

ABB BALDOR RELIANCE III

Customer information packet

IDDRPM406004

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

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



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

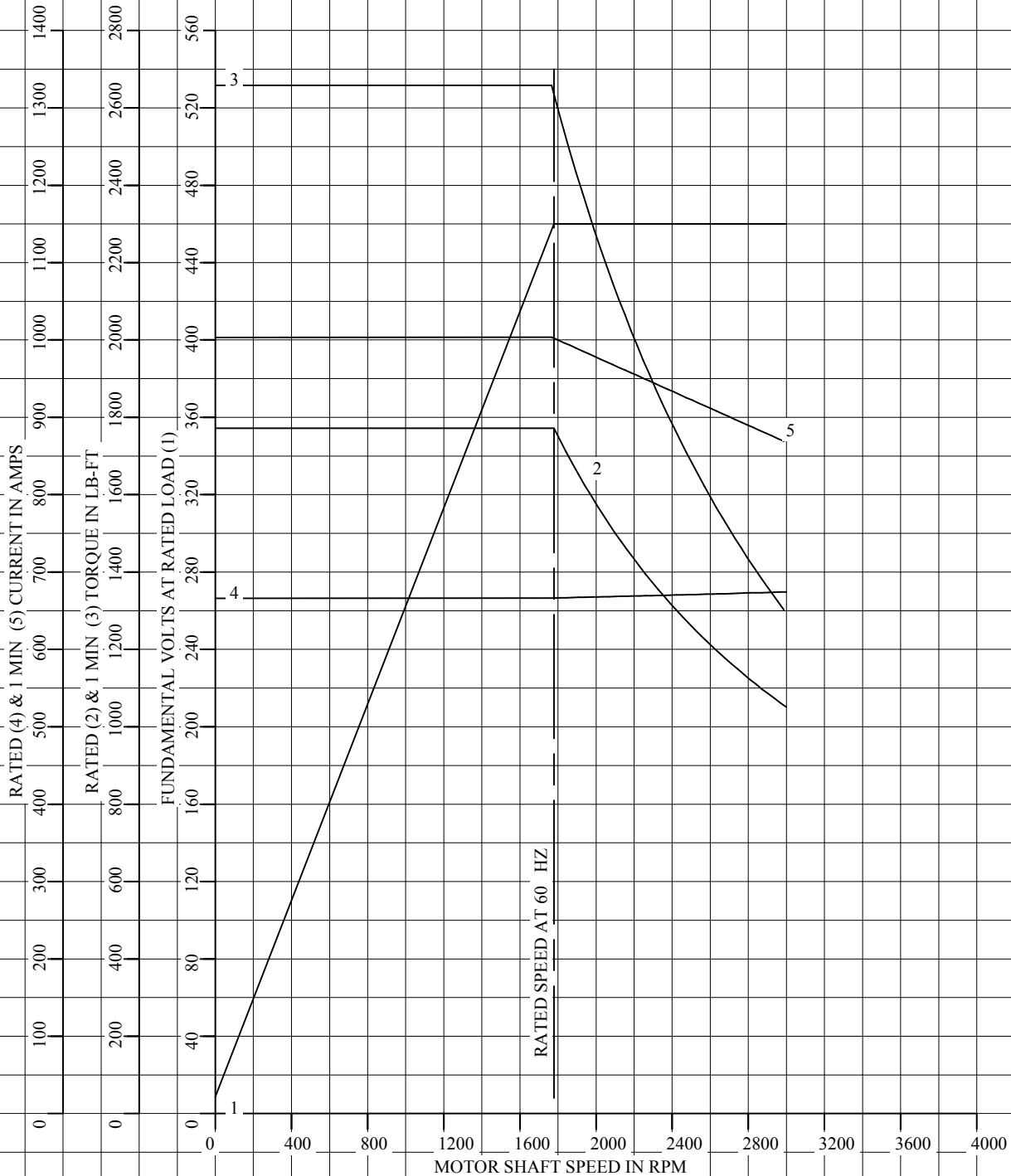
**A-C MOTOR
PERFORMANCE DATA** L0972A

ISSUE DATE 8-26-15

Page 4 of 9

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	

CORRELATED DATA
VARIABLE SPEED AC MOTOR CURVES



REMARKS:

DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



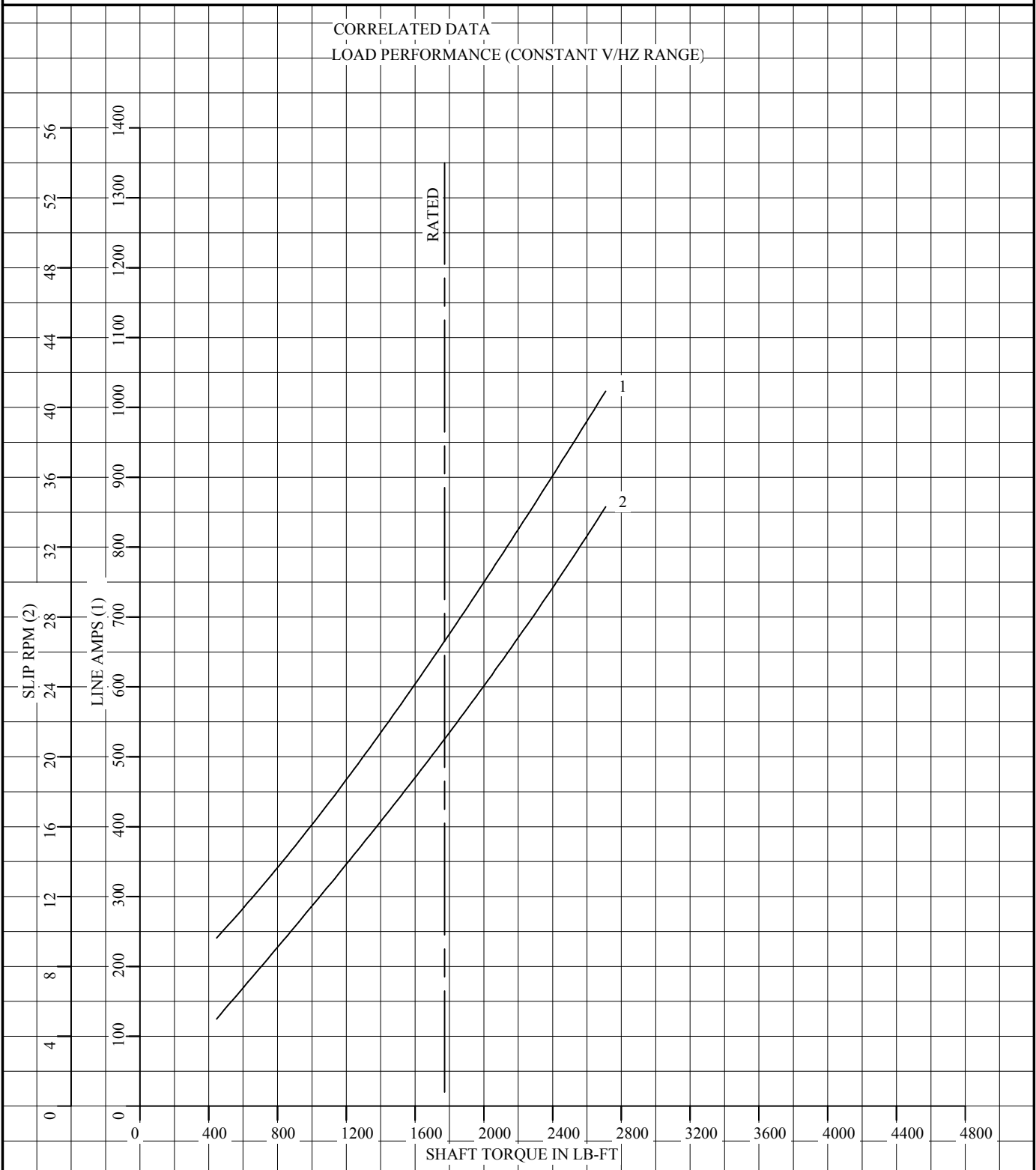
DR. BY M. MANEY
CK. BY M. MANEY
APP. BY T. EVON
DATE 6/26/97

**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 °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	

CORRELATED DATA
LOAD PERFORMANCE (CONSTANT V/HZ RANGE)



REMARKS:

DATA VALID FOR NAMEPLATE SPEED RANGE ONLY



DR. BY M. MANEY
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

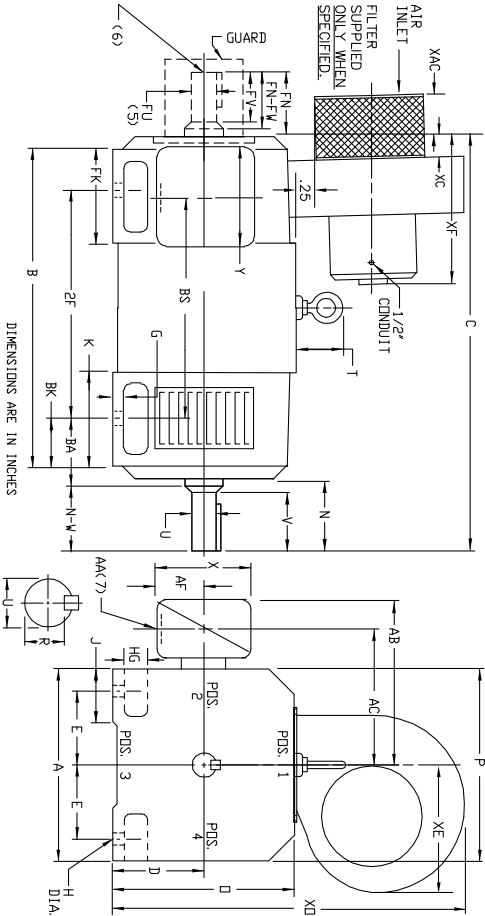
VARIABLE SPEED ALTERNATING CURRENT MOTORS
RPM AC

ENCLOSURE: DRIP-PROOF FULLY-GUARDED
MOUNTING: FOOT

COOLING: FORCE VENTILATED
WITH INTEGRAL
BLOWER AND MOTOR

ACCESSORIES: PROVISION FOR
TACHOMETER MOUNTING
ONLY WHEN SPECIFIED

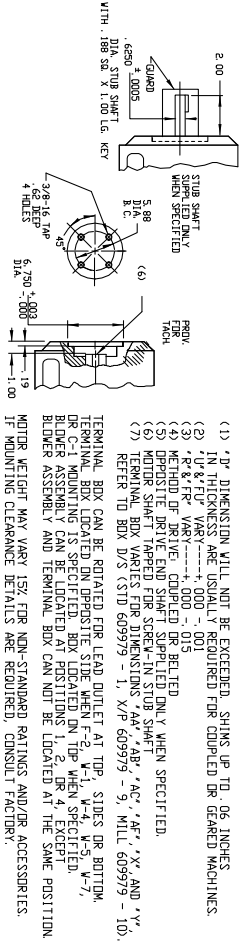
FRAMES L3292Z THRU UL4046Z



DIMENSIONS ARE IN INCHES															
FRAME	A	D(1)	E	G	H	HG	J	O	P	BA	K	FK	BK	T	
L3292Z - L4022Z	15.50	8.00	6.25	.75	.69	2.25	3.00	1.54	15.62	5.25	6.75	7.94	4.00	2.38	
AL3698Z - UL3614Z	17.50	9.00	7.00	.86	.81	2.62	3.50	1.74	17.62	5.88	7.25	8.56	4.62	2.38	
AL4022Z - UL4046Z	19.50	10.00	8.00	1.06	1.06	2.82	3.50	1.94	19.56	6.62	8.75	10.12	5.25	2.38	

FRAME	DRIVE	C	B	BS	2F	N	N-M (1/2)	V	R(3)	SQ LGTH	RN	PN-M (1/2)	R	R(3)	SQ LGTH	WT.
L3292Z	(4)	36.63	28.68	20.06	23.00	5.50	5.25	2.625	5.00	2.275	6.05	4.00	4.50	2.02	6.05	13.25
L3292Z	(4)	39.38	31.44	22.81	25.75	5.50	5.25	2.625	5.00	2.275	6.05	4.00	4.75	2.02	6.05	13.25
AL3698Z	COUPLED	41.00	32.56	22.94	24.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
UL3698Z	COUPLED	41.00	32.56	22.94	24.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
UL3698Z	BELTED	41.75	32.56	22.94	24.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
AL3614Z	COUPLED	45.00	36.56	26.94	28.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
UL3614Z	COUPLED	45.00	36.56	26.94	28.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
UL3614Z	BELTED	45.75	36.56	26.94	28.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
AL4022Z, L4022Z	COUPLED	49.00	39.94	25.88	30.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
UL4022Z	COUPLED	50.00	39.94	25.88	30.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
UL4022Z	BELTED	52.00	41.94	28.88	33.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
AL4046Z, L4046Z	COUPLED	55.00	44.94	31.88	36.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00
UL4046Z	BELTED	56.00	44.94	31.88	36.50	6.00	5.75	2.875	5.50	2.450	7.50	4.25	6.00	5.75	2.500	14.00

FRAME	YAC	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
(2) 'E' DIMENSION WILL NOT BE EXCEEDED. SHIMS UP TO .06 INCHES
(3) 'F' & 'G' VARY FROM .000 TO .015
(4) METHOD OF DRIVE: COUPLED OR BELTED
(5) OPPOSITE DRIVE END SHAFT SUPPLIED ONLY WHEN SPECIFIED.
(6) MOTOR SHAFT (ARROWED) FOR COUPLED IN STUD SHAFT
(7) REFER TO BOX DVS (SID 609979-1, X/2 609979-9, MILL 609979-10).
- TERMINAL BOX CAN BE LOCATED AT TOP, SIDE OR BOTTOM.
IF SHIMMING IS REQUIRED, SHIMS MUST BE LOCATED AT TOP.
BLINDER ASSEMBLY CAN BE LOCATED AT POSITIONS 1, 2 OR 4, EXCEPT
BLINDER 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- _____ ITEM _____ HP- _____ RPM- _____ TACH- _____ VOLTS- _____
ORDER- _____ SALES ORDER- _____ APPROVED BY- _____ DATE- _____

100-866609

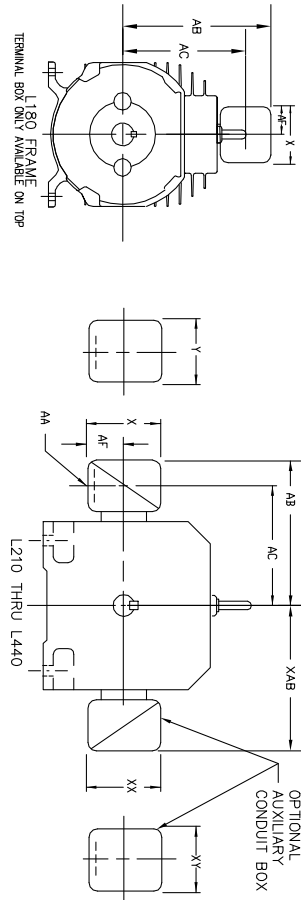
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.

REV. DESC: ADD FRAMES AL4022Z, L4022Z & UL4022Z	VERSION: 01	TDR: 000000931162
REV. LTR: A	REVISED: 11: 41: 50 06/22/2015	BY: RGGWT
FILE: \RGG\00003\663		
MTL: -		

BALDOR
DIM SHT L3292Z THRU UL4046Z RPM AC DPFV INT BLWR & MTR
SH 1 of 1

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

616779-001



DIMENSIONS ARE IN INCHES (mm)

STEEL TERMINAL BOX DIMENSIONS (MAXIMUM)										CAST IRON TERMINAL BOX DIMENSIONS (MAXIMUM)									
FRAME MAX SIZE (AMPS (A)(1))					STANDARD SIZE					FRAME MAX SIZE (AMPS (A)(2))					STANDARD SIZE				
AB	AC	AF	X	Y	AB	AC	AF	X	Y	AB	AC	AF	X	Y	AB	AC	AF	X	Y
PART NUMBER										PART NUMBER									
L180	40	1.38	8.62	6.94	2.25	4.50	5.00	706320-3-A		L180	60	1	9.38	7.50	2.50	5.00	5.75	706320-4-C	
L180	75	2	9.38	7.50	2.81	5.62	6.12	706320-5-A		L210	140	3	14.25	10.50	3.62	8.00	9.25	706320-12-B	
L210	160	2	12.75	9.19	4.25	8.44	7.25	706320-9-A & D		L210	210	4	15.62	11.38	4.12	9.50	10.50	706320-13-A	
L210	305	4	14.62	10.50	5.38	10.56	9.00	706320-16-A & D		L210	510	5	18.50	13.25	7.00	12.75	15.00	706320-14-D	
L250	500	5	18.38	13.25	6.50	12.10	14.62	706320-16-A & D		L250	140	3	15.38	11.50	3.62	8.00	9.25	706320-12-B	
L250	160	2	13.75	10.25	4.25	8.44	7.25	706320-9-A & D		L250	210	4	16.62	12.44	4.12	9.50	10.50	706320-13-A	
L250	305	4	13.75	11.56	5.38	10.56	9.00	706320-16-A & D		L250	510	5	19.62	14.31	7.00	12.75	15.00	706320-14-D	
L280	500	5	19.50	14.31	6.50	12.10	14.62	706320-16-A & D		L280	140	3	15.50	11.75	3.62	8.00	9.25	706320-12-B	
L280	160	2	14.00	10.44	4.25	8.44	7.25	706320-9-A & D		L280	210	4	16.88	12.62	4.12	9.50	10.50	706320-13-A	
L280	305	4	15.88	11.75	5.38	10.56	9.00	706320-16-A & D		L280	510	5	19.75	14.50	7.00	12.75	15.00	706320-14-D	
L320	160	2	15.38	11.81	4.25	8.44	7.25	706320-9-A & D		L320	140	3	15.75	12.00	3.62	8.00	9.25	706320-12-B	
L320	305	4	17.25	13.12	5.38	10.56	9.00	706320-16-A & D		L320	210	4	17.12	12.88	4.12	9.50	10.50	706320-13-A	
L320	500	5	21.00	15.88	6.50	12.10	14.62	706320-16-A & D		L320	510	5	21.12	15.88	7.00	12.75	15.00	706320-14-D	
L360	160	2	16.38	12.81	4.25	8.44	7.25	706320-9-A & D		L360	140	3	16.75	13.00	3.62	8.00	9.25	706320-12-B	
L360	305	4	18.25	14.12	5.38	10.56	9.00	706320-16-A & D		L360	210	4	18.12	13.88	4.12	9.50	10.50	706320-13-A	
L360	500	5	22.00	16.88	6.50	12.10	14.62	706320-16-A & D		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	590	(3)	12.75	10.75	4.50	16.00	16.00	706310-3-R	
L320	590	(3)	14.75	11.34	4.50	16.00	16.00	706310-3-R	
L360	590	(3)	15.47	12.06	4.50	16.00	16.00	706310-3-R	
L400	590	(3)	16.47	13.06	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 (A)	AA (mm)	AB (mm)	AC (mm)	AF (mm)	X (mm)	Y (mm)	PART NUMBER	
L180/DL112	85	9.38 (239)	7.50 (191)	3.74 (95)	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)	4.41 (112)	7.48 (190)	7.48 (190)	706310-5-A or 4-C	706310-5-A or 4-C	
L250/DL160	160	11.63 (296)	9.62 (245)	4.41 (112)	8.82 (224)	8.82 (224)	706310-5-B	706310-225-R	
L250/DL160	100	12.09 (307)	10.36 (264)	3.74 (95)	7.48 (190)	7.48 (190)	706310-5-B	706310-225-R	
L280/DL180	160	12.95 (329)	10.94 (278)	4.41 (112)	8.82 (224)	8.82 (224)	706310-5-B	706310-225-R	
L280/DL180	160	13.58 (345)	11.57 (294)	4.41 (112)	8.82 (224)	8.82 (224)	706310-5-B	706310-225-R	
L360/DL225	800	20.78 (528)	18.25 (464)	6.20 (158)	14.39 (366)	14.39 (366)	706310-63-B	706310-63-B	
L360/DL225	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 (469)	6.06 (154)	18.50 (470)	18.50 (470)	706310-63-E	706310-63-E	
L400/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) ** CONDUIT
(2) ** PIPE 1/4"
(3) CUSTOMER TO PROVIDE
(4) 2" DN -5A or 1" IAW DN -4C
CONDUIT BOX CAN BE ROTATED
ROTAION OF BOX MAY BE
SPECIFIED

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

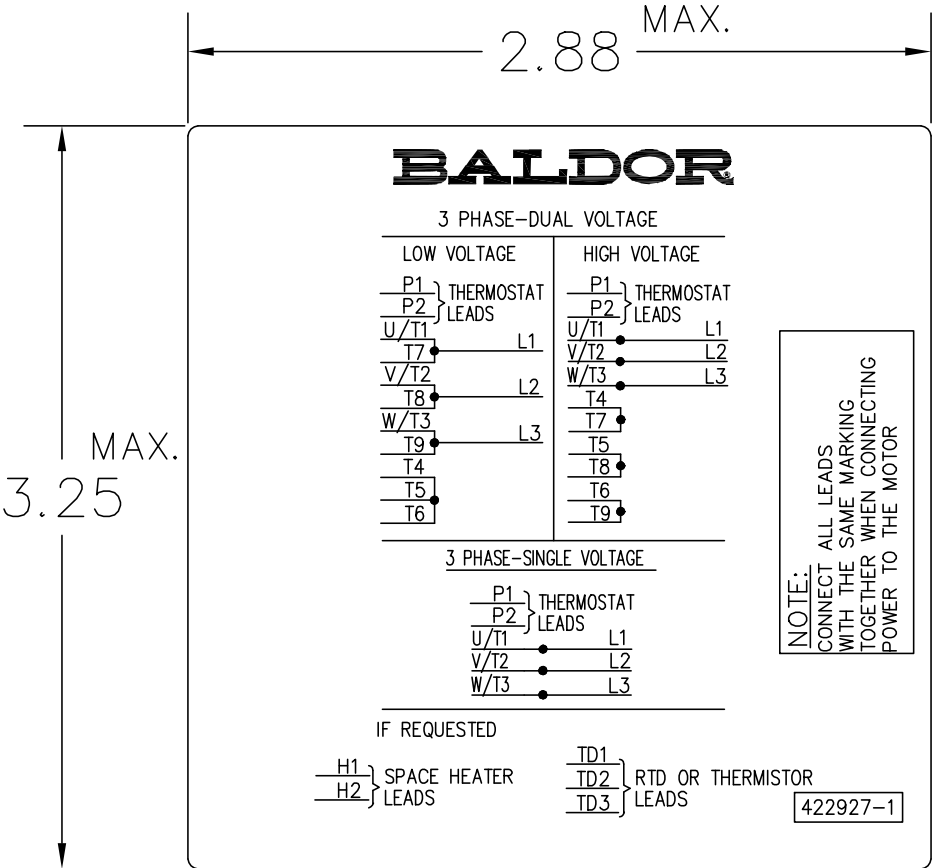
REV. DESC: ADD 1260 AMP L400, ADD 1300 AMP L440	VERSION: 01	TDR: 000000804459
REV. LTR: A	REVISED: 10:23:58 06/18/2013	BY: RCGWT
FILE: \RGG\00003\688		
MTL: -		

BALDOR

DIM SHT NEMA L180 THRU L440 & IEC DL112 THRU DL280

SH 1 of 1

422927-001



NOTE:
DATA TO BE SIZED
SO THAT IT FITS INTO
MATERIAL DECAL
DIMENSIONS. MAKE
LETTERS & NUMBERS
AS LARGE AS POSSIBLE.

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