

# ABB BALDOR RELIANCE III

---

## Customer information packet

ECP4404TR-4

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

Class - CLI GP A,B,C,D

Division - Division II

**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 A,B,C,D
<b>Haz Area Division</b>	Division II
<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>	460.0 V @ 60 HZ
<b>Agency Approvals</b>	CCSAUSEEV
<b>Ambient Temperature</b>	40 °C
<b>Auxiliary Box</b>	NO AUXILLARY BOX
<b>Base Indicator</b>	Rigid
<b>Bearing Grease Type</b>	Mobil SHC 220 (Athens Only)
<b>Constant Torque Speed Range</b>	10-60
<b>Current @ Voltage</b>	86.500 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>	T3
<b>Heater Indicator</b>	No Heater
<b>High Voltage Full Load Amps</b>	86.5 a
<b>Insulation Class</b>	F
<b>Inverter Code</b>	Inverter Ready
<b>KVA Code</b>	G
<b>Lifting Lugs</b>	Standard Lifting Lugs
<b>Motor Lead Quantity/Wire Size</b>	3 @ 4 AWG
<b>Motor Standards</b>	NEMA

**Part Detail**

<b>Revision</b>	L
<b>Type</b>	AC
<b>Mech. spec.</b>	
<b>Base</b>	
<b>Status</b>	PRD/A
<b>Elec. spec.</b>	A40WG1239
<b>Layout</b>	617429-501
<b>Eff. date</b>	10-24-2024
<b>CD Diagram</b>	416820-036
<b>Poles</b>	06
<b>Leads</b>	3#4
<b>Proprietary</b>	False
<b>Created date</b>	12-11-2013

<b>Motor Type</b>	A4072M
<b>Mounting Arrangement</b>	F1
<b>Number of Poles</b>	6
<b>Overall Length</b>	38.20 IN
<b>Power Factor</b>	86
<b>Product Family</b>	General Industrial
<b>Pulley End Bearing Type</b>	Roller
<b>Pulley Face Code</b>	Standard
<b>Service Factor</b>	1.15
<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>	None

**Nameplate**

<b>NP2496L</b>
MOBIL SHC -220 GREASE

**NP3238**

<b>CAT NO</b>	ECP4404TR-4	<b>SPEC NO.</b>	A40-4853-1239							
<b>HP</b>	75	<b>AMPS</b>	86.5	<b>VOLTS</b>	460	<b>DESIGN</b>	B			
<b>FRAME</b>	405T	<b>RPM</b>	1185	<b>HZ</b>	60	<b>AMB</b>	40	<b>SF</b>	1.15	
<b>D.E. BRG.DATA</b>	NU316	<b>O.D.E. BRG.DATA</b>	6316		<b>PH</b>	3	<b>DUTY</b>	CONT	<b>INSUL.CLASS</b>	F
<b>D.E. BRG.</b>	80RU03M30X	<b>TYPE</b>	P	<b>ENCL</b>	TEFC	<b>CODE</b>	G			
<b>O.D.E. BRG.</b>	80BC03J30X	<b>POWER FACTOR</b>	86		<b>NEMA NOM EFFICIENCY</b>	94.5				
<b>3/4 LOAD EFF.</b>	94.8	<b>MAX CORR KVAR</b>	15.0		<b>GUARANTEED EFFICIENCY</b>	93.6				
<b>TEMP CODE</b>	T3	<b>TEMP =</b>	200							
<b>CHP HZ</b>	60-90	<b>CT HZ</b>	10-60	<b>VT HZ</b>	0-60					
<b>INVERTER-TEMP-CODE</b>	T3									
<b>SER.NO.</b>		<b>MOTOR WEIGHT</b>								

REL. S.O.	FRAME	HP	TYPE	PHASE/ HERTZ	RPM	VOLTS
	405T	75	P	3/60	1185	460
AMPS	DUTY	AMB °C/ INSUL.	S.F.	NEMA DESIGN	CODE LETTER	ENCL.
86.5	CONT	40/F	1.15	B	G	FCXE
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES. @25 °C OHMS (BETWEEN LINES)		
-	418142073FE	---	---	.0899		

**PERFORMANCE**

LOAD	HP	AMPERES	RPM	% POWER FACTOR	% EFFICIENCY
NO LOAD	0	25.9	1200	5.51	0
1/4	18.8	33.3	1197	57.6	91.7
2/4	37.5	48.0	1194	77.5	94.4
3/4	56.2	66.2	1190	83.8	94.8
4/4	75.0	86.5	1186	86.0	94.5
5/4	93.8	108	1182	86.9	93.8

**SPEED TORQUE**

	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES
LOCKED ROTOR	0	168	557	542
PULL UP	240	157	520	515
BREAKDOWN	1134	246	818	291
FULL LOAD	1186	100	332	86.5

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

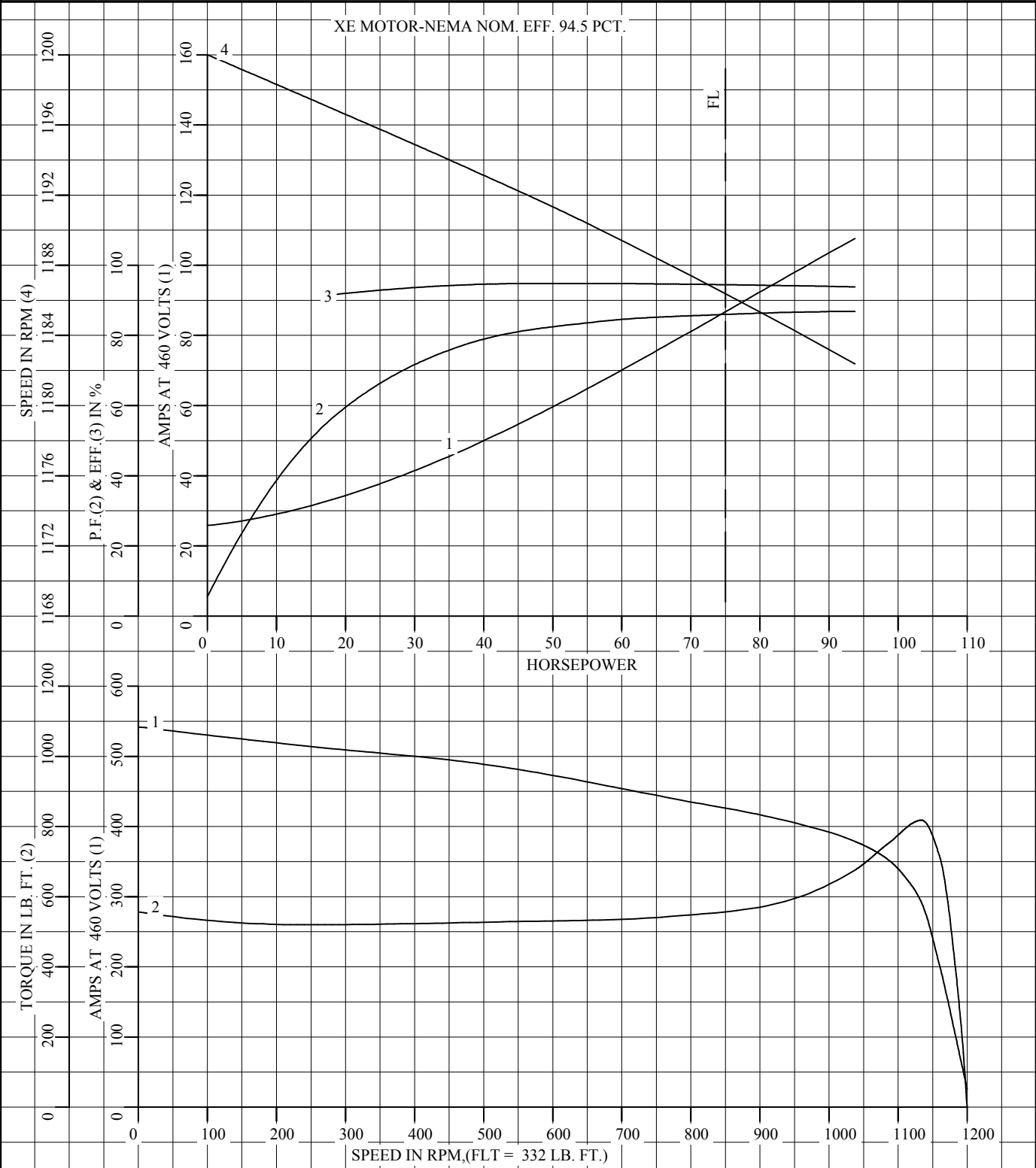
REMARKS: CALCULATED DATA  
XE MOTOR-NEMA NOM. EFF. 94.5 PCT.



DR. BY W. L. SMITH  
CK. BY C. E. JAMISON  
APP. BY W. L. SMITH  
DATE 12/10/13

**A-C MOTOR  
PERFORMANCE A40WG1239-R001  
DATA** ISSUE DATE 12/10/13

REL S.O.	RPM <b>1185</b>	S.F. <b>1.15</b>	ROTOR <b>418142073FE</b>
FRAME <b>405T</b>	VOLTS <b>460</b>	NEMA DESIGN <b>B</b>	TEST S.O. <b>CALCULATED DATA</b>
HP <b>75</b>	AMPS <b>86.5</b>	CODE LETTER <b>G</b>	TEST DATE ---
TYPE <b>P</b>	DUTY <b>CONT</b>	ENCLOSURE <b>FCXE</b>	STATOR RES. @ 25 °C <b>.0899</b>
PHASE/HERTZ <b>3/60</b>	AMB °C/INSUL <b>40/F</b>	E/S <b>-</b>	OHMS (BETWEEN LINES)



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



DR. BY	W. L. SMITH
CK. BY	C.E.JAMISON
APP. BY	W. L. SMITH
DATE	12/10/13

**A-C MOTOR  
PERFORMANCE  
CURVES**      **A40WG1239-R001**  
ISSUE DATE 12/10/13

## DUTY MASTER ALTERNATING CURRENT MOTORS

### SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

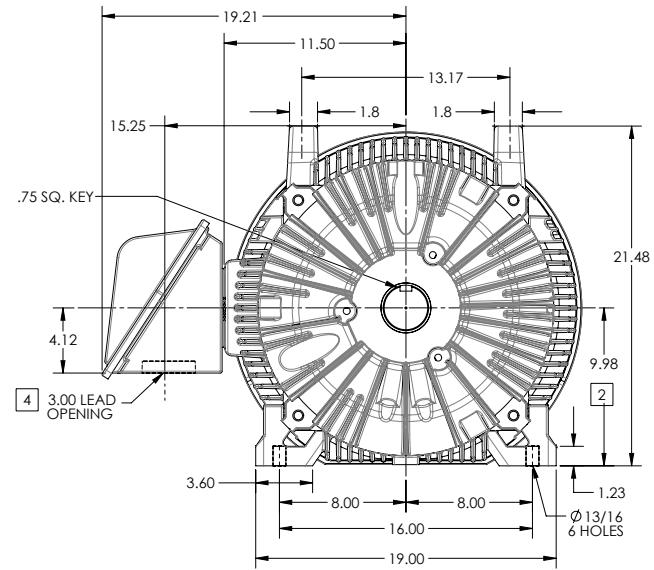
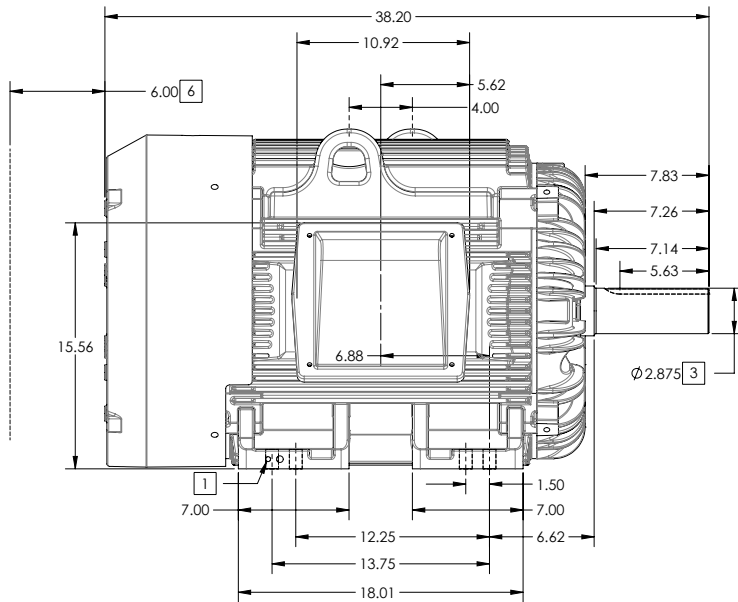
FRAME G405T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T 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 +.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 NOT ENCROACH ON AIR INLET

**[5] WEIGHT (LBS): 1370**

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.

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**

105-627219

REV. DESC: CHANGE BA FROM 6.76 TO 6.62			
REV: B	VERSION: 02	REVISED: 01-11-16 04/14/2014	TDR: 00000848770
MODEL NO. 617429-501		REF:	
BY: MGHMMZ2		Material:	

**BALDOR**

G405T/404T STD - FOOTED - XT/ECP SEVERE DUTY ENCLOSURE

## DUTY MASTER ALTERNATING CURRENT MOTORS

### SQUIRREL-CAGE INDUCTION

ENCLOSURE: TOTALLY ENCLOSED

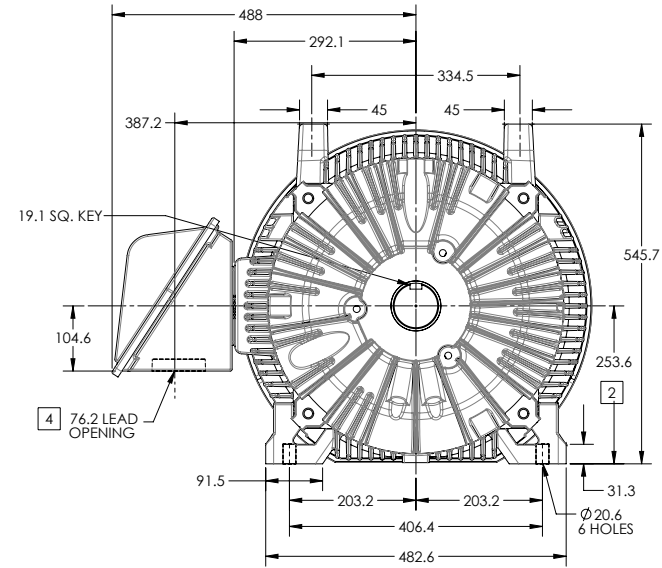
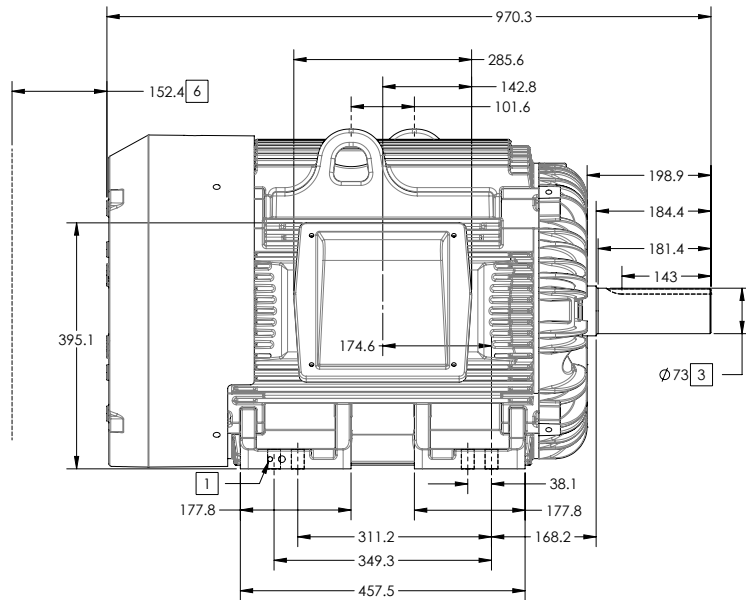
FRAME G405T ABOVE NEMA RATINGS

COOLING: FAN COOLED

MOUNTING: FOOT

INCLUDES 404T 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 ENCROACH ON AIR INLET

[5] WEIGHT (KGS): 630

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.

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**

105-627219

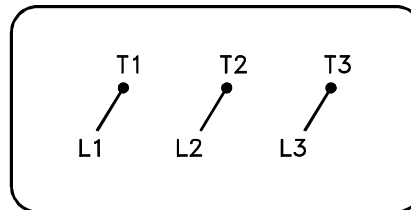
REV. DESC: CHANGE BA FROM 6.76 TO 6.62	TDR: 00000848770
REV: B VERSION: 02 REVISED: 01-11-16 04/14/2014	REF:
MODEL NO. 617429-501	REF:
BY: MGHMMZ2 Material:	

**BALDOR**

G405T/404T STD - FOOTED - XT/ECP SEVERE DUTY ENCLOSURE

416820-036

**A-C MOTOR  
CONNECTION DIAGRAM  
STANDARD 3 LEAD CONNECTED**



(N.P. 1575-BA)

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

416820-036