ABB BALDOR RELIANCE

Customer information packet

IDFRPM21204C

20HP, 1750, 460V, FL2162, TEFC, F3

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Specifications

Enclosure	TEFC
Frame	FL2162CZ
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	20.000 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	27.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	27.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	26.74 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	1775 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L3308A
Layout	617517-083
Eff. date	01-21-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	10-21-2021

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

Nameplate

000613006MY

DUTY	HP	RPM	AMPS	VOLTS	HZ
CONT	20	1775	27	460	60
CONT	20	3545	25	460	120

CAT.NO.	IDFRPM21204C		**SPEC. NO.**	F21-A000-0453			
SER.NO		**FR**	FL2162CZ	**INSUL**	H		
PH.	3	**MAX SAFE SPEED**	5000	**AMB.**	40	**MIN. AMB.**	-25
DESIGN NO.	L3308A	**TYPE**		**ENCL.**	TEFC		
S.F.	1.00	**D.E. BRG.**	50BC03JPP30A				
ENCL MOD		**O.D.E. BRG.**	45BC02JPP30A				
	IP44						

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	FL2162	AMPS	27	MAX SAFE RPM	5000	(AT BASE RATING, 25 ℃)			
HP	20	DUTY	CONT	IM (AMPS)	15	R1	.179	X1	.845
BASE SPEED	1775	S.F.	1.0	P.F.@NL/FL	.066/.777	R2	.122	X2	1.09
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/H	WK^2 ($Lb\text{-}Ft^2$)	1.92			XM	18.1

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1774	20.0	59	460	60	26.9
MAX SPEED	3543	20.0	30	460	120	24.4
MIN SPEED	0	0	59	13.8	.874	26.9

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	14.4
1/4	1794	5.01	15	460	60	15.7
1/2	1787	10.0	29	460	60	18.6
3/4	1781	15.0	44	460	60	22.4
FULL LOAD	1774	20.0	59	460	60	26.9
O/L	1742	39.3	119	460	60	48.5

BLOWER DATA	VOLTS	PH/HZ	FL AMPS	LR AMPS	FRAME	CFM

REMARKS: TYPICAL DATA
CORRELATED DATA

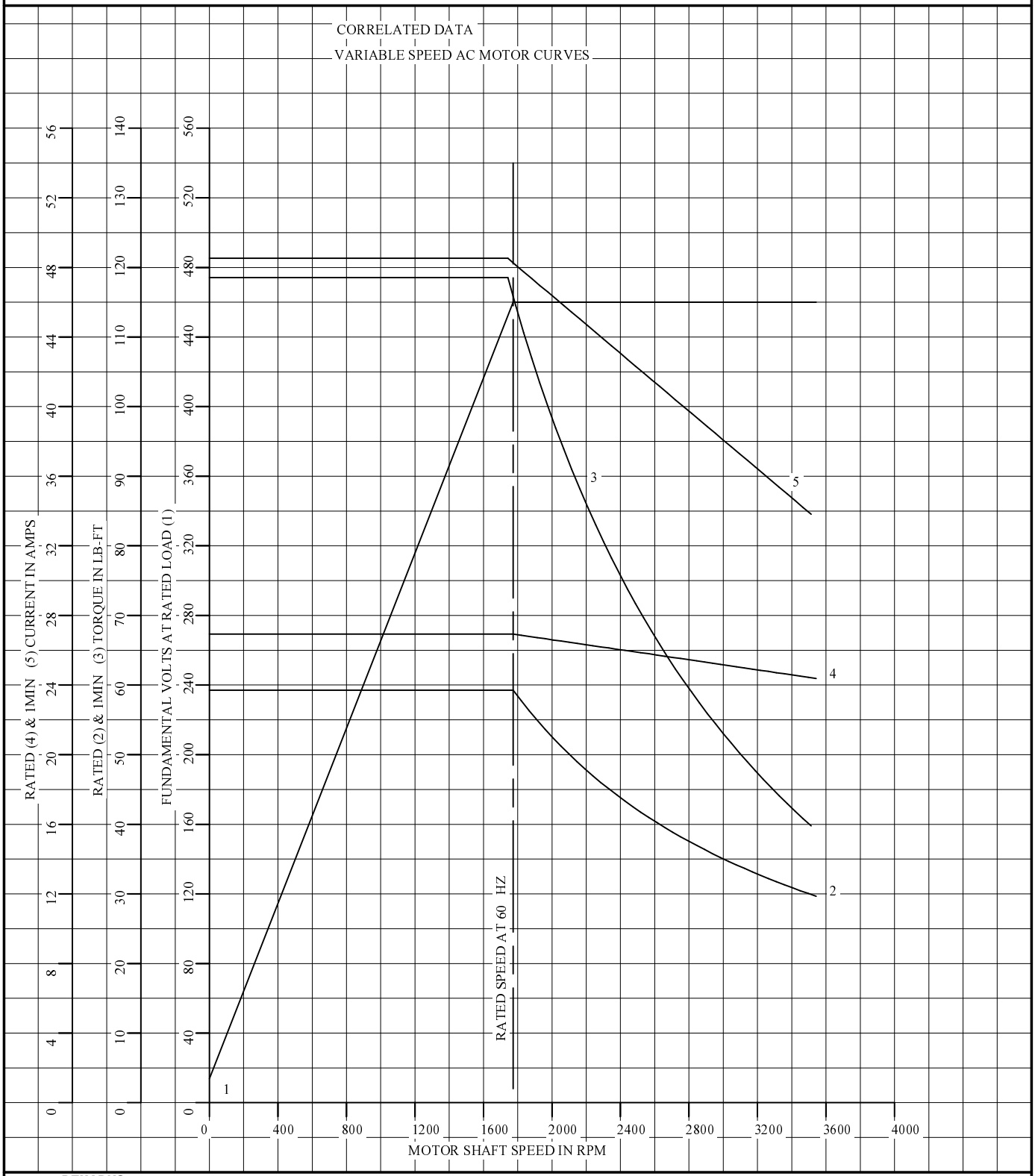
BALDOR · DODGE · RELIANCE

DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 6-6-06

A-C MOTOR PERFORMANCE DATA L3308A
ISSUE DATE 6-6-06

Printed on 12/12/07 13:22 @ usmghengdev

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL2162	AMPS	27	MAX SAFE RPM	5000	(AT BASE RATING, 25 ℃)	
HP	20	DUTY	CONT	IM (AMPS)	15	R1 .179	X1 .845
BASE SPEED	1775	S.F.	1.0	P.F.@NL/FL	.066/.777	R2 .122	X2 1.09
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	1.92		XM 18.1



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

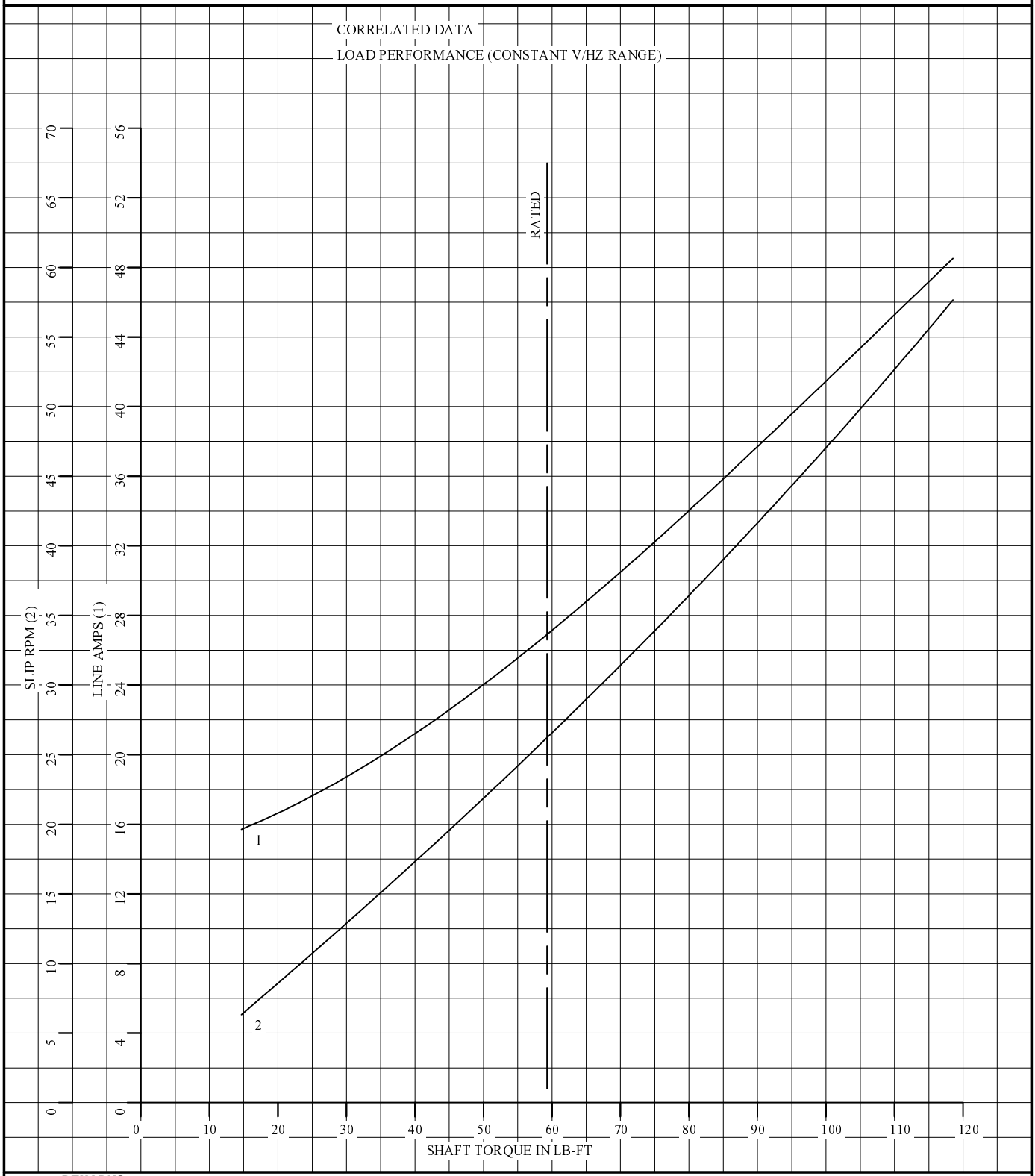
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CK. BY B. GRANT
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DATE 6-6-06

A-C MOTOR PERFORMANCE CURVES

L3308A
SH 1 OF 2
ISSUE DATE 6-6-06

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL2162	AMPS	27	MAX SAFE RPM	5000	(AT BASE RATING, 25 ℃)	
HP	20	DUTY	CONT	IM (AMPS)	15	R1 .179	X1 .845
BASE SPEED	1775	S.F.	1.0	P.F.@NL/FL	.066/.777	R2 .122	X2 1.09
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	1.92		XM 18.1



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A-C MOTOR PERFORMANCE CURVES

L3308A
SH 2 OF 2
ISSUE DATE 6-6-06

617517-083

ENCLOSURE: TOTALLY ENCLOSED

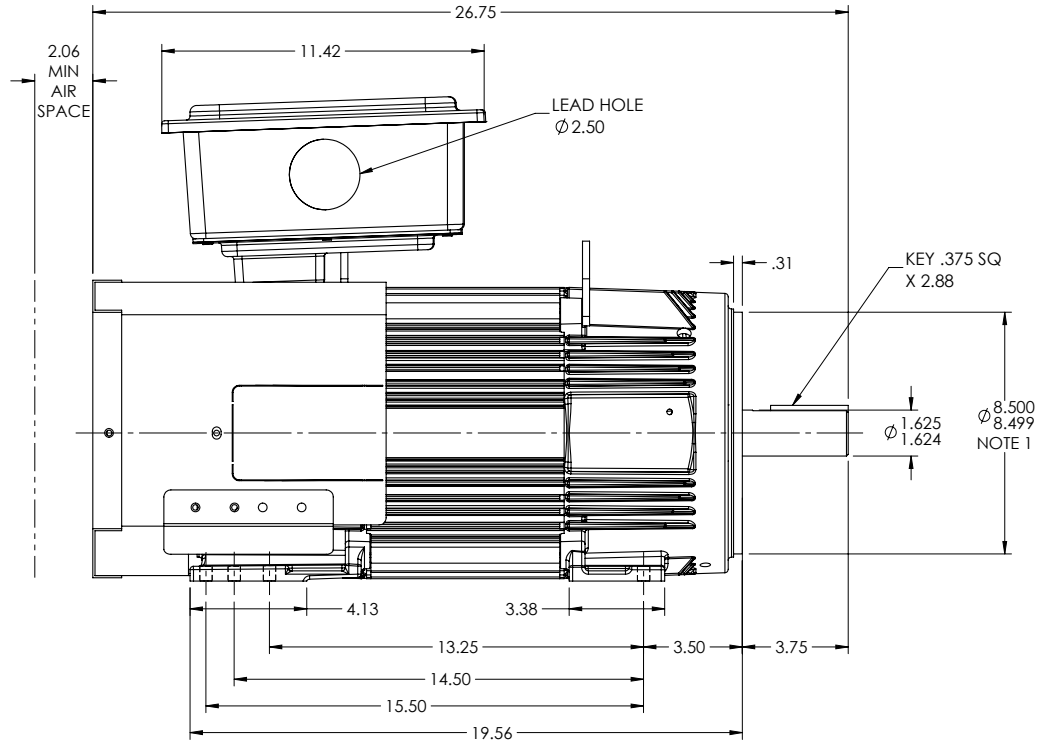
MOUNTING: FOOT / NEMA 250TC C-FACE

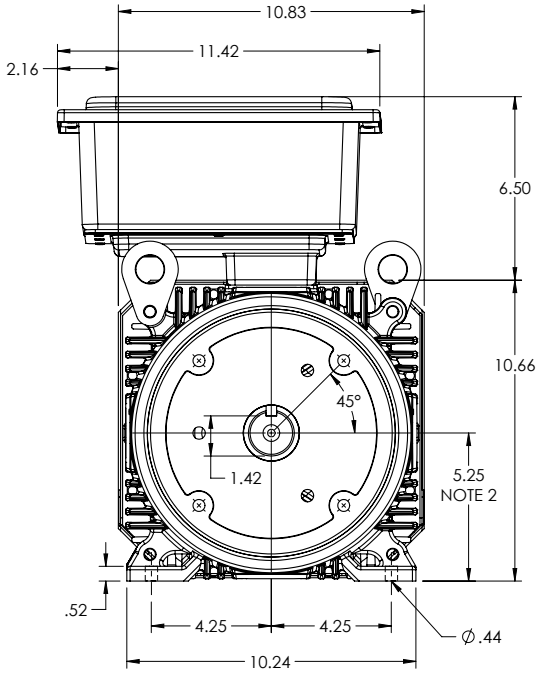
DRIVE METHOD: COUPLED OR BELTED

RPM—AC FINNED FRAME VARIABLE SPEED ALTERNATING CURRENT MOTOR FL2162CZ

COOLING: FAN COOLED

ACCESSORIES: PROVISIONS FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED





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 0.03 INCHES 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: REVISE NOTE 2			
REV: B	VERSION: 02	REVISED: 07:52:15 07/31/2024	TDR: 000001237882
MODEL NO. 617517-083			REF: -
BY: USWATUR			B

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DIM SHT,TEFC,FL2162CZ,FT MT,PROV FOR TACH,MILL BOX F3

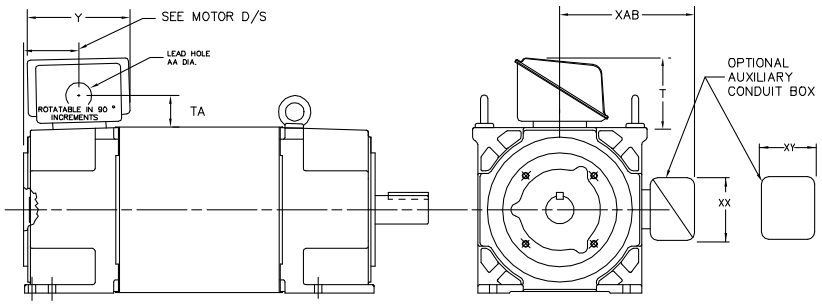
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616779-050

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.

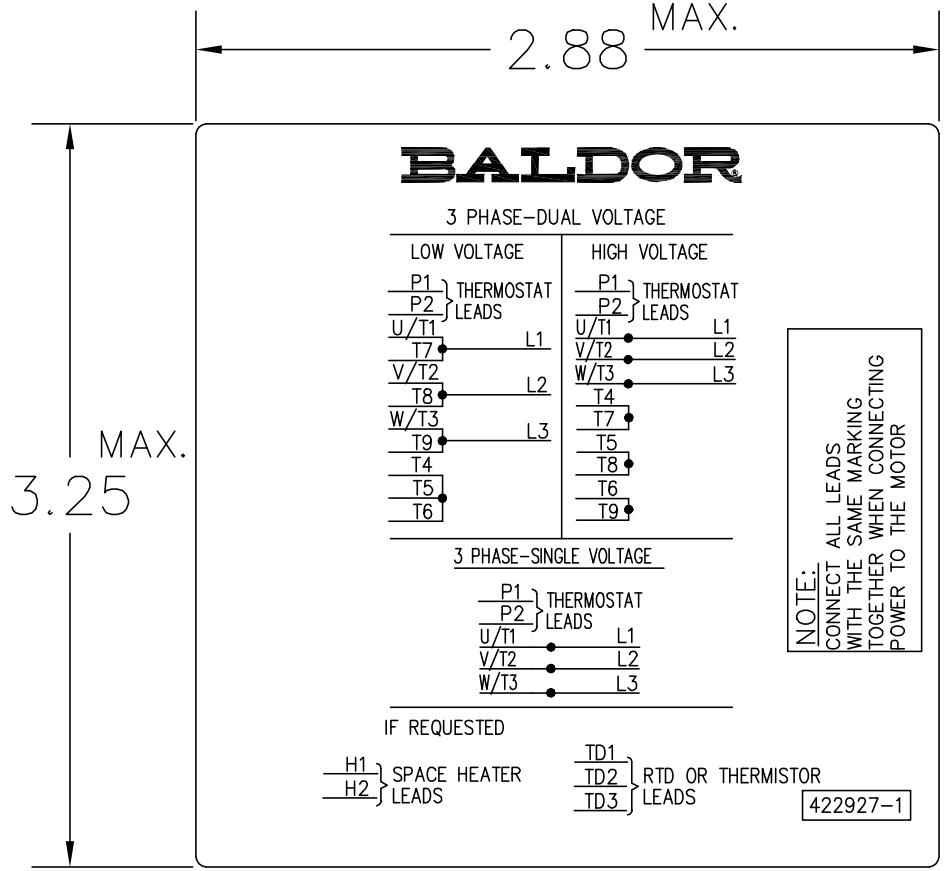
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REV. DESC: ADD 706310-637 & 639 BOX		TDR: 00000118O260
REV. LTR: F	VERSION: 06	
FILE: \RGV\00003\692	REVISED: 11:08:56 10/26/2021	BY: RGGRWM
MTL: -		

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

616779-050

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