ABB BALDOR RELIANCE

Customer information packet

IDNM2238T

10HP, 1770RPM, 3PH, 60HZ, 256TC, 0948M, TENV
Class - None
Division - Not Applicable

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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	10.000 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	13.000 A @ 460.0 V
	26.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
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	13.0 a

Part Detail

Revision	AL
Type	AC
Mech. spec.	09F278
Base	
Status	PRD/A
Elec. spec.	09WGY402
Layout	09LYF278
Eff. date	08-28-2025
CD Diagram	CD0005
Poles	04
Leads	9#12
Proprietary	False
Created date	01-01-0001

Insulation Class	H
Inverter Code	Inverter Duty
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	5000 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	24.05 IN
Power Factor	78
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	C-Face
Pulley Shaft Indicator	Standard
Rodent Screen	None
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	1770 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

NP1163									
CAT NO	IDNM2238T								
SPEC.	09F278Y402G1								
FRAME	256TC		**HP**	10 TE					
VOLTS	230/460								
MAG CUR	11.2/5.6			**FLA**	26/13				
RPM	1770		**RPM MAX**		5000				
HZ	60	**PH**	3	**CLASS**	H				
SER.F.	1.00	**DES**	A	**SL HZ**	0.9				
NEMA-NOM-EFF	91.7	**WK2**	2.1						
BLWR V		**PH**		**HZ**		**A**			
RATING	40C AMB-CONT								
DE BRG	6309		**ODE BRG**		6208				
CC	010A	**SN**							
	1000:1CT, 1000:1VT								

Parts List

Part number	Description	Quantity
SA077175	SA 09F278Y402G1	1.000 ea
RA070739	RA 09F278Y402G1	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
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
MG1050G01	CELEROL MEDIUM CHARCOAL METALLIC GRAY	0.050 ga
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
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
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
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 ea
HW1001A38	LOCKWASHER 3/8, ZINC PLT .688 OD, .382 I	4.000 ea
HA6881	BEI HS35 THRU SHAFT ENCODER PROTECTIVE C	1.000 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
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LC0005E01	SPL CONN.DIA./WARN.LABEL(LC0005/LB1119)	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea
LD7020D09	LEAD SET, 12AWG, 9 LEAD, 20" LONG LEADS	1.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
NP1163	ALUM INV UL CSA CC	1.000 ea
40PA1005	PACKAGING GROUP, 09 STD	1.000 ea

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AC Induction Motor Performance Data

Record # 1989
Typical performance - not guaranteed values

Winding: 09WGY402	**Type:** 0948M	**Enclosure:** TENV

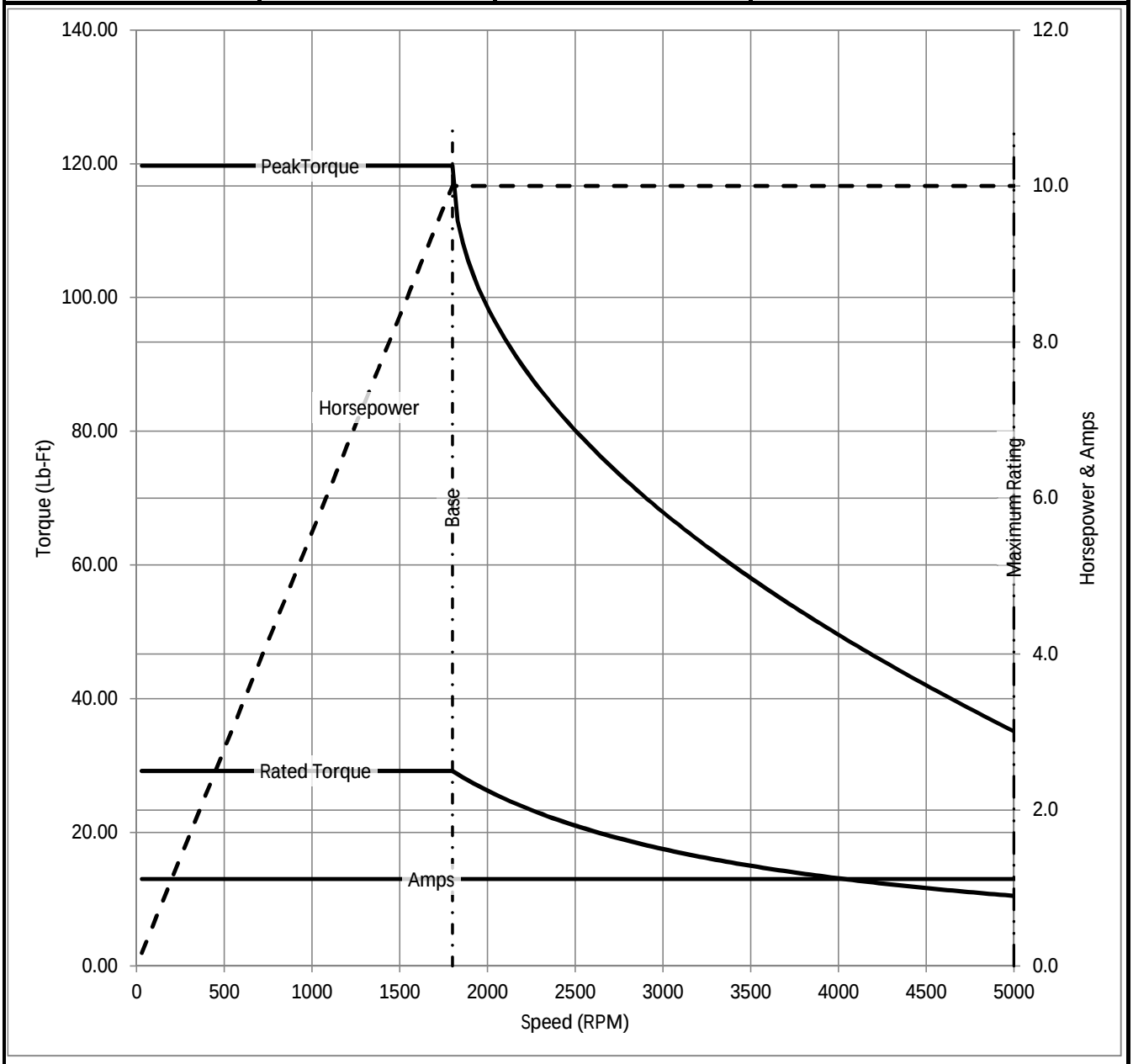
Nameplate Data				General Characteristics at 460 V, 60 Hz: High Volt Connection	
Rated Output (HP)	10			Full Load Torque	29.8 LB-FT
Volts	230/460			Start Configuration	DOL
Full Load Amps	26/13			Break Down Torque	133 LB-FT
R.P.M.	1770			Pull-Up Torque	54.7 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	71.1 LB-FT
NEMA Design Code	B	KVA Code	K	Starting Current	106 Amps
Service Factor	1			No-load Current	5.6 Amps
NEMA Nom. Eff.	91.7	P.F.	78	Line-line Res. @ 25°C.	0.684 Ohms
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	66°C
S.F. Amps				Temp. Rise @ S.F. Load	

Load Characteristics at 460 Volts, 60 Hz, 10 HP

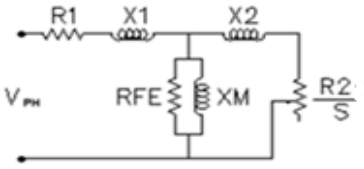
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	42	61	73	78	81	82	
Efficiency	87	91.2	92.3	92.2	91.7	90.8	
Speed	1793	1787	1780	1773	1766	1757	
Line Amperes	6.58	8.12	10.4	13	15.7	18.8	

Baldor Electric Company Fort Smith, Arkansas BALDOR • RELIANCE

Catalog	IDNM2238T	NP VOLTS	230/460	ENCLOSURE	TENV	WYE CONN EQ CKT OHMS PER PHASE (BASE RATING, 20C)			
FRAME	256TC	NP AMPS	26/13	Base Volts	460	R1	0.332	X1	1.364
HP	10 HP	DUTY	Cont	Base AMPS	13	R2	0.268	X2	1.646
BASE SPEED	1800	MAX SAFE RPM	5000	Slip Hz	0.90			XM	45.205
PHASE/HZ	3/60	AMB^{0}C/INSUL	40/H	WK^2 (lb-ft^2)	2.1				



Remarks: Calculated Data



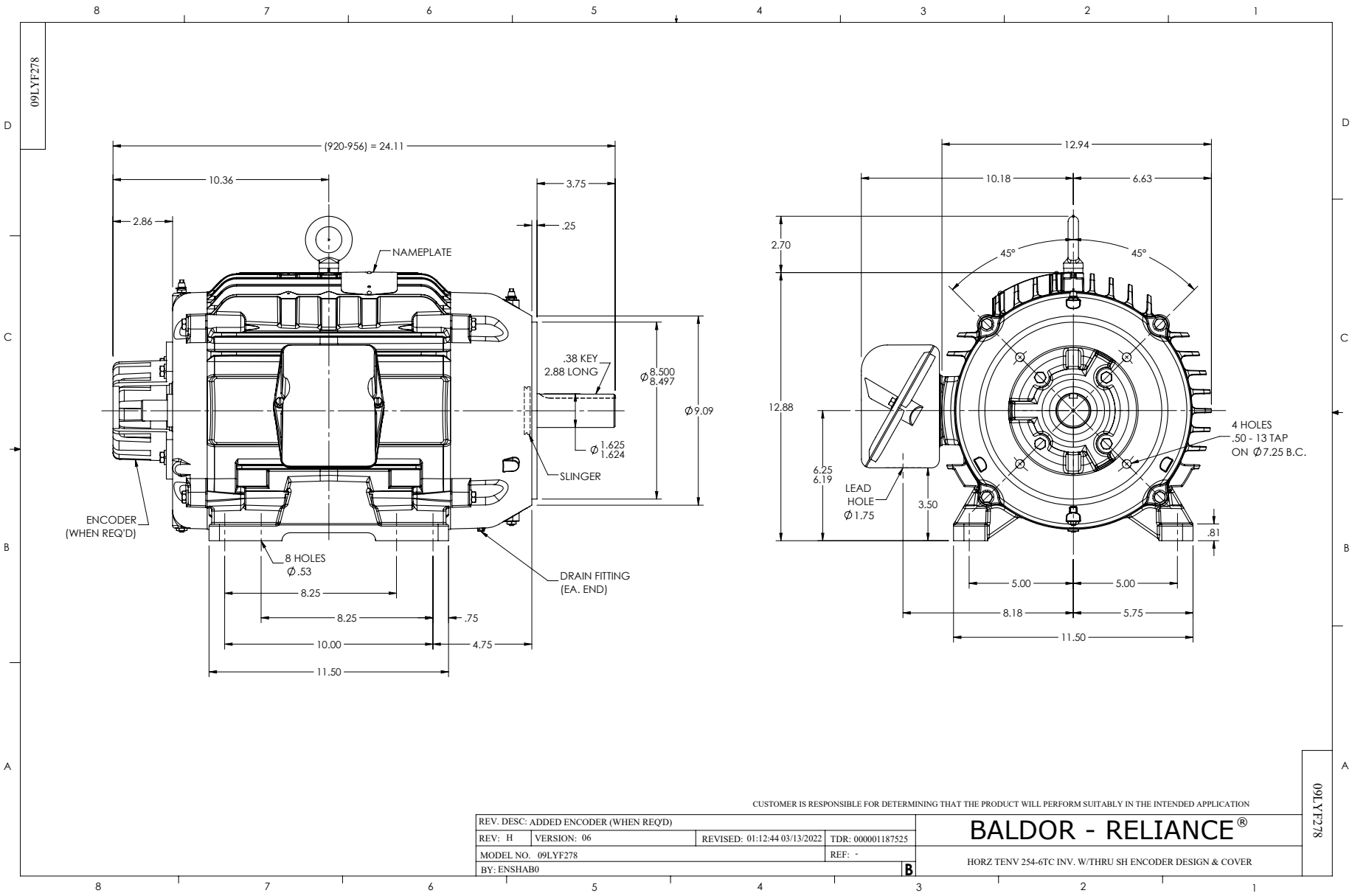
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DR BY ENR
CK BY
APP BY ENR
DATE 2/28/2013

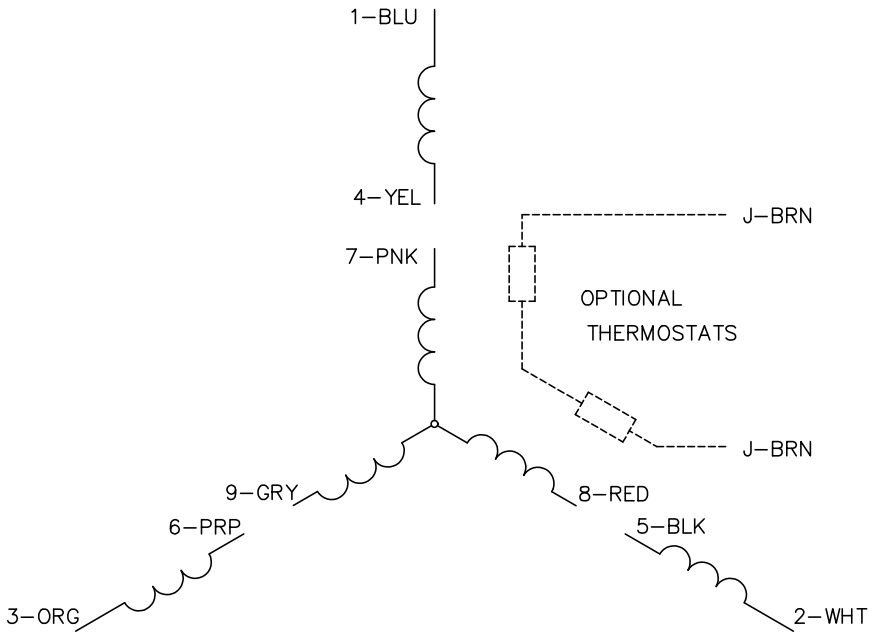
A-C MOTOR
PERFORMANCE CURVES

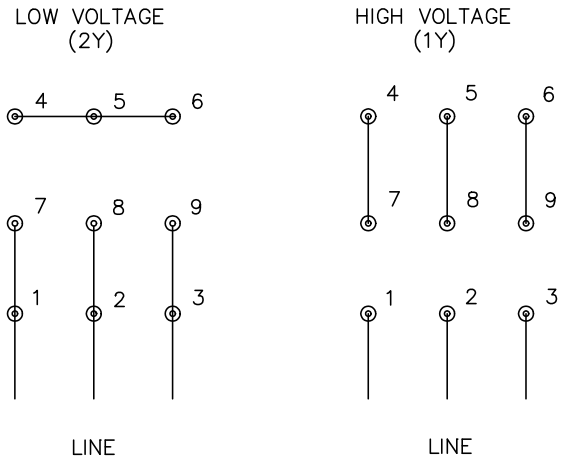
09F278Y402G1

ISSUE DATE 2/28/2013


09LYF278
(920-956) = 24.11
10.36
3.75
2.86
.25
NAMEPLATE
.38 KEY
2.88 LONG
Ø8.500
8.497
Ø9.09
Ø1.625
1.624
SLINGER
ENCODER
(WHEN REQ'D)
8 HOLES
Ø.53
DRAIN FITTING
(EA. END)
8.25
8.25
.75
10.00
4.75
11.50
12.94
10.18
6.63
2.70
45°
45°
12.88
4 HOLES
.50 - 13 TAP
ON Ø7.25 B.C.
6.25
6.19
LEAD
HOLE
Ø1.75
3.50
.81
5.00
5.00
8.18
5.75
11.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: ADDED ENCODER (WHEN REQ'D)
REV: H
VERSION: 06
REVISED: 01:12:44 03/13/2022
TDR: 000001187525
MODEL NO. 09LYF278
REF: -
BY: ENSHAB0
B
BALDOR - RELIANCE®
HORZ TENV 254-6TC INV. W/THRU SH ENCODER DESIGN & COVER
09LYF278

CD0005





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			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
CD0005		FILE: AAA00005140	MDL: –
		MTL: –	3PH, DV, 9 LEADS