

# BALDOR · RELIANCE II

## **Product Information Packet**

EM4110T

40HP,1775RPM,3PH,60HZ,324T,1254M,TEFC,F1

Part Detail									
Revision: U Status: PRD/A Change #: Proprietary: No									
Type:	AC	Elec. Spec:	12WGY276	CD Diagram:	CD0180	Mfg Plant:			
Mech. Spec:	12H13	Layout:	12LYH013	Poles:	04	Created Date:	05-06-2010		
Base:	RG	Eff. Date:	09-07-2017	Leads:	9#8				

Specs			
Catalog Number:	EM4110T	Heater Indicator:	No Heater
Enclosure:	TEFC	Insulation Class:	F
Frame:	324T	Inverter Code:	Inverter Ready
Frame Material:	Iron	KVA Code:	н
Output @ Frequency:	40.000 HP @ 60 HZ	Lifting Lugs:	Standard Lifting Lugs
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	Locked Bearing Indicator:	Locked Bearing
Voltage @ Frequency:	460.0 V @ 60 HZ	Motor Lead Quantity/Wire Size:	9 @ 8 AWG
	230.0 V @ 60 HZ	Motor Lead Exit:	Ко Вох
XP Class and Group:	None	Motor Lead Termination:	Flying Leads
XP Division:	Not Applicable	Motor Type:	1254M
Agency Approvals:	UR	Mounting Arrangement:	F1
	CSA EEV	Power Factor:	82
	CSA	Product Family:	General Purpose
Auxillary Box:	No Auxillary Box	Pulley End Bearing Type:	Ball
Auxillary Box Lead Termination:	None	Pulley Face Code:	Standard
Base Indicator:	Rigid	Pulley Shaft Indicator:	Standard
Bearing Grease Type:	Polyrex EM (-20F +300F)	Rodent Screen:	None
Blower:	None	Shaft Extension Location:	Pulley End

Current @ Voltage:	102.000 A @ 208.0 V	Shaft Ground Indicator:	No Shaft Grounding
	48.000 A @ 460.0 V	Shaft Rotation:	Reversible
	96.000 A @ 230.0 V	Shaft Slinger Indicator:	Shaft Slinger
Design Code:	A	Speed Code:	Single Speed
Drip Cover:	No Drip Cover	Motor Standards:	NEMA
Duty Rating:	CONT	Starting Method:	Direct on line
Electrically Isolated Bearing:	Not Electrically Isolated	Thermal Device - Bearing:	None
Feedback Device:	NO FEEDBACK	Thermal Device - Winding:	None
Front Face Code:	Standard	Vibration Sensor Indicator:	No Vibration Sensor
Front Shaft Indicator:	None	Winding Thermal 1:	None
		Winding Thermal 2:	None

Nameplate NP344	43LUA								
CAT.NO.	EM4110T			cus	T. P/N				<b>ENCL</b> TEFC
SPEC.	12H013Y276	CC	010A	FRAME	324T		SER.NO.	•	
HP	40	·	CLAS	SF	<b>HZ</b> 60				
R.P.M.	1775		PH.	3	DES. A				
VOLTS	230/460			CODE H		ODE BRG	6311	<b>DE BRG</b> 6312	
AMPS	96/48			USABLE AT	<b>208V</b> 102				
RATING	40C AMB-CONT			NEMA NOM	. <b>EFF.</b> 94.1		GREASE	POLYREX EM	
P.F.	82	SER.F. 1	.15			CT6-60H(10:1)VT3	-60H(20:1		
USABLE AT	50Hz 40HP 190/380V 114/57A			SF1.0					
VOLTS	AMPS		MAX.	SPACE HEAT	ER TEMP.				

Parts List						
Part Number	Description	Quantity				
SA194430	SA 12H013Y276	1.000 EA				
RA182017	RA 12H013Y276	1.000 EA				
09FN3001B03SP	EXTERNAL FAN, PLASTIC	1.000 EA				
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 EA				
12GS1000SP	GASKET	1.000 EA				
10XN3118K12	5/16-18 X .75 GRADE 5, ZINC PLATED	4.000 EA				
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA				
WD1000B25	GND LUG, BURNDY L125HP OR T&B L125HP-BB	1.000 EA				
19XW3118G08	.31-18X.50,HEX WSHR HD,TAPTITE 2,GREEN	1.000 EA				
12EP1107A05	FR ENDPLATE, MACH 324-6T	1.000 EA				
HA3400A13	STUD, 1/2-13 X 7" WELKER	4.000 EA				
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 EA				
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 EA				
HW5100A13	W4627-047 WVY WSHER	1.000 EA				
12EP1106A01	PU ENDPLATE, MACH 324-6T	1.000 EA				
10XN3118K36	5/16-18 X 2.25" HEX HD, GRADE 5	2.000 EA				
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 EA				
10XN3118K40	5/16-18 X 2.50" HEX HD, GRADE 5	4.000 EA				
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA				
10XN5013K28	1/2-13 X 1.75 HEX HEAD MACH SCREW,GRAD	4.000 EA				
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 EA				
12FH1002SP	FAN COVER, CAST QF,WAUPACA QUALITY	1.000 EA				
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 EA				
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 EA				

Parts List (continued)		
Part Number	Description	Quantity
10CB3500SP	CONDUIT BOX LID, CAST	1.000 EA
10GS1000SP	GASKET, CONDUIT BOX LID	1.000 EA
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 EA
HW2501H33	KEY, 1/2 SQ X 3.875	1.000 EA
LB1115N	LABEL,LIFTING DEVICE (ON ROLLS)	1.000 EA
MN416A01	TAG-INSTAL-MAINT no wire (1100/bx) 11/14	1.000 EA
HW4500A21	1618BALEMITE FITTING 825 UNIVERSAL	1.000 EA
HA4017A01	1/8 X 4 GREASE EXT (F/S)	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
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.200 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
HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 EA
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 EA
MG1000Y03	MUNSELL 2.53Y 6.70/ 4.60, GLOSS 20,	0.080 GA
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	4.000 EA
LB1119N	WARNING LABEL	1.000 EA
LC0181	CONNECTION LABEL	1.000 EA
NP3443LUA	SS SUPER-E UL CSA-EEV PREM CC	1.000 EA
12PA1000	PACKAGING GROUP PRINT PK1024A06	1.000 EA

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Accessories						
Part Number Description Multiplier						
12-1105	C FACE KIT	A8				
12EP1501A03SP	D-FLANGE KIT	A8				

#### **AC Induction Motor Performance Data**

Record # 31673 - Typical performance - not guaranteed values

Winding: 12WGY276-R001
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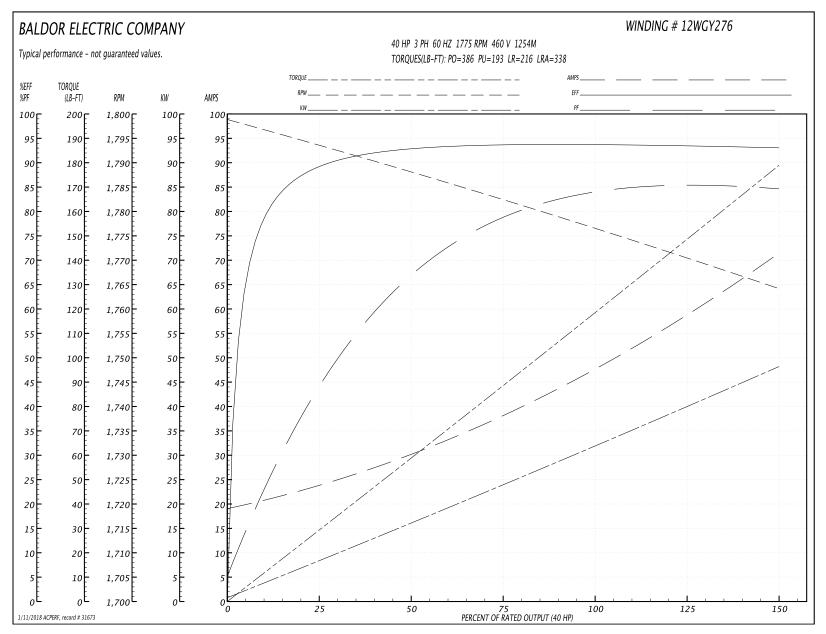
N	460 V, 60 Hz: High Voltage Con			
Rated Output (HP)		40	Full Load Torque	
Volts		230/460		Start Configuration
Full Load Amps		96/48		Breakdown Torque
R.P.M.		1775	Pull-up Torque	
Hz	60	60 Phase 3		Locked-rotor Torque
NEMA Design Code	А	A KVA Code H		Starting Current
Service Factor (S.F.)		1.15	No-load Current	
NEMA Nom. Eff.	94.1	94.1 Power Factor		Line-line Res. @ 25
Rating - Duty		40C AMB-CONT	Temp. Rise @ Rate	
S.F. Amps				Temp. Rise @ S.F.
				Locked-rotor Power
				Rotor inertia

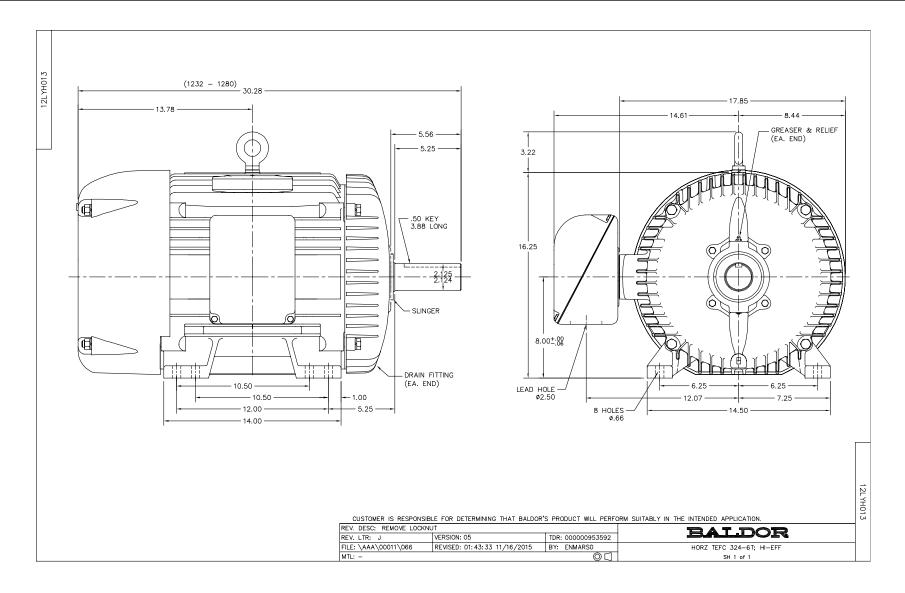
460 V, 60 Hz: High Voltage Connection	
Full Load Torque	118 LB-FT
Start Configuration	direct on line
Breakdown Torque	386 LB-FT
Pull-up Torque	193 LB-FT
Locked-rotor Torque	216 LB-FT
Starting Current	338 A
No-load Current	19.9 A
Line-line Res. @ 25°C	0.14898 Ω
Temp. Rise @ Rated Load	54°C
Temp. Rise @ S.F. Load	64°C
Locked-rotor Power Factor	27.3
Rotor inertia	7.19 LB-FT2

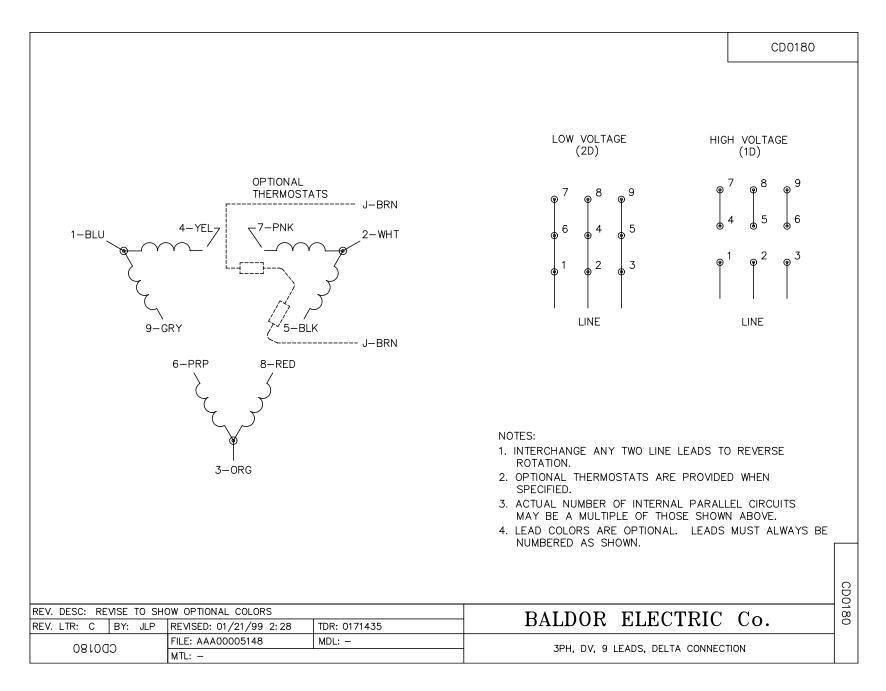
#### Load Characteristics 460 V, 60 Hz, 40 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	47	69	78	83	85	85	84
Efficiency	90.1	93.5	94.2	94.2	93.8	93.1	94
Speed	1793.5	1788	1782.5	1776.6	1770.7	1764.1	1773
Line amperes	22.9	29.5	38.4	48.1	59.2	70.8	54.8

#### Performance Graph at 460V, 60Hz, 40.0HP Typical performance - Not guaranteed values







Marketing maintained PDF of MN416:

http://www.baldor.com/support/Literature/Load.ashx/MN416?ManNumber=MN416