

PRODUCT INFORMATION PACKET



Model No: LM80121
Catalog No: LM80121
50 HP Fire Pump Motor, 3 phase, 1800 RPM, 200/400 V, 326T Frame, ODP
Fire Pump Motors



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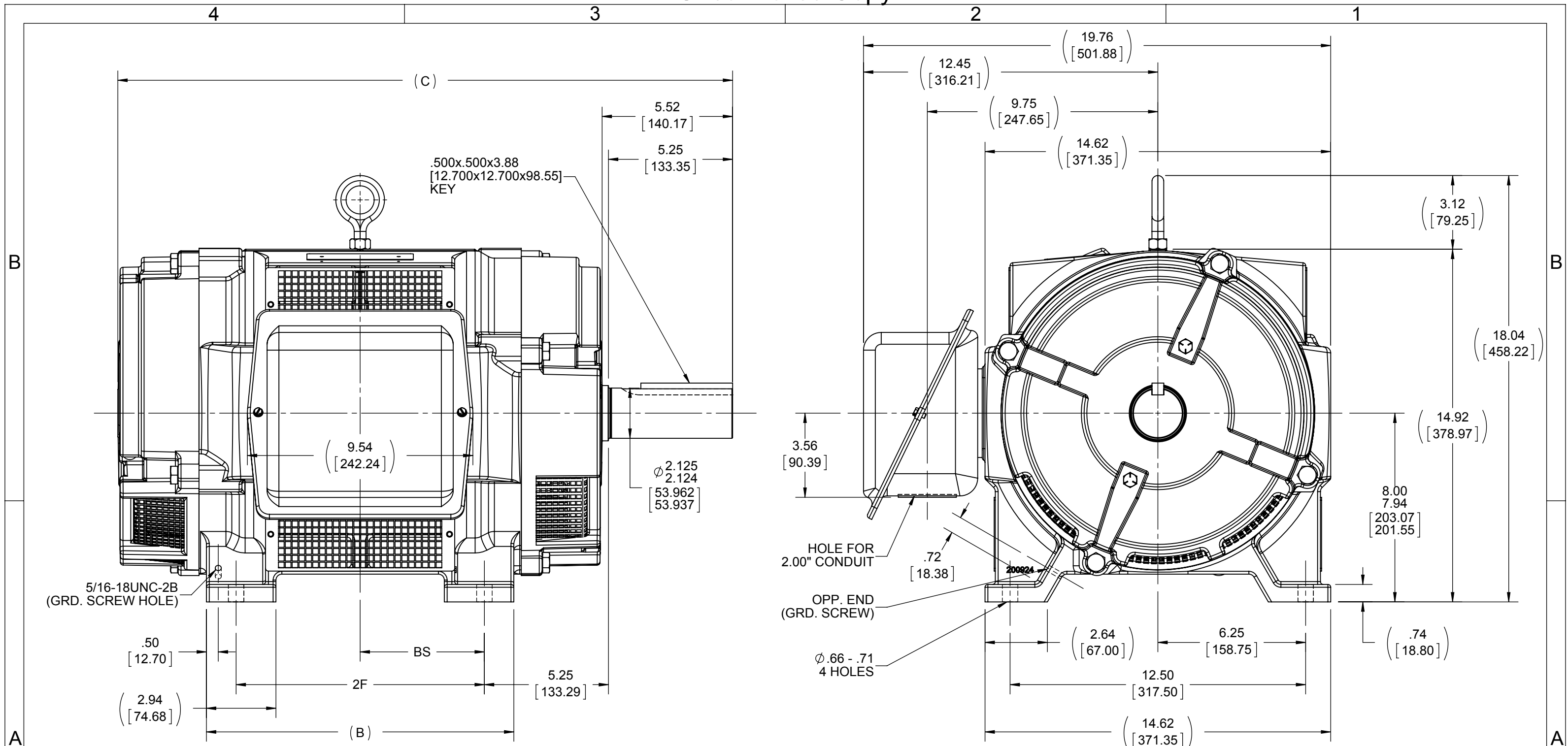
Nameplate Specifications

Output HP	50 Hp	Output KW	37.0 kW
Frequency	60 Hz	Voltage	200/400 V
Current	142.0/70.5 A	Speed	1770 rpm
Service Factor	1.15	Phase	3
Efficiency	93 %	Power Factor	81.5
Duty	Continuous	Insulation Class	F
Design Code	B	KVA Code	G
Frame	326T	Enclosure	Drip Proof
Thermal Protection	No	Ambient Temperature	40 °C
Drive End Bearing Size	6312	Opp Drive End Bearing Size	6311
UL	No	CSA	Y
CE	Y	IP Code	12
Number of Speeds	1		

Technical Specifications

Electrical Type	Squirrel Cage Induction Run	Starting Method	Part Wdg Start Low Volt Only & Wye Start Delta Run
Poles	4	Rotation	Reversible
Resistance Main	.125 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	27.50 in
Frame Length	15.12 in	Shaft Diameter	2.125 in
Shaft Extension	5.25 in	Assembly/Box Mounting	F1/F2 CAPABLE
Outline Drawing	SS311859-1512	Connection Drawing	A-EE7358-LN



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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.

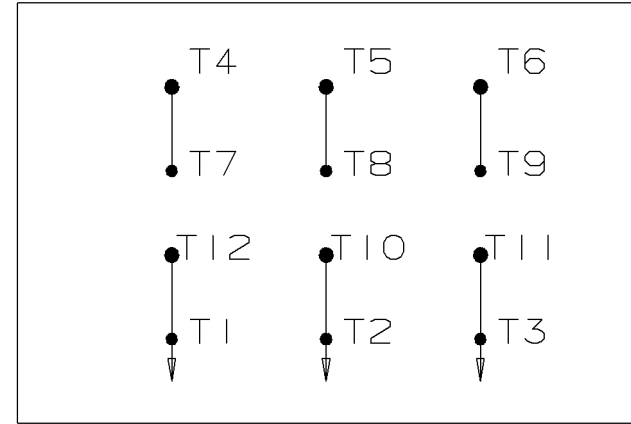
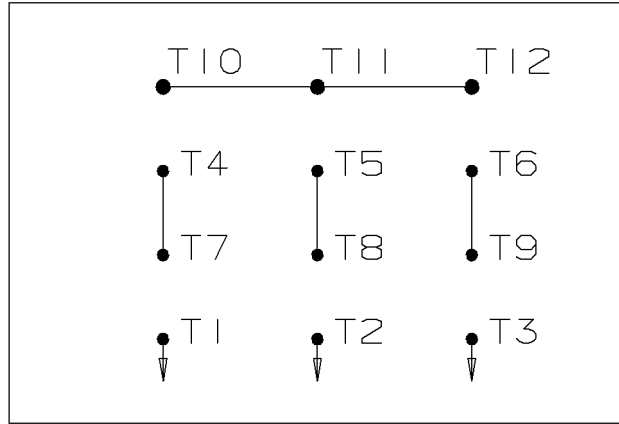
DASH	FRAME	B	C	2F	2FF	BS
1362	324T	13.00 [330.20]	26.00 [660.40]	10.50 [266.70]	---	5.25 [133.50]
1512	326T	14.50 [368.30]	27.50 [698.50]	12.00 [304.80]	---	6.00 [152.40]

DRAWING REVISION C		REVISION BY LPC		DATE 06-05-2014		TOLERANCES UNLESS OTHERWISE SPECIFIED: DEC. INCH mm ANGLE .X ±0.1 [±2.5] ±7° 30" .XX ±0.03 [±0.76] XXX ±0.005 [±0.127] XXXX ±0.0005 [±0.0127] REMOVE BURRS & BREAK SHARP EDGES: .003/.015 [0.076/381] CORNER FILLETS: .02 [51] MACHINED SURFACES: 200 INCH 5.1 / mm mm SHOWN IN [BRACKETS]			DRAWN BY RJW		 Regal Beloit America, Inc.		
ECO ECO-0052624		APPROVED BY TBROWN		DATE 06-05-2014					DATE 05-02-2006				
ECO DESCRIPTION ADDED C'BOX DIM. COPYRIGHT REGAL BELOIT AMERICA, INC. ALL RIGHTS RESERVED. PROPRIETARY AND CONFIDENTIAL INFORMATION - THIS DOCUMENT IS THE PROPERTY OF REGAL BELOIT AMERICA, INC. ("OWNER") AND CONTAINS OWNER'S PROPRIETARY INFORMATION. ANY PERSON, CORPORATION OR OTHER FIRM RECEIVING IT IS DEEMED, BY RECEIVING IT, TO AGREE THAT IT, AND/OR ANY PART OF IT, SHALL NOT BE DISCLOSED TO ANY PERSON, CORPORATION OR OTHER ENTITY, DUPLICATED, AND/OR USED, EXCEPT AS EXPRESSLY APPROVED IN WRITING IN ADVANCE BY OWNER. THIS DOCUMENT SHALL BE RETURNED TO OWNER UPON REQUEST. IT MAY BE SUBJECT TO CERTAIN RESTRICTIONS UNDER APPLICABLE EXPORT CONTROL LAWS AND REGULATIONS.						DESCRIPTION OUTLINE 320T FR. - DR. PR. - CAST IRON - BB - TS - D.E.V.							
						REFERENCE		MATERIAL		PROCESS/FINISH			
						THIRD ANGLE PROJECTION				SIZE B	DRAWING NUMBER SS311859		SHEET 1 OF 1

WYE START

HIGH VOLTAGE

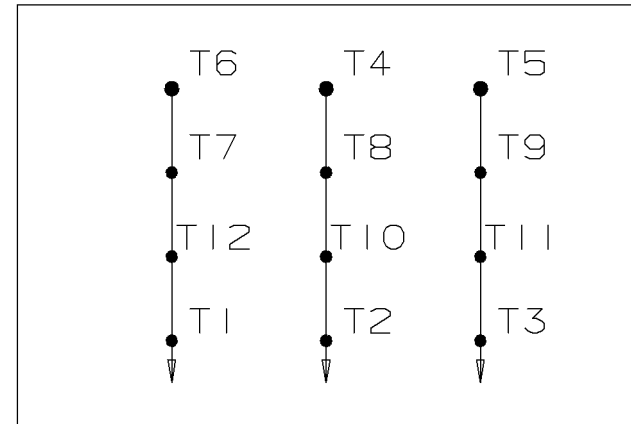
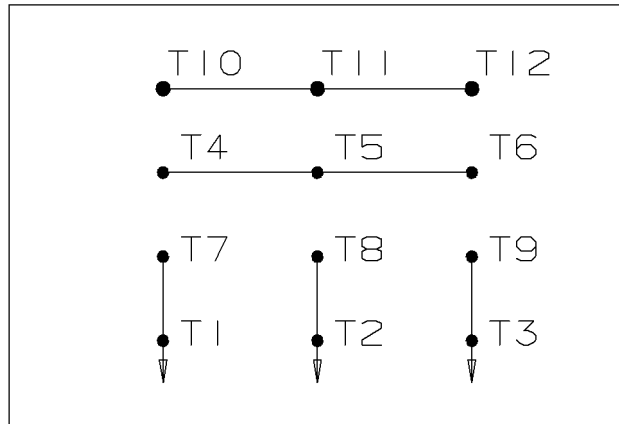
DELTA RUN



WYE START

LOW VOLTAGE

DELTA RUN



4/2 CKTY Δ

					✓ UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOL. ON XX± .02 XXX± .005 XXXX± .0005 ANGLES± 7°30"			
					MAX. SURFACE ROUGHNESS UNLESS OTHERWISE NOTED		DRAWN BY DRS	12-07-1999
					FINISH		CHKD BY ML	12-07-1999
					MATERIAL		APPD BY TB	12-07-1999
I	12-07-1999	NEW DRAWING	DRS	PART NAME CONNECTION DIAGRAM				DRWG NO A - EE7358-LN
REV	DATE	CHANGE	NAME					
					PURCHASED	CADD FILE NO.	EE7358-LN	



1051 CHEYENNE AVE.
GRAFTON, WI 53024
PH. 262-277-8810

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CONN. DIAGRAM: A-EE7358-LN
OUTLINE: B-SS312558LN-1512
WINDING: K2864249

CAT #: LM80121

NONE 16

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
50	37	1800	1770	326T	DP	TDP	G	B

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB	ELEV.
3	60	200/400	142/70.5	PWS(LV ONLY) & YDRU	CONT	F	1.15	40	3300

F.L. EFF	93.0	3/4 LD EFF	93.6	1/2 LD EFF	93.6	GTD EFF		ELECT. TYPE	
F.L. PF	81.5	3/4 LD PF	77.0	1/2 LD PF	67.0	92.4		SQ CAGE IND RUN	

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (° C)
148 LB-FT	403	265 LB-FT 179%	375 LB-FT 253%	45

PRESSURE @ 3	SOUND	POWER	ROTOR WK²	MAX. LOAD WK²	SAFE STALL TIME	STARTS/HOUR	MOTOR WGT
75 dBA	84 dBA		5.4 LB-FT²	250 LB-FT²	20 SEC.	2	525 LB.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	NO	NONE	NO	NONE	WATTSaver

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE ODE						
BALL BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6312 6311						

THERMOSTATS	PROTECTORS	WDG RTD's	BRG RTD's	THERMISTORS	CONTROL	SPACE HEATERS
NONE	NOT	NONE	NONE	NONE	FALSE	NA

R1 (ohms/ph)	R2 (ohms/ph)	X1 (ohms/ph)	X2 (ohms/ph)	Xm (ohms/ph)	VIBRATION (in/sec)	FLOAT
0.06	0.056	0.322	0.484	8.232	0.150	ODE

* N O T E S *			INVERTER TORQUE: NONE INV. HP SPEED RANGE: NONE ENCODER: NONE NONE NONE NONE PPR

DATE: 8/30/2018	BRAKE: NONE	
	NONE	NONE
	FT-LB: NA	
	VOLTAGE: NONE	HZ:
	UL: NONE	

Data Sheet

Date: 8/30/2018

LM80121



Data @ 400 V

Motor Load Data

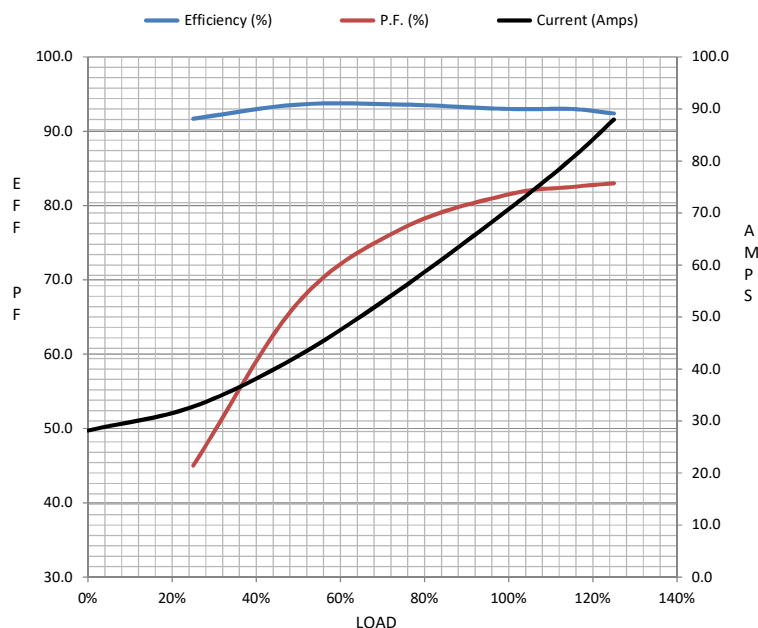
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	28.2	32.8	42.6	55.8	70.7	80.5	88.0	403	
Torque (ft-lb)	0.00	36.5	73.5	112	148	171	186	265	
RPM	1800	1792	1785	1778	1770	1,765	1760	0	
Efficiency (%)		91.7	93.6	93.6	93.0	93.0	92.4		
P.F. (%)	3.5	45.0	67.0	77.0	81.5	82.5	83.0	38.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1630	1770	1800
Current (Amps)	403	345	259	70.7	28.2
Torque (ft-lb)	265	240	375	148	0.00

Information Block

HP	50.0			
Sync. RPM	1800			
Frame	326			
Enclosure	DP			
Construction	TDP			
Voltage	200/400	V		
Frequency	60	Hz		
Design	B			
LR Code letter	G			
Service Factor	1.15			
Temp Rise @ FL	45	° C		
Duty	CONT			
Ambient	40	° C		
Elevation	1,000	feet		
Rotor/Shaft wk²	5.4	Lb-Ft²		
Ref Wdg	K2864249	NONE		
Sound Pressure @ 1M	75	dBA		
VFD Rating	NONE			
Outline Dwg	B-SS312558LN-1512			
Conn. Diag	A-EE7358-LN			
Additional Specifications:				
0				
0				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0600	0.0560	0.3220	0.4840	8.2320



Speed - Torque Curve

