

ABB BALDOR RELIANCE III

Customer information packet

ZDNRPM18054C

5HP, 1750RPM, 3PH, 60HZ, 1838C, TENV, FOOT,

Specifications

Enclosure	TENV
Frame	FL1838C
Frame Material	Aluminum
Frequency	60.00 Hz
Output @ Frequency	5.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US
	UR
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	7.200 A @ 460.0 V
Duty Rating	CONT
Feedback Device	TACHOMETER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	7.2 a
Insulation Class	H
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	17.87 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Service Factor	1.00
Shaft Diameter	1.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Thermal Device - Bearing	None

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L3221A
Layout	617228-003
Eff. date	12-21-2021
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	04-10-2015

Thermal Device - Winding

Normally Closed Thermostat

Nameplate

000613006MY									
DUTY		HP	RPM	AMPS		VOLTS		HZ	
CONT		5	1770	7.2		460		60	
CONT		5	3540	6.2		460		120	
CONT		5	1770	14.4		230		60	
CONT		5	3540	12.4		230		120	
CAT.NO.	ZDNRPM18054C			SPEC. NO.		P18T0369			
SER.NO				FR	FL 1838C		INSUL	H	
PH.	3	MAX SAFE SPEED			7200		AMB.	40	MIN. AMB.
DESIGN NO.	L3221A		TYPE			ENCL.		TENV	
S.F.	1.0		D.E. BRG.			45BC02JPP30A			
ENCL MOD			O.D.E. BRG.			35BC02JPP30A			

Parts List

Part number	Description	Quantity
WS286782	WS P18T0369	1.000 ea
RA282990	RA P18T0369	1.000 ea
000613006MY	NP-RPMAC INVERTER DUTY	1.000 ea
LB1613	LABEL, QR CODE, ADHESIVE LABEL	1.000 ea
000692000XM	LABEL QR CODE	1.000 ea
411716004A	219P039 - 219P039 - LA	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
422927001	C/D LABEL	1.000 ea
032003144CB	THRU BOLT	4.000 ea
BP5248	BP5248	1.000 ea
033102012AG	HXNUT LEAD CONN 1/4-20 GR5 ZP	4.000 ea
034017012AB	LCKW 1/4 STD. PLATED 034017012AF	4.000 ea
036000016DB	HHCS	2.000 ea
036000050JB	M8-1,25 X 50 MHHCS	2.000 ea
400638001D	WAVEN (Customer number 43699)	1.000 ea
411693051B	LUG, LIFTING	2.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
807580002BAA	BRKT,DE,FL181 807580-1WCC	1.000 ea
BP5068BJ01	BRUSH, .187 X .187 X 1.00	1.000 ea
807580003AAB	BRKT,ODE180AC 807580-1WCC	1.000 ea
032018010DK	HHCS 1/2-13X1-1/4 PLATED	2.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	2.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	3.000 ea
036000040JB	HHCS,DE BRKT (M8-1.25X40MM PLTD.) AA	4.000 ea
036620009AB	M8 EXTERNAL LK WASHER	1.000 ea
065530000B	GASK	1.000 ea
075451000A	COVER, CONDUIT BOX	1.000 ea
415000103G	TLUG	1.000 ea
417733001A	GSK C/ BOX BASE	2.000 ea
418010006A	CAST,MPLATE,180-280,EX1,7BY	1.000 ea

418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 ea
418057367A	CLIP, BEI TACH	2.000 ea
422962125B	STUB SHAFT	1.000 ea
607980192A	RF,BEI,HS35,TWISTLOCK	1.000 ea
706320003A	CONDUIT BOX	1.000 ea
418057243A	GROOVE PIN	1.000 ea
807504052B	FL180 FRAME	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
004824007CQR	C2 PAINT SYSTEM MEDIUM GRAY CHARCOAL MET	0.100 ea
034180014DA	KEY 1/4X1/4X1-3/4 L	1.000 ea
LB1549	LABEL, BLANK 1.375 X 2.250 IMPRINTABLE	1.000 ea
004824007AB	PAINT,XT	0.100 ea

REL S.O.	-	VOLTS	460	ENCLOSURE	TENV	WYE CONN	EQ	CKT	OHMS	PER PHASE
FRAME	FL1838	AMPS	7.2	MAX SAFE RPM	7200	(AT BASE RATING, 25 °C)				
HP	5	DUTY	CONT	IM (AMPS)	4.4	R1	.803	X1	2.62	
BASE SPEED	1770	S.F.	1.0	P.F.@NL/FL	.069/.745	R2	.523	X2	3.46	
PHASE/HERTZ	3/60	AMB °C/INSUL	60/H	WK ² (Lb-Ft ²)	.528			XM	59.7	

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1770	5.01	15	460	60	7.44
MAX SPEED	3534	5.00	7	460	120	6.76
MIN SPEED	0	0	15	16.7	.989	7.44

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	4.30
1/4	1792	1.25	4	460	60	4.71
1/2	1785	2.50	7	460	60	5.38
3/4	1778	3.75	11	460	60	6.30
FULL LOAD	1770	5.00	15	460	60	7.44
O/L	1718	12.1	37	460	60	15.8

BLOWER DATA

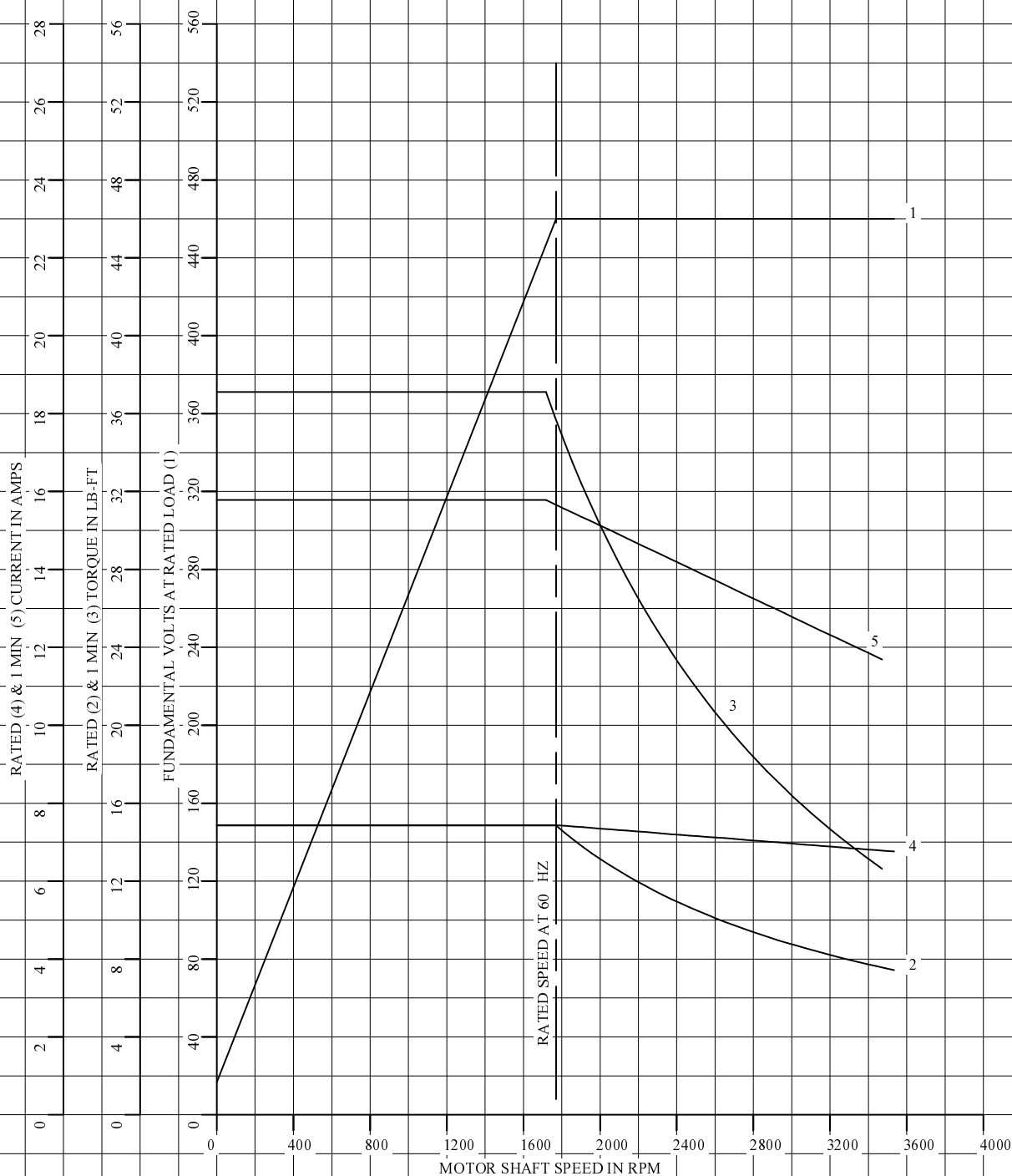
VOLTS	PH/HZ	FL AMPS	LR AMPS	FRAME	CFM

REMARKS: TYPICAL DATA


 DR. BY B. GRANT
 CK. BY B. GRANT
 APP. BY T. CUFR
 DATE 3-7-06
**A-C MOTOR
PERFORMANCE
DATA** **L3221A**
 ISSUE DATE **3-7-06**

REL S.O.	-	VOLTS	460	ENCLOSURE	TENV	WYE CONN	EQ CKT	OHMS PER PHASE
FRAME	FL1838	AMPS	7.2	MAX SAFE RPM	7200	(AT BASE RATING, 25 °C)		
HP	5	DUTY	CONT	IM (AMPS)	4.4	R1	.803	X1 2.62
BASE SPEED	1770	S.F.	1.0	P.F.@NL/FL	.069/.745	R2	.523	X2 3.46
PHASE/HERTZ	3/60	AMB °C/INSUL	60/H	WK ² (Lb-Ft ²)	.528	XM 59.7		

VARIABLE SPEED AC MOTOR CURVES



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



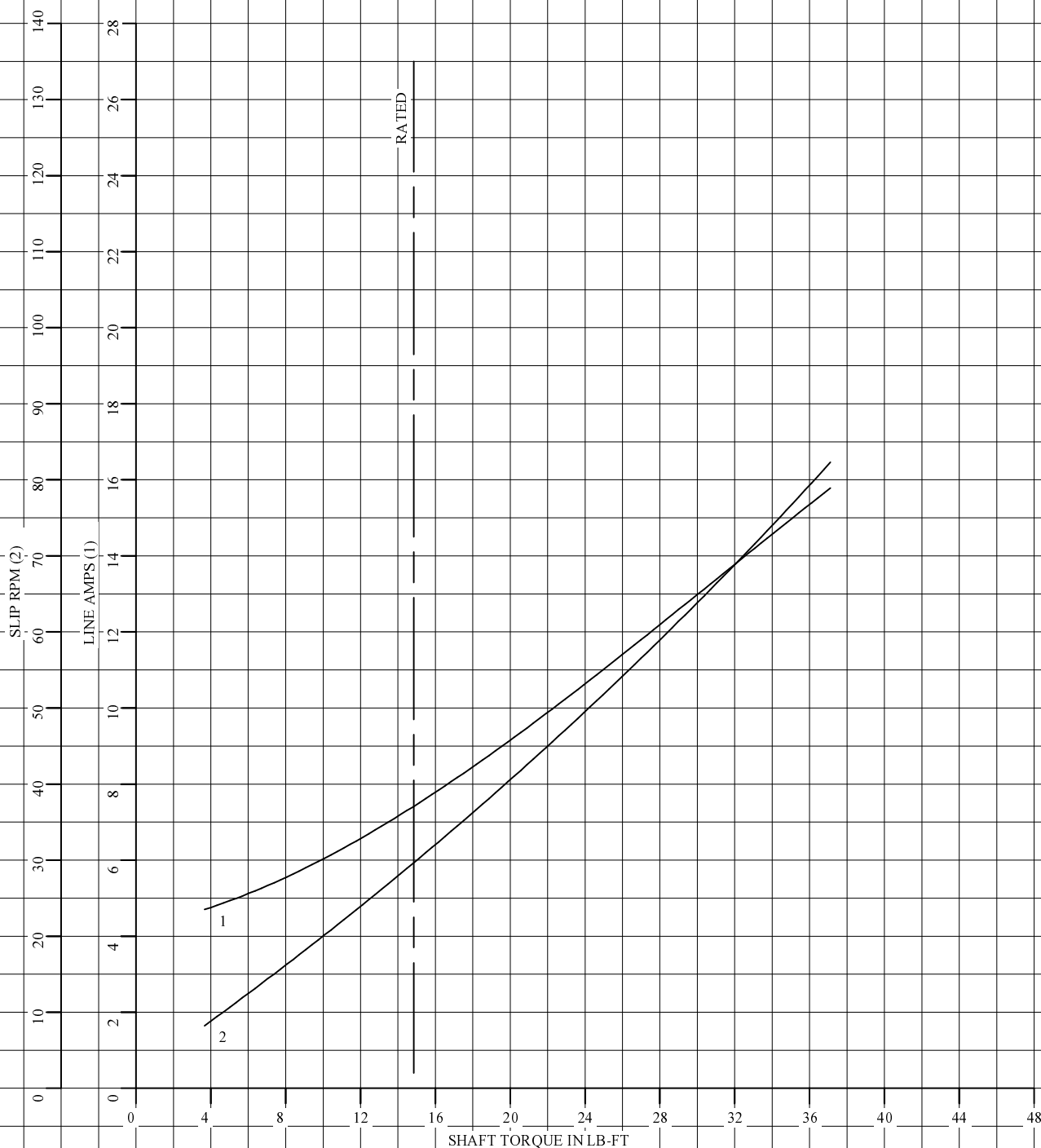
DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 3-7-06

**A-C MOTOR
PERFORMANCE
CURVES**

L3221A
SH 1 OF 2
ISSUE DATE 3-7-06

REL S.O.	-	VOLTS	460	ENCLOSURE	TENV	WYE CONN	EQ CKT	OHMS PER PHASE
FRAME	FL1838	AMPS	7.2	MAX SAFE RPM	7200	(AT BASE RATING, 25 °C)		
HP	5	DUTY	CONT	IM (AMPS)	4.4	R1	.803	X1 2.62
BASE SPEED	1770	S.F.	1.0	P.F.@NL/FL	.069/.745	R2	.523	X2 3.46
PHASE/HERTZ	3/60	AMB °C/INSUL	60/H	WK ² (Lb-Ft ²)	.528	XM 59.7		

LOAD PERFORMANCE (CONSTANT V/HZ RANGE)



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 3-7-06

**A-C MOTOR
PERFORMANCE
CURVES**

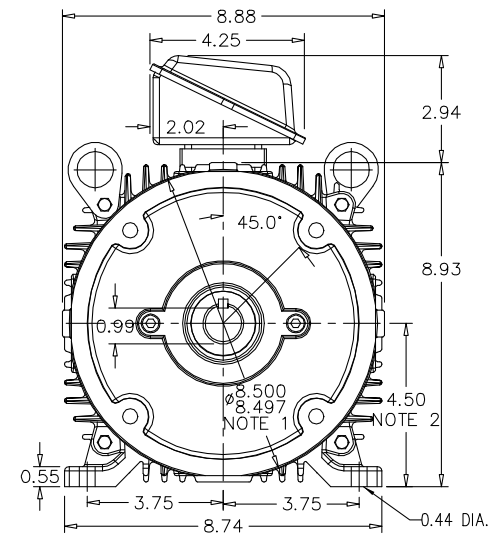
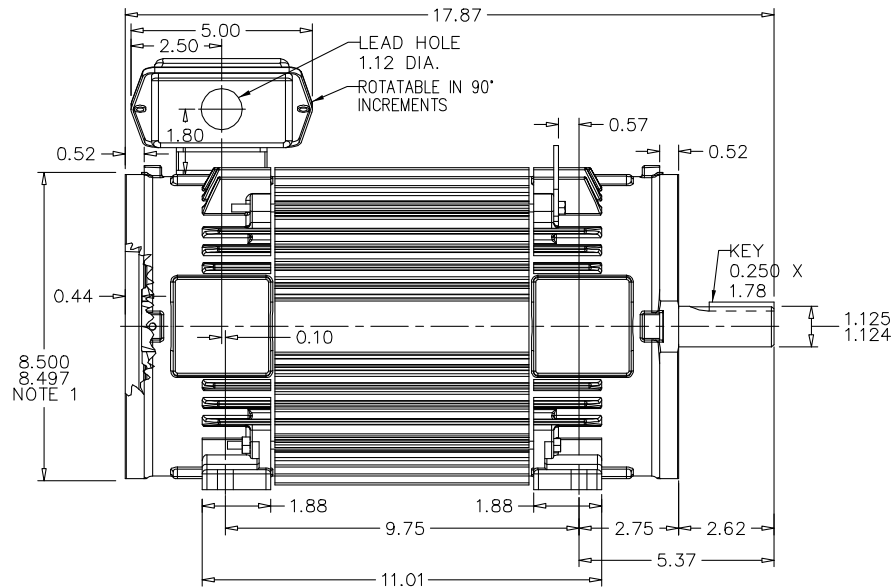
L3221A
SH 2 OF 2
ISSUE DATE 3-7-06

RPM-AC FINNED FRAME VARIABLE SPEED ALTERNATING CURRENT MOTOR
FL1838C

COOLING: NON-VENTILATED

ENCLOSURE: TOTALLY ENCLOSED
MOUNTING: FOOT / NEMA 180TC C-FACE
DRIVE METHOD: COUPLED OR BELTED

ACCESSORIES: PROVISIONS FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED



NOTE 1: C-FACE & TACHOMETER MOUNTING
1/2-13 TAP, 1.00 DEEP, ON A 7.25 DIA. BOLT CIRCLE
FACE RUNOUT AND ECCENTRICITY 0.004 MAX. T.I.R.
NOTE 2: SHAFT HEIGHT WILL NOT BE EXCEEDED
SHIMS UP TO 0.03 INCHES IN THICKNESS ARE USUALLY
REQUIRED FOR COUPLED OR GREARED MACHINES

TERMINAL BOX MAY BE LOCATED F1 OR F2 IF SPECIFIED
40 AMP STEEL TERMINAL BOX SHOWN
REFER TO 616779-50 FOR SPECIFIED TERMINAL BOX DIMENSIONS
REFER TO 616779-55 FOR SPECIFIED TACHOMETER DIMENSIONS

MOTOR WEIGHT: 143 LBS. (MAY VARY 15%)
DIMENSIONS ARE IN INCHES SCALE: 1.00

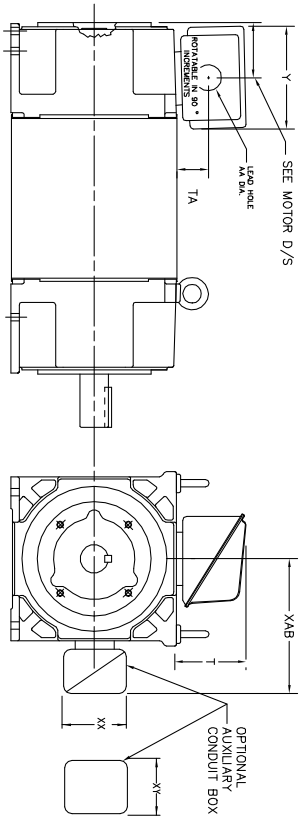
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADD DIMENSION FROM FOOT HOLE TO END OD SHAFT	VERSION: 01	TDR: 000000892384
REV. LTR: A	REVISD: 12:55:38 02/12/2015	BY: RGGWT
FILE: \RGG\00003\495	MTL: -	

BALDOR
DIM SHT RPM AC TE NON VENT FL1838C FT / 180TC MTG PROV TACH
SH 1 of 1

INDUSTRIAL ALTERNATING CURRENT MOTORS
RPM AC

STEEL, CAST IRON, MILL AND TERMINAL BOARD CONDUIT BOX DIMENSIONS
NEMA FRAMES RL210 thru RL280 and IEC FRAMES RDL132 thru RDL180
NEMA FRAMES FL180 thru FL280 and IEC FRAMES FDL112 thru FDL180



FRAME	TYPE	TERMINAL STRIP	AMPS	C/BOX	Y	TA	T	AA
FL180	STEEL	N	40	706320003A	5.00	1.62	3.00	1.12
FL180	STEEL	Y/N	75	706320003A	6.12	2.36	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	6.62	2.00	7.00	2.50/2.00
FL180	CAST IRON	Y/N	100	706320004C	6.75	2.50	4.38	1.0/1.75
FL180 & FDL11	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16

FL210 & RL210	STEEL	N	61	075452000B	6.34	2.00	4.12	1.75
FL210 & RL210	STEEL	N	121	075452001A	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	306	706320016A	9.00	4.12	8.44	4.89
FL210 & RL210	CAST IRON	N	110	075460062B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	MILL	Y	100	706310229A	7.75	2.30	4.40	PG29/PG16
FL210 & RL210	MILL	Y	160	706310056A	9.00	3.06	5.40	PG36/PG16
FL210 & RL210	MILL	Y/N	235	706310056B	11.42	4.00	6.72	2.50

FL250 & RL250	STEEL	N	61	075452000B	6.34	2.00	4.12	1.75
FL250 & RL250	STEEL	N	121	075452001A	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	306	706320016A	9.00	4.12	8.44	4.89
FL250 & RL250	CAST IRON	N	110	075460062B	7.25	2.50	5.25	1.5 TAP
FL250 & RL250	CAST IRON	N	210	706320013A	10.50	4.88	9.00	4.0 TAP
FL250 & RL250	MILL	Y	100	706310229A	7.75	2.30	4.40	PG29/PG16
FL250 & RL250	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL250 & RL250	MILL	Y/N	235	706310057A	11.42	4.00	6.72	2.50
FL250 & RL250	MILL	Y	235	706310063B	14.39	7.43	12.15	BLANK

FL280 & RL280	STEEL	N	160	706320029A	7.25	3.50	7.06	2.50
FL280 & RL280	STEEL	N	306	706320016A	9.00	4.12	8.44	4.89
FL280 & RL280	STEEL	N	500	702658001C	14.62	7.56	12.70	5.00
FL280 & RL280	CAST IRON	N	140	706320012B	9.25	4.81	8.56	3.0 TAP
FL280 & RL280	CAST IRON	N	210	706320013A	10.50	4.88	9.00	4.0 TAP
FL280 & RL280	CAST IRON	N	510	706320014D	15.00	7.56	12.81	5.0 TAP
FL280 & RL280	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16
FL280 & RL280	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL280 & RL280	MILL	Y/N	235	706310057A	11.42	4.00	6.72	2.50
FL280 & RL280	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FRAME SIZE	YAB	XA	XY	PART NUMBER	FRAME SIZE	YAB	XA	XY	PART NUMBER
FL210/RL210/FL112	7.38	4.25	4.25	602007-26-A	FL210/RL210/FL112	10.88	8.00	8.00	706310-3-B
FL250/RL250/FL160	8.44	4.25	4.25	602007-26-A	FL250/RL250/FL160	11.88	8.00	8.00	706310-3-B
FL280/RL280/FL280/180	9.12	4.25	4.25	602007-26-A	FL280/RL280/FL280/180	12.62	8.00	8.00	706310-3-B

(1) 1"AW CONDUIT.
(2) 1"AW PIPE TAP.
(3) CUSTOMER TO PROVIDE HOLE PER CONDUIT.
(4) 2" DIA. SA OR 1" DIA. DIA. W/6

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM.
TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, V-1, V-4, V-5, V-7,
OR C-1 MOUNTING IS SPECIFIED. BOX LOCATED ON TOP WHEN SPECIFIED.

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

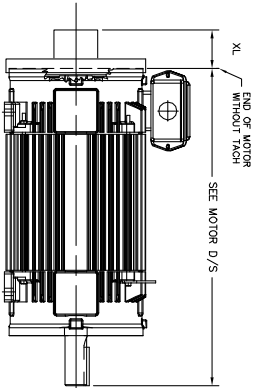
REV. DESC: ADD 706310-637 & 639 BOX	VERSION: 06	TDR: 000001180260
REV. LTR: F	REVISED: 11:08:56 10/26/2021	BY: RCGRWM
FILE: \\RGG\00003\692		
MTL: -		

BALDOR - RELIANCE®

DIM SHT NEMA RL210-RL280 FL180-FL280 IEC RDL132-RDL180

RPM AC TACHOMETER DIMENSIONS
NEMA FRAMES FL180 thru FL440 and IEC FRAMES FDL112 thru FDL280
DIMENSIONS ARE IN INCHES(mm)

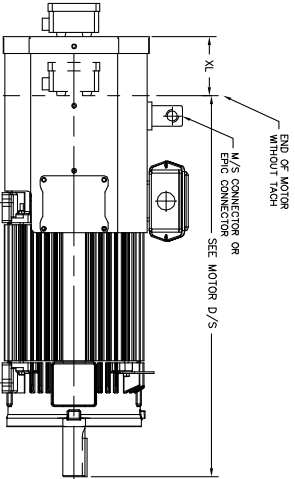
DPFY, DPSY, TEPV, TESV, TENV & TEO-PB
IC06, IC17, IC37, IC410, & IC416-PB



* THIS DIMENSION INCLUDES COVER FOR X/Y MOTOR.

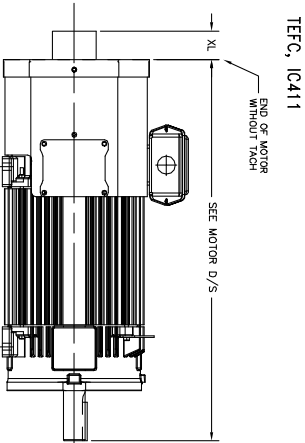
TACH MODEL	XL Inches(mm)	LBS.
BEL DR DYNAPAR HS35	2.88 (74)	5
DYNAPAR H20	7.50 (191) MAX	10
NORHSTAR HS35M	3.31 (84)	10
NORHSTAR ST67	2.88 (74)	5
DYNAPAR HS6	10.56 (268)	40
AVTRON M3 DR M4	3.62 (92)	10
TAMAGAMA TS5013(XT)	6.00 (152)	10
NORHSTAR ST56	2.88 (74)	5
NORHSTAR ST85	2.00 (51)	5
BEL T820	10.19 (259)	15
TAMAGAMA TS2151	6.64 (167)	15
BEL T825	7.50 (191)	15
DYNAPAR HS20	2.00 (50.8)	5
DYNAPAR X25	12.88 (327)	10
STEGMANN SRM25	7.25 (184.4)	10
NORHSTAR HS035	3.00 (76.2)	10
HEIDENHAIN EDW425	2.5 (63.5)	5
AVTRON HS35M	4.19 (106.4)	5
HEIDENHAIN ERN480	5.00 (76.2)	5
DYNAPAR H025	7.00 (177.8)	10
DYNAPAR H02	3.62 (92.1)	5
AVTRON M285	2.54 (64.5)	9
AVTRON AV850	2.54 (64.5)	9
AVTRON AV56	4.50 (115)	15
HS025	3.30 (84)	5
NORHSTAR R18	3.25 (83)	15
DYNAPAR H0625	5.88 (150)	10
AVTRON AA485	9.50 (241)	18
AVTRON AV32	1.93 (49)	7
DYNAPAR RH25	3.80 (97)	1.6
AVTRON AV85	2.40 (61.5)	3

TEAO-BC, IC416-BC
EXCLUDES NEMA FRAMES FL320 THRU FL440
AND
IEC FRAMES FDL200 THRU FDL280



TACH MODEL	XL Inches(mm)	LBS.
BEL DR DYNAPAR HS35	4.50 (115)	10
DYNAPAR H20	4.50 (115)	15
AVTRON M3 DR M4	4.50 (115)	10
NORHSTAR HS35M	4.50 (115)	15
NORHSTAR ST56	4.50 (115)	10
NORHSTAR ST67	4.50 (115)	10
NORHSTAR S185	4.50 (115)	5
NORHSTAR TS5013	4.50 (115)	10
DYNAPAR HS20	4.50 (115)	15
STEGMANN SRM25	4.50 (115)	10
STEGMANN SRM50	4.50 (115)	3
HE20 & HE56	4.50 (115)	15
AVTRON HS35M	4.50 (115)	10
AVTRON AV85	4.50 (115)	10
AVTRON M56	4.50 (115)	5
AVTRON AV67	4.50 (115)	10
HS038	4.50 (115)	5
TS2014	4.50 (115)	10
AVTRON HS45	4.50 (115)	15
DYNAPAR HS038M	4.50 (115)	15
AVTRON AV32	4.50 (115)	7
AVTRON AV850	4.50 (115)	9

TACH MODEL	XL Inches(mm)	LBS.
BEL HS35	2.88 (74)	7
NORHSTAR HS35M	3.31 (84)	10
DYNAPAR H20	3.75 (95)	15
DYNAPAR HS35, HS038	2.88 (74)	7
H00(XT)	9.75 (248)	35
EDW425	7.90 (201)	35
AVTRON HS35M	4.19 (106)	2
STEGMANN SRM50	3.75 (95)	1
DYNAPAR H20	2.00 (51)	1
NORHSTAR HS035	2.81 (71)	2
NORHSTAR HS038	3.30 (84)	5
AVTRON AV32	1.93 (49)	7

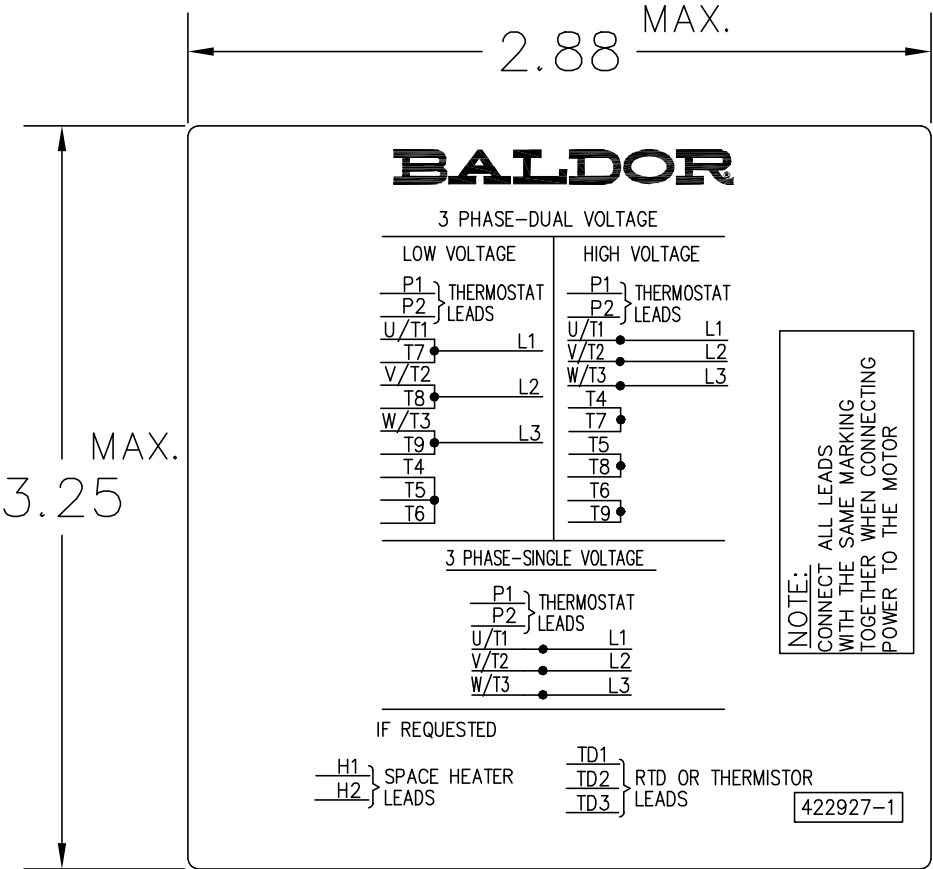


CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

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REV. LTR: AA	REVISED: 03:54:15 06/26/2019	BY: RGRWM
FILE: \RGG\00003\694		
MTL: -		

BALDOR - RELIANCE®	
DIM SHT TACH DIM NEMA FL180 - FL440 IEC FDL112 - FDL280	
SH 1 of 1	

422927-001



NOTE:
DATA TO BE SIZED
SO THAT IT FITS INTO
MATERIAL DECAL
DIMENSIONS. MAKE
LETTERS & NUMBERS
AS LARGE AS POSSIBLE.

MATERIAL: CERAMATIC DGF-P4
PERMA GRIP ADHESIVE

ALL LETTERS, NUMBERS
AND LINES TO BE BLACK
ON WHITE BACKGROUND.

422927-001

REV. DESC: CHANGE BACKGROUND COLOR FROM GOLD TO WHITE		
REV. LTR: B	VERSION: 02	TDR: 000000788708
FILE: \RGG\00000\203	REVISED: 08:09:29 03/04/2013	
MTL: -	BY: RGGWT	

BALDOR
EXTERNAL CONNECTION LABEL
SH 1 of 1