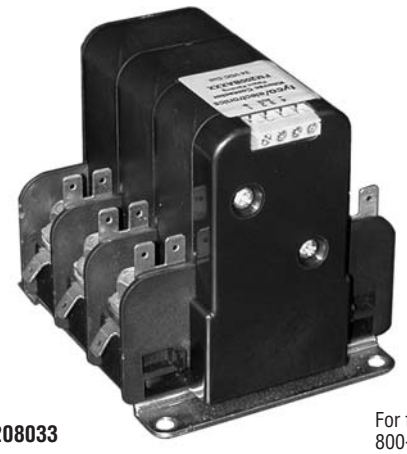
Tyco Electronics

KILOVAC FM200 ("FLATMAN") Series 1-, 2- or 3-pole Contactor With Contacts Rated 200 Amps, 480Vac (50/60 Hz.) or 48Vdc

Product Facts

- **Multi-pole configurations**
- **Normally open, normally closed and mixed contact arrangements**
- **Optional quick connect tabs for sensing**
- **Small, lightweight & cost-effective – designed to be the smallest, lowest cost contactor in the industry with its current rating**
- **Standard models available with 12VDC, 24VDC and 115 VAC coils. Consult factory for 240VAC coil models.**
- **1 Form A auxiliary contacts**



c UL us **File E208033**

For factory-direct application assistance, dial 800-253-4560, ext. 2055, or 805-220-2055.

Product Specifications

Parameter	Units	Value for FM200 Series
Contact Arrangement		1, 2 or 3 poles
Contact Form (per pole)		Form X or Y (NO-DM or NC-DB)
Rated Operating Voltage	V	480Vrms (L-L) or 48VDC
Max. Contact Voltage (transient)	V	750Vrms or 60VDC
Continuous (Carry) Current	Arms or ADC	200/pole (Form X) 150/pole (Form Y)
Power Switching Form X (0.7-1.0 PF)	Cycles	2,000 @ 300Arms 10,000@ 200Arms 20,000 @ 100Arms 5,000 @ 200A/48VDC 2 million @ 50A/28VDC
Power Switching Form Y (0.7-1.0 PF)	Cycles	2,000 @ 225Arms 10,000@ 150Arms 20,000 @ 75Arms 5,000 @ 150A/48VDC 2 million @ 35A/28VDC
Mechanical Life	Cycles	>2 million
Contact Voltage Drop	mV	75 for Form X or Form Y
Auxiliary Contact Arrangement		1 Form A (SPST-NO)
Auxiliary Contact Rating	Arms or ADC	1 @ 30VDC, 3 @ 125VAC
Dielectric Withstanding Voltage	Vrms	2,200 @ sea level
Insulation Resistance @ 500VDC	Megohms	100
Shock, 11ms 1/2 sine, peak	G	10
Vibration, sine, 10-2000Hz.	G	5
Operating Temperature	°C	-20 to +60
Storage Temperature	°C	-40 to +85
Ambient Humidity	%RH	0 to 95
Weight	oz. / kg	17.6 - 49.4 / 0.5 -1.4

See Outline Dimensions for model-specific weight information.

Available Pole Configurations and Applicable Coil Codes

No. of NC Poles (across) No. of NO Poles (down)	0	1	2	3
0		Y Coil D	YY Coil D	YYY Coil D
1	X Coil A/B/C/E	XY Coil A/B/C/E	YXY Coil D	
2	XX Coil A/B/C/E	XYX Coil A/B/C/E		
3	XXX Coil A/B/C/E			

X = Form X (NO-DM) Y = Form Y (NC-DB)

Coil Operating Voltage (valid over temperature range)

Coil Designator	Units	A	B	C	D
Nominal Voltage	V	12 (DC)	24 (DC)	115 (AC)	24 (DC)
Voltage Range	V	9.6-13.2	19.2-26.4	92-126.5	19.2-26.4
Hold Voltage	V	$\geq 0.5V_{nom}$	$\geq 0.5V_{nom}$	$\geq 0.5V_{nom}$	$\geq 0.5V_{nom}$
Dropout Voltage	V	$\leq 0.1V_{nom}$	$\leq 0.1V_{nom}$	$\leq 0.1V_{nom}$	$\leq 0.2V_{nom}$

Coil Resistance Data for Pole Configurations (@25°C)

Coil Designator	Units	A	B*	C*	D*
Resistance ±10%	Ohms	X = 36 XX = 18 XXX = 12 XY = 13.2 XYX = 9.6	X = 36 XX = 18 XXX = 12 XY = 13.2 XYX = 9.6	X = 36 XX = 18 XXX = 12 XY = 13.2 XYX = 9.6	Y = 20.8 YY = 10.4 YYY = 6.9 YXY = 8.1

*Coil resistance not measurable at terminals due to converter/economizer circuit.

Coil Current/Power Data for Pole Configurations (@25°C, $V_{coil}=1.1V_{nom}$)

Coil Designator	A	B**
Current/Power	X = 0.37 ADC / 4.84W XX = 0.73ADC / 9.68W XXX = 1.1ADC / 14.5W XY = 1.0ADC / 13.2W XYX = 1.38ADC / 18.2W	X = 0.33ADC / 3.9W XX = 0.65ADC / 7.6W XXX = 0.97ADC / 11.3W XY = 0.98ADC / 12.7W XYX = 1.31ADC / 16.5W

Coil Designator	C	D***	Pick-Up I / Duration
Current/Power	X = 0.067 Arms / 6.8VA XX = 0.115Arms / 11.6VA XXX = 0.146Arms / 14.8VA XY = 0.074Arms / 7.5VA XYX = 0.161Arms / 16.3VA	Y = 0.13ADC / 3.4W YY = 0.23ADC / 6.1W YYY = 0.34ADC / 9.0W YXY = 0.28ADC / 7.4W	1.28ADC / 75ms 2.4ADC / 75ms 3.0ADC / 75ms 3.0ADC / 75ms

**Average coil current. ***Economized.

Operate/Release Time (25°C, $0.8V_{nom} \leq V < V_{nom}$) Typ.

Coil Designator	Units	A	B****	C****	D****
Operate Time	ms	25-50	30-50	50-150	20-30
Release Time	ms	10-20	70-80	75-100	75-100
Bounce Time	ms	2-5	2-5	2-5	2-5

****Includes internal coil suppression.

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Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-470-4425
Mexico: 01-800-733-8926
C. America: 52-55-5-729-0425

South America: 55-11-3611-1514
Hong Kong: 852-2735-1628
Japan: 81-44-844-8013
UK: 44-141-810-8967

KILOVAC FM200 Series (FLATMAN) (Continued)

Part Numbering System

Typical Part Number	FM200	A	B	XYX

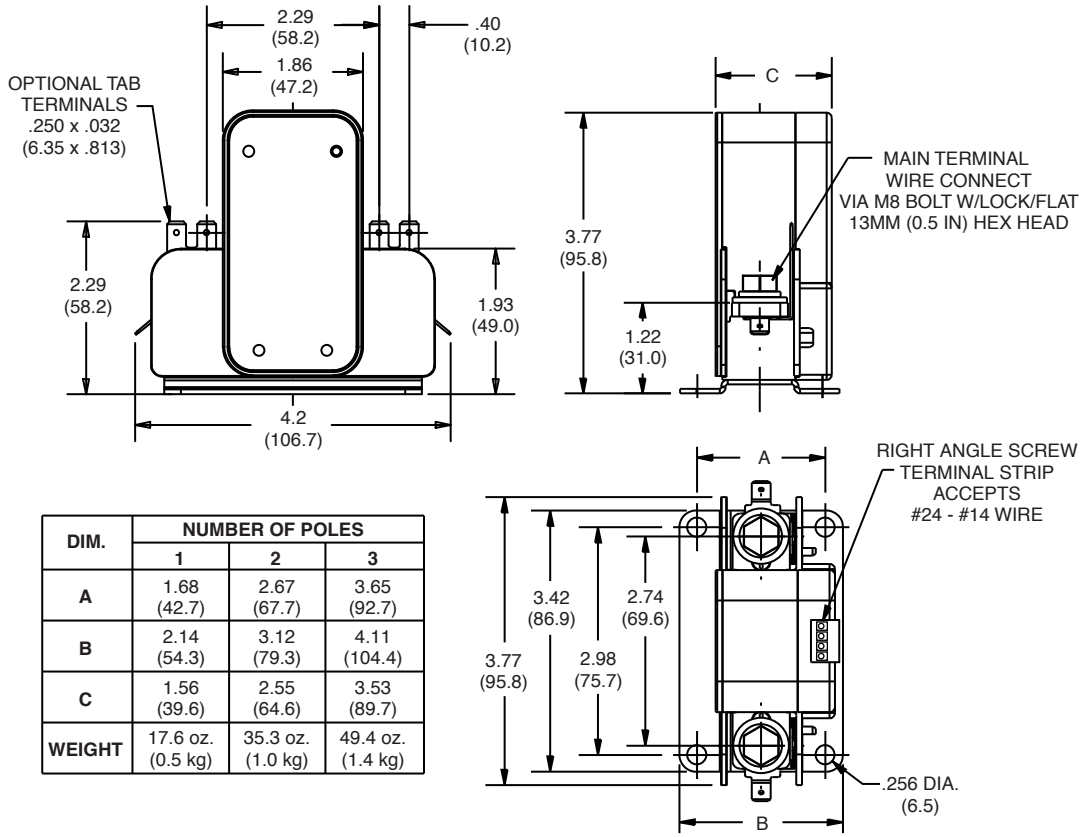
Series:
FM200 = Multipole, 200 Amp, 480VAC/48VDC Contactor

Control Voltage:
A = 12VDC Coil, No Suppression
B = 24VDC Converter, with Suppression
C = 115VAC Converter, with Suppression
D = 24VDC Electronic Chopper, with Suppression
E = 240VAC Converter, with Suppression - Consult Factory for Availability and Specifications

Optional Termination:
A = Optional Quick Connect Tabs
B = No Optional Terminals

Pole Configuration (All models have a 1 Form A (SPST-NO) auxiliary switch):
X = 1 Form X (SPST-NO-DM), Available with control voltage codes A, B, C and E
XX = 2 Form X (2PST-NO-DM), Available with control voltage codes A, B, C and E
XXX = 3 Form X (3PST-NO-DM), Available with control voltage codes A, B, C and E
Y = 1 Form Y (SPST-NC-DB), Available only with control voltage code D
YY = 2 Form Y (DPST-NC-DB), Available only with control voltage code D
YYY = 3 Form Y (3PST-NC-DB), Available only with control voltage code D
XY = 1 Form X (SPST-NO-DM) + 1 Form Y (SPST-NC-DB), Available with control voltage codes A, B, C and E
XYX = 1 Form X (SPST-NO-DM) + 1 Form Y (SPST-NC-DB) + 1 Form X (SPST-NO-DM), Available with control voltage codes A, B, C and E
YXY = 1 Form Y (SPST-NC-DB) + 1 Form X (SPST-NO-DM) + 1 Form Y (SPST-NC-DB), Available only with control voltage code D

Outline Dimensions



DIM.	NUMBER OF POLES		
	1	2	3
A	1.68 (42.7)	2.67 (67.7)	3.65 (92.7)
B	2.14 (54.3)	3.12 (79.3)	4.11 (104.4)
C	1.56 (39.6)	2.55 (64.6)	3.53 (89.7)
WEIGHT	17.6 oz. (0.5 kg)	35.3 oz. (1.0 kg)	49.4 oz. (1.4 kg)

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