

Product Specification Guide

Standard Stock or Mod-Center Three Phase Motor Features

	Dripproof (ODP)				Totally Enclosed Fan Cooled (TEFC)				
Type	FD	FR	DE, DI	RE, RI	FUT/FUTF	FCT	UTE/UTI	CTE	CTI-v(a)/CTI-C(a)
HP Range	1-60	30-400	1-60	30-250	1-30	1-200	1-30/1-20	1-200	1-200/1-150
Frame Range	143-320	360-449	143-320	360-449	56-A286	143-447	143-256	143-447	143-447
Frame Material	Steel	Cast Iron	Steel	Cast Iron	Alum. (1)	Cast Iron (1)	Alum. (1)	Cast Iron (1)	Cast Iron (1)
End Shield Material	140-250 Al 280-320 CI	Cast Iron	140-250 Al 280-320 CI	Cast Iron	Alum.	Cast Iron	Alum.	Cast Iron	Cast Iron
Fan Cover Material	NA	NA	NA	NA	Plastic	Steel	Plastic	Steel	Steel
Conduit Box Material	Steel	Steel	Steel	Steel	Steel (2)	Steel	Steel (2)	Steel	Steel
Hardware	Grade 5 (15)	Grade 5 (15)	Grade 5 (15)	Grade 5 (15)	Std	Grade 5 (15)	Std	Grade 5 (15)	Grade 5 (15)
Mounting	Welded Base	Cast Iron	Welded Base	Cast	56/140 Welded Base 180-280 Bolted Base	Cast 180-440	56/140 Welded Base 180-280 Bolted Base	Cast 180-440	Cast 180-440
C-Face Available	No	No	No	No	Kits (6)/ Std	Kits Thru 440 (5)	Kits (6)/ Std	Kits Thru 440 (5)	Kits 140-440
D-Flange	No	No	No	No	Kits 140-180 (6)	Kits 140-180 (6)	Kits 140-180 (6)	Kits 140-360 (5)	Kits 180-360
Brakes	No	No	No	No	Kits Thru 210	No	Kits Thru 210	No	No
Grounding	Stud in C/Box	Stud in C/Box	Stud in C/Box	Stud in C/Box	Stud in C/Box	Stud in C/Box	Stud in C/Box	Stud in C/Box	Stud in C/Box

	Severe Duty	IEEE-841	Hazardous Location		Vector Duty	Automotive Duty	Washdown Duty	Brake Motors	IEC	TEAO
Type	TCE	CE	FL/LF/LE	FLC/LCE	CTNX/CTX	JDEF	FWEN/FWEF/FWER	BRST/BRCO	MMLS	UTN
HP Range	1-200	1-200	1/2-150 1/3-15	1-100	1-10 1-200	1-100 1-100 1/4-300	1-10	1/3-2 1/3-20	1.5-200	1-15
Frame Range	143-447	143-447	56-445 56-256	143-444	143-256 143-447	180-447 180-445 56-5008	143-215	56-145 56-256	80-315	143-254
Frame Material	Cast Iron (1)	Cast Iron	Cast Iron (1)	Cast Iron (1)	Cast Iron (1)	Cast Iron (1)	Steel	Alum.	Alum.	Alum. (1)
End Shield Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	DE-Cast Iron ODE-Alum.	Alum.	Alum.	Alum.
Fan Cover Material	Cast Iron	Cast Iron	Steel	Cast Iron	NA/ Steel	Steel	Steel	Steel	Steel	NA
Conduit Box Material	Cast Iron	Cast Iron	Cast Iron (3)	Cast Iron (3)	Steel	Steel	Steel	Alum.	Alum.	Steel (2)
Hardware	Grade 5 (15)	Grade 5 (15)	Grade 5 (15)	Grade 5 (15)	Std	Grade 5 (15)	Stainless Steel	Std	Std	Std
Mounting	Cast 180-440	Cast 180-440	Cast 180-440	Cast 180-440	Cast 180-440	Cast 180-5008	Welded Base	Cast (17)	Cast (17)	Bolted Base
C-Face Available	Kits 140-440	Kits 140-440	Yes	No	No	Kits Thru 360	No/Yes/Yes	Yes	Kits 80-132	Kits (6)
D-Flange	Kits 180-360	Kits 180-360	No	No	No	Kits Thru 440	No	No	NA	Kits 140-180 (6)
Brakes	No	No	No	No	No	Kits 140-360	No	Std	No	Kits Thru 210
Grounding	Lug in C/Box	C/Box & External	Stud in C/Box	Stud in C/Box	Stud in C/Box	Stud in C/Box	Stud in C/Box	Terminal Block	Terminal Block	Stud in C/Box

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	Dripproof (ODP)				Totally Enclosed Fan Cooled (TEFC)			
		C-Face	Split Phase	STD Crop Dryer			C-Face	
Type	SOR / SORM / SOC	SOF	SSOC	DM/DMA	SER, SM	SEFM	SEF	SEFM
HP Range	1/4-1.5 / 1/4-1.5 / 1/4-1	1/4-1.5	1/4-1/3	1-10/5-12	1/4-10	1/3-1	1/4-2	1/4-1
Frame Range	48-56	56	48/56	143-215	48-215	48-56	56-145	56-145
Frame Material	Steel	Steel	Steel	Steel	Steel	Steel	Steel	Steel
End Shield Material	Alum.	Alum.	Alum.	Alum.	Alum.	Alum.	Alum.	Alum.
Fan Cover Material	NA	NA	NA	NA	Steel	Steel	Steel	Steel
Conduit Box Material	NA	Steel	NA	Steel	Steel	Steel	Steel	Steel
Mounting	Welded	C-Face Round	Resilient	Welded	Bolt-on (2)	Bolt-on (2)	C-Face Round	C-Face Round
Service Factor	1.25+(3)	1.15+	1.35	1.15/ Special	1.15 (3)	1.00 (3)	1.15	1.15
Insulation Class	B	B	B	B	B	B	B	B
Thermal Protection	None/Manual/ Auto	None	Auto	None/ Thermostat	None	Manual	None	Manual
Shaft Slinger	No	No	No	No	No	No	No	No
Bearing Type	Sealed	Sealed	Sleeve	Double Shielded	Sealed C/Box	Sealed C/Box	Sealed C/Box	Sealed C/Box

	Agri Duty	Agri Duty Ultra Torque		Aeration Fan	Hazardous Location	Jet Pump	Close Coupled Pump	Washdown Duty
Type	SMA	TMA	TMQ	SN	SLR, SLF	SOJ	UTM	SEFM
HP Range	1/3-1	1.5-10	1-10	3/4-1	1/4-1	1/3-1.5	3-10	1/4-1
Frame Range	56	143-215	143-215	56	56	56	184-215	56-145
Frame Material	Steel	Steel	Alum.	Steel	Steel	Steel	Alum.	Steel
End Shield Material	Alum.	Alum.	Alum.	Alum.	Alum.	Alum.	Alum.	Alum.
Fan Cover Material	Steel	Steel	Plastic	NA	Steel	Plastic	Plastic	Steel
Conduit Box Material	Alum.	Alum. (1)	Alum. (1)	NA	NA	Steel	Alum.	Steel
Mounting	Welded	Welded	Bolt-on	Welded	Welded/C-Face	C-Face Round	Bolt-on	C-Face Footed
Service Factor	1.15	1.00	1.15	1.00	1.20+	1.20+	1.15	1.15
Insulation Class	B	F	F	B	B	B	F	F with B Rise
Thermal Protection	Manual	Manual	Manual	Auto	Auto	Auto		
Shaft Slinger	Yes	Yes	Yes	No	No	No	Yes	Yes
Bearing Type	Sealed/ Shielded	Sealed	Shielded	Sealed	Sealed	Sealed	Double Shielded	Double Sealed

(a) CTI-V is 10:1 Variable Torque, CTI-C is 10:1 Constant Torque Inverter Duty
 (b) JAD, JADF & JDE are 65°C Alternate Ambient at 1.0SF
 (c) CTI-C and CTNX are NEMA® Design 'A'
 (d) 50/60 Hz on 230/460 volt & 460 volt only, 60 Hz on 200 & 575 volt

(1) 56 and 140 Frame is Rolled Steel
 (2) Aluminum on 250 and A280 Frame
 (3) 56 Frame is Steel
 (4) "Inverter Grade" Insulation Meets NEMA® MG1, Part 31
 (5) 140-250 Frame 'BA' dimension is non-NEMA®

(6) 56 and 140 Frame 'BA' Dimension is non-NEMA®
 (7) 'B' rise on 60Hz only
 (8) 'B' rise @ 1.0 SF on Sine Wave Power only
 (9) Sealed on 56 and 140 Frame
 (10) 1.0 SF on Inverter Power
 (11) 360 Frame is Double Shielded

(12) Open
 (13) Open Bearing 400-440 Frame
 (14) Double Shielded 140 Frame
 (15) Zinc Plated
 (16) Sealed to 132, Semi-protected 160-200, Open 225 and Above
 (17) 200 & 225 Bolt-on Base