

DIMENSION SHEET INDEX AND COMPOSITE DRAWINGS

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RPM AC Motor Enclosure Definitions

DPFV	Drip-Proof Guarded Force Ventilated With blower & Filter (Optional)
DPSV	Drip-Proof Guarded Separately Ventilated
TENV	Totally Enclosed Non-Ventilated (Self Ventilated)
TEFC	Totally Enclosed Fan Cooled
TEAO-BC	Totally Enclosed Blower Cooled
TEAO-PB	Totally Enclosed Air Over Piggyback
TESV	Totally Enclosed Separately Ventilated (Pipe In - Pipe Out)
TEDC-AA	Totally Enclosed Dual Cooled Air-To-Air Heat Exchanger
TEDC-AW	Totally Enclosed Dual Cooled Air-To-Water Heat Exchanger

RPM AC Inverter Duty Motor - Dimension Sheet Index

To determine dimension sheet number, select basic number from BY FRAME SIZE AND ENCLOSURE table. Use extension numbers in table for specific flange required.

Example: TENV FL1852C with 250TC face, 75 Ft-Lb brake, HS35 encoder: 617234-23 and 616779-52

NEMA FL180, FL210 AND FL250 FRAMES

IEC FDL112, FDL132 AND FDL160 FRAMES

DIMENSION SHEET EXTENSION INDEX FOR FOOT/FLANGE OPTIONS		
Extension number for Flange Mounting Enclosure		
TYPE	ENCLOSURE	
	TENV, TEFC,TEBC,DPFV,	TEBC - XT
FOOT MOUNTED	-1	-21
NEMA 180T C FACE	-3	-4
NEMA 210T C FACE	-13	-14
NEMA 250T C FACE	-23	-24
NEMA D FLANGE	-5	-6
IEC DIN FLANGE B3/B5 (Y SUFFIX) & IP54	-502	-522

BY FRAME SIZE AND ENCLOSURE					
NEMA Frame			IEC Frame		
Foot Mounted			B3 (Foot Mounted)		
FRAME	ENCLOSURE	DIMENSION SHEET	FRAME	COOLING/ENCLOSURE	DIMENSION SHEET
FL1831	TENV	617226-1	FDL1106	IP44/IC410	617226-501
FL1831	TEAO-BC	617227-1	FDL1106	IP44/IC416-BC	617227-501
FL1831	TEFC	617227-1	FDL1106	IP44/IC416-FC	617227-501
FL1831	TEAO-PB	617227-201	FDL1106	IP44/IC416-PB	617227-701
FL1831	DPFV	617528-1	FDL1106	IP23/IC06	617528-501
FL1838	TENV	617228-1	FDL1108	IP44/IC410	617228-501
FL1838	TEAO-BC	617229-1	FDL1108	IP44/IC416-BC	617229-501
FL1838	TEFC	617229-1	FDL1108	IP44/IC416-FC	617229-501
FL1838	TEAO-PB	617229-201	FDL1108	IP44/IC416-PB	617229-701
FL1838	DPFV	617230-1	FDL1108	IP23/IC06	617230-501
FL1844	TENV	617231-1	FDL1110	IP44/IC410	617231-501
FL1844	TEAO-BC	617232-1	FDL1110	IP44/IC416-BC	617232-501
FL1844	TEFC	617232-1	FDL1110	IP44/IC416-FC	617232-501
FL1844	TEAO-PB	617232-201	FDL1110	IP44/IC416-PB	617232-701
FL1844	DPFV	617233-1	FDL1110	IP23/IC06	617233-501
FL1852	TENV	617234-1	FDL1112	IP44/IC410	617234-501
FL1852	TEAO-BC	617235-1	FDL1112	IP44/IC416-BC	617235-501
FL1852	TEFC	617235-1	FDL1112	IP44/IC416-FC	617235-501
FL1852	TEAO-PB	617235-201	FDL1112	IP44/IC416-PB	617235-701
FL1852	DPFV	617236-1	FDL1112	IP23/IC06	617236-501
FL2162	TENV	617516-1	FDL1307	IP44/IC410	617516-501
FL2162	TEAO-BC	617517-1	FDL1307	IP44/IC416-BC	617517-501
FL2162	TEFC	617517-1	FDL1307	IP44/IC416-FC	617517-501
FL2162	TEAO-PB	617517-201	FDL1307	IP44/IC416-PB	617517-701
FL2162	DPFV	617518-1	FDL1307	IP23/IC06	617518-501
FL2162	DPSV	617519-1			
FL2168	TENV	617520-1	FDL1308	IP44/IC410	617520-501
FL2168	TEAO-BC	617521-1	FDL1308	IP44/IC416-BC	617521-501
FL2168	TEFC	617521-1	FDL1308	IP44/IC416-FC	617521-501
FL2168	TEAO-PB	617521-201	FDL1308	IP44/IC416-PB	617521-701
FL2168	DPFV	617522-1	FDL1308	IP23/IC06	617522-501
FL2168	DPSV	617523-1			

NEMA FL180, FL210 AND FL250 FRAMES
IEC FDL112, FDL132 AND FDL160 FRAMES
(Continued)

BY FRAME SIZE AND ENCLOSURE					
NEMA Frame			IEC Frame		
Foot Mounted			B3 (Foot Mounted)		
FRAME	ENCLOSURE	DIMENSION SHEET	FRAME	COOLING/ENCLOSURE	DIMENSION SHEET
FL2173	TENV	617524-1	FDL1310	IP44/IC410	617524-501
FL2173	TEAO-BC	617525-1	FDL1310	IP44/IC416-BC	617525-501
FL2173	TEFC	617525-1	FDL1310	IP44/IC416-FC	617525-501
FL2173	TEAO-PB	617525-201	FDL1310	IP44/IC416-PB	617525-701
FL2173	DPFV	617526-1	FDL1310	IP23/IC06	617526-501
FL2173	DPSV	617527-1			
FL2570	TENV	617572-1	FDL1609	IP44/IC410	617572-501
FL2570	TEAO-BC	617573-1	FDL1609	IP44/IC416-BC	617573-501
FL2570	TEFC	617573-1	FDL1609	IP44/IC416-FC	617573-501
FL2570	TEAO-PB	617573-201	FDL1609	IP44/IC416-PB	617573-701
FL2570	DPFV	617574-1	FDL1609	IP23/IC06	617574-501
FL2570	DPSV	617575-1			
FL2578	TENV	617576-1	FDL1611	IP44/IC410	617576-501
FL2578	TEAO-BC	617577-1	FDL1611	IP44/IC416-BC	617577-501
FL2578	TEFC	617577-1	FDL1611	IP44/IC416-FC	617577-501
FL2578	TEAO-PB	617577-201	FDL1611	IP44/IC416-PB	617577-701
FL2578	DPFV	617578-1	FDL1611	IP23/IC06	617578-501
FL2578	DPSV	617579-1			
FL2586	TENV	617580-1	FDL1613	IP44/IC410	617580-501
FL2586	TEAO-BC	617581-1	FDL1613	IP44/IC416-BC	617581-501
FL2586	TEFC	617581-1	FDL1613	IP44/IC416-FC	617581-501
FL2586	TEAO-PB	617581-201	FDL1613	IP44/IC416-PB	617581-701
FL2586	DPFV	617582-1	FDL1613	IP23/IC06	617582-501
FL2586	DPSV	617583-1			

ACCESSORY DIMENSION SHEETS FOR FL FRAMES

	Use Motor Basic Dimension Sheet And
Motors with Encoders	616779-55
Motors with Brakes	616779-53
Motors with Brakes & Encoders	616779-52
Conduit Box Dimensions	616779-50

RPM AC Inverter Duty Motor - Dimension Sheet Index

To determine dimension sheet number, select basic number from BY FRAME SIZE AND ENCLOSURE table. Use extension numbers in table for specific flange required.

Example: TENV FL1852C with 250TC face, 75 Ft-Lb brake, HS35 encoder: 617234-23 and 616779-52

NEMA RL210 - RL250 FRAMES IEC RDL132 AND RDL160 FRAMES

DIMENSION SHEET EXTENSION INDEX FOR FOOT/FLANGE OPTIONS	
Extension number for Flange Mounting	
NEMA 210 C FACE	-3
NEMA 250 C FACE	-13
D FLANGE	Available - Contact Reliance Electric
IEC FLANGE B3/B5 (Y SUFFIX)	-705

BY FRAME SIZE AND ENCLOSURE

NEMA Frame			IEC Frame		
Foot Mounted			B3 (Foot Mounted)		
RL2153	TENV	617254-1	RDL1303	IP44/IC410	617254-501
RL2153	TEAO-BC	617255-1	RDL1303	IP44/IC416-BC	617255-501
RL2153	TEFC	617255-1	RDL1303	IP44/IC416-FC	617255-501
RL2153	TEAO-PB	617255-201	RDL1303	IP44/IC416-PB	617255-701
RL2153	DPFV	617256-1	RDL1303	IP23/IC06	617256-501
RL2158	TENV	617257-1	RDL1305	IP44/IC410	617257-501
RL2158	TEAO-BC	617258-1	RDL1305	IP44/IC416-BC	617258-501
RL2158	TEFC	617258-1	RDL1305	IP44/IC416-FC	617258-501
RL2158	TEAO-PB	617258-201	RDL1305	IP44/IC416-PB	617258-701
RL2158	DPFV	617259-1	RDL1305	IP23/IC06	617259-501
RL2162	TENV	617200-1	RDL1307	IP44/IC410	617200-501
RL2162	TEAO-BC	617201-1	RDL1307	IP44/IC416-BC	617201-501
RL2162	TEFC	617201-1	RDL1307	IP44/IC416-FC	617201-501
RL2162	TEAO-PB	617201-201	RDL1307	IP44/IC416-PB	617201-701
RL2162	DPFV	617202-1	RDL1307	IP23/IC06	617202-501
RL2162	DPSV	617203-1			
RL2168	TENV	617204-1	RDL1308	IP44/IC410	617204-501
RL2168	TEAO-BC	617205-1	RDL1308	IP44/IC416-BC	617205-501
RL2168	TEFC	617205-1	RDL1308	IP44/IC416-FC	617205-501
RL2168	TEAO-PB	617205-201	RDL1308	IP44/IC416-PB	617205-701
RL2168	DPFV	617206-1	RDL1308	IP23/IC06	617206-501
RL2168	DPSV	617207-1			
RL2173	TENV	617208-1	RDL1310	IP44/IC410	617208-501
RL2173	TEAO-BC	617209-1	RDL1310	IP44/IC416-BC	617209-501
RL2173	TEFC	617209-1	RDL1310	IP44/IC416-FC	617209-501
RL2173	TEAO-PB	617209-201	RDL1310	IP44/IC416-PB	617209-701
RL2173	DPFV	617210-1	RDL1310	IP23/IC06	617210-501
RL2173	DPSV	617211-1			
RL2570	TENV	617212-1	RDL1609	IP44/IC410	617212-501
RL2570	TEAO-BC	617213-1	RDL1609	IP44/IC416-BC	617213-501
RL2570	TEFC	617213-1	RDL1609	IP44/IC416-FC	617213-501
RL2570	TEAO-PB	617213-201	RDL1609	IP44/IC416-PB	617213-701
RL2570	DPFV	617214-1	RDL1609	IP23/IC06	617214-501
RL2570	DPSV	617215-1			

V-S Master Motors

 RPM AC Motors
1/3 - 2 HP

 RPM AC Motors
2 - 1,000 HP

Large AC Motors

Small, Medium & Large DC Motors

**NEMA RL210 - RL250 FRAMES
IEC RDL132 AND RDL160 FRAMES
(Continued)**

BY FRAME SIZE AND ENCLOSURE					
NEMA Frame			IEC Frame		
Foot Mounted			B3 (Foot Mounted)		
RL2578	TENV	617216-1	RDL1611	IP44/IC410	617216-501
RL2578	TEAO-BC	617217-1	RDL1611	IP44/IC416-BC	617217-501
RL2578	TEFC	617217-1	RDL1611	IP44/IC416-FC	617217-501
RL2578	TEAO-PB	617217-201	RDL1611	IP44/IC416-PB	617217-701
RL2578	DPFV	617218-1	RDL1611	IP23/IC06	617218-501
RL2578	DPSV	617219-1			
RL2586	TENV	617220-1	RDL1613	IP44/IC410	617220-501
RL2586	TEAO-BC	617221-1	RDL1613	IP44/IC416-BC	617221-501
RL2586	TEFC	617221-1	RDL1613	IP44/IC416-FC	617221-501
RL2586	TEAO-PB	617221-201	RDL1613	IP44/IC416-PB	617221-701
RL2586	DPFV	617222-1	RDL1613	IP23/IC06	617222-501
RL2586	DPSV	617223-1			

ACCESSORY DIMENSION SHEETS FOR RL FRAMES

	Use Motor Basic Dimension Sheet And
Motors with Encoders	616779-10
Motors with Brakes	616779-13
Motors with Brakes & Encoders	616779-16
Conduit Box Dimensions	616779-50

V-S Master Motor

RPM AC Motors
1/3 - 5 HP

RPM AC Motors
2 - 1,000 HP

Large AC Motors

Small, Medium & Large DC Motors

RPM AC Inverter Duty Motor - Dimension Sheet Index

To determine dimension sheet number, select basic number from BY FRAME SIZE AND ENCLOSURE table. Use extension numbers in table for specific flange required.

Example: TENV FL1852C with 250TC face, 75 Ft-Lb brake, HS35 encoder: 617234-23 and 616779-52

NEMA FRAMES: L280, L320, L360, L400, L440
IEC FRAMES: DL180, DL200, DL220, DL250, DL280

INDEX BY ENCLOSURE				
Enclosure	Mounting	Frame Size	Dimension Sheet Index	
			Motor	
		NEMA / IEC	NEMA	IEC
DPFV {IP23-IC06}	Foot	L280 / DL180	616760-1	616760-601
	NEMA 360TC C-Face & Shaft	L280	616760-6	-
	NEMA 280TD D-Flange	L280	616760-21	-
	Foot	L320 / DL200	616764-1	616764-601
	NEMA 320TC C-Face & Shaft	L320	616764-13	-
	DZ-Flange & Feet	L320	609998-9	-
	Foot	L360 / DL220	609998-1	616457-601
	DZ-Flange & Feet	L360	609998-9	-
	Foot	L400 / DL250	609998-1	616467-601
	DZ-Flange & Feet	L400	609998-9	-
Foot	L440 / DL280	615917-13	616470-613	
DZ-Flange & Feet	L440	615917-15	-	
DPSV {IP23-IC17}		NEMA / IEC	NEMA	IEC
	Foot	L280 / DL180	616761-1	616761-601
	Foot	L320 / DL200	616765-1	616765-601
	Foot	L360 / DL220	609996-1	616458-601
	Foot	L400 / DL250	616773-1	616468-601
Foot	L440 / DL280	616063-1	616783-601	
TENV {IP44-IC410}	Foot	L280 / DL180	616758-1	616758-601
	NEMA 280TC C-Face & Shaft	L280	616758-23	-
	Foot	L320 / DL200	616762-1	616762-601
	320TCZ C-Face & Shaft	L320	616762-4	-
	Foot	L360 / DL220	609995-1	616455-601
	Foot	L400 / DL250	609995-1	616465-601
L320TDZ D-flange	L320	616762-5	-	
TEFC {IP44-IC411}	Foot	L280 / DL180	616759-400	616436-601
	Foot	L320 / DL200	616763-400	616446-601
	Foot	L360 / DL220	609994-201	616456-601
	Foot	L400 / DL250	609994-201	616466-601
TEBC {IP44-IC416}	Foot	L280 / DL180	616759-1	616759-601
	NEMA 280TC C-Face & Shaft	L280 / DL180	616759-23	-
	IEC 350mm Din Flange / Ft.	DL1811 - DL1815	-	616439-705
	Foot	L320 / DL200	616763-1	616763-601
	Foot/CZ-Face	L320-L360	609994-3	-
	Foot / DZ-flange	L320-L360	609994-6	-
	IEC 400mm Din Flange / Ft.	DL2010 - DL2012	-	616449-705
	Foot	L360 / DL220	609994-1	616459-601
Foot	L400 / DL250	609994-1	616469-601	

RPM AC Inverter Duty Motor - Dimension Sheet Index

NEMA FRAMES: L280, L320, L360, L400, L440
IEC FRAMES: DL180, DL200, DL220, DL250, DL280
(Continued)

INDEX BY ENCLOSURE				
Enclosure	Mounting	Frame Size	Dimension Sheet Index	
			Motor	
			NEMA	IEC
		NEMA / IEC	NEMA	IEC
TEAO-PB {IP44-IC416}	Foot	L280 / DL180	616759-200	
	Foot	L320 / DL200	609994-71	
	Foot	L360 / DL220	609994-71	
	Foot	L400 / DL250	609994-71	
	Foot	L440 / DL280	615919-1	616471-601
TESV {IP44-IC37}	Foot	L280 / DL180	616761-1	
	Foot	L320 / DL200	616765-1	
TEDC-AA {IP44-IC616}	Foot			
	Foot	L360 / DL220	616767-500	
	Foot	L400 / DL250	616771-500	
	Foot	L440 / DL280	615919-27	616470-625
TEDC-AW {IP44-IC666}	Foot	L440 / DL280	615919-28	

ACCESSORY DIMENSION SHEETS FOR L280 - L440 (IEC DL180-DL280) FRAMES

		Frame
		L280 - L440
Conduit Box	NEMA	616779-1
	IEC	616779-1
Encoder	NEMA	616779-10
	IEC	616779-10m
Brake	NEMA	616779-13
	IEC	
Brake & Encoder	NEMA	616779-16
	IEC	

		Frame	
		FL180 - L280	L320 - L400
XP Conduit Box	NEMA	609959-8	609979-9

Footnotes:

(1) Dimension sheet to be available soon. Please contact your local Reliance Sales Engineer for selection assistance.

V-S Master Motor

RPM AC Motors
1/3 - 5 HP

RPM AC Motors
2 - 1,000 HP

Large AC Motors

Small, Medium & Large DC Motors

RPM AC Inverter Duty Motor - Dimension Sheet Index

RPM AC STANDARD ENCODER PROVISIONS

Frame	Enclosure	O.D.E Machined Fit	Figure	O.D.E Shaft Tap for Screw In Stub Shaft
FL180 - RL250 FL180, FL & RL210/250 FDL112, FDL & RDL 132/160	TENV, DPFV & TEAO-P/B & BC	7-1/4 inch bolt circle, 8-1/2 inch rabbet fit	2	M8
L280 - L400	DPFV	5-7/8 inch bolt circle, 6.75 inch cavity	1	M12
L280 - L400	TENV, TEAO-P/B & BC	5-7/8 inch bolt circle, 4-1/2 inch rabbet fit	3	M12
L440	ALL	5-7/8 inch bolt circle, 4-1.2 inch rabbet fit	3	M12

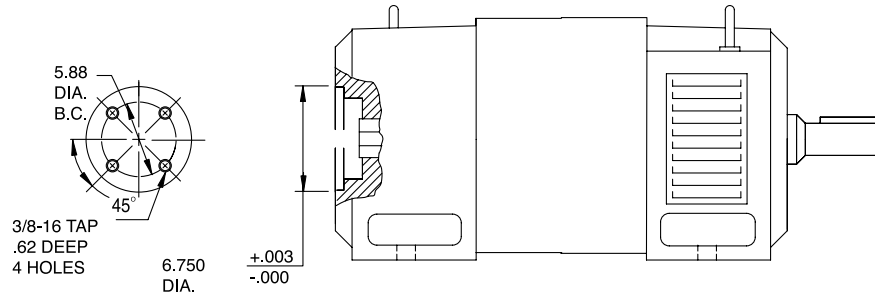
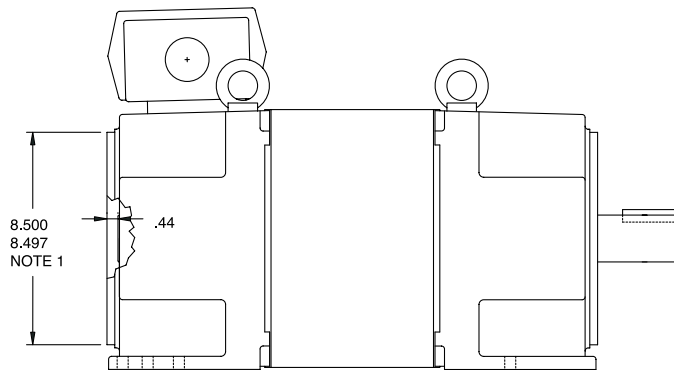


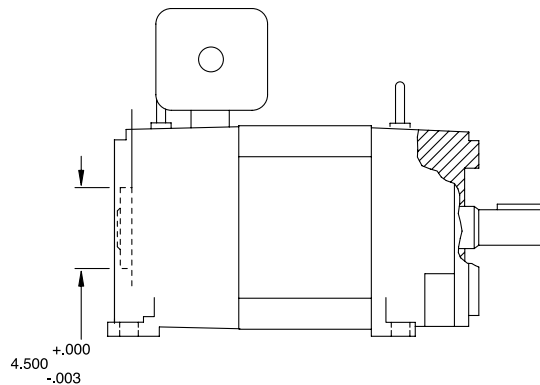
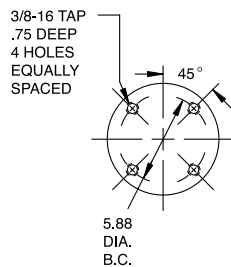
Figure 1



1/2-13 TAP, .88 DEEP, ON A 7.25 DIA. BOLT CIRCLE
FACE RUNOUT AND ECCENTRICITY .004 MAX. T,I,R

Figure 2

(For TENV, DPFV & TEBC - TEFC requires a machined fan cover)



MOTOR SHAFT TAPPED FOR SCREW IN STUB SHAFT

Figure 3

V-S Master Motors

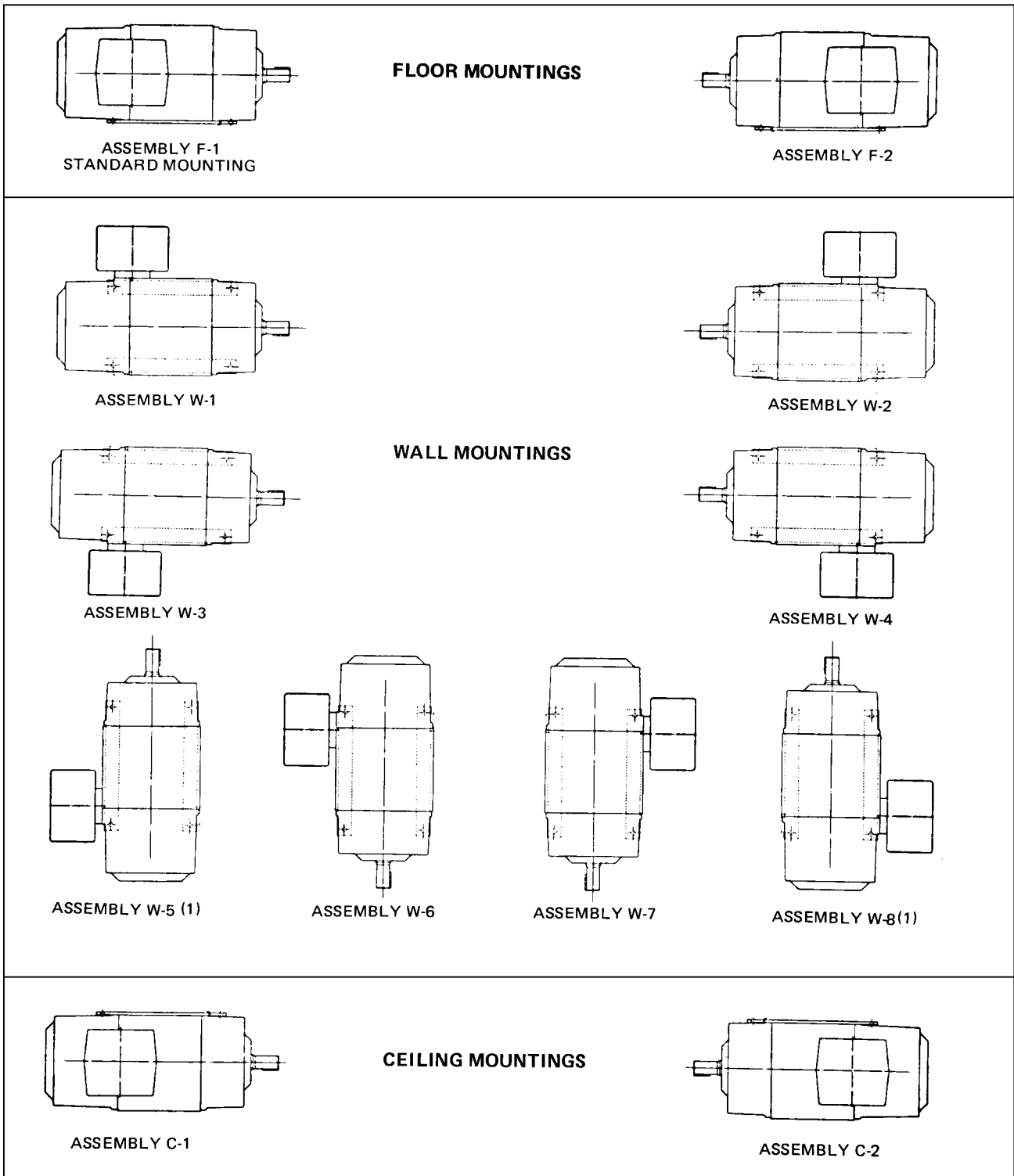
RPM AC Motors
1/3 - 2 HP

RPM AC Motors
2 - 1,000 HP

Large AC Motors

Small, Medium & Large DC Motors

NEMA MOTOR MOUNTING ASSEMBLY SYMBOLS



V⁺S Master Motor

RPM AC Motors
1/3 - 5 HP

RPM AC Motors
2 - 1,000 HP

Large AC Motors

Small, Medium & Large DC Motors

V-S Master Motors

Notes

RPM AC Motors
1/3 - 2 HP

RPM AC Motors
2 - 1,000 HP

Large AC Motors

Small, Medium & Large DC Motors