

## Hazardous Duty Motors (NEMA Size 42 & 66)



- Motor torque up to 1500 oz-in (1059 N-cm)
- 72 RPM @ 60 Hz - 60 RPM @ 50 Hz
- 120 and 240 volt AC versions
- UL Listed and CE certified versions
- UL Listed versions - Class 1 Group D requirements
- UL Listed versions have conduit connection
- CE certified versions – EEx d IIC T5
- CE certified versions have integral 10 ft (3 M) cable



X	Meets UL Standards (conduit connection)
XCE	Meets CE Standards (includes 10' (3m) cable)



Torque in oz-in, and Last # indicates voltage
0 120 volts
2 240 volts
X250=250 oz-in, 120 V
X1102=1100 oz-in, 240 V



### UL Certified Motors (Prefix "X")

Motors having an "X" prefix (X250, etc.) are designed to meet UL Standard 674 for motors operating in Class 1 Group D hazardous locations.

Class 1 is defined as locations in which gases or vapors are, or may be, present in the air in quantities sufficient to produce explosions or ignitable mixtures. Group D includes atmospheres containing gasoline, petroleum, naphtha, alcohol, acetone, lacquer solvent vapors or natural gas.



### CE Certified Motors (Prefix "XCE")

Motors having a "XCE" prefix are designed to meet requirements in hazardous locations as defined by CE directive 94/9/EC. They have a flameproof enclosure, for use in surface industries exposed to gasses including hydrogen and acetylene. The maximum surface temperature is 100°C.

## Hazardous Duty Motors (Continued)

### 120 Volt, 60 Hz, Single Phase, 72 RPM

								Phase Shifting				
* Type Number		Torque (min)		# Load Inertia		amps	Wiring Diagram	Resistor			Capacitor (330VAC)	
UL	CE	oz-in	N-cm	lb-in <sup>2</sup>	kg-cm			Kit Number	ohms	watts	Kit Number	μF
X250	XCE250	250	177	3	8.8	0.6	RC	201052-013	150	50	201053-010	6.5
X700	XCE700	700	494	10	30	1.1	RC	201052-027	150	100	201053-032	12.5
X1100	XCE1100	1,100	777	9	26	3	RC	201052-025	100	160	201053-026	17.5
X1500	XCE1500	1,500	1,059	12	35	3	RC	201052-020	55	375	201053-014	30

### 240 Volt, 60 Hz, Single Phase, 72 RPM

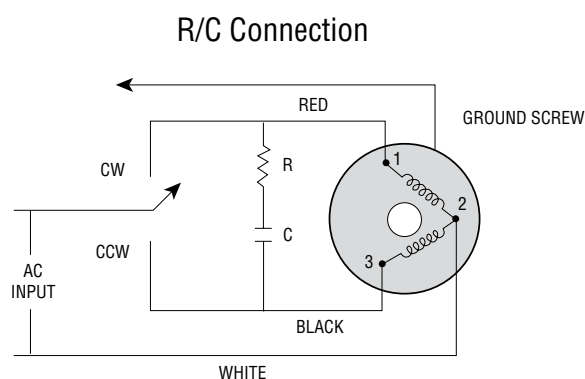
								Phase Shifting				
* Type Number		Torque (min)		# Load Inertia		amps	Wiring Diagram	Resistor			Capacitor (660VAC)	
UL	CE	oz-in	N-cm	lb-in <sup>2</sup>	kg-cm			Kit Number	ohms	watts	Kit Number	μF
X252	XCE252	250	177	3	8.8	0.4	RC	201052-015	500	50	201053-012	1.75
-----	XCE702	700	494	10	30	0.6	RC	201052-028	500	100	201053-030	3
X1102	XCE1102	1,100	777	9	26	1.5	RC	201052-026	400	160	201053-028	4
X1502	XCE1502	1,500	1,059	12	35	1.5	RC	201052-018	250	200	201053-016	8

### 240 Volt, 50 Hz, Single Phase, 60 RPM

								Phase Shifting				
* Type Number		Torque (min)		# Load Inertia		amps	Wiring Diagram	Resistor			Capacitor (660VAC)	
UL	CE	oz-in	N-cm	lb-in <sup>2</sup>	kg-cm			Kit Number	ohms	watts	Kit Number	μF
X252	XCE252	250	177	3	8.8	0.4	RC	201052-015	500	50	201053-012	1.75
-----	XCE702	700	494	10	30	0.6	RC	201052-028	500	100	201053-028	4
X1102	XCE1102	1,100	777	9	26	1.5	RC	201052-026	400	160	201053-029	6
X1502	XCE1502	1,500	1,059	12	35	1.5	RC	201052-018	250	200	201053-019	9

# This is the maximum rigidly attached load inertia the motor will reliably start. If the load is attached to the motor with a coupling that has a 5° flex, the motor can start loads up to seven times listed.

### Connection Diagram

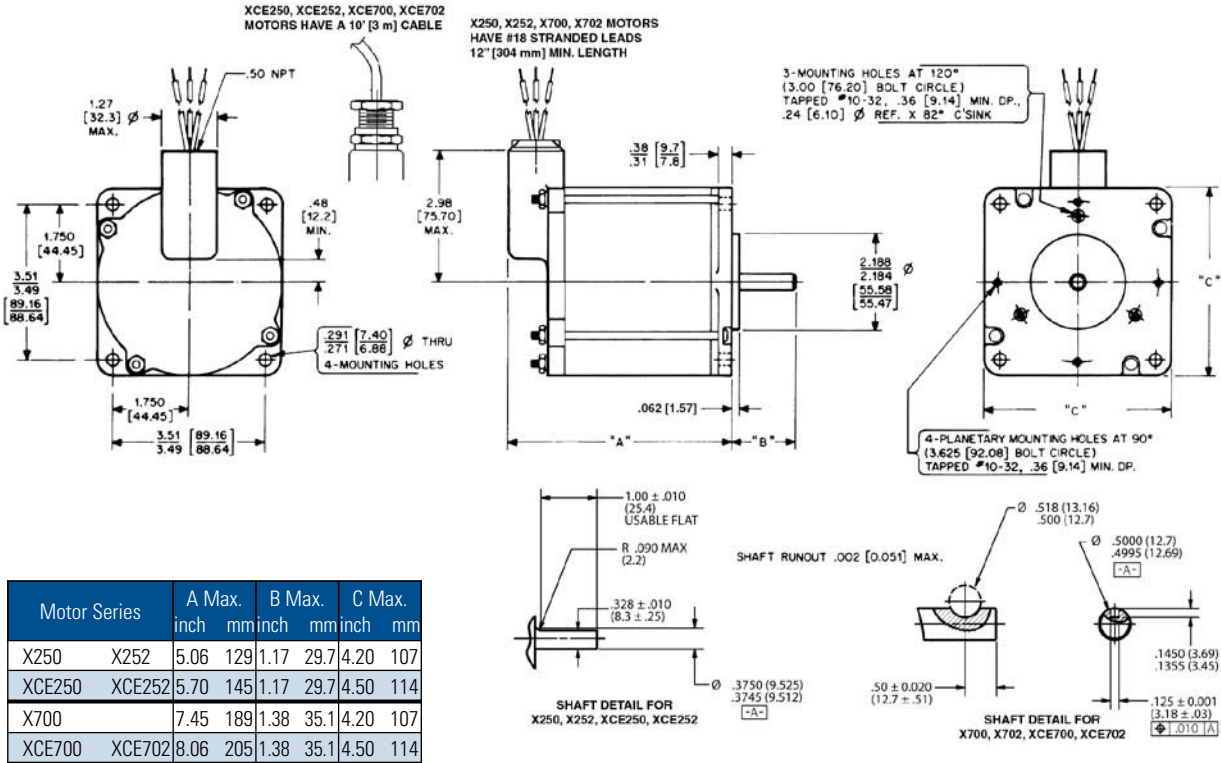


NOTE:  
1 - Direction or rotation is determined when viewed from end opposite mounting surface.

### Single-Phase Operation

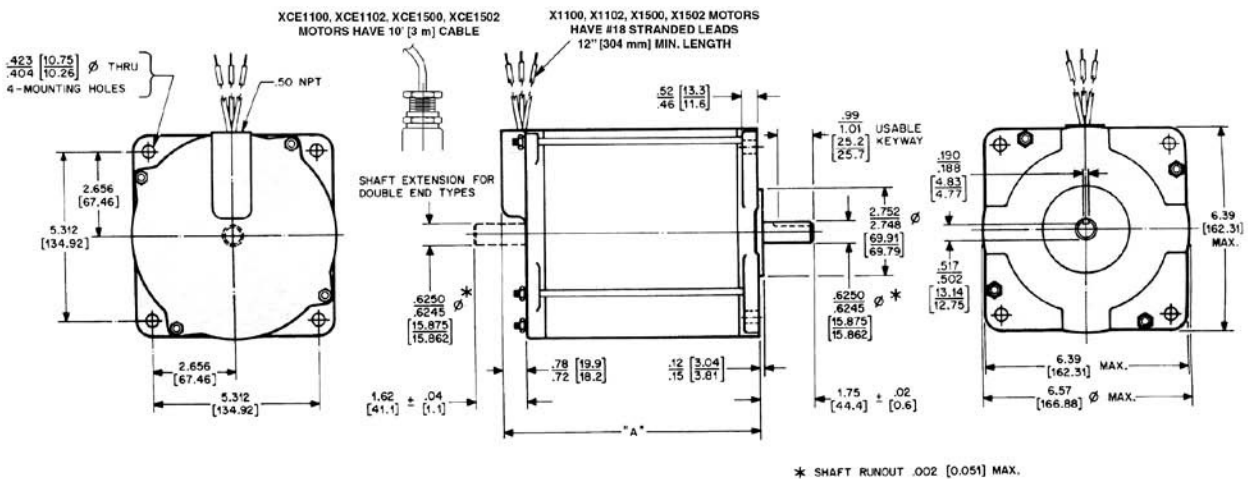
## Hazardous Duty Motor Dimensions

### X250, X252, X700, X2CE250, XCE252, XCE700, XCE702



Dimensions are shown in inches (mm)

### X1100, X1102, X1500, X1502, XCE1100, XCE1102, XCE1500, XCE1502



Motor Series	A Max. inch mm
X1100 X1102	7.10 180
XCE1100 XCE1102	7.60 193
X1500 X1502	8.41 214
XCE1500 XCE1502	8.91 226

Dimensions are shown in inches (mm)

## Phase Shifting Components

### Capacitor Kits

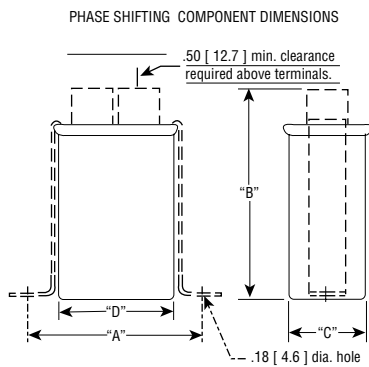


FIGURE C1

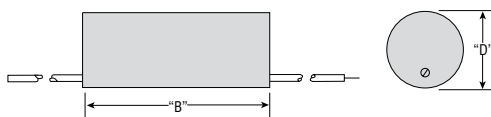
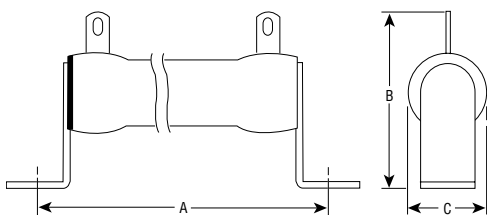


FIGURE C2

Kit Number	Figure	μfd	VAC	A		B		C		D	
				in	mm	in	mm	in	mm	in	mm
201053-010	C1	6.5	330	2.66	67.6	4.14	105	1.31	33	2.16	55
201053-012	C1	1.75	660	2.66	67.6	3.77	96	1.31	33	2.16	55
201053-014	C1	30	330	3.41	86.6	7.56	192	1.91	49	2.91	74
201053-016	C1	8	660	3.41	86.6	5.81	148	1.91	49	2.91	74
201053-019	C1	9	660	4.16	105.7	5.81	148	1.97	50	3.66	93
201053-026	C1	17.5	330	3.41	86.6	4.84	123	1.91	49	2.91	74
201053-028	C1	4	660	2.66	67.6	3.7	94	1.31	33	2.16	55
201053-029	C1	6	660	2.66	67.6	4.83	123	1.31	33	2.16	55
201053-030	C1	3	660	2.66	67.6	4.08	104	1.31	33	2.16	55
201053-032	C1	12.5	330	2.66	67.6	6.08	154	1.31	33	2.16	55
201053-037	C2	7.5	250	-	-	2.0	51	-	-	1.10	28
201053-038	C2	2	250	-	-	2.0	51	-	-	0.66	17
201053-041	C2	2.5	250	-	-	2.0	51	-	-	0.67	17
201053-042	C2	14	250	-	-	2.5	64	-	-	1.15	29
201053-044	C2	3	250	-	-	2.0	51	-	-	0.68	17
201053-061	C2	4	250	-	-	2.0	51	-	-	0.81	21
201053-063	C1	0.75	370	2.66	67.6	2.79	71	1.31	33	2.16	55
201053-068	C2	1.5	250	-	-	2.0	51	-	-	0.66	17
201053-069	C2	6	250	-	-	2.0	51	-	-	1.10	28
201053-070	C1	1	370	2.66	67.6	2.79	71	1.31	33	2.16	55
201053-071	C1	1.75	370	2.66	67.6	2.79	71	1.31	33	2.16	55
201053-072	C1	2	370	2.66	67.6	2.79	71	1.31	33	2.16	55
201053-073	C1	3	370	2.66	67.6	2.79	71	1.31	33	2.16	55
201053-074	C2	11	250	-	-	2.0	51	-	-	1.30	33
201053-075	C1	1.5	370	2.66	67.6	2.79	71	1.31	33	2.16	55
201053-076	C2	5	250	-	-	2.0	51	-	-	1.10	28
201053-081	C1	20	330	3.41	86.6	6.09	155	1.91	49	2.91	74
201053-082	C1	7.5	660	3.41	86.6	5.81	148	1.91	49	2.91	74

### Resistor Kits



Kit Number	ohms	watts	A		B		C	
			in	mm	in	mm	in	mm
201052-013	150	50	4.88	124	1.44	37	1	25.4
201052-015	500	50	4.88	124	1.44	37	1	25.4
201052-018	250	200	11.5	292	2.75	70	1.13	28.7
201052-020	55	375	11.5	292	2.69	68.3	1.25	31.8
201052-025	100	160	9.38	238	2.5	64	1.13	28.7
201052-026	400	160	9.38	238	2.5	64	1.13	28.7
201052-027	150	100	5.88	150	2.76	70	1.38	35
201052-028	500	100	5.88	150	2.76	70	1.38	35
201052-033	1,000	12	2.5	64	0.94	24	0.32	8.1
* 201052-034	600	12	2.5	64	0.94	24	0.32	8.1
201052-035	600	25	3	76	1.94	50	0.75	19
* 201052-036	1,100	25	3	76	1.94	50	0.75	19
201052-037	300	50	4.88	124	1.44	37	1	25.4
* 201052-039	900	50	4.88	124	1.44	37	1	25.4
201052-041	250	50	4.88	124	1.44	37	1	25.4
* 201052-043	600	50	4.88	124	1.44	37	1	25.4
201052-045	1,000	100	5.88	150	2.76	70	1.38	35
* 201052-046	400	100	5.88	150	2.76	70	1.38	35
201052-047	600	100	5.88	150	2.76	70	1.38	35
201052-049	400	50	4.88	124	1.44	37	1	25.4
* 201052-050	1,000	25	3	76	1.94	50	0.75	19
201052-101	75	100	5.88	150	2.76	70	1.38	35
201052-102	200	100	5.88	150	2.76	70	1.38	35
201052-103	250	100	5.88	150	2.76	70	1.38	35
201052-104	50	200	11.5	292	2.75	70	1.13	28.7
201052-105	200	200	11.5	292	2.75	70	1.13	28.7
201052-106	150	200	11.5	292	2.75	70	1.13	28.7

\* Kit contains two resistors. Dimensions shown are for one resistor.