

ABB BALDOR RELIANCE III

Customer information packet

CXM18542T

5//3HP, 1750//1460RPM, 3PH, 60//50HZ, 184TC

Class - CLI GP D; CLII GP F,G

Division - Division I

Specifications

Enclosure	XPFC
Frame	184TC
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	5.000 HP @ 60 HZ 3.000 HP @ 50 HZ
Phase	3
Synchronous Speed @ Frequency	1800 RPM @ 50 HZ
Voltage @ Frequency	460.0 V @ 60 HZ 190.0 V @ 50 HZ 230.0 V @ 60 HZ 380.0 V @ 50 HZ
Agency Approvals	UL CSA EEV
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	30
Current @ Voltage	11.200 A @ 190.0 V 13.600 A @ 230.0 V 5.600 A @ 380.0 V 6.800 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT

Part Detail

Revision	C
Type	AC
Mech. spec.	
Base	
Status	PRD/A
Elec. spec.	36WGR866
Layout	36LYK919
Eff. date	05-03-2023
CD Diagram	CD0005
Poles	04
Leads	9#16
Proprietary	False
Created date	11-12-2020

Efficiency @ 100% Load	89.5 %
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Haz Area Temp Code	T3C
Heater Indicator	No Heater
High Voltage Full Load Amps	5.6 a
Insulation Class	F
Inverter Code	Inverter Duty
IP Rating	NONE
KVA Code	L
Lifting Lugs	No Lifting Lugs
Locked Bearing Indicator	No Locked Bearing
Max Speed	2700 rpm
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	3646M
Mounting Arrangement	F1
Number of Poles	4
Overall Length	20.36 IN
Power Factor	74
Product Family	General Purpose
Pulley Face Code	C-Face
Rodent Screen	None
RoHS Status	ROHS NON-COMPLIANT
Service Factor	1.00
Shaft Diameter	1.125 IN
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Speed	1750 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.	36-0000-0439					INV.TYPE	PWM				
CAT.NO.	CXM18542T					C HP FR	60	C HP TO	90		
HP	5//3					CT HZ FROM	30	CT HZ TO	60		
VOLTS	230/460//190/380					VT HZ FROM	6	VT HZ TO	60		
AMPS	13.6/6.8//11.2/5.6					MAG CUR	7.4/3.7				
RPM	1750//1460					MX RPM	2700				
HZ	60//50	PH	3	CL	F	NOM.EFF.	89.5				
SER.F.	1.00	DES	A	SL HZ	1.4	WK2	0.428				
FRAME	184TC	RATING	40C AMB-CONT								
NEMA MG-1 PART 5, IP54						1.15 SF SINEWAVE					

AC Induction Motor Performance Data

Record # 78059

Typical performance - not guaranteed values

Winding: 36WGR866-R001			Type: 3646M		Enclosure: XPFC			
Nameplate Data					460 V, 60 Hz: High Voltage Connection			
Rated Output (HP)		5//3		Full Load Torque		14.92 LB-FT		
Volts		230/460//190/380		Start Configuration		direct on line		
Full Load Amps		13.6/6.8//11.2/5.6		Breakdown Torque		68.7 LB-FT		
R.P.M.		1750//1460		Pull-up Torque		35.1 LB-FT		
Hz		60//50	Phase	3	Locked-rotor Torque		42.8 LB-FT	
NEMA Design Code		A		KVA Code	L	Starting Current		59.1 A
Service Factor (S.F.)		1		No-load Current		3.71 A		
NEMA Nom. Eff.		89.5	Power Factor		74	Line-line Res. @ 25°C		1.91 Ω
Rating - Duty		40C		AMB-CONT		Temp. Rise @ Rated Load		58°C
						Locked-rotor Power Factor		39.7
						Rotor inertia		0.428 LB-FT ²

Load Characteristics 460 V, 60 Hz, 5 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	36	57	69	76	81	83
Efficiency	80.6	87.7	89.6	89.8	89.5	88.7
Speed	1789	1780	1770	1760	1749	1737
Line amperes	4.01	4.72	5.7	6.83	8.1	9.53

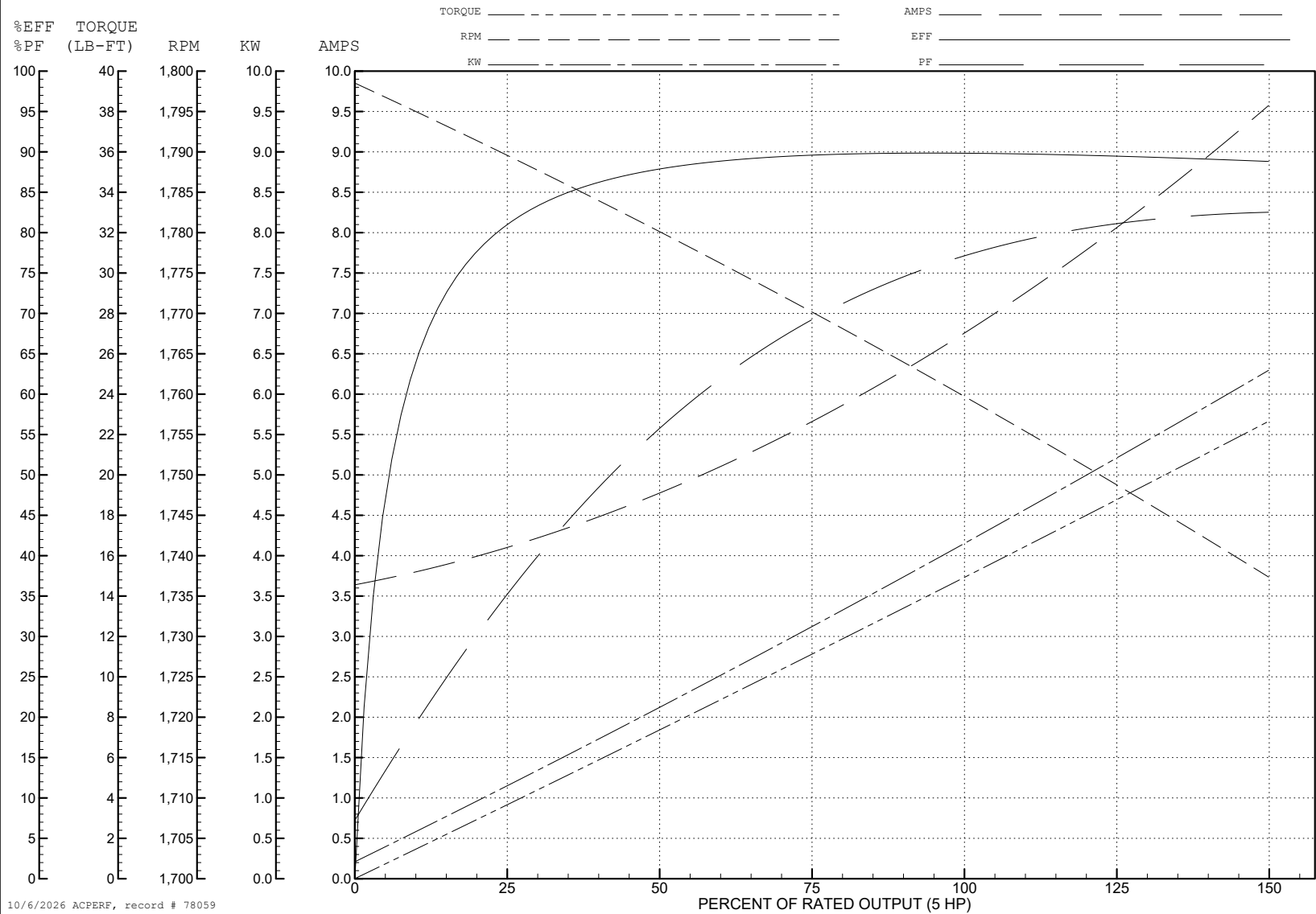
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WINDING # 36WGR866

Typical performance - not guaranteed values.

5 HP 3 PH 60 HZ 1760 RPM 460 V 3646M

TORQUES (LB-FT): PO=68.7 PU=35.1 LR=42.8 LRA=59.1



AC Induction Motor Performance Data

Record # 78060

Typical performance - not guaranteed values

Winding: 36WGR866-R001				Type: 3646M		Enclosure: XPFC	
Nameplate Data				380 V, 50 Hz: High Voltage Connection			
Rated Output (HP)		5//3		Full Load Torque		10.7 LB-FT	
Volts		230/460//190/380		Start Configuration		direct on line	
Full Load Amps		13.6/6.8//11.2/5.6		Breakdown Torque		65.1 LB-FT	
R.P.M.		1750//1460		Pull-up Torque		35.75 LB-FT	
Hz		60//50		Phase		3	
NEMA Design Code		A		KVA Code		L	
Service Factor (S.F.)		1		No-load Current		3.63 A	
NEMA Nom. Eff.		89.5		Power Factor		74	
Rating - Duty		40C		AMB-CONT			
				Locked-rotor Power Factor		44	
				Rotor inertia		0.428 LB-FT ²	

Load Characteristics 380 V, 50 Hz, 3 HP

% of Rated Load	25	50	75	100	125	150
Power Factor	29	47	60	68	75	78
Efficiency	75.9	84.9	87.8	88.7	88.8	88.4
Speed	1492	1485	1477	1470	1461	1453
Line amperes	3.82	4.27	4.89	5.6	6.42	7.34

ABB Motors and Mechanical Inc.

WINDING # 36WGR866

Typical performance - not guaranteed values.

3 HP 3 PH 50 HZ 1470 RPM 380 V 3646M

TORQUES (LB-FT) : PO=65.1 PU=35.75 LR=43.59 LRA=57.03

