

ABB BALDOR RELIANCE III

Customer information packet

EM74154T-4

150//125HP, 1785//1485RPM, 3PH, 60//50HZ, 44

Class - CLI GP C,D; CLII GP F,G

Division - Division I

Specifications

Enclosure	TEFC
Frame	447T
Frame Material	Iron
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP C,D; CLII GP F,G
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	150.000 HP @ 60 HZ 125.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	380.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV CCSA US CSA UL
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	166.000 A @ 380.0 V 164.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.8 %
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T4
Heater Indicator	No Heater
High Voltage Full Load Amps	164.0 a

Part Detail

Revision	F
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A44WG1180
Layout	617426-173
Eff. date	05-24-2017
CD Diagram	416820-036
Poles	04
Leads	3#2/0
Proprietary	False
Created date	04-22-2015

Insulation Class	F
Inverter Code	Not Inverter
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Motor Lead Quantity/Wire Size	3 @ 2/0 AWG
Motor Standards	NEMA
Motor Type	A44106M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	48.22 IN
Power Factor	89
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	3.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1485 rpm 1785 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

NP2496L	
MOBIL POLYREX EM	

000613006PC		
CLASS I GROUP	C D X	NO.
CLASS II GROUP	F G X	
OPERATING TEMP CODE	T4	

NP2293L

CAT.NO.		SPEC NO.	A44-7166-1180				FRAME	447T
HP	150//125	PHASE	3	DESIGN	B	TYPE	P	
RPM	1785//1485	HZ	60//50	AMB	40	SF	1.00	
VOLTS	460//380	DUTY	CONT	INSUL.CLASS	F			
AMPS	164//166	ENCL	TEFC	CODE	G			
DRIVE END BEARING	90BC03J30X	NEMA-NOM-EFFICIENCY	95.8					
OPP D.E. BEARING	90BC03J30X							
SER.NO.								
						MOTOR WEIGHT		

REL. S.O.

 RPM **1785**

 S.F. **1.00**

 ROTOR **418143047ME**

 FRAME **447T**

 VOLTS **460**

 NEMA DESIGN **B**

 TEST S.O. **TYPICAL DATA**

 HP **150**

 AMPS **164**

 CODE LETTER **G**

 TEST DATE **---**

 TYPE **P**

 DUTY **CONT**

 ENCLOSURE **XPFC**

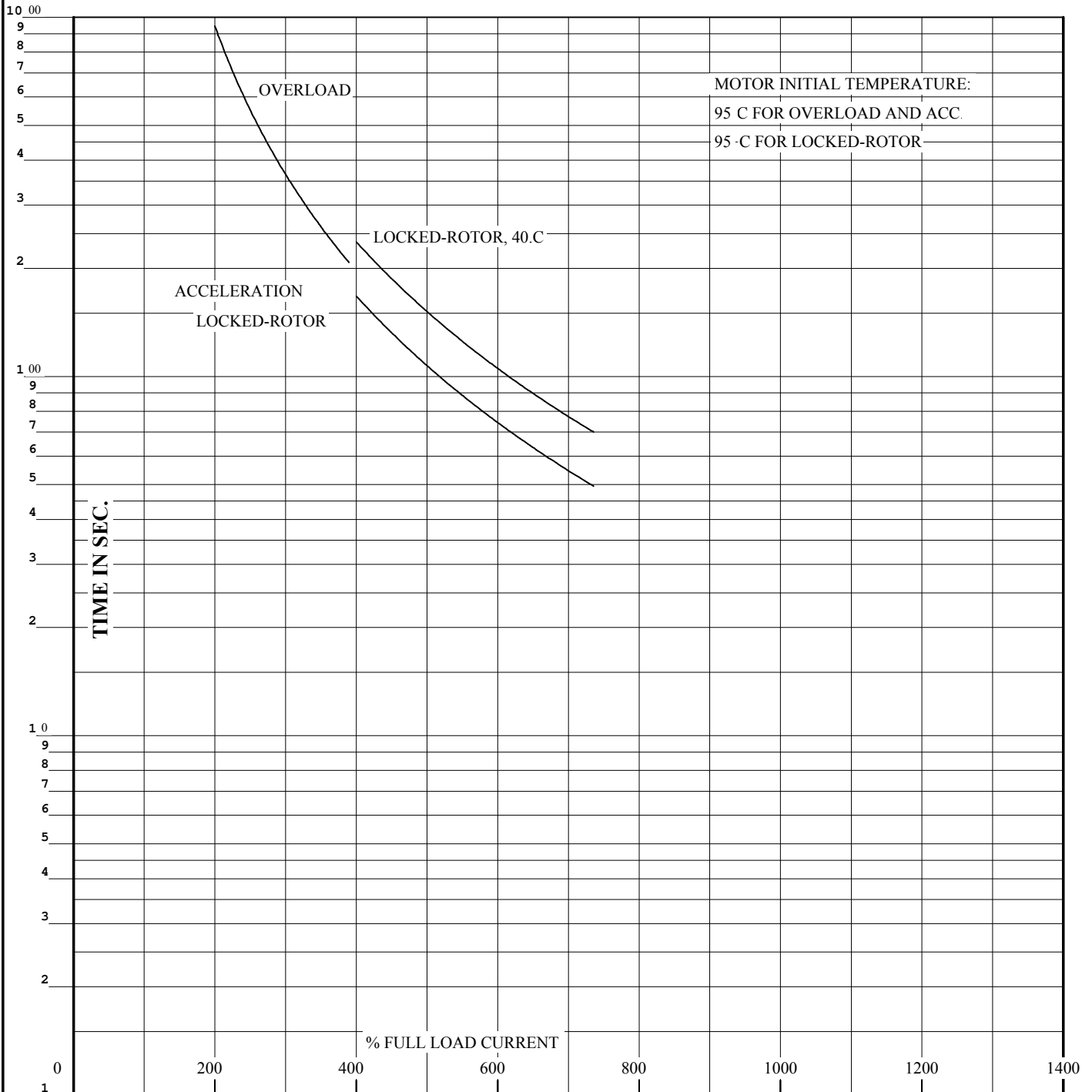
 STATOR RES. @ 25 °C **.0232**

 PHASE/HERTZ **3/60**

 AMB °C/INSUL **40/F**

 E/S **433786**

OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS:

XE MOTOR-NEMA NOM. EFF. 95.8 PCT.

 AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

BALDOR
A MEMBER OF THE ABB GROUP

 DR. BY E.J. CHRISTIAN
 CK. BY T.G. KELATI
 APP. BY T.G. KELATI
 DATE 07/07/16
**A-C MOTOR
PERFORMANCE
CURVES**
A44WG1180-R003

 ISSUE DATE 07/07/16 Page 7 of 13

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	447T	150	P	3/60	1785	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
164	CONT	40/F	1.00	B	G	XPFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES.@25 °C OHMS (BETWEEN LINES)		
433786	418143047ME	---	---	.0232		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	36.5	1800	6.64	0	
1/4	37.5	53.4	1796	70.7	93.0	
2/4	75.0	85.7	1793	85.8	95.5	
3/4	112	123	1789	88.8	96.0	
4/4	150	164	1785	89.1	96.0	
5/4	187	206	1781	89.1	95.6	
SPEED TORQUE						
		RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES	
LOCKED ROTOR		0	147	650	1099	
PULL UP		1360	116	512	944	
BREAKDOWN		1728	251	1106	566	
FULL LOAD		1785	100	441	164	
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE						
REMARKS: TYPICAL DATA XE MOTOR-NEMA NOM. EFF. 95.8 PCT.						
		DR. BY E.J.CHRISTIAN		A-C MOTOR PERFORMANCE DATA A44WG1180-R003 ISSUE DATE 07/07/16		
		CK. BY T.G.KELATI				
		APP. BY T.G.KELATI				
		DATE 07/07/16				

REL S.O.

RPM 1785

S.F. 1.00

ROTOR 418143047ME

FRAME 447T

VOLTS 460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 150

AMPS 164

CODE LETTER G

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE XPFC

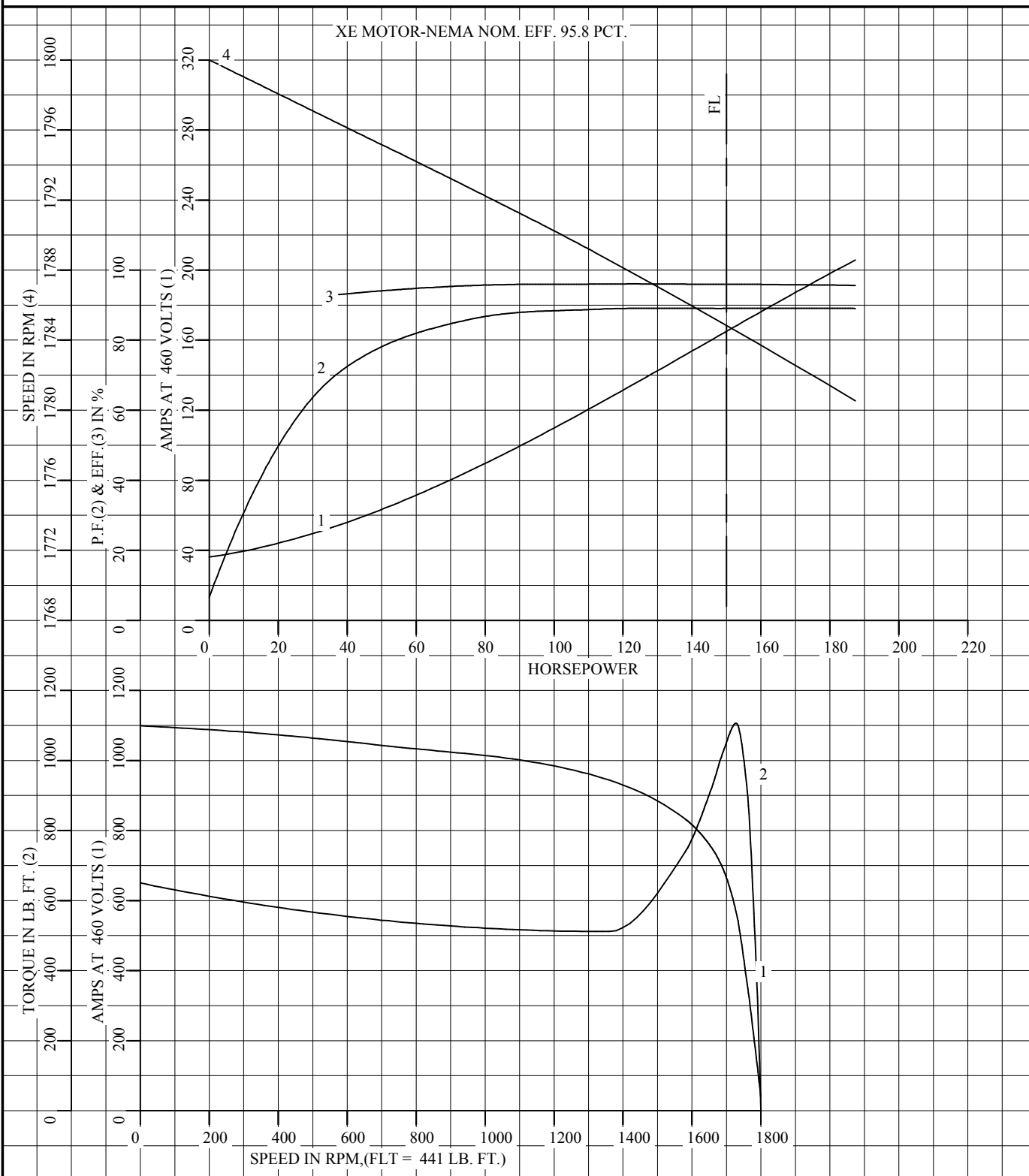
STATOR RES. @ 25 °C .0232

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 433786

OHMS (BETWEEN LINES)



AMPERES SHOWN FOR 460 VOLT CONNECTION, IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE.

BALDOR
A MEMBER OF THE ABB GROUP

DR. BY E.J. CHRISTIAN
CK. BY T.G. KELATI
APP. BY T.G. KELATI
DATE 07/07/16

**A-C MOTOR
PERFORMANCE
CURVES**

A44WG1180-R003

ISSUE DATE 07/07/16

Page 9 of 13

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

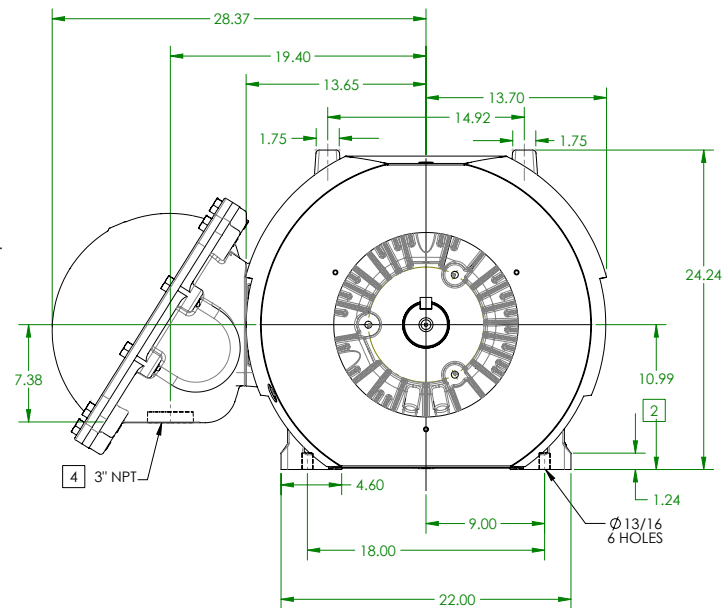
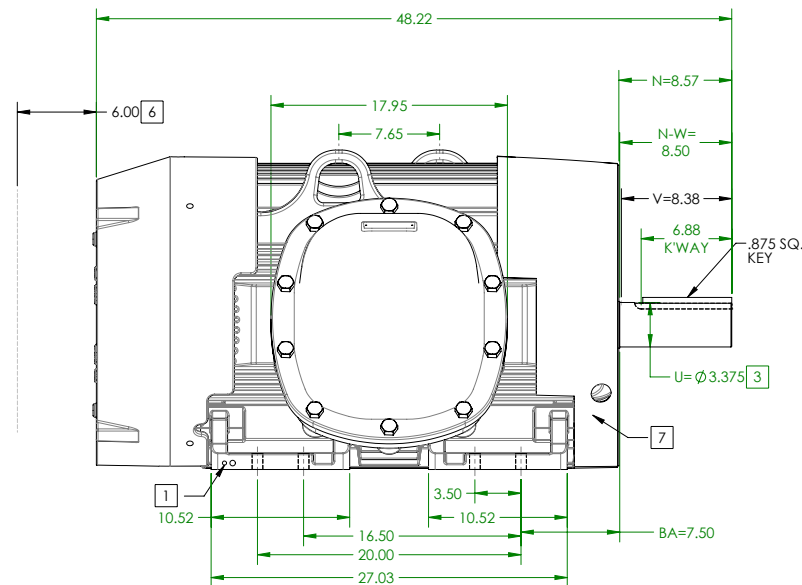
ENCLOSURE: UL LISTED MOTOR

FRAME G447T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES G445T FRAME MOUNTING HOLES



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00,-.06
3. VARIES +.00,-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NO ENCROACH ON AIR INLET.
7. AIR DEFLECTOR INSTALLED WHEN REQUIRED.

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF
STANDARD SHAFT EXTENSION IS .003" T.I.R. TO 5 INCH DIA.

[5] WEIGHT (LBS): 2610

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN INCHES; SEE SHEET 2 FOR DIMENSIONS IN MILLIMETERS

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

REV. DESC: NEW ISSUE			
REV: -	VERSION: 00	REVISED: 07/56/17 05/12/2016	TDR: 00000979822
MODEL NO. 617426-173		REF:	
BY: RAGGDM	Material:		

BALDOR

G447T/445T XP - FOOTED - CL 1 GR C & D

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

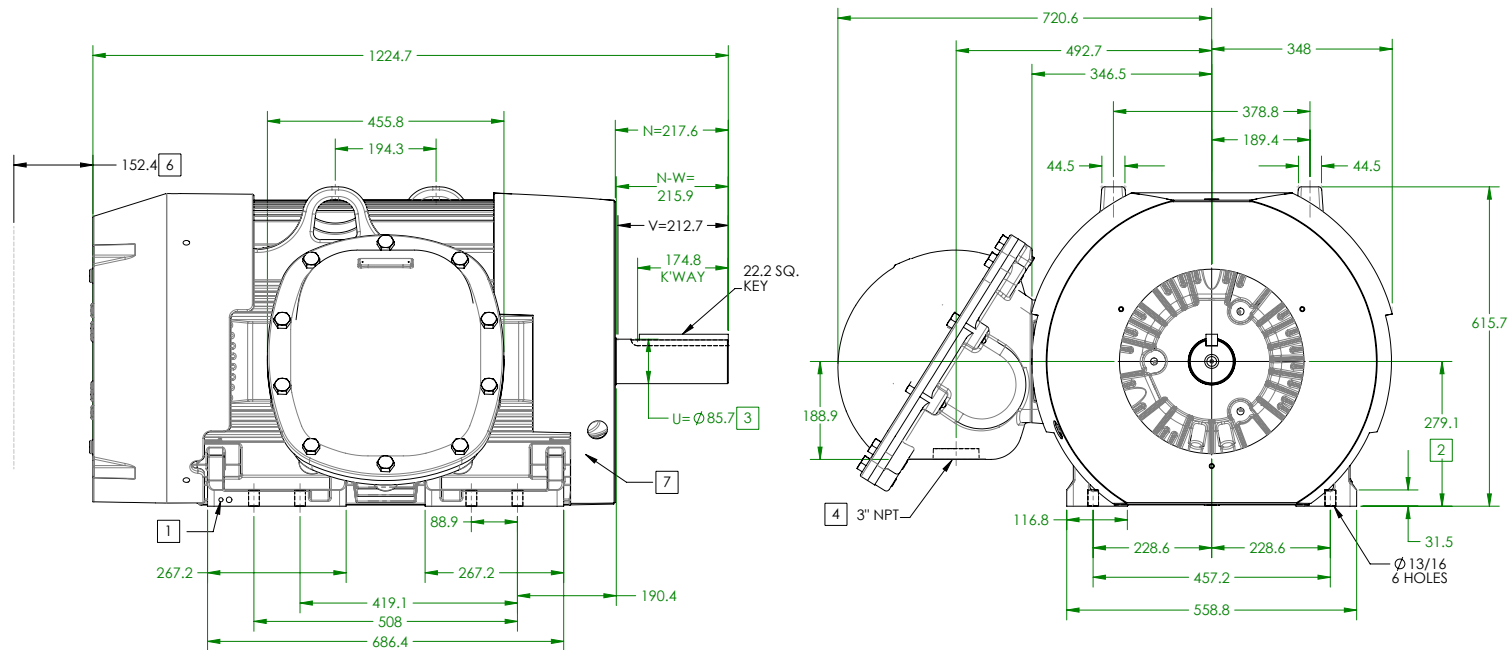
ENCLOSURE: UL LISTED MOTOR

FRAME G447T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES G445T FRAME MOUNTING HOLES



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +.00-.06
3. VARIES +.000-.001
4. ON STANDARD MOTORS THIS IS CONDUIT SIZE. ON XT AND CORROSION PROOF MOTOR THIS IS PIPE TAP.
5. MOTOR WEIGHTS MAY VARY BY 15% DEPENDING ON RATING.
6. OBSTRUCTION MUST NO ENCROACH ON AIR INLET.
7. AIR DEFLECTOR INSTALLED WHEN REQUIRED.

CONDUIT BOX LOCATED ON OPPOSITE SIDE WHEN F-2.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF
STANDARD SHAFT EXTENSION IS .08 MM T.I.R. TO 127 MM DIA.

[5] WEIGHT (KGS): 1185

DRIVE END AIR DEFLECTOR IS ONLY INCLUDED WHEN NECESSARY.

DIMENSIONS ARE IN MILLIMETERS; SEE SHEET 1 FOR DIMENSIONS IN INCHES

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

REV. DESC: NEW ISSUE			
REV: -	VERSION: 00	REVISED: 07/56/17 05/12/2016	TDR: 00000979822
MODEL NO. 617426-173		REF:	
BY: RAGGDM	Material:		

BALDOR

G447T/445T XP - FOOTED - CL 1 GR C & D

CONNECTION DIAGRAM
ACCESSORIES

MOTOR WINDING THERMOSTATS		
CONTACTS _____ @ _____ °C		
FIGURE NUMBER _____		
CONTACT RATING		
VOLTS	CONTINUOUS AMPERES	INRUSH AMPERES
110-120	3.0	30
220-240	1.5	15
440-480	0.75	7.5
550-600	0.60	6.0

THERMOSTATS	
NORMALLY CLOSED	NORMALLY OPEN
FIGURE 1	FIGURE 4
FIGURE 2	FIGURE 5
FIGURE 3	FIGURE 6
FIGURE 7	FIGURE 8

CUSTOMER _____

CUSTOMER ORDER NO. _____

S.O. NO. _____

REV. DESC: LOADED TO BUS		
REV. LTR: A	VERSION: 01	TDR: 000000570390
FILE: \RAG\00013\849	REVISED: 10:16:21 12/07/2010	BY: RAGDRF
MTL: -		

BALDOR

A-C MOTOR CONNECTION ACCESSORIES

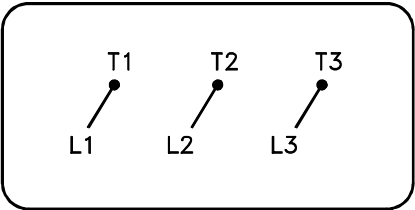
SH 1 of 1

418174-006

418174-006

416820-036

A-C MOTOR
CONNECTION DIAGRAM
STANDARD 3 LEAD CONNECTED



(N.P. 1575-BA)

416820-036

REV. DESC: LOADED TO BUS, C/R 335225		
REV. LTR: -	VERSION: 00	TDR: 000000538207
FILE: \MGA\00000\682	REVISED: 11: 54: 06 04/30/2010	
MTL: -	BY: RAGRA	

BALDOR

CONN DIAG - STANDARD 3 LEAD
SH 1 of 1