BALDOR • RELIANCE

Product Information Packet

EM2543T-12

50HP,1775RPM,3PH,60HZ,326T,4256M,OPSB,F1

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Part Detail

Revision:	AA	**Status:**	PRD/A	**Change #:**		**Proprietary:**	No
Type:	AC	**Elec. Spec:**	42WGW480	**CD Diagram:**	CD0104	**Mfg Plant:**	
Mech. Spec:	42F56	**Layout:**	42LYF056	**Poles:**	04	**Created Date:**	
Base:	RG	**Eff. Date:**	08-23-2018	**Leads:**	12#8		

Specs

Catalog Number:	EM2543T-12	**Inverter Code:**	Inverter Ready
Enclosure:	OPSB	**KVA Code:**	H
Frame:	326T	**Lifting Lugs:**	Standard Lifting Lugs
Frame Material:	Steel	**Locked Bearing Indicator:**	No Locked Bearing
Output @ Frequency:	50.000 HP @ 60 HZ	**Motor Lead Quantity/Wire Size:**	12 @ 8 AWG
Synchronous Speed @ Frequency:	1800 RPM @ 60 HZ	**Motor Lead Exit:**	Ko Box
Voltage @ Frequency:	230.0 V @ 60 HZ	**Motor Lead Termination:**	Flying Leads
	460.0 V @ 60 HZ	**Motor Type:**	4256M
Agency Approvals:	CSA	**Mounting Arrangement:**	F1
	CSA EEV	**Power Factor:**	81
	UR	**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:	122.000 A @ 230.0 V	**Shaft Ground Indicator:**	No Shaft Grounding
	61.000 A @ 460.0 V	**Shaft Rotation:**	Reversible

Design Code:	B	**Shaft Slinger Indicator:**	No Slinger
Drip Cover:	No Drip Cover	**Speed Code:**	Single Speed
Duty Rating:	CONT	**Motor Standards:**	NEMA
Electrically Isolated Bearing:	Not Electrically Isolated	**Starting Method:**	Wye Start - Delta Run
Feedback Device:	NO FEEDBACK	**Thermal Device - Bearing:**	NONE (OLD)
Front Face Code:	Standard	**Thermal Device - Winding:**	None
Front Shaft Indicator:	None	**Vibration Sensor Indicator:**	No Vibration Sensor
Heater Indicator:	No Heater	**Winding Thermal 1:**	None
Insulation Class:	F	**Winding Thermal 2:**	None

Nameplate NP3554LUA

CAT.NO.	EM2543T-12			**P/N**				**ENCL**	OPSB
SPEC.	42F056W480	**CC**	010A	**FRAME**	326T			**SER.NO.**	
HP	50			**CLASS**	F	**HZ**	60		
RPM	1775			**PH**	3	**DES**	B		
VOLTS	230/460			**CODE**	H			**ODE BRG**	6311
AMPS	122/61			**USABLE AT 208V**				**DE BRG**	6312
RATING	40C AMB-CONT			**NEMA-NOM-EFF**	94.5			**GREASE**	POLYREX EM
PF	81	**SER.F.**	1.15	**VPWM INVERTER READY**					
USABLE AT	50Hz 50Hp 190/380V 136/68A			SF 1.0					
HTR-VOLTS		**HTR-AMPS**		**MAX. SPACE HEATER TEMP.**					

Parts List

Part Number	Description	Quantity
SA100841	SA 42F056W480	1.000 EA
RA092914	RA 42F056W480	1.000 EA
HA6360	LIFTING LUG FOR 42 FRAME MOTORS.	2.000 EA
HA6017	CAST ADAPTER, 40,42 KOBX	1.000 EA
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	2.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	2.000 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
10CB3001	CONDUIT BOX CAST W/2.500 LEAD HOLE	1.000 EA
19XW3118A12	.31-18 X .75 HEX WASHER HEAD TAPTITE II	4.000 EA
HW1001A31	LOCKWASHER 5/16, ZINC PLT.591 OD, .319 I	4.000 EA
42EP3200A01	FR ENDPLATE, MACH	1.000 EA
HW5100A13	W4627-047 WVY WSHER	1.000 EA
42EP3200B02	PU ENDPLATE, MACH	1.000 EA
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	8.000 EA
10CB3500SP	CONDUIT BOX LID, CAST	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 (1200/bx) 5/18	1.000 EA
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA

Parts List (continued)

Part Number	Description	Quantity
MJ1000A02	GREASE, POLYREX EM EXXON (USe 4824-15A)	0.030 LB
HA4051A00	PLASTIC CAP FOR GREASE FITTING	1.000 EA
42AD2001A01	BAFFLE PLATE 42 OPEN, SLOTTED BAND MTRS	1.000 EA
HW4500A03	GREASE FITTING, .125 NPT 1610(ALEMITE) 8	1.000 EA
HW4500A20	1/8NPT SL PIPE PLUG	1.000 EA
HA3151A03	THRUBOLT STUD 1/2-13 X 20.5	4.000 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
LC0104A01	CONNECTION DIAGRAM	1.000 EA
NP3554LUA	SS SUPER-E VPWM INV READY UL CSA-EEV PRE	1.000 EA
40PA1000	PACKAGING GROUP	1.000 EA

AC Induction Motor Performance Data

Record # 13699 - Typical performance - not guaranteed values

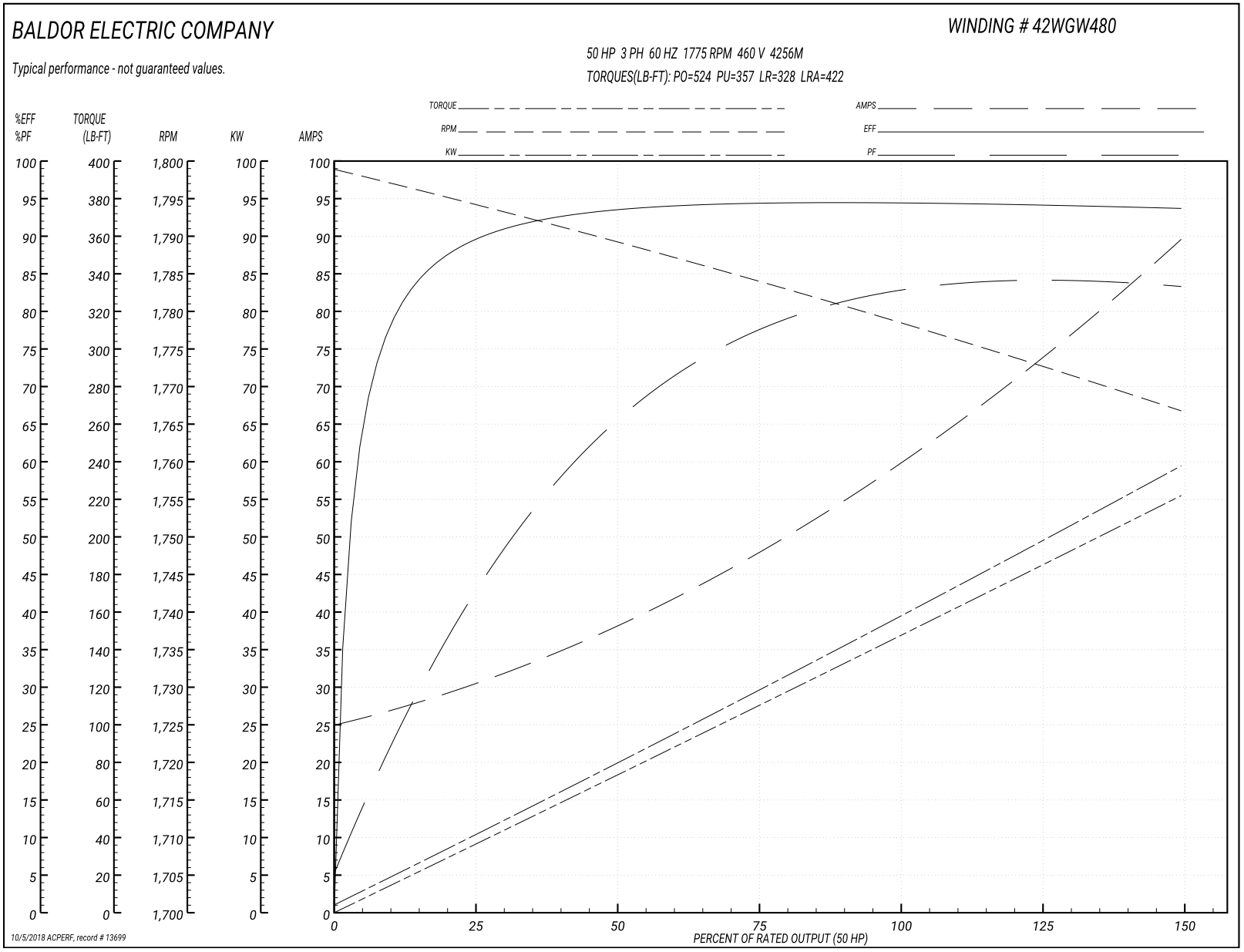
Winding: 42WGW480-R001	**Type:** 4256M	**Enclosure:** OPSB

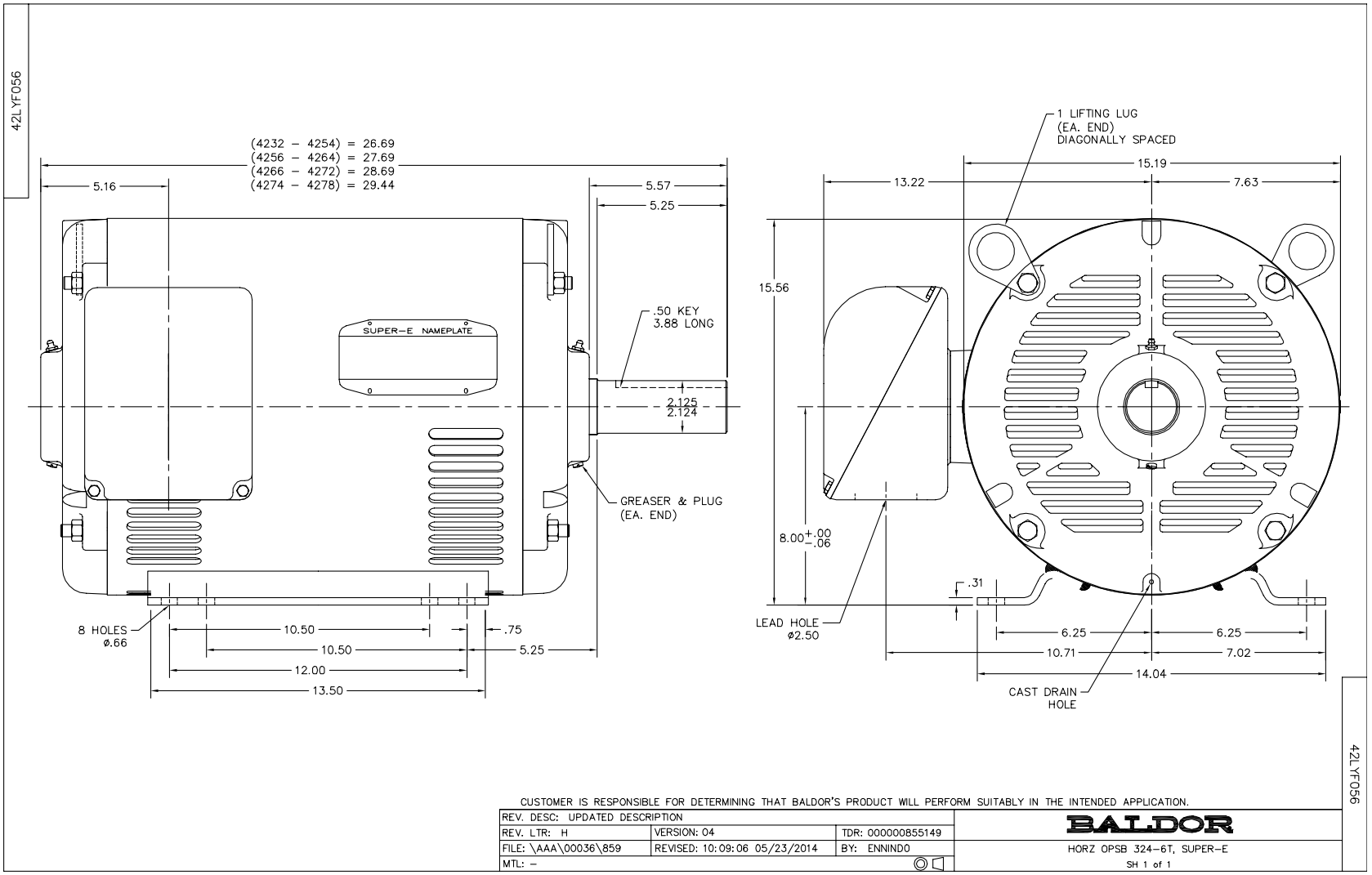
Nameplate Data				460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	50			Full Load Torque	148 LB-FT
Volts	230/460			Start Configuration	direct on line
Full Load Amps	122/61			Breakdown Torque	524 LB-FT
R.P.M.	1775			Pull-up Torque	357 LB-FT
Hz	60	Phase	3	Locked-rotor Torque	328 LB-FT
NEMA Design Code	B	KVA Code	H	Starting Current	422 A
Service Factor (S.F.)	1.15			No-load Current	25.9 A
NEMA Nom. Eff.	94.5	Power Factor	81	Line-line Res. @ 25ºC	0.112 Ω
Rating - Duty	40C AMB-CONT			Temp. Rise @ Rated Load	18°C
S.F. Amps				Temp. Rise @ S.F. Load	21°C
				Locked-rotor Power Factor	27
				Rotor inertia	7.46 LB-FT2

Load Characteristics 460 V, 60 Hz, 50 HP

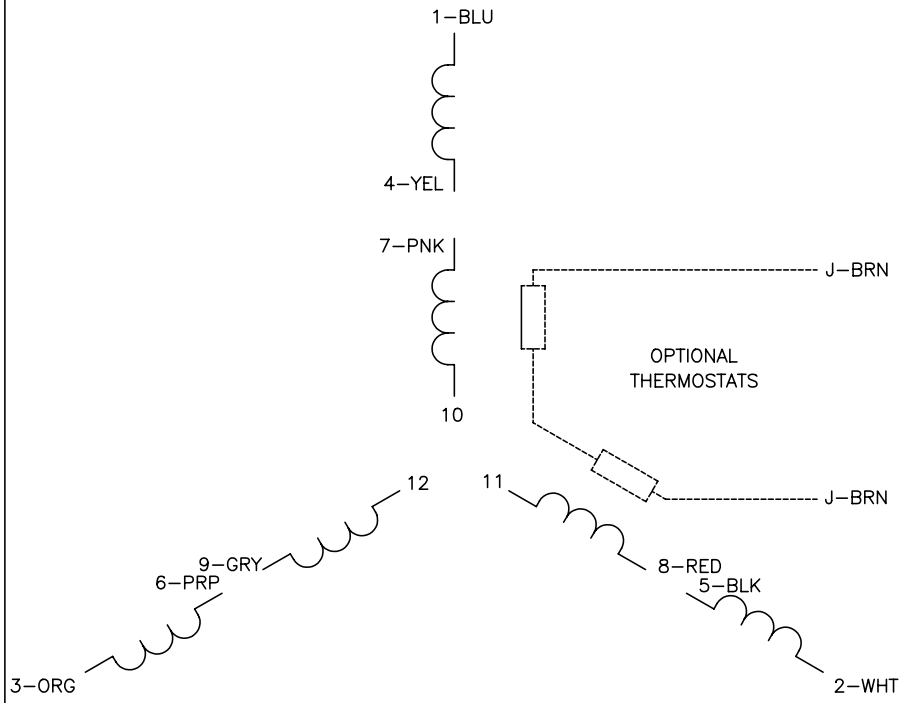
% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	45	67	77	82	84	84	83
Efficiency	89.6	93.5	94.4	94.5	94.1	93.7	94.3
Speed	1794	1789	1784	1779	1772	1767	1775
Line amperes	29.4	37.6	48.4	60.8	74.3	88.9	68.9

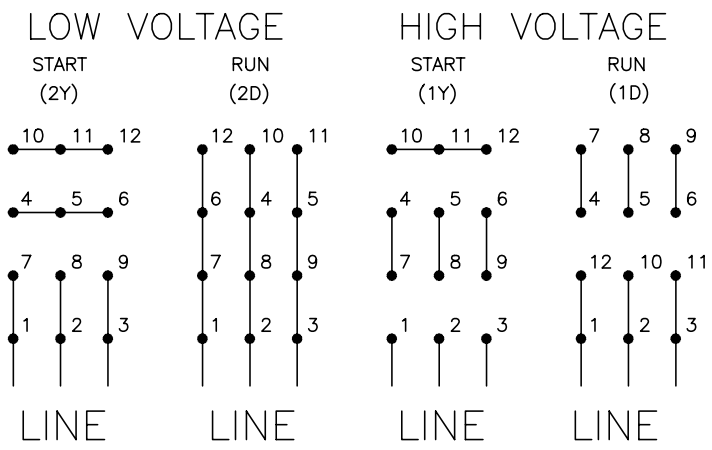
Performance Graph at 460V, 60Hz, 50.0HP Typical performance - Not guaranteed values




42LYF056
(4232 – 4254) = 26.69
(4256 – 4264) = 27.69
(4266 – 4272) = 28.69
(4274 – 4278) = 29.44
5.16
5.57
5.25
SUPER–E NAMEPLATE
.50 KEY
3.88 LONG
2.125
2.124
GREASER & PLUG
(EA. END)
8 HOLES
ø.66
10.50
10.50
12.00
13.50
.75
5.25
1 LIFTING LUG
(EA. END)
DIAGONALLY SPACED
15.19
13.22
7.63
15.56
8.00 +.00 −.06
.31
LEAD HOLE
ø2.50
6.25
6.25
10.71
7.02
14.04
CAST DRAIN
HOLE
42LYF056
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT BALDOR'S PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION.
REV. DESC: UPDATED DESCRIPTION
REV. LTR: H
VERSION: 04
TDR: 000000855149
FILE: \AAA\00036\859
REVISED: 10:09:06 05/23/2014
BY: ENNINDO
MTL: –
BALDOR
HORZ OPSB 324–6T, SUPER–E
SH 1 of 1

CD0104





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.

CD0104

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: C	BY: JLP	REVISED: 01/19/99 4:24	TDR: 0171435
CD0104		FILE: AAA00008377	MDL: –
		MTL: –	3PH, DV, 12 LEADS, Y START/D RUN

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