ABB BALDOR RELIANCE

Customer information packet

CTM1766T

50HP, 1775RPM, 3PH, 60HZ, 326T, TEFC, FOOT,
Class - None
Division - Not Applicable

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Specifications

Enclosure	TEFC
Frame	326T
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	12.500 HP @ 60 HZ
	50.000 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ
Agency Approvals	CSA EEV
	CSA
	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	63.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	28.0 a
Insulation Class	F

Part Detail

Revision	X
Type	AC
Mech. spec.	12F707
Base	
Status	PRD/A
Elec. spec.	12WGX198
Layout	12LYF707
Eff. date	10-16-2025
CD Diagram	CD0032
Poles	04/08
Leads	6#8
Proprietary	False
Created date	10-29-2009

Inverter Code	Not Inverter
KVA Code	K
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 8 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	1272M
Mounting Arrangement	F1
Number of Poles	4
	8
Overall Length	30.28 IN
Product Family	Super-E Chemical Processing
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	2.125 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1760 rpm
	870 rpm
Speed Code	2S-1W-VT
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

NP2178								
CAT.NO.	CTM1766T							
SPEC.	12F707X198G1							
HP	50/12.5							
VOLTS	460							
AMP	63/28							
RPM	1760/870							
FRAME	326T	**HZ**	60		**PH**	3		
SER.F.	1.15	**CODE**	K	**DES**	A	**CL**	F	
NEMA-NOM-EFF		**PF**						
RATING	40C AMB-CONT							
CC								
DE	6312	**ODE**	6312					
ENCL	TEFC	**SN**						

AC Induction Motor Performance Data
Record # 35494
Typical performance - not guaranteed values

Winding: 12WGX198-R005	**Type:** 1272M	**Enclosure:** TEFC

Nameplate Data			
Rated Output (HP)			50/12.5
Volts			460
Full Load Amps			63/28
R.P.M.			1760/870
Hz	60	**Phase**	3
NEMA Design Code	A	**KVA Code**	K
Service Factor (S.F.)			1.15
NEMA Nom. Eff.	0	**Power Factor**	0
Rating - Duty			40C AMB-CONT
S.F. Amps			

460 V, 60 Hz: High Speed Connection	
Full Load Torque	146 LB-FT
Start Configuration	direct on line
Breakdown Torque	633 LB-FT
Pull-up Torque	211 LB-FT
Locked-rotor Torque	321 LB-FT
Starting Current	522 A
No-load Current	32.2 A
Line-line Res. @ 25ºC	0.115 Ω
Temp. Rise @ Rated Load	70°C
Temp. Rise @ S.F. Load	81°C
Locked-rotor Power Factor	34.1

Load Characteristics 460 V, 60 Hz, 50 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	39	61	73	79	83	85	81
Efficiency	86.3	91.5	93.1	93.4	93.4	93	93.4
Speed	1794	1790	1786	1781	1777	1772	1779
Line amperes	34.9	41.9	51.6	63	75.7	88.7	70.6

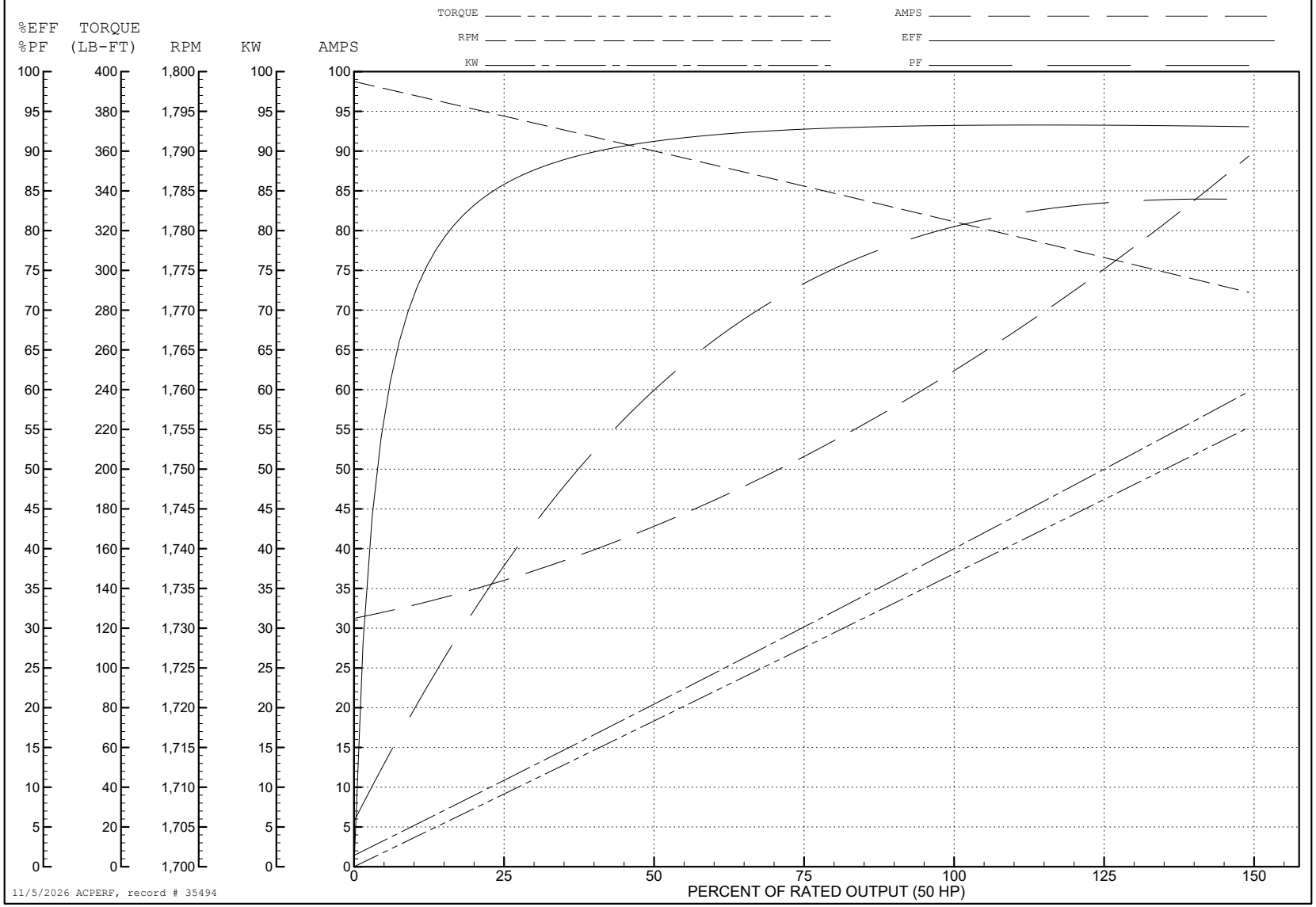
ABB Motors and Mechanical Inc.

WINDING # 12WGX198

50 HP 3 PH 60 HZ 1781 RPM 460 V 1272M

Typical performance - not guaranteed values.

TORQUES(LB-FT): PO=633 PU=211 LR=321 LRA=522



AC Induction Motor Performance Data
Record # 35495
Typical performance - not guaranteed values

Winding: 12WGX198-R005	**Type:** 1272M	**Enclosure:** TEFC

Nameplate Data			**460 V, 60 Hz: Low Speed Connection**	
Rated Output (HP)		50/12.5	**Full Load Torque**	76.7 LB-FT
Volts		460	**Start Configuration**	direct on line
Full Load Amps		63/28	**Breakdown Torque**	235 LB-FT
R.P.M.		1760/870	**Pull-up Torque**	92.5 LB-FT
Hz	60 **Phase**	3	**Locked-rotor Torque**	113 LB-FT
NEMA Design Code	A **KVA Code**	K	**Starting Current**	120 A
Service Factor (S.F.)		1.15	**No-load Current**	23 A
NEMA Nom. Eff.	0 **Power Factor**	0	**Line-line Res. @ 25ºC**	0.444 Ω
Rating - Duty		40C AMB-CONT	**Temp. Rise @ Rated Load**	53°C
S.F. Amps			**Temp. Rise @ S.F. Load**	59°C
			Locked-rotor Power Factor	32.5

Load Characteristics 460 V, 60 Hz, 13 HP

% of Rated Load	**25**	**50**	**75**	**100**	**125**	**150**	**S.F.**
Power Factor	18	30	40	48	54	59	52
Efficiency	74	83.4	86.9	88.3	88.8	88.7	88.6
Speed	896	894	892	889	886	883	887
Line amperes	23.2	24.3	26.2	28.5	31.4	34.9	30.2

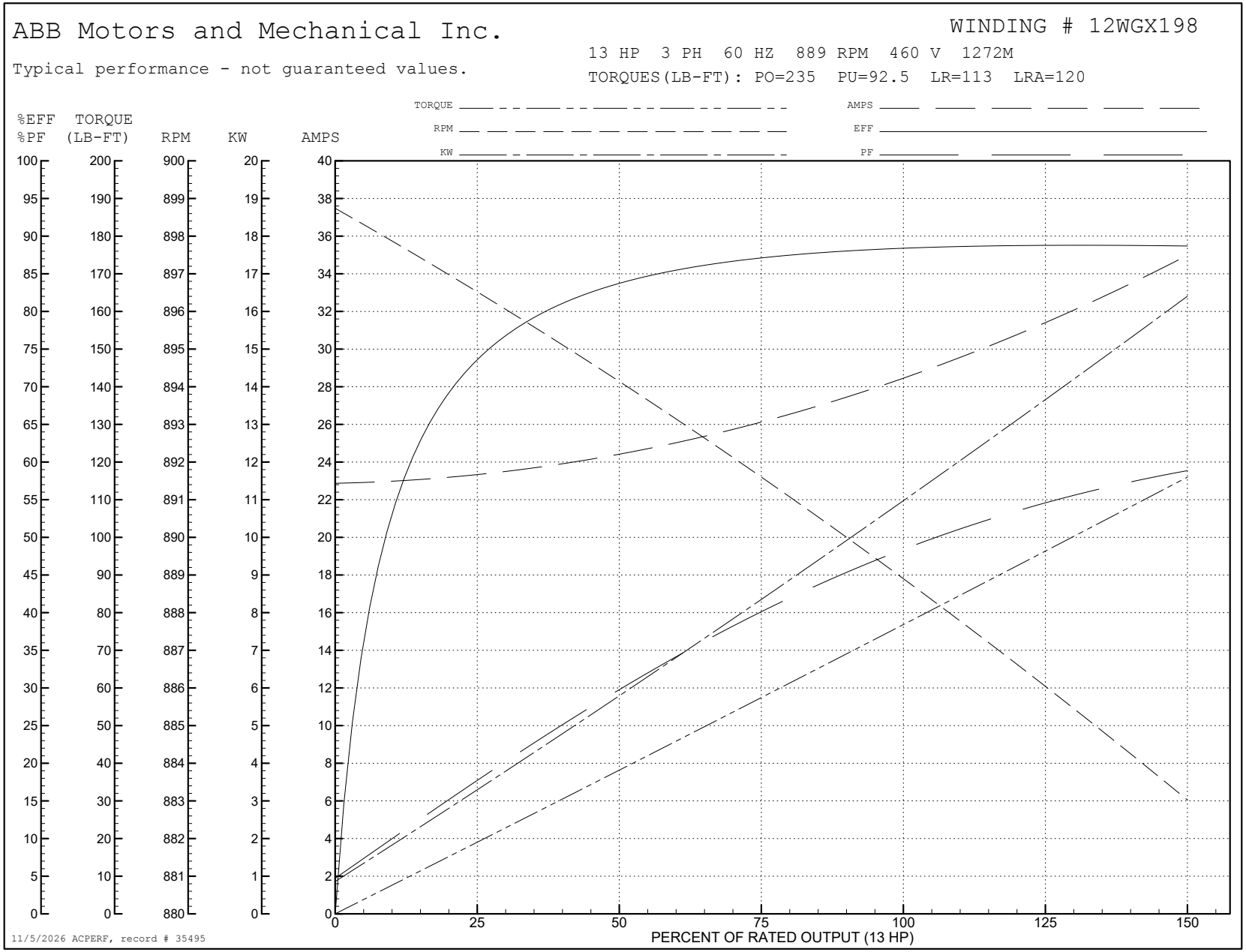
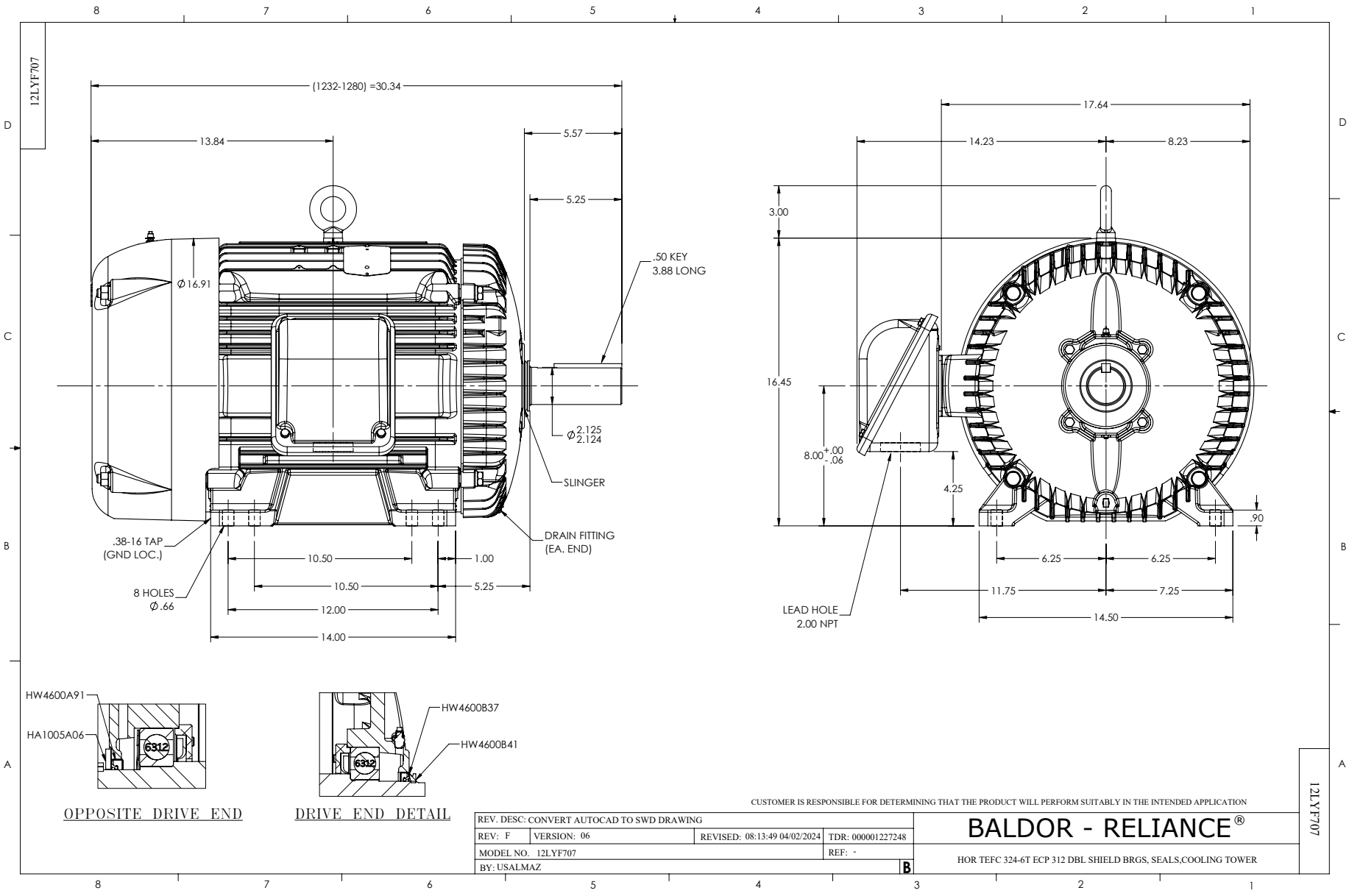
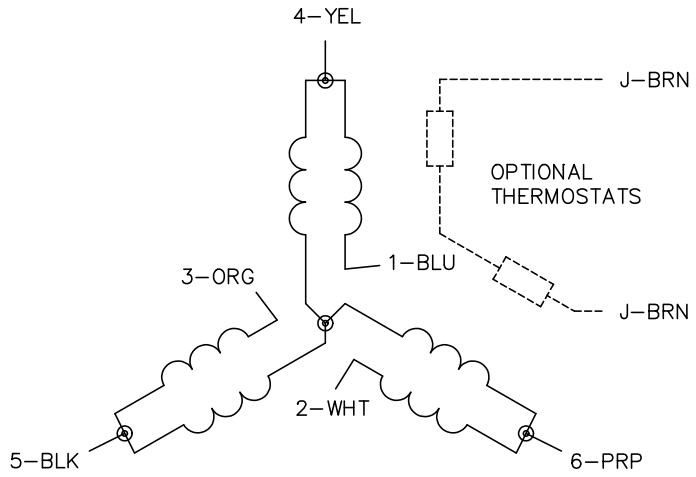
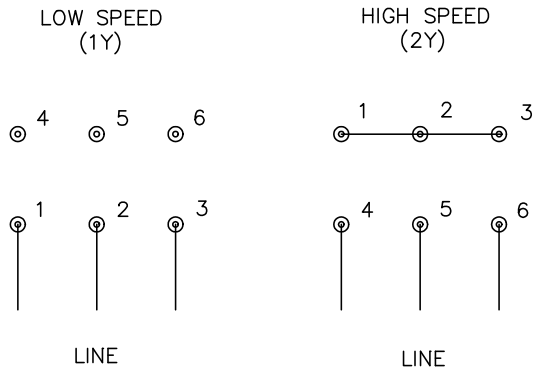


ABB Motors and Mechanical Inc.
WINDING # 12WGX198
13 HP 3 PH 60 HZ 889 RPM 460 V 1272M
Typical performance - not guaranteed values.
TORQUES(LB-FT): PO=235 PU=92.5 LR=113 LRA=120
TORQUE
RPM
KW
AMPS
EFF
PF
%EFF
%PF
TORQUE (LB-FT)
RPM
KW
AMPS
PERCENT OF RATED OUTPUT (13 HP)
11/5/2026 ACPERF, record # 35495


12LYF707
(1232-1280) =30.34
13.84
5.57
5.25
.50 KEY
3.88 LONG
Ø16.91
Ø2.125
2.124
SLINGER
DRAIN FITTING
(EA. END)
.38-16 TAP
(GND LOC.)
8 HOLES
Ø.66
10.50
1.00
10.50
5.25
12.00
14.00
17.64
14.23
8.23
3.00
16.45
8.00 +.00 -.06
4.25
.90
6.25
6.25
11.75
7.25
14.50
LEAD HOLE
2.00 NPT
HW4600A91
HA1005A06
6312
HW4600B37
HW4600B41
6312
OPPOSITE DRIVE END
DRIVE END DETAIL
CUSTOMER IS RESPONSIBLE FOR DETERMINING THAT THE PRODUCT WILL PERFORM SUITABLY IN THE INTENDED APPLICATION
REV. DESC: CONVERT AUTOCAD TO SWD DRAWING
REV: F
VERSION: 06
REVISED: 08:13:49 04/02/2024
TDR: 000001227248
MODEL NO. 12LYF707
REF: -
BY: USALMAZ
B
BALDOR - RELIANCE®
HOR TEFC 324-6T ECP 312 DBL SHIELD BRGS, SEALS,COOLING TOWER
12LYF707

CD0032





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.

CD0032

REV. DESC: REVISE TO SHOW OPTIONAL COLORS			BALDOR ELECTRIC Co.
REV. LTR: E	BY: JLP	REVISED: 01/22/99 8:27	TDR: 0171435
CD0032		FILE: AAA00005145	MDL: –
		MTL: –	3PH, SV, 6 LEADS, 2–SPEED 1–WINDING VARIABLE TORQUE