

BALDOR® • RELIANCE 

Product Information Packet

ZDNRPM18054C

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

Part Detail							
Revision:	-	Status:	PRD/A	Change #:		Proprietary:	No
Type:	AC	Elec. Spec:	L3221A	CD Diagram:	422927-001	Mfg Plant:	
Mech. Spec:		Layout:	617228-003	Poles:	04	Created Date:	04-10-2015
Base:		Eff. Date:	04-13-2015	Leads:			

Specs			
Catalog Number:	ZDNRPM18054C		
Enclosure:	TENV		
Frame:	FL1838C		
Frame Material:	Aluminum		
Output @ Frequency:	5.000 HP @ 60 HZ		
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ		
Voltage @ Frequency:	460.0 V @ 60 HZ		
Agency Approvals:	CCSA US		
	UR		
Auxillary 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:	ENCODER		
Frame Prefix:	FL		
Heater Indicator:	No Heater		
Insulation Class:	H		

Mounting Arrangement:	F3		
Product Family:	General Industrial		
Pulley End Bearing Type:	Ball		
Pulley Face Code:	C-Face		
Shaft Ground Indicator:	No Shaft Grounding		
Shaft Rotation:	Reversible		
Motor Standards:	NEMA		
Thermal Device - Bearing:	NONE (OLD)		
Thermal Device - Winding:	Normally Closed Thermostat		

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.	0	
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
000613006NN	RPM AC WITH CERTIFIED LOGOS	1.000 EA
000692000FP	NP, WARNING LIFT INSTRUCTIONS	1.000 EA
036170004EA	ROUND HEAD DRIVE SCREW	4.000 EA
411716004A	219P039 - 219P039 - LA	1.000 EA
422927001	C/D LABEL	1.000 EA
032003144CB	THRU BOLT	4.000 EA
033102012AG	HXNUT LEAD CONN	4.000 EA
034017012AB	LCKW 1/4 STD. PLATED	4.000 EA
036000050JB	M8-1,25 X 50 MHHCS	2.000 EA
400638001D	WAVEN	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
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
036000025JB	HHCS M8X25MM LONG PLATED	4.000 EA
036620009AB	M8 EXTERNAL LK WASHER	1.000 EA
065530000B	GASK	1.000 EA
075451000A	COVER, CONDUIT BOX	1.000 EA

Parts List (continued)		
Part Number	Description	Quantity
415000103G	TLUG	1.000 EA
417733001A	GSK C/ BOX BASE	2.000 EA
418010006B	PLATE, MOUNTING	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
004824007K	SPECIAL PAINT	0.100 EA
034180014DA	KEY 1/4X1/4X1-3/4 L	1.000 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 1M (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 WK² (LB-FT²) .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

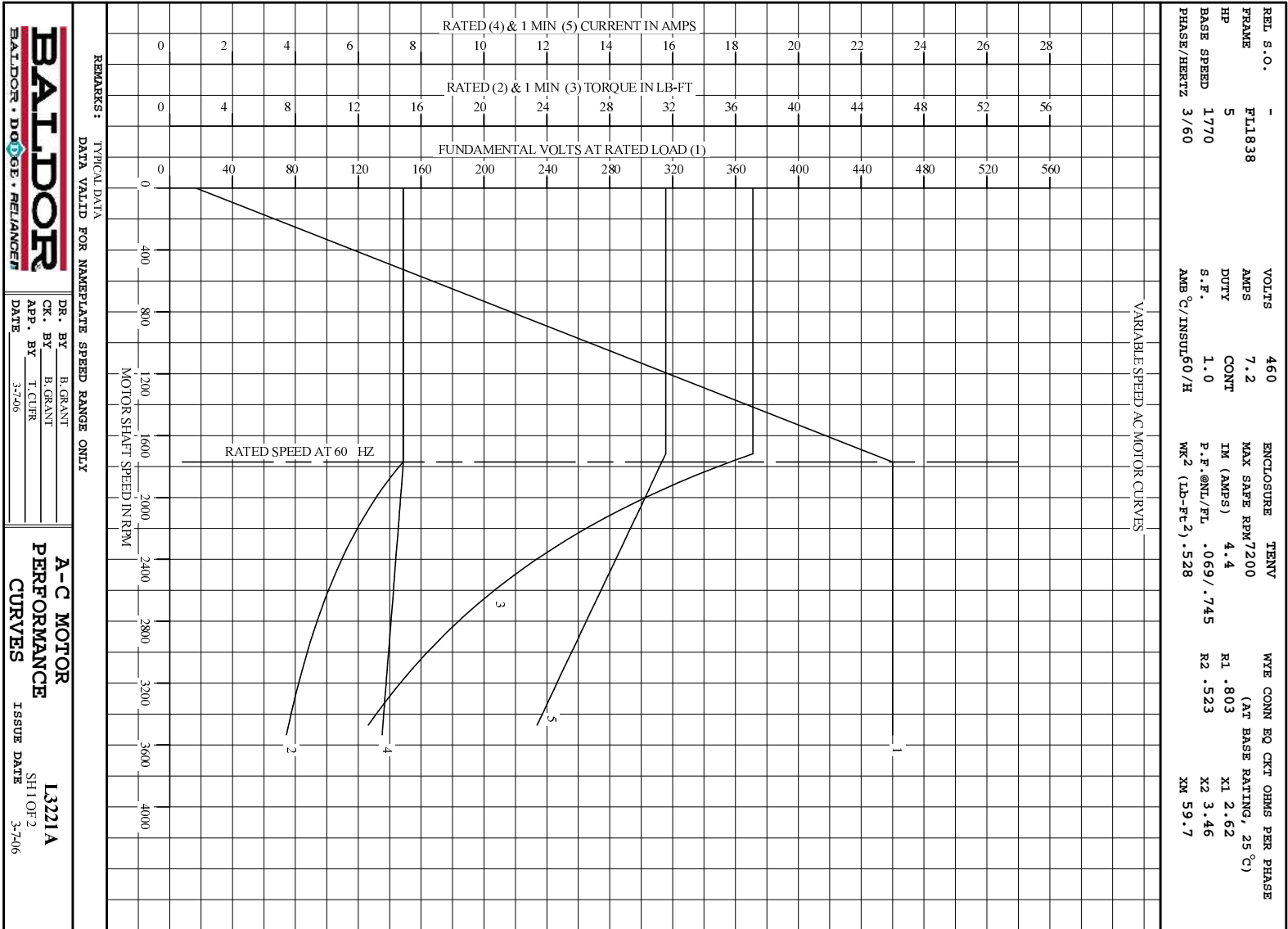
	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	4.30
1/4	1792	1.25	4	460	60	4.71
1/2	1785	2.50	7	460	60	5.38
3/4	1778	3.75	11	460	60	6.30
FULL LOAD	1770	5.00	15	460	60	7.44
O/L	1718	12.1	37	460	60	15.8

**BLOWER
DATA**

VOLTS	PH/HZ	FL AMPS	LR AMPS	FRAME	CFM

REMARKS: TYPICAL DATA

	DR. BY B. GRANT	A-C MOTOR PERFORMANCE DATA
	CK. BY T. CUER	
	APP. BY I. CUER	
DATE 3-7-06	ISSUE DATE 3-7-06	



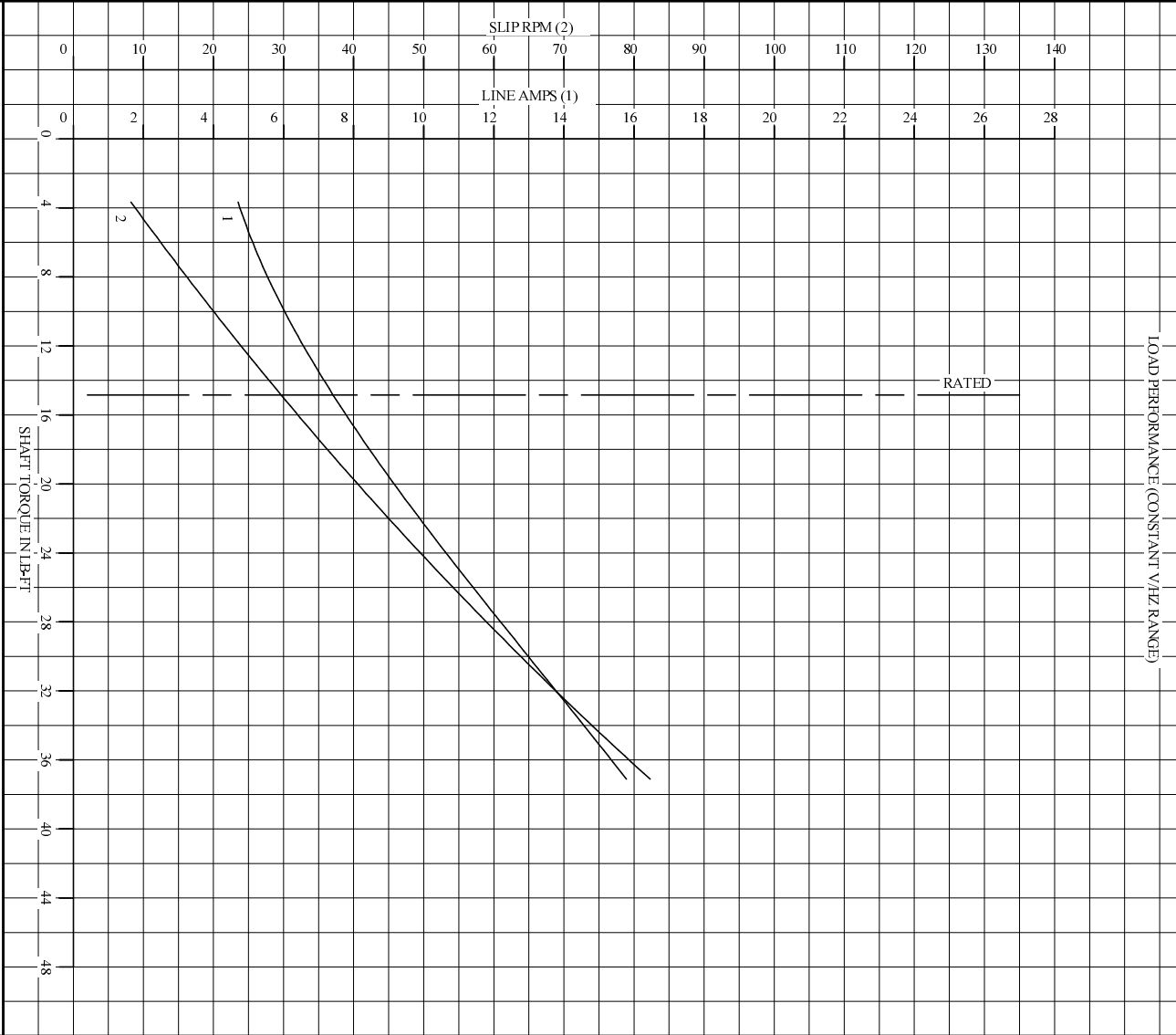
BALDOR
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DR. BY B. GRANT
 CK. BY B. GRANT
 APP. BY T. CURR
 DATE 3-7-06

A-C MOTOR
PERFORMANCE
CURVES
 L3221A
 SH 1 OF 2
 ISSUE DATE 3-7-06

1

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
BASE SPEED	1770	S.F.	1.0	P.F.@NL/FL	.069/.745	R2 .523
PHASE/HERTZ	3/60	AMB C/INSUL	60/H	WK ² (LB-FC ²)	.528	X1 2.62
						X2 3.46
						XN 59.7



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

A-C MOTOR
PERFORMANCE
CURVES

L321A
SH20F2
ISSUE DATE 3-7-06

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

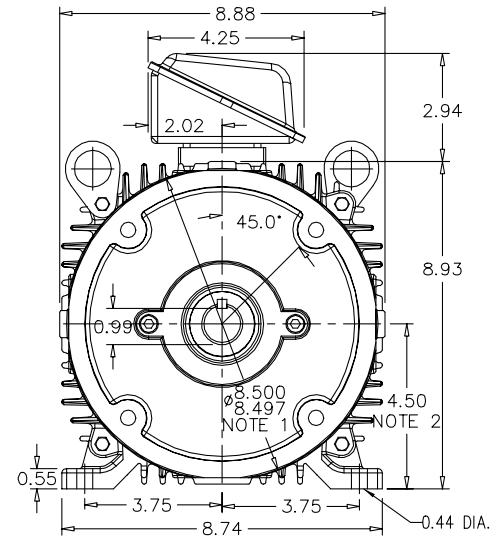
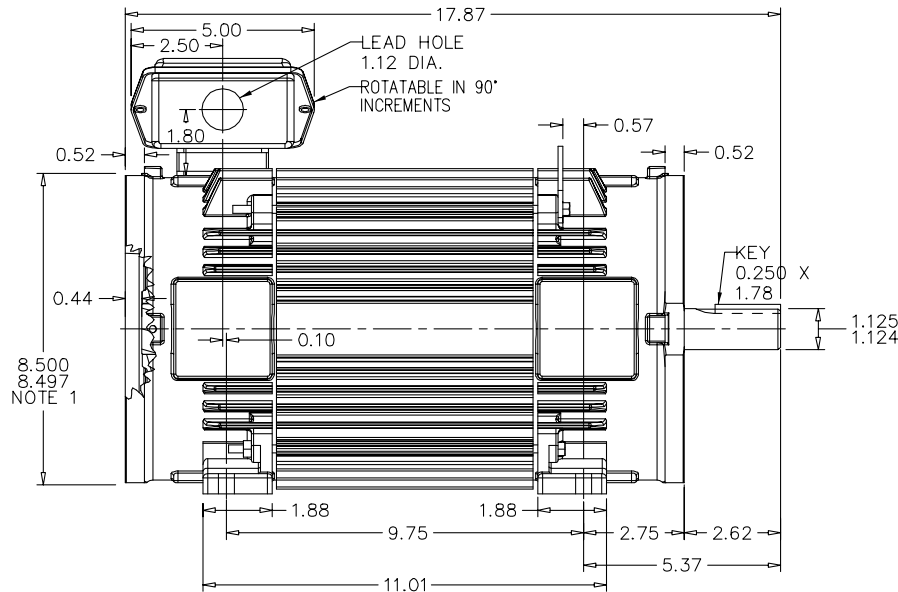
RPM-AC FINNED FRAME VARIABLE SPEED ALTERNATING CURRENT MOTOR
FL1838C

617228-003

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

COOLING: NON-VENTILATED

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		
REV. LTR: A	VERSION: 01	TDR: 000000892384
FILE: \RGG\00003\495	REVISED: 12:55:38 02/12/2015	BY: RGGWT
MTL: -		

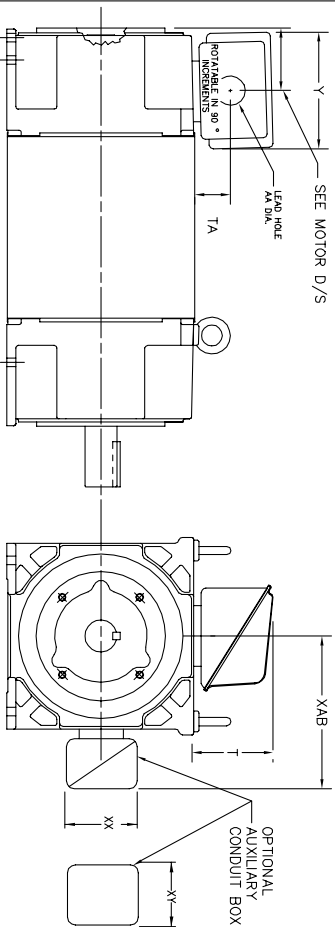
BALDOR	
DIM SHT RPM AC TE NON VENT FL1838C FT / 180TC MTG PROV TACH	
SH 1 of 1	

617228-003

616779-050

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	7/8	706320005A	6.12	2.38	4.38	1.75/2.00
FL180	STEEL	N	208	706320007A	7.62	2.00	7.00	2.50/3.00
FL180	CAST IRON	Y/N	60	706320004C	5.75	2.38	4.38	1.0 TAP
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	075454001AJ	7.69	2.38	5.25	1.94
FL210 & RL210	STEEL	N	305	706320016A	9.00	4.12	8.44	4.59
FL210 & RL210	CAST IRON	N	110	075460062B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	CAST IRON	N	110	075460062B	7.25	2.50	5.25	1.5 TAP
FL210 & RL210	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16
FL210 & RL210	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FDL13 & RDL13	MILL	Y	160	706310063B	14.39	7.43	12.15	BLANK

FL250 & RL250	STEEL	N	61	075452000B	6.34	2.00	4.12	1.75
FL250 & RL250	STEEL	N	121	075454001AJ	7.69	2.38	5.25	1.94
FL250 & RL250	STEEL	N	305	706320016A	9.00	4.12	8.44	4.59
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	CAST IRON	N	210	706320013A	10.50	4.88	9.00	4.0 TAP
FL16 & RDL16	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16
FL250 & RL250	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL16 & RDL16	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FL280 & RL280	STEEL	N	160	706320009A	7.25	3.50	7.06	2.50
FL280 & RL280	STEEL	N	305	706320016A	9.00	4.12	8.44	4.59
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
FL18 & RDL18	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16
FL18 & RDL18	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL280 & RL280	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

FRAME SIZE	XAB	XX	XY	PART NUMBER	FRAME SIZE	XAB	XX	XY	PART NUMBER
FL120/TL180/RL280/VDL132	7.38	4.25	4.25	603C007-26-A	FL120/TL180/RL210/VDL132	10.88	8.00	8.00	706310-3-B
FL120/TL180/RL280/VDL160	8.44	4.25	4.25	603C007-26-A	FL120/TL180/RL230/VDL160	11.88	8.00	8.00	706310-3-B
FL120/TL180/RL280/VDL180	9.12	4.25	4.25	603C007-26-A	FL120/TL180/RL280/VDL180	12.62	8.00	8.00	706310-3-B

- (1) TAP CONDUIT
- (2) TAP PIPE TAP
- (3) CUSTOMER TO PROVIDE HOLE FOR CONDUIT.
- (4) 2" DN -5A or 1" TAP DN -4C

TERMINAL BOX CAN BE REPIAIED FOR LEAD OUTLET AT TOP SIDES OR BOTTOM TERMINAL BOX CAN BE REPIAIED FOR LEAD OUTLET AT TOP SIDES OR BOTTOM TAP SIDE. LEAD OUTLET IS SPECIFIED IN BOX LOCATED ON TOP WHEN SPECIFIED.

050-667919

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

REV. DESC: REPLACE CONDUIT BOX TABLE	VERSION: 04
REV. LTR: D	REVISED: 11:46:16 10/19/2017
FILE: \RGG\00003\692	
MTL: -	

TDR: 00001047838
BY: RGGWT

BALDOR

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

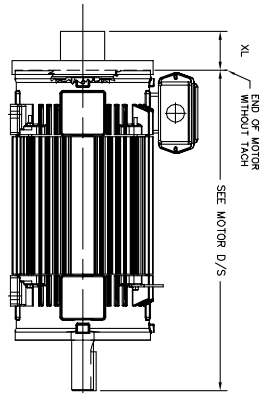
SH 1 of 1

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

616779-055

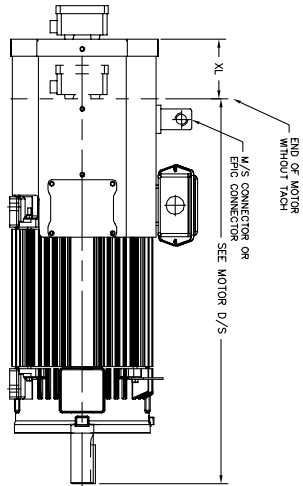
DPTV, DPSV, TEPV, TESV, TENV & TEAO-PB
 IC06, IC17, IC37, IC410, & IC416-PB

TACH. MODEL	XL Inche(st/mm)	LBS.
BELTR DYNAPAR H335	2.88 (74)	5
DYNAPAR H20 *	7.50(191)MAX	10
NORTHSTAR HS35M	3.31 (84)	10
NORTHSTAR ST67	2.88 (74)	5
DYNAPAR H36	10.56 (268)	40
AVTRON M3 BR M4	3.62 (.92)	10
TAMAGAWA TSS013(X1)	6.00 (152)	10
NORTHSTAR ST65	2.88 (74)	5
NORTHSTAR ST85	2.00 (.51)	5
BELT H38B	10.19 (259)	15
TAMAGAWA TS2151	2.64 (67)	15
BELT H35	7.50 (191)	15
DYNAPAR H320	2.00 (.50)	5
DYNAPAR X23	12.88 (327)	10
STIEGMANN SRK25	7.25 (184.4)	10
NORTHSTAR HS035	3.00 (.76)	10
HEIDENHAIN EGN425	2.5 (63.5)	5
AVTRON HS35M	4.19 (106.4)	5
HEIDENHAIN ERN480	5.00 (76.2)	5
DYNAPAR H25	7.00 (177.8)	10
DYNAPAR H22	3.62 (92.1)	5
AVTRON M285	2.54 (64.5)	9
AVTRON M850	2.54 (64.5)	9
AVTRON AV56	4.50 (115)	15
HS125	3.30 (84)	5
HS125B	3.30 (84)	2
NORTHSTAR P18	3.25 (83)	15
DYNAPAR H4625	5.88 (150)	10
AVTRON AV495	9.50 (241)	18
AVTRON AV32	1.93 (49)	.7

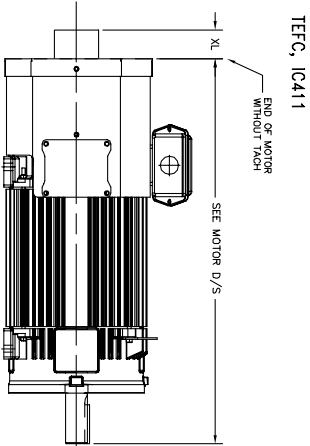


TEAO-BC, IC416-BC
 EXCLUDES NEMA FRAMES FL320 THRU FL440
 AND
 IEC FRAMES FDL200 THRU FDL280

TACH. MODEL	XL Inche(st/mm)	LBS.
BELTR DYNAPAR H335	4.50 (115)	10
DYNAPAR H20	4.50 (115)	15
AVTRON M3 BR M4	4.50 (115)	10
NORTHSTAR HS35M	4.50 (115)	15
NORTHSTAR ST65	4.50 (115)	10
NORTHSTAR ST85	4.50 (115)	5
TAMAGAWA TSS008, TSS013	4.50 (115)	10
DYNAPAR H320	4.50 (115)	15
STIEGMANN SRK25	4.50 (115)	10
STIEGMANN SRV/SR150	4.50 (115)	3
STIEGMANN SR350	4.50 (115)	15
H25D & H25E	4.50 (115)	15
AVTRON HS35M	4.50 (115)	10
AVTRON AV85	4.50 (115)	10
AVTRON H55	4.50 (115)	5
AVTRON H67	4.50 (115)	10
HS138	4.50 (115)	5
TS2014	4.50 (115)	10
AVTRON HS45	4.50 (115)	15
DYNAPAR H3038M	4.50 (115)	15
AVTRON AV32	4.50 (115)	.7
AVTRON AV850	4.50 (115)	9



TACH. MODEL	XL Inche(st/mm)	LBS.
BELT HS35	2.88 (74)	7
NORTHSTAR HS35M	3.31 (84)	10
DYNAPAR H20	3.75 (95)	15
DYNAPAR HS35, HS038	2.88 (74)	7
H20(X1)	9.75 (248)	35
EMAS	7.90 (201)	35
AVTRON HS35M	4.19 (106)	2
STIEGMANN SRK20	3.75 (95)	1
DYNAPAR H20	2.00 (.51)	1
NORTHSTAR HS035	2.81 (71)	2
NORTHSTAR HS038	3.30 (84)	5
AVTRON AV32	1.93 (49)	.7



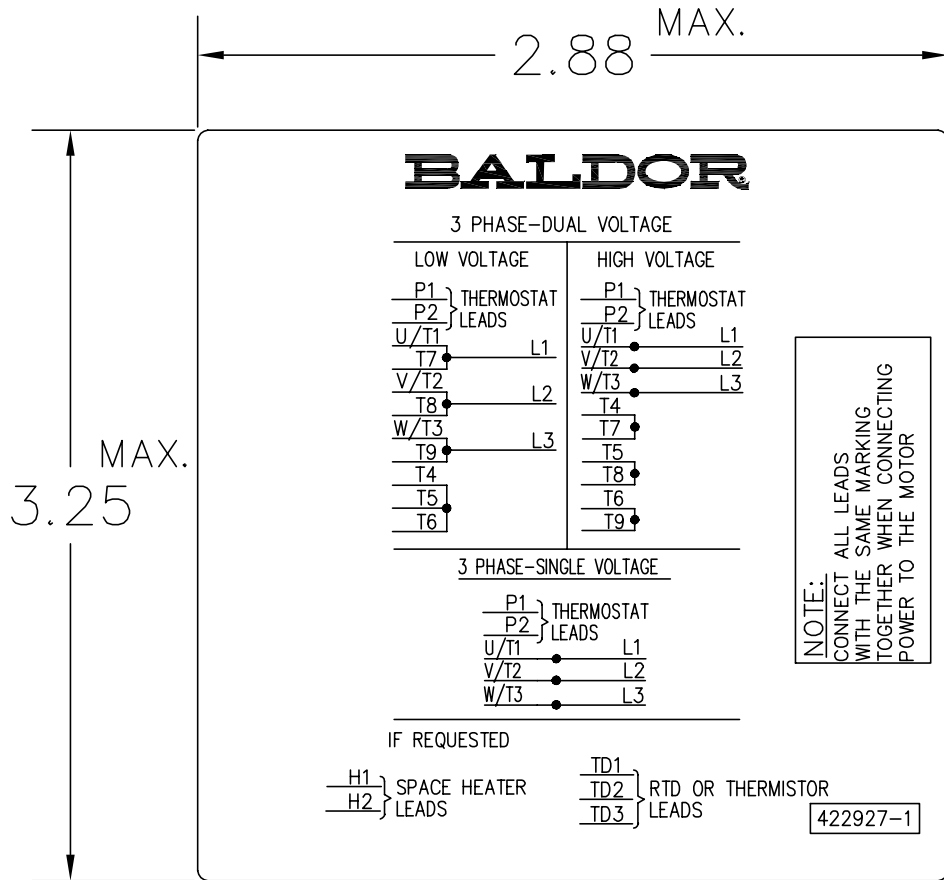
950-671919

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

REV. DESC: ADD AVTRON AV850 TO FRAMES FL320 THRU FL440	TDR: 000001059525
REV. LTR: Y	VERSION: 23
FILE: \RGG\00003\694	REVISED: 07:16:49 02/12/2018
MTL: -	BY: RGGWT

BALDOR
 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.

NOTE:
CONNECT ALL LEADS
WITH THE SAME MARKING
TOGETHER WHEN CONNECTING
POWER TO THE MOTOR

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

Marketing maintained PDF of MN406:

<http://www.baldor.com/support/Literature/Load.ashx/MN406?ManNumber=MN406>