ABB BALDOR RELIANCE

Customer information packet

ZDFRPM25404

40HP, 1750, 460V, FL2586, TEFC, F3

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11/19/2026 10:50:53 PM

Specifications

Enclosure	TEFC
Frame	FL2586Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	40.000 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	51.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	ENCODER
Frame Prefix	FL
Heater Indicator	No Heater
High Voltage Full Load Amps	51.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F3
Overall Length	37.07 IN
Product Family	General Industrial
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Diameter	2.124 IN
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Speed	1780 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L3271A
Layout	617581-411
Eff. date	01-19-2022
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	11-10-2021

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

Nameplate

000613006MY

DUTY	HP	RPM	AMPS	VOLTS	HZ
CONT	40	1780	51	460	60
CONT	40	3560	47	460	120

CAT.NO.	ZDFRPM25404		**SPEC. NO.**	F25-A000-0415			
SER.NO		**FR**	FL2586Z	**INSUL**	H		
PH.	3	**MAX SAFE SPEED**	5000	**AMB.**	40	**MIN. AMB.**	-25
DESIGN NO.	L3271A	**TYPE**		**ENCL.**	TEFC		
S.F.	1.00	**D.E. BRG.**	65BC03JPP30A				
ENCL MOD		**O.D.E. BRG.**	50BC03JPP30A				
	IP44						

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25 °C)			
FRAME	FL2586	AMPS	51	MAX SAFE RPM	5000				
HP	40	DUTY	CONT	IM (AMPS)	25	R1	.0669	X1	.338
BASE SPEED	1780	S.F.	1.0	P.F.@NL/FL	.049/.804	R2	.0458	X2	.610
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK^2 ($Lb\text{-}Ft^2$)	4.9			XM	10.5

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1781	40.0	118	460	60	50.6
MAX SPEED	3560	40.0	59	460	120	46.8
MIN SPEED	0	0	118	9.71	.621	50.6

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	24.5
1/4	1795	10.0	29	460	60	27.5
1/2	1791	20.0	59	460	60	33.4
3/4	1786	30.0	88	460	60	41.4
FULL LOAD	1781	40.0	118	460	60	50.6
O/L	1760	79.1	236	460	60	92.0

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

REMARKS: TYPICAL DATA
CORRELATED DATA

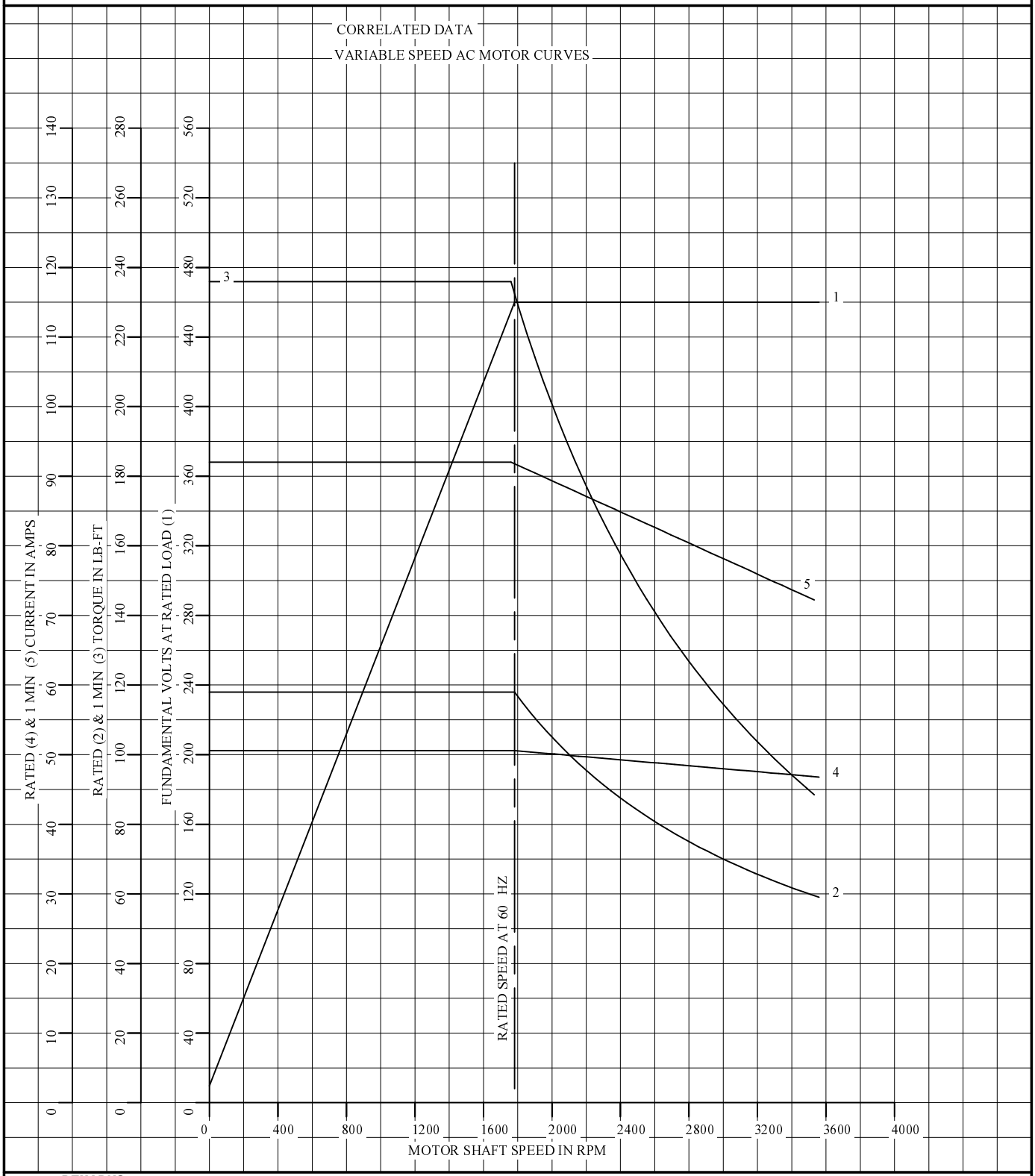
BALDOR · DODGE · RELIANCE

DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. CUFR
DATE 5-9-06

A-C MOTOR PERFORMANCE DATA L3271A
ISSUE DATE 5-9-06

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

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL2586	AMPS	51	MAX SAFE RPM	5000	(AT BASE RATING, 25 ℃)	
HP	40	DUTY	CONT	IM (AMPS)	25	R1 .0669	X1 .338
BASE SPEED	1780	S.F.	1.0	P.F.@NL/FL	.049/.804	R2 .0458	X2 .610
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	4.9		XM 10.5



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

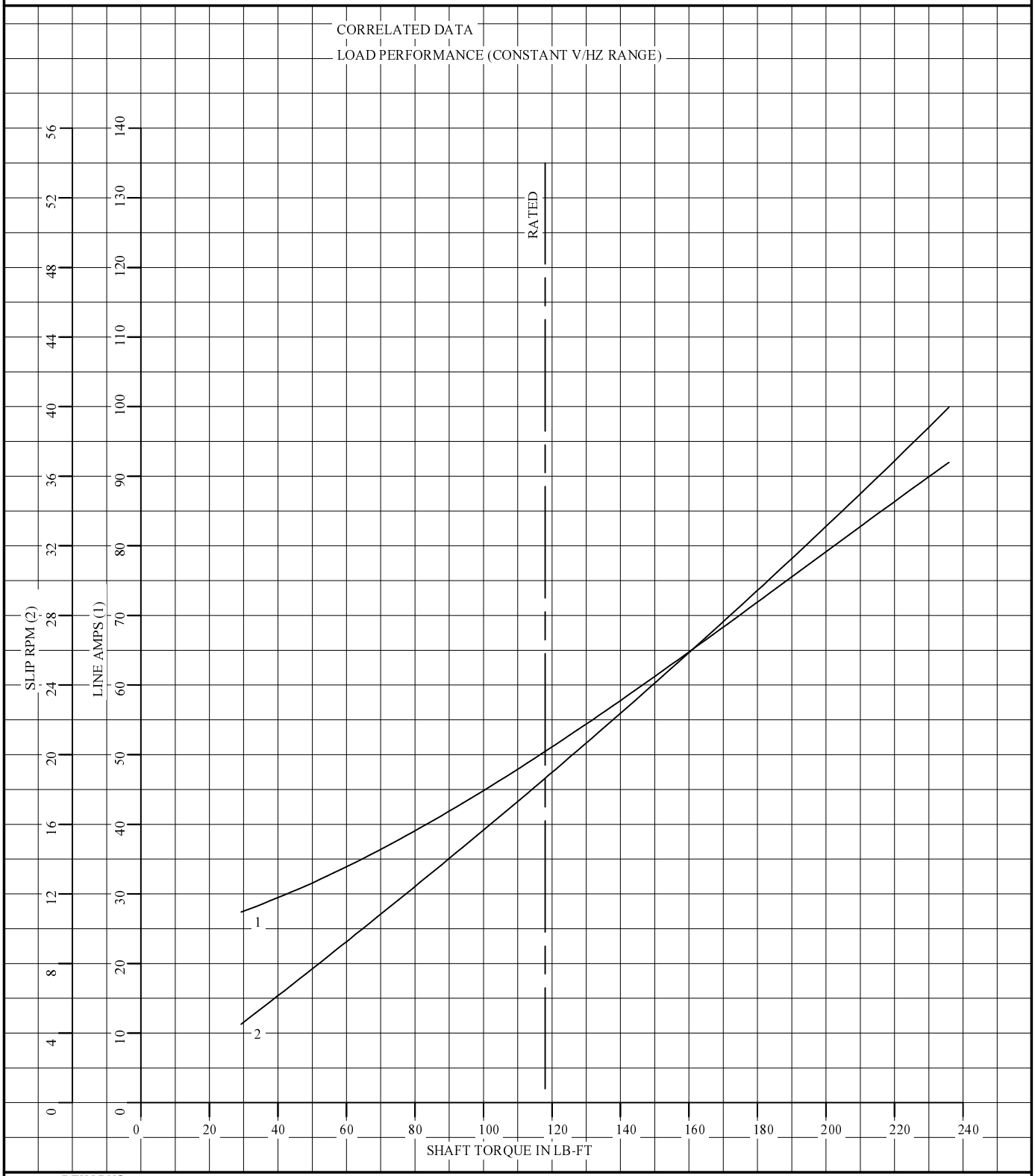
BALDOR · DODGE · RELIANCE

DR. BY	B. GRANT
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APP. BY	T. CUFR
DATE	5-9-06

A-C MOTOR PERFORMANCE CURVES

L3271A
SH 1 OF 2
ISSUE DATE 5-9-06

REL S.O.	-	VOLTS	460	ENCLOSURE	TEFC	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	FL2586	AMPS	51	MAX SAFE RPM	5000	(AT BASE RATING, 25 ℃)	
HP	40	DUTY	CONT	IM (AMPS)	25	R1 .0669	X1 .338
BASE SPEED	1780	S.F.	1.0	P.F.@NL/FL	.049/.804	R2 .0458	X2 .610
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	4.9		XM 10.5



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A-C MOTOR PERFORMANCE CURVES

L3271A
SH 2 OF 2
ISSUE DATE 5-9-06

RPM-AC FINNED FRAME VARIABLE SPEED ALTERNATING CURRENT MOTOR

617581-411

ENCLOSURE: TOTALLY ENCLOSED

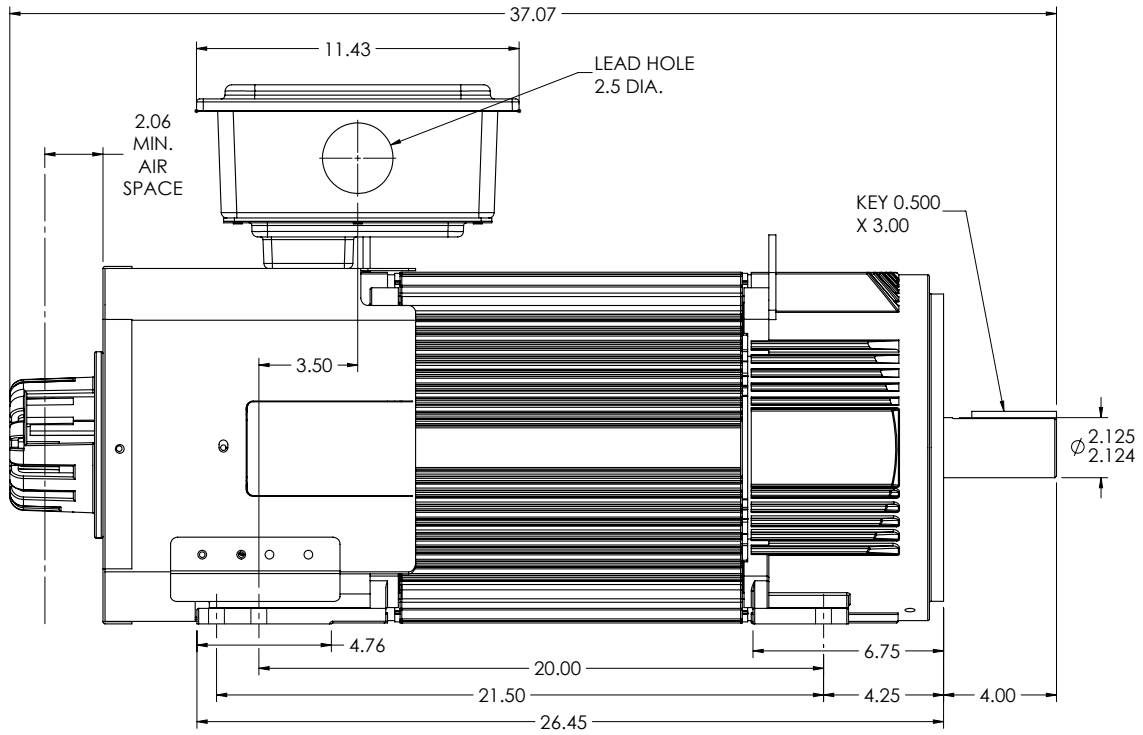
FL/UFL2586Z

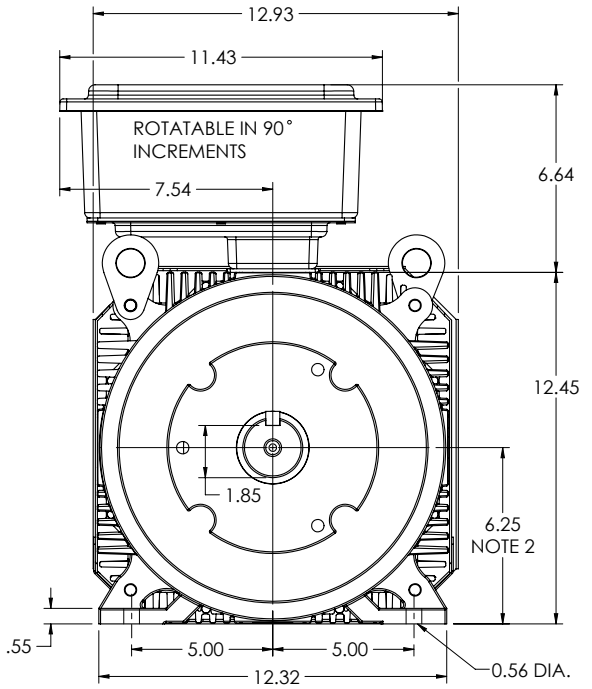
COOLING: FAN COOLED

MOUNTING: FOOT

ACCESSORIES: HS35

DRIVE METHOD: COUPLED OR BELTED





235 AMP MILL TERMINAL BOX SHOWN

MOTOR WEIGHT 605 LBS. (MAY VARY 15%)

DIMENSIONS ARE IN INCHES SCALE 1:1

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 .03 INCHES IN THICKNESS ARE USUALLY
REQUIRED FOR COUPLED OR GEARED MACHINES.

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. 1.625 TO 5 INCH DIA.

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

REV. DESC: INITIAL RELEASE			
REV: -	VERSION: 00	REVISED: 01:29:10 11/10/2021	TDR: 000001181026
MODEL NO. 617581-411			
BY: USWATUR			B

BALDOR - RELIANCE®

DIM SHT,FL/UFL2586Z,TEFC,F3 MILL BOX,HS35

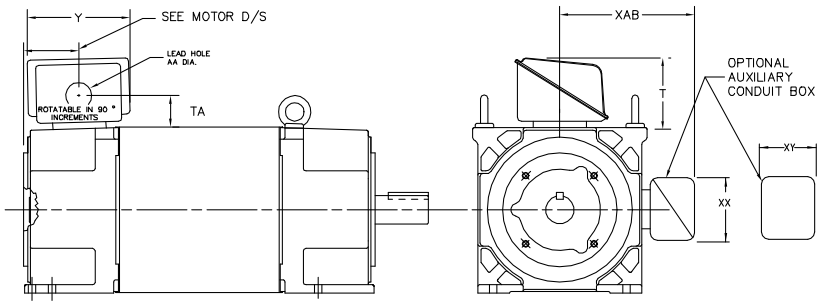
617581-411

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.

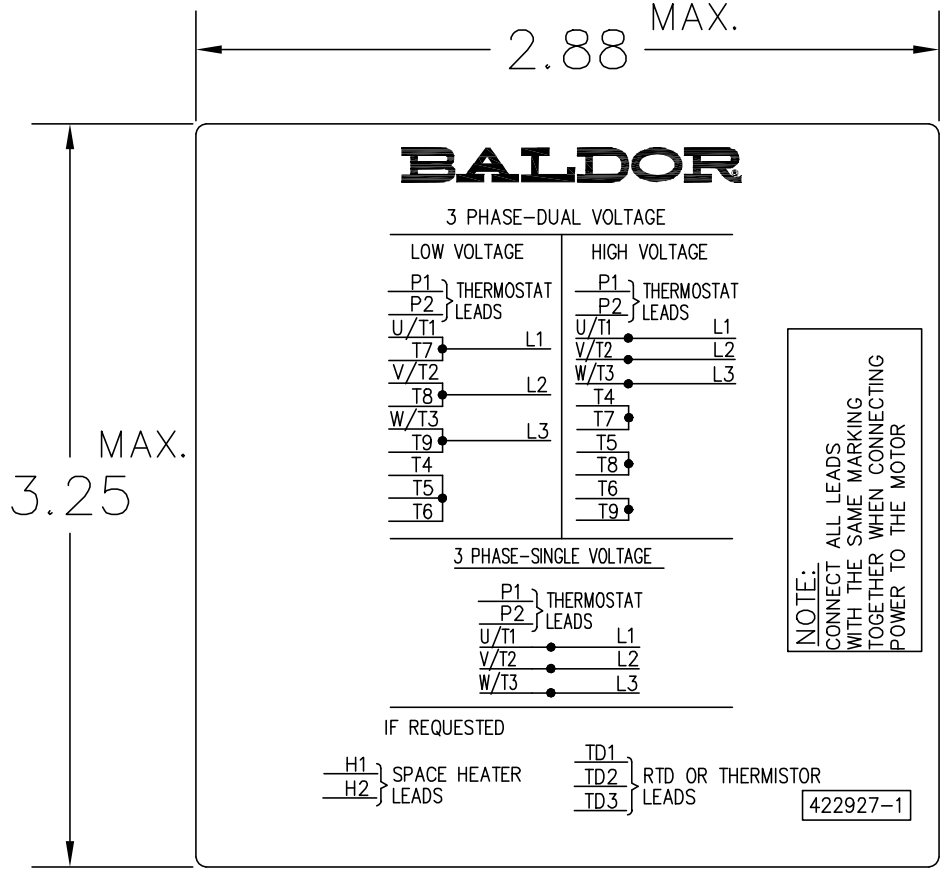
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REV. DESC: ADD 706310-637 & 639 BOX		TDR: 00000118O260
REV. LTR: F	VERSION: 06	
FILE: \RGV\00003\692	REVISED: 11:08:56 10/26/2021	BY: RGGRWM
MTL: -		

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