

ABB BALDOR RELIANCE III

Customer information packet

CTM3770T

7.5 AIR OVERHP, 1760RPM, 3PH, 60HZ, 213T, 073

Class - None

Division - Not Applicable

Specifications

Enclosure	TEAO
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	208.0 V @ 60 HZ 230.0 V @ 60 HZ 460.0 V @ 60 HZ
Agency Approvals	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	20.900 A @ 208.0 V 20.000 A @ 230.0 V 10.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Shaft Indicator	None
Heater Indicator	No Heater

Part Detail

Revision	B
Type	AC
Mech. spec.	07N391
Base	
Status	PRD/A
Elec. spec.	07WGT575
Layout	07LYN391
Eff. date	06-06-2024
CD Diagram	CD0005
Poles	04
Leads	9#14
Proprietary	False
Created date	03-21-2023

High Voltage Full Load Amps	10.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	H
Lifting Lugs	Vertical Lifting Lugs
Locked Bearing Indicator	Locked Bearing
Motor Lead Quantity/Wire Size	9 @ 14 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	0730M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	19.54 IN
Power Factor	79
Product Family	Chemical Processing (Not DC)
Pulley End Bearing Type	Sealed Bearing
Pulley Face Code	Standard
Pulley Shaft Indicator	Tapped & Key
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.375 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	Shaft Slinger
Speed	1760 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

NP1258									
CAT.NO.	CTM3770T								
SPEC.	07N391T575H1								
HP	7.5 AIR OVER								
VOLTS	208-230/460								
AMP	20.9-20/10								
RPM	1760								
FRAME	213T		HZ	60		PH		3	
SER.F.	1.15		CODE	H	DES	A		CL	F
NEMA-NOM-EFF	89.5		PF	79					
RATING	40C AMB-CONT								
CC									
DE	6307		ODE	6206					
ENCL	TEAO		SN						
	1700 FPM 170 CFM								

AC Induction Motor Performance Data

Record # 99021

Typical performance - not guaranteed values

Winding: 07WGT575-R001			Type: 0730M		Enclosure: TEAO		
Nameplate Data			460 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		7.5 AIR OVER	Full Load Torque		22.24 LB-FT		
Volts		208-230/460	Start Configuration		direct on line		
Full Load Amps		20.9-20/10	Breakdown Torque		65.3 LB-FT		
R.P.M.		1760	Pull-up Torque		29 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		43.2 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		66.1 A
Service Factor (S.F.)		1.15		No-load Current		5.15 A	
NEMA Nom. Eff.		89.5	Power Factor	79	Line-line Res. @ 25°C		1.71 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		65°C	
S.F. Amps				Temp. Rise @ S.F. Load		79°C	
				Locked-rotor Power Factor		40	
				Rotor inertia		0.738 lb-ft²	

Load Characteristics 460 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	38	59	71	77	80	82	79
Efficiency	80.7	87.7	89.5	90.1	89	87.1	89.4
Speed	1791	1783	1773	1763	1752	1741	1756
Line amperes	5.52	6.62	8.23	10.09	12.23	14.56	11.4

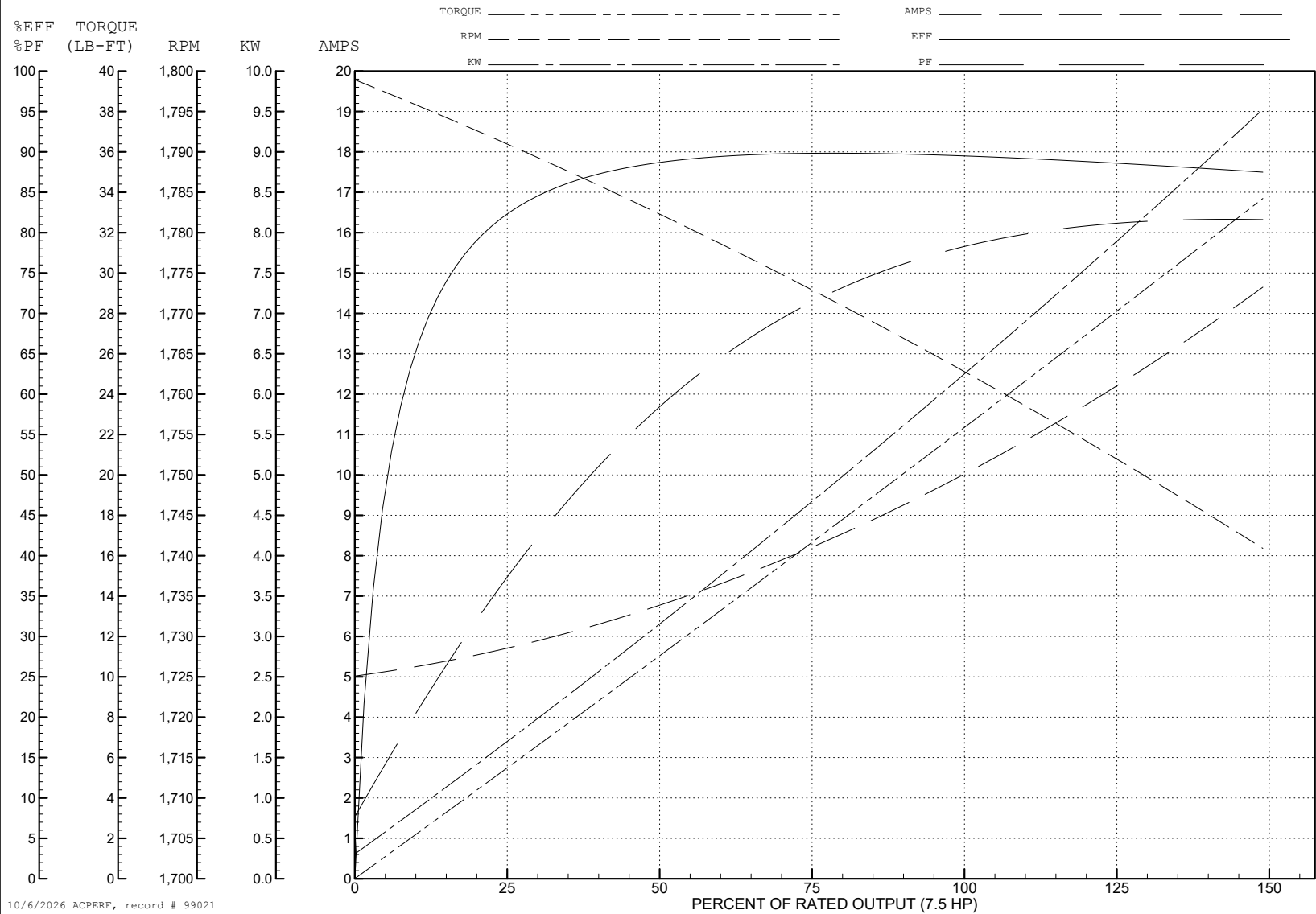
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WINDING # 07WGT575

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1760 RPM 460 V 0730M

TORQUES (LB-FT): PO=65.3 PU=29 LR=43.2 LRA=66.1



AC Induction Motor Performance Data

Record # 99022

Typical performance - not guaranteed values

Winding: 07WGT575-R001			Type: 0730M		Enclosure: TEAO		
Nameplate Data			208 V, 60 Hz: High Voltage Connection				
Rated Output (HP)		7.5 AIR OVER	Full Load Torque		22.3 LB-FT		
Volts		208-230/460	Start Configuration		direct on line		
Full Load Amps		20.9-20/10	Breakdown Torque		52.6 LB-FT		
R.P.M.		1760	Pull-up Torque		26.5 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		38 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		117 A
Service Factor (S.F.)		1.15		No-load Current		8.07 A	
NEMA Nom. Eff.		89.5	Power Factor	79	Line-line Res. @ 25°C		0.427 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		66°C	
S.F. Amps				Temp. Rise @ S.F. Load		82°C	
				Locked-rotor Power Factor		40	
				Rotor inertia		0.738 lb-ft ²	

Load Characteristics 208 V, 60 Hz, 7.5 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	48	70	79	82	84	84	83
Efficiency	83.6	89	90	90	88.4	85.9	89
Speed	1790	1780	1769	1757	1743	1728	1749
Line amperes	9.27	12.28	16.31	20.9	26.13	31.92	24

ABB Motors and Mechanical Inc.

WINDING # 07WGT575

Typical performance - not guaranteed values.

7.5 HP 3 PH 60 HZ 1760 RPM 208 V 0730M

TORQUES (LB-FT): PO=52.6 PU=26.5 LR=38 LRA=117

