

# ABB BALDOR RELIANCE III

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## Customer information packet

### DRX40764T

75HP, 1185RPM, 3PH, 60HZ, 405T, TEFC, F1

Class - CLI GP C,D

Division - Division I

**Specifications**

<b>Enclosure</b>	TEFC
<b>Frame</b>	405T
<b>Frame Material</b>	Iron
<b>Frequency</b>	60.00 Hz
<b>Haz Area Class and Group</b>	CLI GP C,D
<b>Haz Area Division</b>	Division I
<b>Motor Letter Type</b>	Three Phase
<b>Output @ Frequency</b>	75.000 HP @ 60 HZ
<b>Phase</b>	3
<b>Synchronous Speed @ Frequency</b>	1200 RPM @ 60 HZ
<b>Voltage @ Frequency</b>	230.0 V @ 60 HZ 460.0 V @ 60 HZ
<b>Agency Approvals</b>	UL CSA CCSAUSEEV
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Polyrex EM (-20F +300F)
<b>Constant Torque Speed Range</b>	6-60
<b>Current @ Voltage</b>	174.000 A @ 230.0 V 87.000 A @ 460.0 V
<b>Design Code</b>	B
<b>Drip Cover</b>	No Drip Cover
<b>Duty Rating</b>	CONT
<b>Efficiency @ 100% Load</b>	94.5 %
<b>Feedback Device</b>	NO FEEDBACK
<b>Haz Area Temp Code</b>	T3C
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	87.0 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready

**Part Detail**

<b>Revision</b>	B
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A40WG0770
<b>Layout</b>	617433-608
<b>Eff. date</b>	10-22-2021
<b>CD Diagram</b>	416820-002
<b>Poles</b>	06
<b>Leads</b>	3#2,6#4
<b>Proprietary</b>	False
<b>Created date</b>	04-30-2019

<b>IP Rating</b>	NONE
<b>KVA Code</b>	G
<b>Max Speed</b>	2700 rpm
<b>Motor Lead Quantity/Wire Size</b>	3 @ 2 AWG
<b>Motor Standards</b>	NEMA
<b>Motor Type</b>	A40064M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	6
<b>Overall Length</b>	38.22 IN
<b>Power Factor</b>	85
<b>Product Family</b>	General Industrial
<b>Pulley End Bearing Type</b>	Ball
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.00
<b>Shaft Diameter</b>	2.875 IN
<b>Shaft Ground Indicator</b>	No Shaft Grounding
<b>Shaft Rotation</b>	Reversible
<b>Shaft Slinger Indicator</b>	Shaft Slinger
<b>Speed</b>	1185 rpm
<b>Speed Code</b>	Single Speed
<b>Starting Method</b>	Direct on line
<b>Thermal Device - Bearing</b>	None
<b>Thermal Device - Winding</b>	Normally Closed Thermostat

**Nameplate**

<b>NP2496L</b>
MOBIL POLYREX EM

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**000613006PC**

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<b>CLASS I GROUP</b>	C D X	<b>NO.</b>	
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<b>CLASS II GROUP</b>	X X X		
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<b>OPERATING TEMP CODE</b>	T3C		
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**NP3140L**

<b>SPEC NO.</b>	A40-7201-0770	<b>CAT.NO.</b>	DRX40764T	<b>FRAME</b>	405T
<b>HP</b>	75	<b>VOLTS</b>	230/460	<b>PHASE</b>	3
<b>RPM</b>	1185	<b>AMPS</b>	174/87	<b>HZ</b>	60
<b>DRIVE END BEARING</b>	80BC03J30X	<b>DUTY</b>	CONT	<b>INSUL.CLASS</b>	F
<b>OPP D.E. BEARING</b>	80BC03J30X	<b>ENCL</b>	TEFC	<b>CODE</b>	G
<b>SF</b>	1.15	<b>WK2</b>	37.1071	<b>MAG CUR</b>	62/31
<b>CT HZ</b>	6-60	<b>VT HZ</b>	0-60	<b>CHP HZ</b>	60-90
				<b>RPM MAX</b>	2700
				<b>NEMA-NOM-EFF</b>	94.5
	SUIT FOR 55C AMB AT 1.00 SF				IP55
<b>SER.NO.</b>		<b>MOTOR WEIGHT</b>	1405		

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	75	P	3/60	1185	230/460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
174/87	CONT	40/F	1.00	B	G	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
496234	418142-71-EE	---	---	.0215/.0860		

**PERFORMANCE**

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	31.0	1200	4.76	0
1/4	18.8	37.3	1197	51.5	91.5
2/4	37.5	50.9	1193	73.1	94.4
3/4	56.2	67.9	1190	81.7	94.9
4/4	75.0	87.2	1186	85.1	94.6
5/4	93.8	108	1182	86.2	94.1

**SPEED TORQUE**

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	166	552	537
PULL UP	400	158	524	506
BREAKDOWN	1128	243	808	302
FULL LOAD	1186	100	332	87.2

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

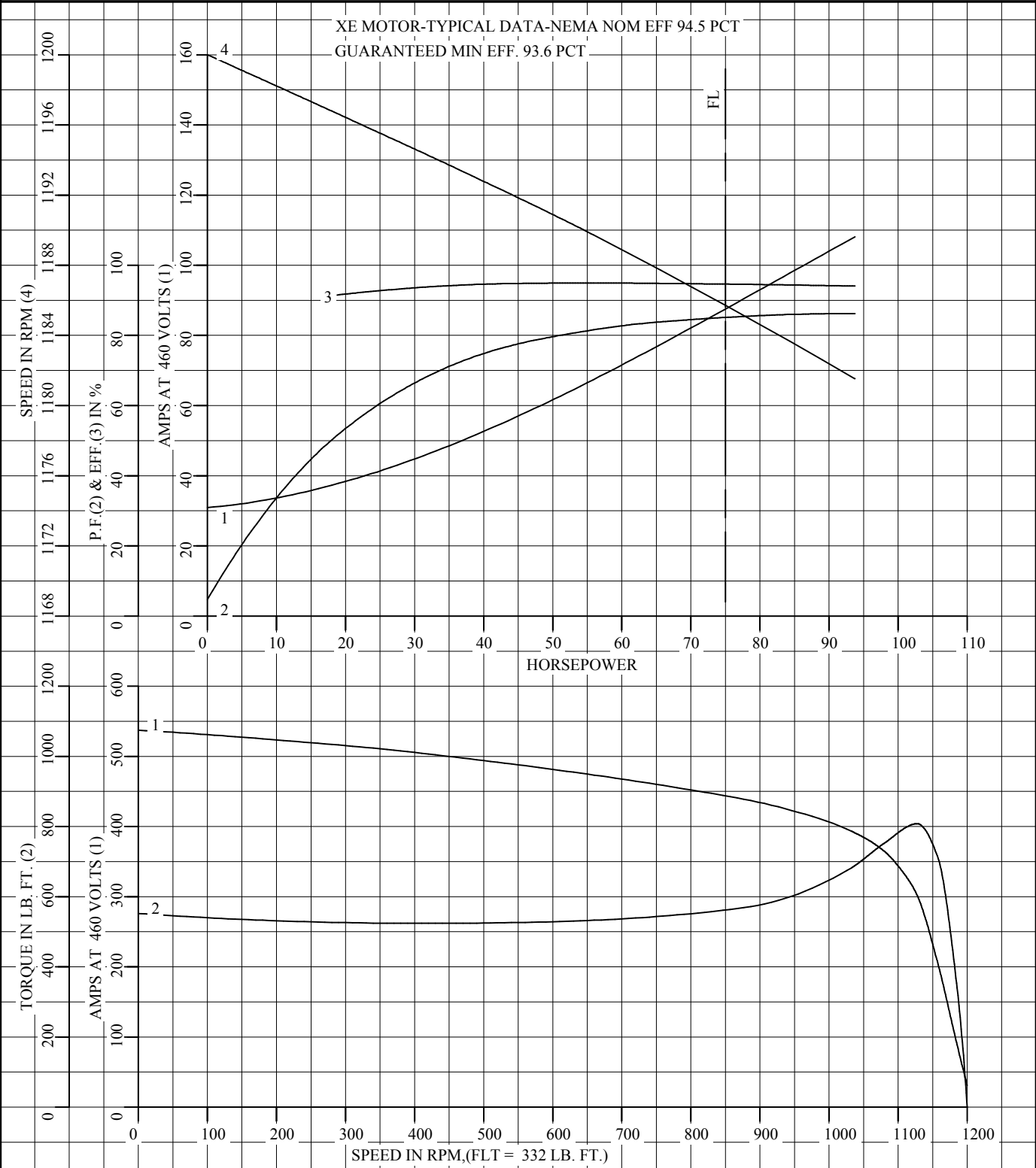
REMARKS: TYPICAL DATA  
 XE MOTOR-TYPICAL DATA-NEMA NOM EFF 94.5 PCT  
 GUARANTEED MIN EFF. 93.6 PCT



DR. BY C.E. JAMISON  
 CK. BY W.L. SMITH  
 APP. BY E.J. CHRISTIAN  
 DATE 11/04/16

**A-C MOTOR  
 PERFORMANCE A40WG0770-R016  
 DATA** ISSUE DATE 08/04/20

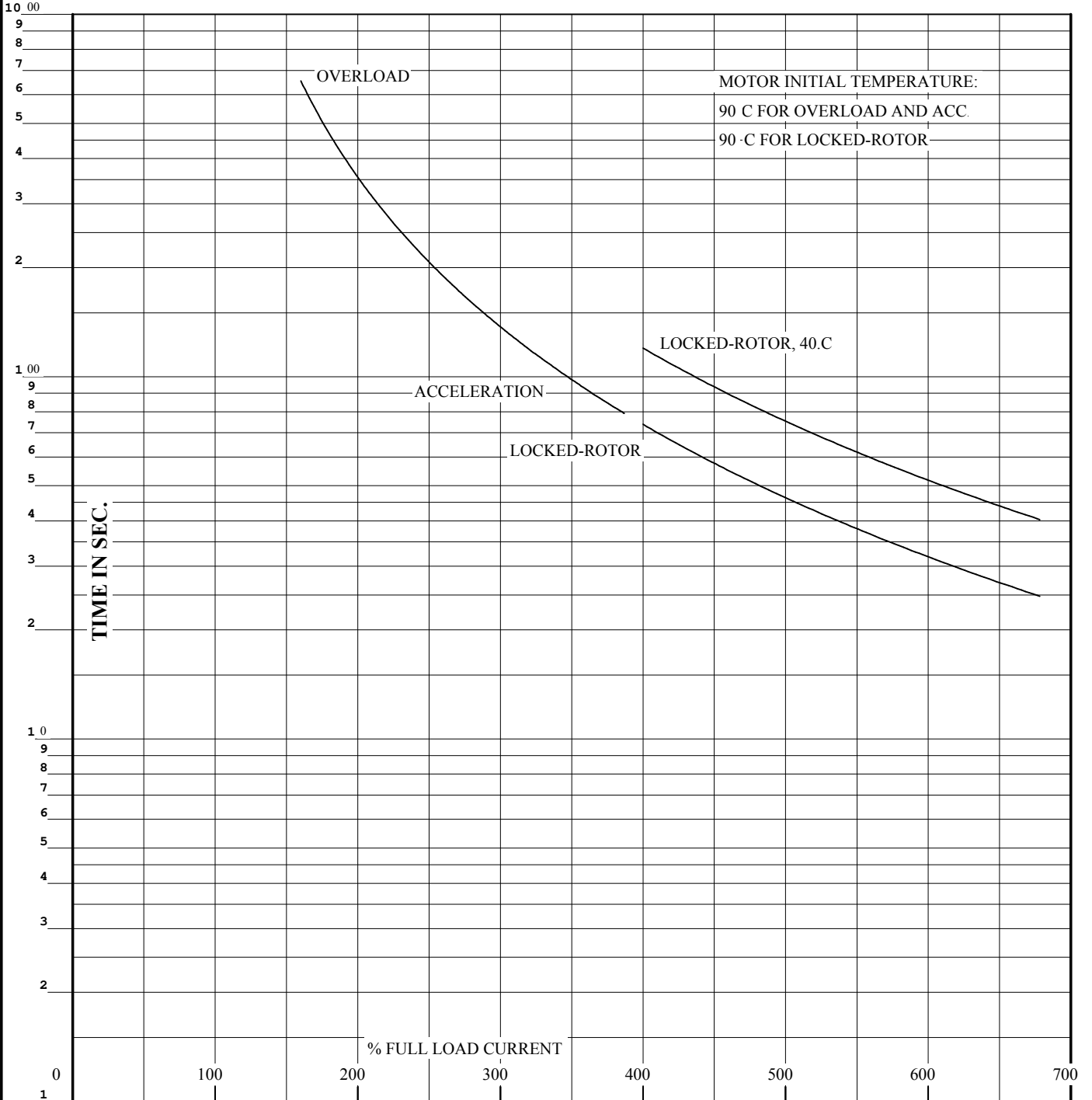
REL S.O.	RPM <b>1185</b>	S.F. <b>1.00</b>	ROTOR <b>418142-71-EE</b>
FRAME <b>405T</b>	VOLTS <b>230/460</b>	NEMA DESIGN <b>B</b>	TEST S.O. <b>TYPICAL DATA</b>
HP <b>75</b>	AMPS <b>174/87</b>	CODE LETTER <b>G</b>	TEST DATE <b>---</b>
TYPE <b>P</b>	DUTY <b>CONT</b>	ENCLOSURE <b>TEFC</b>	STATOR RES. @ 25 °C <b>.0215/.0860</b>
PHASE/HERTZ <b>3/60</b>	AMB °C/INSUL <b>40/F</b>	E/S <b>496234</b>	OHMS (BETWEEN LINES)



DR. BY CE. JAMISON  
 CK. BY W.L. SMITH  
 APP. BY E.J. CHRISTIAN  
 DATE 11/04/16

**A-C MOTOR  
PERFORMANCE  
CURVES** **A40WG0770-R016**  
 ISSUE DATE **08/04/20**

REL. S.O.	RPM 1185	S.F. 1.00	ROTOR 418142-71-EE
FRAME 405T	VOLTS 230/460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
HP 75	AMPS 174/87	CODE LETTER G	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES. @ 25 °C .0215/.0860
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 496234	OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: XE MOTOR-TYPICAL DATA-NEMA NOM EFF 94.5 PCT  
GUARANTEED MIN EFF. 93.6 PCT

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



DR. BY	C.E. JAMISON
CK. BY	W.L. SMITH
APP. BY	E.J. CHRISTIAN
DATE	11/04/16

**A-C MOTOR  
PERFORMANCE CURVES** A40WG0770-R016  
ISSUE DATE 08/04/20 Page 9 of 12

**DUTY MASTER ALTERNATING CURRENT MOTORS**  
SQUIRREL-CAGE INDUCTION

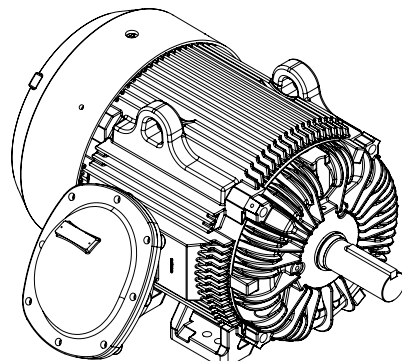
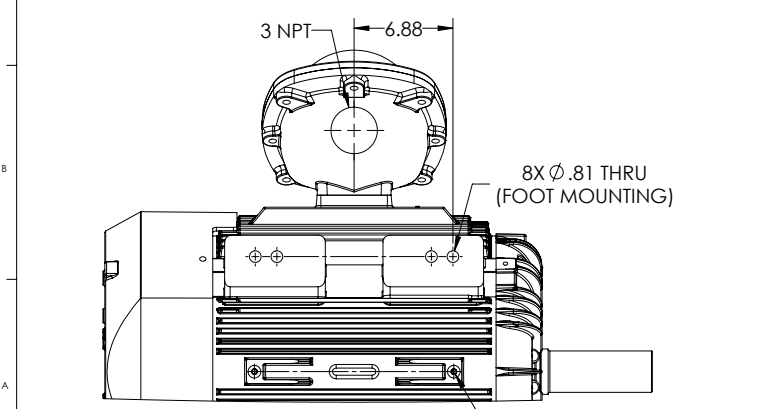
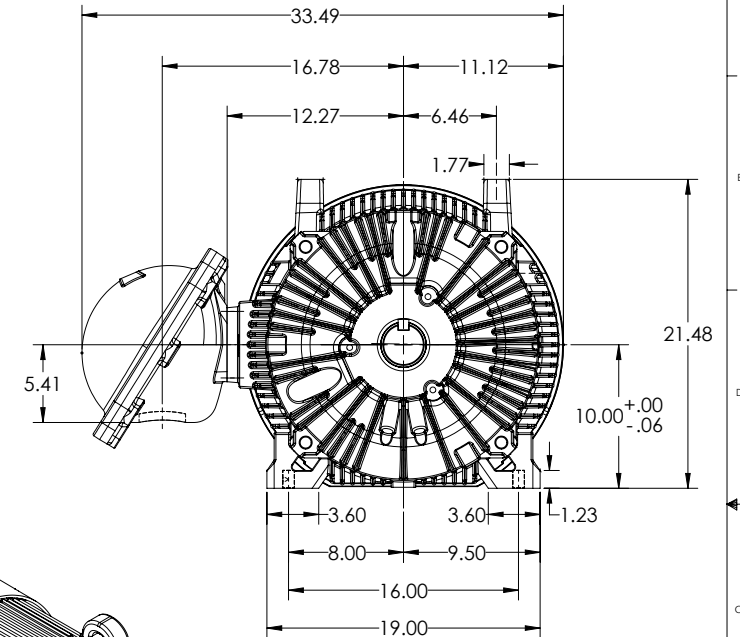
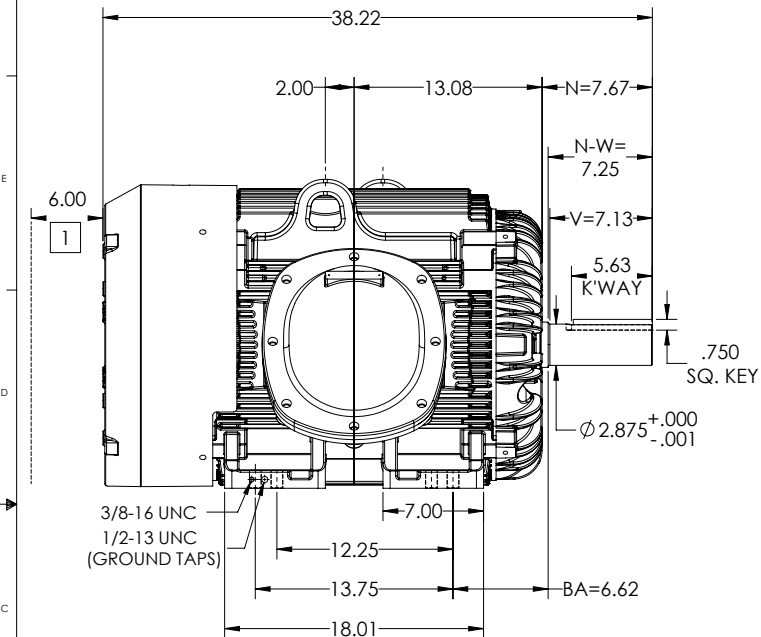
ENCLOSURE: X/P, UNDERWRITERS LISTED

MOUNTING: FOOT, F-1 MOUNT

G405T/G404T FRAME MOUNTING HOLES

COOLING: FAN COOLED

CL. 1, GRP. C & D



DIMENSIONS ARE IN INCHES.  
WEIGHT: 1400 LBS ± 15% DEPENDING ON RATING.  
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.  
MAX PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STANDARD SHAFT EXTENSION IS .003" T.I.R.  
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT MOTOR PERFORMANCE IS SUITABLE IN THE APPLICATION.

SHEET NUMBER <b>1 OF 1</b>	1 OBSTRUCTION MUST NOT ENCR OACH ON AIR INLET.
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REV. DESC: NEW DRAWING	VERSION: 00	REVISED: 02-53-03 03-08-2019	TDR: 000001101608
MODEL NO. 617433-608			REF:
BY: USJEDIL	Material:		

**BALDOR**

G405/404T TEFC XP F1 FOOT/CAST IRON BOX/CL.1 GRP C & D

617433-608

# CONNECTION DIAGRAM ACCESSORIES

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

NORMALLY CLOSED	THERMOSTATS	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. \_\_\_\_\_

418174-006

418174-006

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: -		

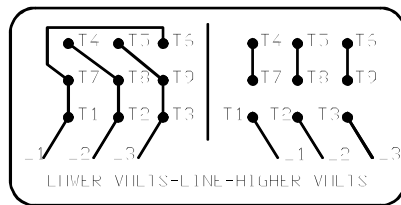
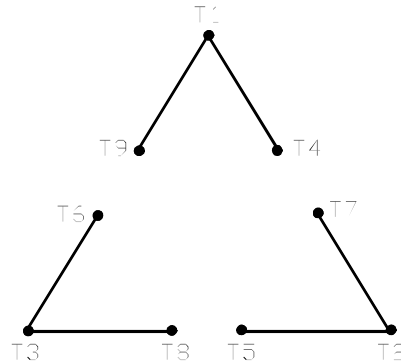
**BALDOR**

A-C MOTOR CONNECTION ACCESSORIES

SH 1 of 1

416820-002

A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 9 LEAD DELTA-CONNECTED



(N.P. 1575-B)

416820-002

REV. DESC: FONT CHANGE FOR PDF SEARCHABLE		
REV. LTR: A	VERSION: 01	TDR: 000001009382
FILE: \MGA\00000\661	REVISED: 02:46:19 02/13/2020	BY: MGHMTT
MTL: -	© □	

**BALDOR - RELIANCE®**

CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

SH 1 of 1