

ABB BALDOR RELIANCE III

Customer information packet

IDVSNM2333T

15HP, 1775RPM, 3PH, 60HZ, 256TC, TENV, FOOT,

Class - None

Division - Not Applicable

Specifications

Enclosure	TENV
Frame	256TC
Frame Material	Iron
Frequency	60.00 Hz
Haz Area Class and Group	None
Haz Area Division	Not Applicable
Motor Letter Type	Three Phase
Output @ Frequency	15.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	UR CSA
Ambient Temperature	40 °C
Auxiliary Box	NO AUXILLARY BOX
Auxiliary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	18.500 A @ 460.0 V 37.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	92.4 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Encoder/Feedback Device
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	18.5 a

Part Detail

Revision	Z
Type	AC
Mech. spec.	09F278
Base	
Status	PRD/A
Elec. spec.	09WGX946
Layout	09LYF278
Eff. date	11-14-2023
CD Diagram	CD0005
Poles	04
Leads	9#12
Proprietary	False
Created date	02-14-2012

Insulation Class	F
Inverter Code	Inverter Duty
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 12 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0948M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	24.11 IN
Power Factor	80
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.625 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1765 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2

None

Nameplate

NP3302L	
CAT NO	IDVSNM2333T
SPEC.	09F278X946G2
FRAME	256TC HP 15 TE
VOLTS	230/460
MAG CUR	17.8/8.9 FLA 37/18.5
RPM	1765 RPM MAX 2700
HZ	60 PH 3 CLASS F
SER.F.	1.00 SL HZ 0.97
NEMA-NOM-EFF	92.4 WK2 2.1
RATING	40C AMB-CONT
DE BRG	6309 ODE BRG 6208
CC	010A SN
	1.5:1 CHP PWM

Parts List

Part number	Description	Quantity
SA238946	SA 09F278X946G2	1.000 ea
RA225858	RA 09F278X946G2	1.000 ea
HW1002A63	WASHER, 5/8 HI-COLLAR SPRLCKWASHER	1.000 ea
09CB3003	CB W/1.75" DIA LD HL - 37, 39, 307 & 309	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	2.000 ea
WD1000B16	T&B CX70TN OR L70P TERMINAL LUG	1.000 ea
59XW2520G07	.25-20X.44,HEX SER WSHR,TAPTITE 2,GREEN	1.000 ea
09EP1300A12	ENDPLATE, MACH	1.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HW4600B44	V-RING SLINGER 1.500 X 1.810 X .28 VITON	1.000 ea
09EP1100A119	FREP TEBC/TENV W/THRU SHAFT ENCODER DESI	1.000 ea
10XN3816K28	3/8-16 X 1.75 HEX HD CAP SCREW, GRADE 5	4.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MG1025N19	WILKOFAS, 778.50, RELIANCE BLUE-GREEN 8	0.050 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0145B01	CONNECTION LABEL	1.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	1.000 ea
HA6881	BEI HS35 THRU SHAFT ENCODER PROTECTIVE C	1.000 ea
HW5100A08	W3118-035 WVY WSHR (WB)	1.000 ea
10XN2520K28	1/4-20 X 1.75" HX HD SCRWGRADE 5, ZINC P	2.000 ea
10XN2520K36	1/4-20 X 2.25" HX HD SCRWGRADE 5, ZINC P	4.000 ea
HW1001A25	LOCKWASHER 1/4, ZINC PLT .493 OD, .255 I	4.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
10XN3816K12	3/8-16 X 3/4 HEX HD CAP GRADE 5	3.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	3.000 ea
09CB3501SP	CONDUIT BOX LID FOR 09CB3001 & 09CB3002	1.000 ea

09GS1013SP	GS FOR 09CB3501, 12CB1500 & 12CB1503 LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	2.000 ea
HW2501G25	KEY, 3/8 SQ X 2.875	1.000 ea
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.080 lb
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 ea
HW4500A17	317400 ALEMITE GREASE RELIEF	1.000 ea
HA4054	SHORT T-DRAIN FITTING, .125" N.P.T.	1.000 ea
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
NP3302L	ALUM INV UL CSA CC (W/OUT DESIGN FIELD)	1.000 ea
40PA1005	PACKAGING GROUP, 09 STD	1.000 ea
LD7020D09	LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS	1.000 ea

REL S.O.	IDVSNM2333T	VOLTS	460	ENCLOSURE	TENV	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	254TC	AMPS	18.5	MAX SAFE RPM	5400	(AT BASE RATING, 25 ⁰ C)			
HP	15	DUTY	CONT	In (AMPS)	8.9	R1	0.2200	X1	0.9040
BASE SPEED	1765	S.F.	1.00	P.F. @NL/FL	5/81	R2	0.1840	X2	1.0940
PHASE/HZ	3/60	AMB ⁰ C/INSUL	40/F	WK ² (lb-ft ²)	2.1			XM	26.4200

Rated Full Load Data

	RPM	HP	Torque	Volts	Freq-Hz	Amps
Base Speed	1771	15.2	45.0	460	60	18.4
Max Speed	2669	15.0	29.6	460	90	17.1
Min Speed	0	0.0	44.4	18.03	0.97	18.4

Load Performance at Base Speed

	RPM	HP	Torque	Volts	Freq-Hz	Amps
No Load	1799	0.0	0.0	460	60	8.9
1/4	1793	3.8	11.3	460	60	9.9
1/2	1787	7.7	22.5	460	60	12.0
3/4	1780	11.4	33.8	460	60	15.0
Full Load	1771	15.2	45.0	460	60	18.4
O/L	1719	44.9	137.0	460	60	56.6

Blower Data	Volts	Ph/Hz	FL Amps	LR Amps	Frame	CFM

Remarks: Calculated Data
Vector PWM Inverter Duty



DR BY E Rowan
 CK BY E Rowan
 APP BY E Rowan
 DATE 8/20/2012

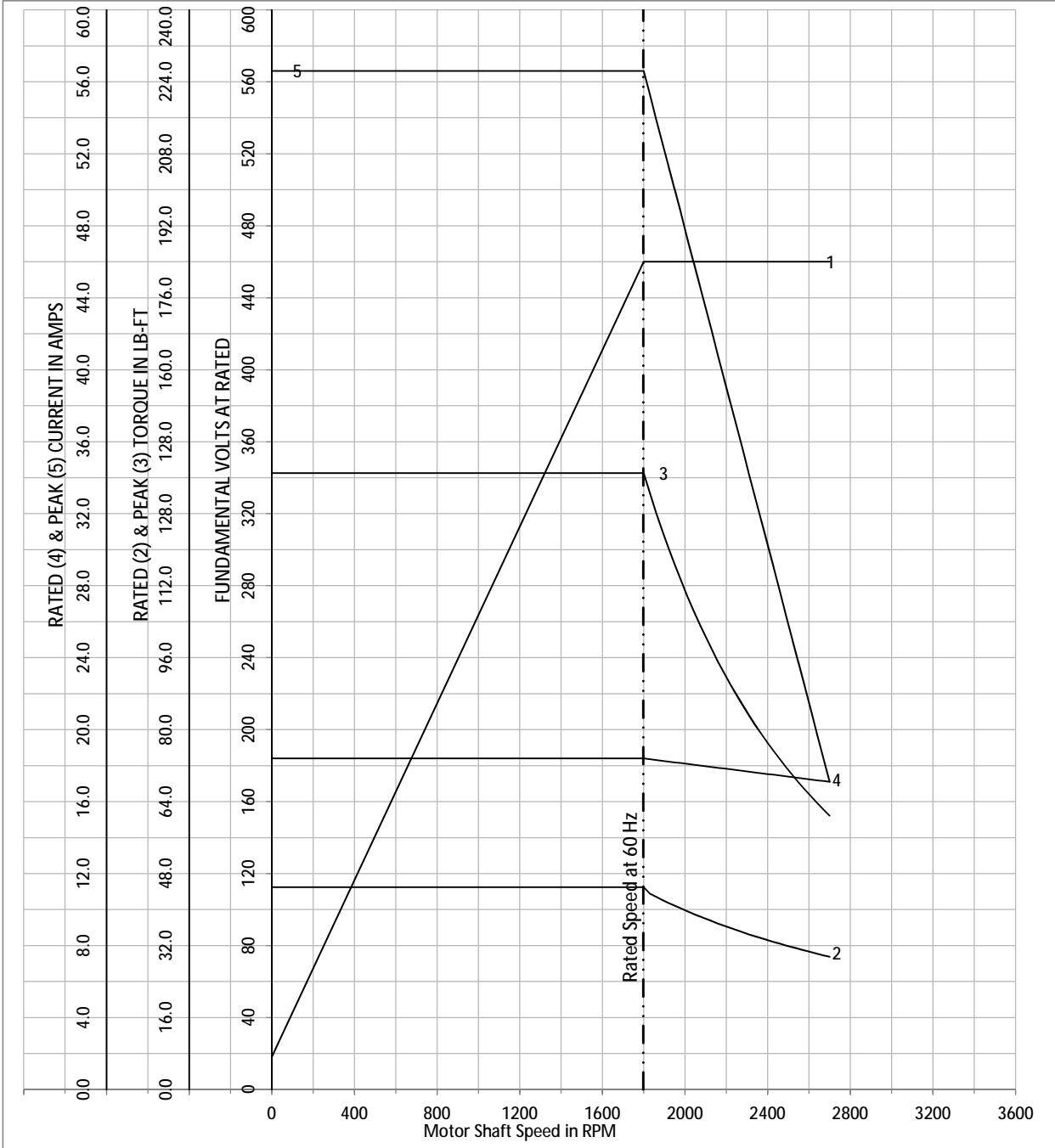
A-C MOTOR
PERFORMANCE CURVES

09F278X946G2

ISSUE DATE 8/20/2012

REL S.O.	IDVSNM2333T	VOLTS	460	ENCLOSURE	TENV	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	254TC	AMPS	18.5	MAX SAFE RPM	5400	(AT BASE RATING, 25°C)			
HP	15	DUTY	CONT	In (AMPS)	8.9	R1	0.2200	X1	0.9040
BASE SPEED	1765	S.F.	1.00	P.F. @NL/FL	5/81	R2	0.1840	X2	1.0940
PHASE/HZ	3/60	AMB°C/INSUL	40/F	WK ² (lb-ft ²)	2.1			XM	26.4200

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only



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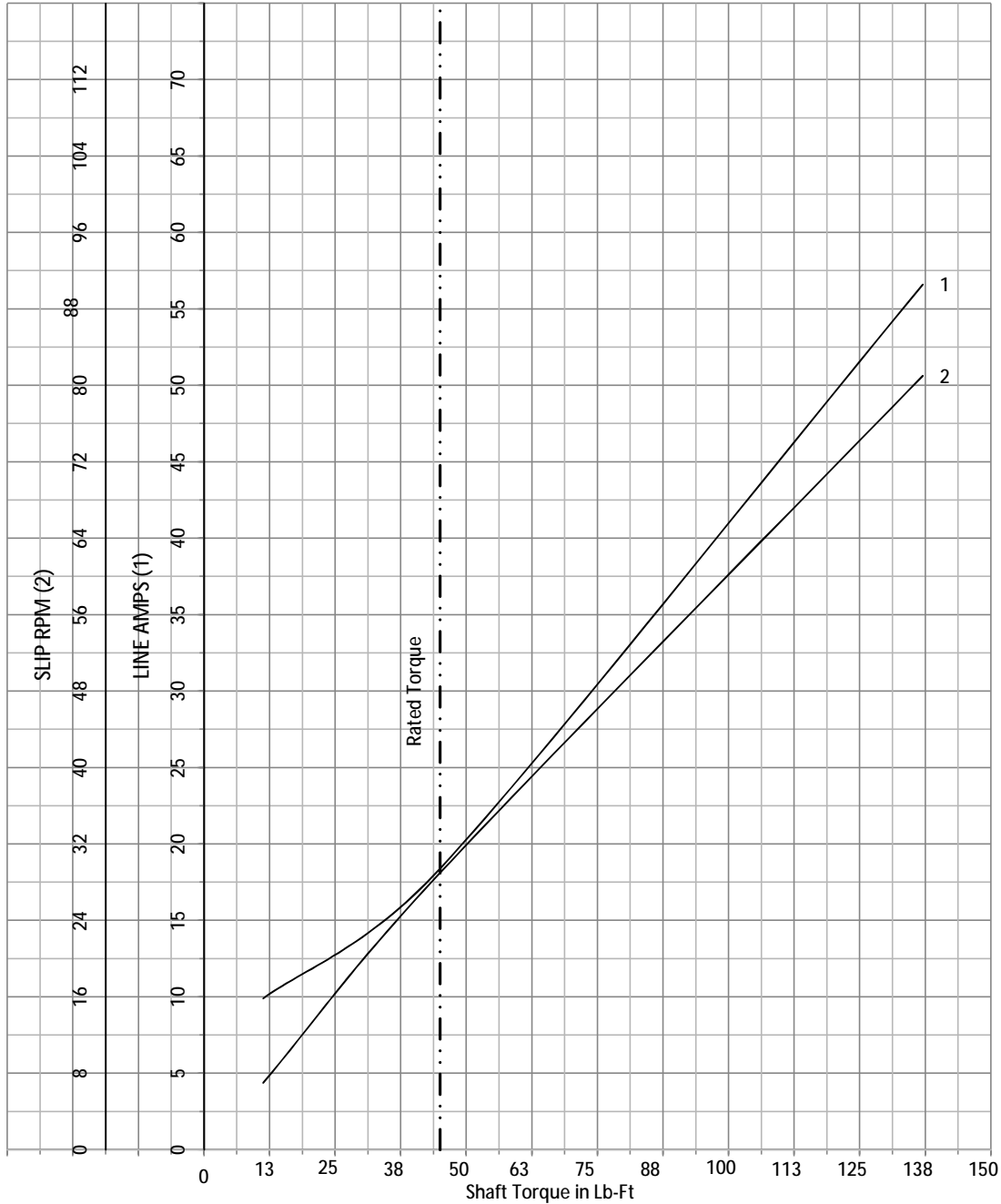
A-C MOTOR PERFORMANCE
CURVES

09F278X946G2

SH 1 of 2
ISSUE DATE 8/20/2012

REL S.O.	IDVSNM2333T	VOLTS	460	ENCLOSURE	TENV	WYE CONN EQ CKT OHMS PER PHASE			
FRAME	254TC	AMPS	18.5	MAX SAFE RPM	5400	(AT BASE RATING, 25 ⁰ C)			
HP	15	DUTY	CONT	In (AMPS)	8.9	R1	0.2200	X1	0.9040
BASE SPEED	1765	S.F.	1.00	P.F. @NL/FL	5/81	R2	0.1840	X2	1.0940
PHASE/HZ	3/60	AMB ⁰ C/INSUL	40/F	WK ² (Lb-Ft ²)	2.1			XM	26.4200

Vector PWM Inverter Duty
Variable Speed AC Motor Curves



Calculated Data

Data Valid For Nameplate Speed Range only

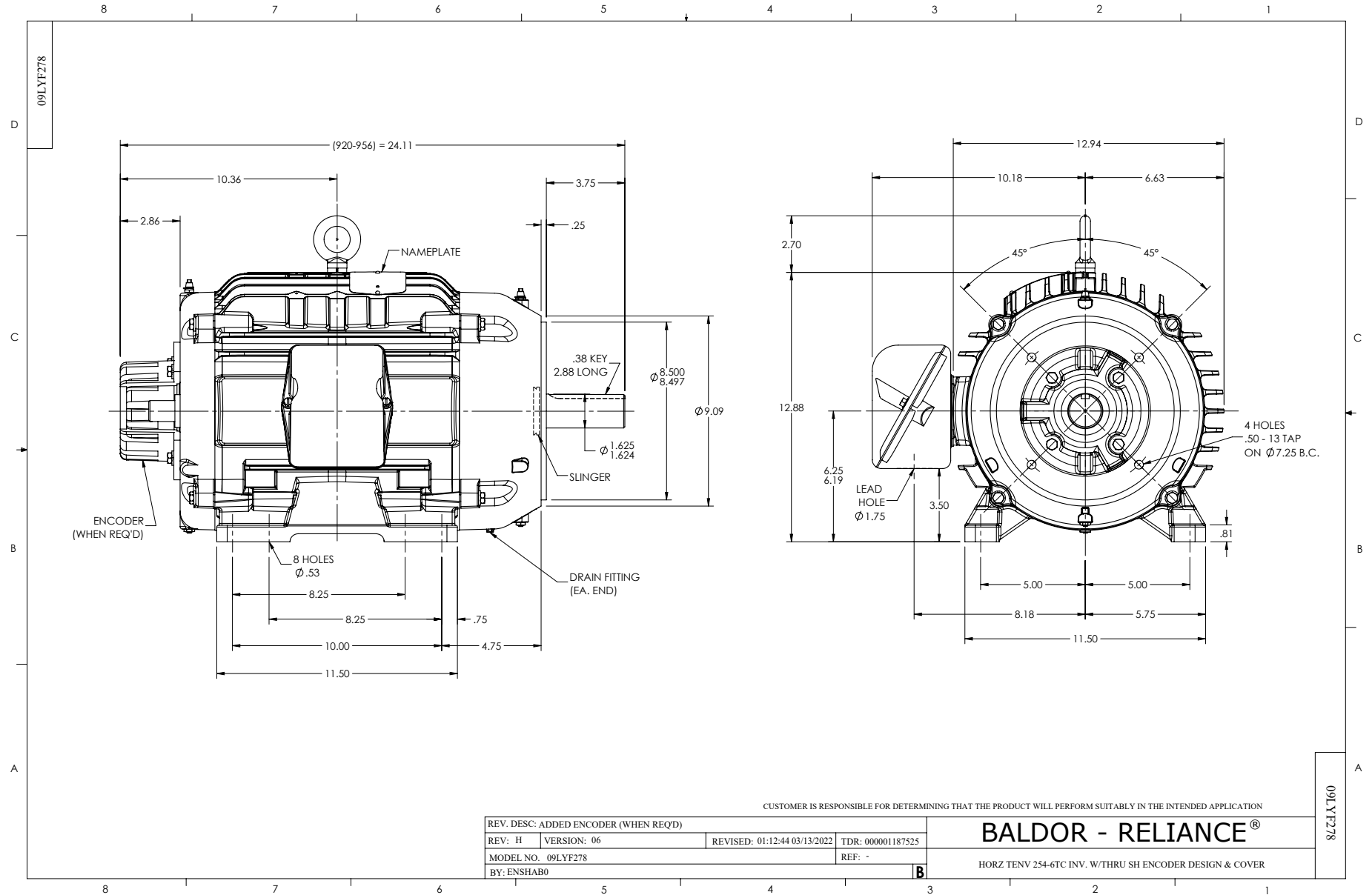


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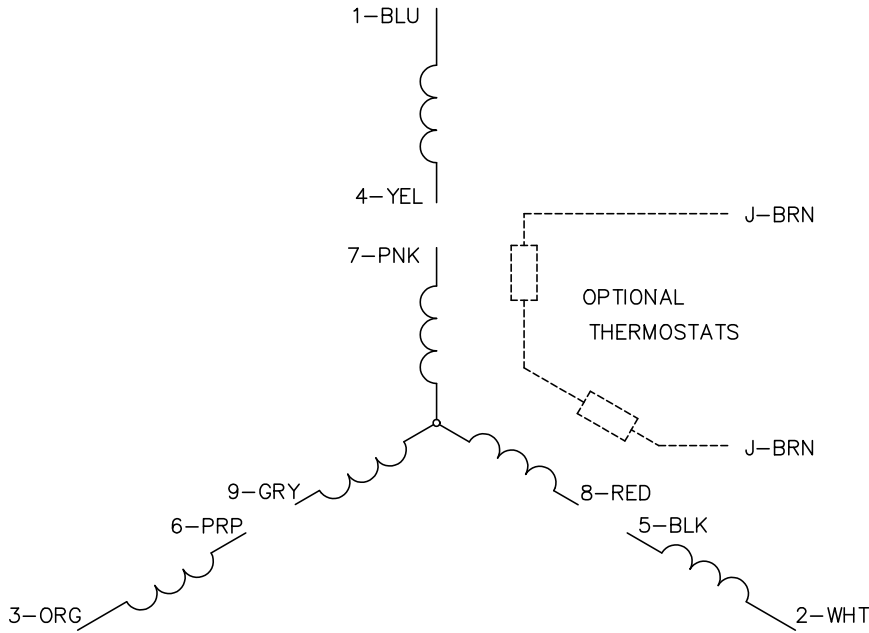
A-C MOTOR PERFORMANCE
 CURVES

09F278X946G2

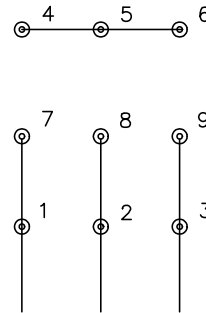
SH 1 of 2
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CD0005

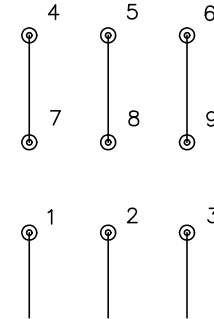


LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

NOTES:

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

CD0005

REV. DESC: REVISE TO SHOW OPTIONAL COLORS

REV. LTR: E BY: JLP REVISED: 01/19/99 10:15 TDR: 0171435

500000

FILE: AAA00005140

MDL: -

MTL: -

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS