PRODUCT INFORMATION PACKET

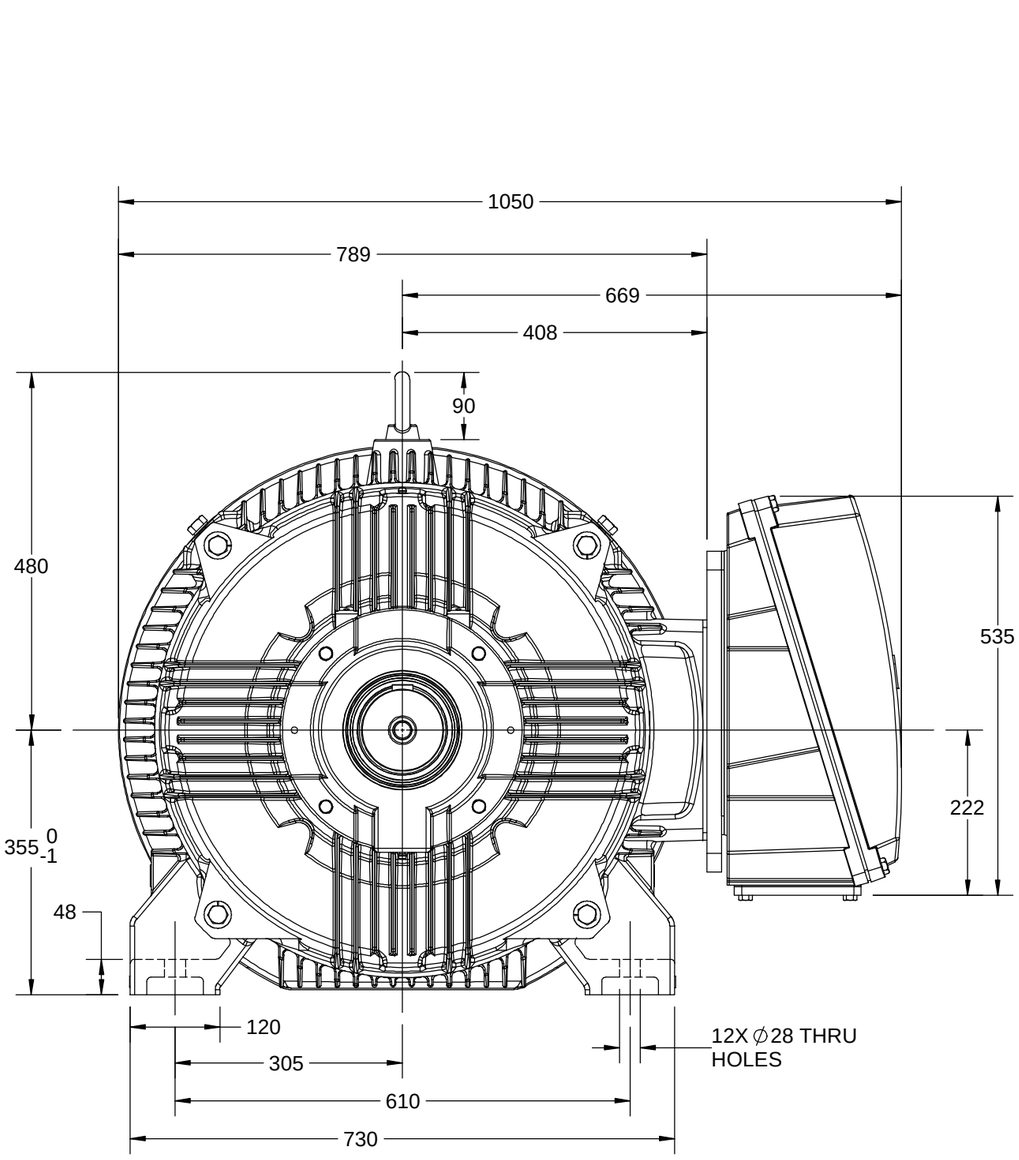
Model No: TCM2004A2113GAC011
Catalog No: TCM2004A2113GAC011
TerraMAX® IE3, Mining Duty Motors, 200 kW, 3Ph, 8 Pole, 400/690V, B3, 50Hz, 355L Frame, TEFC

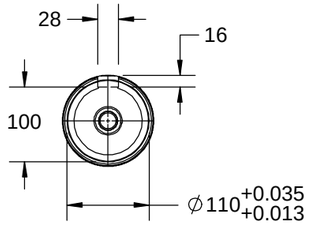
Nameplate Specifications

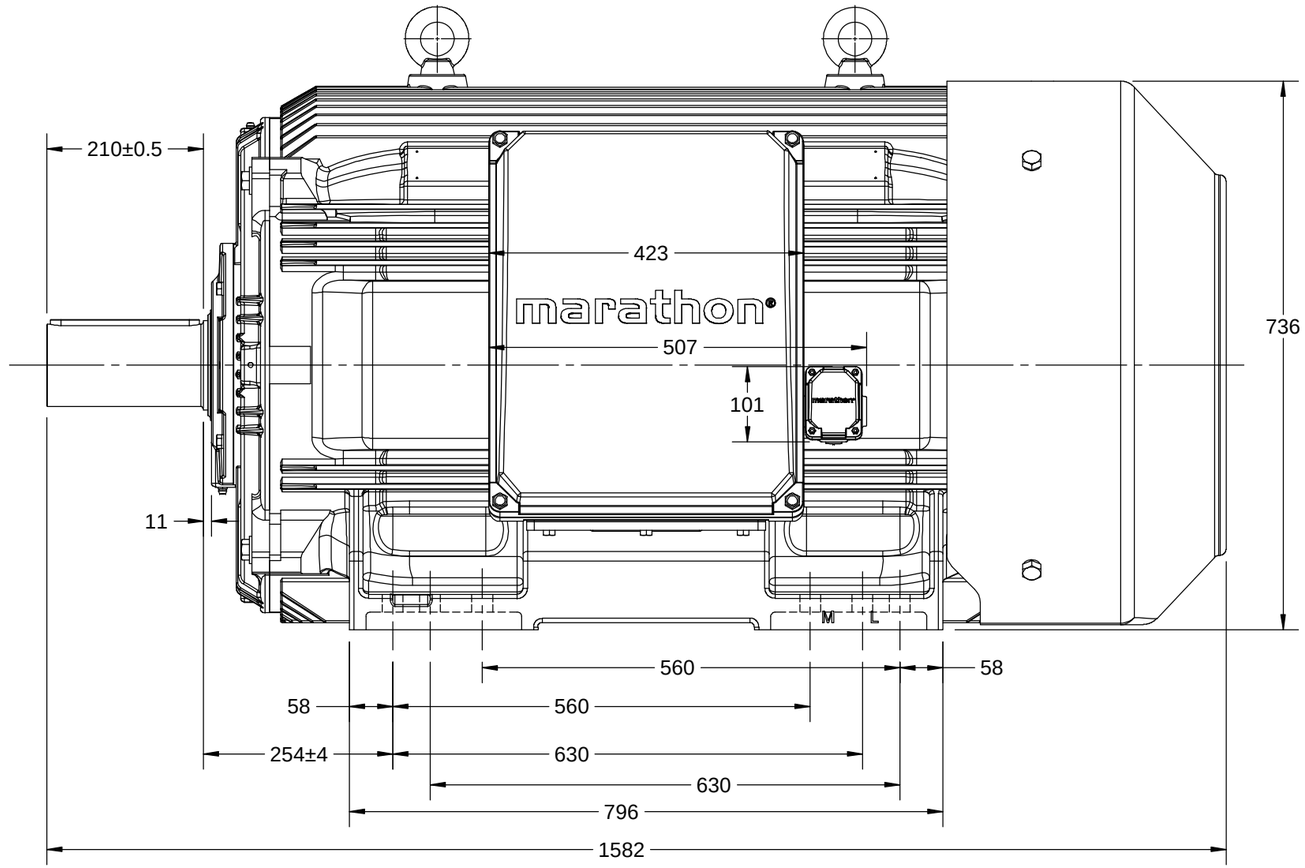
Output HP	270 Hp	Output KW	200.0 kW
Frequency	50 Hz	Voltage	400/690 V
Current	368.0 A	Speed	742 rpm
Service Factor	1	Phase	3
Efficiency	94.6 %	Power Factor	0.83
Duty	S1	Insulation Class	H
Frame	355L	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Ambient Temperature	40 °C
Drive End Bearing Size	NU324	Opp Drive End Bearing Size	6322
UL	NO	CSA	NO
CE	YES	IP Code	66
Number of Speeds	1	Efficiency Class	IE3

Technical Specifications

Electrical Type	Squirrel Cage	Starting Method	Direct On Line
Poles	8	Rotation	Bi-Directional
Mounting	B3	Motor Orientation	Horizontal
Drive End Bearing	C3	Opp Drive End Bearing	C3
Frame Material	Cast Iron	Shaft Type	Keyed
Overall Length	1582 mm	Frame Length	1010 mm
Shaft Diameter	110 mm	Shaft Extension	210 mm
Assembly/Box Mounting	RHS		
Connection Drawing	8442180001	Outline Drawing	0235502347

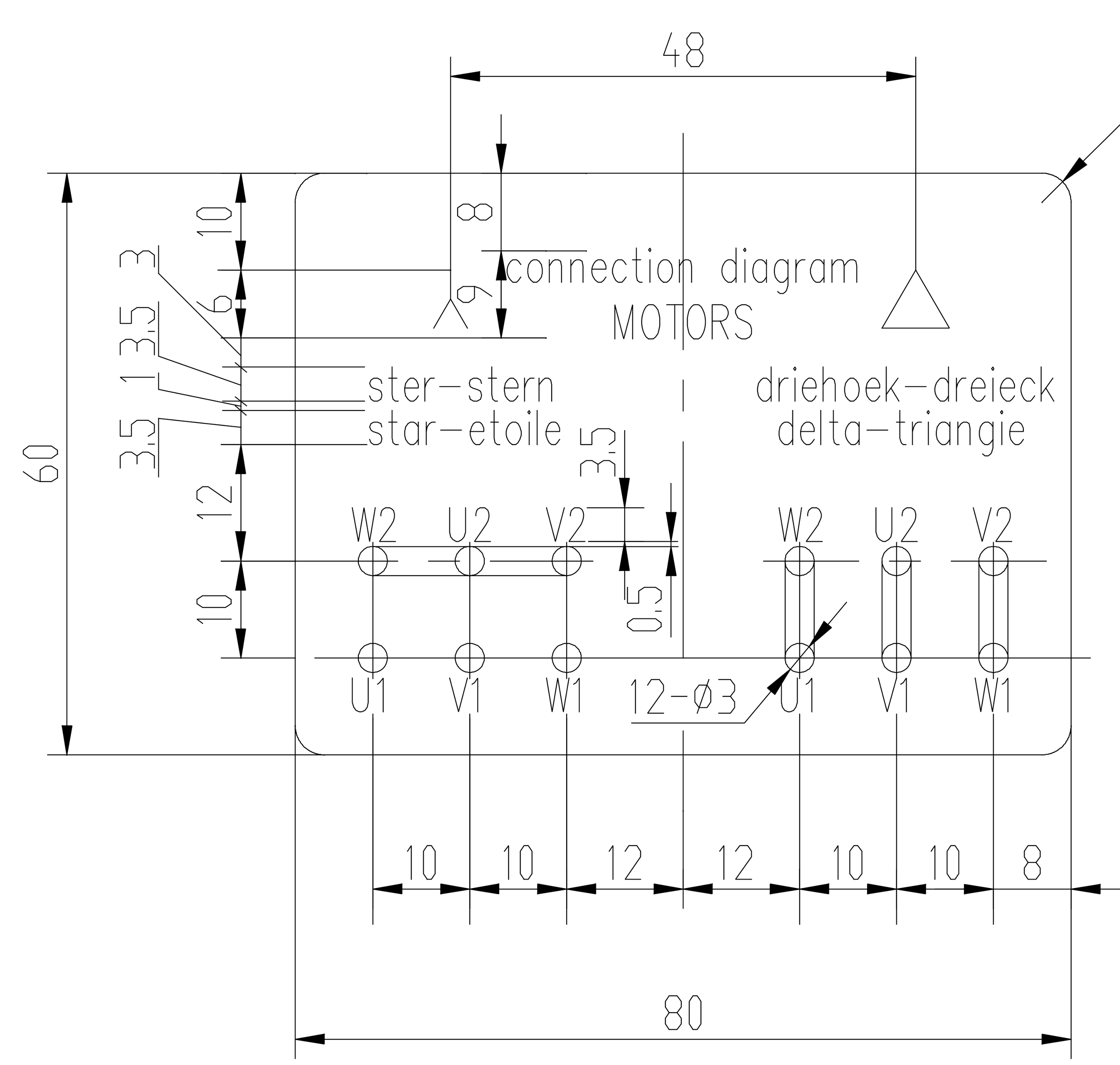






DRAWING REVISION B	REVISION BY LK	DATE 01/08/2018		DRAWN BY LK	marathon™ Motors
ECO ECO-0158551	APPROVED BY SBD	DATE 01/08/2018		DATE 24/01/2018	
ECO DESCRIPTION MODEL UPDATED WITH NEW STRUCTURE				APPROVED BY SBD	DESCRIPTION OUTLINE 355FR-B3 MTG. 4-8P MOTOR TYPE: TCM
				DATE 24/01/2018	
				REFERENCE	MATERIAL / PROCESS/FINISH
				THIRD ANGLE PROJECTION	SIZE B / DRAWING NUMBER 0235502347 / SHEET 1 OF 1

8442180001



技术要求

1、字母小号3.5，大号5，字母应整齐清晰，△、Y下面的字母分别关于△、Y对称；

2、底为黄色，文字线条为黑色；

3、压敏胶纸反面涂不干胶。

修改	
校对	
审核	
工艺	
标准	
修改	
校对	
审核	
工艺	
标准	
修改	
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标准	
设计	
校对	
审核	
工艺	
标准	
批准	

标记	处数	分区	更改文件号	签名	年月日
设计			标准化		
校核			审定		
审核					
工艺			批准		

8442180001

压敏胶纸

阶段标记	重量	比例	接线指示 DM1-180
		1:1	无锡华达电机有限公司
共 页 第 页			

marathon® Motors

TerraMAX®

Model No. TCM2004A2113GAC011

U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [Nm]	IE Class	% EFF at __ load 5/4FL	FL	3/4FL	1/2FL	PF at __ load FL	3/4FL	1/2FL	I_A/I_N [pu]	T_A/T_N [pu]	T_K/T_N [pu]
400	Δ	50	200	270	368.0	742	2590.61	IE3	-	94.6	94.6	95	0.83	0.8	0.71	6.3	1.7	2.5

Motor type	TCM		Degree of protection	IP 66	
Enclosure	TEFC		Mounting type	IM B3	
Frame Material	Cast Iron		Cooling method	IC 411	
Frame size	355L		Motor weight - approx.	2034	kg
Duty	S1		Gross weight - approx.	2079	kg
Voltage variation *	± 10%		Motor inertia	13.1902	kgm^2
Frequency variation *	± 5%		Load inertia	Customer to Provide	
Combined variation *	10%		Vibration level	2.8	mm/s
Design	N		Noise level (1meter distance from motor)	65	dB(A)
Service factor	1.15		No. of starts hot/cold/Equally spread	2/3/4	
Insulation class	H		Starting method	DOL	
Ambient temperature	-20 to +40	°C	Type of coupling	Direct	
Temperature rise (by resistance)	80 [Class B]	K	LR withstand time (hot/cold)	25/50	s
Altitude above sea level	1000	meter	Direction of rotation	Bi-directional	
Hazardous area classification	NA		Standard rotation	Clockwise form DE	
Zone classification	NA		Paint shade	RAL 2008	
Gas group	NA		Accessories		
Temperature class	NA		Accessory - 1	PTC 150°C	
Rotor type	Aluminum die cast		Accessory - 2	-	
Bearing type	Anti-friction ball		Accessory - 3	-	
DE / NDE bearing	NU324 / 6322-C3		Terminal box position	RHS	
Lubrication method	Regreasable		Maximum cable size/conduit size	1R x 3C x 300mm²/4 X M63 x 1.5	
Type of grease	CHEVRON SRI-2 or Equivalent		Auxiliary terminal box	YES	

I_A/I_N - Locked Rotor Current / Rated Current

T_A/T_N - Locked Rotor Torque / Rated Torque

T_K/T_N - Breakdown Torque / Rated Torque

NOTE

All performance values at rated voltage and frequency.

All performance parameters are subjected to standard tolerance as per IEC 60034-1

* Voltage, Frequency and combine variation are as per IEC60034-1

Technical data are subject to change. There may be slight variations between calculated values in this datasheet and the motor nameplate figures.

Efficiency Standards	Europe	China	India	Aus/Nz	Brazil	Global IEC
	IEC:60034-30-1	-	-	AS/NZ 1359:5:2004	-	IEC:60034-30-1

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marathon® Motors

TerraMAX®

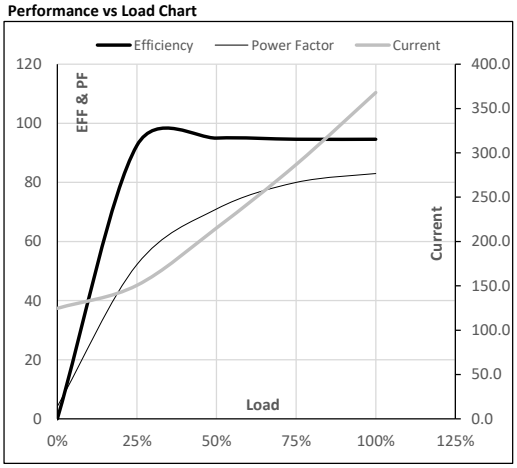
Model No. TCM2004A2113GAC011

Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [RPM]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m^2]	Weight [kg]
TEFC	400	Δ	50	200	270.0	368.0	742	264.17	2590.61	IE3	40	S1	1000	13.1902	2034

Motor Load Data

Load Point		NL	1/4FL	1/2FL	3/4FL	FL	5/4FL
Current	A	124.6	150.6	215.3	286.8	368.0	
Torque	Nm	0.0	642.7	1288.5	1937.6	2590.6	
Speed	r/min	750	748	746	745	742	
Efficiency	%	0.0	92.5	95.0	94.6	94.6	
Power Factor	%	4.2	52.2	71.0	80.0	83.0	

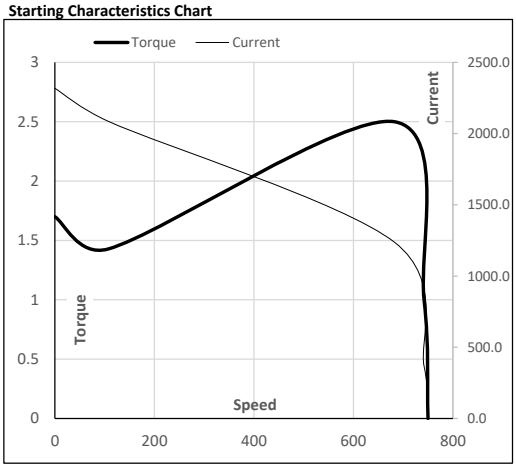
Performance vs Load Chart



Motor Speed Torque Data

Load Point		LR	P-Up	BD	Rated	NL
Speed	r/min	0	107	683	742	750
Current	A	2318.4	2086.6	1237.2	368.0	124.6
Torque	pu	1.7	1.4	2.5	1	0

Starting Characteristics Chart



NOTE Refer data sheet for applicable standard and tolerances on performance parameters

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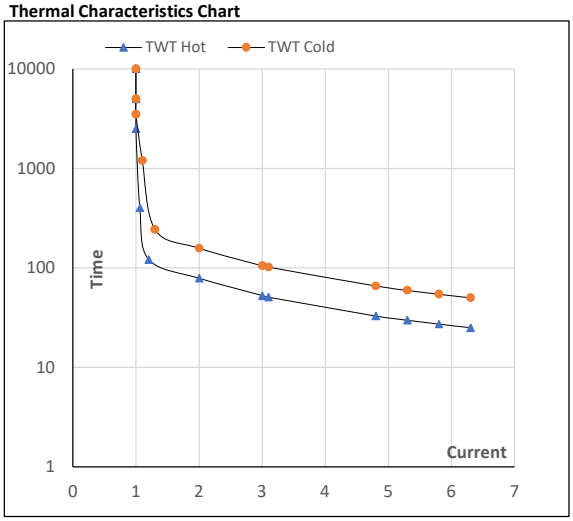
Model No. TCM2004A2113GAC011

Enclosure	U (V)	Δ / Y Conn	f [Hz]	P [kW]	P [hp]	I [A]	n [rpm]	T [kgm]	T [Nm]	IE Class	Amb [°C]	Duty	Elevation [m]	Inertia [kg-m^2]	Weight [kg]
TEFC	400	Δ	50	200	270	368.0	742	264.17	2590.61	IE3	40	S1	1000	13.1902	2034

Motor Speed Torque Data

Load		FL	I_1	I_2	I_3	I_4	I_5	LR
TWT Hot	s	10000	79	53	40	32	27	25
TWT Cold	s	10000	158	105	82	65	54	50
Current	pu	1	2	3	4	5	6	6.3

Thermal Characteristics Chart



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