ABB BALDOR RELIANCE

Customer information packet

IDDRPM251004

100HP, 1750, 460V, RL2578, DPFV, F1

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Specifications

Enclosure	DPFV
Frame	RL2578Z
Frame Material	Exposed Laminations
Frequency	60.00 Hz
Output @ Frequency	100.000 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	119.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	RL
Heater Indicator	No Heater
High Voltage Full Load Amps	119.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	36.67 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	1750 rpm
Starting Method	Full Voltage

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L1821A
Layout	617218-051
Eff. date	02-24-2026
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	11-02-2021

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

Nameplate

000613006MY

DUTY	HP	RPM	AMPS	VOLTS	HZ
CONT	100	1750	119	460	60
CONT	100	2000	118	460	68.5

CAT.NO.	IDDRPM251004		**SPEC. NO.**	R25-A000-0363			
SER.NO		**FR**	RL2578Z	**INSUL**	H		
PH.	3	**MAX SAFE SPEED**	5000	**AMB.**	40	**MIN. AMB.**	-25
DESIGN NO.	L1821A	**TYPE**		**ENCL.**	DPG-FV		
S.F.	1.00	**D.E. BRG.**	65BC03JPP30A				
ENCL MOD		**O.D.E. BRG.**	50BC03JPP30A				
	IP23						

REL S.O.	–	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	RL2578	AMPS	119	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)			
HP	100	DUTY	CONT	IM (AMPS)	33	R1	.0615	X1	.302
BASE SPEED	1750	S.F.	1.0	P.F.@NL/FL	.060/.884	R2	.0458	X2	.282
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK^2 ($Lb-Ft^2$)	4.2			XM	8.29

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1748	100	300	460	60	119
MAX SPEED	1995	100	263	460	68.5	118
MIN SPEED	0	0	0	21.0	1.73	119

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	32.2
1/4	1789	25.0	73	460	60	43.3
1/2	1776	50.1	148	460	60	64.2
3/4	1763	75.0	223	460	60	89.7
FULL LOAD	1748	100	300	460	60	119
O/L	1711	147	451	460	60	184

REMARKS: TYPICAL DATA
CORRELATED DATA

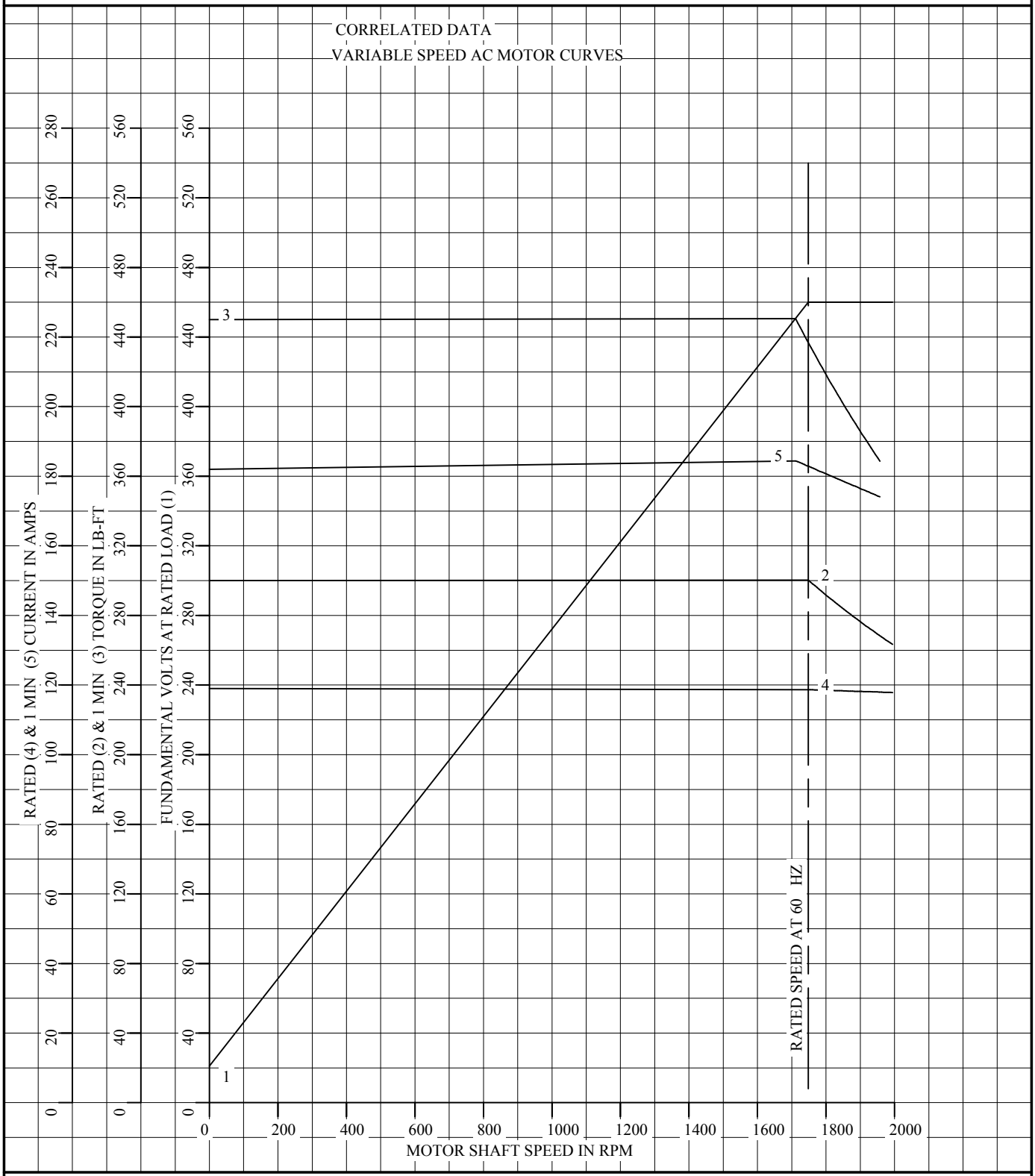
BALDOR
A MEMBER OF THE ABB GROUP

DR. BY M. ORDERS
CK. BY B. GRANT
APP. BY T. EVON
DATE 05/23/00

A-C MOTOR PERFORMANCE DATA L1821A
ISSUE DATE 03/10/05

C/R 393520

REL S.O.	-	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	RL2578	AMPS	119	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)	
HP	100	DUTY	CONT	IM (AMPS)	33	R1 .0615	X1 .302
BASE SPEED	1750	S.F.	1.0	P.F.@NL/FL	.060/.884	R2 .0458	X2 .282
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK^2 (Lb-Ft^2)	4.2		XM 8.29



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

BALDOR
A MEMBER OF THE ABB GROUP

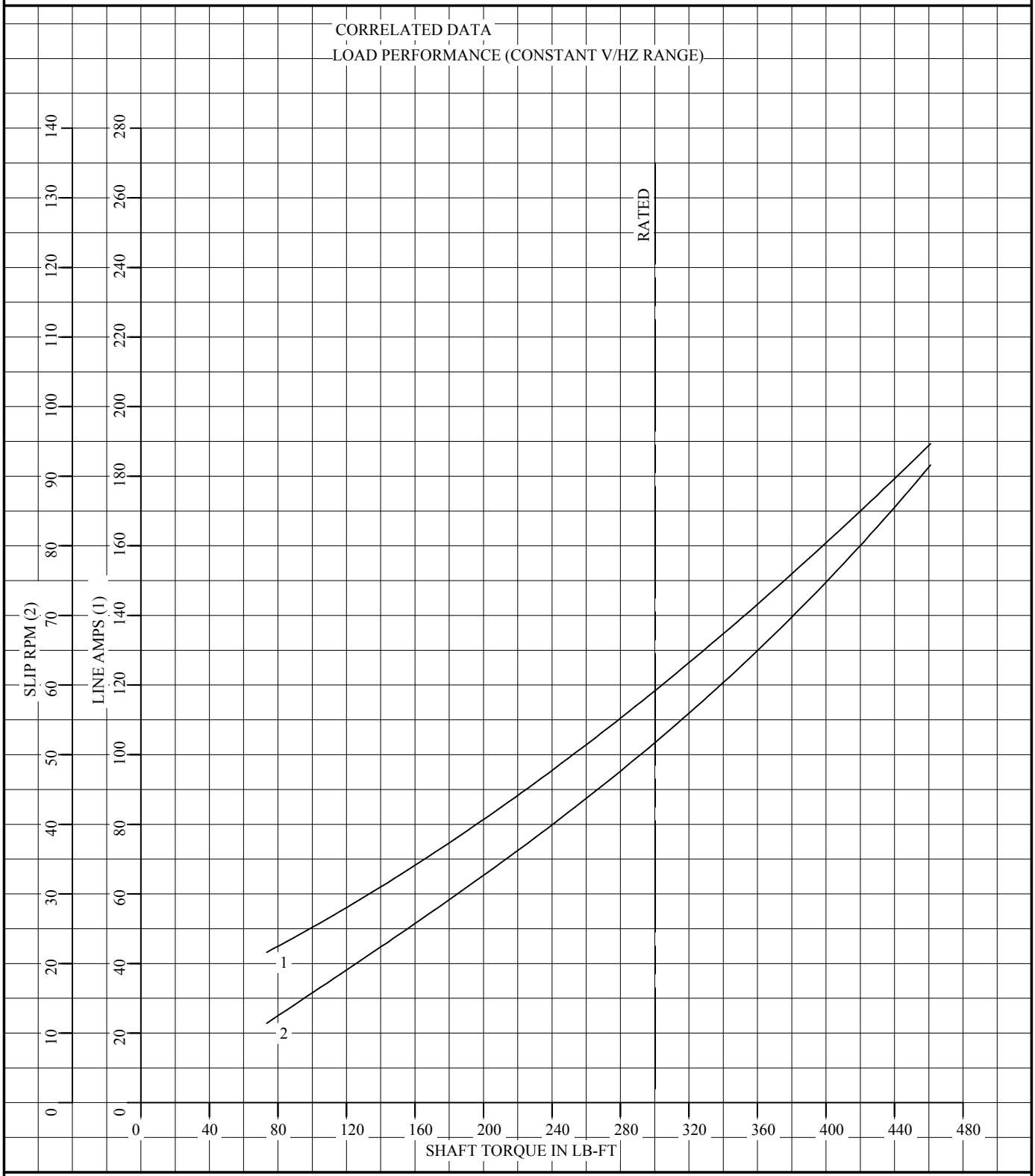
DR. BY	M. ORDERS
CK. BY	B. GRANT
APP. BY	T. EVON
DATE	05/23/00

A-C MOTOR PERFORMANCE CURVES

L1821A
SH 1 OF 2
ISSUE DATE 03/10/05

C/R 393520

REL S.O.	-	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE (AT BASE RATING, 25 °C)	
FRAME	RL2578	AMPS	119	MAX SAFE RPM	5000		
HP	100	DUTY	CONT	IM (AMPS)	33	R1 .0615	X1 .302
BASE SPEED	1750	S.F.	1.0	P.F.@NL/FL	.060/.884	R2 .0458	X2 .282
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK^2 (Lb-Ft^2)	4.2		XM 8.29



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

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A-C MOTOR PERFORMANCE CURVES

L1821A
SH 2 OF 2
ISSUE DATE 03/10/05

C/R 393520

RPM-AC VARIABLE SPEED ALTERNATING CURRENT MOTOR

617218-051

RL/URL2578Z

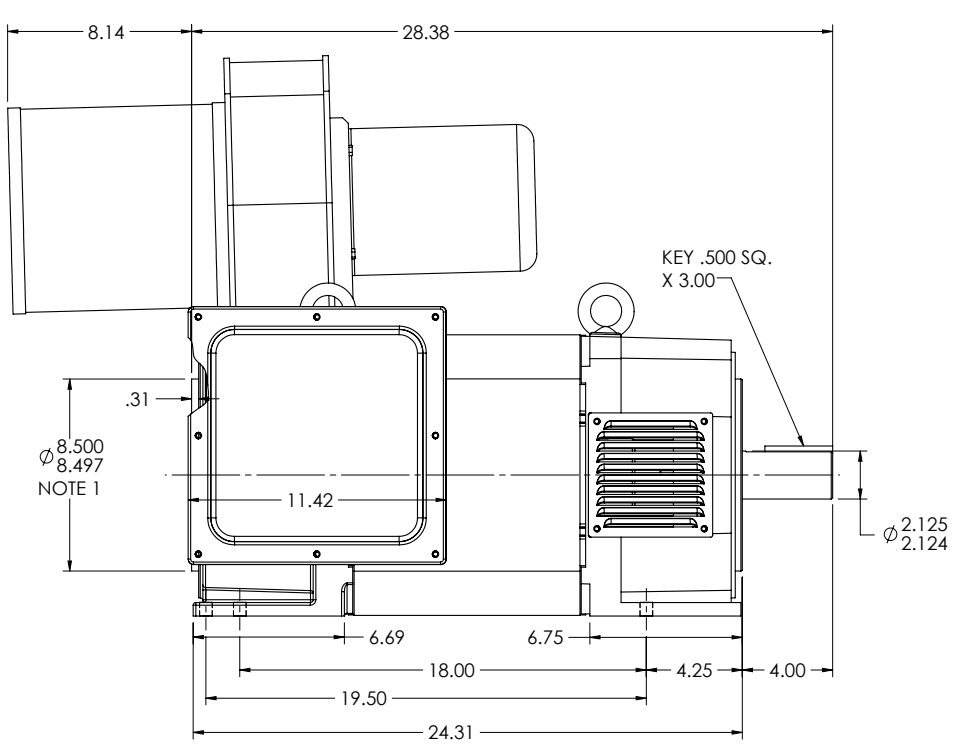
ENCLOSURE: DRIP PROOF

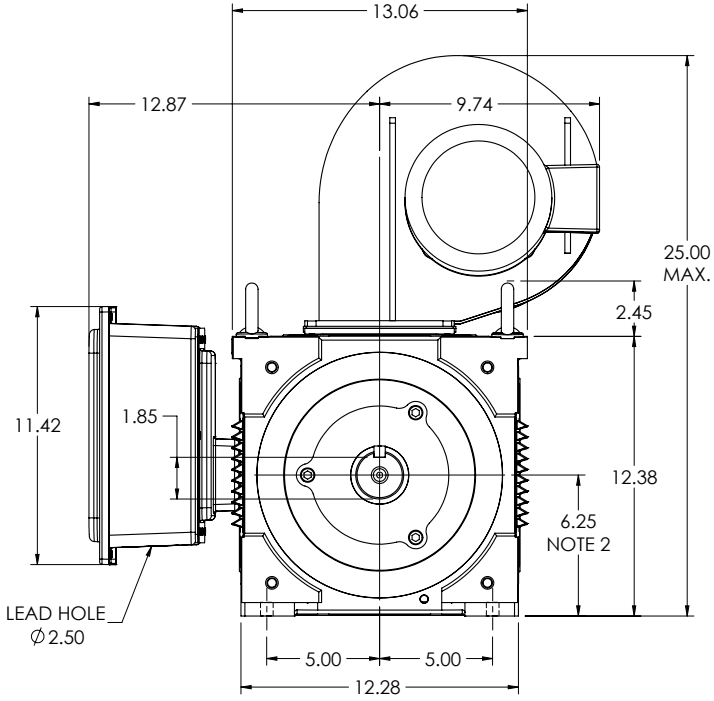
MOUNTING: FOOT

DRIVE METHOD: COUPLED OR BELTED

COOLING: FORCE VENTILATED

ACCESSORIES: PROVISIONS FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED





235 AMP MILL TERMINAL BOX SHOWN
ROTATABLE IN 90° INCREMENTS

NOTE 1: C-FACE & TACHOMETER MOUNTING
1/2-13 TAP .88 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.

MOTOR WEIGHT 545 LBS. (MAY VARY 15%)

DIMENSIONS ARE IN INCHES SCALE 1:1

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

REV. DESC: INITIAL RELEASE			
REV: -	VERSION: 00	REVISED: 08:19:01 11/08/2021	TDR: 000001179408
MODEL NO. 617218-051			
BY: USWATUR			B

BALDOR - RELIANCE®

DIM SHT,RPMAC,DPFV,RL/URL2578Z,PROV FOR TACH

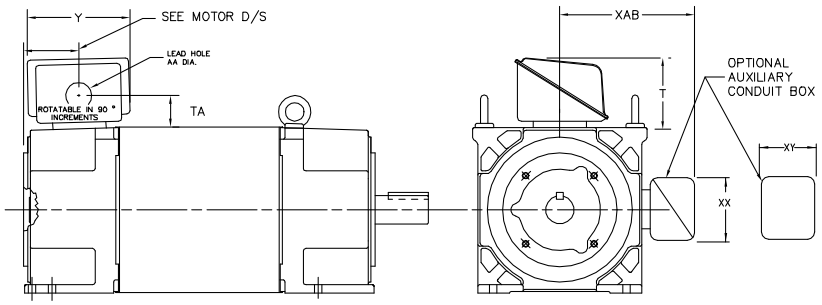
617218-051

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.

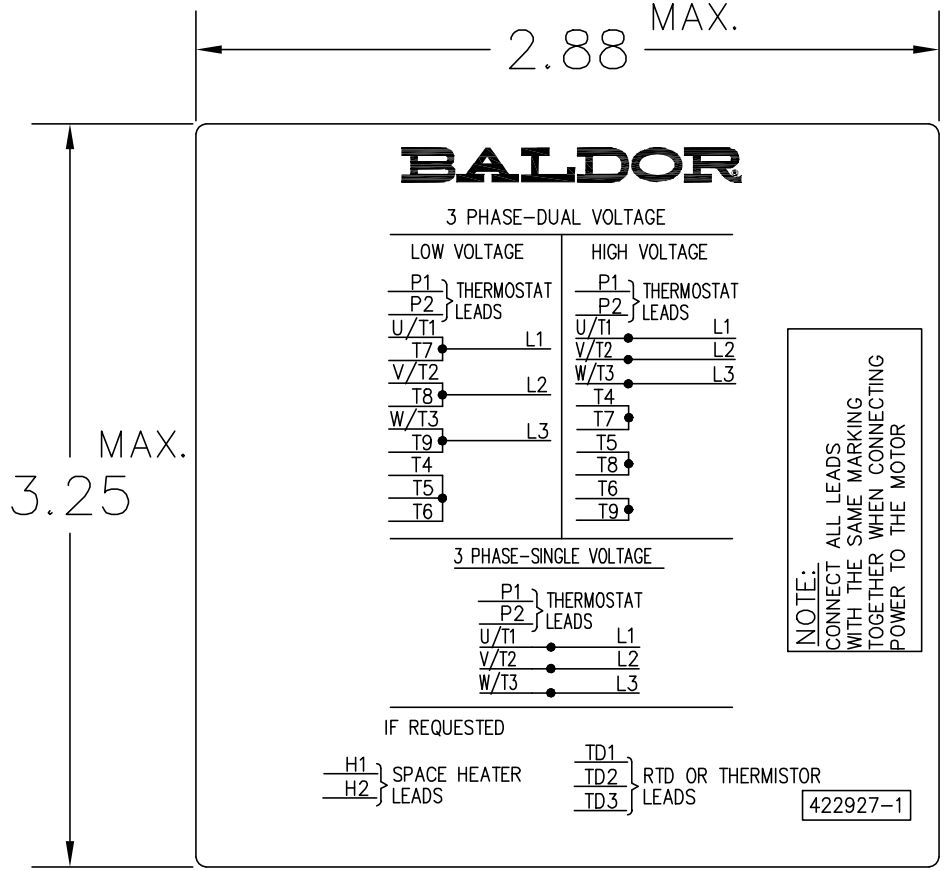
BALDOR - RELIANCE®

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