CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Public Benefits Program Grant – Certainteed Corporation Demand-side Management Project ($31,905.00)

MEETING DATE: June 7, 2000

PREPARED BY: Electric Utility Director

RECOMMENDED ACTION: That the City Council approve a Public Benefits Program grant in the amount of $31,905.00 to the Certainteed Corporation for a Demand-side Management Project.

BACKGROUND INFORMATION: Certainteed Corporation (Apache Plastics), located at 300 S. Beckman Road, has embarked upon a significant plant expansion project. The expansion, in excess of 9,000 square feet, is a multi-million dollar investment by Certainteed. The expanded production area will allow the plastics manufacturer to produce a higher volume of extruded items, such as pre- fabricated plastic fencing and decking used in the residential and agricultural marketplace. According to Certainteed officials, the expansion project will ultimately result in the creation of 100 new jobs here in Lodi over the next 2 and a half years.

The Public Benefits Program grant, in the amount of $31,905, reflects a 25% utility rebate for new equipment being installed by Certainteed as part of the plant expansion (please see attached documentation). This new equipment is deemed as energy efficient, or high efficiency, which equates into energy savings, as well as operations & maintenance savings, for the Certainteed Corporation. Specifically, Certainteed is installing:

- one, high efficiency 100-ton screw chiller;
- 24 high efficiency production lights; and,
- 6 variable frequency drives, including a 500 horse-power drive.

In conjunction with the City of Lodi energy services partner, Energy Masters, International, the City of Lodi Electric Utility has reviewed and identified the installed equipment as energy efficient. The City of Lodi Electric Utility respectfully recommends approval of this grant as a qualifying component of the Public Benefits Program.

FUNDING: 164605 – Public Benefits Program Fund - (Category - Demand-side Management)

FUNDING APPROVAL: Vicky McAthie
Vicky McAthie, Finance Director

Alan N. Vallow
Alan N. Vallow
Electric Utility Director

PREPARED BY: Rob Lechner, Manager of Customer Programs
ANV/RL/lst
C: City Attorney

APPROVED: Janet S. Keeter for DF
H. Dixon Flynn - City Manager

Apache Plastics • CertainTeed Corporation • 300 S. Beckman Road • Lodi, CA 95240 • Tel. 209-365-7500 • Tel. 800-527-2243 • Fax 209-334-4300

May 23, 2000

Mr. Alan Vallow
Electric Utilities Director
1331 South Ham Lane
Lodi, CA 95242

Dear Mr. Vallow:

CertainTeed Corporation – Apache Plastics is requesting $31,905 from the City of Lodi's Public Benefits Program Grant Fund. This will be utilized for the purchase of a high efficiency chiller, metal halide bay lights, a 500 HP variable frequency drive, and various smaller variable frequency drives.

CertainTeed (Apache Plastics) intends to remain a fixture in the community. The company previously resided in Stockton for 30 years and moved to Lodi in 1997. Since residing in Lodi, the company has invested in growing the business in this area. To continue with this growth, we are expanding our production capabilities with production capital expansion projects.

If there is anything more that I can do or questions that I may answer, please feel free to contact me.

Sincerely,

Frank Partin
Plant Manager

Lodi N.-S.
pg. 19
12/9/99

Apache Plastics expansion to create 100 jobs

By Brian Ross
News-Sentinel staff writer

100 new jobs will be created over the next three years by an expansion at Lodi's Apache Plastics, a company spokesman announced Wednesday morning at the project's groundbreaking ceremony.

Work on the multi-million dollar 9,000-square-foot expansion is scheduled to begin by week's end at the Beckman Road factory, according to Frank Partin, West Coast operations manager for CertainTeed Corp., Apache's parent company. Construction is slated for completion in July, 2000, Partin said.

Lodi native Ron Addington, of the San Joaquin Partnership, greeted the announcement enthusiastically. "This is really going to be a win/win situation," said Addington of Apache, which relocated in Lodi after leaving Stockton in 1997, enticed by discounted electric rates offered by the city.

The five story addition will expand Apache's polymer blending capabilities, allowing the firm to expand production of its existing line of plastic pipe products at the plant.

Other areas of the new wing will enable Apache to manufacture new extruded products, like decking and prefabricated plastic fencing, used in agriculture and residential construction.

City Councilman Keith Land praised the project's goals, saying that the increased number of jobs created by the expansion can only serve to strengthen Lodi's ties to the manufacturer. "We know how important CertainTeed is to the economy of Lodi," said Land.

Currently, Apache has around 130 employees — mostly Lodi residents.

CertainTeed is headquartered in Valley Forge, Pa., and has approximately 140 plants in the United States, Canada and Mexico. The firm employs a combined workforce of roughly 8,200, and reported sales of $1.8 billion in 1998.

Photo-copied with the consent of the Lodi News-Sentinel

MERLIN PROCESS EQUIPMENT, INC.

TELEFAX

NUMBER: **T000226** **No. of Page(s): 1**

TO: Ms. Tara Holloway
CertainTeed Corp.
Fax No.: 209-334-4300

FROM: Mr. Gary Hoffmeister
Henschel Mixers America, Inc.
Fax No: 713-690-3353

DATE : May 19, 2000

REFERENCE: Cost of Chiller System

Per your request, the costs of the Chiller System is listed below:

Item No.	Description	Cost
762-01	Trane Chiller	$ 60,225.00
~~762-02~~	~~Pump Tank Station~~	~~$ 15,100.00~~
~~762-03~~	~~9 KW Sump Heater~~	~~$ 1,200.00~~

Also, confirming the information for the HKM4200 Coolers:

~~(2) Coolers, 400,000 BTU/hr cooling capacity 61 HP total each~~:
~~Cost $304,770~~

If you have any questions, please contact our office.

Regards,

Gary Hoffmeister

GH/ch

P.O. Box 800607 • Houston, TX 77280-0607 • Telephone: (713) 690-3333 • Fax: 713-690-3353 • E-mail: sales@merlinmixers.com

Performance Data

Table P-20 — ARI Part-Load Values

Unit	% Load	Tons	EER	IPLV
RTAA 70	100	69.2	10.2	13.6
	75	51.9	12.0	
	50	34.6	14.6	
	25	17.3	16.1	
RTAA 80	100	79.7	10.2	13.2
	75	59.8	11.7	
	50	39.8	14.9	
	25	19.9	12.6	
RTAA 90	100	90.6	9.9	12.6
	75	68.0	11.3	
	50	45.3	13.5	
	25	22.7	13.6	
RTAA 100	100	100.6	9.7	12.6
	75	75.5	11.0	
	50	50.3	13.5	
	25	25.2	14.8	
RTAA 110	100	108.3	9.7	12.6
	75	81.2	11.0	
	50	54.2	13.7	
	25	27.1	14.8	
RTAA125	100	119.6	9.8	12.6
	75	89.7	11.2	
	50	59.8	13.7	
	25	29.9	13.4	
RTAA 130	100	132.2	9.5	13.5
	75	99.1	11.9	
	50	66.1	14.3	
	25	33.1	16.8	
RTAA 140	100	142.6	9.5	13.7
	75	106.9	12.1	
	50	71.3	14.5	
	25	35.6	16.9	
RTAA 155	100	151.0	9.4	13.2
	75	113.3	11.8	
	50	75.5	13.5	
	25	37.7	16.7	
RTAA 170	100	166.1	9.2	13.7
	75	124.6	12.2	
	50	83.0	14.4	
	25	41.5	16.5	
RTAA 185	100	174.9	9.2	13.1
	75	131.2	12.0	
	50	87.5	14.0	
	25	43.7	13.9	
RTAA 200	100	190.1	9.0	13.4
	75	142.6	12.3	
	50	95.0	13.7	
	25	47.6	16.6	
RTAA 215	100	195.2	9.2	13.7
	75	146.4	12.5	
	50	97.6	13.9	
	25	48.8	17.0	
RTAA 240	100	235.4	9.4	14.2
	75	176.6	12.3	
	50	117.7	15.2	
	25	58.9	17.8	
RTAA 270	100	261.6	9.3	14.5
	75	196.2	12.3	
	50	130.8	15.8	
	25	65.4	17.9	
RTAA 300	100	287.4	9.2	14.2
	75	215.5	11.9	
	50	143.7	15.6	
	25	71.8	17.6	
RTAA 340	100	333.4	9.4	14.3
	75	250.1	12.3	
	50	186.7	15.4	
	25	83.4	18.2	
RTAA 370	100	359.7	9.3	14.3
	75	269.8	12.1	
	50	179.9	15.5	
	25	89.9	18.0	
RTAA 400	100	385.7	9.3	14.2
	75	289.3	12.1	
	50	192.8	15.2	
	25	96.4	17.8	

100 Ton

4. COP = Coefficient of Performance (kWo/kWi). Power inputs include compressors, condenser fans and control power.
5. Ratings are based on an evaporator temperature drop of 5.6 C.
6. 115 F performance data reflects Adaptive Control Microprocessor control algorithms.
7. Interpolation between points is permissible. Extrapolation is not permitted.
8. Rated in accordance with ARI Standard 550/590-98.

Table P-4 — RTAA 100 Performance Data

English

LWT	Entering Condenser Air Temperature (Degrees F)														
	75			85			95			105			115		
(Deg. F)	Tons	kW	EER	Tons	kW	EER	Tons	kW	EER	Tons	kW	EER	Tons	kW	EER
40	105.1	94.3	11.9	99.3	101.8	10.6	94.2	110.5	9.3	88.2	120.8	8.1	81.9	131.9	6.9
42	108.6	95.9	12.2	103.2	103.4	10.8	97.4	112.1	9.5	91.2	122.1	8.2	84.7	133.5	7.1
44	112.2	97.6	12.4	106.6	105.0	11.0	100.6	113.7	9.7	94.3	123.7	8.4	87.6	135.1	7.2
46	115.9	99.3	12.6	110.1	106.6	11.2	103.9	115.3	9.9	97.4	125.3	8.6	90.5	136.8	7.4
48	119.8	101.0	12.8	113.6	108.3	11.4	107.2	117.0	10.1	100.5	127.0	8.8	93.5	138.4	7.5
50	123.4	102.8	13.0	117.2	110.1	11.6	110.8	118.7	10.2	103.7	128.7	8.9	96.5	140.1	7.7
55	133.1	107.5	13.5	126.4	114.7	12.1	119.4	123.2	10.7	111.9	133.1	9.3	99.0	139.0	8.0

Notes:
1. Ratings based on sea level altitude and evaporator fouling factor of 0.00010.
2. Consult Trane representative for performance at temperatures outside of the ranges shown.
3. kW input is for compressors only.
4. EER = Energy Efficiency Ratio (Btu/watt-hour). Power inputs include compressors, condenser fans and control power.
5. Ratings are based on an evaporator temperature drop of 10 F.
6. 115 F performance data reflects Adaptive Control Microprocessor control algorithms.
7. Interpolation between points is permissible. Extrapolation is not permitted.
8. Rated in accordance with ARI Standard 550/590-98.

Metric

LWT	Entering Condenser Air Temperature (Degrees C)											
	30			35			40			45		
(Deg. C)	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP	kWo	kWi	COP
6	365.7	104.8	3.2	347.0	112.7	2.8	327.3	121.7	2.5	306.6	131.8	2.2
8	387.5	107.8	3.3	367.8	115.7	2.9	347.0	124.6	2.6	325.2	134.7	2.2
10	410.0	110.9	3.4	388.9	118.7	3.0	367.1	127.7	2.7	344.6	137.7	2.3

Notes:
1. Ratings based on sea level altitude and evaporator fouling factor of 0.0000176.
2. Consult Trane representative for performance at temperatures outside of the ranges shown.
3. kWi input is for compressors only.
4. COP = Coefficient of Performance (kWo/kWi). Power inputs include compressors, condenser fans and control power.
5. Ratings are based on an evaporator temperature drop of 5.6 C.
6. 115 F performance data reflects Adaptive Control Microprocessor control algorithms.
7. Interpolation between points is permissible. Extrapolation is not permitted.
8. Rated in accordance with ARI Standard 550/590-98.

MERLIN
PROCESS EQUIPMENT, INC.

TELEFAX

NUMBER: **T000221** **No. of Page(s): 1**

TO: Ms. Tara Holloway
CertainTeed Corp.
Fax No.: 209-334-4300

FROM: Mr. Gary Hoffmeister
Henschel Mixers America, Inc.
Fax No: 713-690-3353

DATE : May 18, 2000

REFERENCE: Cost of AC Drives

Per your request, the costs of the AC Drives are listed below:

Item No.	HP		Cost
303-04	1	$	650.00
408-01	1	$	650.00
454-01	3	$	745.00
502-02	3	$	745.00
709-02	2	$	745.00
FM-2000	500	$	60,000.00

Copies of the manufacturer's technical data for the motors and drives will be sent with the control screen information.

If you have any questions, please contact our office.

Regards,

Gary Hoffmeister

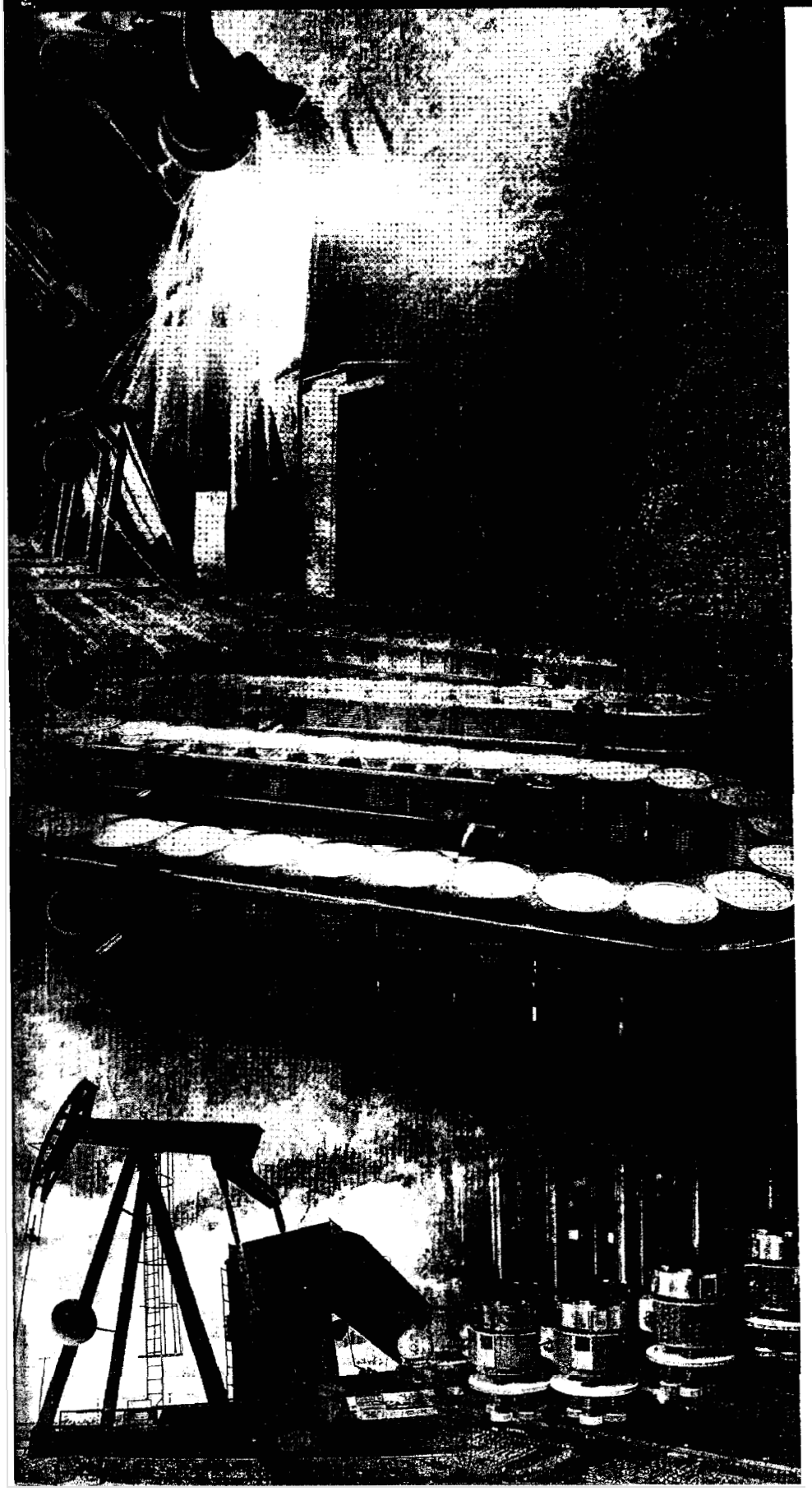
GH/ch

P.O. Box 800607 • Houston, TX 77280-0607 • Telephone: (713) 690-3333 • Fax: 713-690-3353 • E-mail: sales@merlinmixers.com

4/27/00 D.N.

B.O.M. ITEM NO.	QTY	DESCRIPTION	MOTOR SIZE	EFF.	VOLTAGE
104-01	1	VACUUM BLOWER PACKAGE	60	91	460
105-01	1	PRESSURE BLOWER PACKAGE	60	91	460
106-01	1	ROTARY VALVE STATION, FT16	1.5	80	460
151-01	1	PRESSURE BLOWER PACKAGE	75	95.4	460
153-01	1	ROTARY VALVE STATION, FT16	1.5	80	460
204-01	1	BIN DISCHARGER, 6'-O" DIA.,	1.3	77.5	460
205-01	1	PRESSURE BLOWER PACKAGE	50	91.7	460
207-01	1	ROTARY VALVE STATION, FT11	0.75	80	460
303-04	2	GEAR PUMP	1	68	460
401-01	2	BULK BAG UNLOADING STATION - AIRLOCK MOTORS	0.33	74.9	460
402-01	1	PRESSURE BLOWER PACKAGE	30	93	460
460-01	2	BIN DISCHARGER, 4'-O" DIA.,	0.67	69.5	460
408-01	2	FEEDER, ACCURATE #902	1	80	460
412-03	1	DUST COLLECTOR FAN PKG	2	94	460
454-01	1	FAN PACKAGE	3	88.5	460
462-01	1	VACUUM BLOWER PACKAGE	15	83	460
502-02	1	DUST COLLECTOR FAN PKG	3	94	460
601-01	1	FM-2000 MIXER w/ AC V.F. Drive	500	approx. 95	460
602-01	2	HKM-4200 HORIZONTAL	60	94.5	460
705-01	1	VACUUM BLOWER PACKAGE	30	93	460
706-01	1	ROTARY VALVE STATION, FT14	1	80	460
707-01	1	ROTEX SCREEN	2	75.1	460
709-02	1	BIN VENT FAN PACKAGE	2	94	460
751-01	1	PRESSURE BLOWER PACKAGE	75	94.5	460
753-01	2	ROTARY VALVE STATION, FT14	1	80	460
762-01	1	CHILLER, 100 TON CHILLER - FANS	(10) @ 1HP	75	460
762-01	1	CHILLER, 100 TON CHILLER - COMPRESSORS	(2) @ 50 HP	80	460
762-02	1	CHILLER PUMP TANK STATION - PROCESS PUMP	15	87.4	460
762-02	1	CHILLER PUMP TANK STATION - EVAPORATOR PUMP	7.5	84	460

B.O.M. ITEM NO.	QTY	DESCRIPTION	MOTOR SIZE	EFF.	VOLTAGE	V.S. DRIVE
104-01	1	VACUUM BLOWER PACKAGE	60	91	460	
105-01	1	PRESSURE BLOWER PACKAGE	60	91	460	
106-01	1	ROTARY VALVE STATION, FT16	1.5	80	460	
151-01	1	PRESSURE BLOWER PACKAGE	75	95.4	460	
153-01	1	ROTARY VALVE STATION, FT16	1.5	80	460	
204-01	1	BIN DISCHARGER, 6'-O" DIA.,	1.3	77.5	460	
205-01	1	PRESSURE BLOWER PACKAGE	50	91.7	460	
207-01	1	ROTARY VALVE STATION, FT11	0.75	80	460	
303-04	2	GEAR PUMP	1	68	460	*
401-01	2	BULK BAG UNLOADING STATION - AIRLOCK MOTORS	0.33	74.9	460	
402-01	1	PRESSURE BLOWER PACKAGE	30	93	460	
460-01	2	BIN DISCHARGER, 4'-O" DIA.,	0.67	69.5	460	
408-01	2	FEEDER, ACCURATE #902	1	80	460	*
412-03	1	DUST COLLECTOR FAN PKG	2	94	460	
454-01	1	FAN PACKAGE	3	88.5	460	*
462-01	1	VACUUM BLOWER PACKAGE	15	83	460	
502-02	1	DUST COLLECTOR FAN PKG	3	94	460	*
601-01	1	FM-2000 MIXER w/ AC V.F. Drive	500	approx. 95	460	*
602-01	2	HKM-4200 HORIZONTAL	60	94.5	460	
705-01	1	VACUUM BLOWER PACKAGE	30	93	460	
706-01	1	ROTARY VALVE STATION, FT14	1	80	460	
707-01	1	ROTEX SCREEN	2	75.1	460	
709-02	1	BIN VENT FAN PACKAGE	2	94	460	*
751-01	1	PRESSURE BLOWER PACKAGE	75	94.5	460	
753-01	2	ROTARY VALVE STATION, FT14	1	80	460	
762-01	1	CHILLER, 100 TON CHILLER - FANS	(10) @ 1HP	75	460	
762-01	1	CHILLER, 100 TON CHILLER - COMPRESSORS	(2) @ 50 HP	80	460	
762-02	1	CHILLER PUMP TANK STATION - PROCESS PUMP	15	87.4	460	
762-02	1	CHILLER PUMP TANK STATION - EVAPORATOR PUMP	7.5	84	460	



Allen-Bradley

1336 PLUS II Adjustable Frequency AC Drive

with

SENSORLESS VECTOR

0.37-448 kW (0.5 - 600 HP)

1336 PLUS II

SENSORLESS VECTOR

User Manual

Rockwell Automation

Specifications and Supplemental Information

Appendix A provides specifications and supplemental information including a parameter cross reference and derate information.

Specifications

Protection

	200-240V Drive	380-480V Drive	500-600V Drive
AC Input Overvoltage Trip:	285V AC	570V AC	690V AC
AC Input Undervoltage Trip:	138V AC	280V AC	343V AC
Bus Overvoltage Trip:	405V DC	810V DC	1013V DC
Bus Undervoltage Trip:	200V DC	400V DC	498V DC
Nominal Bus Voltage:	324V DC	648V DC	810V DC

Heat Sink Thermistor:	Monitored by microprocessor overtemp trip.
Drive Overcurrent Trip	
Software Current Limit:	20 to 160% of VT rated current.
Hardware Current Limit:	180 to 250% of VT rated current (dependent on drive rating).
Instantaneous Current Limit:	220 to 300% of VT rated current (dependent on drive rating).
Line transients:	up to 6000 volts peak per IEEE C62.41-1991.
Control Logic Noise Immunity:	Showering arc transients up to 1500 volts peak[2].
Power Ride-Thru:	15 milliseconds at full load.
Logic Control Ride-Thru:	0.5 seconds minimum, 2 seconds typical.
Ground Fault Trip:	Phase-to-ground on drive output.
Short Circuit Trip:	Phase-to-phase on drive output.

Environment

Altitude:	1000 m (3300 ft) max. without derating.
Ambient Operating Temperature	
IP00, Open:	0 to 50 degrees C (32 to 122 degrees F).
IP20, NEMA Type 1 Enclosed:	0 to 40 degrees C (32 to 104 degrees F).
IP54, NEMA Type 12 Enclosed:	0 to 40 degrees C (32 to 104 degrees F).
IP65, NEMA Type 4 Enclosed:	0 to 40 degrees C (32 to 104 degrees F).
Storage Temperature (all constructions):	–40 to 70 degrees C (–40 to 158 degrees F).
Relative Humidity:	5 to 95% non-condensing.
Shock:	15G peak for 11ms duration (±1.0ms).
Vibration:	0.006 inches (0.152 mm) displacement, 1G peak.
Agency Certification:	

U.L. Listed CSA Certified		
Marked for all applicable directives[1]		CE
Emissions	EN 50081-1 EN 50081-2 EN 55011 Class A EN 55011 Class B EN 61800-3	
Immunity	EN 50082-1 EN 50082-2 IEC 801-1, 2, 3, 4, 6, 8 per EN 50082-1, 2 EN 61800-3	
Low Voltage	EN 60204-1 PREN 50178	

[1] Note: Installation guidelines called out in *Appendix C* must be adhered to.

[2] Applied noise impulses may be counted in addition to the standard pulse train causing erroneously high [Pulse Freq] readings.

Electrical

Input Data	
Voltage Tolerance:	–10% of minimum, +10% of maximum.
Frequency Tolerance:	47-63 Hz.
Input Phases:	Three-phase input provides full rating for all drives. Single-phase operation is possible for A & B Frame drives at a derating of 50%.
Displacement Power Factor	
A1-A3 Frame Drives:	0.80 standard, 0.95 with optional inductor.
A4 Frame & Up Drives:	0.95 standard.
Efficiency:	97.5% at rated amps, nominal line volts.
Max. Short Circuit Current Rating:	**Installations per U.S. NEC/UL/CSA**
Using Specified Fuses	200,000A
Using Specified HMCP Breakers	Per "Max. Short Circuit Amps" column in Table 2.A, specific to each rating.
Using Specified HMCP Breakers with Current Limiter Option	200,000A
	IEC Installations per IEC947
Using Specified 140 Devices	Per "Rated Service Short Circuit Capability" column in Table 2.A, specific to each rating.

Control

Method:	Sine coded PWM with programmable carrier frequency. Ratings apply to all drives (refer to the *Derating Guidelines* on page A–5).
A & B Frame Drives	2-8 kHz. Drive rating based on 4 kHz *(see pg. 1–1 for frame info).*
C & D Frame Drives	2-6 kHz. Drive rating based on 4 kHz *(see pg. 1–1 for frame info).*
E Frame Drives & Up	2-6 kHz. Drive rating based on 2 kHz *(see pg. 1–1 for frame info).*
Output Voltage Range:	0 to rated voltage.
Output Frequency Range:	0 to 400 Hz.
Frequency Accuracy	
Digital Input:	Within ±0.01% of set output frequency.
Analog Input:	Within ±0.4% of maximum output frequency.
Selectable Motor Control:	Sensorless Vector with full tuning. Standard V/Hz with full custom capability.
Accel/Decel:	Two independently programmable accel and decel times. Each time may be programmed from 0 - 3600 seconds in 0.1 second increments[1].
Intermittent Overload:	Constant Torque - 150% of rated output for 1 minute. Variable Torque - 115% of rated output for 1 minute.
Current Limit Capability:	Proactive Current Limit programmable from 20 to 160% of rated output current. Independently programmable proportional and integral gain.
Inverse Time Overload Cap.	Class 10 protection with speed sensitive response. Investigated by U.L. to comply with N.E.C. Article 430. U.L. File E59272, volume 4/6.

[1] 0.1 second increments using a HIM or 0.01 with serial communications.

Input/Output Ratings

Each 1336 PLUS II Drive has constant and variable torque capabilities. The listings on the next page provide input & output current and kVA ratings.

Note: Drive ratings are at nominal values. See *Derating Guidelines* on page A–5.

Cat. No.	Constant Torque Input kVA	Constant Torque Input Amps	Constant Torque Output kVA	Constant Torque Output Amps	Variable Torque Input kVA	Variable Torque Input Amps	Variable Torque Output kVA	Variable Torque Output Amps	Variable Torque Input kVA	Variable Torque Input Amps	Variable Torque Output kVA	Variable Torque Output Amps
200-240V DRIVES					**240V DRIVES**							
AQF05	1.1	2.8	0.9	2.3	1.1	2.8	0.9	2.3				
AQF07	1.4	3.5	1.2	3.0	1.4	3.5	1.2	3.0				
AQF10	2.2	5.4	1.8	4.5	2.2	5.4	1.8	4.5				
AQF15	2.9	7.3	2.4	6.0	2.9	7.3	2.4	6.0				
AQF20	3.9	9.7	3.2	8.0	3.9	9.7	3.2	8.0				
AQF30	5.7	14.3	4.8	12	5.7	14.3	4.8	12				
AQF50	8.5	21.3	7.2	18	8.5	21.3	7.2	18				
AQF75	9.0	22.6	8.8	22	9.0	22.6	8.8	22				
A007	10-12	28	11	27	12	28	11	27				
A010	12-14	35	14	34	14	35	14	34				
A015	17-20	49	19	48	20	49	19	48				
A020	22-26	63	26	65	26	63	26	65				
A025	26-31	75	31	77	31	75	31	77				
A030	27-33	79	32	80	33	79	32	80				
A040	41-49	119	48	120	49	119	48	120				
A050	52-62	149	60	150	62	149	60	150				
A060	62-74	178	72	180	74	178	72	180				
A075	82-99	238	96	240	99	238	96	240				
A100	100-120	289	116	291	120	289	116	291				
A125	112-134	322	129	325	134	322	129	325				
380-480V DRIVES					**480V DRIVES**				**400V DRIVES**			
BRF05	0.9-1.0	1.3	0.9	1.1	1.1	1.4	1.0	1.2	0.9	1.4	1.0	1.33
BRF07	1.3-1.6	2.0	1.3	1.6	1.7	2.1	1.4	1.7	1.4	2.1	1.4	1.89
BRF10	1.7-2.1	2.6	1.7	2.1	2.2	2.8	1.8	2.3	1.8	2.8	1.8	2.55
BRF15	2.2-2.6	3.3	2.2	2.8	2.8	3.5	2.4	3.0	2.3	3.5	2.4	3.33
BRF20	3.0-3.7	4.6	3.0	3.8	3.8	4.8	3.2	4.0	3.2	4.8	3.2	4.44
BRF30	4.2-5.1	6.4	4.2	5.3	5.7	7.2	4.8	6.0	4.7	7.2	4.8	6.66
BRF50	6.6-8.0	10.0	6.7	8.4	8.5	10.7	7.2	9.0	7.0	10.7	7.2	9.99
BRF75	8.9-11.3	13.6	10.6	13.3	13.0	15.7	12.3	15.4	10.3	15.7	12.3	19.43
BRF100	10.8-13.6	16.4	12.8	16.1	18.6	22.4	17.5	22	14.7	22.4	17.5	22.00
BRF150	16.1-20.4	24.5	19.1	24	20.4	24.5	19.1	24	16.1	24.5	19.1	24.00
BRF200	18.0-23.0	28	22	27	23	28	22	27	18	28	22	27.75
B015	16-21	25	19	24.2	23	28	22	27	18	28	22	29.97
B020	21-29	32	25	31	29	35	27	34	23	35	27	37.74
B025	26-33	40	31	39	36	43	33	42	28	43	33	46.62
B030	30-38	46	36	45	41	49	38	48	32	49	38	53.28
BX040	40-50	61	47	59	50	61	47	59	40	61	47	66.60
B040	38-48	58	48	60	52	63	52	65	41	63	52	72.15
B050	48-60	73	60	75	62	75	61	77	49	75	61	83.25
BX060 [1]	62	75	61	77	62	75	61	77	62	75	61	85.47
B060	54-68	82	68	85	77	93	76	96	61	93	76	106.56
B075	69-87	105	84	106	99	119	96	120	78	119	96	133.20
B100	90-114	137	110	138	124	149	120	150	98	149	120	166.50
B125	113-143	172	138	173	148	178	143	180	117	178	143	199.80
BX150	148	178	143	180	148	178	143	180	148	178	143	199.80
B150	130-164	197	159	199	198	238	191	240	157	238	191	266.40
B200	172-217	261	210	263	241	290	233	292	191	290	233	324.12
B250	212-268	322	259	325	268	322	259	325	212	322	259	360.75
BP/BPR250	212-268	322	259	325	297	357	287	360	235	357	287	399.60
BX250	212-268	322	259	325	288	347	279	360	228	347	279	399.60
B300	228-288	347	279	360	330	397	319	425	261	397	319	471.75
BP/BPR300	235-297	357	287	360	350	421	339	425	277	421	339	471.75
B350	261-330	397	319	425	371	446	359	475	294	446	359	527.25
BP/BPR350	277-350	421	339	425	392	471	378	475	310	471	378	527.25
B400	294-371	446	359	475	412	496	398	525	326	496	398	582.75
BP/BPR400	310-392	471	378	475	438	527	424	532	347	527	424	532.05
B450	326-412	496	398	525	470	565	454	590	372	565	454	654.90
BP/BPR450	347-438	527	424	532	438	527	424	532	347	527	424	532.00
B500	372-470	565	454	590	552	664	534	670	437	664	534	743.70
B600	437-552	664	534	670	552	664	534	670	437	664	534	743.70
500-600V DRIVES					**600V DRIVES**							
CWF10	2.1-2.5	2.4	2.1	2.0	2.5	2.4	2.1	2.0				
CWF20	4.2-5.0	4.8	4.2	4.0	5.0	4.8	4.2	4.0				
CWF30	6.2-7.5	7.2	6.2	6.0	7.5	7.2	6.2	6.0				
CWF50	8.3-10.0	9.6	8.3	8.0	10.0	9.6	8.3	8.0				
CWF75	9.0-11.0	10.0	10.0	10.0	11.0	10.0	10.0	10.0				
CWF100	11.0-13.0	12.0	12.0	12.0	13.0	12.0	12.0	12.0				
CWF150	17.0-20.0	19.0	19.0	19.0	20.0	19.0	19.0	19.0				
CWF200	21.0-26.0	25.0	24.0	24.0	26.0	25.0	24.0	24.0				
C025	27-32	31	30	30	32	31	30	30				
C030	31-37	36	35	35	37	36	35	35				
C040	38-45	44	45	45	45	44	45	45				
C050	48-57	55	57	57	57	55	57	57				
C060	52-62	60	62	62	62	60	62	62				
C075	73-88	84	85	85	88	84	85	85				
C100	94-112	108	109		112	108	109	109				
C125	118-142	137	137		142	137	137	138				
C150	144-173	167	167		173	167	167	168				
C200	216-260	250	252	252	260	250	251	252				
C250	244-293	282	283	284	293	282	283	284				
CX300	256-307	295	297	300	307	295	297	300				
C300	258-309	297	299	300	309	297	299	300				
C350	301-361	347	349	350	361	347	349	350				
CP/CPR350	301-361	347	349	350	361	347	349	350				
C400	343-412	397	398	400	412	397	398	400				
CP/CPR400	343-412	397	398	400	412	397	398	400				
C450	386-464	446	448	450	464	446	448	450				
C500	429-515	496	498	500	515	496	498	500				
C600	515-618	595	598	600	618	595	598	600				

480 Volts Only.

User Supplied Enclosures

1336 PLUS II drives installed in user supplied enclosures may be mounted within an enclosure or may be mounted to allow the heat sink to extend outside the enclosure. Use the information below in combination with the enclosure manufacturer's guidelines for sizing.

Cat No.	Base Derate Amps [1]	Derate Curve [2, 3]	Heat Dissipation Drive Watts [2, 3, 4]	Heat Sink Watts [2]	Total Watts [2]
200-240V DRIVES					
AQF05	2.3	No Derate	13	15	28
AQF07	3.0	No Derate	15	21	36
AQF10	4.5	No Derate	17	32	49
AQF15	6.0	No Derate	21	42	63
AQF20	8.0	No Derate	25	56	81
AQF30	12	No Derate	33	72	105
AQF50	18	No Derate	42	116	158
AQF75	22	No Derate	58	186	244
A007	27	No Derate	156	486	642
A010	34	Figure A	200	721	921
A015	48	Figure C	205	819	1024
A020	65	No Derate	210	933	1143
A025	77	No Derate	215	1110	1325
A030	80	No Derate	220	1110	1330
A040	120	Figure F	361	1708	2069
A050	150	Figure G	426	1944	2370
A060	180	Figure I	522	2664	3186
A075	240	Figure K	606	2769	3375
A100	291	Figure L	755	3700	4455
A125	325	Figure M	902	4100	5002
380-480V DRIVES					
BRF05	1.2	No Derate	12	9	21
BRF07	1.7	No Derate	13	15	28
BRF10	2.3	No Derate	15	20	35
BRF15	3.0	No Derate	16	27	43
BRF20	4.0	No Derate	19	36	55
BRF30	6.0	No Derate	23	54	77
BRF50	9.0	No Derate	29	84	113
BRF75	15.4	No Derate	58	186	244
BRF100	22.0	No Derate	68	232	300
BRF150	24.0	No Derate	88	332	420
BRF200	27.0	No Derate	96	356	452
B015	27	No Derate	117	486	603
B020	34	Figure A	140	628	768
B025	42	Figure B	141	720	861
B030	48	Figure C	141	820	961
BX040	59	Figure D	175	933	1108
B040	65	Figure D	175	933	1108
B050	77	Figure E	193	1110	1303
BX060	77	Figure E	193	1110	1303
B060	96	No Derate	361	1708	2069
B075	120	Figure F	361	1708	2069
B100	150	Figure G	426	1944	2370
B125	180	Figure I	522	2664	3186
BX150	180	Figure J	606	2769	3375
B150	240	Figure K	606	2769	3375
B200	292	Figure L	755	3700	4455
B250	325	Figure M	902	4100	5002
BP/BPR250 [6]	322	Figure N	491	4658	5149
BX250	360	No Derate	902	4100	5002
B300 [5]	425	No Derate	1005	4805	5810
BP/BPR300 [6]	357	Figure O	619	5342	5961
B350 [5]	475	No Derate	1055	5455	6510
BP/BPR350 [6]	421	Figure P	733	6039	6772
B400 [5]	525	No Derate	1295	6175	7470
BP/BPR400 [6]	471	Figure Q	793	6329	7122
B450 [5]	590	No Derate	1335	6875	8210
BP/BPR450 [6]	527	Figure R	931	7000	7931
B500 [5]	670	Figure S	1395	7525	8920
B600 [5]	670	Figure S	1485	8767	10252
500-600V DRIVES					
CWF10	2.4	No Derate	25	29	54
CWF20	4.8	No Derate	29	57	86
CWF30	7.2	No Derate	32	87	119
CWF50	9.6	No Derate	35	117	152
CWF75	10	No Derate	38	148	186
CWF100	12	No Derate	41	177	218
CWF150	19	No Derate	52	286	338
CWF200	24	No Derate	60	358	418
C025	30	No Derate	141	492	633
C030	35	No Derate	141	526	667
C040	45	No Derate	175	678	853
C050	57	No Derate	193	899	1092
C060	62	No Derate	193	981	1174
C075	85	Figure E	361	1533	1894
C100	109	Figure H	426	1978	2404
C125	138	Figure J	522	2162	2683
C150	168	Figure T	606	2315	2921
C200	252	Figure U	755	3065	3820
C250	284	Figure V	890	3625	4515
CX300	300	Figure W	940	3990	4930
C300 [5]	300	Figure Z & AA	926	5015	5941
C350 [5]	350	Figure Z & AA	1000	5935	6935
CP/CPR350	350	Figure X	580	6125	6705
C400 [5]	400	Figure Z & AA	1430	7120	8550
CP/CPR400	400	Figure Y	711	7000	7711
C450 [5]	450	Figure Z & AA	1465	8020	9485
C500 [5]	500	Figure Z & AA	1500	8925	10425
C600 [5]	600	Figure Z & AA	1610	10767	12377

1 Base Derate Amps are based on nominal voltage (240, 480 or 600V). If input voltage exceeds Drive Rating, Drive Output must be derated. Refer to Figure AC.

2 Rating is at 4 kHz (2 kHz for 224-448 kW/300-600 HP, 500-600V). If carrier frequencies above 4 kHz are selected, drive rating must be derated. See Figure A-AA.

3 Drive Ambient Temperature Rating is 40° C. If ambient exceeds 40° C, the drive must be derated. Refer to Figure A-AA.

4 Drive Rating is based on altitudes of 1,000 m (3,000 ft) or less. If installed at higher altitude, drive must be derated. Refer to Figure AB.

5 **Important:** Two (2) 725 CFM fans are required if an open type drive is mounted in a user supplied enclosure.

6 **Important:** 1336F-BPRxxx drives require two (2) fans capable of producing greater than 450 CFM, if an open type drive is mounted in a user supplied enclosure.

Derating Guidelines

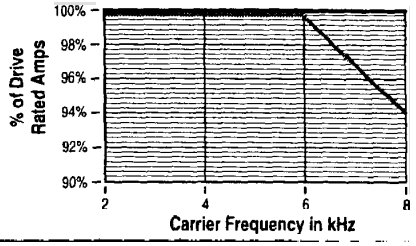
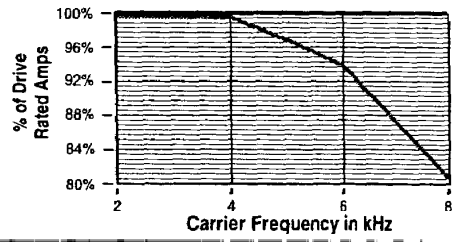
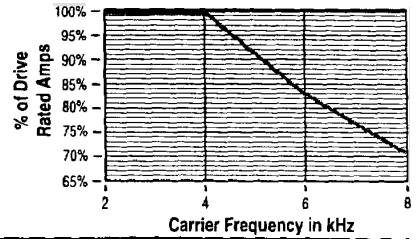
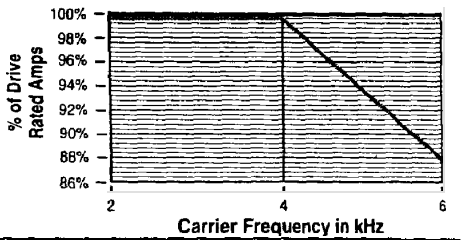
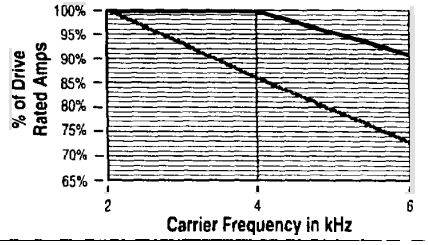
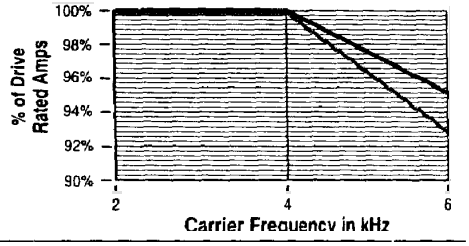
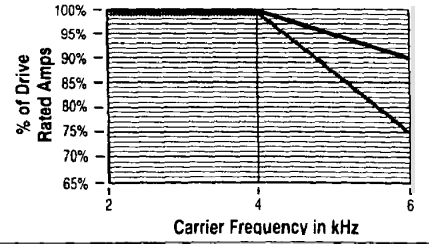
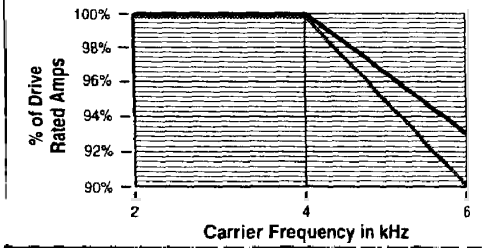
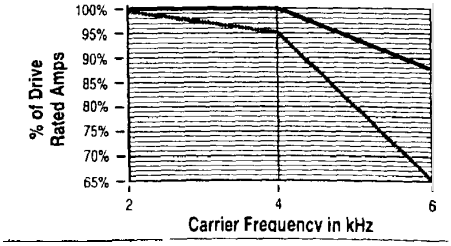
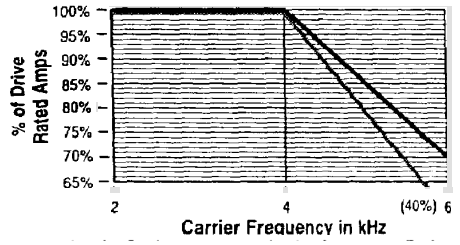
Drive ratings can be affected by a number of factors. If more than one factor exists, derating percentages must be multiplied. For example, if a 42 Amp drive (B025) running at 8 kHz is installed at a 2,000 m (6,600 ft.) altitude and has a 2% high input line voltage, the actual amp rating will be:

42 x 94% Altitude Derate x 96% High Line Derate = 37.9 Amps

Ambient Temperature / Carrier Frequency

— Standard Rating for Enclosed Drive in 40°C Ambient & Open Drive in 50°C Ambient.

— Derating Factor for Enclosed Drive in Ambient between 41°C & 50°C.

Figure/Rating	Derate
Figure A A010 B020	
Figure B B025	
Figure C A015 B030	
Figure D B040 BX040	
Figure E B050 BX060	
Figure F A040 B075 C075	
Figure G A050 B100	
Figure H C100	
Figure I A060 B125 BX150	
Figure J C125	

— Standard Rating for Enclosed Drive in 40°C Ambient & Open Drive in 50°C Ambient

— Derating Factor for Enclosed Drive in Ambient between 41°C & 50°C.

Figure/Rating	Derate

Figure K
A075, B150

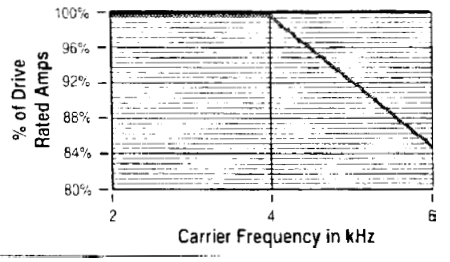


Figure L
A100, B200

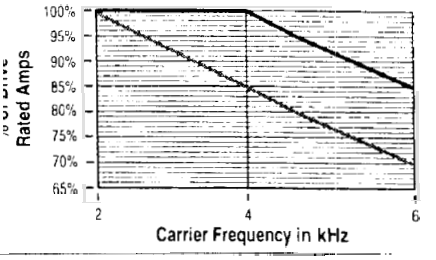


Figure M
A125
B250

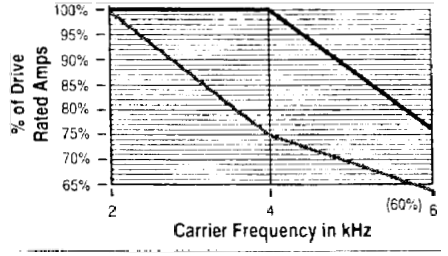


Figure N
BP250
BPR250

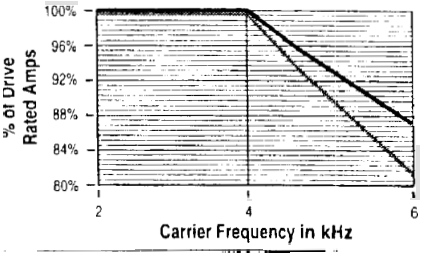


Figure O
BP300
BPR300

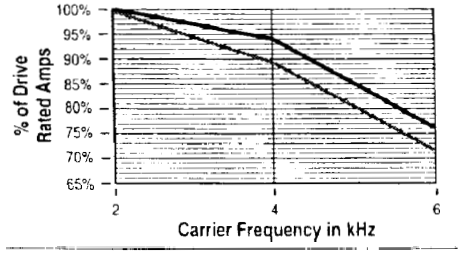


Figure P
BP350
BPR350

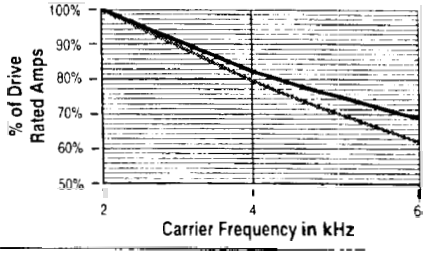


Figure Q
BP400
BPR400

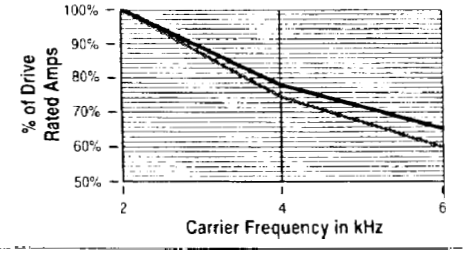


Figure R
BP450
BPR450

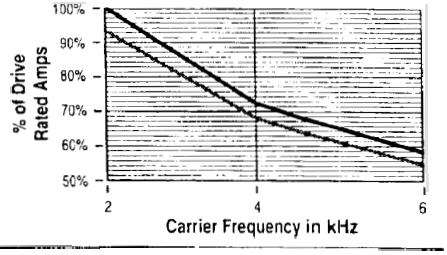


Figure S
B500
B600

Assumes two (2) 725 CFM cooling fans for IP 20 (NEMA Type 1) enclosure

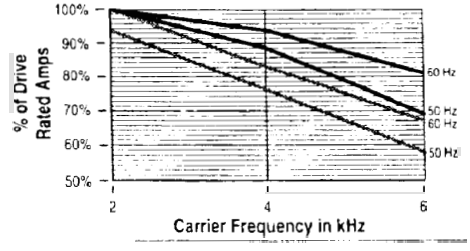


Figure T
C150

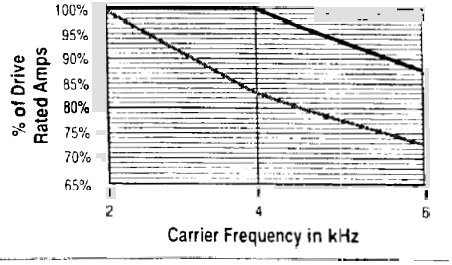


Figure U
C200

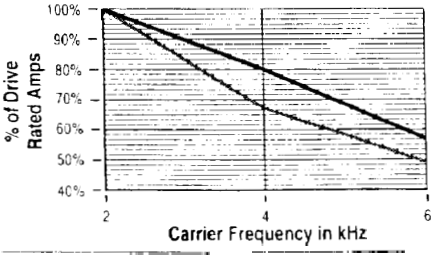
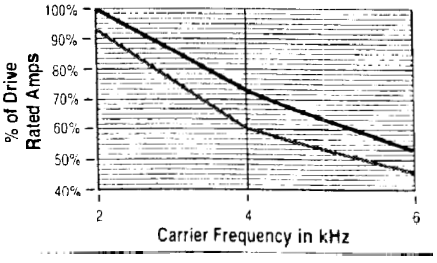


Figure V
C250



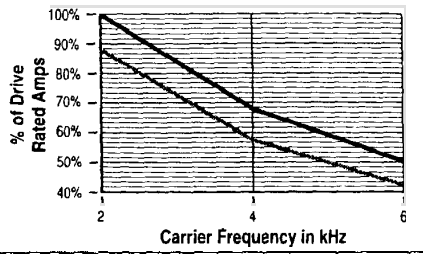
— Standard Rating for Enclosed Drive in 40°C Ambient & Open Drive in 50°C Ambient

--- Derating Factor for Enclosed Drive in Ambient between 41°C & 50°C.

Figure/Rating	Derate

Figure W

CX300



Figure/Rating	Derate

Figure X

CP350
CPR350

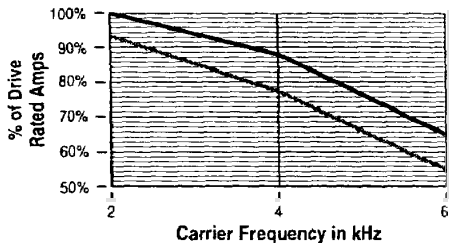


Figure Y

CP400
CPR400

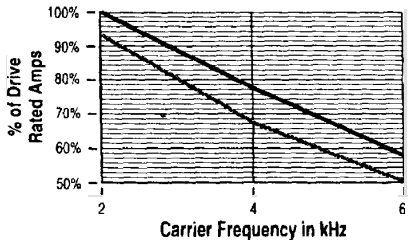


Figure Z

C300-C600

Enclosed drive in 40° C. ambient

Assumes two (2) 725 CFM cooling fans for IP 20 (NEMA Type 1) enclosure

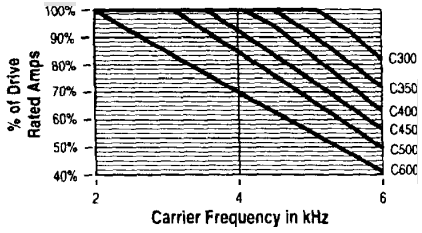
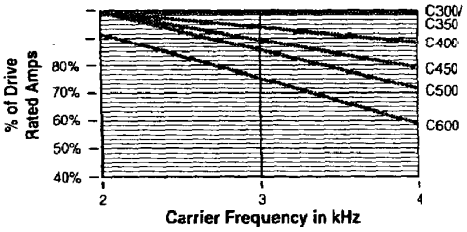


Figure AA

C300-C600

Assumes two (2) 725 CFM cooling fans for IP 20 (NEMA Type 1) enclosure



6kHZ Data Not Available at Time of Printing

Altitude and High Input Voltage

Figure/Rating	Derate

Figure AB

Altitude - All Ratings

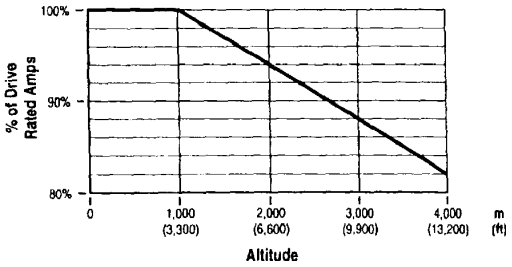
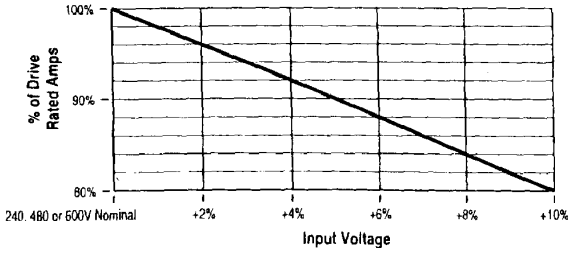


Figure AC

High Input Voltage



Required Only for the following drives:

1336F-x025 – 18.5 kW (25 HP) at 8 kHz
1336F-x030 – 22 kW (30 HP) at 6 or 8 kHz
1336F-x060 – 45 kW (60 HP) at 6 kHz

ELECTRIC APPARATUS CO.
Howell, Michigan USA
Phone: 517-546-0520
Fax: 517-546-0547

INDUCTION MOTOR PARAMETERS & PERFORMANCE

FOR

HENSCHEL MIXERS

FM-2000, ITEM # 601-01

PO NUMBER 7153-192
EAC SERIAL NUMBER 100-04855-01
E/S 58E-071-01

NAME PLATE DATA

HP	500	NEMA DES.	SPL
RPM	1790-2385	PHASE	3
VOLTS	460	CODE	-
AMPS	560	TEMP	40°C AMB
FRAME	589DZV	INS. CLASS	H
TYPE	AAK	DUTY	CONT.
HZ	60-80	S.F.	1.0

PERFORMANCE DATA @ 460VOLTS, 60HZ, 100°C

FL EFF. (%)	93.5	FLA	560
FL P.F. (%)	89.0	FL RPM	1789
BDT (%)	390	NLA	208
LRT (%)	140	LRA	4350
FLT (LB-FT)	1468	%SLIP @BD	5.1

MOTOR ELECTRICAL PARAMETERS @ 60HZ, 100°C

R1	.0026Ω	R2	.0033Ω
X1	.0340Ω	XM	1.373Ω
X2	.0333Ω	RTR WK²	250LB-FT²

Installation and Operation Manual for the SP500 A-C Drive Three-Phase Input and Three-Phase Output

1/4–1 HP @ 115 VAC,
1/4–5 HP @ 200–230 VAC,
1/4–20 HP @ 380–460 VAC and
1/4 – 10 HP @ 575 VAC
NEMA 1
NEMA 4X
(Indoor Only)/12

Instruction Manual D2-3356

Rockwell Automation
Reliance Electric

Table 2.7 - Drive Power Loss (Watts)

Horsepower (Hp)	Input Voltage (VAC)	Typical Full Load Power Loss (WATTS)
Model 1SU1xxxx Drives		
1/4–1	115	80
Model 1SU2xxxx Drives		
1/4–1	200–230	70
2		120
3		210
5		250
Model 1SU4xxxx Drives		
1/4–1	380–460	60
2		100
3		140
5		180
7.5		210
10		250
15		375
20		600
Model 1SU5xxxx Drives		
1/4–1	575	50
2		90
3		120
5		150
7.5		180
10		250

MARATHON ELECTRIC

A Subsidiary of Regal-Beloit Corporation

P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

U04719-105

CERTIFICATION DATA SHEET

CUSTOMER: NEW YORK BLOWER COMPANY
CUSTOMER ORDER: 00800-002-6
MEMC ORDER: MM29400
MODEL #: 182TTTS6001 AA
CONN. DIAGRAM: A-BE7308T
CUSTOMER PART # U04719-105
OUTLINE: A-SS68373-575
MOUNTING:
WINDING: 182258

TYPICAL MOTOR DATA

HP/KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
3	3600	3525	182TC	TENV	K	B

PH	FREQ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB
3	60	230 / 460	7.6/3.8	ACL	CONT	F	1.15	40

FULL LOAD EFF:	87.5	3/4 LOAD EFF:	87.5	1/2 LOAD EFF:	84.0	GTD. EFF	
FULL LOAD PF:	85.0	3/4 LOAD PF:	78.0	1/2 LOAD PF:	67.5	85.5	

F. L. TORQUE LB-FT	LOCKED ROTOR AMPS	L.R. TORQUE	B. D. TORQUE
4.5	63 / 31.5	9.5 LB-FT 213 %	17 LB-FT 380 %

SUPPLEMENTAL INFORMATION

SOUND PRESSURE @ 3 FT.	ROTOR WK^2	APROX. MOTOR WGT
73 dBA	0.21 LB-FT^2	105 LBS.

SPACE HEATERS	PROTECTORS	BEARINGS
NONE	TSTAT (N/C)	BALL

STD

MIXER ASPIRATION DUST COLLECTOR, ITEM NO 502-02

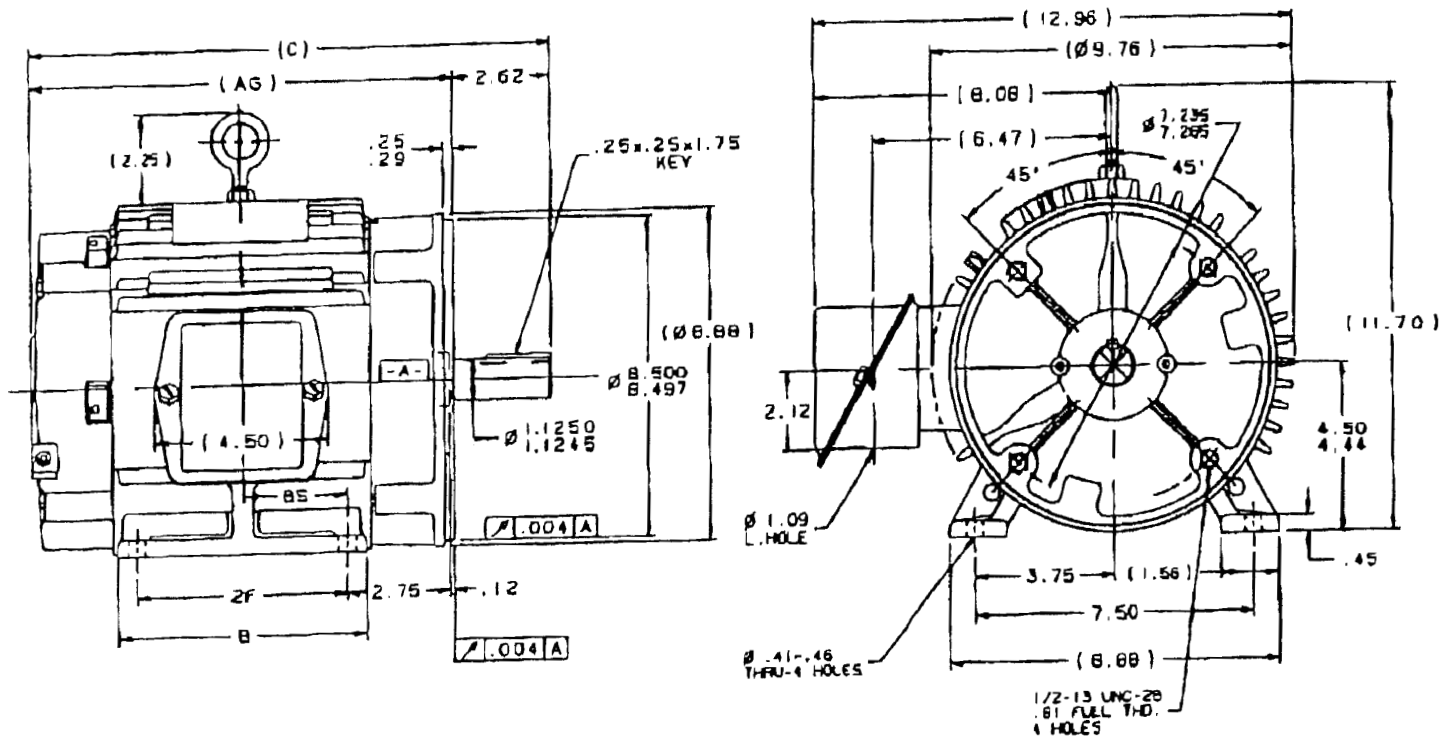
CERTIFIED BY: Jack Knetter

DATE: 24-Jan-00

FORM 3331 REV. 2 06-28-97

MEMC SUBMITTAL #: Admin - 8664

B-SS68373



NOTES:
1. CONDUIT BOX CAN BE ROTATED IN 90° STEPS.
2. CONDUIT BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.
3. NAMEPLATE TO BE READ FROM CONDUIT BOX SIDE OF MOTOR

DASH	FRAME	C	B	2F	BS	AG
575	182T	12.71	5.50	4.50	2.25	10.09
[illegible]	184T	13.71	6.50	5.50	2.75	11.09

NEW DRAWING

WRB

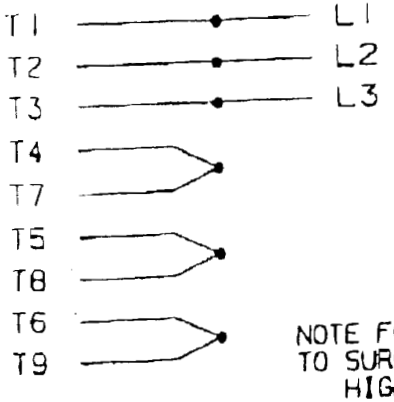
MARATHON ELECTRIC
WAUSAU, WISCONSIN 54401

DRAWN BY WRB 05/10/96
CHKD BY ML 8-10-96
APPD BY PH 8-10-96

A- EE7308T

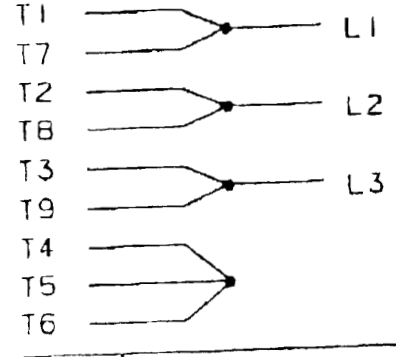
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

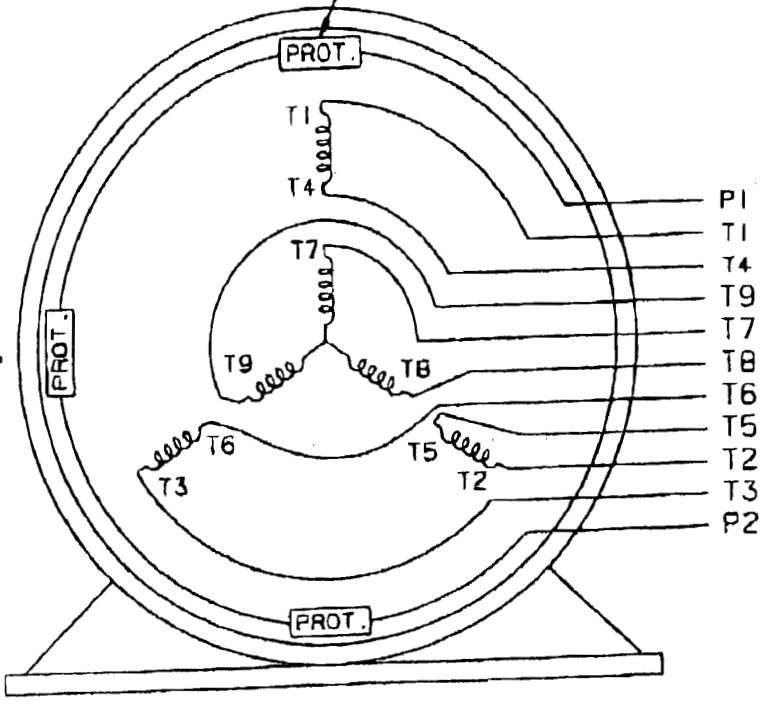


NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE



THREMO-PROTECTORS
CONNECTED IN SERIES.



VIEW OF TERMINAL END

10	05-03-1997	ADDED SURGE TESTER NOTE - FOR FACTORY USE ONLY CN 24255	MH
9	05-15-1992	REDRAWN	SMC

✓ MAX. SURFACE ROUGHNESS UNLESS NOTED OTHERWISE

MATL SPEC

FINISH

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOL. ON XX± XXX± .005 XXXX± .0005 ANGLES±

MARATHON ELECTRIC
WAUSAU, WISCONSIN 54401

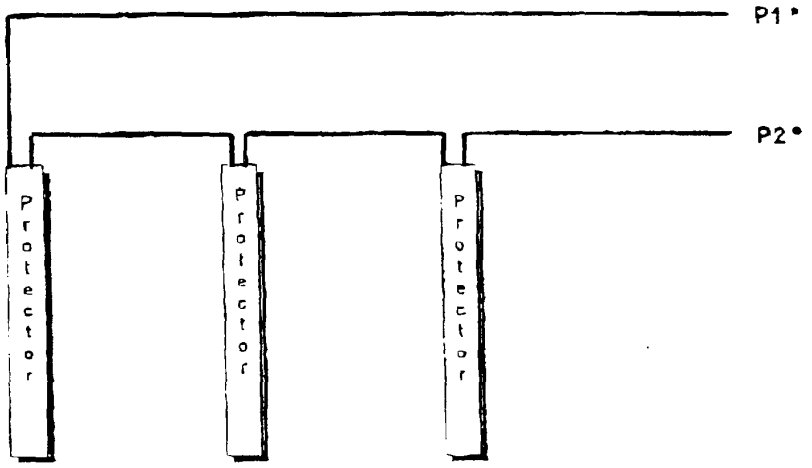
DRAWN BY	SMC	05-13-1992
CHKD BY	ML	05-13-1992
APPD BY	TB	01-28-1994

PART NAME CONNECTION DIAGRAM
DUAL VOLTAGE MOTOR

DRWG NO A- EE7308T

MARATHON ELECTRIC
A Subsidiary of Regal-Beloit Corporation

Thermistors



Thermistors are Positive Temperature Coefficient (PTC) sensors. PTC sensors have the ability to remain at a low base resistance over a wide temperature band, and increase their resistance abruptly at some predetermined elevated temperature. When this increase occurs, the PTC sensor acts as a solid state thermal switch and provides an input signal to a seperate electronic control module.

Class B insulation motors use Klixon 4BA135-3000 Thermistor or equivalent. 135 Deg. C (+/- 5 Deg. C) trip temperature rating

Class F insulation motors use Klixon 4BA155-3000 Thermistor or equivalent. 155 Deg. C (+/- 5 Deg. C) trip temperature rating.

Standard Thermistors come in a three thermistor harness and are installed one per phase

Normal three thermistor harness resistance at 25 Deg. C is 1500 to 7500 ohms

- If more than one set of thermo protection (Thermostats or Thermistors) are required, the subsequent sets will be marked P3 - P4, P5 - P6, ect.

For a more complete discussion of sensor selection and application, see Texas Instruments publication #749, entitled "Application of Internal Thermal Sensors for Motor Protection".

MARATHON ELECTRIC
A Subsidiary of Regal-Beloit Corporation
P.O. BOX 8003
WAUSAU, WI 54401-8003
PH. 715-675-3311

U04719-100

CERTIFICATION DATA SHEET

CUSTOMER: NEW YORK BLOWER COMPANY **CUSTOMER ORDER:** 00800-002-4

MEMC ORDER: MM29397 **MODEL #:** 145TTTN6001 AA

CONN. DIAGRAM: A-EE7308T **CUSTOMER PART #** U04719-100

OUTLINE: A-100998-625 **MOUNTING:**

WINDING: ZT253 TS

TYPICAL MOTOR DATA

HP/KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
2	3600	3460	145TC	TENV	L	B

PH	FREQ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB
3	60	230 / 460	5.2 / 2.6	ACL	CONT.	F	1.15	40

FULL LOAD EFF:	86.5	3/4 LOAD EFF:	87.5	1/2 LOAD EFF:	86.5	GTD. EFF
FULL LOAD PF:	88.7	3/4 LOAD PF:	85.0	1/2 LOAD PF:	77.0	84

F. L. TORQUE LB-FT	LOCKED ROTOR AMPS	L.R. TORQUE	B. D. TORQUE
3.0	48 / 24.0	9.5 LB-FT 313 %	11 LB-FT 362 %

SUPPLEMENTAL INFORMATION

SOUND PRESSURE @ 3 FT.	ROTOR WK^2	APROX. MOTOR WGT
41 dBA	0.06 LB-FT^2	68 LBS.

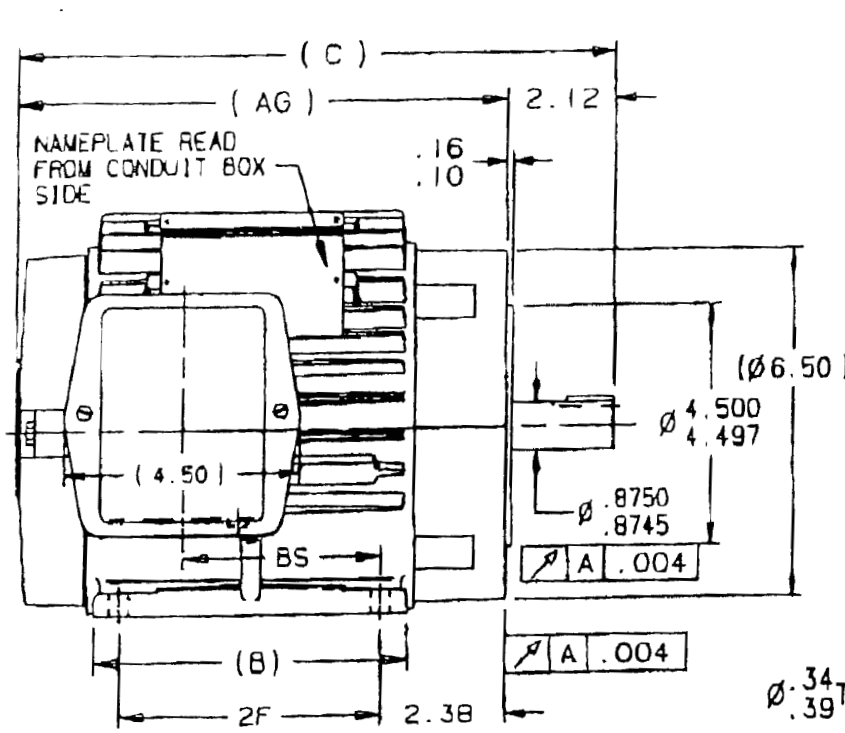
SPACE HEATERS	PROTECTORS	BEARINGS
NONE	TSTAT (N/C)	BALL

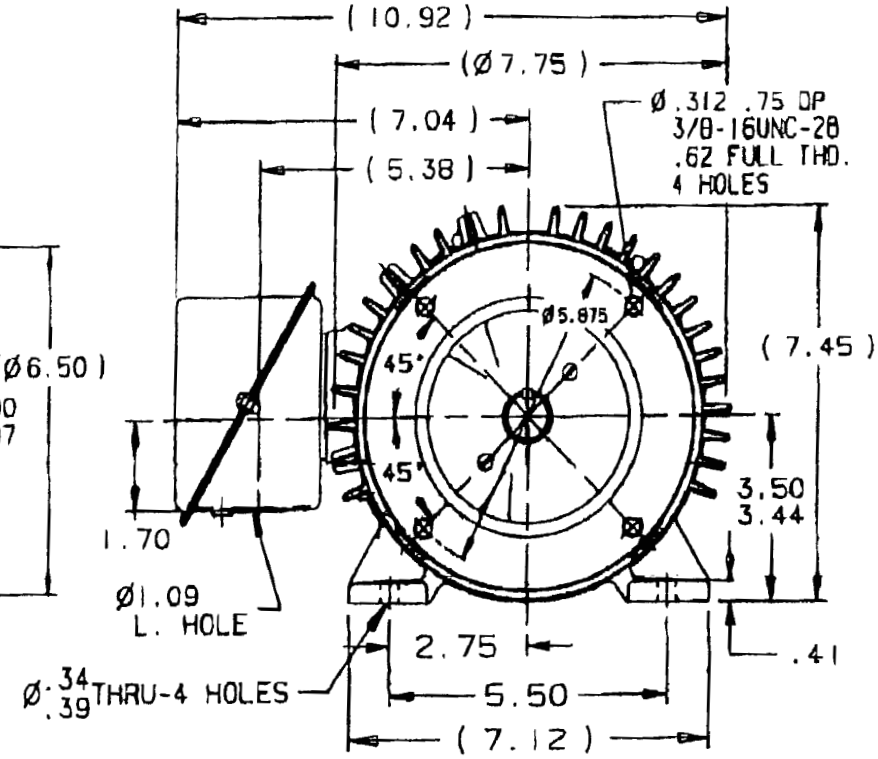
SURGE HOPPER BIN VENT FAN PACKAGE, ITEM NO 709-02

CERTIFIED BY: Jack Knetter DATE: 24-Jan-00

FORM 3531 REV 2 06-28-97 MEMC SUBMITTAL #: Admin - 8663

A- 100998





DASH	FR.	B	C	BS	2F	AG
525	143T	5.00	10.94	3.51	4.00	8.38
625	145T	6.00	11.94	3.81	5.00	9.38

NOTES:
1- BOX CAN BE ROTATED IN 90° STEPS.
2- BOX CAN BE MOUNTED ON OPPOSITE SIDE BY REMOVING BRACKETS AND TURNING FRAME 180°.

✓ SURFACE ROUGHNESS UNLESS NOTED OTHERWISE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOL. ON XX± .03 XXX± .005 XXXX± .0005 ANGLES± 7'30"

MATL SPEC

FINISH

NEW DRAWING

MRB

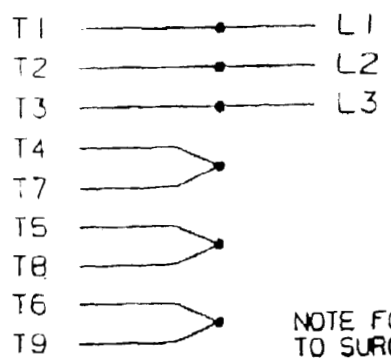
MARATHON ELECTRIC
WAUSAU, WISCONSIN 54401

DRAWN BY	MRB	03/13/95
CHKD BY	MOL	3-14-95
APPD BY	ET	3-14-95

A- EE7308T

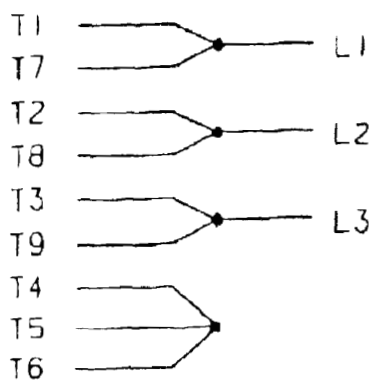
THREE PHASE
DUAL VOLTAGE MOTOR

HIGH VOLTAGE

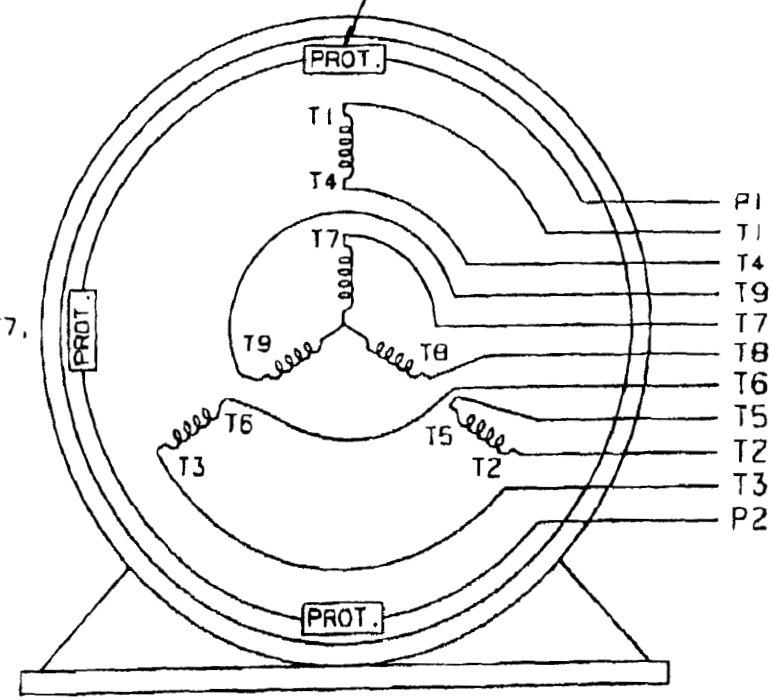


NOTE FOR FACTORY USE ONLY:
TO SURGE TEST FOR COMMON CONNECT:
HIGH VOLT: CONNECT P1 TO T1
THEN P2 TO L1
LOW VOLT: CONNECT P1 TO T1 & T7,
THEN P2 TO L1

LOW VOLTAGE



THREMO-PROTECTORS
CONNECTED IN SERIES.



VIEW OF TERMINAL END

1 0	06-03-1997	ADDED SURGE TESTER NOTE - FOR FACTORY USE ONLY CN 24255	WH
9	05-15-1992	REDRAWN	SMC

✓ MAX. SURFACE ROUGHNESS UNLESS NOTED OTHERWISE

MATL SPEC

FINISH

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOL. ON XX± XXX± .005 XXXX± .0005 ANGLES±

MARATHON ELECTRIC
WAUSAU, WISCONSIN 54401

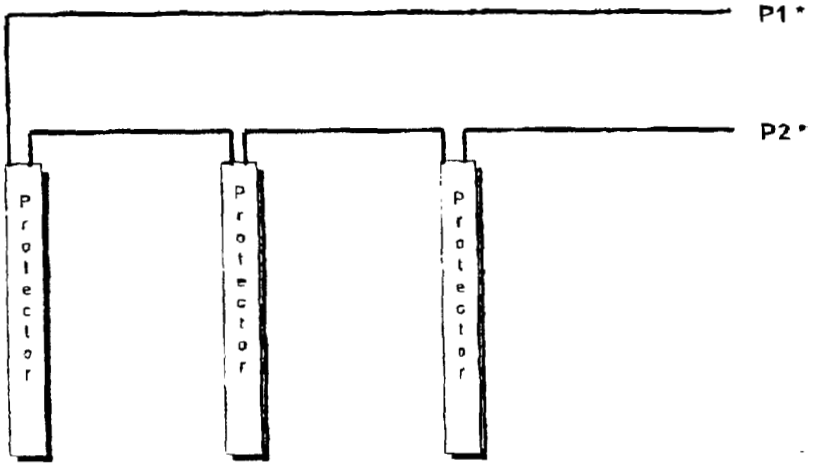
DRAWN BY	SMC	05-13-1992
CHKD BY	ML	05-13-1992
APPD BY	TB	01-28-1994

PART NAME CONNECTION DIAGRAM
DUAL VOLTAGE MOTOR

DRWG NO A- EE7308T

MARATHON ELECTRIC
A Subsidiary of Regal-Beloit Corporation

Thermostats



Normally Closed Thermostats have bimetal contacts which are closed under normal operating temperatures. when the predetermined trip temperature is reached, the bimetal disc snaps open, thus breaking the current path. The bimetal disc snaps closed when the reset temperature is achieved.

Class B insulation motors use Klixon 7AM035A5-80 Thermostat or equivalent. 140 Deg. C (+/- 5 Deg. C) trip temperature rating.

Class F insulation motors use Klixon 7AM037A5-985-5 Thermostat or equivalent. 150 Deg. C (+/- 5 Deg. C) trip temperature rating.

Standard Thermostats are installed in sets of three, one per phase

Maximum voltage/current combinations:

16 VDC	20 amps
115 VAC	22 amps
277 VAC	8 amps
600 VAC	4 amps

* If more than one set of thermo protection (Thermostats or Thermistors) is required, the subsequent sets will be marked P3 - P4, P5 - P6, ect.

For a more complete information on thermostats, contact Texas Instruments.

RATING - NOMINALS

Rated Output	3
Volts	230/460
Full Load Amps	6.8/3.4
Speed	3500
Hertz	60
Phase	3
NEMA Design Code	B
LR KVA Code	L
Efficiency	88.5
Power Factor	92
Service Factor	1.15
Rating -Duty	40C AMB-CONT

CHARACTERISTICS

Full Load Torque	4.5 LB-FT
Break Down Torque	23.3 LB-FT
Pull-Up Torque	15.2 LB-FT
Locked-Rotor Torque	16.0
Starting Current	32.0
No-Load Current	1.06
Line-line Resistance @ 25 degrees C	3.92
Temperature Rise, in degrees C @ F.L.	32

LOAD CHARACTERISTICS - TESTED

% of Rated Load	25	50	75	100	125	150	S.F
Power Factor	65	83	89	92	94	95	93
Efficiency	80.9	87.5	89.1	89.3	88.9	88.2	89.1
Speed (rpm)	3577	3556	3534	3509	3487	3467	3500
Line Amperes	1.39	1.96	2.66	3.40	4.12	4.79	3.83

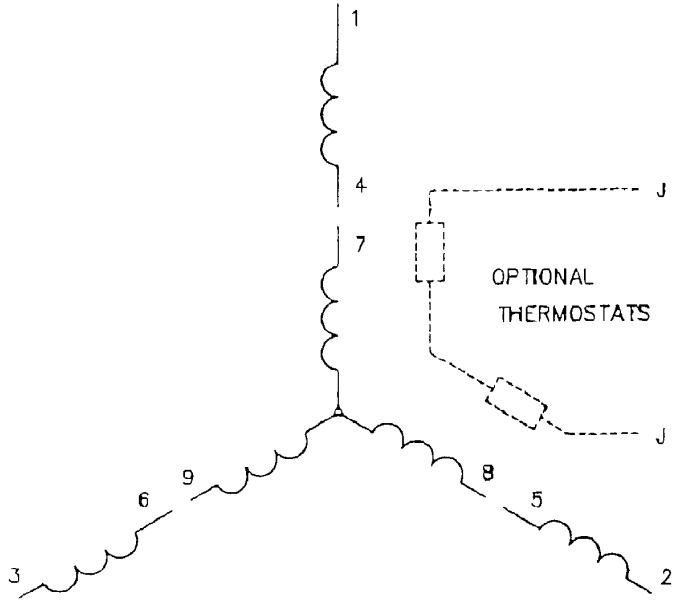
MINOR MODS FAN PACKAGE, ITEM NO 454-01

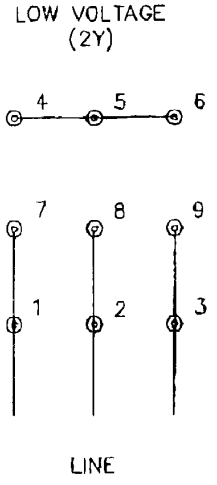
Catalog Number: EM3660T

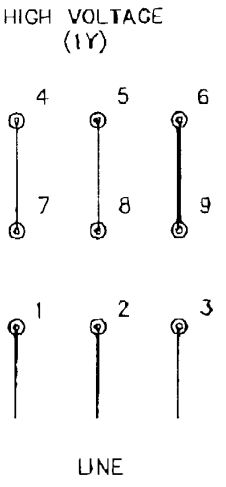
Spec Number:	06H02W36
HorsePower:	3
RPM:	3500
Nema Frame:	182T
List Price:	560
Multiplier:	L1
Type:	0628M
C Dimension:	15.24
Eff Full Load:	88.5
Shipping Wt:	93
Volt Code:	F
Voltage:	230/460
Amps:	6.8/3.4
Phase:	3
Hertz:	60
Pole:	02
Design:	B
Ser. F:	1.15
Enclosure:	TEFC
Amp Code:	L
Mounting:	F1
Base Code:	RG
D.E. Bearing:	6206
O.D.E. Bearing:	6205
Rotation:	R
Rating:	40C
Substitute:	M3660T
Rec Adj FCtr:	ID15J203-ER
Rec Soft Strt:	

Connection Diagram For Catalog Number EM3660T - Baldor Electric Company (R)

CD0005





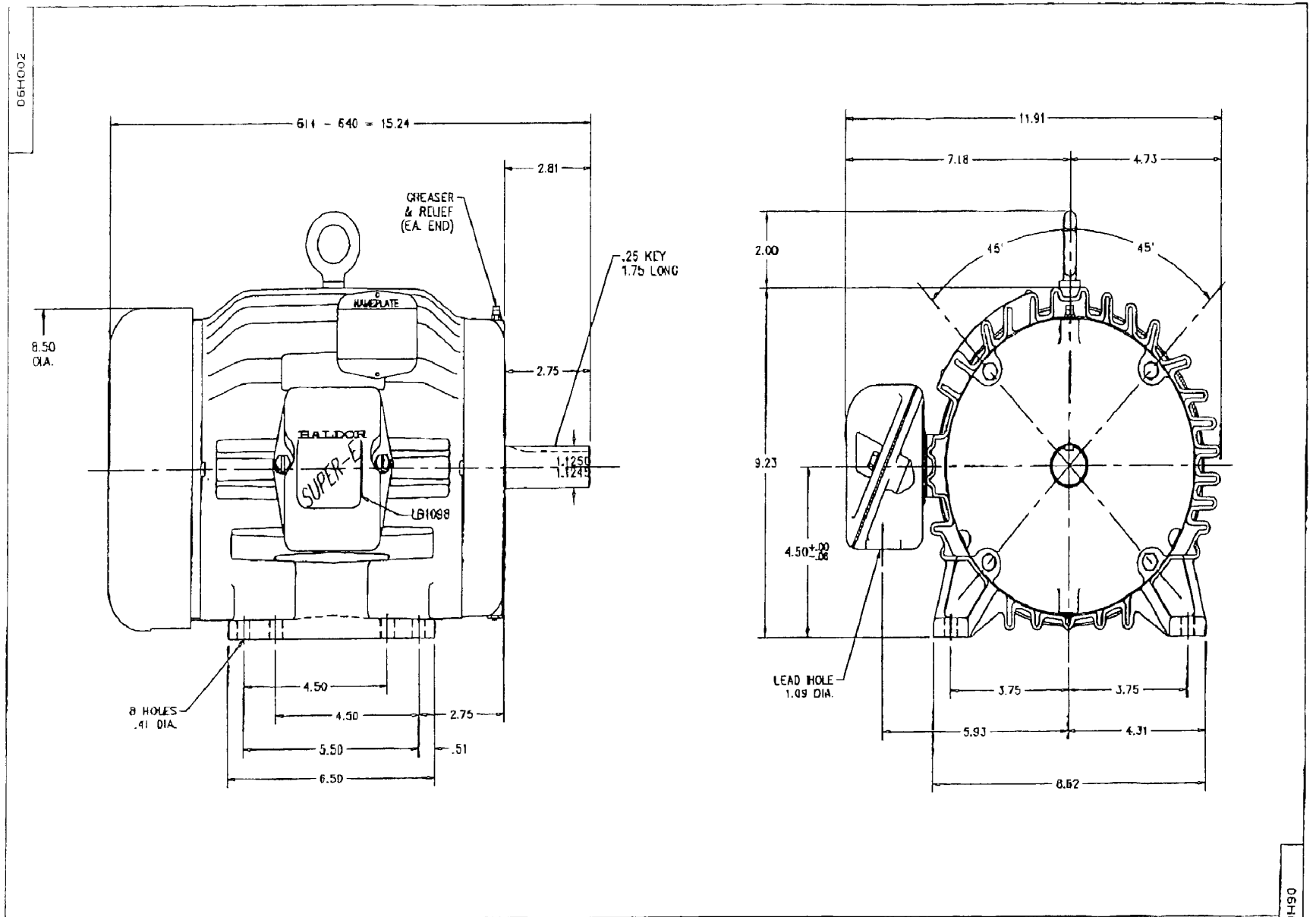


NOTES:
1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.

MATL: –				BALDOR ELECTRIC Co.
REV: 0	UPDATE DRAWING TO ACAD			
CD0005	SCALE: –	BY: JWF	REVISED: 09/20/93	3PH, DV, 9 LEADS
	FILE: AAA00005140		TDR: 0045960	

CD0005

Catalog Number: EM3660T Layout=06LYH002 Type=0628M C-Dimension=15.24



CUST. NAME		CUST. P.O.			REMARKS:		BALDOR ELECTRIC Co.
MODEL	INSUL	AMB	H.P.	NTG	REV: J	UPDATED LAYERING AND ADDED DIMS (SEE ECO9)	
R.P.M.	VOLTS	ENCL	PHASE	FREQ	SCALE: .4	BY: JED / REVISED: 11/07/97	NORZ 182-41 NEFC 306M
FRAME	TYPE		CERTIFIED BY		FILE: AAA00011015	IDR: 0135504	

BALDOR MOTOR

PERFORMANCE DATA

WINDING	H.P.	S.F.	RPM	TYPE	NLA	FLA	LRA	FLT	BRK. DWN. LB. FT.	LKD. RTR. LB. FT.	EFF.	PF	ELEC. CAP	OIL CAP
35X534	2	1.15	1725	3528M	2.1	3.1	22	6	27	23.5	81.0	74		
35X539	2/.5	1.00	1725	3528M	1.9/1.1	3.1/1.3	19/5	6/3	22/9	18/7	81.0	75		
35X623	1 1/2	1.00	1725	3535M	1.1	2.1	17.5	4.5	20	17.5	82.5	82		
35X912	1	1.15	1740	3520M	0.95	1.6	13.5	3	12.9	8.70	82.5	74		
35X913	1 1/2	1.15	1740	3524M	1.2	2.2	19	4.5	21.2	14	84.0	77		
35X914	4	1.15	1740	3528M	1.5	2.7	21	6	24.6	16.2	84.0	81		
35X935	3/4	1.25	1725	3520L	3.9	5.9	28	2.25	5.9	0.07	68.0	64	645(1)	
35X944	1 1/2	1.15	1725	3532LC	5.2	8	50	4.5	14.0	14	75.5	80	645(1)	12(1)
35X945	1	1.15	1725	3524L	4.3	6.4	41	3	7.5	10.7	68.0	74	645(1)	
35X958	1 1/2	1.15	3450	3520L	5.6	8.8	40	2.3	6.1	5.4	70.0	78	645(1)	
35X964	1	1.25	3450	3520L	3.3	6.2	33	1.5	4.3	5	68.0	82	645(1)	
35X966	2	1.15	1725	3532LC	6.9	10.2	68	6	15.2	16	75.5	85	850(1)	15(1)
35Y02	1/.5	1.00	1725	3524M	.6/1.4	1.4/1.45	7.5/5.6	3/3	7.6/8.6	6.3/6.3	---	---		
35Y18	3	1.15	1725	3535M	6.1	10	75	9	36.9	27	84.0	78		
35Y24	1	1.15	1725	3518M	0.9	1.5	10.1	3	10.8	9	77.0	74		
35Y25	3/4	1.15	1140	X3524M	1.1	1.4	8.4	3.4	13.4	9.8	77.0	63		
35Y39	3	1.00	3450	3535LC	8.8	15	112	9.5	15	13.3	---	---	216(1)	12(1)
35Y40	1/.44	1.15	1725	3528M	1.9/1.8	3.2/2.2	20/10	3/2	10/7	9/5	---	---		
35Y102	1	1.00	1725	3524M	0.9	1.5	12	3	13.8	11	81.5	74		
35Y105	3	1.15	3450	3535LC	5	13.1	100	4.5	15.5	13.4	82.5	93	216(1)	20(1)
35Y168	1	1.15	1725	3520L	4.9	6.7	35	3	7.9	13.2	66.0	72	645(1)	
35Y188	3/4	1.25	1725	3520L	3.8	5.3	25	2.3	6.3	7.5	68.0	64	645(1)	
35Y190	1	1.15	1725	3524L	4.2	6.9	33	3	6.3	10	67.0	73	645(1)	
35Y191	1	1.15	1725	3524L	4.5	6.7	33	3	6.9	8.6	67.0	73	645(1)	
35Y211	2	1.15	1740	3528M	3.7	6.2	48	6	24.6	16.2	84.0	81		
35Y212	1 1/2	1.15	1740	3524M	2.6	5	44	4.5	21	13.5	84.0	77		
35Y213	1	1.15	1740	3520M	2.2	3.7	31	3	13	9	82.5	74		
35Y253	1	1.00	1725	3524M	0.7	1.2	9.6	3	13.5	10.8	81.0	74		
35Y254	1 1/2	1.00	1725	3535M	1.8	3.1	21	3	10.8	9	82.5	82		
35Y334	3	1.15	1725	3535M	2.6	4.3	30	9	36.5	27	84.0	82		
35Y375	1 1/2	1.00	1725	3516M	2.1	2.6	14.0	2.3	7	4.8	75.5	72		
35Y376	2	1.00	1725	3520M	1.5	2.8	18.0	3.0	9.3	6	81.5	83		
35Y512	2/.5	1.00	1725	3535M	3.4/2.3	5.9/2.7	50/12	6/3	14/6	9/4	---	---		
35Y623	.5/.22	1.00	1725	3520M	.58/.53	1.9/.6	4.5/2.5	1.5/1	4.7/3.5	3.5/2.5	78.0	72		
35Y685	2	1.15	3450	3524LC	1.4	8.8	46	3	6.1	5.5	77.0	95	400(1)	60(1)
35Y686	1 1/2	1.15	3450	3520LC	1.5	6.5	34.7	2.3	4.6	4.3	75.5	98	400(1)	60(1)
35Y690	2	1.15	1725	3532LC	3	9.1	60	6	13	15.5	78.5	89	645(1)	60(1)
35Y691	2	1.15	3450	3524LC	1.3	8.4	43	3	6.5	5.1	80.0	95	400(1)	60(1)
35Y715	1/2	1.15	850	3524M	1.1	1.3	5.1	3	9.5	7.3	66.0	56		
35Y725	1 1/2	1.15	1725	3528LC	5.1	13.4	49	4.5	11.5	10	74.0	94	460(1)	60(1)
35Y730	1	1.15	1140	3524M	1.2	1.7	7.5	4.5	13.5	10.1	75.5	69		
35Y748	1 1/2	1.15	3450	3524L	3.9	8	50.2	2.3	5.4	6.4	70.0	85	645(1)	
35Y771	3	1.15	3450	3532LC	2.6	12.6	74	4.6	9.5	11.5	85.5	95	216(1)	35(1)
35Y796	3/4	1.15	1140	3520M	1	1.4	6.7	3.4	9.5	8	75.5	68		
35Y797	1 1/2	1.15	1140	3535M	1.5	2.5	15	8.8	23	20.8	76.0	72		
35Y818	3	1.15	1725	3535M	5.4	9.4	---	---	---	---	84.0	82		
35Y819	3	1.15	1725	3535M	2.1	3.6	24	9	36.9	27	84.0	82		
35Y842	1	1.15	1725	3524L	4.6	6.5	---	---	---	---	67.0	73	645(1)	
35Y849	1 1/2	1.00	1725	3532LC	5.2	8	50	4.5	11	13.3	75.5	80	645(1)	15(1)
35Y845	5	1.15	1725	3546M	3	6.6	46	15	31	26	85.5	82		
35Y860	1 1/2	1.15	1725	3535LC	1.3	6.3	50	4.5	12.5	10	82.5	98	540(1)	35(1)
35Y862	1 1/2	1.15	3450	3520LC	1.3	6.5	31.6	2.3	4.3	4.1	75.5	98	340(1)	60(1)

GEAR PUMPS - ITEM NO 303-04

WRICO
INTERNATIONAL CORPORATION
FACILITIES DESIGN AND CONSTRUCTION
GENERAL CONTRACTOR LIC. NO. 477519

LOS ANGELES HEAD OFFICE
10805 HOLDER ST., SUITE 200, CYPRESS, CA 90630
PHONE: (714) 236-0592
FAX: (714) 236-0120

Fax Transmittal:

To: TARA HOLLOWAY
From: RANDY DUSTON
Co: CT
Date: 5-22-00
Fax #: 209-334-4300
Pages including cover sheet: 17
Re: LIGHTING FIXTURES

Message:

ATTACHED ARE THE SPEC SHEET YOU REQUESTED. NOTE THE PRICING ON TYPE "D" & "G".

IF YOU HAVE ANY QUESTIONS OR REQUIRE ADDITIONAL INFORMATION PLEASE CALL

RANDY

Copies:

If you do not receive all the pages, please contact us at (714) 236-0592.

INDUSTRIAL

LUMARK®

EXPRISMATIC DIRECT-MOUNT BENCHMARK

175-400W

High Pressure Sodium Metal Halide

DIE-CAST ALUMINUM PRISMATIC LOW BAY

HEAVY-DUTY INDUSTRIAL LUMINAIRE

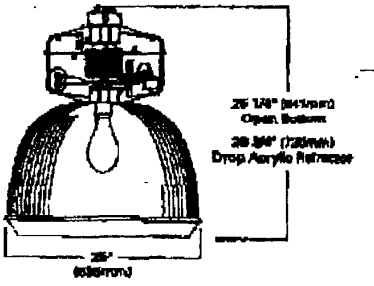
- Full load primary disconnect available
- Easy slide-on die-cast aluminum mounting box with tapped opening for 3/4" conduit
- Durable heavy-duty die-cast aluminum housing for lasting performance in harsh environments. Unique design allows air to flow through isolated components for cooler operation. Finished with textured black polyester powder coat
- High power factor ballast with class H insulation. Fixture is U.L. Listed for 40°C (104°F) ambient temperature operation. Minimum starting temperature is -40°C (-40°F) for HPS and -30°C (-20°F) for MH
- Mogul-base porcelain socket
- Acrylic reflector system mounts directly to housing and provides full, even illumination
- Approximate net weight: 27-35 lbs. (12-16 kgs.)

DESCRIPTION

The BenchMark EX utilizes a durable heavy-duty die-cast aluminum ballast housing and prismatic acrylic reflector and drop refractor system for specification-level performance. Perfect for retail stores, wholesale warehouses and grocery chains. The standard unit is rated to 40° C (104° F) ambient environments. U.L. listed. CSA certified.

DIMENSIONS

'D'



Type D
10 pcs req'd @
$190.00 ea = $1,900.0

ORDERING INFORMATION

SAMPLE NUMBER: HPEX-D025-400-MV

- Lamp Type: HP=High Pressure Sodium; MH=Metal Halide; MP=Pulse Start MH (CWA)[4]; MR=Pulse Start MH (Ideg. Reg)[4]; MLR=Pulse Start MH (Linear Resetor)[4]
- Series: EX=Prismatic Direct Mount Benchmark
- Reflector Type: DR=Prismatic Acrylic Reflector with Drop Acrylic Refractor; PR=Prismatic Acrylic Reflector
- Reflector Diameter: 25=25"
- Lamp Wattage/Base: 175=175W/Mogul; 200=200W/Mogul; 250=250W/Mogul; 320=320W/Mogul; 400=400W/Mogul
- Voltage[5]: 120V, 208V, 240V, 277V, 347V, 480V, TT=Triple-Tap[6], MT=Multi-Tap[6]
- Options & Accessories (See Below)

PRODUCT INFORMATION

Catalog Number[4] [5]	Lamp Wattage	Lamp Type
Drop Refractor		
MHEX-D025-175	175	MH
MHEX-D025-200	200	MH
MHEX-D025-250	250	MH
HPEX-D025-250	250	HPS
HPEX-D025-400	400	HPS
Open Reflector		
MHEX-P025-175	175	MH
MHEX-P025-200	200	MH
MHEX-P025-250	250	MH
HPEX-P025-250	250	HPS
HPEX-P025-400	400	HPS

Options (add as suffix)

- F1=Single Fuse (120, 277 or 347V)
- F2=Double Fused (208, 240 or 480V)
- Q=Quartz Restrike DC Element Base (Does not strike cold or warm)
- OD=Outlet Dimensional Die-Cast Pendant Mount Box
- EM=Quartz Restrike with "Delay Relay"-Housing Mounted (Strikes at cold start)
- EM/SC=Emergency Separate Circuit-Reflector Mounted
- SC=5' Aircraft Safety Cable-Housing to Ceiling
- SCR=Aircraft Safety Cable-Housing to Reflector
- MUSS=Absolute Wiring Systems available
- OB=Outlet Ballast (250 & 400 MH Multi-Tap only)
- SH=Short Housing (Not available with DR)
- DL=U.L. Listed for Damp Location
- HL=LuminWatt Fixture Control Module (Allows low voltage control wire to be daisy-chained between fixtures outside. All conduit run similar to low voltage Dimmers, fire alarms and phone systems)
- ML=LuminWatt Fixture Control Module (Low voltage leads pulled out of top connection box for ease requiring all wiring to be installed in conduit)

Accessories (order separately)

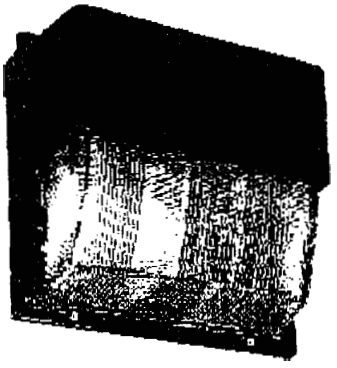
- PH=Fixture Hook
- FL=Fixture Lamp
- SHS=Hook with Safety Screw
- PC=5' Cord with NEMA plug (120V-L5-15P, 208V-L6-15P, 240V-L6-20P, 277V-L7-15P, 347V-L30-20P or 480V-L8-20P). Other Lengths Available. Requires FH-1 or FL-1. Not for use with TPPH. Specify Voltage
- PHC=Power Hook Cord and Plug for TPPH (16" cord, non-NEMA plug. FL-1 required)
- TPPH=Thru-Way Pendant Power Hook Requires FL-1 and PHC. Specify Voltage
- TPPH-F=Thru-Way Pendant Power Hook Single Fuse, 120, 277 or 347 Volt. Required FL-1 and PHC. Specify Voltage
- TPPH-F2=Thru-Way Pendant Power Hook Double Fuse, 208, 240 or 480 Volt. Requires FL-1 and PHC. Specify Voltage
- TPPH-F-OD=Thru-Way Pendant Power Hook Single Fuse, Outlet Dimensions. Requires FL-1 and PHC. Specify Voltage
- TPPH-F2-OD=Thru-Way Pendant Power Hook Double Fuse, Outlet Dimensions. Requires FL-1 and PHC. Specify Voltage
- TWMB=Thru-way Mounting Box
- CB=5' Cord-No Plug-Requires FH-1 or FL-1
- MHT=Twin Mount Bracket (Fixtures must be same voltage and without hooks, loops or plugs)
- WGBS=Wire Guard for 25" Reflector
- WGBS/GLC=Wire Guard with Glass Lens for 25" Reflector (Available for HPS only)
- GBS25=Safety Glass Bottom for 25" Reflector
- LL=Lamp Included

NOTES: [1] 40° C Standard. [2] Damp location standard. Wet location not available. [3] Products also available in 220-240 voltages and 50Hz for international markets. [4] 175, 200, 250 & 400W only. [5] 208 & 480W only. [6] 208W only. [7] 277 only, not available in specific markets. [8] Consult your Cooper Lighting Representative for availability and ordering information.

Type D

Wall-Paks

TWH



Features

Housing: Rugged, corrosion-resistant die-cast aluminum housing. Corrosion resistant external hardware includes slotted hex-head fasteners. Standard finish is dark bronze polyester powder, electrostatically applied and oven-cured. Other architectural colors available as options.

Optics: Reflector is specular anodized aluminum. Refractor is prismatic borosilicate glass. Lens is sealed and gasketed to inhibit the entrance of outside contaminents.

Ballast: 70-150W HPS: High-reactance, high-power factor. All others: Constant-wattage autotransformer. Encased-and-potted solid-state ignitors (HPS and 100MH). Ballast is copper wound and 100% factory tested. UL 1029 listed. Electrical components are mounted in hinged front cover that includes primary and secondary electrical disconnect.

Installation: Back housing is separated from front housing, eliminating ballast weight and promoting easy handling. Top ¾" threaded wiring access. Back access through removable ¾" knockout. Feed-thru wiring can be achieved by using a condulet tee. Mount on any flat vertical surface.

Listings: UL listed suitable for wet locations. IP65 rated (250W and below) or IP54 rated (400W) in accordance with IEC standard 529. Listed and labeled to comply with Canadian and Mexican Standards (see options).

Socket: Glazed porcelain (mogul base), horizontally oriented socket with copper alloy, nickel-plated screw shell and center contact. Medium-base: UL listed 660W, 600V, 4KV pulse rated. Mogul-base: UL listed 1500W, 600V, 4KV pulse rated.

Wall-Mounted Area Lighter, Glass Refractor

Use in outdoor storage areas, warehouse and factory perimeters and loading docks.

Catalog Number Example: **TWH 250S TB**

TWH 250S — Designation

TB — Voltage

Options/Accessories

HIGH PRESSURE SODIUM

35W	TWH	35S [1,2]
50W	TWH	50S [1]
70W	TWH	70S
100W	TWH	100S
150W	TWH	150S [3]
200W	TWH	200S
250W	TWH	250S
400W	TWH	400S
250/400W	TWH	250/400S [10]

METAL HALIDE

100W	TWH	100M [4]
175W	TWH	175M
250W	TWH	250M
400W	TWH	400M [5]

MERCURY VAPOR

100W	TWH	100H
175W	TWH	175H
250W	TWH	250H

LOW PRESSURE SODIUM

35W	TWH	35L [1]

INCANDESCENT

300W	TWH	300I [2]

120
208[6]
240[6]
277
347
480[7]
TB[8]

For options and accessories, see pages 288-294.

Type G
14 pcs req's @
$140.00 ea = $1,960.00

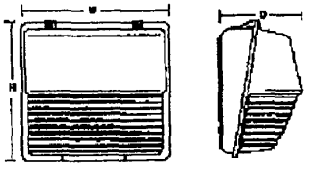
NOTES:
1. Not available TB.
2. 120V only.
3. Operates 55V lamp.
4. Not available 480V.
5. Requires T-15, ED or BT 28 reduced jacket lamp.
6. Consult factory for availability in Canada.
7. Not available in Canada.
8. Optional Multi-tap Ballast (120, 208, 240, 277V). (120, 277, 347V in Canada.)
9. Other ballast types available.
10. Shipped as 250S.

All dimensions are inches (centimeters) unless otherwise specified.
CANADIAN SHIPMENTS: Add CSA as suffix to catalog number.
HID lamps available with luminaires. Consult factory.

STANDARD PACKAGING
Fixtures ship complete in unit cartons only. Example:
(Qty 13) TWH 250S TB
(13 cartons of 1 fixture)
Accessories ship separately.

Lamp/Fixture/Ballast Data[9]

Wattage	Ballast	Weight Lbs.	Weight Kg.
HIGH PRESSURE SODIUM (Med/Clear)			
35	RHPF-RNPF	24	11
50	RHP	24	11
70	HX-HPF	24	11
100	HX-HPF	24	11
150		26	12
HIGH PRESSURE SODIUM (Mog/Clear)			
200		28	13
250	CWA	32	15
400		42	19
METAL HALIDE (Med/100) Mog/Clear)			
100	XHP	26	12
175		26	12
250	CWA	32	15
400		42	19
MERCURY VAPOR (Mog/Coated)			
100		21	10
175	CWA	23	10
250		26	12
LOW PRESSURE SODIUM (D.C. Bay/Clear)			
35	HX-HPF	25	11



DIMENSIONS
Height: 16¾ (40)
Width: 6¾ (42.6)
Depth: 8 (20.3)

LITHONIA LIGHTING

TYPE G

FIXTURE SCHEDULE

TYPE	SYM-BOL	MANUFACTURER	MODEL NUMBER	MOUNTING	VOLT.	LAMP WATTS	LAMP TYPE	REMARKS
A		LITHONIA	2GT-340A12	RECESSED	277	(3) 40W	FLUOR.	
A1		LITHONIA	2GT-340A12-EL	RECESSED	277	(3) 40W	FLUOR.	PROVIDE WITH BATTERY PACK
B		LITHONIA	DM296-271	SURFACE	277	(2) 75W	FLUOR.	8' STRIP W/ DUST-TIGHT GASKET
B1		LITHONIA	DM296-277-EL	SURFACE	277	(2) 75W	FLUOR.	8' STRIP W/ DUST-TIGHT GASKET AND BATTERY PACK
C		LITHONIA	DM248-277	SURFACE	277	(2) 40W	FLUOR.	4' STRIP W/ DUST-TIGHT GASKET
C1		LITHONIA	DM248-277-EL	SURFACE	277	(2) 40W	FLUOR.	4' STRIP W/ DUST-TIGHT GASKET AND BATTERY PACK
* D		LUMARK	HPEX-DB25-400-MT	SURFACE	277	(1) 400W	M.H.	PROVIDE WITH PRISMATIC ACRYLIC REFLECTOR
E		LITHONIA	XSW3R-120/277-EL	WALL	277	(1) 30W	INC.	PROVIDE WITH BATTERY PACK
F		LITHONIA	ELU-2X	WALL	120	(2) 8W	HALOGEN	
* G		LITHONIA	TWH250MTB	WALL	277	(1) 250W	M.H.	WALL PACK
H		APPELTON	JBW-106	SURFACE	120	100W S.D.	INC.	PROVIDE WITH SEVERE DUTY BULB
J		LUMARK	QZ5L	SURFACE	120	(1) 500W	QUARTZ HALOGEN	FLOODLIGHT ON TOP OF SILO

RESOLUTION NO. 2000-93

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING THE CITY MANAGER TO PROVIDE A PUBLIC BENEFITS PROGRAM GRANT – DEMAND-SIDE MANAGEMENT PROJECT TO CERTAINTEED CORPORATION

==========

WHEREAS, the State has mandated that beginning January 1, 1998, the City of Lodi is obligated to fund various programs through a Public Benefits Charge (PBC) based on a historical electric revenue requirement; and

WHEREAS, the requirement amount to approximately $1 Million per year that must be dedicated to qualifying programs such as energy efficiency. A further stipulation is that these efforts must be done on the customer's side of the meter in order to qualify; and

WHEREAS, the Electric Utility Department recommends that the City provide a Public Benefits grant of up to $31,905.00 to fund a Demand-Side Management Project for Certainteed Corporation, and include the cost of the grant as part of the City's required PBC outlay.

BE IT RESOLVED, that the Lodi City Council hereby authorizes the City Manager to provide a Public Benefits Charge (PBC) Grant in the amount of up to $31,905.00 to Certainteed Corporation to fund a Demand-Side Management Project as follows:

Certainteed Corporation (Apache Plastics), located at 300 S. Beckman Road, has embarked upon a significant plant expansion project. The expansion, in excess of 9,000 square feet, is a multi-million dollar investment by Certainteed. The expanded production area will allow the plastics manufacturer to produce a higher volume of extruded items, such as pre- fabricated plastic fencing and decking used in the residential and agricultural marketplace. According to Certainteed officials, the expansion project will ultimately result in the creation of 100 new jobs here in Lodi over the next 2 and a half years.

The Public Benefits Program grant, in the amount of $31,905, reflects a 25% utility rebate for new equipment being installed by Certainteed as part of the plant expansion (please see attached documentation). This new equipment is deemed as energy efficient or high efficiency, which equates into energy savings, as well as operations & maintenance savings, for the Certainteed Corporation. Specifically, Certainteed is installing:

- one, high efficiency 100-ton screw chiller;
- 24 high efficiency production lights; and,
- 6 variable frequency drives, including a 500 horsepower drive.

In conjunction with the City of Lodi energy services partner, Energy Masters, International, the City of Lodi Electric Utility has reviewed and identified the installed equipment as energy efficient. The City of Lodi Electric Utility respectfully recommends approval of this grant as a qualifying component of the Public Benefits Program.

Dated: June 7, 2000

==========

I hereby certify that Resolution No. 2000-93 was passed and adopted by the Lodi City Council in a regular meeting held June 7, 2000 by the following vote:

AYES: COUNCIL MEMBERS – Hitchcock, Land, Nakanishi, Pennino and Mann (Mayor)

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None

JACQUELINE L. TAYLOR
Interim City Clerk