

PRODUCT INFORMATION PACKET



Model No: 193423.60
Catalog No: 193423.60
100 HP General Purpose, 3 phase, 1800 RPM, 230/460 V, 280S Frame, TEFC



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Nameplate Specifications

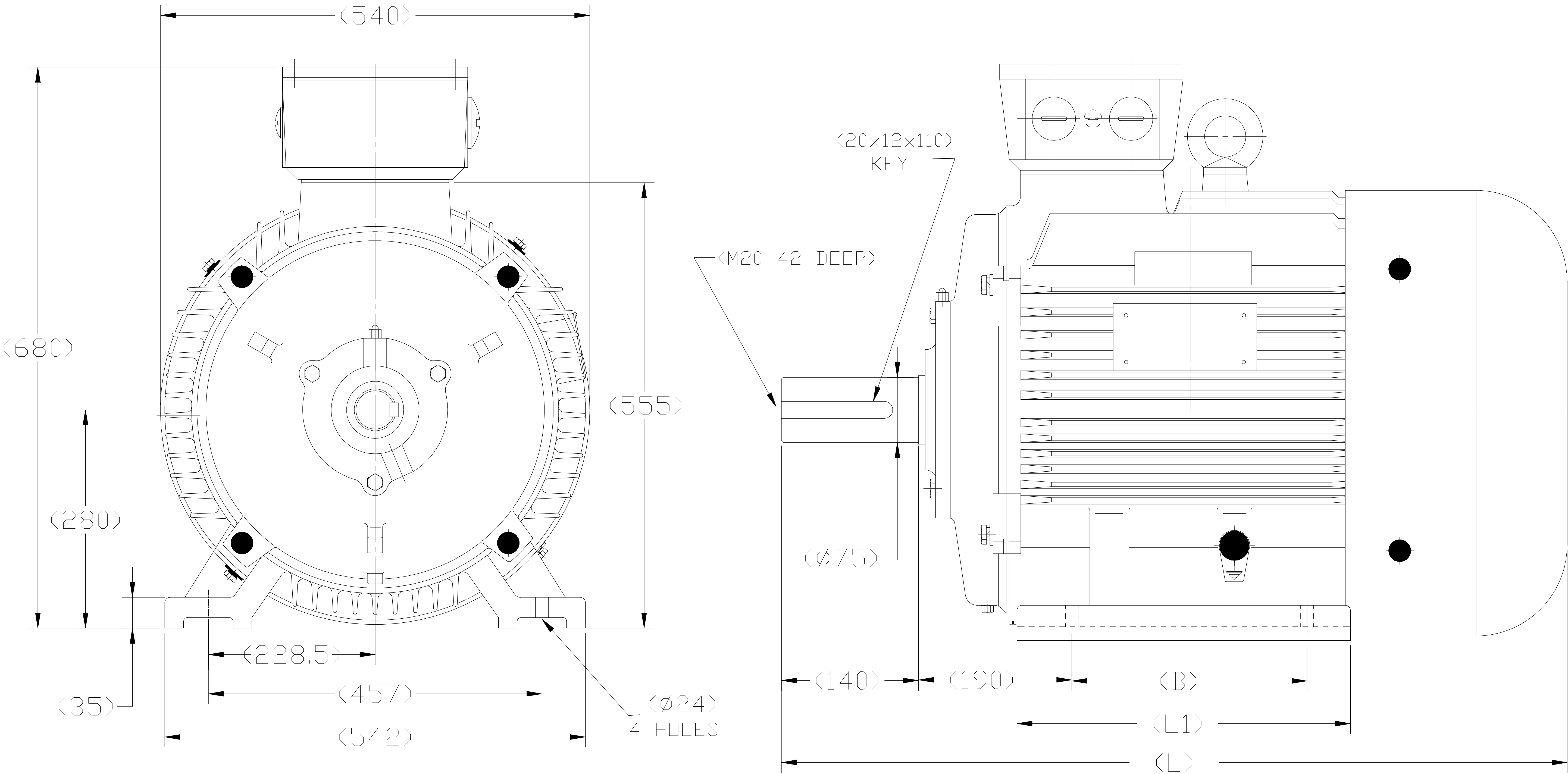
Phase	3	Output HP	100 & 75 Hp
Output KW	75.0 & 56.0 kW	Voltage	230/460 & 200/400 V
Speed	1785 & 1488 rpm	Service Factor	1.15 & 1.15
Frame	280S	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	95.4 & 95 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	226/113 & 198/99 A	Power Factor	87
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Drive End Bearing Size	6317	Opp Drive End Bearing Size	6314
UL	Recognized	CSA	Y
CE	Y	IP Code	55
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Wye Start Delta Run Or Inverter
Poles	4	Rotation	Reversible
Resistance Main	.045 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Overall Length	38.39 in
Shaft Diameter	3.000 in	Shaft Extension	5.51 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 10:1
Connection Drawing	004172.01	Outline Drawing	SS622382

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SS622382



DRAWING MAY NOT BE TO SCALE

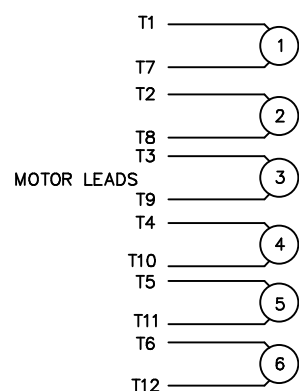
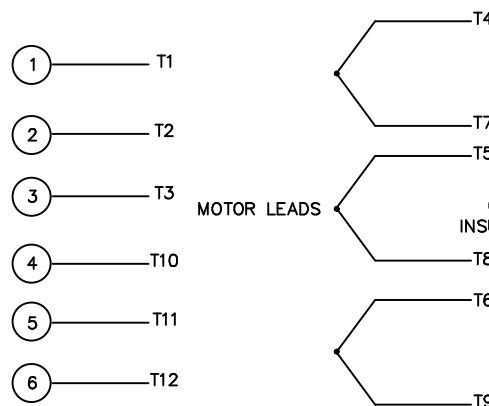
FRAME	B	L1	L
DF280S-6R	368	485	975
DF280M-6R	419	536	1026

						TOLERANCES UNLESS SPECIFIED		 REGAL-BELOIT CORPORATION			DRAWN MDL 09-11-2012				
						DEC.	INCHES				CHK				
						.X	±.1				APPD				
						.XX	±.03				SCALE				
						.XXX	±.005	TITLE			OUTLINE				
						.XXXX	±.0005	DF280S,M-6R-PREMIUM			REF R502,R505				
C	REMOVED MARATHON PART NUMBERS		ECO-0186668	WGJ	5-18-20	BW	.XXXX	±.0005	MAT'L.			FMF HEBEI			
NO.	REVISION			BY & DATE		CHK	ANG	±1/2	FINISH			PREV			
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT - DO NOT SCALE THIS PRINT						RFP			CAD FILE		SS622382	SIZE	DRAWING NO.		REV.
						DIST					B	SS622382		C	

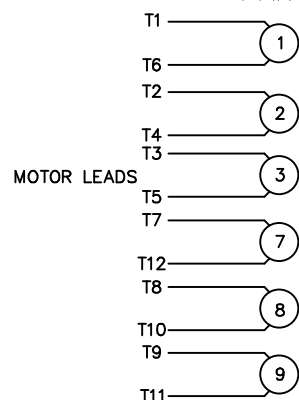
WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

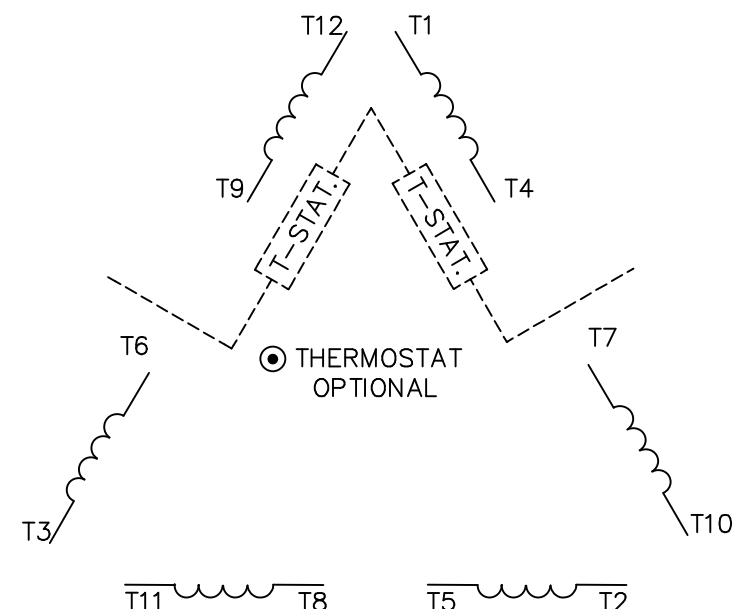
HIGH VOLTAGE CONNECTION

WYE-DELTA
STARTER
TERMINALSWYE-DELTA
STARTER
TERMINALS

MOTOR LEADS

MOTOR LEADS
CONNECT AND
INSULATE SEPARATELYREFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR
PROPER CONNECTION OF POWER LINES TO STARTER.PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLYPART WINDING
STARTER
TERMINALSREFER TO THE PART WINDING
STARTER INSTRUCTIONS FOR PROPER
CONNECTION OF POWER LINES TO STARTER.REFER TO THE CUTLER - HAMMER OR EQUIV. FOR
PROPER SELECTION OF OVERLOAD HEATER COILS.

LINE LEADS

ROTATION CAN BE REVERSED BY
INTERCHANGING ANY TWO LINE LEADS
● RED LEADS OR P1, P2, FOR N/C THERMOSTAT

ACROSS THE LINE START & RUN

	LINE 1	LINE 2	LINE 3	JOIN & INSULATE SEPARATELY
HIGH VOLT	T1,T12	T2,T10	T3,T11	(T4,T7) (T5,T8) (T6,T9)
LOW VOLT	T1,T6 T7,T12	T2,T4 T8,T10	T3,T5 T9,T11	

TOLERANCES
UNLESS SPECIFIED

DEC. INCHES

.X ±.1

.XX ±.01

.XXX ±.005

.XXXX ±.0005

ANG ±1/2"

ELECTRIC MOTORS
GEARMOTORS
AND DRIVES

DRAWN WLW 09/08/77

CHK RPB 09/12/77

APPD JCW 09/12/77

TITLE DELTA - WYE CONNECTION DIAGRAM

SCALE 1=1

REF

FMF

PREV

03 REV'D LOW VOLTAGE CONN. LEADS PER ELEC.

BJB 06/07/00

02 ADDED T-STAT. NOTES PER ELECTRICAL

KMM 06/02/98

01 REDRAWN TO CAD

DBT 06/02/97

NO. REVISION

BY & DATE

CHK

ANG

±1/2"

FINISH

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RFP

DIST

CAD FILE 00417201

SIZE

A

DRAWING NO.

004172-01

REV.

03



1051 CHEYENNE AVE.
GRAFTON, WI 53024
PH. 262-277-8810

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: 00417203

CAT #: 193423.60

OUTLINE: SS622382

WINDING: T19604021

NONE 1

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
100	75	1800	1785	280S	TEFC	TFC	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60/50	230/460#200/400	226/113&198/99	Y START D RUN OR INV	CONT	F	1.15	40	3300

F.L. EFF	95.4	3/4 LD EFF	95.4	1/2 LD EFF	95.0	GTD EFF	ELECT. TYPE
F.L. PF	87.0	3/4 LD PF	85.5	1/2 LD PF	80.0	94.5	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
294 LB-FT	725	515 LB-FT 175%	740 LB-FT 252%	55

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
76 dBA	85 dBA		0.00 LB-FT²	0 LB-FT²	20 SEC.	0	1250 LB.

***** SUPPLEMENTAL INFORMATION *****

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	UM SEVERE	NONE	NO	NONE	WATTS AVER

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE ODE						
BALL BALL	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6317 6314						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0	0	0	0	0	0.080	ODE

* N O T E S *			INVERTER TORQUE: CONSTANT 10:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED ENCODER: NONE NONE NONE NONE PPR
DATE: 8/29/2018		BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE HZ:	
		UL: Y-(LEESON UL REC)	

Data Sheet

Date: 8/29/2018

193423.60



Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	30.0	41.0	61.0	86.0	113	130	142	725	
Torque (ft-lb)	0.00	75.0	150	225	294	340	375	515	
RPM	1800	1796	1794	1790	1785	1,782	1778	0	
Efficiency (%)		92.4	95.0	95.4	95.4	95.0	94.5		
P.F. (%)	5.5	62.0	80.0	85.5	87.0	87.0	87.0	34.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle																													
Speed (RPM)	0	900	1675	1785	1800																													
Current (Amps)	725	650	475	113	30.0																													
Torque (ft-lb)	515	450	740	294	0.00																													
— Efficiency (%) — P.F. (%) — Current (Amps) <table><caption>Graph Data Points (Estimated)</caption><thead><tr><th>Load (%)</th><th>Efficiency (%)</th><th>P.F. (%)</th><th>Current (Amps)</th></tr></thead><tbody><tr><td>25</td><td>92</td><td>62</td><td>25</td></tr><tr><td>50</td><td>94</td><td>80</td><td>45</td></tr><tr><td>75</td><td>95</td><td>85</td><td>75</td></tr><tr><td>100</td><td>95</td><td>87</td><td>105</td></tr><tr><td>125</td><td>94</td><td>87</td><td>145</td></tr></tbody></table>						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)	25	92	62	25	50	94	80	45	75	95	85	75	100	95	87	105	125	94	87	145	Information Block				
						Load (%)	Efficiency (%)	P.F. (%)	Current (Amps)																									
						25	92	62	25																									
						50	94	80	45																									
						75	95	85	75																									
						100	95	87	105																									
						125	94	87	145																									
						HP		100.0																										
						Sync. RPM		1800																										
						Frame		405																										
						Enclosure		TEFC																										
						Construction		TFC																										
						Voltage		230/460#200/400		V																								
						Frequency		60		Hz																								
						Design		A																										
						LR Code letter		G																										
						Service Factor		1.15																										
Temp Rise @ FL		55		° C																														
Duty		CONT																																
Ambient		40		° C																														
Elevation		1,000		feet																														
Rotor/Shaft wk ²		0.00		Lb-Ft ²																														
Ref Wdg		T19604021 NONE																																
Sound Pressure @ 1M		76		dBA																														
VFD Rating		CONSTANT 10:1																																
Outline Dwg		SS622382																																
Conn. Diag		00417203																																
Additional Specifications:																																		
0																																		
0																																		
EQUIV CKT (OHMS / PHASE)																																		
R1	R2	X1	X2	Xm																														
0.0000	0.0000	0.0000	0.0000	0.0000																														

Speed - Torque Curve

