ABB BALDOR RELIANCE

Customer information packet

IDDRPM25506

50HP, 1150, 460V, RL2570, DPFV, F1

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Specifications

Enclosure	DPFV
Frame	RL2570Z
Frame Material	Exposed Laminations
Frequency	40.00 Hz
Output @ Frequency	50.000 HP @ 40 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 40 HZ
Voltage @ Frequency	460.0 V @ 40 HZ
Agency Approvals	CCSA US
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Current @ Voltage	64.000 A @ 460.0 V
Duty Rating	CONT
Feedback Device	NO FEEDBACK
Frame Prefix	RL
Heater Indicator	No Heater
High Voltage Full Load Amps	64.0 a
Insulation Class	H
IP Rating	NONE
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	25.64 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	1140 rpm
Starting Method	Full Voltage

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	L0191A
Layout	617214-051
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	1140	64	460	40
CONT	50	1300	64	460	45.6

CAT.NO.	IDDRPM25506		**SPEC. NO.**	R25-A000-0361			
SER.NO		**FR**	RL2570Z	**INSUL**	H		
PH.	3	**MAX SAFE SPEED**	5000	**AMB.**	40	**MIN. AMB.**	-25
DESIGN NO.	L0191A	**TYPE**		**ENCL.**	DPG-FV		
S.F.	1.00	**D.E. BRG.**	65BC03JPP30A				
ENCL MOD		**O.D.E. BRG.**	50BC03JPP30A				
	IP23						

Parts List

Part number	Description	Quantity
WS392808	WS R25-A000-0361	1.000 ea
RA389339	RA R25-A000-0361	1.000 ea
033775004EA	DRSCR #6-1/4 304 S.S.	4.000 ea
000613006MY	NP-RPMAC INVERTER DUTY	1.000 ea
LB1613	LABEL, QR CODE, ADHESIVE LABEL	1.000 ea
000692000XM	LABEL QR CODE	1.000 ea
422927001	C/D LABEL	1.000 ea
807528203CCB	BRKT,ODE,RL250,DPFV *NO NOT SALE*	1.000 ea
807528202EAE	BRKT,DE,RL250,DPFV	1.000 ea
BP5068BJ01	BRUSH, .187 X .187 X 1.00	2.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
400638001H	SPRING WASHER (Customer number 43699)	1.000 ea
036000016DB	HHCS	4.000 ea
036100080KA	M10-1.50X 80MM HXSOCHDCS	3.000 ea
036140001C	EYEBOLT - 400	2.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
036500010AB	METRIC NUT M10-1.5PLTD400	4.000 ea
609830005ACH	STUD FRAME .375X13 LG	4.000 ea
BP5248	BP5248	2.000 ea
610490001AH	.75HP,3450//2850RPM,3PH,60//50HZ,56C,351	1.000 ea
415000103D	T/LUG #4AWG-1/0AWG W/HOLE FOR .250 BOLT	1.000 ea
036000012JB	M8-1.25 X 12MM HXHDC	3.000 ea
611965001A	WHEEL, BLOWER	1.000 ea
706310640B	BACKPLATE GASKET C/BOX 706310-637	1.000 ea
417733004AC	GASK C/BOX	1.000 ea
611917002A	GASKT	1.000 ea
609843001AG	GASKET HANDHOLD COVER	1.000 ea
036000020HB	HHCS M6-1.0X20MM PLATED	8.000 ea
032018008CK	HHCS 3/8-16X1L PLATED	4.000 ea
000613006NT	NAME PLATE IEC	1.000 ea

418057256F	HHCS M6 12MM ZINCPLAT	1.000 ea
036600009AB	METRIC FLWASH M8 PLATED	3.000 ea
032018004DK	HHCS,DRIP COVER	4.000 ea
418018074A	GROUND LABEL G100 METRIC 160 D.C.	1.000 ea
708528004G	HOUSING, BLOWER	1.000 ea
610409128A	ADAPTER, BLOWER	1.000 ea
410978010C	FLANGE, INLET BLOWER HSG.	1.000 ea
410978019A	SCREEN, INLET FLANGE	1.000 ea
036321020HB	HEXSOCKET FLAT SCREW M	4.000 ea
036620009AB	M8 EXTERNAL LK WASHER	1.000 ea
034017014AB	LCKW 3/8 STD. PLATED	4.000 ea
036000012JB	M8-1.25 X 12MM HXHDC	4.000 ea
706310638A	BACK PLATE FOR 706310-637 WITH 3.12" BOL	1.000 ea
422919352	HHCVR KIT,RL250,DE LOUVERED	1.000 ea
422919352	HHCVR KIT,RL250,DE LOUVERED	1.000 ea
423709011A	WASHER	8.000 ea
706310637A	C/BOX, MILL, RPMAC,9X9X4, 375IN^3	1.000 ea
706310641A	LIPPED CBOX LID FOR 706310-642	1.000 ea
706310640A	LID GASKET C/BOX 706310-637	1.000 ea
036010012HB	HHCS T/BOX BRACE	16.000 ea
036000012HB	HHCS M6X12MM LONG PLATED	4.000 ea
706305301A	GUARD, SHAFT	1.000 ea
034180024GA	KEY 1/2X1/2X3 L	1.000 ea
000640000P	TAG WINDING THERMOST	1.000 ea
004824007CQR	C2 PAINT SYSTEM MEDIUM GRAY CHARCOAL MET	0.100 ea
418018116	WARNING PLATE	1.000 ea
LB1549	LABEL, BLANK 1.375 X 2.250 IMPRINTABLE	1.000 ea
004824007AB	PAINT,XT	0.100 ea

REL S.O.	–	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	RL2570	AMPS	63.34	MAX SAFE RPM	5000	(AT BASE RATING, 25 °C)			
HP	50	DUTY	CONT	IM (AMPS)	19.4	R1	.172	X1	.628
BASE SPEED	1140	S.F.	1.0	P.F.@NL/FL	.070/.871	R2	.130	X2	.569
PHASE/HERTZ	3/40	AMB °C/INSUL	40/H	WK^2 ($Lb-Ft^2$)	3.84			XM	14.1

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1147	50.0	229	460	40	63.2
MAX SPEED	1306	50.0	201	460	45.6	62.6
MIN SPEED	0	0	229	33.8	1.78	63.2

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1200	0	0	460	40	19.2
1/4	1189	12.5	55	460	40	24.1
1/2	1177	25.0	112	460	40	34.3
3/4	1163	37.5	169	460	40	47.5
FULL LOAD	1147	50.0	229	460	40	63.2
O/L	1102	72.1	343	460	40	101

REMARKS: TYPICAL DATA
CORRELATED DATA

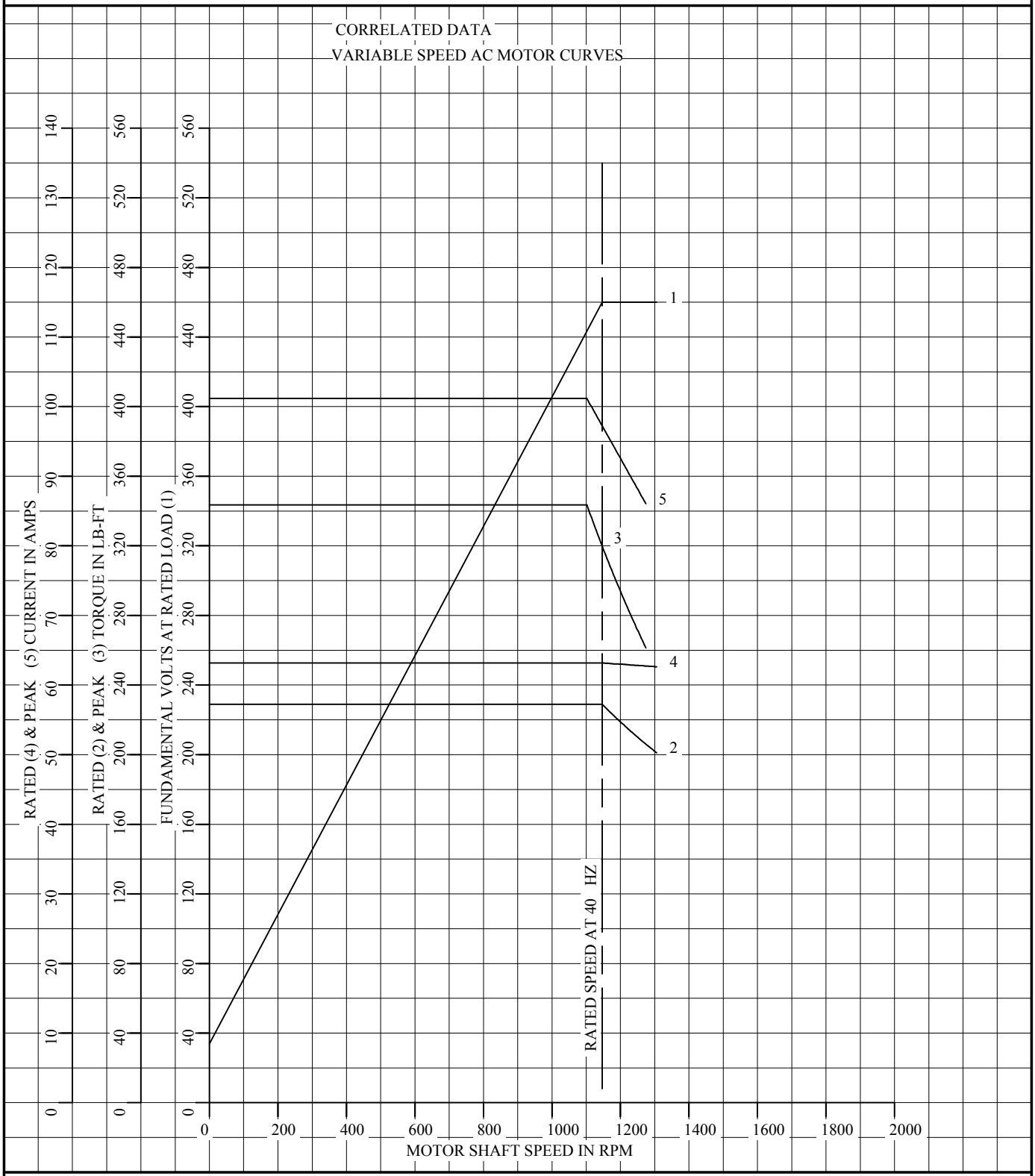
BALDOR A MEMBER OF THE ABB GROUP

DR. BY B. GRANT
CK. BY B. GRANT
APP. BY T. EVON
DATE 3-7-05

A-C MOTOR PERFORMANCE DATA L0191A
ISSUE DATE 3-7-05

C/R 383520

REL S.O.	-	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	RL2570	AMPS	63.34	MAX SAFE RPM	5000	(AT BASE RATING, 25 ℃)	
HP	50	DUTY	CONT	IM (AMPS)	19.4	R1 .172	X1 .628
BASE SPEED	1140	S.F.	1.0	P.F.@NL/FL	.070/.871	R2 .130	X2 .569
PHASE/HERTZ	3/40	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	3.84		XM 14.1



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

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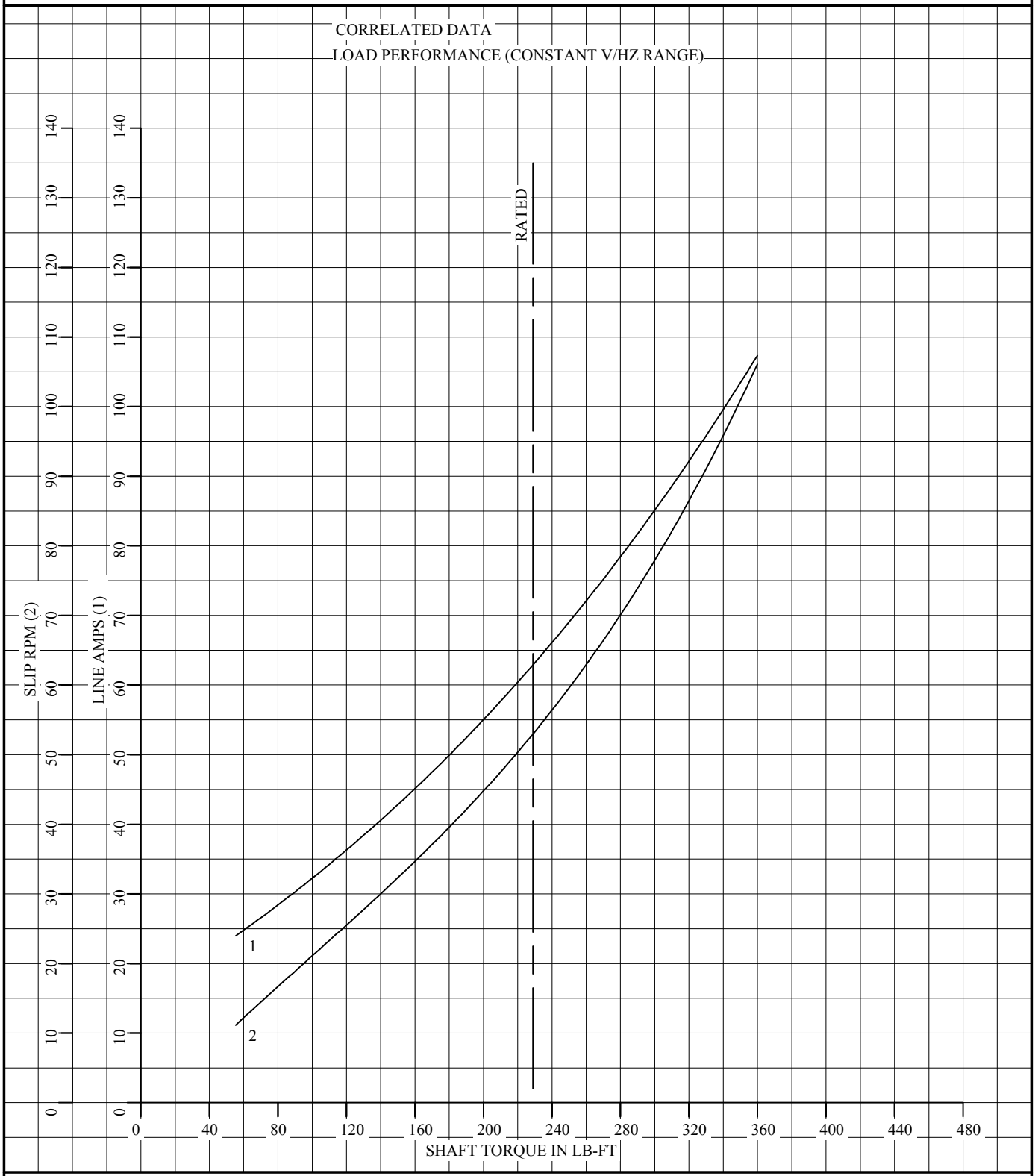
DR. BY	B. GRANT
CK. BY	B. GRANT
APP. BY	T. EVON
DATE	3-7-05

A-C MOTOR PERFORMANCE CURVES

L0191A
SH 1 OF 2
ISSUE DATE 3-7-05

C/R 383520

REL S.O.	-	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	RL2570	AMPS	63.34	MAX SAFE RPM	5000	(AT BASE RATING, 25 ℃)	
HP	50	DUTY	CONT	IM (AMPS)	19.4	R1 .172	X1 .628
BASE SPEED	1140	S.F.	1.0	P.F.@NL/FL	.070/.871	R2 .130	X2 .569
PHASE/HERTZ	3/40	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	3.84		XM 14.1



REMARKS: TYPICAL DATA
DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

BALDOR
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DR. BY	B. GRANT
CK. BY	B. GRANT
APP. BY	T. EVON
DATE	3-7-05

A-C MOTOR PERFORMANCE CURVES

L0191A
SH 2 OF 2
ISSUE DATE 3-7-05

C/R 383520

RPMAC VARIABLE SPEED ALTERNATING CURRENT MOTOR
RL & URL2570Z

617214-051

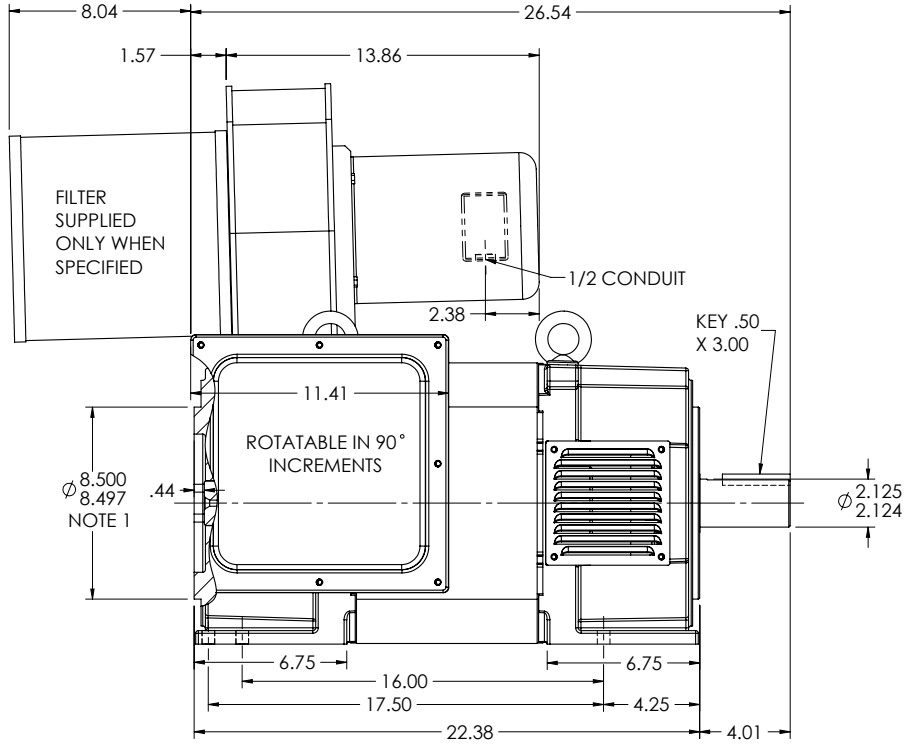
ENCLOSURE: DRIP PROOF

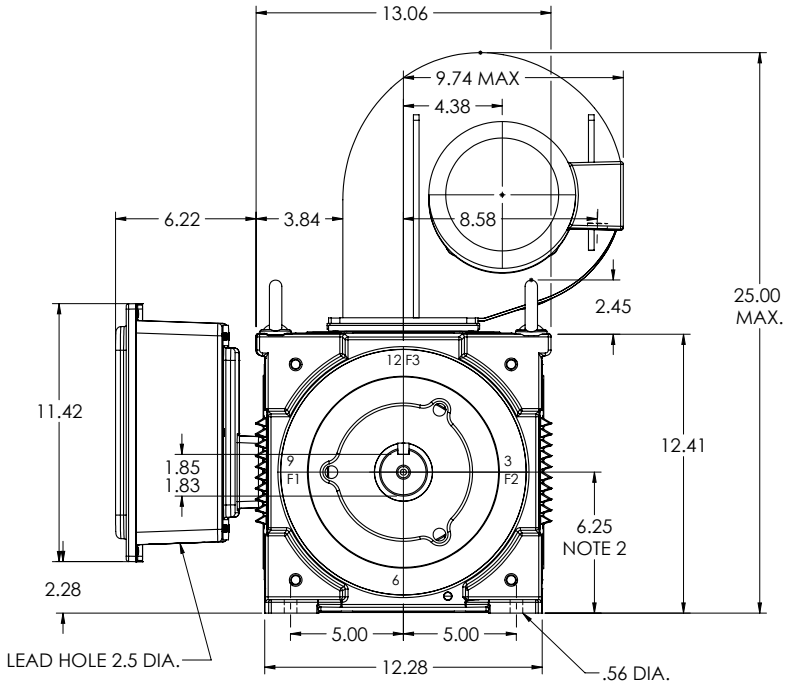
MOUNTING: FOOT

DRIVE METHOD: COUPLED OR BELTED

COOLING: FORCE VENTILATED

ACCESSORIES: PROVISIONS FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED





NOTE 1 TACHOMETER MOUNTING
1.2-13 TAP .88 DEEP, ON A 7.25 DIA. 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 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.

235 AMP MILL TERMINAL BOX SHOWN

MOTOR WEIGHT 480 LBS. (MAY VARY 15%)

DIMENSIONS ARE IN INCHES SCALE 1:1

REV. DESC: REMOVE "SLOT" NOTE FROM O.D.E. FOOT			
REV: A	VERSION: 01	REVISED: 09:04:21 02/14/2023	TDR: 000001204130
MODEL NO. 617214-051			
BY: USWATUR			B

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DIM SHT RPMAC DPFV RL & URL2570Z F1 MILL BOX

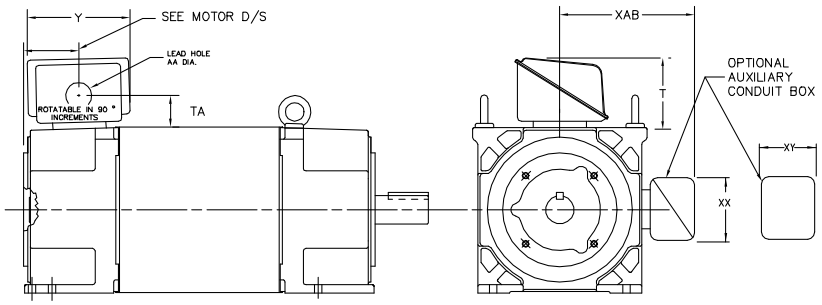
617214-051

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' DIN -5A or 1' TAP DIN -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.

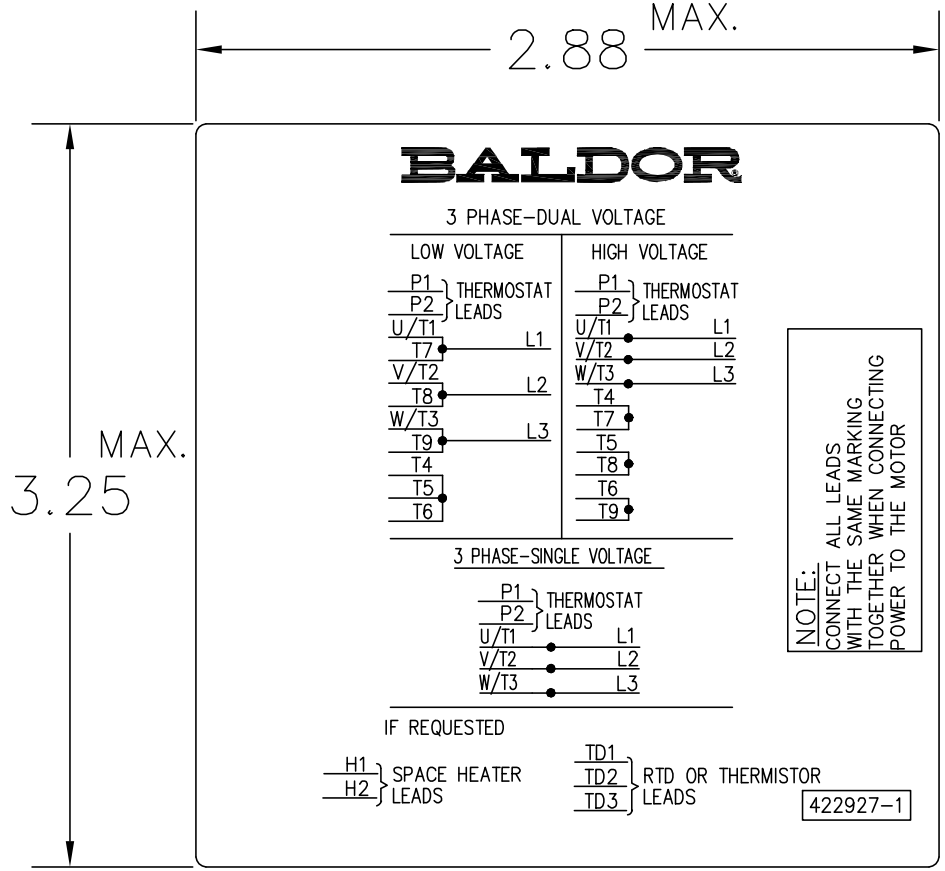
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REV. DESC: ADD 706310-637 & 639 BOX		TDR: 00000118O260
REV. LTR: F	VERSION: 06	
FILE: \RGV\00003\692	REVISED: 11:08:56 10/26/2021	BY: RGGRWM
MTL: -		

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