

ABB BALDOR RELIANCE III

Customer information packet

HBEM3770T

38M 4P TEFC HOR 213T

Class - None

Division - Not Applicable

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
Auxiliary Box	NO AUXILLARY BOX
Auxiliary 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	G
Type	AC
Mech. spec.	07D743
Base	
Status	PRD/A
Elec. spec.	07WGT510
Layout	07LYD743
Eff. date	02-03-2026
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-ft²	

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

Typical performance - not guaranteed values.

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

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





