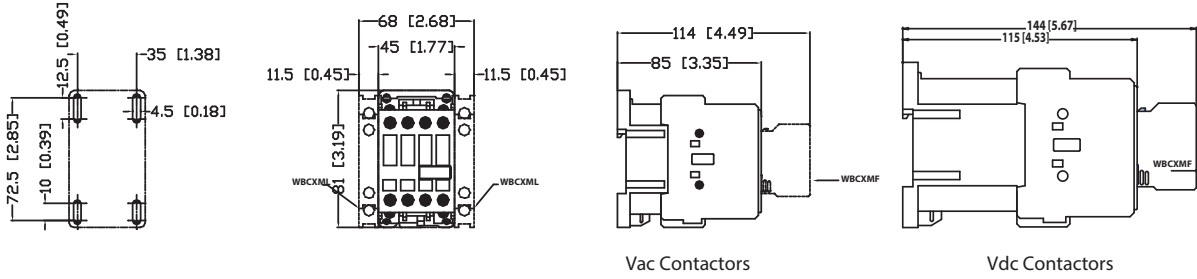
**Electrical Lifespan**
**1 WCM CONTACTOR**


# Contactors

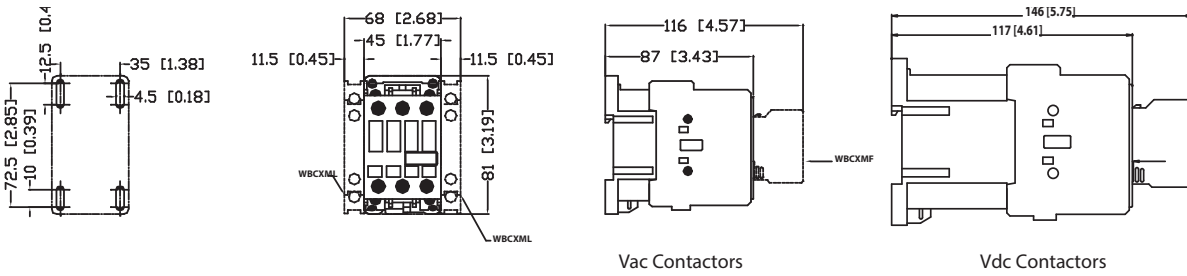
WCM-N Series - NEMA Rated Standard Contactor

## Mechanical Drawings mm (in)

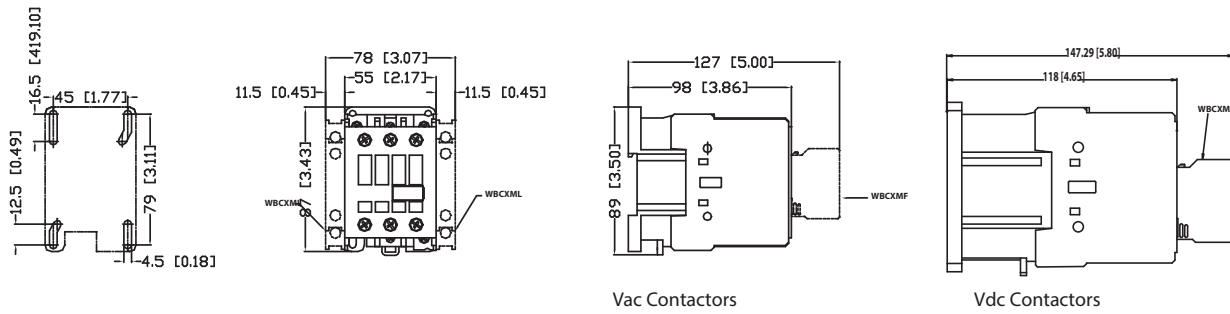
### WCM9, WCM9N, WCM12, WCM18, and WCM18N



### WCM25



### WCM32, WCM32N and WCM40

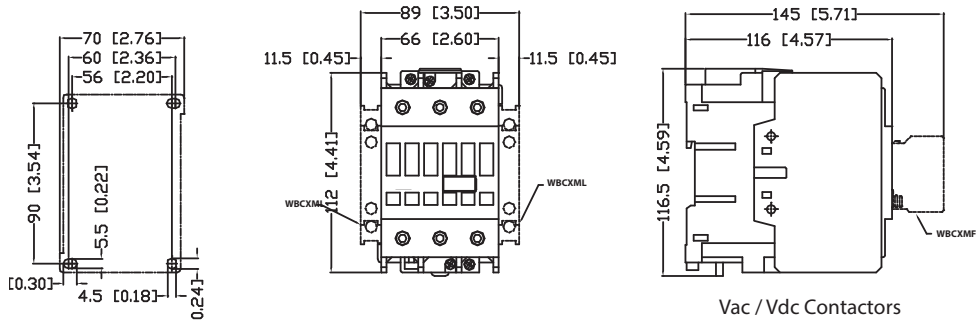




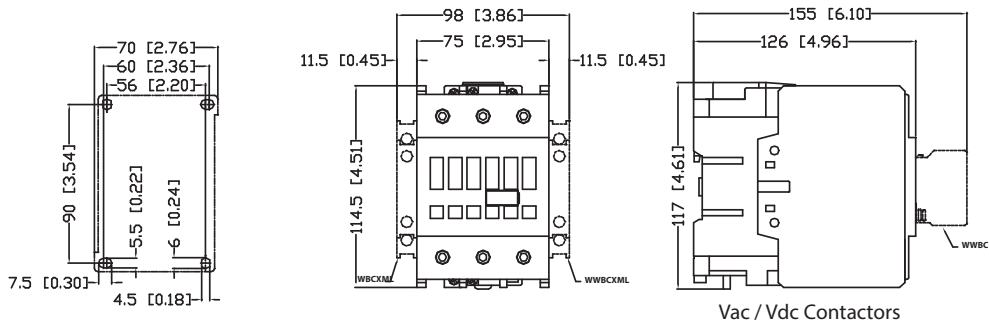
## WCM-N Series - NEMA Rated Standard Contactor

### Mechanical Drawings mm (in)

#### WCM50, WCM50N, WCM65 and WCM80



#### WCM95, WCM95N, and WCM105



WCM CONTACTOR

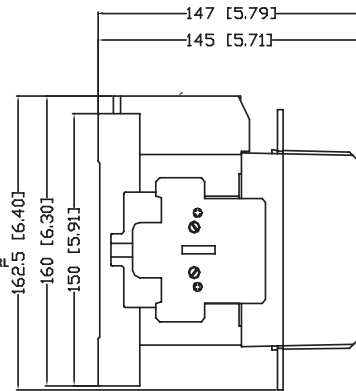
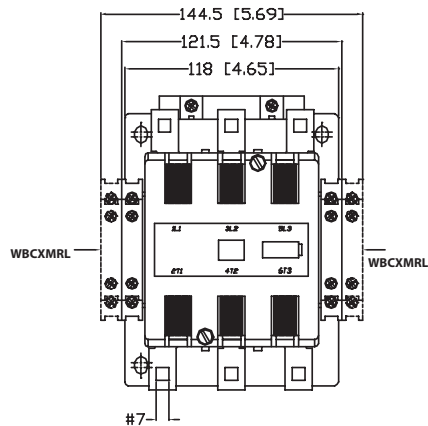
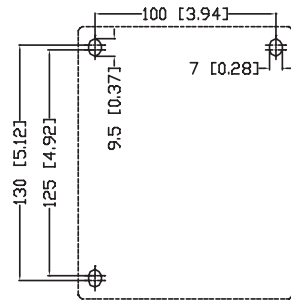
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# Contactors

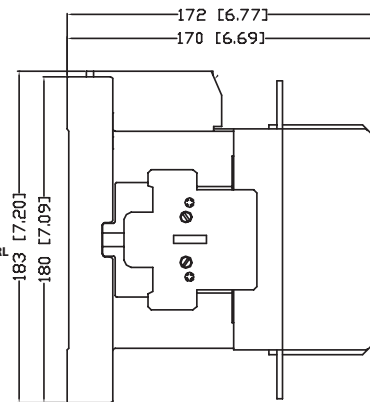
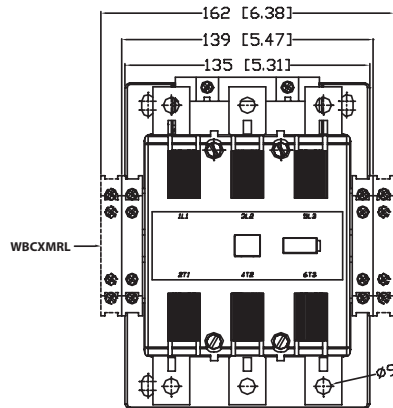
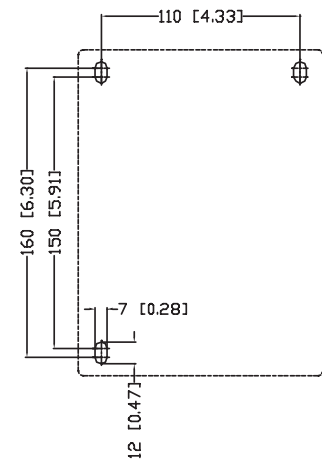
WCM-N Series - NEMA Rated Standard Contactor

## Mechanical Drawings mm (in)

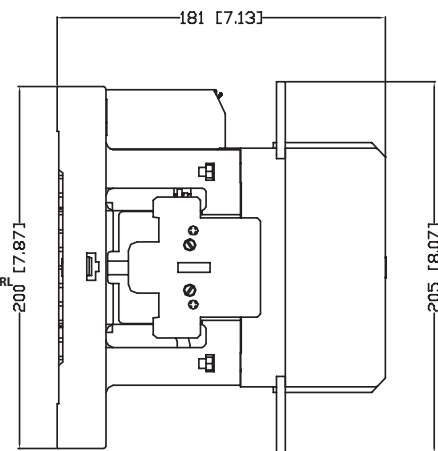
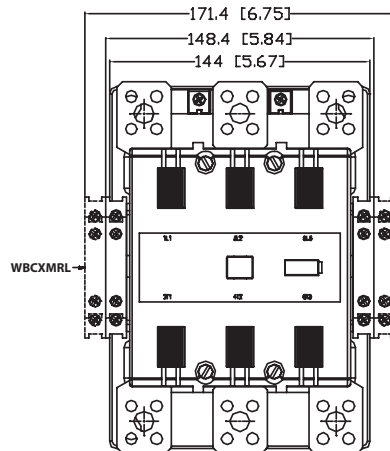
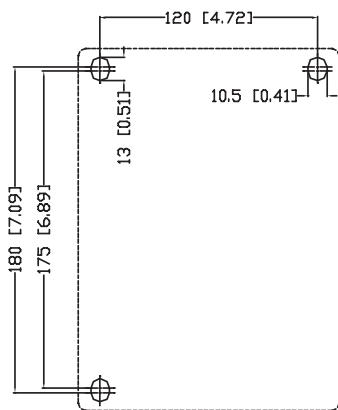
### WCM112, WCM150 and WCM150N



### WCM180



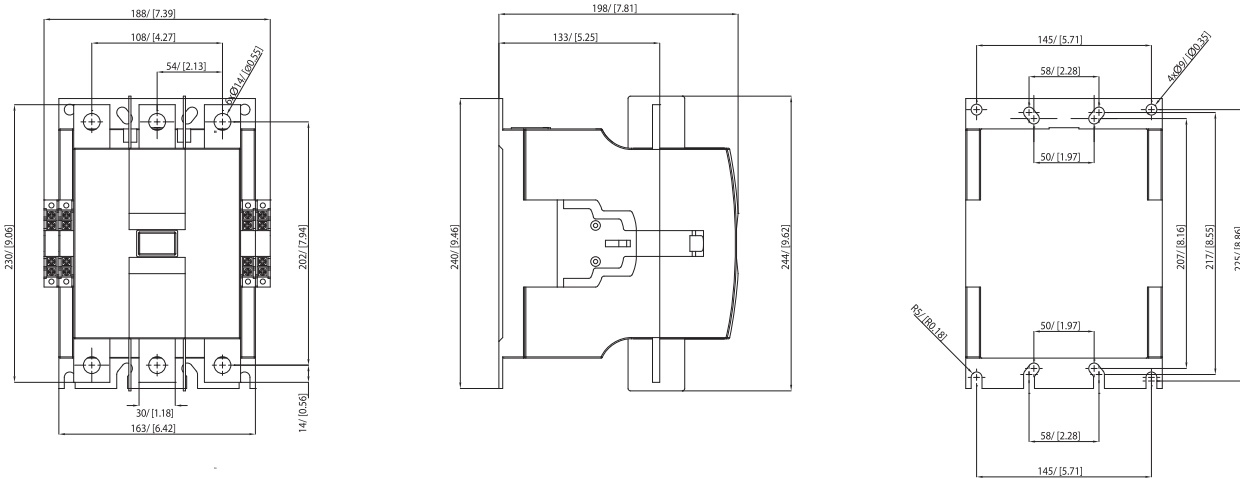
### WCM250, WCM300 and WCM300N



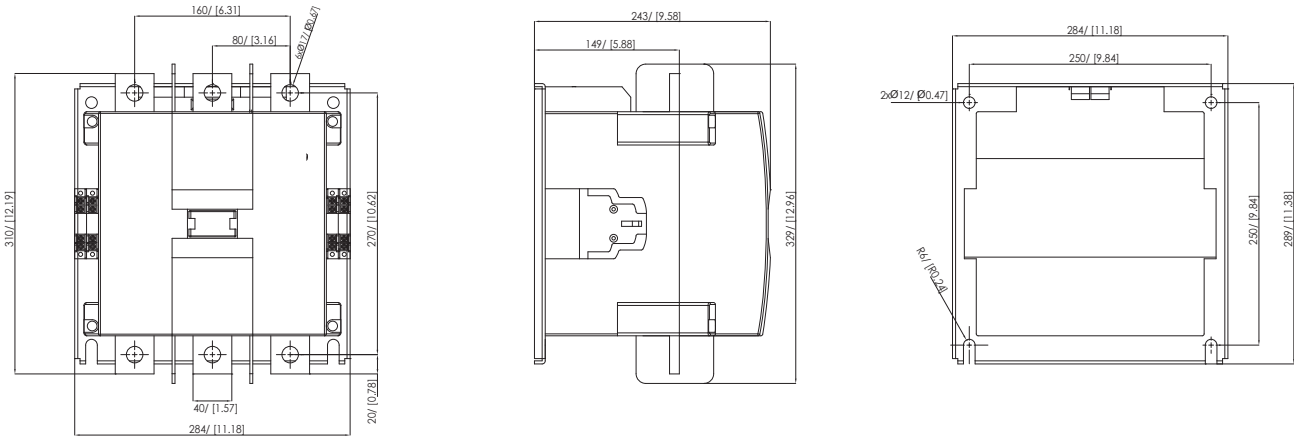
## WCM Series - IEC Standard Contactors

### Mechanical Drawings mm (in)

#### WCM400



#### WCM630 and WCM800



1

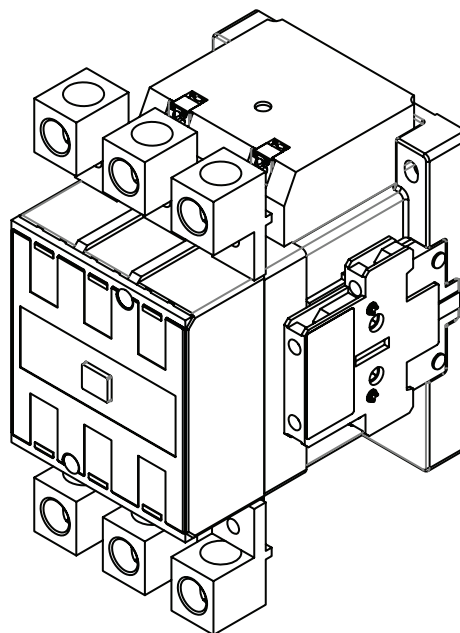
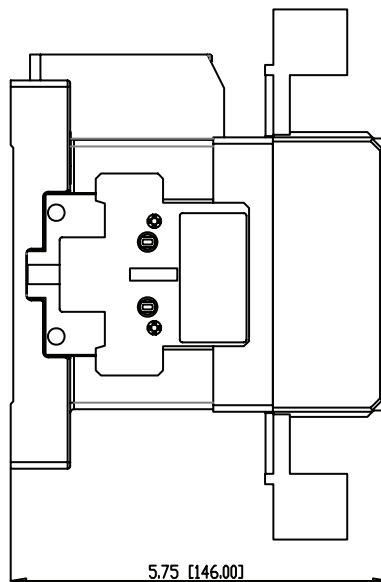
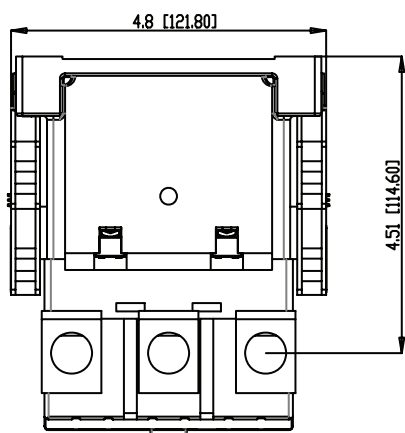
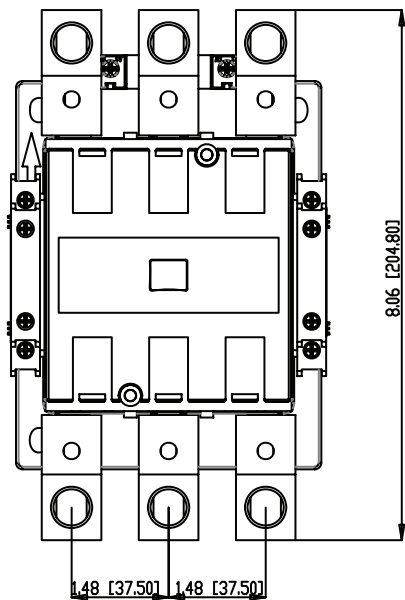
WCM CONTACTOR

## Contactors

WCM Series - IEC Standard Contactors

### Mechanical Drawings mm (in)

WCM112 - WCM150 + LW1-S300 (contactor with lugs)

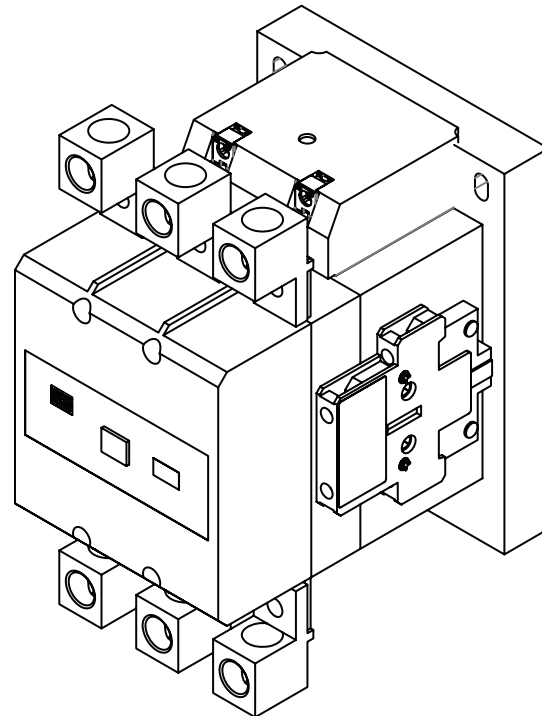
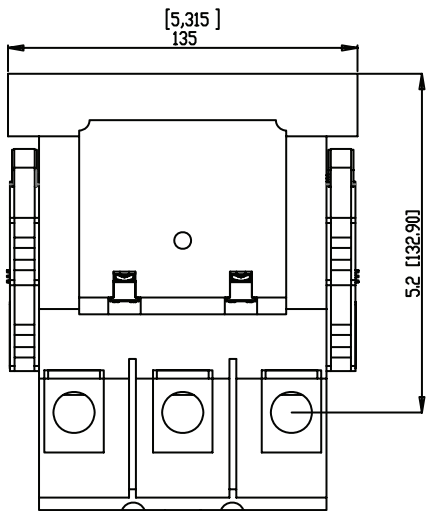
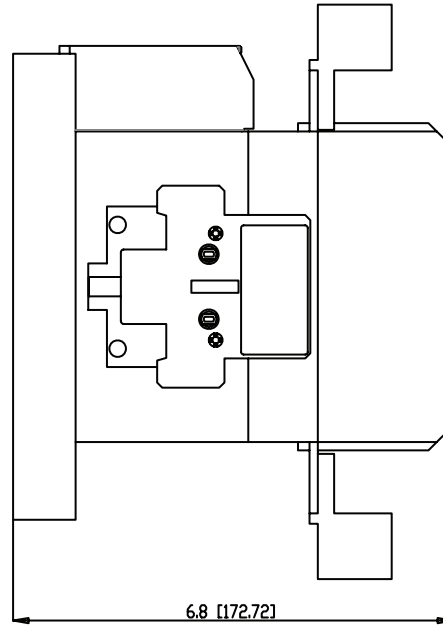
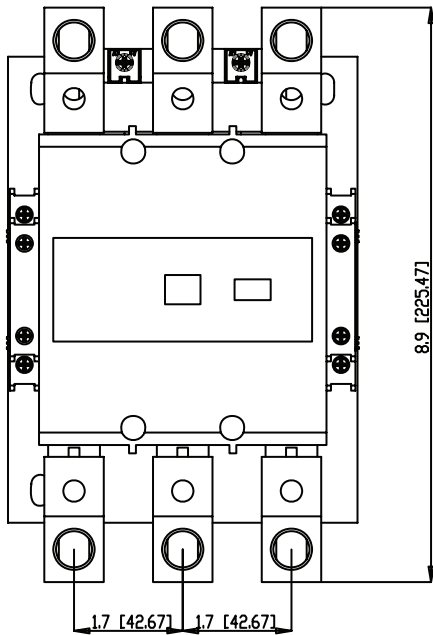


WCM Series - IEC Standard Contactors

Mechanical Drawings mm (in)

WCM180 + LW2-S300 (contactor with lugs)

1  
WCM CONTACTOR

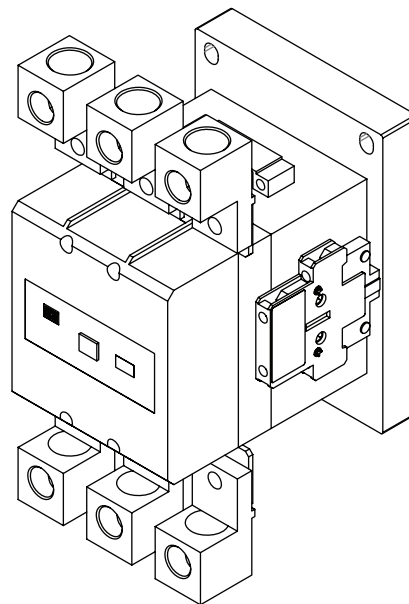
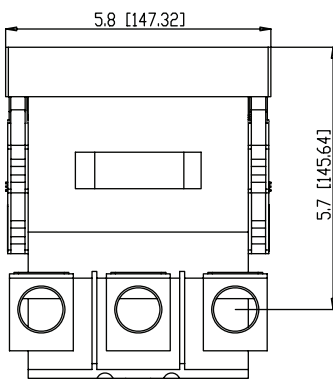
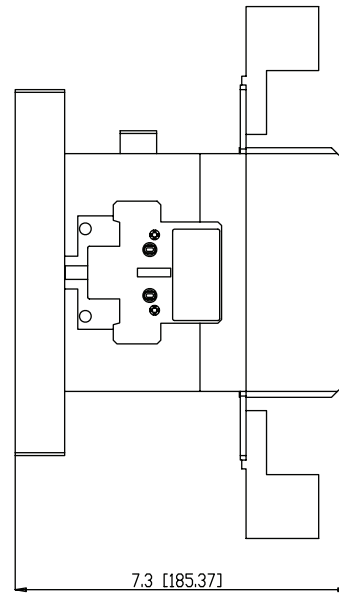
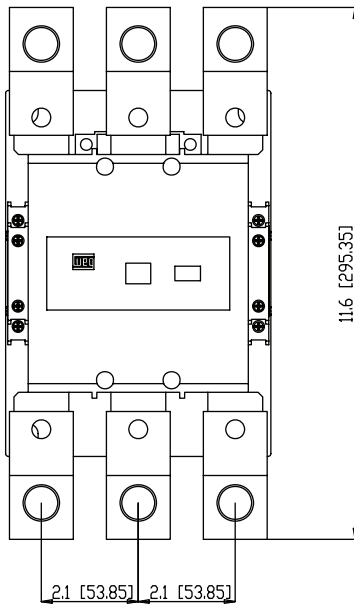


## Contactors

WCM Series - IEC Standard Contactors

### Mechanical Drawings mm (in)

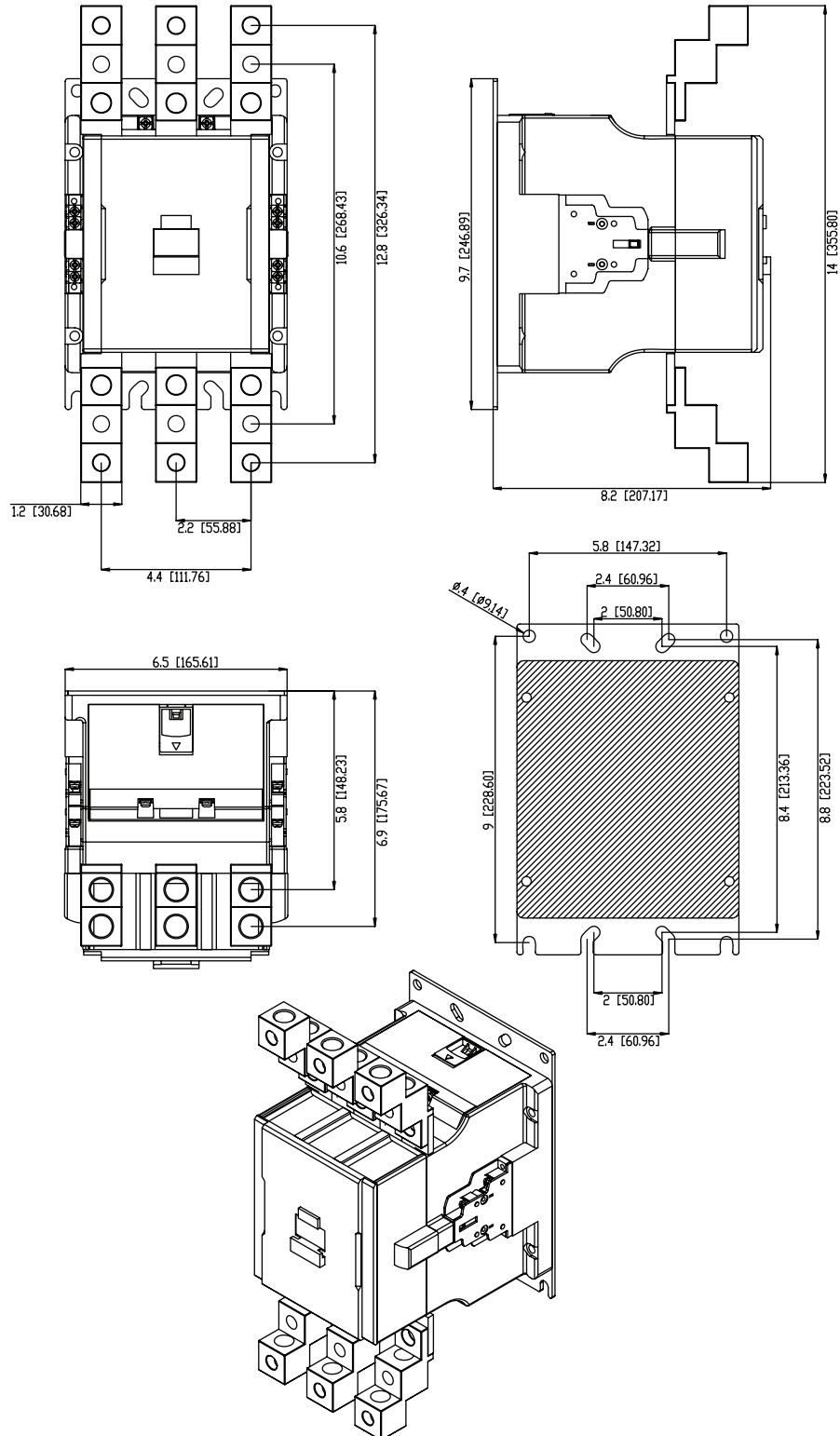
WCM250 + LW1-S600 (contactor with lugs)



## WCM Series - IEC Standard Contactors

**Mechanical Drawings mm (in)**

WCM400 + BMJ (contactor with lugs)

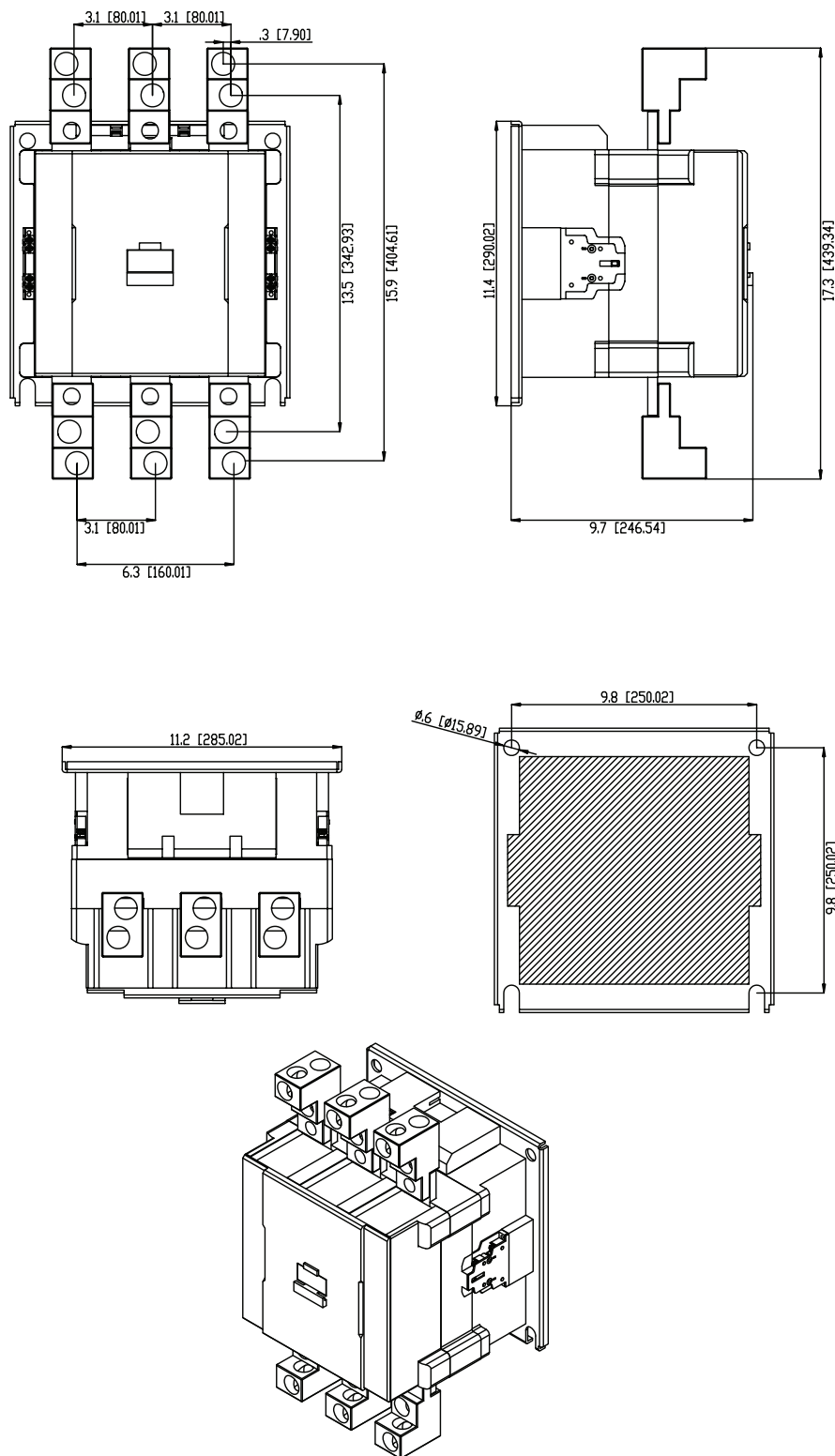
**1 WCM CONTACTOR**


# Contactors

WCM Series - IEC Standard Contactors

## Mechanical Drawings mm (in)

WCM630-WCM800 + BMJ (contactor with lugs)



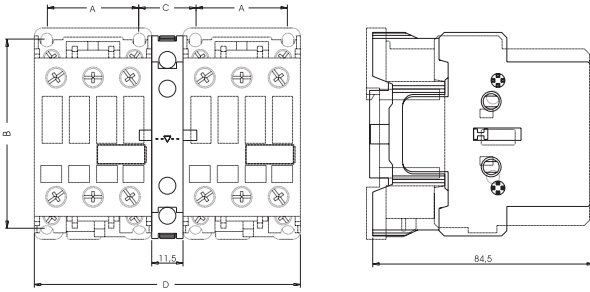
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WCM CONTACTOR



## WCM Series - IEC Standard Contactors

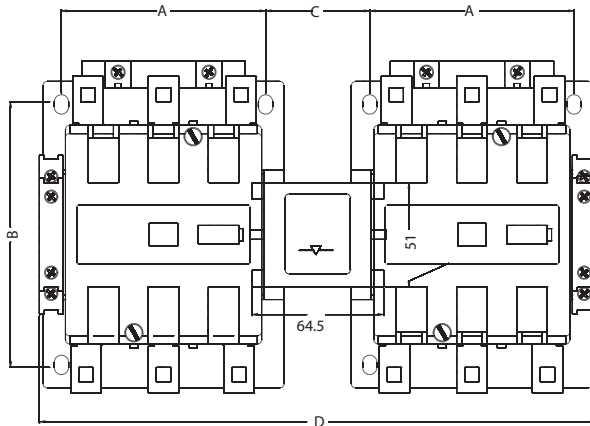
### Reversing Contactors mm (in)

#### WBLIM9-105



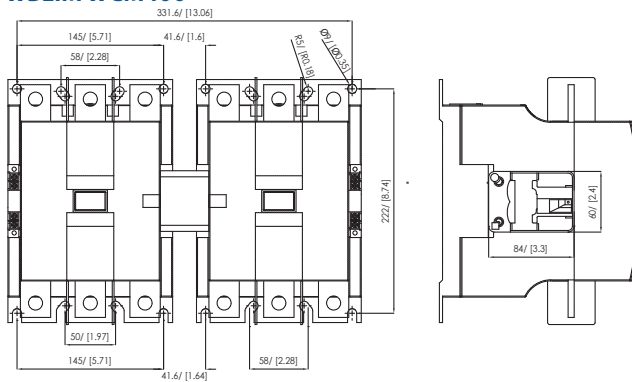
Models	A	B	C	D
WCM9...25	35 (1,4)	72,5 (2,9)	22 (0,9)	102 (4)
WCM32...40	45 (1,8)	79 (3,1)	22 (0,9)	122 (4,8)
WCM50...80	57 (2,2)	90 (3,5)	21 (0,8)	144 (5,7)
WCM95...105	57 (2,2)	90 (3,5)	29,8 (1,2)	153 (6)

#### WBLIM112-300

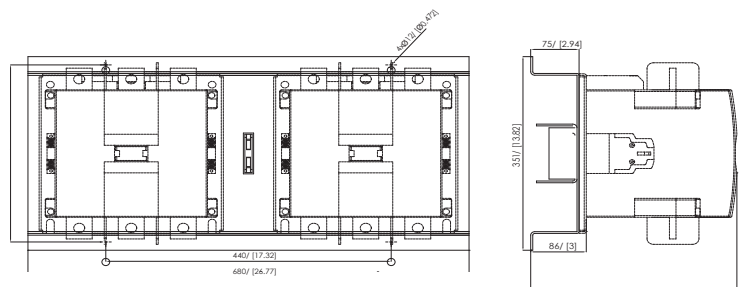


Models	A	B	C	D
WCM112...150	100 (3,9)	130 (5,1)	51 (2)	272,5 (10,7)
WCM180	110 (4,3)	160 (6,3)	58,5 (2,3)	303,5 (11,9)
WCM250...300	120 (4,7)	180 (7,1)	57 (2,2)	325,4 (12,8)

#### WBLIM WCM400



#### WWBLIM WCM800



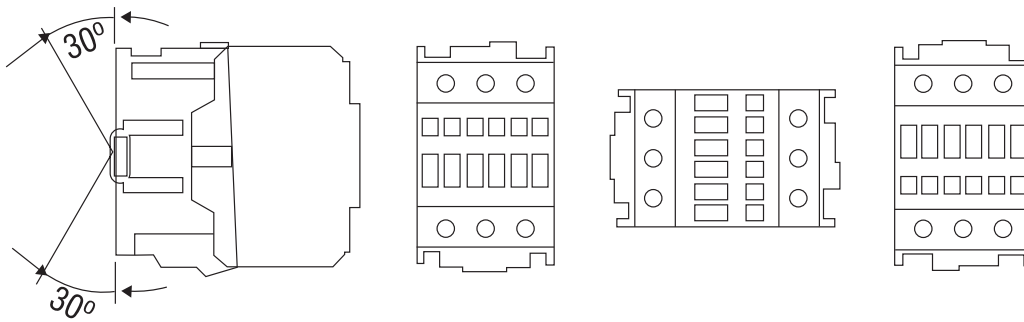
WCM CONTACTOR

## Contactors

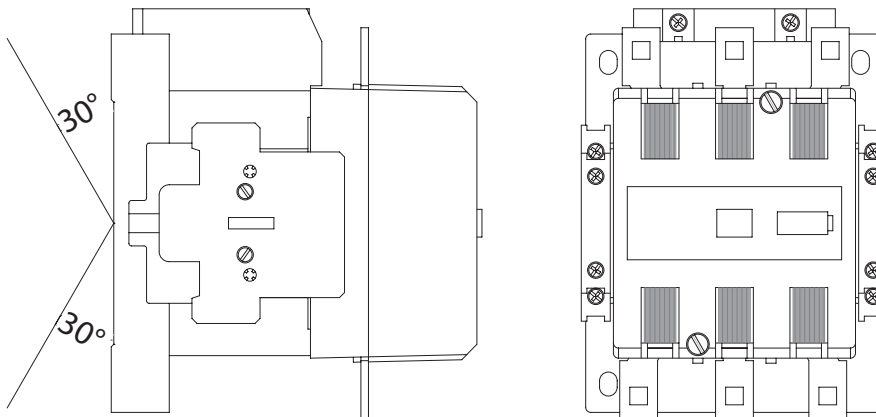
WCM Series - IEC Standard Contactors

Mounting position <sup>1</sup>

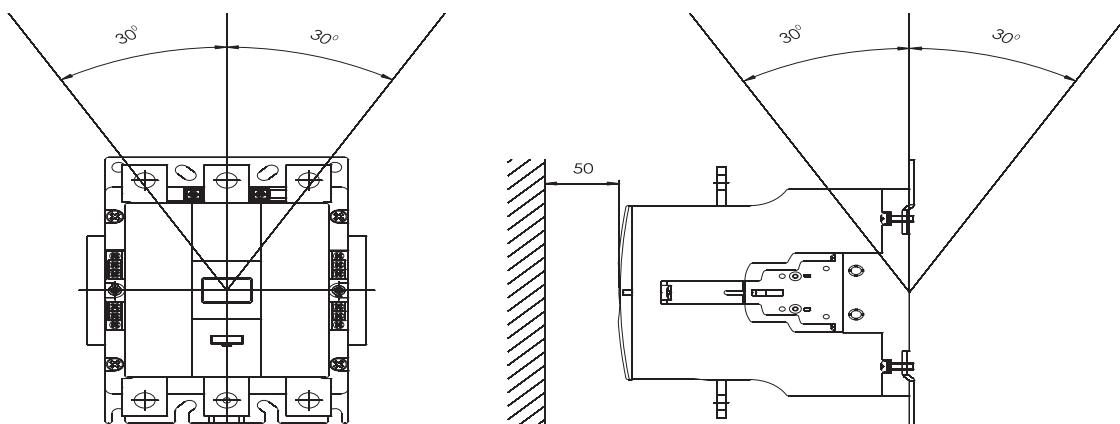
WCM9...105



WCM112...300



WCM400...800



Note: 1) Consult Westinghouse if application requires a different mounting position