



Customer information packet

M1228T

20/8.9HP, 1760/1160RPM, 3PH, 60HZ, 286T, 4046

Specifications

Enclosure	OPSB
Frame	286T
Frame Material	Steel
Frequency	60.00 Hz
Motor Letter Type	Three Phase
Output @ Frequency	20.000 HP @ 60 HZ 8.900 HP @ 60 HZ
Phase	3
Synchronous Speed @ Frequency	1200 RPM @ 60 HZ
Voltage @ Frequency	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	24.000 A @ 460.0 V
Design Code	A
Drip Cover	No Drip Cover
Duty Rating	CONT
Electrically Isolated Bearing	Not Electrically Isolated
Feedback Device	NO FEEDBACK
Front Face Code	Standard
Front Shaft Indicator	None
Heater Indicator	No Heater
High Voltage Full Load Amps	18.0 a
Insulation Class	F
Inverter Code	Not Inverter
KVA Code	H
Lifting Lugs	Standard Lifting Lugs

Part detail

Revision	Q
Type	AC
Mech. spec.	40D101
Base	
Status	PRD/A
Elec. spec.	40WGX174
Layout	40LYD101
Eff. date	06-13-2025
CD Diagram	CD0013
Poles	04/06
Leads	6#10
Proprietary	False
Created date	02-12-2010

Locked Bearing Indicator	No Locked Bearing
Motor Lead Exit	Ko Box
Motor Lead Quantity/Wire Size	6 @ 10 AWG
Motor Lead Termination	Flying Leads
Motor Standards	NEMA
Motor Type	4046M
Mounting Arrangement	F1
Number of Poles	4 6
Overall Length	23.81 IN
Product Family	General Purpose
Pulley End Bearing Type	Ball
Pulley Face Code	Standard
Pulley Shaft Indicator	Standard
Rodent Screen	None
Service Factor	1.15
Shaft Diameter	1.875 IN
Shaft Extension Location	Pulley End
Shaft Ground Indicator	No Shaft Grounding
Shaft Rotation	Reversible
Shaft Slinger Indicator	No Slinger
Speed	1160 rpm 1760 rpm
Speed Code	2S-2W-VT
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

NP1256L									
CAT.NO.	M1228T								
SPEC.	40D101X174								
HP	20/8.9								
VOLTS	460								
AMP	24/18								
RPM	1760/1160								
FRAME	286T		HZ	60			PH	3	
SER.F.	1.15	CODE	H	DES	A	CLASS	F		
NEMA-NOM-EFF		PF							
RATING	40C AMB-CONT								
CC									
DE	6311		ODE	6309					
ENCL	OPSB	SN							

Accessories

Part number	Description	Multiplier
40-1400	C FACE KIT	A8

AC Induction Motor Performance Data

Record # 30415

Typical performance - not guaranteed values

Winding: 40WGX174-R001			Type: 4046M		Enclosure: OPEN		
Nameplate Data			460 V, 60 Hz: High Speed Connection				
Rated Output (HP)		20/8.9	Full Load Torque		59.4 LB-FT		
Volts		460	Start Configuration		direct on line		
Full Load Amps		24/18	Breakdown Torque		209 LB-FT		
R.P.M.		1760/1160	Pull-up Torque		100 LB-FT		
Hz	60	Phase	3	Locked-rotor Torque		141 LB-FT	
NEMA Design Code		A	KVA Code	H	Starting Current		169 A
Service Factor (S.F.)		1.15		No-load Current		8.13 A	
NEMA Nom. Eff.		0	Power Factor	0	Line-line Res. @ 25°C		0.678 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		39°C	
S.F. Amps				Temp. Rise @ S.F. Load		48°C	

Load Characteristics 460 V, 60 Hz, 20 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	57	75	83	86	87	88	87
Efficiency	80.1	87.9	90	90.5	89.8	89.1	90.1
Speed	1794	1789	1784	1779	1772	1765	1775
Line amperes	10.5	14.3	19	24.1	30.2	35.9	27.8

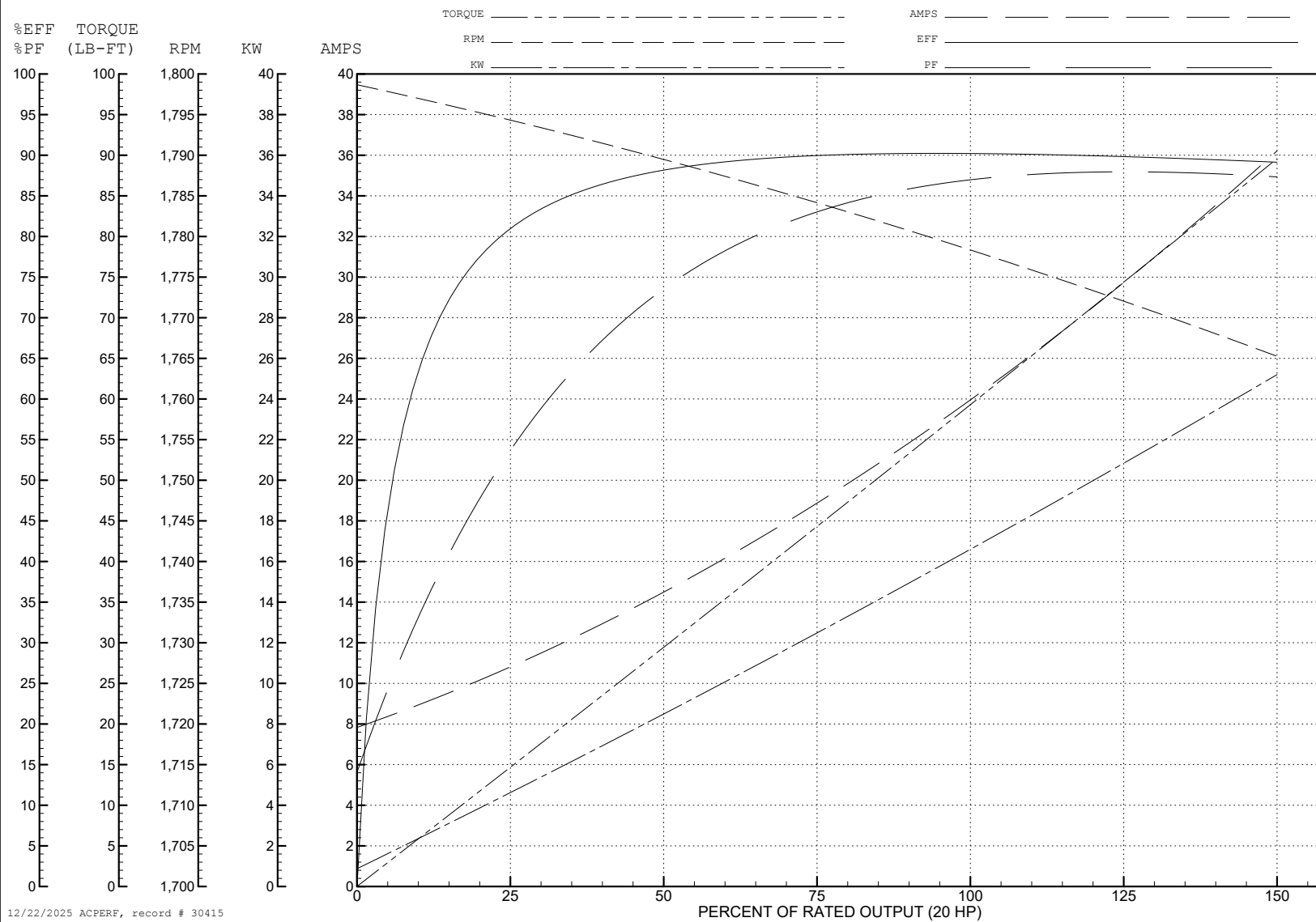
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WINDING # 40WGX174

Typical performance - not guaranteed values.

20 HP 3 PH 60 HZ 1779 RPM 460 V 4046M

TORQUES (LB-FT): PO=209 PU=100 LR=141 LRA=169



AC Induction Motor Performance Data

Record # 30416

Typical performance - not guaranteed values

Winding: 40WGX174-R001			Type: 4046M		Enclosure: OPEN			
Nameplate Data			460 V, 60 Hz: Low Speed Connection					
Rated Output (HP)		20/8.9	Full Load Torque		39.8 LB-FT			
Volts		460	Start Configuration		direct on line			
Full Load Amps		24/18	Breakdown Torque		172 LB-FT			
R.P.M.		1760/1160	Pull-up Torque		54.6 LB-FT			
Hz	60	Phase	3	Locked-rotor Torque		81.1 LB-FT		
NEMA Design Code		A	KVA Code	H	Starting Current		102 A	
Service Factor (S.F.)		1.15		No-load Current		13.4 A		
NEMA Nom. Eff.		0	Power Factor		0	Line-line Res. @ 25°C		0.959 Ω
Rating - Duty		40C AMB-CONT		Temp. Rise @ Rated Load		50°C		
S.F. Amps				Temp. Rise @ S.F. Load		55°C		

Load Characteristics 460 V, 60 Hz, 8.9 HP

% of Rated Load	25	50	75	100	125	150	S.F.
Power Factor	23	37	47	55	62	66	59
Efficiency	66.8	78.8	84	85.2	87	87.8	86.3
Speed	1198	1196	1194	1191	1189	1187	1190
Line amperes	14	14.9	16.2	17.9	19.8	21.9	19

ABB Motors and Mechanical Inc.

WINDING # 40WGX174

Typical performance - not guaranteed values.

8.9 HP 3 PH 60 HZ 1191 RPM 460 V 4046M

TORQUES (LB-FT): PO=172 PU=54.6 LR=81.1 LRA=102

