

ABB BALDOR RELIANCE III

Customer information packet

ECP4316TR-4

75HP, 1780RPM, 3PH, 60HZ, 365T, A36070M, TEFC

Class - CLI GP A,B,C,D

Division - Division II

Specifications

Enclosure	TEFC
Frame	365T
Frame Material	Cast Iron
Frequency	60.00 Hz
Haz Area Class and Group	CLI GP A,B,C,D
Haz Area Division	Division II
Motor Letter Type	Three Phase
Output @ Frequency	75.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSAUSEEV CURUSEEV NEMA_PREMIUM UR
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Mobil SHC 220 (Athens Only)
Current @ Voltage	86.000 A @ 460.0 V
Design Code	B
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	95.4 %
Feedback Device	NO FEEDBACK
Heater Indicator	No Heater
High Voltage Full Load Amps	86.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	G
Lifting Lugs	Standard Lifting Lugs
Max Speed	2700 rpm

Part Detail

Revision	-
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	A36WG3963
Layout	611740-501-SH1
Eff. date	06-16-2025
CD Diagram	416820-036
Poles	04
Leads	3#4
Proprietary	False
Created date	06-13-2025

Motor Lead Quantity/Wire Size	3 @ 4 AWG
Motor Standards	NEMA
Motor Type	A36070M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	33.44 IN
Power Factor	86
Product Family	General Industrial
Pulley End Bearing Type	Roller
Pulley Face Code	Standard
Service Factor	1.15
Shaft Diameter	2.374 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1780 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None

Nameplate

NP4033LUA														
CAT #	ECP4316TR-4					SER				CC	010A			
SPEC	A36-5051-3963					RATING	40C AMB-CONT							
HZ	VOLTS			AMPS			RPM	HP	CODE	SF	DES	PF	NEMA NOM. EFF	
60	460			86			1780	75	G	1.15	B	86	%	
												%	%	
PH	3	CL	F	MAX RPM	2700	MAX CORR KVAR			15.8					
BRG	DE	NU313		ODE	6313	ENCL	TEFC	FR	365T	IP	55			
GREASE	MOBIL SHC 220								MTR WT	965	LBS			
CL I DIV 2 GRPS A,B,C,D					CL I ZONE 2 GRPS					IIA,IIB,IIC		TEMP T	200	C
INV READY	CT	15-60		HZ	4:1	VT	3-60	HZ	20:1	CHP	60-90	HZ	1.5:1	
INV TEMP CL	200	C	USABLE AT		50HZ 60HP 380V 83.5A SF1.00									

Parts List

Part number	Description	Quantity
SA438717	SA A36-5051-3963	1.000 ea
RA431088	RA A36-5051-3963	1.000 ea
421948051	LABEL, MYLAR	1.000 ea
000613006PU	N/P (RELEASE QTY 10,000) UL CSA LABEL	1.000 ea
000692000RT	N/P	1.000 ea
000692000VD	LABEL WARNING	1.000 ea
NP4033LUA	SS SUPER-E SD XEX, CLI DIV2, CURUS-EEV,	1.000 ea
085922073B	BRKT 360 085922072WCC KB	1.000 ea
415072001B	CLAMP	1.000 ea
078559034A	+F/C A 078559001A - 360	1.000 ea
034180012DA	KEY 1X4X1/4X1-1/2 L	1.000 ea
412118006A	DRAIN	1.000 ea
702676001C	FAN 360	1.000 ea
004824015AP	GREASE MOBILITH SHC 220	0.540 lb
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
032018008AK	HHCS 1/4-20X1 PLATED	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
415045002E	SLGR	1.000 ea
047174001Z	EXT SNAP RING	1.000 ea
034530052AB	P/NIP 1/8X6-1/2 Zinc	1.000 ea
085922073B	BRKT 360 085922072WCC KB	1.000 ea
032018012DK	HHCS 1/2-13X1-1/2 PLTD. 032018012DR	4.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	3.000 ea
415045002E	SLGR	1.000 ea
412118006A	DRAIN	1.000 ea
034530020AB	P/NIP 1/8X2-1/2 PLTD	1.000 ea
415096002A	CPLG 1/8 HEX TYPE	1.000 ea
076708000BB	CONDUIT BOX-360	1.000 ea
065776000C	GASKET,MAIN CBOX, 320-400	1.000 ea
076709000A	C/B Cover - 360	1.000 ea

067053000B	GASK 320-400	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
032018010CK	HHCS 3/8-16X1-1/4 PLTD. 032018010CR	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
415000115H	T/LUG #2AWG-4/0AWG	1.000 ea
033512008LB	HHTTS 1/4-20X1 PLATED	4.000 ea
406099000A	PLUG - FAN COVER 320-440	1.000 ea
034000014AB	WSH ID.406 OD.812 TH.065	4.000 ea
035000001A	ALFTG 1/8" 1610-BL	1.000 ea
418150003A	GREASE FITTING CAP	1.000 ea
MG1025N19	WILKO 778.50 BLUE GREEN - 55 GAL DRUMS	0.250 ga
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
034180034HA	KEY 5/8X5/8X4-1/4 L	1.000 ea
HW1000A32	5/16 FL WASHER WIDE,ID=.344,OD=1.125	3.000 ea
604797011R	320 FR. ROLLER BEARING MOTOR SHAFT	1.000 ea
032509020C	CARRIAGE BOLT - 360	3.000 ea
032018024CK	HHCS 3/8-16X3 PLTD.	1.000 ea
415070001A	RUBBER MOUNT 3X3X1 THICK	1.000 ea
034001016AB	WSHR .562ID 1.375OD .109	1.000 ea
034001014AB	FLAT WASHER 3/8"PLATED	1.000 ea
LB1449	DIV-2/NEC WARNING LABEL	1.000 ea
034530032BB	P/NIP 1/4X4" SCHED 40	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
034631002AB	BUSH 1/4 TO 1/8 PLTD.	1.000 ea
034530020BB	P/NIP 1/4X2-1/2 PLATED	1.000 ea
035000001G	GREASE RELIEF FITTING, ALEMITE 317400	1.000 ea
14PA1000	PACKAGING 314 GROUP COMBINED PRINT	1.000 ea
032018005DL	1/2-13 X 5/8 SILICON BRONZE HHCS	1.000 ea

AC Induction Motor performance data

Record #71698 - Typical performance - not guaranteed values

Winding	A36WG3963
Type	A3670M
Enclosure	TEFC

Nameplate data

Rated Output			75
Volts			460
Full Load Amps			86
R.P.M.			1780
Hz	60	Phase	3
KVA Code			F
S.F.			1.15
NEMA Nom. Eff.	95	Power Factor	86
Duty			CONT
S.F. Amps			

460 V. 60 Hz:

Single Voltage Motor

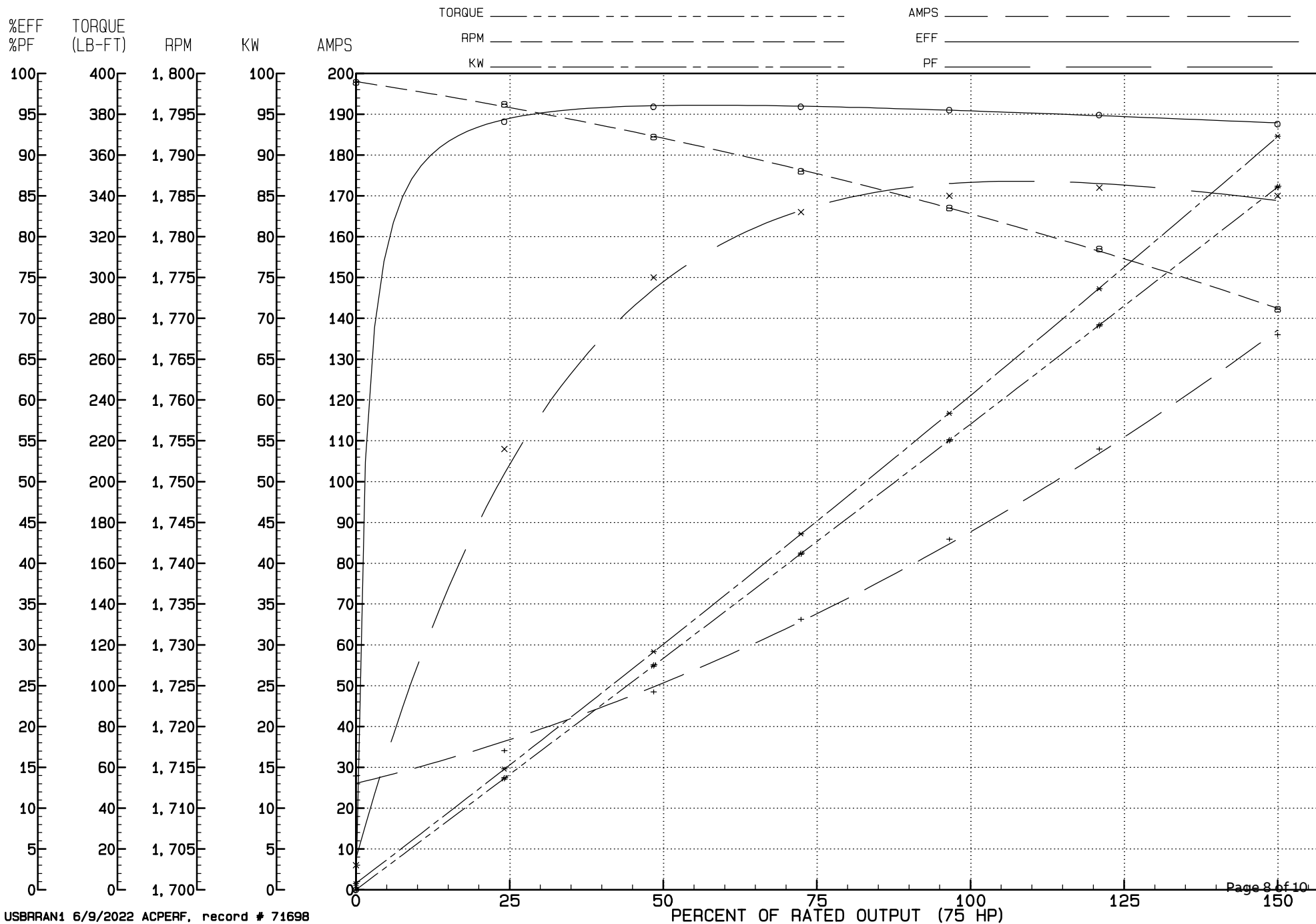
Full Load Torque	220.2 LB-FT
Start Configuration	direct on line
Breakdown Torque	542 LB-FT
Pull-up Torque	372 LB-FT
Locked-rotor Torque	445 LB-FT
Starting Current	541 A
No-load Current	27.9
Line-line Res. @ 25°C	0.082276 Ω
Temp. Rise @ Rated Load	55°C
Temp. Rise @ S.F. Load	69°C
Locked-rotor Power Factor	31.8
Rotor inertia	16.2 lb-ft ²

Load Characteristics 460 V, 60 Hz, 75 HP

% of Rated Load	NL	25	50	75	100	125	150	SF
Power Factor	3	54	75	83	85	86	85	86
Efficiency	0	94.1	95.9	95.9	95.5	94.9	93.8	95.1
Speed	1798.9	1796.2	1792.2	1788	1783.5	1778.5	1771.1	1780
Line amperes	27.9	34.1	48.5	66.3	85.9	108	136	99.2

75 HP 3 PH 60 HZ 1780 RPM 460 V A3670M

TORQUES (LB-FT): PO=542.00 PU=372.00 LR=445.00 LRA=541.00



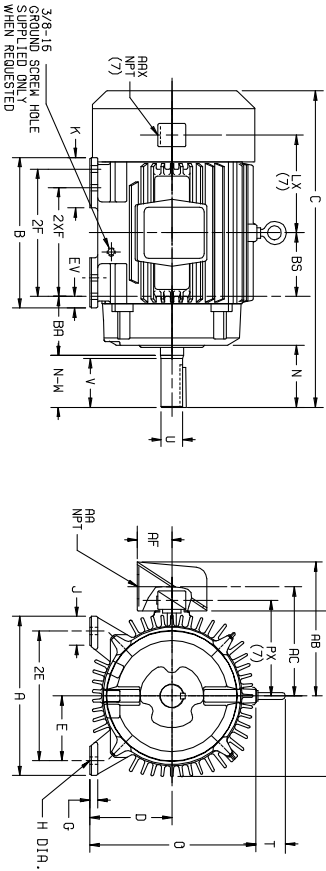
DUTY MASTER ALTERNATING CURRENT MOTORS

SQUIREL-CAGE INDUCTION
CAST IRON CONSTRUCTION

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT

COOLING: FAN COOLED

FRAMES 250T THRU 440T



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

FRAME	A	D/2	E	G	H	J	K	O	P	T	AA	AB	AC	AF	AAx Lx (7)	Px (7)	BA	EV	
254T-266T	12.50	6.25	5.00	.75	.56	2.50	---	13.25	13.25	2.44	1-1/4	10.81	8.81	2.50	3/4	6.31	9.31	4.25	1.00
284T-286T	13.75	7.00	5.50	.75	.56	2.50	---	14.75	14.88	2.44	1-1/2	12.62	10.19	3.00	3/4	6.88	10.50	4.75	1.38
324T-326T	15.50	8.00	6.25	.88	.69	2.75	4.50	16.69	17.00	2.44	2	15.44	11.69	3.62	3/4	8.00	10.50	5.25	1.38
364T-365T	17.00	9.00	7.00	.88	.69	2.75	3.88	18.50	19.50	2.94	3	18.00	13.81	4.12	3/4	8.38	11.62	5.88	1.38
404T-405T	19.00	10.00	8.00	1.12	.81	3.25	4.62	21.31	22.50	2.94	3	19.25	15.06	4.12	3/4	9.62	14.44	6.62	1.13
444T-445T	21.00	11.00	9.00	1.12	.81	3.25	5.25	23.38	25.25	3.25	3	22.19	17.44	6.00	3/4	11.12	15.25	7.50	1.25

FRAME	SIZE	C	BS	B	ZF	(4)	N	N-W/6	U/3	V	SQ.	LGTH.	WEIGHT
254T	24.56	5.00	12.00	---	8.25	4.12	4.00	1.625	3.75	3.75	2.88	3.35	3.35
266T	24.56	5.00	12.00	10.00	---	4.12	4.00	1.625	3.75	3.75	2.88	3.35	3.35
284T	27.44	5.50	13.00	---	9.50	5.00	4.62	1.875	4.38	5.00	3.25	4.75	4.75
286T	27.44	5.50	13.00	---	9.50	5.00	4.62	1.875	4.38	5.00	3.25	4.75	4.75
286T	27.44	5.50	13.00	11.00	---	5.00	4.62	1.875	4.38	5.00	3.25	4.90	4.90
286T	26.06	5.50	13.00	11.00	---	5.00	4.62	1.875	4.38	5.00	3.25	4.90	4.90
324T	30.44	6.00	14.75	---	10.50	5.62	5.25	2.125	5.00	5.00	2.00	5.90	5.90
324T	28.94	6.00	14.75	---	10.50	5.62	5.25	2.125	5.00	5.00	2.00	5.90	5.90
326T	30.44	6.00	14.75	12.00	---	5.62	5.25	2.125	5.00	5.00	2.00	6.30	6.30
326T	28.94	6.00	14.75	12.00	---	5.62	5.25	2.125	5.00	5.00	2.00	6.30	6.30
364T	33.44	6.12	15.00	---	11.25	6.25	5.88	2.375	5.62	6.25	2.25	8.65	8.65
364T	31.31	6.12	15.00	---	11.25	6.25	5.88	2.375	5.62	6.25	2.25	8.65	8.65
365T	33.44	6.12	15.00	12.25	---	6.25	5.88	2.375	5.62	6.25	2.25	8.90	8.90
365T	31.31	6.12	15.00	12.25	---	6.25	5.88	2.375	5.62	6.25	2.25	8.90	8.90
404T	38.31	6.88	16.00	---	12.25	7.50	7.25	2.875	7.00	7.50	5.62	12.20	12.20
404T	35.31	6.88	16.00	---	12.25	7.50	7.25	2.875	7.00	7.50	5.62	12.20	12.20
405T	38.31	6.88	16.00	13.75	---	7.50	7.25	2.875	7.00	7.50	5.62	12.60	12.60
405T	35.31	6.88	16.00	13.75	---	7.50	7.25	2.875	7.00	7.50	5.62	12.60	12.60
444T	44.62	8.25	19.00	---	14.50	8.94	8.50	3.375	8.25	8.75	6.88	16.70	16.70
444T	40.88	8.25	19.00	---	14.50	8.94	8.50	3.375	8.25	8.75	6.88	16.70	16.70
445T	44.62	8.25	19.00	16.50	---	8.94	8.50	3.375	8.25	8.75	6.88	16.80	16.80
445T	40.88	8.25	19.00	16.50	---	8.94	8.50	3.375	8.25	8.75	6.88	16.80	16.80

- (1) SPECIAL DIMENSIONS APPLYING TO THIS ORDER ON THIS LINE.
- (2) "D" VARIES --- 250T - 320T +.00, -.03.
--- 360T - 440T +.00, -.06.
- (3) "U" VARIES --- 1.625 DIA. +.0000, -.0005
--- 1.625 AND LARGER +.000, -.001.
- (4) ALL FRAMES HAVE EIGHT MOUNTING HOLES FOR DUAL MOUNTING.
- (5) MOTOR WEIGHTS MAY VARY BY 15% DEPENDING UPON RATING.
- (6) "N-W" VARIES +.00, -.25.
- (7) AUXILIARY CONDUIT BOX SUPPLIED WHEN SPECIFIED
CONDUIT BOXES LOCATED ON OPPOSITE SIDE WHEN F-2-W-1,
W-4-W-5-W-7, OR C-1 MOUNTING IS SPECIFIED.
- IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.
- MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STD. SHAFT EXTENSION IS .002 T.I.R. UP TO AND INCLUDING 1.625 DIA. AND .003 T.I.R. 1.625 DIA. TO 5 INCH DIA.

FRAME --- TYPE --- CERTIFIED FOR ---
ORDER --- ITEM --- HP --- RPM --- PH --- HZ --- VOLTS ---
SALES ORDER --- APPROVED BY --- DATE ---

LHS-105-074/L19

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

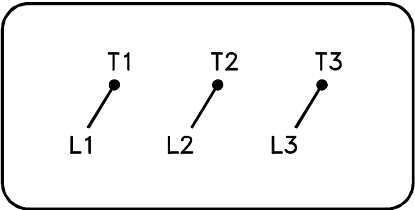
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BALDOR • DODGE • RELIANCE

DIM SHT 250T-440T TEFC FT MTG STD T & TS SGL EXT XT

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
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