ABB BALDOR RELIANCE

Customer information packet

FDEM4114T

50HP, 3540RPM, 3PH, 60HZ, 326TS, 1252M, TEFC, F
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	326TS
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	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	3600 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
	230.0 V @ 60 HZ
Agency Approvals	CSA
	CSA EEV
	UR
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	122.000 A @ 208.0 V
	56.000 A @ 460.0 V
	112.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	93.0 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None

Part Detail

Revision	M
Type	AC
Mech. spec.	12H685
Base	
Status	PRD/A
Elec. spec.	12WGY291
Layout	12LYH685
Eff. date	11-27-2024
CD Diagram	CD0180
Poles	02
Leads	9#8
Proprietary	False
Created date	06-25-2015

Heater Indicator	No Heater
High Voltage Full Load Amps	56.0 a
Insulation Class	F
Inverter Code	Inverter Ready
KVA Code	H
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	9 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1252M
Mounting Arrangement	F1
Number of Poles	2
Overall Length	28.78 IN
Power Factor	90
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	3540 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	NONE (OLD)
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None

Winding Thermal 2	None

Nameplate

NP3126L										
CAT.NO.	FDEM4114T									
SPEC.	12H685Y291G1									
HP	50									
VOLTS	230/460									
AMP	112/56									
RPM	3540									
FRAME	326TS	**HZ**	60				**PH**	3		
SER.F.	1.15	**CODE**	H	**DES**	A	**CL**	F			
NEMA-NOM-EFF	93	**PF**	90							
RATING	40C AMB-CONT									
CC	010A									
DE	6312	**ODE**	6311							
ENCL	TEFC	**SN**								

Parts List

Part number	Description	Quantity
SA303860	SA 12H685Y291G1	1.000 ea
RA291012	RA 12H685Y291G1	1.000 ea
37FN3002C04	EXFN, PLASTIC, 6.00 OD, 2.003 ID	1.000 ea
10CB3000SP	KOBX, CAST W/2.00 LEAD HOLE	1.000 ea
09GS1000	GASKET-CONDUIT BOX, 1/16 THICK LEXIDE	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
12EP1107A156	FREP W/"O" DRN & NO GRSR,RLF,DRN,RET HLS	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
HW5100A13	W4627-047 WVY WSHER	1.000 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
12EP1106A85	PUEP, MACH FOR 3.00 LIP SEAL	1.000 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
HW4600B37	SEAL 2.250 X 3.000 X .375 SINGLE LIP	1.000 ea
HW4600B41	V-RING SLINGER 2.125 X 2.880 X 0.280	1.000 ea
12FH1002SP	FAN COVER, CAST	1.000 ea
HW1001A50	LOCKWASHER 1/2, ZINC PLT,.879 OD, .509 I	4.000 ea
XY5013A12	NUT,1/2-13,HEX,STEEL,ZINCPLATED	4.000 ea
WD4100A02	DP-1000 HEYCO PLUG OR 62MP1000 MICRO PL	1.000 ea
10CB3500	CONDUIT BOX LID, CAST	1.000 ea
10GS1000	GASKET, CONDUIT BOX LID	1.000 ea
51XW2520A12	.25-20 X .75, TAPTITE II, HEX WSHR SLTD	4.000 ea
HW2501H18	KEY, 1/2 SQ X 2.000	1.000 ea
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea
MJ1000A02	GREASE, POLYREX EM EXXON	0.200 lb
HA4066A01	PUSH IN T-DRAIN FITTING (BLACK)	1.000 ea

HW2500A25	WOODRUFF KEY USA #1008 #BLOW CARBON STEE	1.000 ea
51XB1214A20	12-14X1.25 HXWSSLD SERTYB	1.000 ea
MG1025C02	WILKOFAST SG, 787.105, TAN	0.080 ga
85XU0407S04	4X1/4 U DRIVE PIN STAINLESS	2.000 ea
LB1624	COMBINED WARNING LABEL, ISO/ANSI PICTOGR	1.000 ea
LC0181	CONNECTION LABEL	1.000 ea
NP3126L	ALUM FARM DUTY SUPER-E UL CSA-EEV PREM	1.000 ea
12PA1000	PACKAGING GROUP PRINT PK1024A08	1.000 ea
MN416A01	TAG-INSTAL-MAINT no wire (2500 bx)11/25	1.000 ea

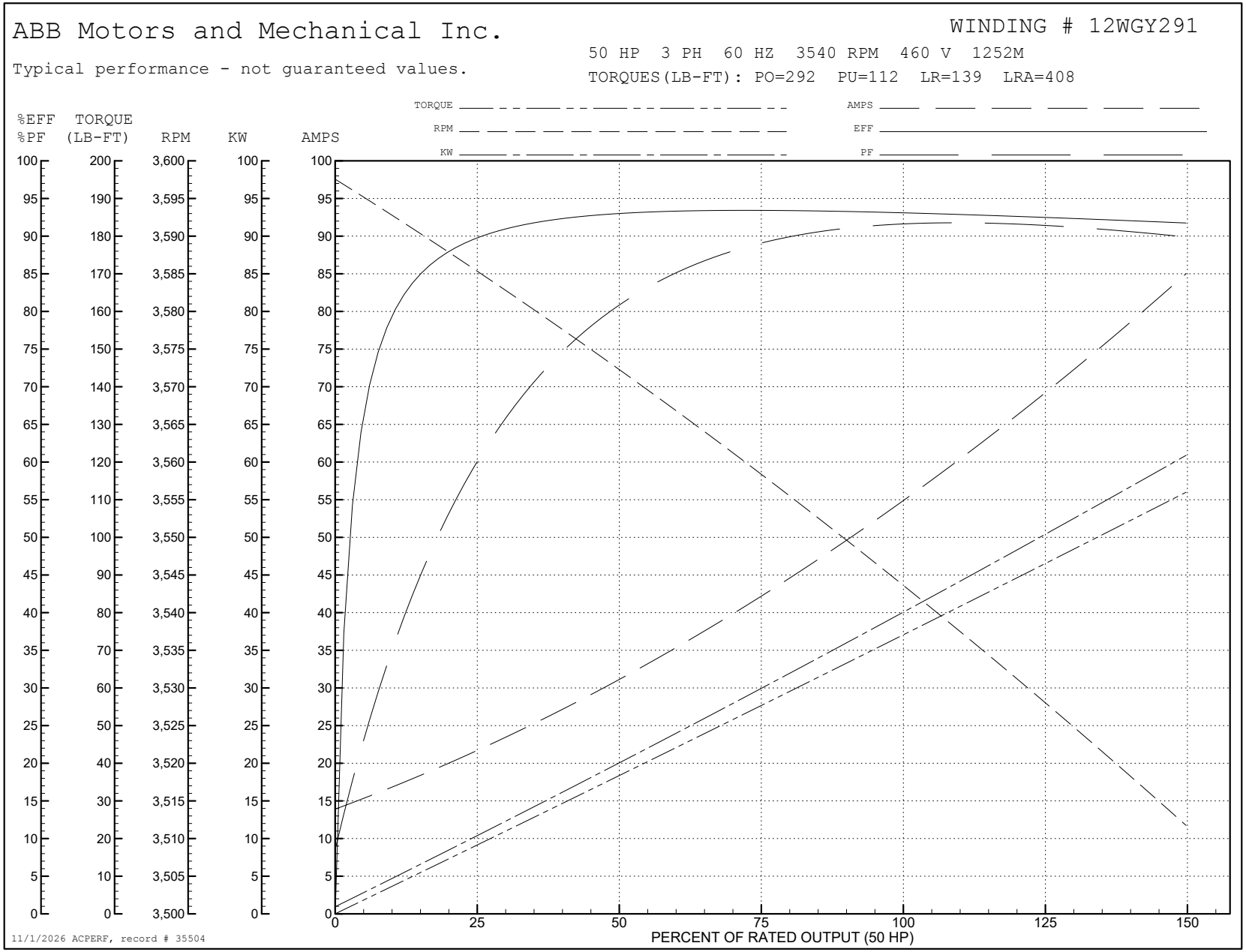
AC Induction Motor Performance Data
Record # 35504
Typical performance - not guaranteed values

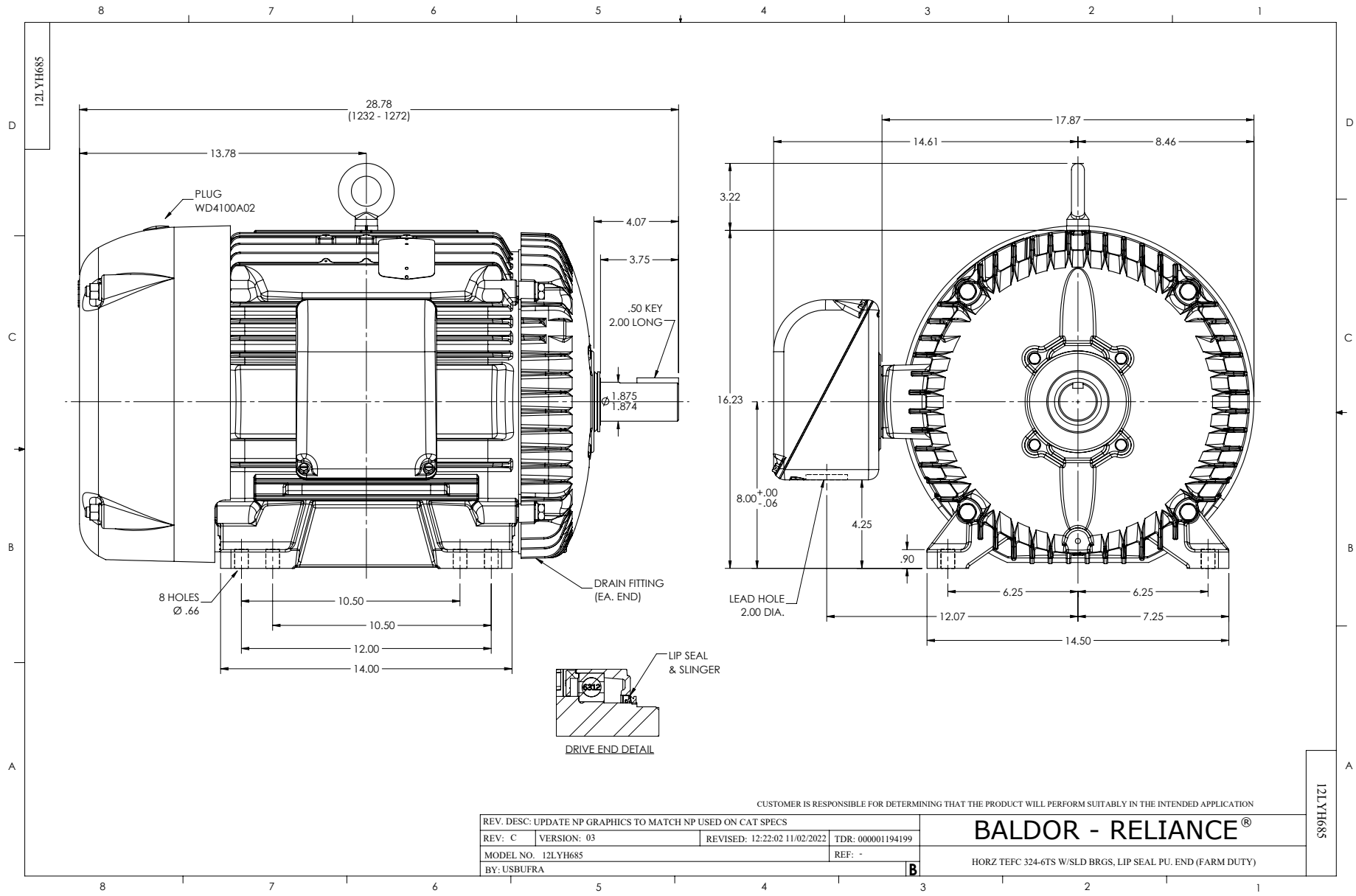
Winding: 12WGY291-R005	**Type:** 1252M	**Enclosure:** TEFC

Nameplate Data				**460 V, 60 Hz: High Voltage Connection**	
Rated Output (HP)			50	**Full Load Torque**	74.4 LB-FT
Volts			230/460	**Start Configuration**	direct on line
Full Load Amps			112/56	**Breakdown Torque**	292 LB-FT
R.P.M.			3540	**Pull-up Torque**	112 LB-FT
Hz	60	**Phase**	3	**Locked-rotor Torque**	139 LB-FT
NEMA Design Code	A	**KVA Code**	H	**Starting Current**	408 A
Service Factor (S.F.)			1.15	**No-load Current**	14.9 A
NEMA Nom. Eff.	93	**Power Factor**	90	**Line-line Res. @ 25ºC**	0.11257 Ω
Rating - Duty			40C AMB-CONT	**Temp. Rise @ Rated Load**	77°C
S.F. Amps				**Temp. Rise @ S.F. Load**	95°C
				Locked-rotor Power Factor	20.9
				Rotor inertia	4.07 LB-FT2

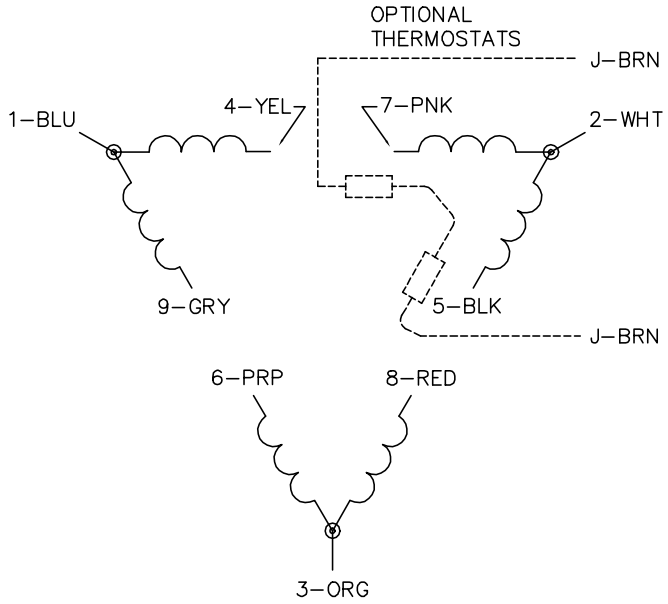
Load Characteristics 460 V, 60 Hz, 50 HP

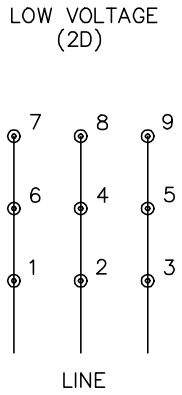
% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	66	82	88	90	91	90	91
Efficiency	91.1	93.8	94.2	93.9	93.2	92.3	93.5
Speed	3584.1	3571.8	3558.2	3544.1	3528.2	3511.2	3535
Line amperes	20.4	30.8	42.9	55.8	69.5	84.6	64

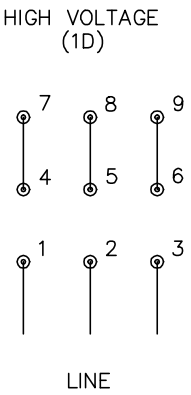

ABB Motors and Mechanical Inc.
WINDING # 12WGY291
Typical performance - not guaranteed values.
50 HP 3 PH 60 HZ 3540 RPM 460 V 1252M
TORQUES(LB-FT): PO=292 PU=112 LR=139 LRA=408
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF
%PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (50 HP)
11/1/2026 ACPERF, record # 35504


12LYH685
28.78
(1232 - 1272)
13.78
PLUG
WD4100A02
4.07
3.75
.50 KEY
2.00 LONG
1.875
1.874
8 HOLES
Ø .66
10.50
10.50
12.00
14.00
DRAIN FITTING
(EA. END)
LIP SEAL
& SLINGER
6312
DRIVE END DETAIL
17.87
14.61
8.46
3.22
16.23
8.00 +.00 -.06
4.25
.90
LEAD HOLE
2.00 DIA.
6.25
6.25
12.07
7.25
14.50
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: UPDATE NP GRAPHICS TO MATCH NP USED ON CAT SPECS
REV: C
VERSION: 03
REVISED: 12:22:02 11/02/2022
TDR: 000001194199
MODEL NO. 12LYH685
REF: -
BY: USBUFRA
B
BALDOR - RELIANCE®
HORZ TEFC 324-6TS W/SLD BRGS, LIP SEAL PU. END (FARM DUTY)
12LYH685

CD0180







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.

CD0180

REV. DESC: ADD CLASS CONN00000007		
REV. LTR: D	VERSION: 01	TDR: 000001099922
FILE: \AAA\00005\148	REVISED: 10:25:29 02/19/2019	BY: ENBRIR0
MTL: –		

BALDOR - RELIANCE®

3PH, DV, 9 LEADS, DELTA CONNECTION

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