marathon®

General Purpose Motors

Model No: 250MTFC6501
Catalog No: R503

General Purpose Motor, 75 & 60 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 3600 RPM, 250M Frame, TEFC

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Product Information Packet: Model No: 250MTFC6501, Catalog No: R503 General Purpose Motor, 75 & 60 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 3600 RPM, 250M Frame, TEFC

Nameplate Specifications

Phase	**3**	Output HP	**75 & 60 Hp**
Output KW	**56.0 & 45.0 kW**	Voltage	**230/460 & 200/400 V**
Speed	**3570 & 2975 r/min**	Synchronous RPM	**3600 & 3000 r/min**
Service Factor	**1.15 & 1.15**	Frame	**250M**
Enclosure	**Totally Enclosed Fan Cooled**	Thermal Protection	**No Protection**
Efficiency	**93.6 & 93.6 %**	Ambient Temperature	**40 °C**
Frequency	**60 & 50 Hz**	Current	**166/83 & 151/75.5 A**
Power Factor	**90**	Duty	**Continuous**
Insulation Class	**F**	Design Code	**B**
KVA Code	**G**	Drive End Bearing Size	**6313**
Opp Drive End Bearing Size	**6313**	UL	**Recognized**
CSA	**N**	CE	**Y**
IP Code	**55**	Number of Speeds	**1**

Technical Specifications

Electrical Type	**Squirrel Cage Inverter Rated**	Starting Method	**Part Wdg Start & Wye Start Delta Run Or Inverter**
Poles	**2**	Rotation	**Reversible**
Resistance Main	**0 O**	Mounting	**Rigid Base**
Motor Orientation	**Horizontal**	Drive End Bearing	**Ball**
Opp Drive End Bearing	**Ball**	Frame Material	**Cast Iron**
Shaft Type	**IEC**	Overall Length	**36.45 in**
Shaft Diameter	**2 5/9 in**	Shaft Extension	**5.51 in**
Assembly/Box Mounting	**F3**	Inverter Load	**Constant 10:1**

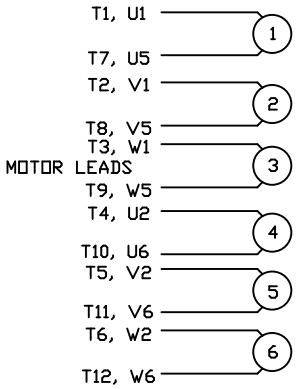
Drawings

Connection Drawing	**00417203ME**	Outline Drawing	**SS622378**

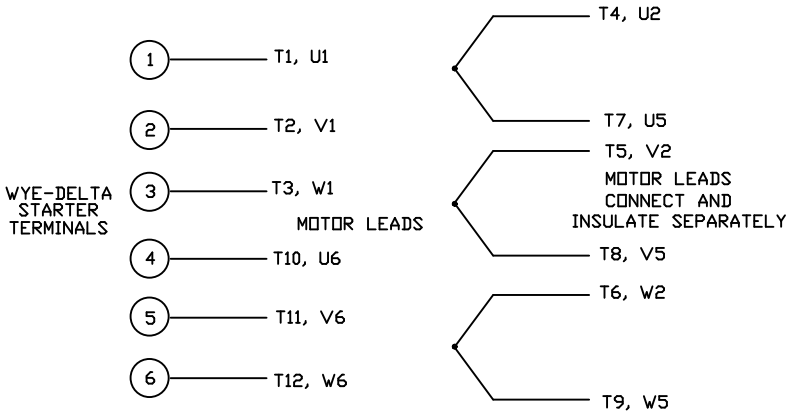
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WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

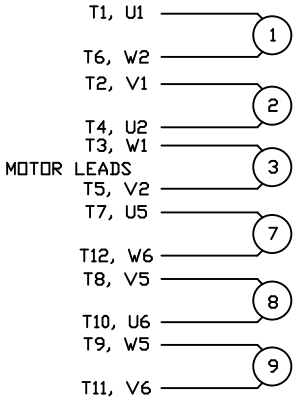


HIGH VOLTAGE CONNECTION



REFER TO THE WYE-DELTA STARTER CONNECTION INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

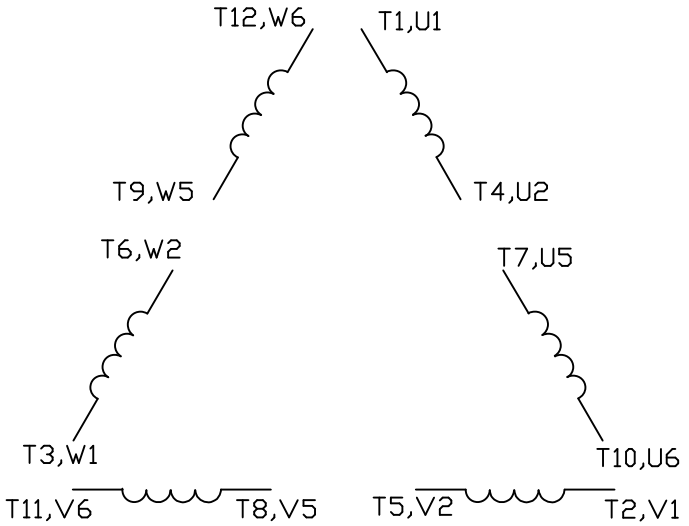
PART WINDING START USABLE ON 4 & 6 POLE MOTORS
LOW VOLTAGE CONNECTION ONLY



REFER TO THE PART WINDING STARTER INSTRUCTIONS FOR PROPER CONNECTION OF POWER LINES TO STARTER.

REFER TO THE CUTLER - HAMMER OR EQUIV. FOR PROPER SELECTION OF OVERLOAD HEATER COILS.

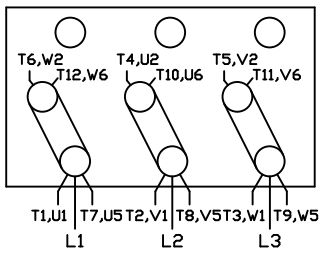
LINE LEADS



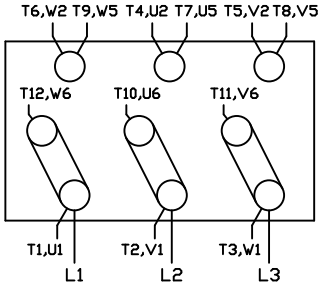
ROTATION CAN BE REVERSED BY INTERCHANGING ANY TWO LINE LEADS

12 LEAD DELTA CONNECTION ACROSS THE LINE START
(FOR Y START DELTA RUN, REMOVE THE JUMPERS)

LOW VOLTAGE
(MUST BE REWIRED AS SHOWN)



HIGH VOLTAGE
(FACTORY WIRED FOR HIGH VOLTAGE AS SHOWN)



NO.	REVISION	BY & DATE	CHK

TOLERANCES UNLESS SPECIFIED

DEC.	INCHES
.X	±.1
.XX	±.01
.XXX	±.005
.XXXX	±.0005
ANG	±1/2°

MARATHON ELECTRIC

TITLE DELTA - WYE CONNECTION DIAGRAM
IEC CAST IRON MOTORS

MAT'L.
FINISH
CAD FILE 00417203ME
RFP
DIST

DRAWN CJW 08/28/02
CHK
APPD
SCALE 1=1
REF
FMF
PREV

SIZE A
DRAWING NO. 004172-03ME
REV.

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Data Sheet

Date: 6/29/2017
Customer:
Attention:
Submitted by: FAREEDA DUDEKULA

marathon electric

250MTFC6501

Submittal

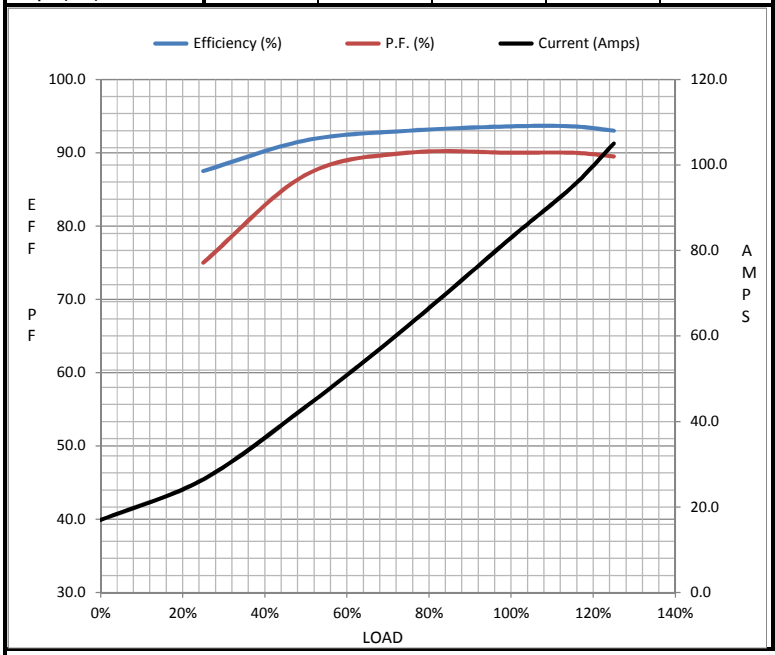
Data @ 460 V

Motor Load Data

Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	17.0	26.5	43.5	62.5	83.0	95.0	105	542	
Torque (ft-lb)	0.00	27.4	55.0	82.5	110	127	138	210	
RPM	3600	3592	3585	3578	3570	3,565	3560	0	
Efficiency (%)		87.5	91.7	93.0	93.6	93.6	93.0		
P.F. (%)	11.0	75.0	87.0	90.0	90.0	90.0	89.5	31.0	

Motor Speed Data

	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	1800	3450	3570	3600
Current (Amps)	542	500	310	83.0	17.0
Torque (ft-lb)	210	150	275	110	0.00



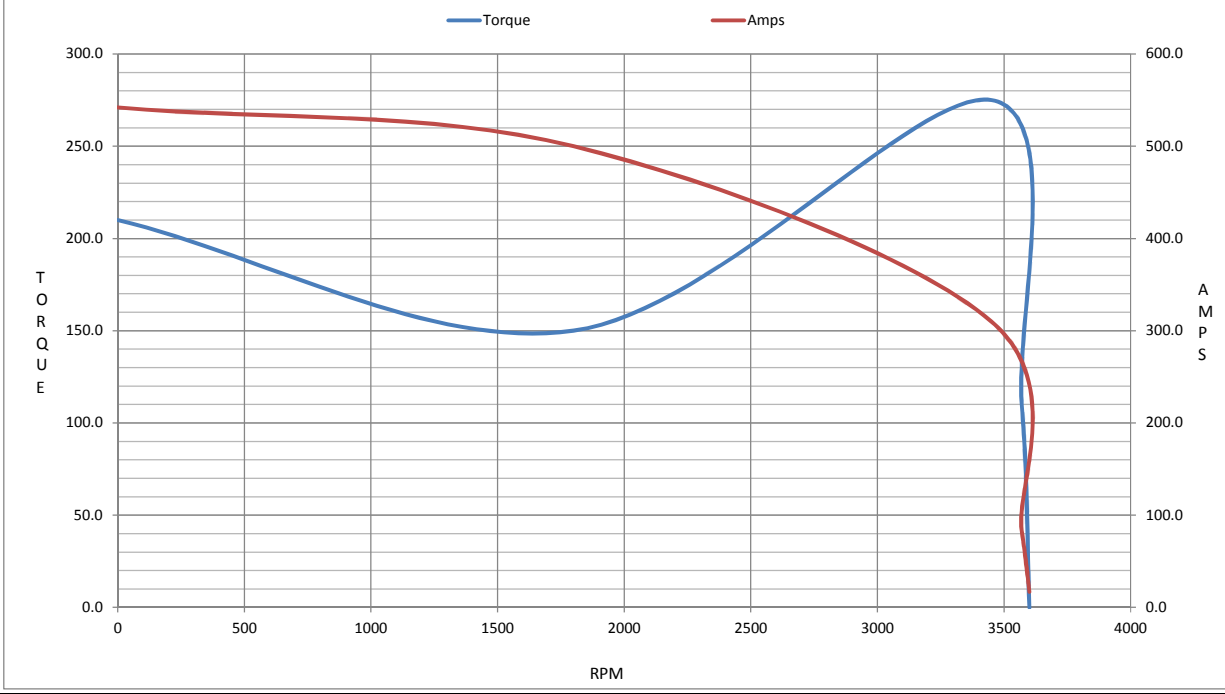
Information Block

HP	75.0
Sync. RPM	3600
Frame	405
Enclosure	TEFC
Construction	TFC
Voltage	230/460#200/401V
Frequency	60 Hz
Design	A
LR Code letter	G
Service Factor	1.15
Temp Rise @ FL	60 ° C
Duty	CONT
Ambient	40 ° C
Elevation	1,000 feet
Rotor/Shaft wk²	11.2 Lb-Ft²
Ref Wdg	T19602015 NONE
Sound Pressure @ 1M	77 dBA
VFD Rating	CONSTANT 10:1
Outline Dwg	SS622378
Conn. Diag	00417203ME
Additional Specifications:	
0	
0	

EQUIV CKT (OHMS / PHASE)

R1	R2	X1	X2	Xm
0.0000	0.0000	0.0000	0.0000	0.0000

Speed -Torque Curve



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CERTIFICATION DATA SHEET

Model#:	250MTFC6501 AA	**WINDING#:**	T19602015 NONE 3
CONN. DIAGRAM:	00417203ME	**ASSEMBLY:**	F3
OUTLINE:	SS622378		

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
75&60	56&45	3600	3570&2975	250M	TEFC	G	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	230/460#200/400	166/83&151/75.5	PWS & YDRUN OR INV	CONTINUOUS	F5	1.15/1.15	40	3300

FULL LOAD EFF: 93.6&93.6	3/4 LOAD EFF: 93	1/2 LOAD EFF: 91.7	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 90&89	3/4 LOAD PF: 90	1/2 LOAD PF: 87	93	SQ CAGE INV RATED	34 / 17

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
110 LB-FT	1084 / 542	210 LB-FT 191	275 LB-FT 250	60

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
77 dBA	87 dBA	11.2 LB-FT^2	- LB-FT^2	20 SEC.	2	- LBS.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
STANDARD	STANDARD	RIGID	HORIZONTAL	PREMIUM SEVERE DUTY	NONE	FALSE	NONE	BLUE (ENAMEL)

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL 6313	BALL 6313	POLYREX EM	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
NONE	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 10:1
INV. HP SPEED RANGE: 1.5 X BASE SPEED

ENCODER: NONE
NONE NONE
NONE NONE PPR

BRAKE: NONE NONE
NONE P/N NONE
NONE NONE
NONE FT-LB NONE V NONE Hz

*
NOTES
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FORM 3531 REV.3 02/07/99
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