ABB BALDOR RELIANCE

Customer information packet

IDDRPM406004

600HP, 1780RPM, 3PH, NAHZ, L4046, DPG-FV, FOOT

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Specifications

Enclosure	DPFV
Frame	L4046
Frame Material	Exposed Laminations
Phase	3
Agency Approvals	CCSA US
	UR
Auxiliary Box	NO AUXILLARY BOX
Base Indicator	RG
Bearing Grease Type	Polyrex EM (-20F +300F)
Enclosure Modification	FORCE VENT
Feedback Device	NO FEEDBACK
Frame Prefix	L
Heater Indicator	No Heater
Motor Standards	NEMA
Mounting Arrangement	F1
Overall Length	59.88 IN
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Service Factor	1.00
Shaft Ground Indicator	Shaft Grounding
Shaft Rotation	Reversible
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Part Detail

Revision	A
Type	AC
Mech. spec.	
Base	
Status	INA/A
Elec. spec.	L0972A
Layout	609998-001
Eff. date	06-20-2016
CD Diagram	422927-001
Poles	04
Leads	
Proprietary	False
Created date	04-09-2015

Nameplate

000613006MY

DUTY	HP	RPM	AMPS	VOLTS	HZ
CONT	600	1780	666	460	60
CONT	600	2300	656	460	77.6
CONT	600	3000	666	460	101.3

CAT.NO.		**SPEC. NO.**	P40L1316				
SER.NO		**FR**	L 4046	**INSUL**	H		
PH.	3	**MAX SAFE SPEED**	3750	**AMB.**	40	**MIN. AMB.**	-25
DESIGN NO.	L0972A	**TYPE**		**ENCL.**	DP		
S.F.	1.00	**D.E. BRG.**	6219/C3VL0241				
ENCL MOD	FORCE VENT	**O.D.E. BRG.**	6316 C3VL0241				

REL S.O.	–	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	RL4046	AMPS	666.06	MAX SAFE RPM	3750	(AT BASE RATING, 25 °C)			
HP	600	DUTY	CONT	IM (AMPS)	177.51	R1	.00427	X1	.0423
BASE SPEED	1780	S.F.	1.0	P.F.@NL/FL	.039/.899	R2	.00323	X2	.0455
PHASE/HERTZ	3/60	AMB °C/INSUL	40/H	WK^2 ($Lb-Ft^2$)	85			XM	1.53

RATED FULL LOAD DATA

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
BASE SPEED	1779	600	1772	460	60	666
MAX SPEED	3000	600	1051	460	101.3	674
MIN SPEED	0	0	0	8.80	.7011	666

LOAD PERFORMANCE AT BASE SPEED

	RPM	HP	TORQUE LB-FT	FUND VOLTS	FREQ-HZ	AMPS
NO LOAD	1800	0	0	460	60	174
1/4	1795	152	445	460	60	241
1/2	1790	304	892	460	60	368
3/4	1784	455	1340	460	60	515
FULL LOAD	1779	600	1772	460	60	666
O/L	1766	894	2658	460	60	1004

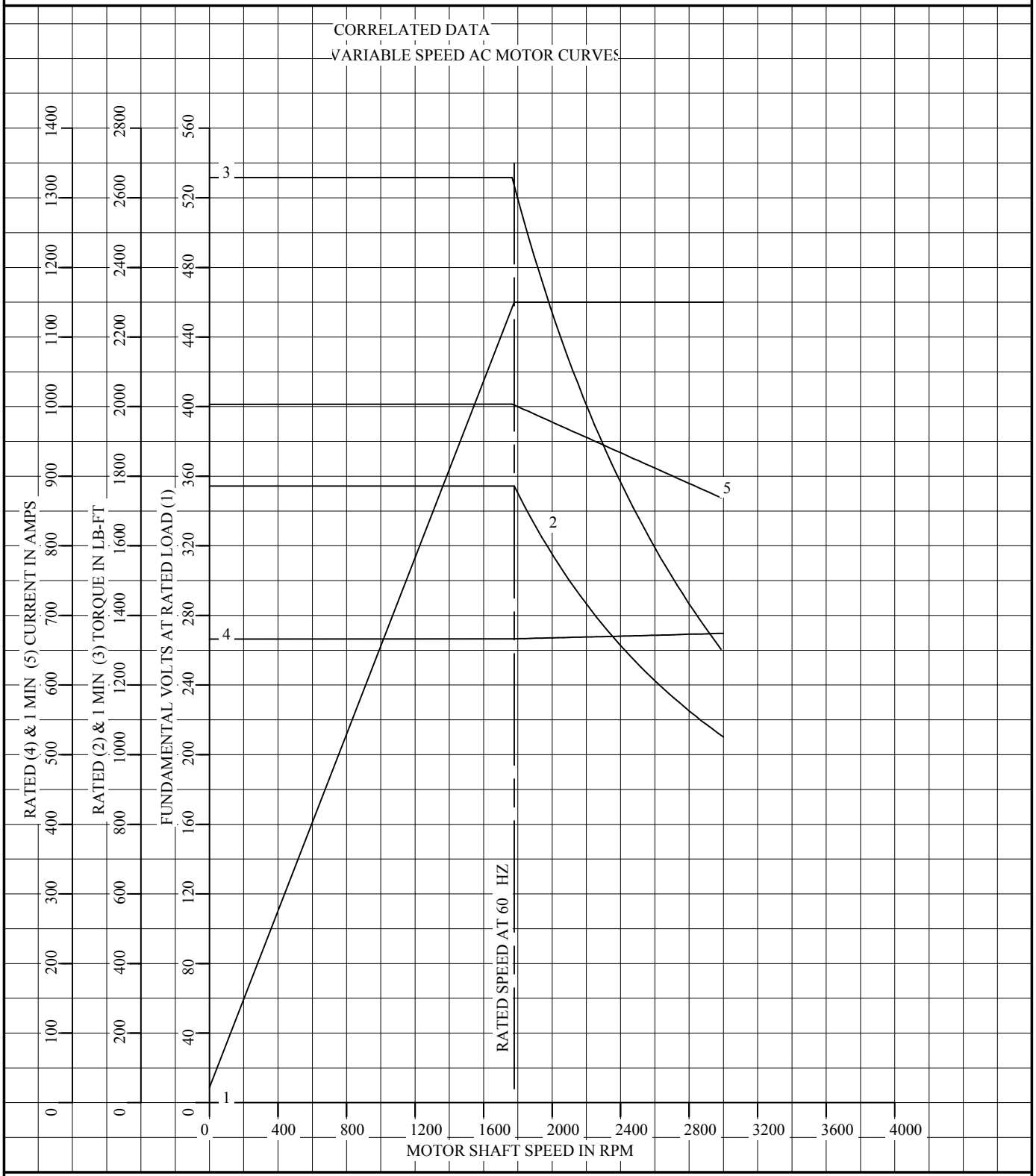
REMARKS: CORRELATED DATA

BALDOR A MEMBER OF THE ABB GROUP

DR. BY M. MANEY
CK. BY M. MANEY
APP. BY T. EVON
DATE 6/26/97

A-C MOTOR PERFORMANCE DATA L0972A
ISSUE DATE 8-26-15

REL S.O.	-	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	RL4046	AMPS	666.06	MAX SAFE RPM	3750	(AT BASE RATING, 25 ℃)	
HP	600	DUTY	CONT	IM (AMPS)	177.51	R1 .00427	X1 .0423
BASE SPEED	1780	S.F.	1.0	P.F.@NL/FL	.039/.899	R2 .00323	X2 .0455
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	85		XM 1.53



REMARKS:

DATA VALID FOR NAMEPLATE SPEED RANGE ONLY

BALDOR
A MEMBER OF THE ABB GROUP

DR. BY	M. MANEY
CK. BY	M. MANEY
APP. BY	T. EVON
DATE	6/26/97

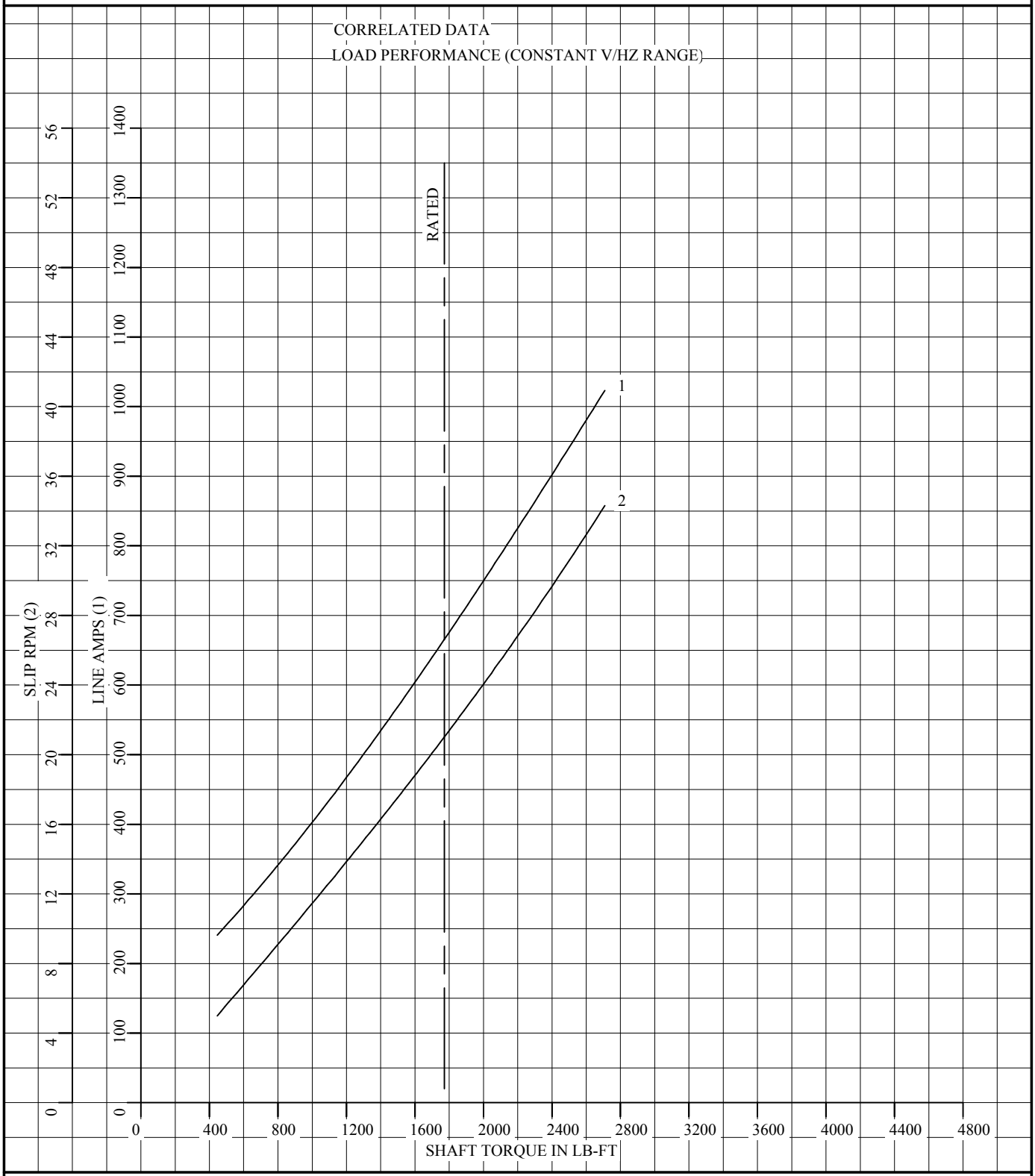
A-C MOTOR PERFORMANCE CURVES

L0972A

SH 1 OF 2

ISSUE DATE 8-26-15

REL S.O.	-	VOLTS	460	ENCLOSURE	DPFV	WYE CONN EQ CKT OHMS PER PHASE	
FRAME	RL4046	AMPS	666.06	MAX SAFE RPM	3750	(AT BASE RATING, 25 ℃)	
HP	600	DUTY	CONT	IM (AMPS)	177.51	R1 .00427	X1 .0423
BASE SPEED	1780	S.F.	1.0	P.F.@NL/FL	.039/.899	R2 .00323	X2 .0455
PHASE/HERTZ	3/60	AMB ℃/INSUL	40/H	WK^2 (Lb-Ft^2)	85		XM 1.53



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CK. BY	M. MANEY
APP. BY	T. EVON
DATE	6/26/97

A-C MOTOR PERFORMANCE CURVES

L0972A

SH 2 OF 2

ISSUE DATE 8-26-15

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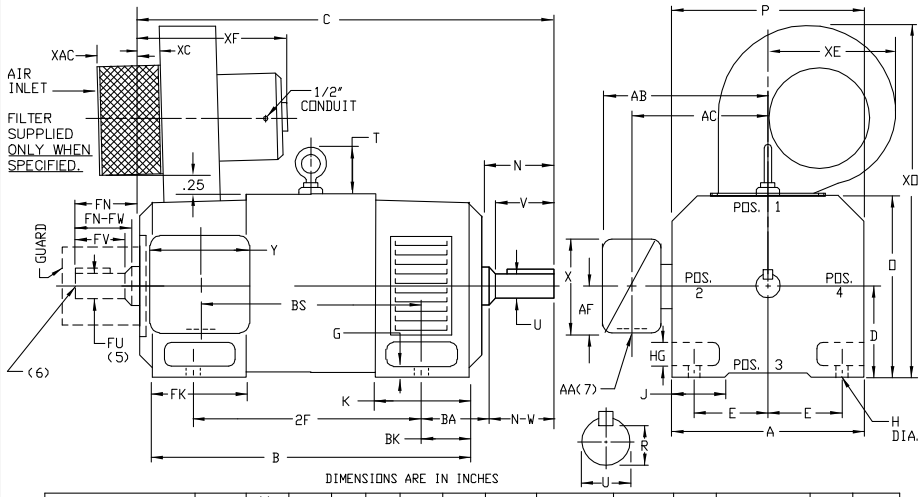
VARIABLE SPEED ALTERNATING CURRENT MOTORS
RPM AC

ENCLOSURE: DRIP–PROOF FULLY–GUARDED
MOUNTING:FOOT

COOLING: FORCE VENTILATED WITH INTEGRAL BLOWER AND MOTOR

ACCESSORIES: PROVISION FOR TACHOMETER MOUNTING ONLY WHEN SPECIFIED

FRAMES L3292Z THRU UL4046Z

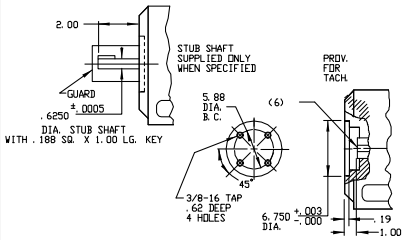


DIMENSIONS ARE IN INCHES

FRAME	A	D(1)	E	G	H	HG	J	O	P	BA	K	FK	BK	T
L3292Z – L3203Z	15.50	8.00	6.25	.75	.69	2.25	3.00	15.81	15.62	5.25	6.75	7.94	4.00	2.38
AL3698Z – UL3614Z	17.50	9.00	7.00	.88	.81	2.62	3.50	17.81	17.62	5.88	7.25	8.56	4.62	2.38
AL4022Z – UL4046Z	19.38	10.00	8.00	1.06	1.06	2.82	3.50	19.81	19.56	6.62	8.75	12.12	5.25	2.38

FRAME	METHOD OF DRIVE	C	B	BS	2F	DRIVE END SHAFT AND KEY							OPPOSITE DRIVE END SHAFT AND KEY(5)							WT. LBS.
						N	N–W	U(2)	V	R(3)	SQ.	LGTH.	FN	FN–FW	FU(2)	FV	FR(3)	SQ.	LGTH.	
L3292Z	(4)	36.63	28.69	20.06	23.00	5.50	5.25	2.625	5.00	2.275	.625	4.00	4.50	4.25	2.375	4.50	2.021	.625	3.25	925
L3203Z	(4)	39.38	31.44	22.81	25.75	5.50	5.25	2.625	5.00	2.275	.625	4.00	4.75	4.50	2.375	4.50	2.021	.625	3.25	1000
AL3698Z	COUPLED	41.00	32.56	22.94	24.50	6.00	5.75	2.875	5.50	2.450	.750	4.25	6.00	5.75	2.500	5.50	2.148	.625	4.25	1395
L3698Z	COUPLED	41.00	32.56	22.94	24.50	6.00	5.75	2.875	5.50	2.450	.750	4.25	6.00	5.75	2.875	5.50	2.450	.750	4.25	1395
UL3698Z	BELTED	41.75	32.56	22.94	24.50	6.75	6.50	3.250	6.25	2.831	.750	5.00	6.00	5.75	2.875	5.50	2.450	.750	4.25	1400
AL3614Z	COUPLED	45.00	36.56	26.94	28.50	6.00	5.75	2.875	5.50	2.450	.750	4.25	6.00	5.75	2.500	5.50	2.148	.625	4.25	1715
L3614Z	COUPLED	45.00	36.56	26.94	28.50	6.00	5.75	2.875	5.50	2.450	.750	4.25	6.00	5.75	2.875	5.50	2.450	.750	4.25	1715
UL3614Z	BELTED	45.75	36.56	26.94	28.50	6.75	6.50	3.250	6.25	2.831	.750	5.00	6.00	5.75	2.875	5.50	2.450	.750	4.25	1720
AL4022Z, L4022Z	COUPLED	49.00	38.94	25.88	30.50	7.62	7.25	3.625	7.00	3.134	.875	5.75	6.00	5.75	2.875	5.50	2.450	.750	5.50	1900
UL4022Z	BELTED	50.00	38.94	25.88	30.50	8.62	8.25	4.125	8.00	3.563	1.00	6.50	6.00	5.75	2.875	5.50	2.450	.750	5.50	1950
AL4034Z, L4034Z	COUPLED	52.00	41.94	28.88	33.50	7.62	7.25	3.625	7.00	3.134	.875	5.75	6.00	5.75	2.875	5.50	2.450	.750	5.50	2000
UL4034Z	BELTED	53.00	41.94	28.88	33.50	8.62	8.25	4.125	8.00	3.563	1.00	6.50	6.00	5.75	2.875	5.50	2.450	.750	5.50	2050
AL4046Z, L4046Z	COUPLED	55.00	44.94	31.88	36.50	7.62	7.25	3.625	7.00	3.134	.875	5.75	6.00	5.75	2.875	5.50	2.450	.750	5.50	2000
UL4046Z	BELTED	56.00	44.94	31.88	36.50	8.62	8.25	4.125	8.00	3.563	1.00	6.50	6.00	5.75	2.875	5.50	2.450	.750	5.50	2050

FRAME	XAC	XC	XE	XF	XO
L3292Z–L3203Z	6.75	3.25	8.50	19.25	28.00
AL3698Z–UL3614Z	6.50	3.75	11.00	20.38	32.00
AL4034Z–UL4046Z	4.88	6.88	10.50	23.50	34.00



(1) 'D' DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .06 INCHES IN THICKNESS ARE USUALLY REQUIRED FOR COUPLED OR GEARED MACHINES.
(2) 'U'&'FU' VARY----+.000 -.001
(3) 'R'&'FR' VARY----+.000 -.015
(4) METHOD OF DRIVE: COUPLED OR BELTED
(5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
(6) MOTOR SHAFT TAPPED FOR SCREW-IN STUB SHAFT
(7) TERMINAL BOX VARIES FOR DIMENSIONS 'AA','AB','AC','AF','X', AND 'Y', REFER TO BOX D/S (STD 609979 – 1, X/P 609979 – 9, MILL 609979 – 10).

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.
BLOWER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2, OR 4, EXCEPT BLOWER ASSEMBLY AND TERMINAL BOX CAN NOT BE LOCATED AT THE SAME POSITION.

MOTOR WEIGHT MAY VARY 15% FOR NON–STANDARD RATINGS AND/OR ACCESSORIES.
IF MOUNTING CLEARANCE DETAILS ARE REQUIRED, CONSULT FACTORY.

FRAME– _____ TYPE– _____ TERMINAL BOX– _____ TACH– _____ BLOWER MOTOR VOLTS– _____ CERTIFIED FOR– _____

ORDER– _____ ITEM _____ HP– _____ RPM– _____ PH– _____ HZ– _____ VOLTS _____

SALES ORDER– _____ APPROVED BY– _____ DATE– _____

100–866609

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

BALDOR

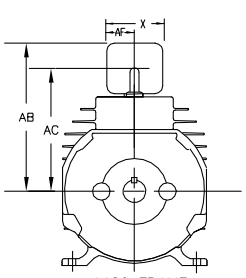
REV. DESC: ADD FRAMES AL4022Z, L4022Z & UL4022Z		TDR: 000000931162	DIM SHT L3292Z THRU UL4046Z RPM AC DPFV INT BLWR & MTR
REV. LTR: A	VERSION: 01		SH 1 of 1
FILE: \RGV\00003\663	REVISED: 11:41:50 06/22/2015	BY: RGGWT	
MTL: –			

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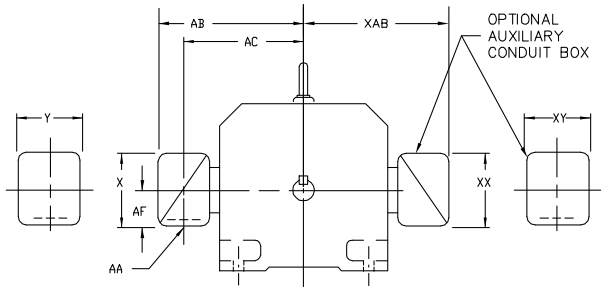
RPM AC INDUSTRIAL ALTERNATING CURRENT MOTORS

STEEL, CAST IRON, MILL AND TERMINAL BOARD CONDUIT BOX DIMENSIONS

NEMA FRAMES L180 thru L440 and IEC FRAMES DL112 thru DL280



L180 FRAME
TERMINAL BOX ONLY AVAILABLE ON TOP



L210 THRU L440

DIMENSIONS ARE IN INCHES (mm)

STEEL TERMINAL BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	MAX. AMPS	STANDARD SIZE AA(1)	AB	AC	AF	X	Y	PART NUMBER
L180	40	1.38	8.62	6.94	2.25	4.50	5.00	706320-3-A
L180	75	2	9.38	7.50	2.81	5.62	6.12	706320-5-A
L210	160	2	12.75	9.19	4.25	8.44	7.25	706320-9-A & D
L210	305	4	14.62	10.50	5.38	10.56	9.00	706320-16-A & D
L210	500	5	18.38	13.25	6.50	12.10	14.62	702658-1-C
L250	160	2	13.75	10.25	4.25	8.44	7.25	706320-9-A & D
L250	305	4	15.75	11.56	5.38	10.56	9.00	706320-16-A & D
L250	500	5	19.50	14.31	6.50	12.10	14.62	702658-1-C
L280	160	2	14.00	10.44	4.25	8.44	7.25	706320-9-A & D
L280	305	4	15.88	11.75	5.38	10.56	9.00	706320-16-A & D
L280	500	5	19.62	14.50	6.50	12.10	14.62	702658-1-C
L320	160	2	15.38	11.81	4.25	8.44	7.25	706320-9-A & D
L320	305	4	17.25	13.12	5.38	10.56	9.00	706320-16-A & D
L320	500	5	21.00	15.88	6.50	12.10	14.62	702658-1-C
L360	160	2	16.38	12.81	4.25	8.44	7.25	706320-9-A & D
L360	305	4	18.25	14.12	5.38	10.56	9.00	706320-16-A & D
L360	500	5	22.00	16.88	6.50	12.10	14.62	702658-1-C

CAST IRON TERMINAL BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	MAX. AMPS	STANDARD SIZE AA(2)	AB	AC	AF	X	Y	PART NUMBER
L180	60	1	9.38	7.50	2.50	5.00	5.75	706320-4-C
L210	140	3	14.25	10.50	3.62	8.00	9.25	706320-12-B
L210	210	4	15.62	11.38	4.12	9.50	10.50	706320-13-A
L210	510	5	18.50	13.25	7.00	12.75	15.00	706320-14-D
L250	140	3	15.38	11.50	3.62	8.00	9.25	706320-12-B
L250	210	4	16.62	12.44	4.12	9.50	10.50	706320-13-A
L250	510	5	19.62	14.31	7.00	12.75	15.00	706320-14-D
L280	140	3	15.50	11.75	3.62	8.00	9.25	706320-12-B
L280	210	4	16.88	12.62	4.12	9.50	10.50	706320-13-A
L280	510	5	19.75	14.50	7.00	12.75	15.00	706320-14-D
L320	140	3	15.75	12.00	3.62	8.00	9.25	706320-12-B
L320	210	4	17.12	12.88	4.12	9.50	10.50	706320-13-A
L320	510	5	21.12	15.88	7.00	12.75	15.00	706320-14-D
L360	140	3	16.75	13.00	3.62	8.00	9.25	706320-12-B
L360	210	4	18.12	13.88	4.12	9.50	10.50	706320-13-A
L360	510	5	22.12	16.88	7.00	12.75	15.00	706320-14-D

MILL CONDUIT BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	AMPS	AA	AB	AC	AF	X	Y	PART NUMBER
L210	160	(3)	10.78	8.41	3.50	8.00	8.00	706310-3-X or Y
L250	160	(3)	11.84	9.47	3.50	8.00	8.00	706310-3-X or Y
L280	160	(3)	12.75	10.75	3.50	8.00	8.00	706310-3-X or Y
	590	(3)	14.75	11.34	4.50	16.00	16.00	706310-3-R
L320	590	(3)	15.47	12.06	4.50	16.00	16.00	706310-3-R
L360	590	(3)	16.47	13.06	4.50	16.00	16.00	706310-3-R
L400	590	(3)	18.00	15.00	4.50	16.00	16.00	706310-3-R
L440	1260	(3)	27.38	19.88	6.06	18.50	18.50	706310-63-E

IEC CONDUIT BOX DIMENSIONS WITH TERMINAL BOARDS (MAXIMUM)

FRAME NEMA/IEC	AMPS	AA	AB (mm)	AC (mm)	AF (mm)	X (mm)	Y (mm)	PART NUMBER	PART NUMBER
L180/DL112	85	(4)	9.38(239)	7.50 (191)	2.81 (72)	5.62 (143)	6.12 (156)	706320-5-A or 4-C	706320-5-A or 4-C
L210/DL132	100	--	10.77 (274)	9.04 (230)	3.74 (95)	7.48 (190)	7.48 (190)	706310-56-A	706310-225-R
	160	--	11.63 (296)	9.62 (245)	4.41 (112)	8.82 (224)	8.82 (224)	706310-56-B	706310-226-R
L250/DL160	100	--	12.09 (307)	10.36 (264)	3.74 (95)	7.48 (190)	7.48 (190)	706310-56-A	706310-225-R
	160	--	12.95 (329)	10.94 (278)	4.41 (112)	8.82 (224)	8.82 (224)	706310-56-B	706310-226-R
L280/DL180	160	--	13.58 (345)	11.57 (294)	4.41(112)	8.82 (224)	8.82 (224)	706310-56-B	706310-226-R
	400	--	19.09 (485)	14.37 (365)	6.20 (158)	14.39 (366)	14.39 (366)	706310-63-B	706310-63-B
L320/DL200	800	--	20.06 (510)	17.53 (446)	6.20 (158)	14.39 (366)	14.39 (366)	706310-63-B	706310-63-B
L360/DL225	800	--	20.78 (528)	18.25 (464)	6.20 (158)	14.39 (366)	14.39 (366)	706310-63-B	706310-63-B
L400/DL250	800	--	21.75 (553)	19.25 (489)	6.20 (158)	14.39 (366)	14.39 (366)	706310-63-B	706310-63-B
L400/DL250	1260	--	25.94 (659)	18.44 (468)	6.06 (154)	18.50 (470)	18.50 (470)	706310-63-E	706310-63-E
L440/DL280	1260	--	27.38 (696)	19.88 (505)	6.06 (154)	18.50 (470)	18.50 (470)	706310-63-E	706310-63-E
L440/DL280	1300	--	30.38 (772)	21.38 (543)	12.44 (316)	24.00 (610)	24.00 (610)	706310-360-A	706310-360-A

OPTIONAL AUXILIARY CONDUIT BOX DIMENSIONS (MAXIMUM)

FRAME SIZE	XAB	XX	XY	PART NUMBER	FRAME SIZE	XAB	XX	XY	PART NUMBER
L210/DL132	7.38	4.25	4.25	602007-26-A	L210/DL132	10.88	8.00	8.00	706310-3-B
L250/DL160	8.44	4.25	4.25	602007-26-A	L250/DL160	11.88	8.00	8.00	706310-3-B
L280/DL180	9.12	4.25	4.25	602007-26-A	L280/DL180	12.62	8.00	8.00	706310-3-B
L320/DL200	10.00	4.25	4.25	602007-26-A	L320/DL200	13.50	8.00	8.00	706310-3-B
L360/DL225	11.00	4.25	4.25	602007-26-A	L360/DL225	14.50	8.00	8.00	706310-3-B
L400/DL250	12.00	4.25	4.25	602007-26-A	L400/DL250	15.50	8.00	8.00	706310-3-B
L440/DL280	13.12	4.25	4.25	602007-26-A	L440/DL280	16.62	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

CONDUIT BOX CAN BE ROTATED 360°. CONDUIT BOX MAY BE LOCATED F1,F2 OR F3 AS SPECIFIED

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

REV. DESC: ADD 1260 AMP L400, ADD 1300 AMP L440
REV. LTR: A
FILE: \RGV\00003\688
MTL: -

VERSION: 01
REVISED: 10:23:58 06/18/2013

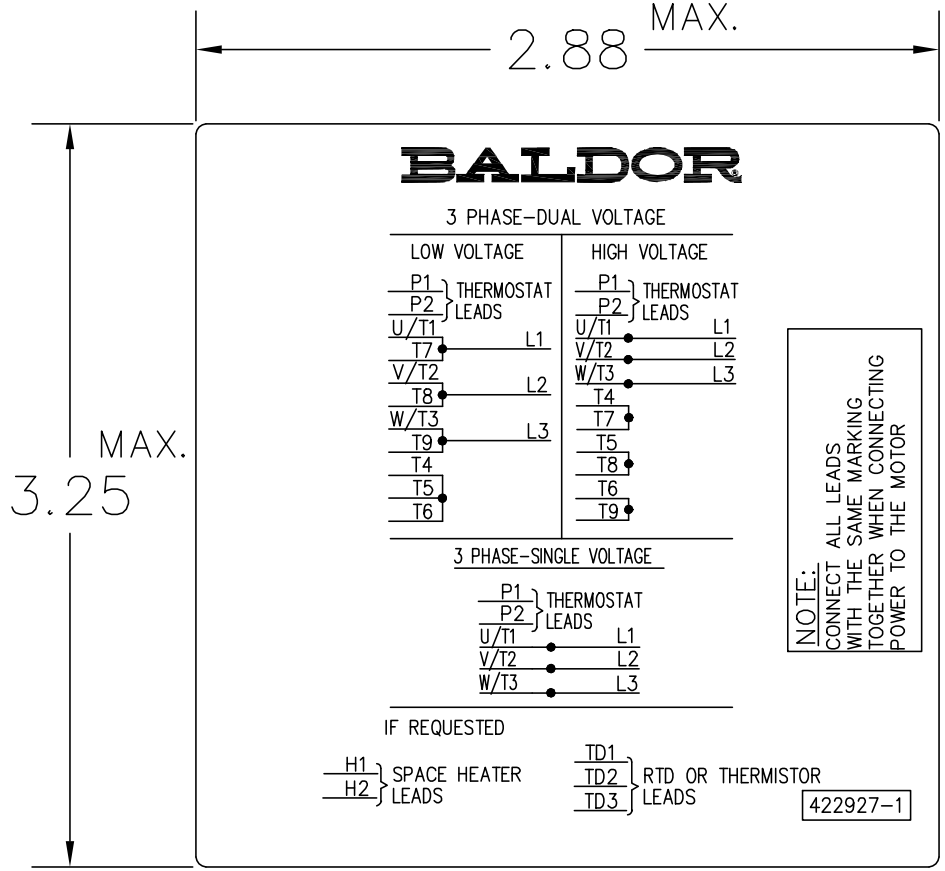
TDR: 000000804459
BY: RGGWT

BALDOR

DIM SHT NEMA L180 THRU L440 & IEC DL112 THRU DL280
SH 1 of 1

616779-001

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