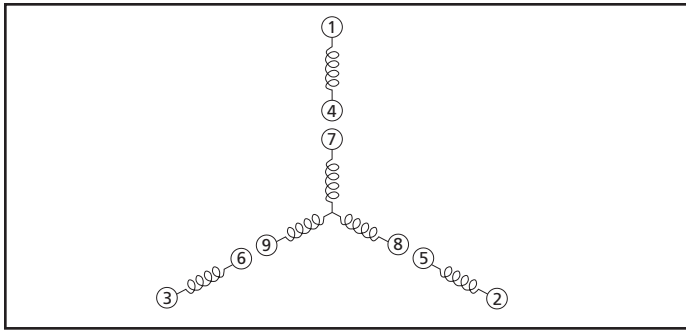


**Fig. 1.1: 1/8, 1/4, 1/2, 1 Hp  
Three Phase Voltages**



208/230V				460V			
Line	Lead Label			Line	Lead Label		
L1	1	7	4	L1	1	7	4
L2	2	8	5	L2	2	8	5
L3	3	9	6	L3	3	9	6

**Fig 1.2 UL/CSA/CE/RoHS**

Voltage	Horsepower	UL/cUL File No.	RoHS	CE Details
Three Phase	1/8 Hp, 1/4 Hp, 1/2 Hp 1 Hp, 2 Hp, 3 Hp	E172017	Yes	Low Voltage Directive 73/23/EEC EN Standards: EN60034-1 (Regulations on motors in general)
Single Phase	1/4 Hp, 1/2 Hp	E172017	Yes	
Single Phase	1/8 Hp	E153713	Yes	

**Notes:**

1. Motors in File E172017 comply to UL1004 Standard for Safety Electric Motors.
2. Motors in UL File E153713 comply to UL2111 Overheating Protection for Motors.
3. Products bear the UL component recognition marking for UL and cUL (CSA).
4. Products with the cUL marking comply with CSA standards and can be legally sold in Canada.
5. Products bear the CE marking on the nameplate.

**Table 1.1: Three Phase 1/8, 1/4, 1/2, 1, 2, 3 Hp Motors**

Hp	Voltage V	Full Load (RPM) n <sub>motor</sub>	Full Load Current (A)		Starting Current (A)		Torque (in-lbs)		Start Torque (in-lbs) T <sub>start</sub>	Starts per Minute
			I <sub>motor</sub>	I <sub>start</sub>	T <sub>motor</sub>	T <sub>start</sub>				
1/8 Hp	208	1670	0.56	2.32	5.58	10.20	10			
	230	1720	0.57	2.56	5.42	12.50				
	460	1720	0.29	1.28	5.42	12.50				
1/4 Hp	208	1690	1.00	4.72	9.61	22.70	10			
	230	1720	1.00	5.22	9.44	27.80				
	460	1720	0.50	2.61	9.44	27.80				
1/2 Hp	208	1690	1.80	8.57	20.20	39.00	10			
	230	1710	1.80	9.48	20.00	47.70				
	460	1710	0.90	4.74	20.00	47.70				
1Hp	208	1730	3.10	15.50	36.70	80.60	10			
	230	1730	3.00	17.10	36.70	98.80				
	460	1740	1.52	8.60	36.70	98.80				
2Hp	208	1730	5.8	30.80	74.60	171.8	10			
	230	1720	5.8	34.44	73.80	210.0				
	460	1720	2.9	17.22	73.80	210.0				
3Hp	208	1710	8.0	42.50	111.9	257.7	10			
	230	1720	8.0	47.50	110.7	315.0				
	460	1720	4.0	23.75	110.7	315.0				

**Fig 1.3 Three Phase Special Voltages 1/8~ 3Hp**

Voltage	Frequency (Hz)	UL/CSA	CE
220	50	No	Yes
230	50		
240	50		
380	50		
400/400/440	50/60/60		
415	50		
420	50		
440	50		
200/200/220	50/60/60	Yes	Yes
208/230	60/60		
220/230/240/240	50/50/50/60		
380/400/400/440	50/50/60/60		
380	60		
415/460	50/60		
420/440/480	50/50/60		
575	60		

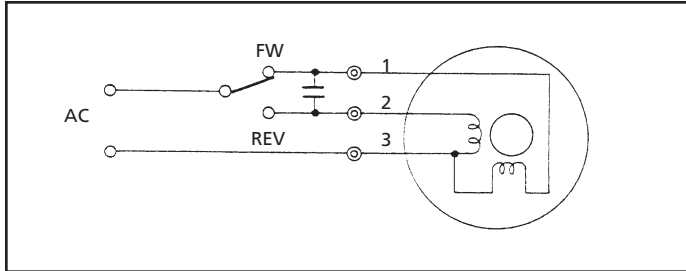
**Note:** When selecting any of the above voltages:  
Use special voltage code "8" in the part number  
Specify the voltage/frequency rating on your P.O.

**Fig 1.4 Single Phase Special Voltages 1/8~ 1/2Hp**

Voltage	Frequency (Hz)	UL/CSA	CE
100/100	50/60	No	Yes
120	60		
200/200	50/60		
220	60		
230	60		
240	60		
110	50	No	
115	50		
120	50		
220	50		
230	50		
240	50		

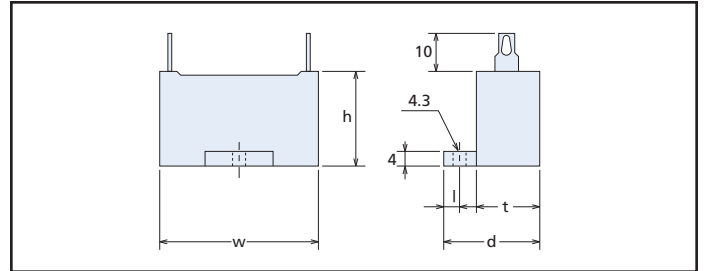
**Note:** When selecting any of the above voltages:  
Use special voltage code "7" in the part number  
Specify the voltage/frequency rating on your P.O.

Fig. 1.5: 1/8 Hp Single Phase Voltages



Wire	Color Code 115V	Color Code 220V, 230V
1	Blue	Brown
2	Black	Black
3	Grey	Grey

Fig. 1.6: Capacitors for 1/8 Hp Single Phase



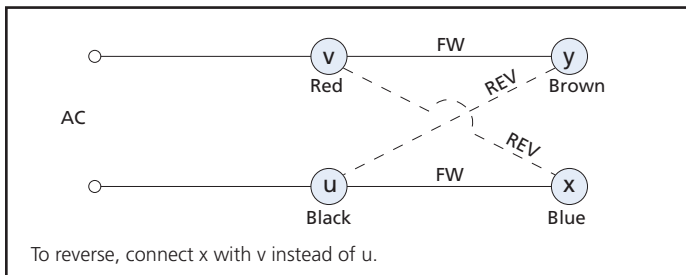
1/8 Hp Single Phase Motor Capacitors

Part No.	mFd	Volts*	W	h	t	d	l
C24M220V	24	220V *	2.28	1.46	0.93	1.52	0.28
C6.0M440V	6	440V **	2.28	1.61	1.14	1.73	0.28

\* 220V Capacitors are for operation with 115V Motors

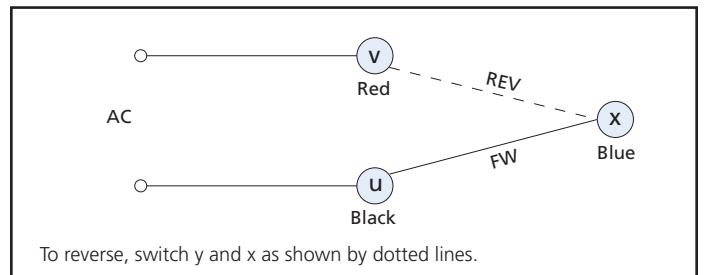
\*\* 440V Capacitors are for operation with 220V or 230V motors.

Fig. 1.7: 1/4, 1/2 Hp Single Phase Voltage 115V



To reverse, connect x with v instead of u.

Fig. 1.8: 1/4, 1/2 Hp Single Phase Voltage 220, 230V

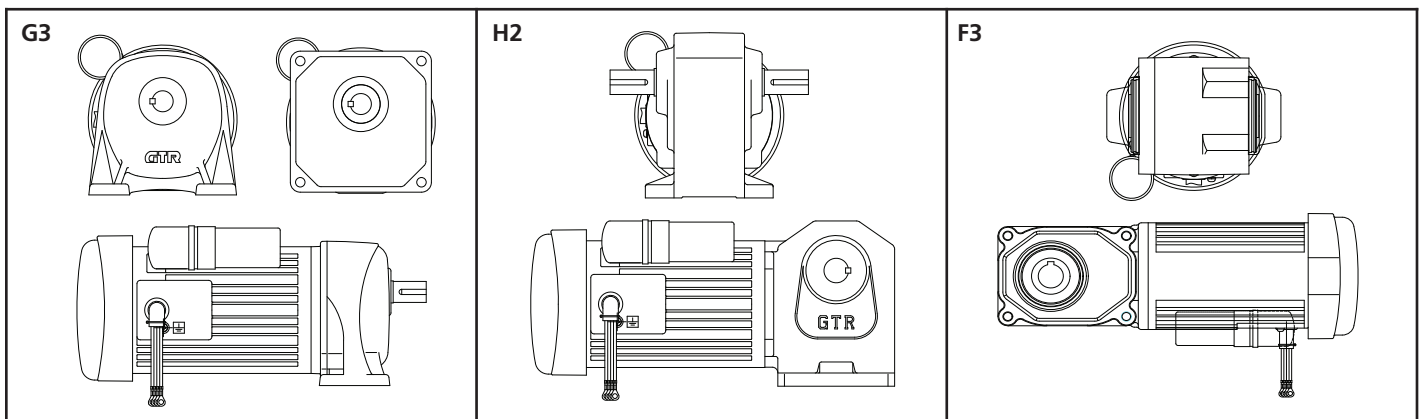


To reverse, switch y and x as shown by dotted lines.

Table 1.2: Single Phase 1/8, 1/4, 1/2 Hp Motors

Hp	Motor Type	Voltage V	Full Load (RPM) n <sub>motor</sub>	Full Load Current (A) I <sub>motor</sub>	Torque (in-lbs) T <sub>motor</sub>	Start Torque (in-lbs) T <sub>start</sub>	Starts per Minute	Capacitor	
								(mFd)	Volts
1/8 Hp	PSC	115	1730	1.50	4.89	3.83	10	24	220
		220	1720	0.75	4.92	4.20		6	440
		230	1730	0.75	4.89	4.20		6	440
1/4 Hp	Cap Start	115	1700	3.90	9.95	31.00	6	250	220
		220	1690	2.00	10.00	22.80		250	440
		230	1700	1.95	9.95	23.90		250	440
1/2 Hp	Cap Start	115	1730	6.70	19.50	41.60	6	250	220
		220	1730	3.50	19.50	39.80		250	440
		230	1730	3.30	19.50	43.40		250	440

Fig 1.9 1/4 and 1/2 Hp Capacitor Start Models



Notes:

1. These are capacitor start gearmotors using a governor switch to cut-out the starting capacitor.
2. For specific dimensions please consult Brother. Drawings are also available at [www.BrotherGearmotors.com](http://www.BrotherGearmotors.com)