ABB BALDOR RELIANCE

Customer information packet

ZDBRPM21304C

30HP, 1750, 460V, FL2162, TEBC, F3

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Specifications

Enclosure	TEBC
Frame	FL2162CZ
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	30.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CCSA US
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	41.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	ENCODER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	41.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	33.30 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Service Factor	1.00
Shaft Diameter	1.625 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L6754A
Layout	617517-476
Eff. date	01-19-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	11-11-2021

Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Nameplate

000613006MY

DUTY	HP	RPM	AMPS	VOLTS	HZ
CONT	30	1770	41	460	60
CONT	30	3540	37	460	120.4

CAT.NO.	ZDBRPM21304C		**SPEC. NO.**	F21-A000-0470			
SER.NO		**FR**	FL2162CZ	**INSUL**	H		
PH.	3	**MAX SAFE SPEED**	5000	**AMB.**	40	**MIN. AMB.**	-25
DESIGN NO.	L6754A	**TYPE**		**ENCL.**	TEAO-BC		
S.F.	1.00		**D.E. BRG.**	50BC03JPP30A			
ENCL MOD			**O.D.E. BRG.**	45BC02JPP30A			
	IP44						

SHAFT		**VOLTS**	**460**	**ENCLOSURE**	**TEBC**	**WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25°C)**			
FRAME	**FL2162**	**AMPS**	**41**	**MAX SAFE SPEED**	**5000**				
HP	**30**	**DUTY**	**CONT**	**IM (AMPS)**	**19**	**R1**	**.146**	**X1**	**.666**
BASE SPEED	**1770**	**S.F.**	**1.0**	**P.F. @NL / FL**	**.058/.777**	**R2**	**.0977**	**X2**	**.761**
PHASE/HZ	**3/60**	**AMB.°C / INSUL**	**40/H**	**WK² (Lb-Ft²)**	**1.92**			**XM**	**12.2**

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	**1768**	**30.0**	**89**	**460**	**60**	**40.5**
MAX SPEED	**3528**	**30.0**	**45**	**460**	**120**	**36.6**
MIN SPEED	**0**	**0**	**89**	**17.0**	**1.07**	**40.5**

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	**1800**	**0**	**0**	**460**	**60**	**21.7**
1/4	**1792**	**7.52**	**22**	**460**	**60**	**23.9**
1/2	**1785**	**15.0**	**44**	**460**	**60**	**27.7**
3/4	**1777**	**22.5**	**67**	**460**	**60**	**33.5**
FULL LOAD	**1768**	**30.0**	**89**	**460**	**60**	**40.5**
0/L	**1726**	**58.6**	**178**	**460**	**60**	**74.6**

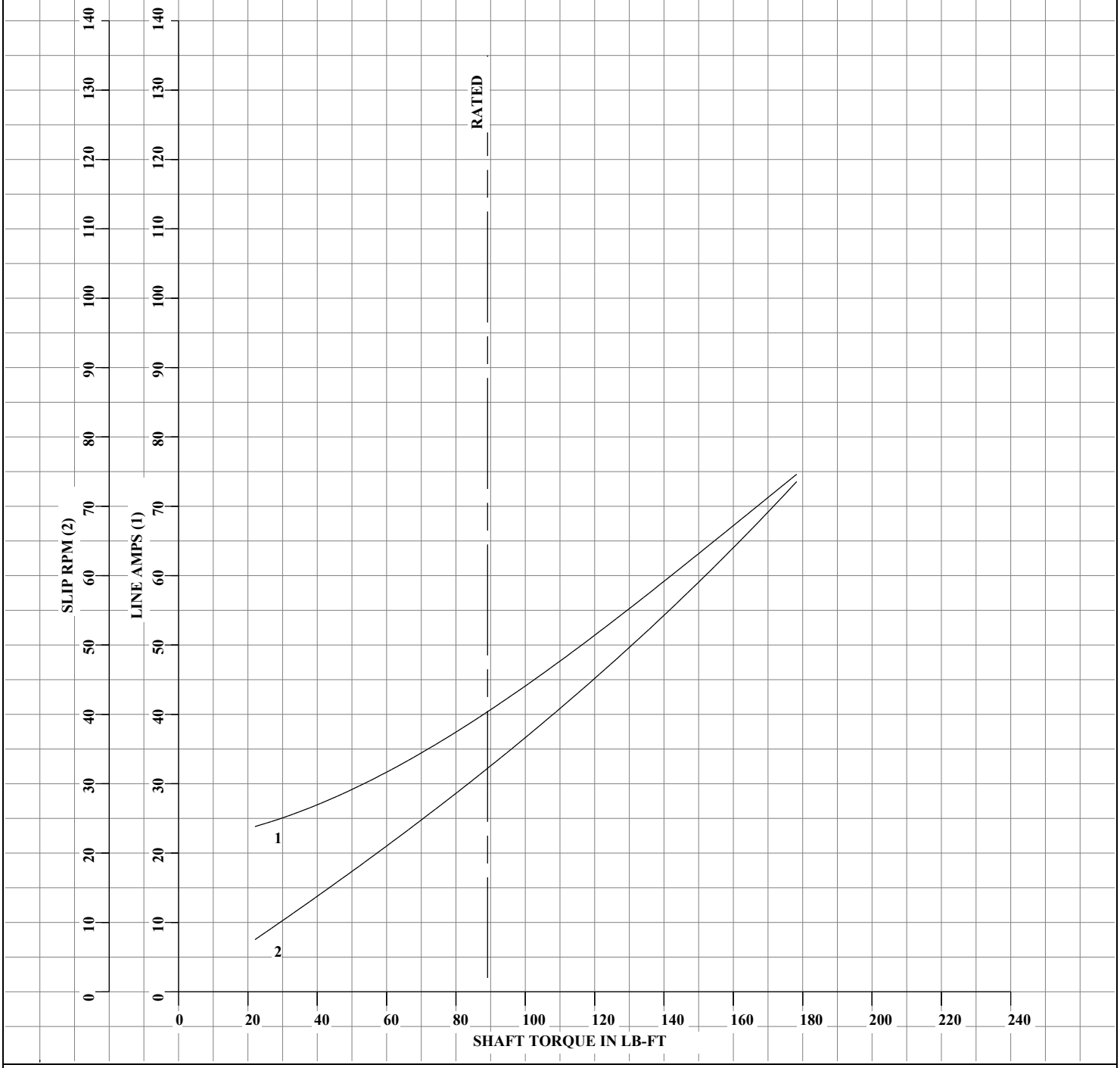
REMARKS:
TYPICAL DATA
CORRELATED DATA

ABB	**DRAWN BY: R. ROBERTS** **CHECKED BY: B. GRANT** **APPROVED BY: J. MARTIN** **DATE: 10-13-15**	**AC MOTOR PERFORMANCE DATA**	**L6754A** **ISSUE DATE 2-13-20**

SPEC		VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25°C)			
FRAME	FL2162	AMPS	41	MAX SAFE SPEED	5000				
HP	30	DUTY	CONT	IM (AMPS)	19	R1	.146	X1	.666
BASE SPEED	1770	S.F.	1.0	P.F. @NL / FL	.058/.777	R2	.0977	X2	.761
PHASE/HZ	3/60	AMB.°C / INSUL	40/H	WK² (Lb-Ft²)	1.92			XM	12.2

CORRELATED DATA

LOAD PERFORMANCE (CONSTANT V/HZ RANGE)

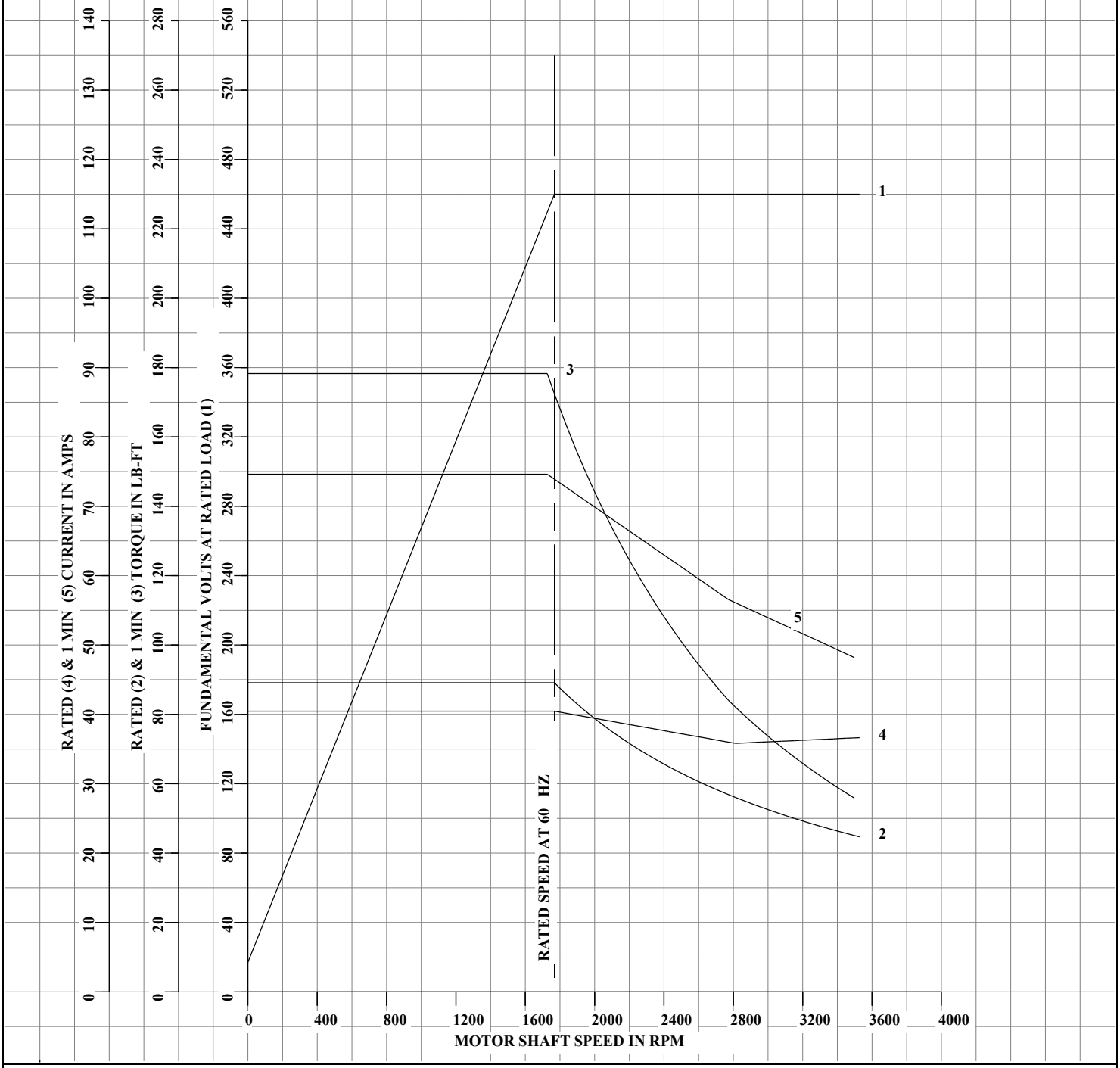


TYPICAL DATA, DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

ABB	DRAWN BY: R. ROBERTS CHECKED BY: B. GRANT APPROVED BY: J. MARTIN DATE: 10-13-15	AC MOTOR PERFORMANCE DATA	L6754A ISSUE DATE: 2-13-20

		VOLTS	460	ENCLOSURE	TEBC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25°C)			
FRAME	FL2162	AMPS	41	MAX SAFE SPEED	5000				
HP	30	DUTY	CONT	IM (AMPS)	19	R1	.146	X1	.666
BASE SPEED	1770	S.F.	1.0	P.F. @NL / FL	.058/.777	R2	.0977	X2	.761
PHASE/HZ	3/60	AMB.°C / INSUL	40/H	WK² (Lb-Ft²)	1.92			XM	12.2

CORRELATED DATA
VARIABLE SPEED AC MOTOR CURVES



TYPICAL DATA, DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

ABB	DRAWN BY: R. ROBERTS CHECKED BY: B. GRANT APPROVED BY: J. MARTIN DATE: 10-13-15	AC MOTOR PERFORMANCE DATA	L6754A ISSUE DATE: 2-13-20

RPM—AC FINNED FRAME VARIABLE SPEED ALTERNATING CURRENT MOTOR FL2162CZ

617517-476

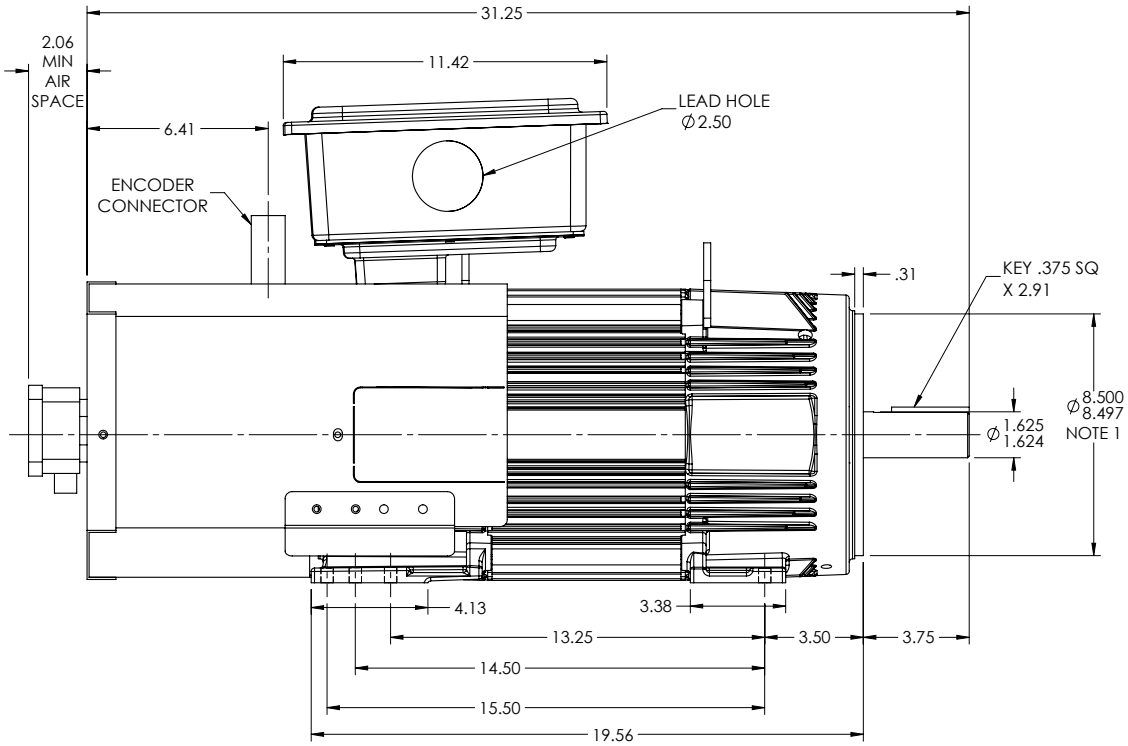
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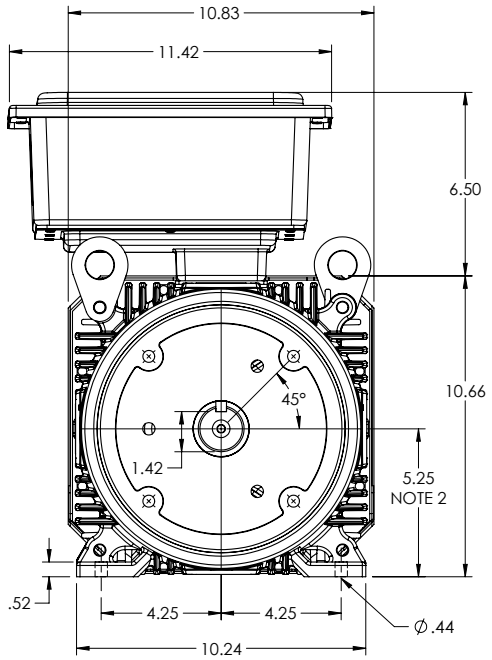
MOUNTING: FOOT/NEMA 250TC C-FACE

DRIVE METHOD: COUPLED OR BELTED

COOLING: BLOWER COOLED

ACCESSORIES: ENCODER





NOTE 1 O.D.E. C-FACE & TACHOMETER MOUNTING
1/2-13 TAP, .88 IN. DEEP, ON A Ø7.25 IN. BOLT CIRCLE
FACE RUNOUT AND ECCENTRICITY .004 MAX T.I.R.

NOTE 2 SHAFT HEIGHT WILL NOT BE EXCEEDED.
SHIMS UP TO .05mm IN THICKNESS ARE USUALLY
REQUIRED FOR COUPLED OR GEARED MACHINES.

235 AMP TERMINAL BOX SHOWN
ROTATABLE IN 90° INCREMENTS

DIMENSIONS ARE IN INCHES SCALE: 1.00
MOTOR WEIGHT: 290 LBS. (MAY VARY 15%)

CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION

REV. DESC: MODEL AND REDRAW IN SOLIDWORKS			
REV: A	VERSION: 01	REVISED: 01:44:27 01/26/2023	TDR: 000001202962
MODEL NO. 617517-476			REF: -
BY: USWATUR			B

BALDOR - RELIANCE®

DIM SHT,RPMAC,TEBC,FL2162CZ,ENCODER,235 A. F3 MILL BOX

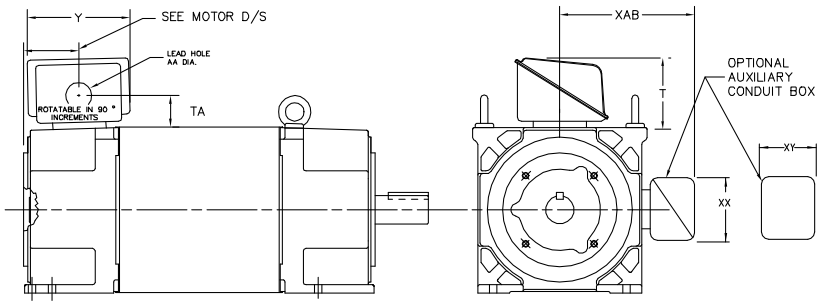
617517-476

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	75	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 FDL13 & RDL13	MILL	Y	100	706310225R 706310056A	7.75	2.30	4.40	PG29/PG16
FL210 & RL210 FDL13 & RDL13	MILL	Y	160	706310226R 706310056B	9.00	3.06	5.40	PG36/PG16
FL210 & RL210 FDL13 & RDL13	MILL	Y/N	235	706310637A	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	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 FDL16 & RDL16	MILL	Y	100	706310225R 706310056A	7.75	2.30	4.40	PG29/PG16
FL250 & RL250 FDL16 & RDL16	MILL	Y	160	706310226R 706310056B	9.00	3.06	5.40	PG36/PG16
FL250 & RL250 FDL16 & RDL16	MILL	Y/N	235	706310637A	11.42	4.00	6.72	2.50
FL250 & RL250 FDL16 & 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
FL280 & RL280 FDL18 & RDL18	MILL	Y	100	706310056A	7.75	2.30	4.40	PG29/PG16
FL280 & RL280 FDL18 & RDL18	MILL	Y	160	706310056B	9.00	3.06	5.40	PG36/PG16
FL280 & RL280 FDL18 & RDL18	MILL	Y/N	235	706310637A	11.42	4.00	6.72	2.50
FL280 & RL280 FDL18 & RDL18	MILL	Y	400	706310063B	14.39	7.43	12.15	BLANK

OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	XAB	XX	XY	PART NUMBER	FRAME SIZE	XAB	XX	XY	PART NUMBER
FL210/FDL132/RL210/RDL132	7.38	4.25	4.25	602007-26-A	FL210/FDL132/RL210/RDL132	10.88	8.00	8.00	706310-3-B
FL250/FDL160/RL250/RDL160	8.44	4.25	4.25	602007-26-A	FL250/FDL160/RL250/RDL160	11.88	8.00	8.00	706310-3-B
FL280/FDL180/RL280/RDL180	9.12	4.25	4.25	602007-26-A	FL280/FDL180/RL280/RDL180	12.62	8.00	8.00	706310-3-B

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

TERMINAL BOX CAN BE ROTATED FOR LEAD OUTLET AT TOP, SIDES OR BOTTOM. TERMINAL BOX LOCATED ON OPPOSITE SIDE WHEN F-2, W-1, W-4, W-5, W-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.

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REV. DESC: ADD 706310-637 & 639 BOX		TDR: 00000118O260
REV. LTR: F	VERSION: 06	
FILE: \RGV\00003\692	REVISED: 11:08:56 10/26/2021	BY: RGGRWM
MTL: -		

DIM SHT NEMA RL210-RL280 FL180-FL280 IEC RDL132-RDL180
SH 1 of 1

616779-050

RPM AC TACHOMETER DIMENSIONS

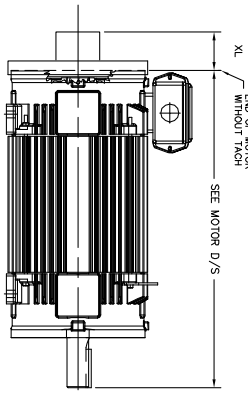
NEMA FRAMES FL180 thru FL440 and IEC FRAMES FDL112 thru FDL280

DIMENSIONS ARE IN INCHES(mm)

DPFV, DPSV, TEPV, TESV, TENV & TEAO-PB

IC06, IC17, IC37, IC410, & IC416-PB

TACH MODEL	XL Inches(mm)	LBS.
BEI DR DYNAPAR HS35	2.88 (74)	5
DYNAPAR H20 *	7.50(191)MAX.	10
NORTHSTAR HS35M	3.31 (84)	10
NORTHSTAR ST67	2.88 (74)	5
DYNAPAR H56	10.56 (268)	40
AVTRON M3 DR M4	3.62 (92)	10
TAMAGAWA TS5013(XT)	6.00 (152)	10
NORTHSTAR ST56	2.88 (74)	5
NORTHSTAR ST85	2.00 (51)	5
BEI H38D	10.19 (259)	15
TAMAGAWA TS2151	2.64 (67)	15
BEI H25	7.50 (191)	15
DYNAPAR HS20	2.00 (50.8)	5
DYNAPAR X25	12.88 (327)	10
STEGMANN SRM25	7.25 (184.4)	10
NORTHSTAR HS035	3.00 (76.2)	10
HEIDENHAIN EON425	2.5 (63.5)	5
AVTRON HS35M	4.19 (106.4)	5
HEIDENHAIN ERN480	5.00 (76.2)	5
DYNAPAR H2D5	7.00 (177.8)	10
DYNAPAR H22	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
HS038	3.30 (84)	5
HS025	3.30 (84)	2
NORTHSTAR RT8	3.25 (83)	15
DYNAPAR HA625	5.88 (150)	10
AVTRON AV485	9.50 (241)	18
AVTRON AV32	1.93 (49)	.7
DYNAPAR RH25	3.80 (97)	1.6
AVTRON AV85	2.40 (64.5)	3



* THIS DIMENSION INCLUDES COVER FOR X/T MOTOR.

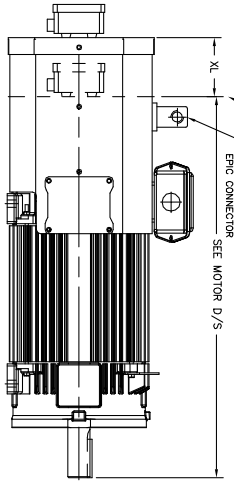
TEAO-BC, IC416-BC

EXCLUDES NEMA FRAMES FL320 THRU FL440

AND

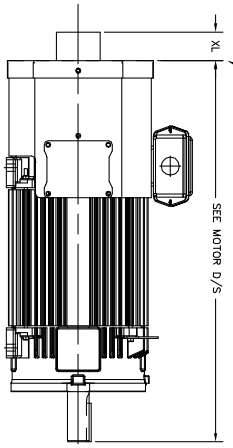
IEC FRAMES FDL200 THRU FDL280

TACH MODEL	XL Inches(mm)	LBS.
BEI DR DYNAPAR HS35	4.50 (115)	10
DYNAPAR H20	4.50 (115)	15
AVTRON M3 DR M4	4.50 (115)	10
NORTHSTAR HS35M	4.50 (115)	15
NORTHSTAR ST56	4.50 (115)	10
NORTHSTAR ST67	4.50 (115)	10
NORTHSTAR ST85	4.50 (115)	5
TAMAGAWA TS5008,TS5013	4.50 (115)	10
DYNAPAR HS20	4.50 (115)	15
STEGMANN SRM25	4.50 (115)	10
STEGMANN SRS/SRM50	4.50 (115)	3
STEGMANN SRS60	4.50 (115)	15
H25D & H25E	4.50 (115)	15
AVTRON HS35M	4.50 (115)	10
AVTRON AV485	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



TEFC, IC411

TACH MODEL	XL Inches(mm)	LBS.
BEI 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(XT)	9.75 (248)	35
EON425	7.90 (201)	35
AVTRON HS35M	4.19 (106)	2
STEGMANN SRM50	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



616779-055

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

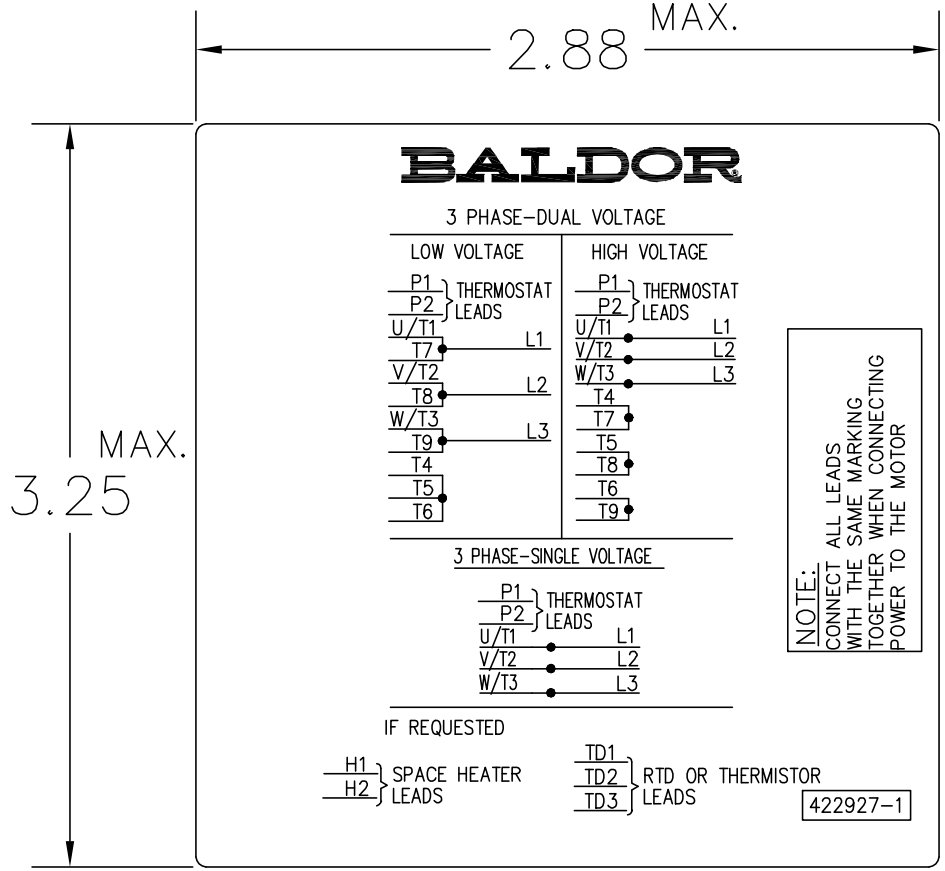
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MTL: –		

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 POSIBLE.

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			BALDOR
REV. LTR: B	VERSION: 02	TDR: 000000788708	
FILE: \RGG\00000\203		REVISED: 08:09:29 03/04/2013	EXTERNAL CONNECTION LABEL
MTL: –		BY: RGGWT	SH 1 of 1