

ABB BALDOR RELIANCE III

Customer information packet

XM21742T

7.5HP, 1770//1470RPM, 3PH, 60HZ, 213T, XPFC, F

Class - CLI GP D; CLII GP F,G

Division - Division I

Specifications

Enclosure	XPFC
Frame	213T
Frame Material	Steel
Frequency	50.00 Hz 60.00 Hz
Haz Area Class and Group	CLI GP D; CLII GP F,G
Haz Area Division	Division I
Motor Letter Type	Three Phase
Output @ Frequency	7.500 HP @ 60 HZ 5.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 60 HZ
Voltage @ Frequency	190.0 V @ 50 HZ 230.0 V @ 60 HZ 380.0 V @ 50 HZ 460.0 V @ 60 HZ
Agency Approvals	CSA EEV UL
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
Constant Torque Speed Range	6
Current @ Voltage	9.400 A @ 460.0 V 7.800 A @ 380.0 V 18.800 A @ 230.0 V 15.600 A @ 190.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	E
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	37WGR374
Layout	37LYN517
Eff. date	01-13-2021
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	04-04-2019

Efficiency @ 100% Load	91.7 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	7.8 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	J
Lifting Lugs	Standard Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3744M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.32 IN
Power Factor	83
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1770 rpm
Speed Code	Single Speed
Starting Method	Direct on line
Thermal Device - Bearing	None
Thermal Device - Winding	Normally Closed Thermostat

Vibration Sensor Indicator	No Vibration Sensor
Winding Thermal 1	None
Winding Thermal 2	None

Nameplate

NP0887XPSLEV											
NO.						CC	010A				
S/N						TEMP CODE		T3C			
SPEC.	37-0000-0043					INV.TYPE		PWM			
CAT.NO.	XM21742T					C HP FR		60	C HP TO		90
HP	7.5//5					CT HZ FROM		6	CT HZ TO		60
VOLTS	230/460//190/380					VT HZ FROM		6	VT HZ TO		60
AMPS	18.8/9.4//15.6/7.8				MAG CUR		8.4/4.2				
RPM	1770//1470				MX RPM		2700				
HZ	60//50	PH	3	CL	F	NOM.EFF.		91.7			
SER.F.	1.00	DES	A	SL HZ		1	WK2	1.08			
FRAME	213T	RATING		40C AMB-CONT							
	55C AMB @ 1.0 SF										
	1.15 SF SINEWAVE					NEMA MG-1 PT 5,IP54					

AC Induction Motor Performance Data

Record # 75486

Typical performance - not guaranteed values

Winding: 37WGR374-R001			Type: 3744M		Enclosure: TEFC			
Nameplate Data			460 V, 60 Hz: High Voltage Connection					
Rated Output (HP)		7.5//5	Full Load Torque		22.2 LB-FT			
Volts		230/460//190/380	Start Configuration		direct on line			
Full Load Amps		18.8/9.4//15.6/7.8	Breakdown Torque		72.7 LB-FT			
R.P.M.		1770//1470	Pull-up Torque		34.3 LB-FT			
Hz		60//50	Phase		3	Locked-rotor Torque	43.3 LB-FT	
NEMA Design Code		A	KVA Code		J	Starting Current		74.2 A
Service Factor (S.F.)		1		No-load Current		4.19 A		
NEMA Nom. Eff.		91.7	Power Factor		83	Line-line Res. @ 25°C		1.25 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		50°C		
S.F. Amps				Temp. Rise @ S.F. Load		61°C		
				Locked-rotor Power Factor		36		
				Rotor inertia		1.08 LB-FT2		

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	41	65	76	83	85	85
Efficiency	88.3	91.7	92.9	92.4	91.7	90.4
Speed	1794	1787	1780	1772	1764	1755
Line amperes	4.84	5.92	7.41	9.18	11.3	13.6

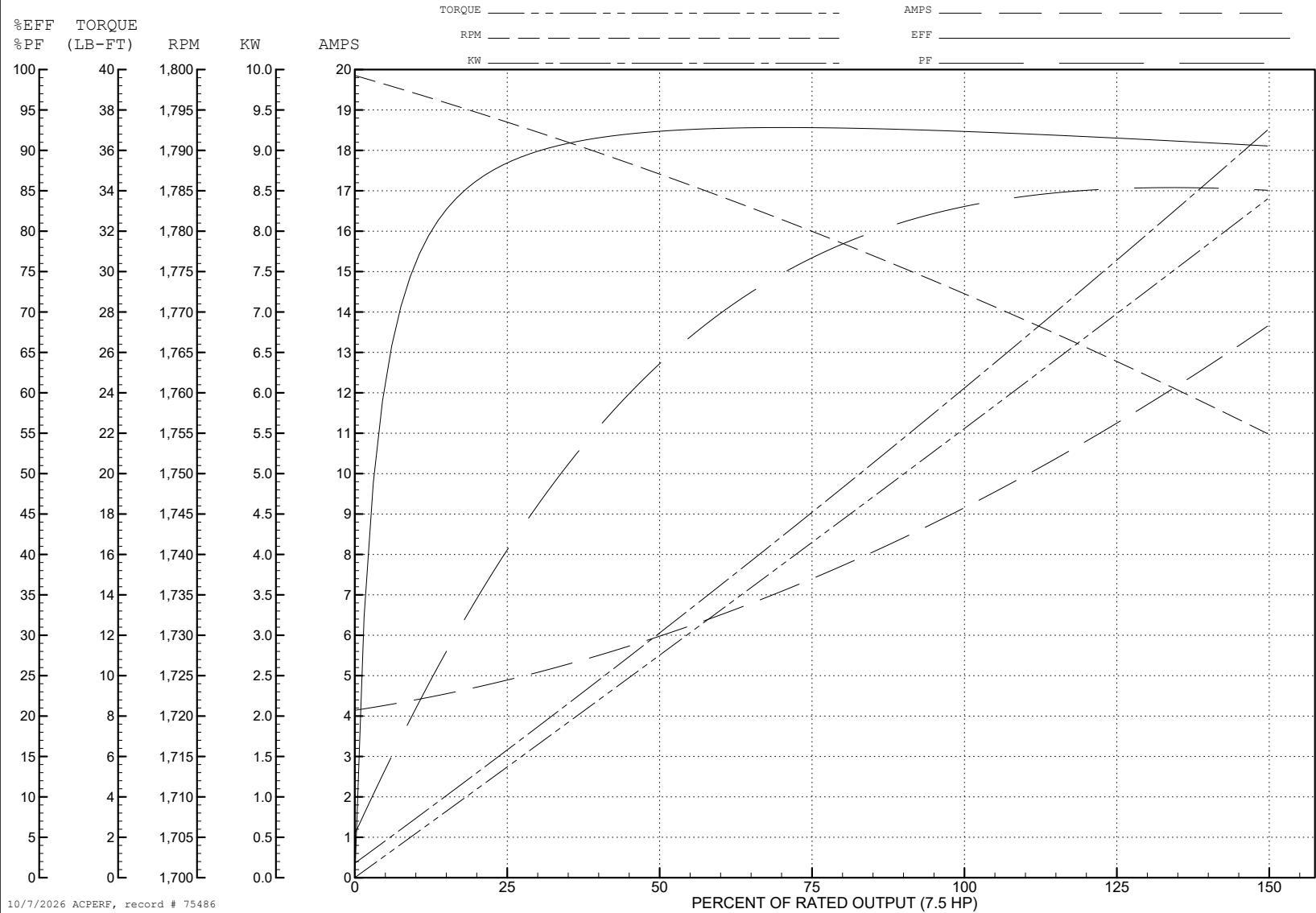
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WINDING # 37WGR374

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1772 RPM 460 V 3744M

TORQUES (LB-FT): PO=72.7 PU=34.3 LR=43.3 LRA=74.2



AC Induction Motor Performance Data

Record # 75487

Typical performance - not guaranteed values

Winding: 37WGR374-R001				Type: 3744M		Enclosure: XPFC				
Nameplate Data						380 V, 50 Hz: High Voltage Connection				
Rated Output (HP)				7.5//5		Full Load Torque		17.74 LB-FT		
Volts				230/460//190/380		Start Configuration		direct on line		
Full Load Amps				18.8/9.4//15.6/7.8		Breakdown Torque		69.37 LB-FT		
R.P.M.				1770//1470		Pull-up Torque		35.44 LB-FT		
Hz		60//50		Phase		3		Locked-rotor Torque	44.74 LB-FT	
NEMA Design Code				A		KVA Code		J	Starting Current	72.03 A
Service Factor (S.F.)								1	No-load Current	4.13 A
NEMA Nom. Eff.		91.7		Power Factor		83		Line-line Res. @ 25°C	1.25 Ω	
Rating - Duty				40C AMB-CONT				Temp. Rise @ Rated Load	39°C	
								Locked-rotor Power Factor	40.1	
								Rotor inertia	1.08 LB-FT2	

Load Characteristics 380 V, 50 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	35	58	71	79	82	84
Efficiency	86.5	90.7	92.3	91.9	91.4	90.3
Speed	1495	1489	1484	1477	1471	1464
Line amperes	4.62	5.36	6.45	7.77	9.41	11.18

ABB Motors and Mechanical Inc.

WINDING # 37WGR374

Typical performance - not guaranteed values.

5 HP 3 PH 50 HZ 1477 RPM 380 V 3744M

TORQUES (LB-FT) : PO=69.37 PU=35.44 LR=44.74 LRA=72.03

