

ABB BALDOR RELIANCE III

Customer information packet

CEWDM4458T

50HP, 890RPM, 3PH, 60HZ, 405TC, TEFC, F1

Class - None

Division - Not Applicable

Specifications

Enclosure	TEFC
Frame	405TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	900 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV CCSA US
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	129.000 A @ 230.0 V 64.300 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Enclosure Modification	Severe Duty Features
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	64.3 a
Insulation Class	F
Inverter Code	Inverter Ready
IP Rating	IP55
KVA Code	F

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A40WG0784
Layout	617429-503
Eff. date	10-22-2021
CD Diagram	416820-002
Poles	08
Leads	3#4,6#6
Proprietary	False
Created date	08-29-2019

Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	NEMA
Motor Type	A40060M
Mounting Arrangement	F1
Number of Poles	8
Overall Length	38.20 IN
Power Factor	78
Product Family	Washdown Features
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Service Factor	1.15
Shaft Diameter	2.875 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	890 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP2496L	
MOBIL POLYREX EM	

NP2428L

SPEC NO.	A40-7120-0784			CAT.NO.	CEWDM4458T				FRAME	405TC	
HP	50	VOLTS	230/460		PHASE	3	DESIGN	B	TYPE	P	
RPM	890	AMPS	129/64.3		HZ	60	AMB	40	SF	1.15	
DRIVE END BEARING	80BC03JPP30A		DUTY	CONT	INSUL.CLASS		F				
OPP D.E. BEARING	80BC03JPP30A		ENCL	TEFC	CODE	F					
SER.NO.				POWER FACTOR		78	NEMA-NOM-EFFICIENCY			92.4	
						MAX CORR KVAR		17	GUARANTEED EFFICIENCY		91
	IP55					NEMA NOM/CSA QUOTED EFF					
	4:1CT AND 4:1VT ON VPWM INVERT					ER, 1.00SF			MOTOR WEIGHT		

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	50	P	3/60	890	230/460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
129/64.3	CONT	40/F	1.15	B	F	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
400784	418142-71-BE	---	---	.0347/.139		
PERFORMANCE						
LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY	
NO LOAD	0	29.4	900	4.62	0	
1/4	12.5	32.8	897	40.3	88.7	
2/4	25.0	40.8	895	62.0	92.6	
3/4	37.5	51.6	892	73.0	93.2	
4/4	50.0	64.3	889	78.3	92.9	
5/4	62.5	78.7	885	80.6	92.2	
SPEED TORQUE						
		RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES	
LOCKED ROTOR		0	140	415	346	
PULL UP		335	125	368	311	
BREAKDOWN		845	218	645	198	
FULL LOAD		889	100	296	64.3	
AMPERES SHOWN FOR 460. VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE REMARKS: TYPICAL DATA TYPICAL DATA-NEMA NOM. EFF. 92.4%						
		DR. BY	P.B. GREENE	A-C MOTOR PERFORMANCE DATA A40WG0784-R005 ISSUE DATE 09/11/19		
		CK. BY	K.W. KANOUFF			
		APP. BY	E.J. CHRISTIAN			
		DATE	08/11/89			

REL S.O.

RPM 890

S.F. 1.15

ROTOR 418142-71-BE

FRAME 405T

VOLTS 230/460

NEMA DESIGN B

TEST S.O. TYPICAL DATA

HP 50

AMPS 129/64.3

CODE LETTER F

TEST DATE ---

TYPE P

DUTY CONT

ENCLOSURE TEFC

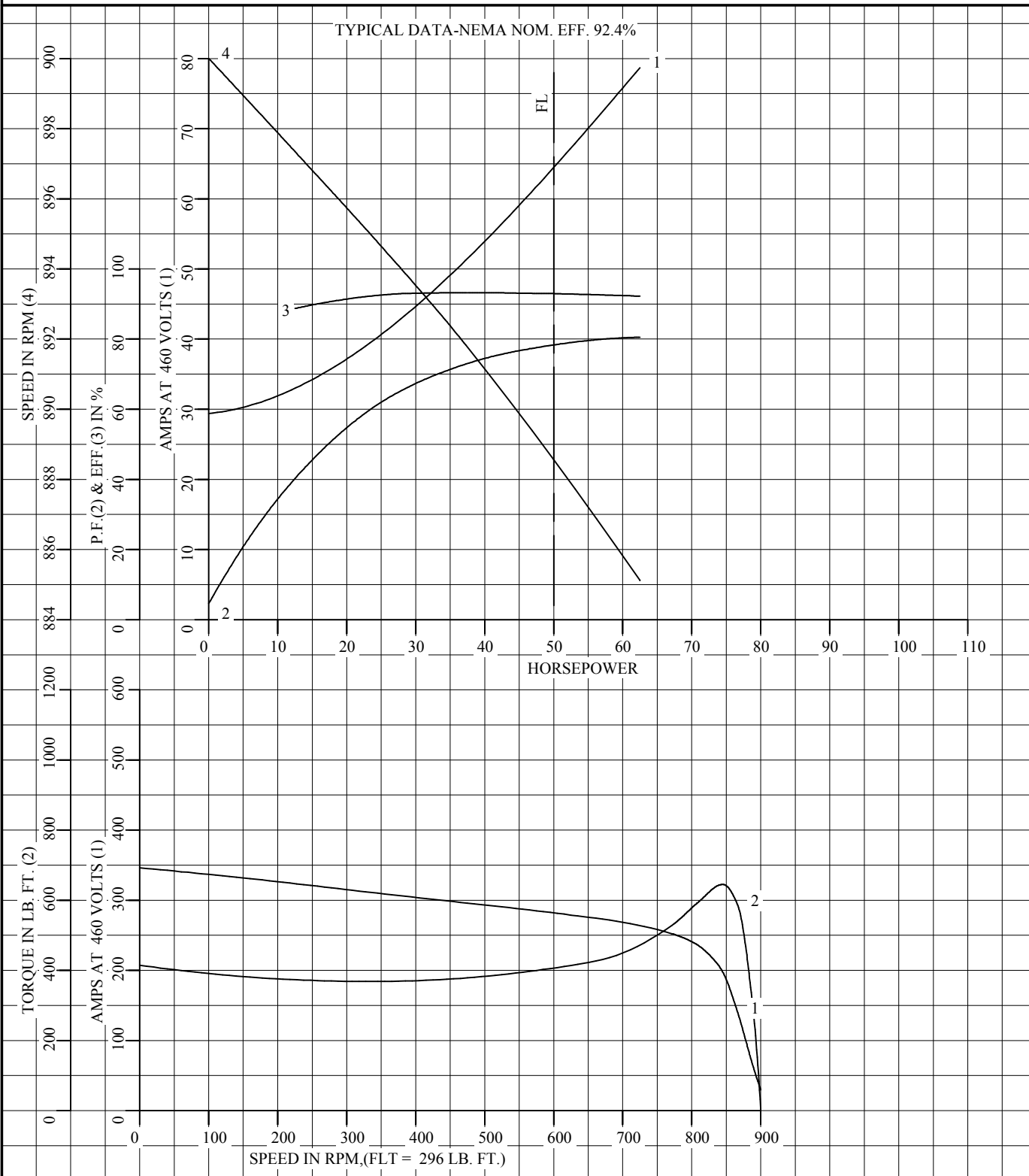
STATOR RES. @ 25 °C .0347/.139

PHASE/HERTZ 3/60

AMB °C/INSUL 40/F

E/S 400784

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

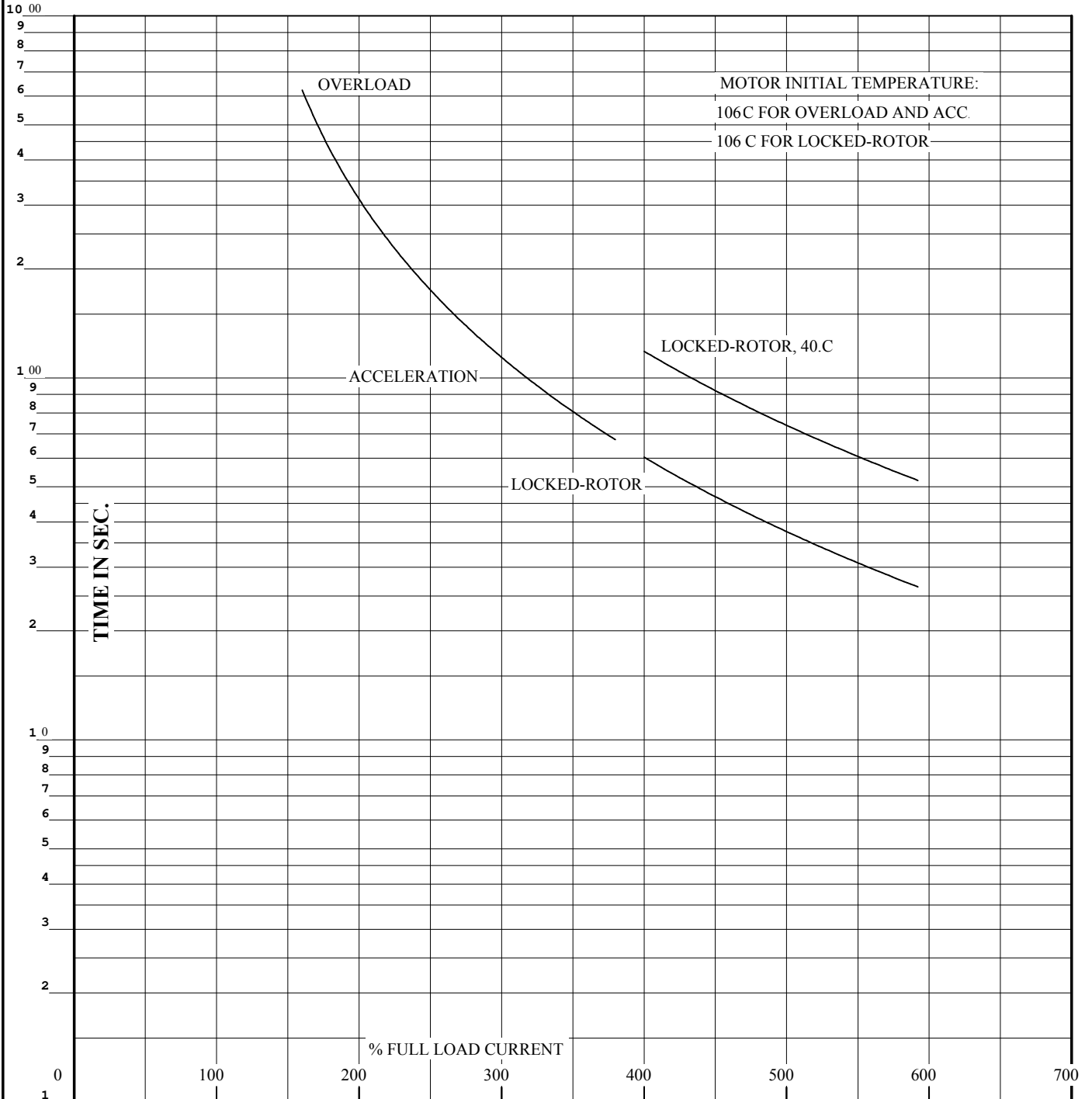
DR. BY P.B. GREENE
CK. BY K.W. KANOUFF
APP. BY E.J. CHRISTIAN
DATE 08/11/89

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0784-R005

ISSUE DATE 09/11/19 Page 7 of 11

REL. S.O.	RPM 890	S.F. 1.15	ROTOR 418142-71-BE
FRAME 405T	VOLTS 230/460	NEMA DESIGN B	TEST S.O. TYPICAL DATA
HP 50	AMPS 129/64.3	CODE LETTER F	TEST DATE ---
TYPE P	DUTY CONT	ENCLOSURE TEFC	STATOR RES. @ 25 °C .0347/.139
PHASE/HERTZ 3/60	AMB °C/INSUL 40/F	E/S 400784	OHMS (BETWEEN LINES)



THERMAL LIMIT CURVE

REMARKS: TYPICAL DATA-NEMA NOM. EFF. 92.4%

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



DR. BY	P.B. GREENE
CK. BY	K.W. KANOUFF
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DATE	08/11/89

**A-C MOTOR
PERFORMANCE
CURVES**

A40WG0784-R005

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DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

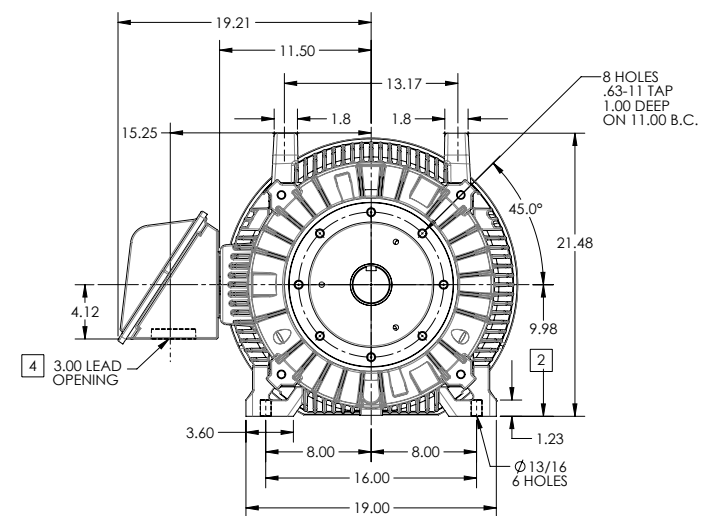
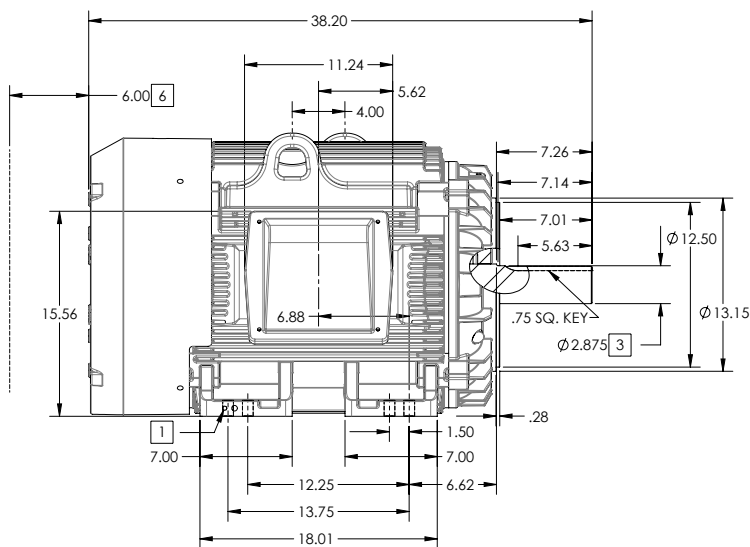
FRAME G405TC ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404TC FRAME MOUNTING HOLES

XT/ECP SEVERE DUTY ENCLOSURE



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 1.5% DEPENDING ON RATING.
6. OBSTRUCTION MUST NOT ENCROACH ON AIR INLET
7. MAX FACE RUNOUT AND FIT ECCENTRICITY = 0.007 T.I.R.

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): 1370

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

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

 SHEET NUMBER
1 OF 2

505-6272119

REV. DESC: CHANGE BA FROM 6.76 TO 6.62

REV: B	VERSION: 02	REVISED: 01-18-01 04/14/2014	TDR: 000000848770
MODEL NO. 617429-503		REF:	
BY: MGHUMZ2		Material:	

BALDOR

G405TC/404TC STD - FOOTED - XT/ECP SEVERE DUTY ENCLOSURE

617429-503

DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

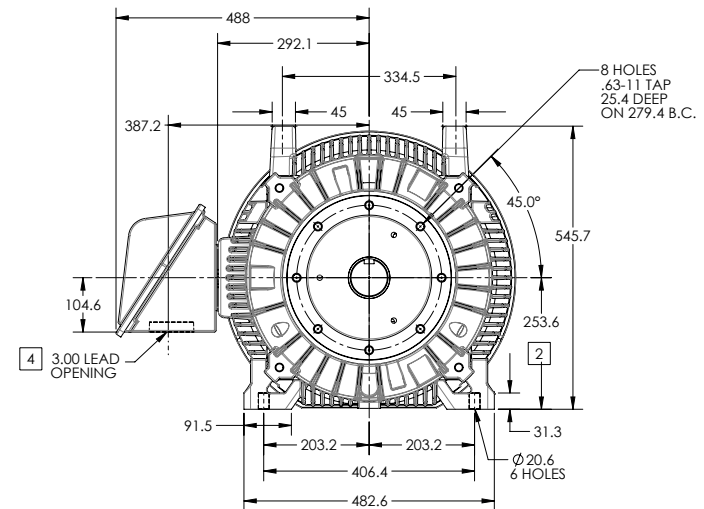
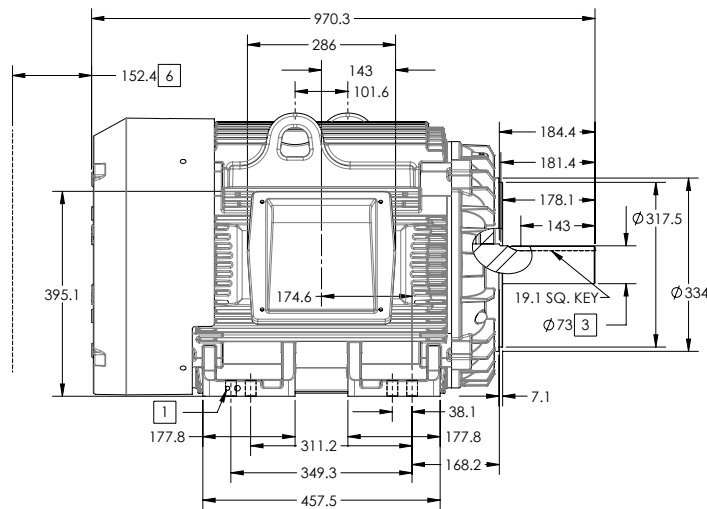
FRAME G405TC ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404TC FRAME MOUNTING HOLES

XT/ECP SEVERE DUTY ENCLOSURE



1. GROUND HOLES QTY 1 1/2-13 TAP; QTY 1 3/8-16 TAP
2. VARIES +0,-1.5
3. VARIES +.00,-.03
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 NOT ENCR OACH ON AIR INLET
7. MAX FACE RUNOUT AND FIT ECCENTRICITY = 0.178 T.I.R.

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): 630

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

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

 SHEET NUMBER
2 OF 2

105-62119

REV. DESC: CHANGE BA FROM 6.76 TO 6.62

REV: B	VERSION: 02	REVISED: 01-18-01 04/14/2014	TDR: 000000848770
MODEL NO. 617429-503	REF:		
BY: MGHUMZ2	Material:		

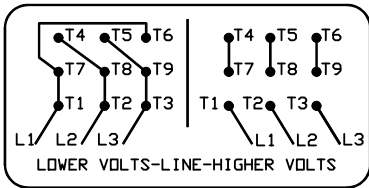
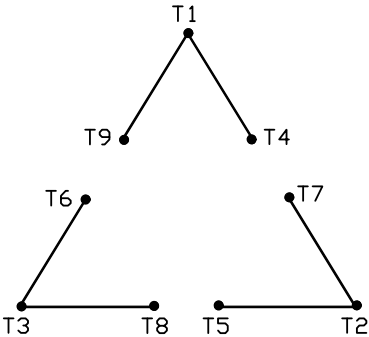
BALDOR

G405TC/404TC STD - FOOTED - XT/ECP SEVERE DUTY ENCLOSURE

617429-503

416820-002

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



(N. P. 1575-B)

416820-002

REV. DESC: ADJUST TEXT DARKNESS		
REV. LTR: B	VERSION: 02	TDR: 000001285318
FILE: \RAG\00022\453	REVISED: 09:36:26 09/24/2026	BY: USJOSUL
MTL: -	© □	



CONN DIAG - STANDARD 9 LEAD, DELTA-CONNECTED

SH1 of 1