






MOTOR DATA SHEET (INCL. CURVES)

CLIENT	:	Air Products Manufacturing LLC
PROJECT NAME/NO.	:	WEP Renewables
CLIENT PO NO	:	4505605360
HMD DOCUMENT NO	:	HMD-4505605360-C11-03
CLIENT DOCUMENT NO	:	
HMD PUMP NO	:	839918 A/B
EQUIPMENT TAG NO	:	18-P-253 A/B

2	14/12/2022	ISSUE FOR REVIEW	KW	AFS	AFS
1	13/09/2022	ISSUE FOR REVIEW	ABB	AFS	AFS
0	10/05/2022	ISSUE FOR REVIEW	AN	AFS	NW
REV	DATE	DESCRIPTION	PREPARED BY	CHECKED BY	APPROVED BY

NOTE:

<div></div> <div>RESOLUTION SHEET</div>				
Comment Number	Document Name: Motor Data Sheet		Revision from which comment first appeared	Comment Status: Open\Closed - (Date Closed:)
	CLIENT COMMENT	HMD RESPONSE	Current Rev:	
1	Inverter Duty Not applicable	Noted	1	14/12/2022
2	Space heater not applicable for this motor	Noted and Amended.	1	14/12/2022
3	Typical not acceptable. Vendor shall provide curves for the given motor rating, voltage, frequency	Noted and Amended. Curves attached are correct for the given motor rating, voltage, frequency to be used on pump 18-P-253 A/B	1	14/12/2022

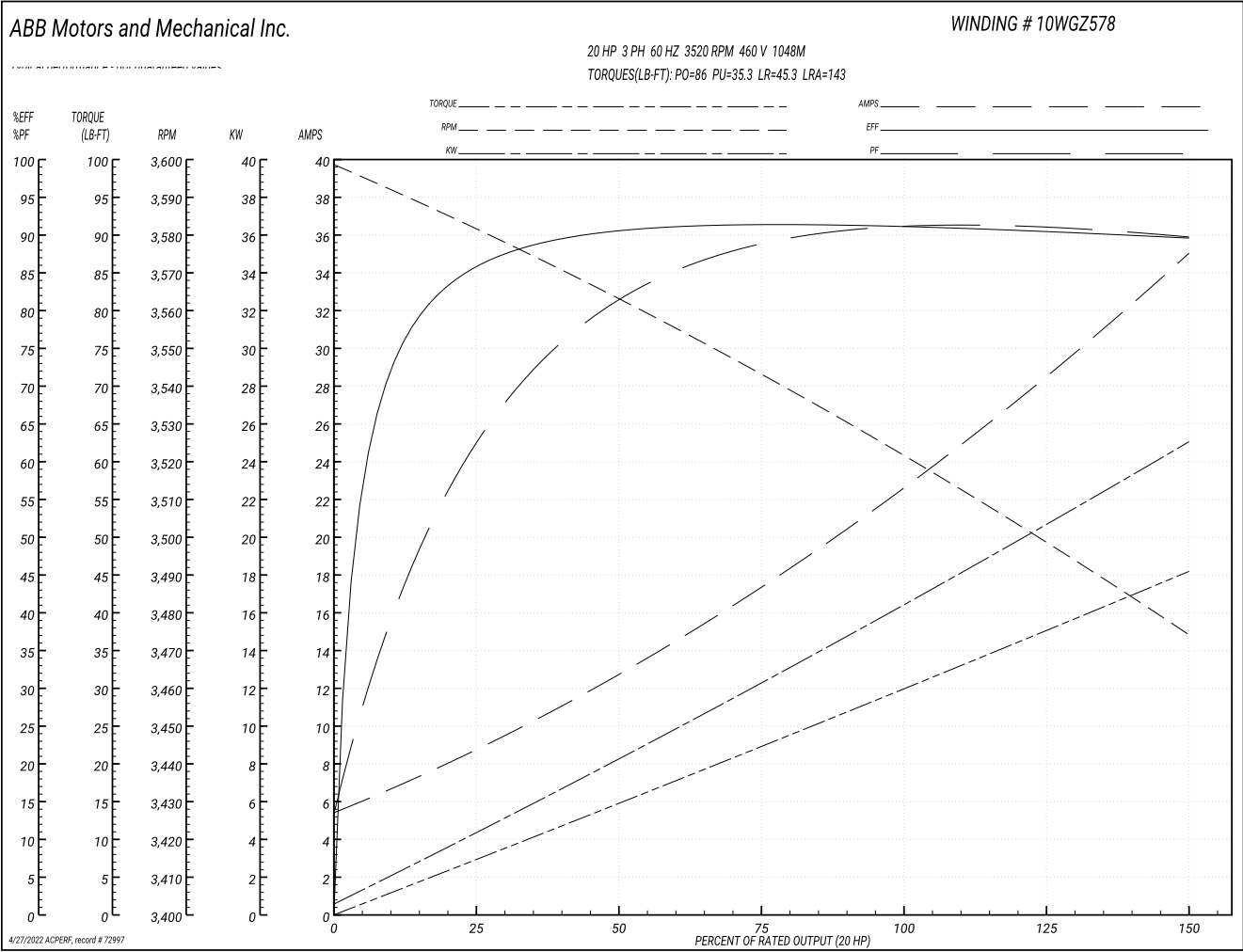
 	LOW VOLTAGE MOTOR (IEEE 841) DATA SHEET U.S. CUSTOMARY UNITS		Contract: A8KM		Rev
	APPLICABLE MOTOR SPECIFICATION A8KM-PP-000-50670-A		Item No: 18-P-253A/B (839918)		
	Doc. No.: HMD-4505605360-C11-03		Revision: 1 Date: 13-Sep-22		
	Unit: SWSPPlus Unit		RFQ / P.O. No.: 4505605360		
		Sheet 1 of 1			

1	APPLICABLE TO	<input type="radio"/> PROPOSAL	<input checked="" type="radio"/> PURCHASE	AS BUILT
2	CLIENT:	World Energy Paramount		SERVICE Sour Water
3	PLANT:	World Energy Paramount		MOTOR TAG NO. / NO. REQ'D 18-P-253AM/BM / Two (2)
4	SITE:	Paramount, CA		DRIVEN EQUIPMENT TYPE / TAG NO. Centrifugal Pump / 18-P-253A/B
5	DESIGN DATA AND ACCESSORY EQUIPMENT			
6	NAMEPLATE	20 HP	1.15 S.F.	3450 RPM POWER (VOLTAGE/PHASE/HERTZ) 460 / 3 / 60
7	ROTATION (WHEN FACING MOTOR OPPOSITE DRIVE END):	CW CCW Fans shall be bi-directional		
8	INSULATION CLASS:	<input type="radio"/> B	<input checked="" type="radio"/> F	<input type="radio"/> H <input type="radio"/> VPI TEMP. RISE CLASS B / °C over 40.6 °C AMBIENT
9	AREA CLASSIFICATION:	CLASS I	GROUP B/C/D	DIV. 2 T-RATING T3C / °F
10	<input type="radio"/> UNCLASSIFIED			
11	LOCATION:	<input type="radio"/> INDOOR	<input checked="" type="radio"/> OUTDOOR	<input type="radio"/> SHELTERED UNUSUAL CONDITIONS: <input type="radio"/> DUST <input type="radio"/> OTHER
12	AMBIENT TEMPERATURE: MAX 105 °F / MIN. 35 °F ALTITUDE 69 ft			
13	ENCLOSURE:	<input checked="" type="radio"/> TOTALLY-ENCLOSED FAN-COOLED <input type="radio"/> TOTALLY-ENCLOSED NONVENTILATED <input type="radio"/> EXPLOSION PROOF		
14	MOUNTING METHOD:	<input checked="" type="radio"/> FOOT <input type="radio"/> FLANGE, TYPE:		
15	MOUNTING ARRANGEMENT:	<input checked="" type="radio"/> HORIZONTAL <input type="radio"/> VERTICAL SHAFT DOWN <input type="radio"/> VERTICAL SHAFT UP		
16	BEARING TYPE:	<input checked="" type="radio"/> BALL	<input type="radio"/> ROLLER	BEARING LUBRICATION: <input checked="" type="radio"/> GREASE <input type="radio"/> OIL <input type="radio"/> PURE OIL MIST
17	CONNECTION TO LOAD:	<input checked="" type="radio"/> DIRECT CONNECTED <input type="radio"/> V-BELT <input type="radio"/> THROUGH GEAR <input type="radio"/> CLOSE COUPLED		
18	EQUIPMENT OPERATION:	<input checked="" type="radio"/> CONTINUOUS <input type="radio"/> SPARED CONTINUOUS <input type="radio"/> INTERMITTENT-CYCLES / DAY		
19	SOUND PRESSURE LEVEL REQUIREMENTS:	85 dBA @ 3 FEET		
20	STARTING:	<input checked="" type="radio"/> FULL VOLTAGE	<input checked="" type="radio"/> REDUCED VOLTAGE, 80 % OF VOLTAGE	Starting Voltage Dip Allowance
21		<input type="radio"/> UNLOADED	<input checked="" type="radio"/> LOADED	<input type="radio"/> CAPACITORS FOR POWER FACTOR CORRECTION
22	<input type="radio"/> SPACE HEATERS	120 V	1 PHASE	°F MAX. TEMP
23	<input checked="" type="radio"/> OVERSIZE TERMINAL BOX	<input checked="" type="radio"/> DRAIN PLUGS	Terminal Box shall be the largest feasible for the motor frame.	
24	<input checked="" type="radio"/> SS NAMEPLATE	<input type="radio"/> AUXILIARY NAMEPLATE		
25	TEST	<input checked="" type="radio"/> ROUTINE	<input type="radio"/> COMPLETE	<input checked="" type="radio"/> VIBRATION <input checked="" type="radio"/> REPORT <input checked="" type="radio"/> FOOT FLATNESS
26	REMARKS:	8.1) This data sheet applies to motors 1/2 hp through 500 hp with anti-friction bearings.		
27		8.2) Space heaters are required for 100 hp and above.		
28		8.3) IP55 degree of protection is required.		
29		8.4) Average relative humidity is 54%.		
30	INFORMATION BELOW TO BE COMPLETED BY VENDOR			
31	MOTOR MFR.	ABB Baldor		MODEL 10-000-2636 SERIAL NO.
32	NAMEPLATE HP	20	FULL LOAD RPM 3520	FRAME 284TS WEIGHT 396 LB
33	MOTOR OUTLINE DRAWING NO.	10LYJ567		
34	ROTOR CAGE MATERIAL OF CONSTRUCTION	Al		MOTOR WINDING MATERIAL Cu
35	BEARING MANUFACTURER	SKF		SIZE 6311
36	VERTICAL MOTOR THRUST BEARING:	TYPE N/A	CAPACITY: UP N/A LBS DOWN N/A LBS	LOCATION N/A
37				
38	LOAD	FULL	3/4	1/2 OTHER
39	AMPERES	22.8	17.6	12.5 N/A
40	EFFICIENCY, %	91.2	91.3	90.4 N/A
41	POWER FACTOR	90	88	83 N/A
42	SPEED, RPM	3520	3544	3564 N/A
43	LOCKED ROTOR AMPS*	143		AMPS
44	FULL LOAD TORQUE*	29.9		FT-LB
45	LOCKED ROTOR TORQUE*	45.3		FT-LB
46	PULL UP TORQUE*	35.3		FT-LB
47	BREAKDOWN TORQUE*	86		FT-LB
48	ACCEL. TIME W/ LOAD (0 TO FULL SPEED)*	0.9		SEC.
49	STALL TIMES AT ZERO RPM* - HOT / COLD	32	55	SEC.
50	NUMBER OF CONSECUTIVE STARTS*	1 Hot / 2 Cold		
51	* INDICATED AT RATED VOLTAGE			
52	INFORMATION BELOW TO BE PROVIDED BY VENDOR AFTER PURCHASE (REFER TO RFQ/PO DOCUMENTS)			
53	<input checked="" type="radio"/> SAFE TIME - CURRENT CURVE	MAX. SURFACE TEMP. DURING NORMAL STARTING OR OPERATION OF:		
54	<input checked="" type="radio"/> SPEED - TORQUE CURVE	<input type="radio"/> ROTOR °F <input type="radio"/> STATOR °F <input type="radio"/> ENCLOSURE °F		
55	<input checked="" type="radio"/> SAFE LOCKED ROTOR TIME	HOT	COLD	
56	NOTES:	8.5. Motor nameplate shall indicate service factor, area classification and T-rating. T-rating relates to both external and internal components.		
57		8.6 Provide accessory loads on submittal documents, e.g. Volts, HP, kVA, etc.		
		8.7 All motors shall be rated for Cl. I, Div. 2, Gr. B,C,D and a T3C temperature code for project uniformity.		
		8.8 An oversized electrical terminations box is required.		
		8.9 Grounding provisions are required for inside and outside the motor connection box.		

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Performance Graph at 460V, 60Hz, 20.0HP Typical performance

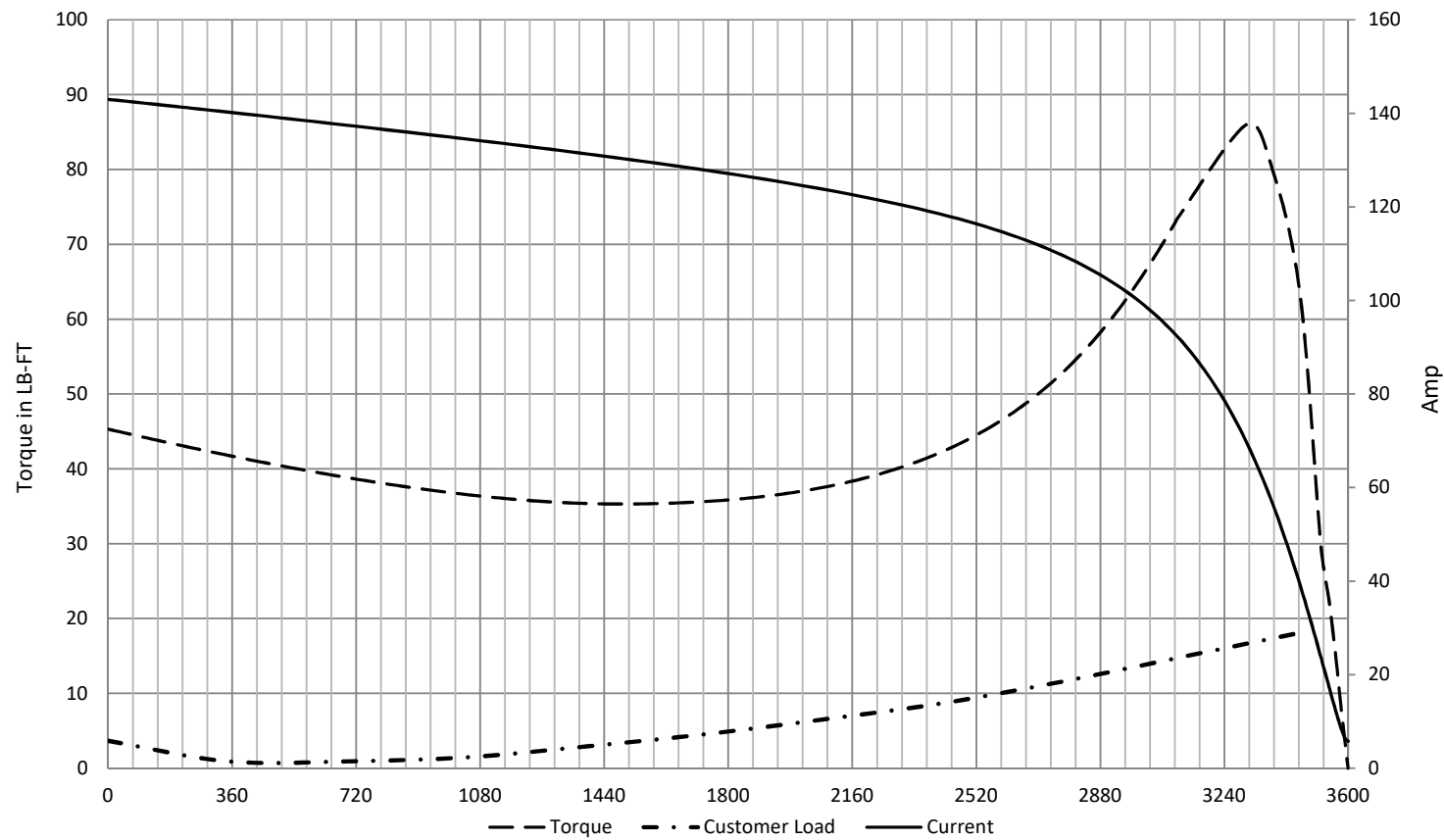


SPEED TORQUE / SPEED CURRENT CURVE



10WGZ578

20HP 460V 60Hz

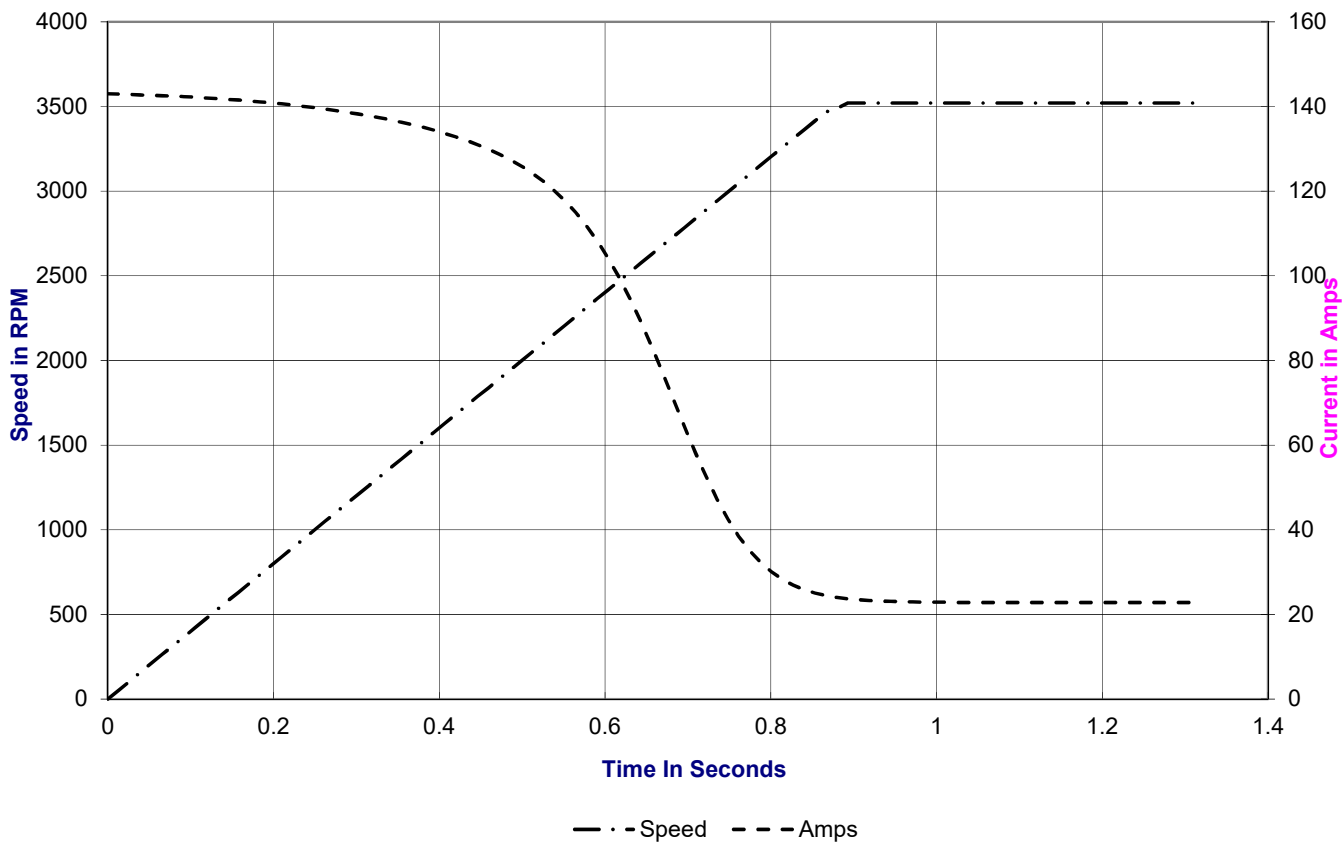


Speed Time / Current Time Curve



10WGZ578 : Variable Torque : 1.8 lb-ft² Load Inertia

20HP 460V 60HZ



THERMAL LIMIT CURVE



10WGZ578

20HP 460V 60HZ

