ABB BALDOR RELIANCE

Customer information packet

IDDRPM21504

50HP, 1750, 460V, RL2168, DPFV, F1

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10/10/2026 12:34:08 AM

Specifications

Enclosure	DPFV
Frame	RL2168Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	50.000 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	62.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	RL
Heater Indicator	No Heater
High Voltage Full Load Amps	62.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	24.62 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	1.875 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1760 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L1757A
Layout	617206-051
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	50	1760	62	460	60
CONT	50	2010	61	460	68.6
CONT	50	2400	60	460	82.4

CAT.NO.	IDDRPM21504	**SPEC. NO.**	R21-A000-0367				
SER.NO		**FR**	RL2168Z	**INSUL**	H		
PH.	3	**MAX SAFE SPEED**	5000	**AMB.**	40	**MIN. AMB.**	-25
DESIGN NO.	L1757A	**TYPE**		**ENCL.**	DPG-FV		
S.F.	1.00	**D.E. BRG.**	50BC03JPP30A				
ENCL MOD		**O.D.E. BRG.**	45BC02JPP30A				
	IP23						

REL S.O.	–	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	RL2168	AMPS	62	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)			
HP	50	DUTY	CONT	IM (AMPS)	23	R1	.106	X1	.508
BASE SPEED	1760	S.F.	1.0	P.F.@NL/FL	.083/.857	R2	.0797	X2	.514
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK^2 ($Lb-Ft^2$)	2.32			XM	11.8

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1756	50.0	150	460	60	61.8
MAX SPEED	2408	50.0	109	460	82.4	60.0
MIN SPEED	0	0	0	20.0	1.49	62.0

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	22.6
1/4	1790	12.5	37	460	60	27.2
1/2	1779	25.0	74	460	60	36.4
3/4	1768	37.5	111	460	60	48.2
FULL LOAD	1756	50.0	150	460	60	61.8
O/L	1727	73.8	224	460	60	92.2

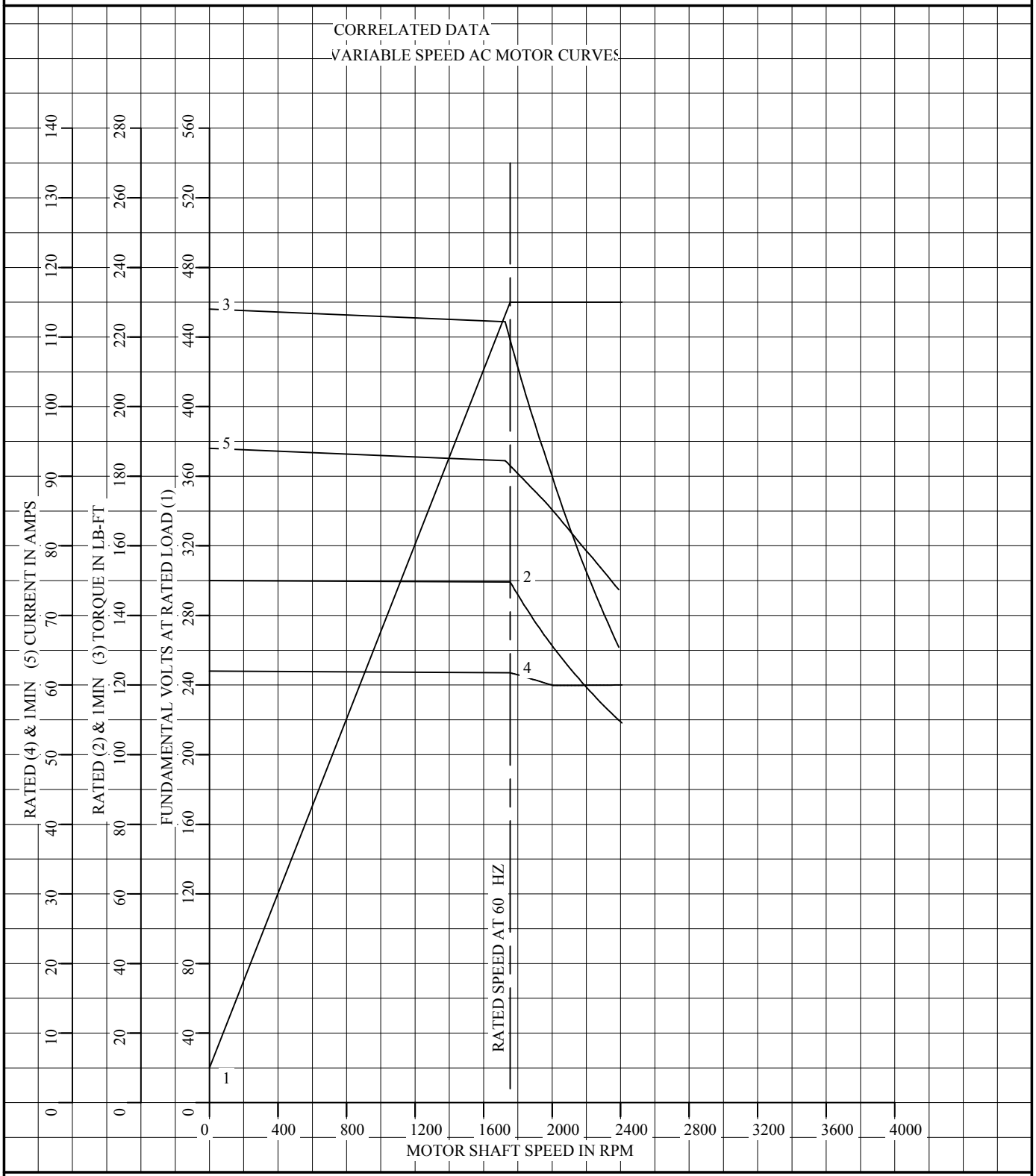
REMARKS: TYPICAL DATA
CORRELATED DATA

BALDOR
A MEMBER OF THE ABB GROUP

DR. BY M. ORDERS
CK. BY B. GRANT
APP. BY T. EVON
DATE 3/17/00

A-C MOTOR PERFORMANCE DATA L1757A
ISSUE DATE 8/25/15

REL S.O.	-	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25 ℃)	
FRAME	RL2168	AMPS	62	MAX SAFE RPM	5000		
HP	50	DUTY	CONT	IM (AMPS)	23	R1 .106	X1 .508
BASE SPEED	1760	S.F.	1.0	P.F.@NL/FL	.083/.857	R2 .0797	X2 .514
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	2.32		XM 11.8



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

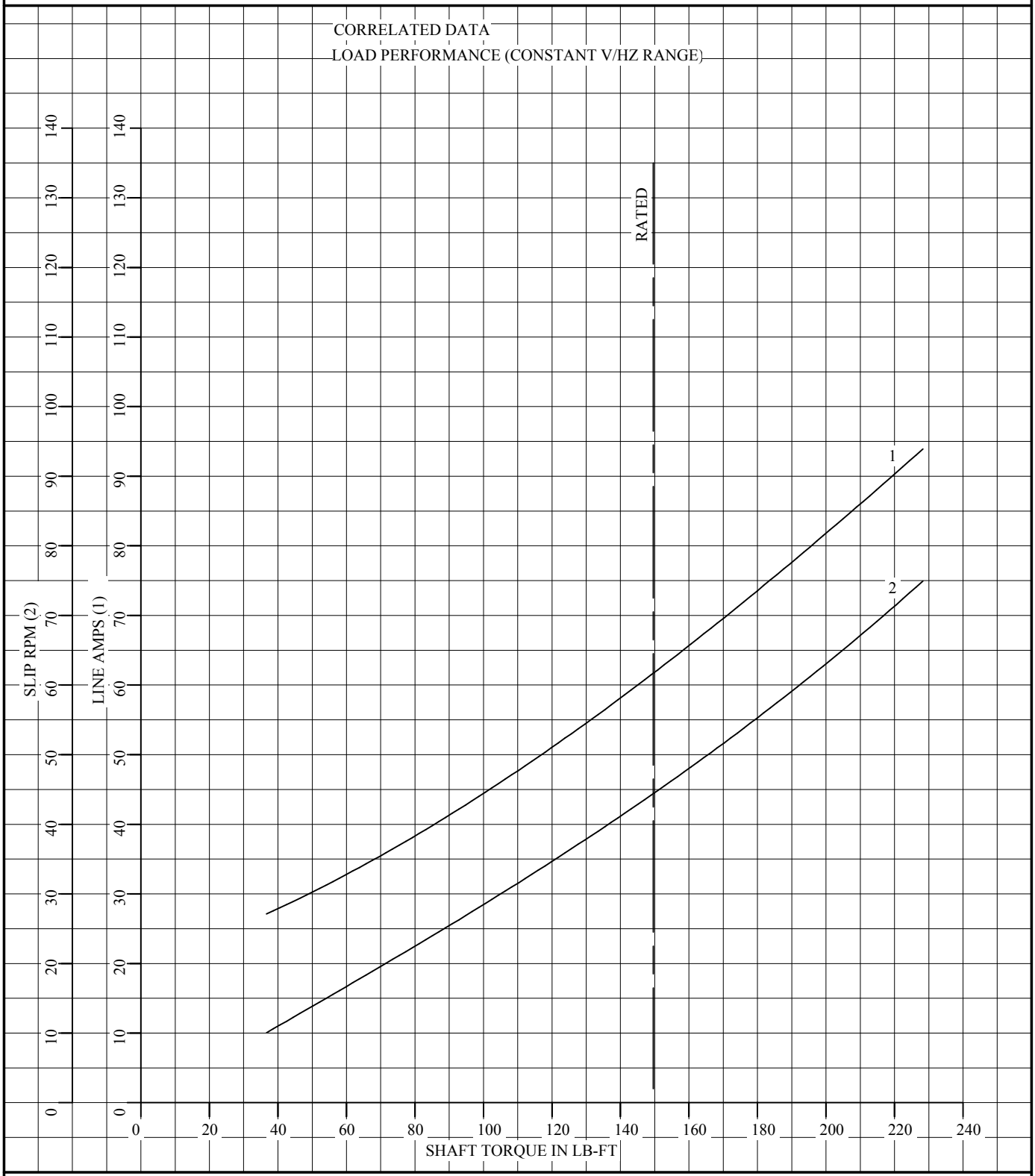
BALDOR
A MEMBER OF THE ABB GROUP

DR. BY	M. ORDERS
CK. BY	B. GRANT
APP. BY	T. EVON
DATE	3/17/00

A-C MOTOR PERFORMANCE CURVES

L1757A
SH 1 OF 2
ISSUE DATE 8/25/15

REL S.O.	-	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25 °C)	
FRAME	RL2168	AMPS	62	MAX SAFE RPM	5000		
HP	50	DUTY	CONT	IM (AMPS)	23	R1 .106	X1 .508
BASE SPEED	1760	S.F.	1.0	P.F.@NL/FL	.083/.857	R2 .0797	X2 .514
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK² (Lb-Ft²)	2.32		XM 11.8



REMARKS: TYPICAL DATA
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DATE	3/17/00

A-C MOTOR PERFORMANCE CURVES

L1757A
SH 2 OF 2
ISSUE DATE 8/25/15

RPM-AC VARIABLE SPEED ALTERNATING CURRENT MOTOR
(U)RL2168Z

617206-051

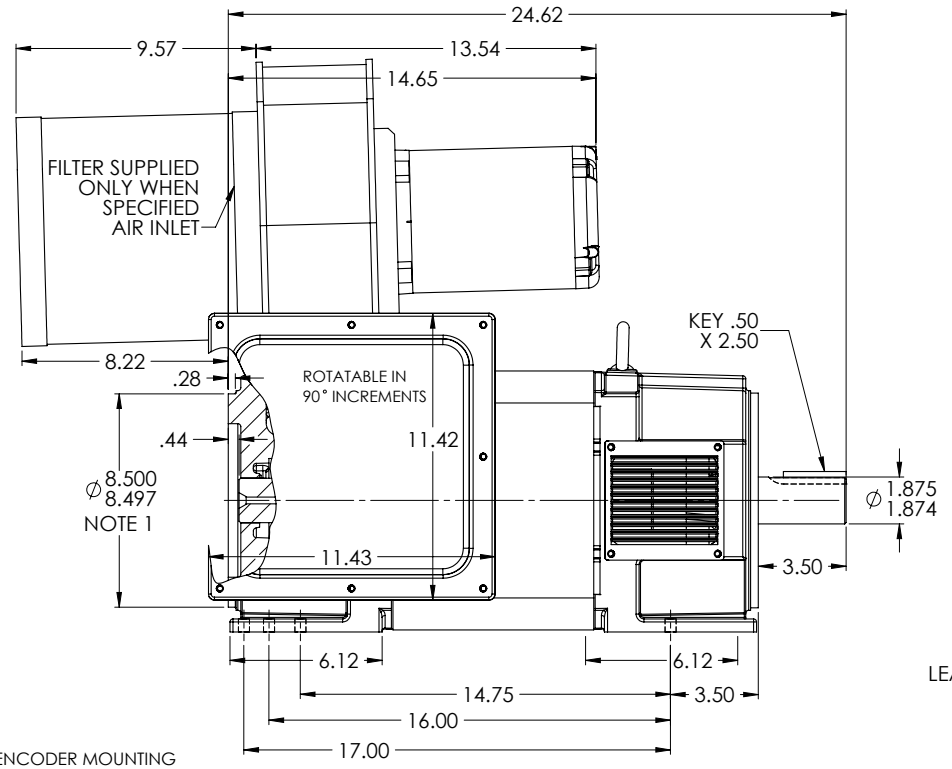
ENCLOSURE: DRIP PROOF

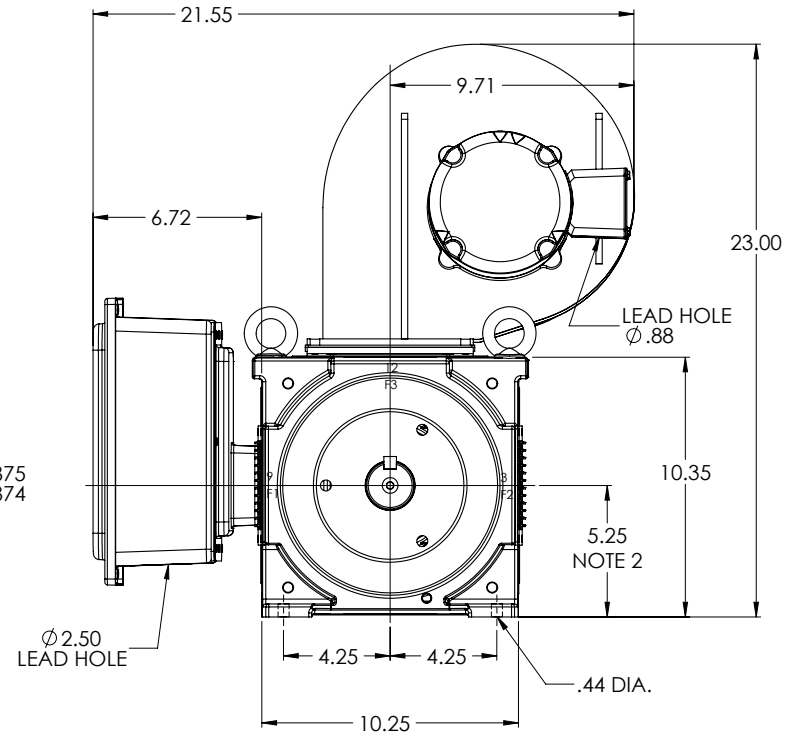
MOUNTING: FOOT

DRIVE METHOD: COUPLED OR BELTED

COOLING: FORCE VENTILATED

ACCESSORIES: PROVISIONS FOR ENCODER MOUNTING ONLY WHEN SPECIFIED





NOTE 1 ENCODER MOUNTING
1/2-13 TAP, .88 DEEP, ON A ⌀7.25 BOLT CIRCLE
FACE RUNOUT AND ECCENTRICITY .004 MAX. T.I.R.

NOTE 2 SHAFT HEIGHT WILL NOT BE EXCEEDED.
SHIMS UP TO .03 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MOTORS.

NOTE 3 MAXIMUM PERMISSIBLE SHAFT RUNOUT WHEN MEASURED AT END OF STD. SHAFT EXTENSION IS .002 T.I.R. UP TO AND INCLUDING 1.625 DIA. AND .003 T.I.R. AND 1.625 TO 5 INCH DIA.

235 AMP MILL CONDUIT BOX SHOWN
MOTOR WEIGHT: 345 LBS (MAY VARY 15%)
DIMENSIONS ARE IN INCHES SCALE 1:1

REV. DESC: REVISE CBOX AMPS FROM 800 TO 235			
REV: B	VERSION: 02	REVISED: 01:51:02 02/25/2022	TDR: 000001186811
MODEL NO. 617206-051			REF:
BY: MGHJMZ2	Material:		B

BALDOR - RELIANCE®

DIM SHT,RPMAC,DPFV,RL/URL2168Z,PROV FOR TACH,F1 MILL BOX

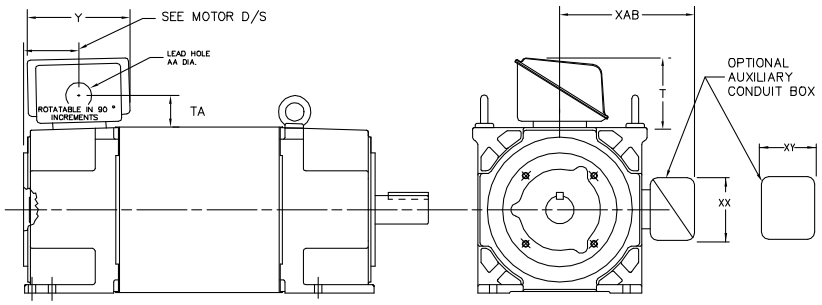
617206-051

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.

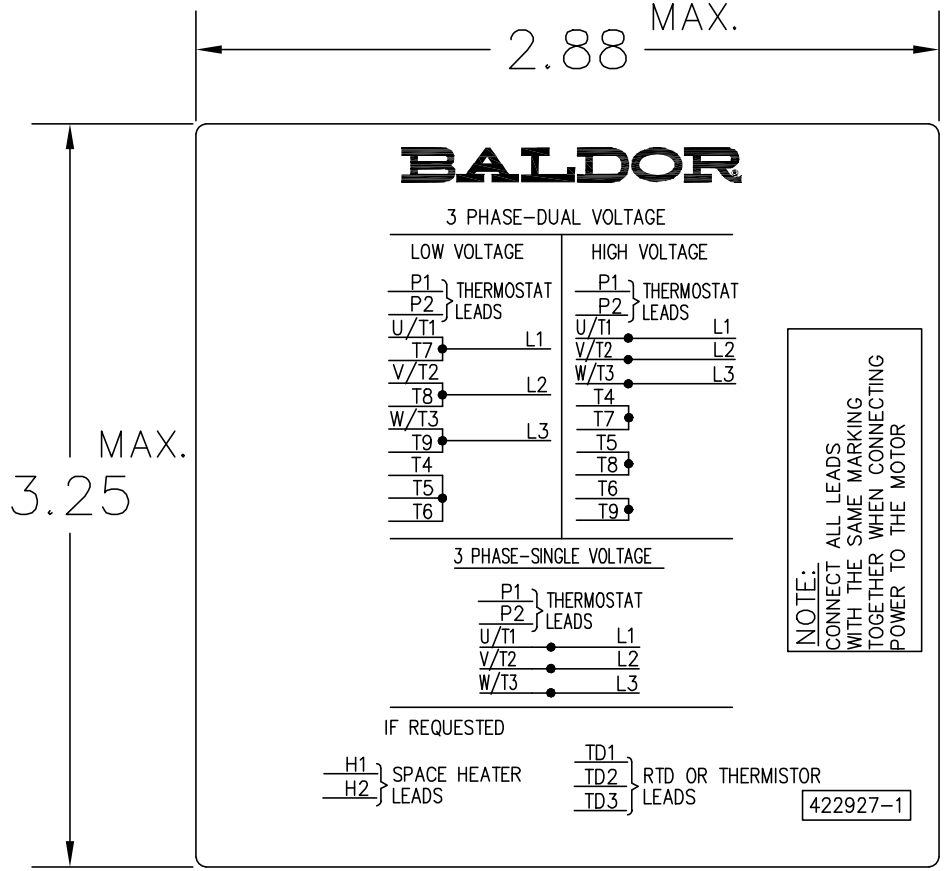
BALDOR - RELIANCE®

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		
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