

BALDOR • RELIANCE

Customer information packet

HBEM3770T

38M 4P TEFC HOR 213T

Class - None

Division - Not Applicable

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1/21/2025 2:21:18 PM

Specifications

Enclosure	TEFC
Frame	213T
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	7.500 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 230.0 V @ 60 HZ
Agency Approvals	CURUSEEV NEMA PREMIUM WEEE
Ambient Temperature	40 °C
Auxillary Box	No Auxillary Box
Auxillary Box Lead Termination	None
Base Indicator	Rigid
Bearing Grease Type	Polyrex EM (-20F +300F)
Blower	None
Current @ Voltage	20.000 A @ 208.0 V 9.500 A @ 460.0 V 19.000 A @ 230.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Electrically Isolated Bearings
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part detail

Revision	F
Type	AC
Mech. spec.	07D743
Base	
Status	PRD/A
Elec. spec.	07WGT510
Layout	07LYD743
Eff. date	12-06-2024
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	01-05-2022

High Voltage Full Load Amps	9.5 a
Insulation Class	H
Inverter Code	Inverter Ready
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Max Speed	2700 rpm
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0738M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	18.45 IN
Power Factor	81
Product Family	General Purpose
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
RoHS Status	ROHS COMPLIANT
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	None
Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP4312A01A01L

CAT #	HBEM3770T		SER			CC	010A	WGT		LBS					
SPEC	07D743T510G1		RATING	40C AMB-CONT											
HZ	VOLTS		AMPS		RPM	HP	SF	NEMA NOM. EFF							
60	230/460		19/9.5		1770	7.5	1.15	91.7							
PH	3	CL	H	CODE	J	DES	A	ENCL	TEFC	IP	54	PF	81	%	
DE BRG	6307		ODE BRG	6206		FRAME	213T								
INV TYPE:	VPWM		SL HZ	1	CHP	60	TO	90	1.5:1						
WK2	0.934		LB FT2	MAX RPM		2700	CT	6	TO	60	10:1				
	8.2/4.1		VT	3	TO	60	20:1								

SFA 21.4/10.7

YR

AC Induction Motor Performance Data

Record # 92020

Typical performance - not guaranteed values

Winding: 07WGT510-R012		Type: 0738M	Enclosure: TEFC	
Nameplate Data			460 V, 60 Hz: High Voltage Connection	
Rated Output (HP)	7.5	Full Load Torque	22.3 LB-FT	
Volts	230/460	Start Configuration	direct on line	
Full Load Amps	19/9.5	Breakdown Torque	69.1 LB-FT	
R.P.M.	1770	Pull-up Torque	28.7 LB-FT	
Hz	60 Phase	3	Locked-rotor Torque	39.1 LB-FT
NEMA Design Code	A KVA Code	J	Starting Current	67.4 A
Service Factor (S.F.)	1.15	No-load Current	4.07 A	
NEMA Nom. Eff.	91.7 Power Factor	81	Line-line Res. @ 25°C	1.48 Ω
Rating - Duty	40C AMB-CONT	Temp. Rise @ Rated Load	48°C	
S.F. Amps		Temp. Rise @ S.F. Load	59°C	
		Locked-rotor Power Factor	37.1	
		Rotor inertia	0.934 lb-ft ²	

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	44	66	76	81	84	85	83
Efficiency	86.7	91	92.2	91.8	90.3	89.4	90.9
Speed	1792	1785	1777	1769	1759	1749	1763
Line amperes	4.61	5.85	7.48	9.43	11.6	13.9	10.7

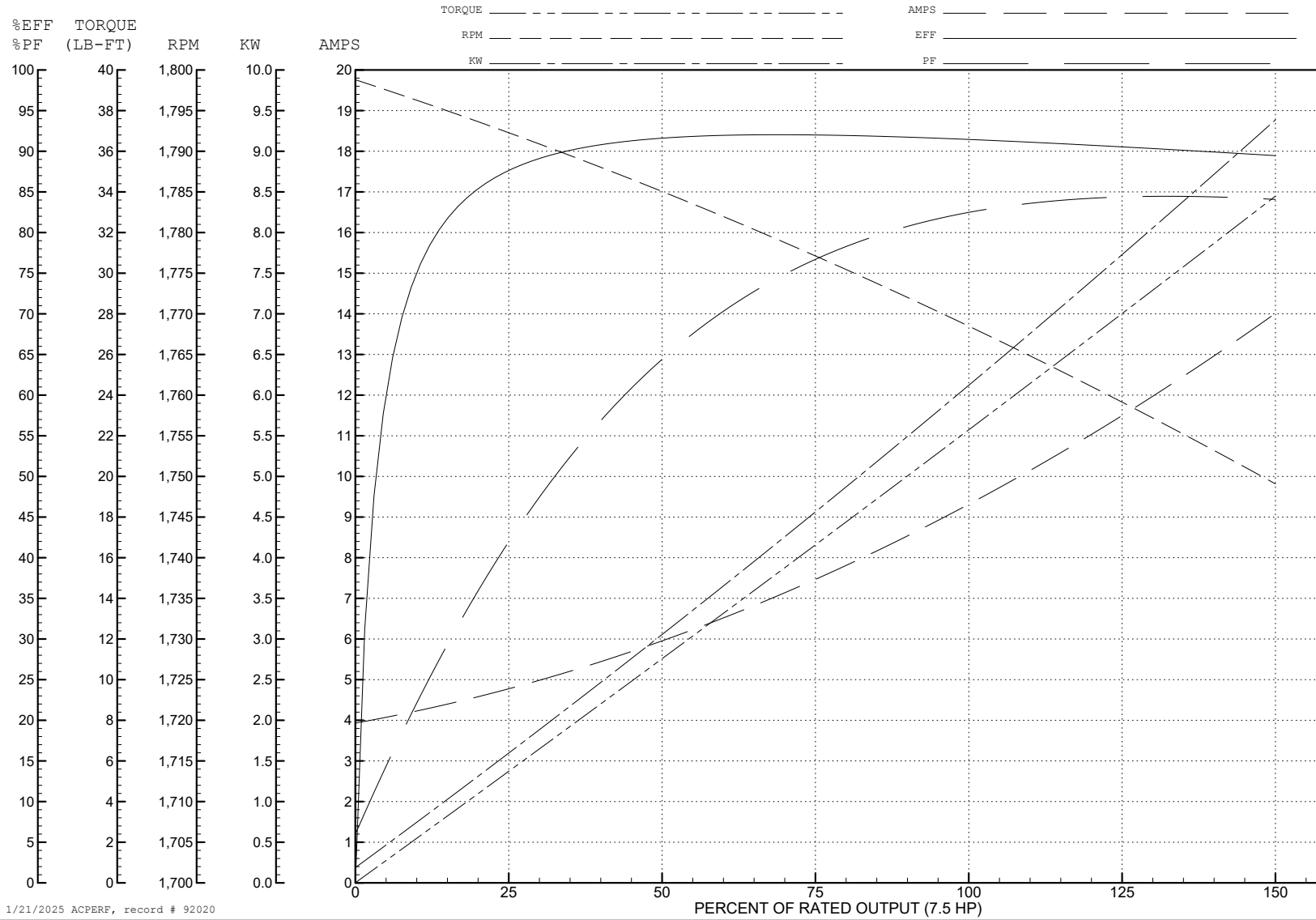
ABB Motors and Mechanical Inc.

WINDING # 07WGT510

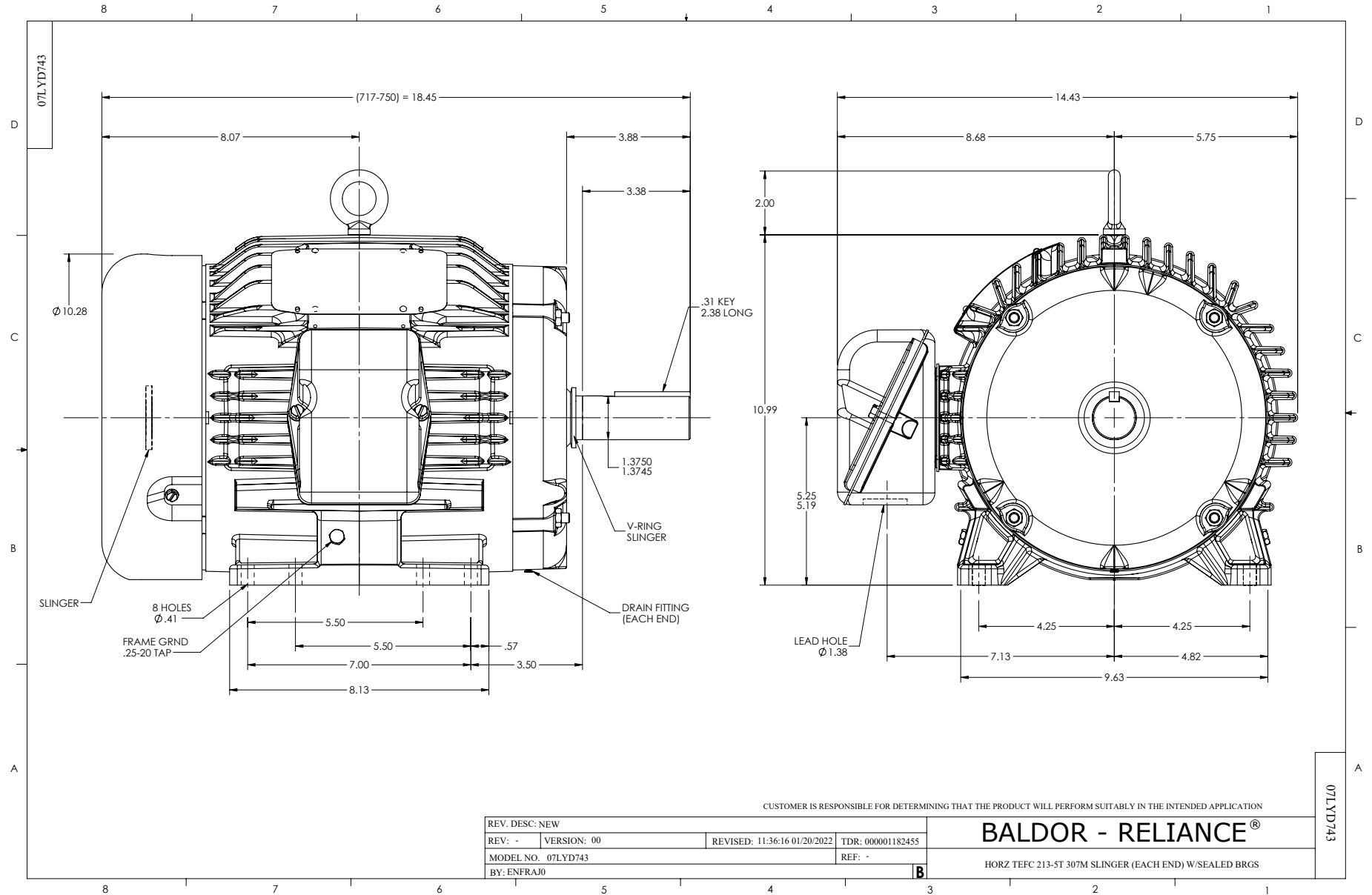
7.5 HP 3 PH 60 HZ 1770 RPM 460 V 0738M

Typical performance - not guaranteed values.

TORQUES (LB-FT): PO=69.1 PU=28.7 LR=39.1 LRA=67.4



1/21/2025 ACPERF, record # 92020



CD0005



LOW VOLTAGE
(2Y)



LINE

HIGH VOLTAGE
(1Y)



LINE

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			
REV. LTR: E	BY: JLP	REVISED: 01/19/99 10:15	TDR: 0171435
S00000		FILE: AAA00005140	MDL: -
		MTL: -	

BALDOR ELECTRIC Co.

3PH, DV, 9 LEADS