

PRODUCT INFORMATION PACKET

marathon®
Motors

Model No: 405THFS8036

Catalog No: Y575

Blue Max® Inverter Duty Encoder Motor, 100 HP, 3 Ph, 60 Hz, 230/460 V, 1800 RPM, 405T Frame, TEFC



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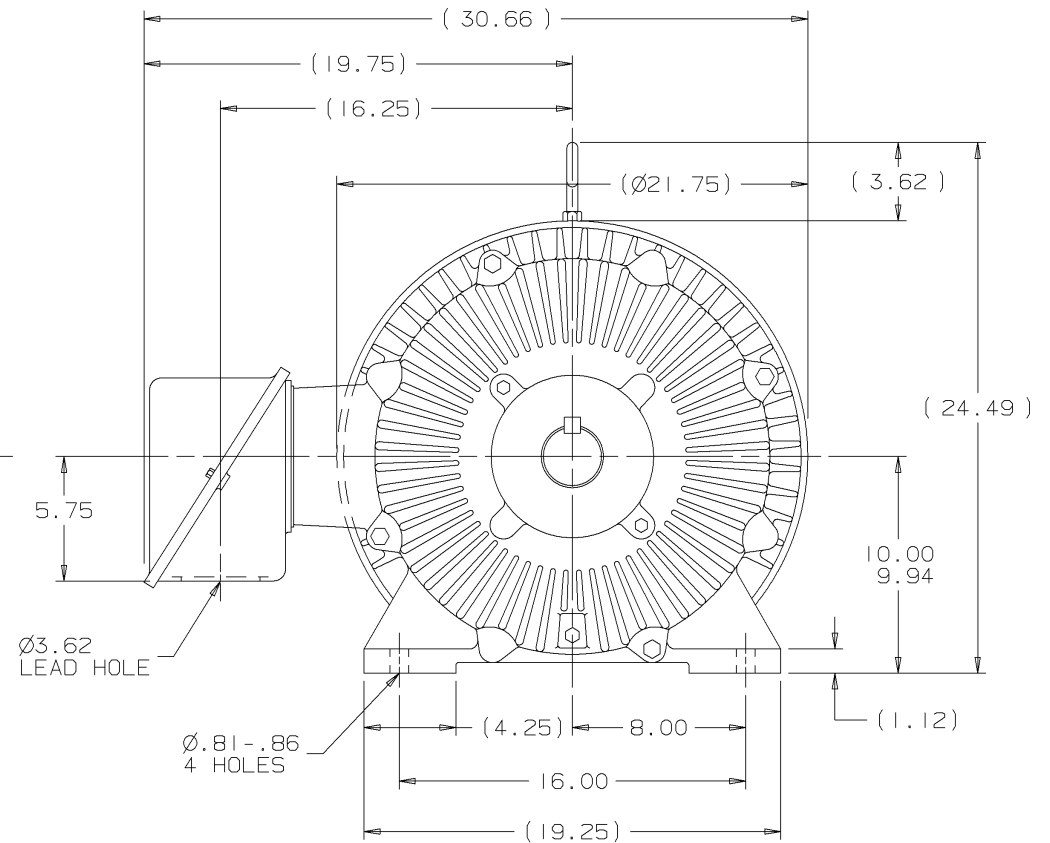
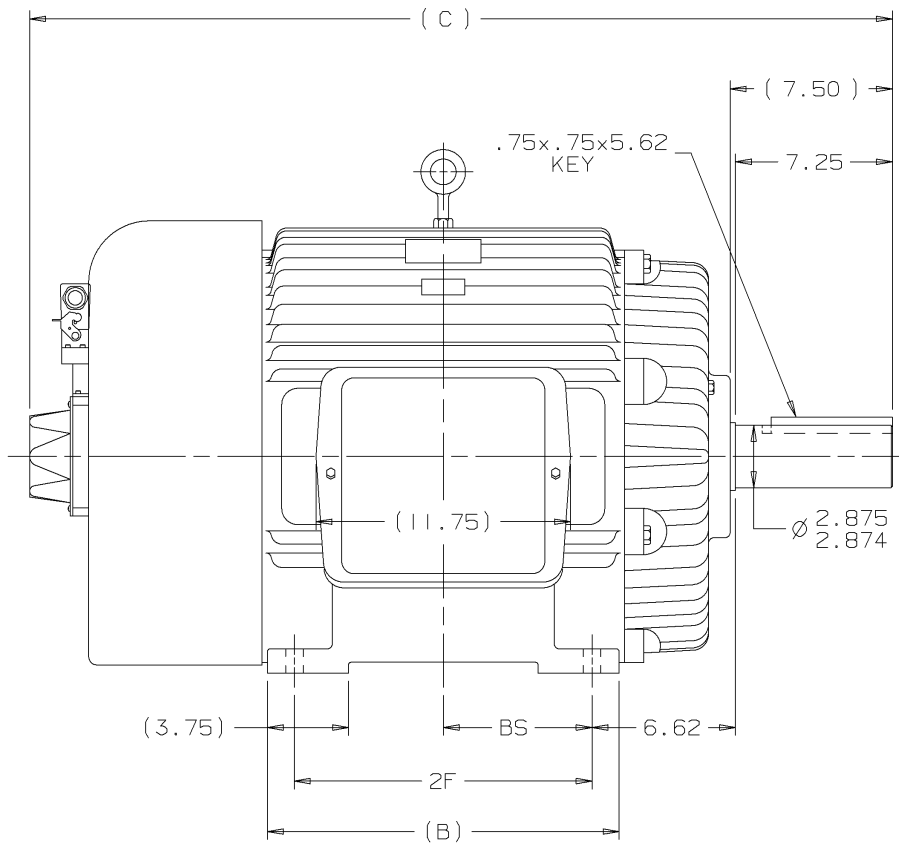
RegalRexnord

Nameplate Specifications

Phase	3	Output HP	100 Hp
Output KW	75.0 kW	Voltage	230/460 V
Speed	1785 rpm	Service Factor	1.00
Frame	405T	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	Thermostat	Efficiency	94.5 %
Ambient Temperature	40 °C	Frequency	60 Hz
Current	230.0/115.0 A	Power Factor	86.5
Duty	Continuous	Insulation Class	H
Design Code	INV	KVA Code	J
Drive End Bearing Size	6316	Opp Drive End Bearing Size	6313
UL	Recognized	CSA	Y
CE	Y	IP Code	43
Number of Speeds	1		

Technical Specifications

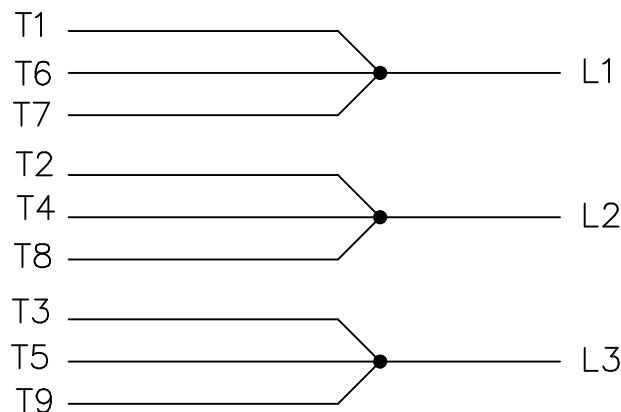
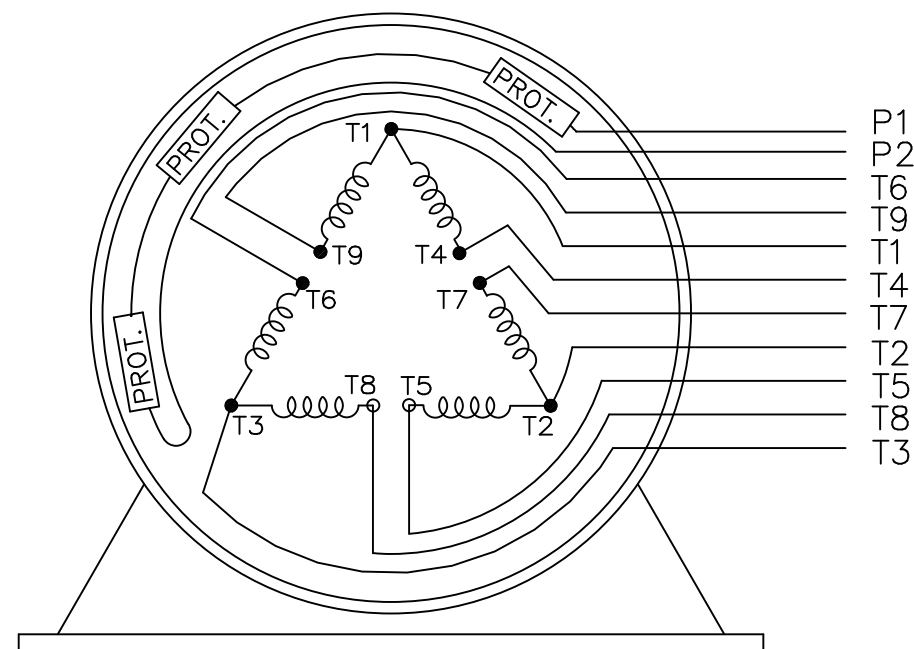
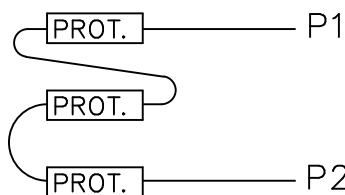
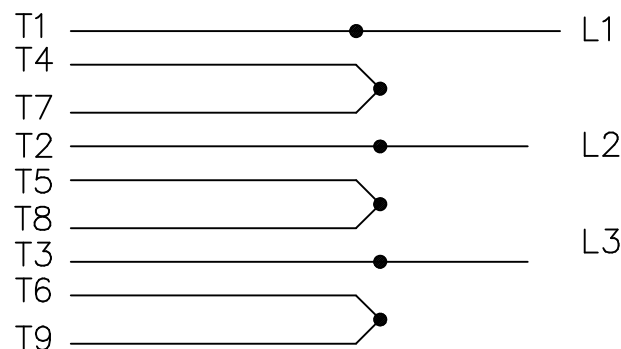
Electrical Type	Squirrel Cage Inverter Duty	Starting Method	Inverter Only
Poles	4	Rotation	Reversible
Resistance Main	.046 Ohms	Mounting	Rigid Base
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	T	Overall Length	39.32 in
Frame Length	16.75 in	Shaft Diameter	2.875 in
Shaft Extension	7.5 in	Assembly/Box Mounting	F1/F2 CAPABLE
Inverter Load	CONSTANT 2000:1		
Outline Drawing	B-SS515694-1675	Connection Drawing	A-EE7308AD



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

SIDE OF MOTOR									✓ MAX. 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		DRAWN BY DRS	05-30-2002
DASH	FRAME	B	C	2F	BS				FINISH	 MARATHON ELECTRIC WAUSAU, WISCONSIN 54981	CHKD BY	
1675	405T	16.25	39.86	13.75	6.88	I		NEW DRAWING			APPO BY	
						REV	DATE	CHANGE	DRS	PART NAME OUTLINE 405T FR. - TEFC - SL56 TACH.	DRWG NO B- SS515694C	
								SHOP BOOK	PURCHASED	DISTRIBUTION - WA - LB - WP - LM - BR	CADD FILE NO.	SS515694C

LOW VOLTAGEHIGH VOLTAGEVIEW OF TERMINAL END

WHEN MORE THAN ONE PROT. IS USED; PROT. ARE CONNECTED IN SERIES

				TOLERANCES UNLESS SPECIFIED			DRAWN BJW 12-20-2000					
				DEC.	INCHES		CHK	DRS	12-20-2000			
				.X	±.1		APPD	TB	12-20-2000			
				.XX	±.02		SCALE					
2	HIGH VOLT. SCHEMATIC WAS L1, L3 & L3 CN 32724	DRS 06-12-2004	ML	.XXX	±.005	TITLE CONNECTION DIAGRAM 3∅ – WITH PROTECTORS			REF			
1	NEW DRAWING MU35017	BJW 12-20-2000		.XXXX	±.0005	MAT'L.			FMF			
NO.	REVISION	BY & DATE	CHK	ANG	±7'30"	FINISH			PREV			
THIS DRAWING IN DESIGN AND DETAIL IS OUR PROPERTY AND MUST NOT BE USED EXCEPT IN CONNECTION WITH OUR WORK ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED THIS IS AN ELECTRONICALLY GENERATED DOCUMENT – DO NOT SCALE THIS PRINT				RFP		CAD FILE ee7308ad_LN		SIZE	DRAWING NO.	PAGE	OF	REV.
				DIST WA—LB				A	EE7308AD_LN			

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ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--
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STACK:
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/im  
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CERTIFICATION DATA SHEET

Model#: 405THFS8036 DT

WINDING#: T4054115 R6 1

CONN. DIAGRAM: A-EE7308AD

ASSEMBLY: F1/F2 CAPABLE

OUTLINE: B-SS515694-1675

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
100	75	1800	1785	405T	TEFC	J	INV

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60	230/460	230/115	INVERTER ONLY	CONTINUOUS	H1	1.0	40	3300

FULL LOAD EFF: 94.5	3/4 LOAD EFF: 94.1	1/2 LOAD EFF: 93	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 86.5	3/4 LOAD PF: 83	1/2 LOAD PF: 75	94.1	SQ CAGE INV DUTY	76 / 38

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
295 LB-FT	1800 / 900	585 LB-FT 198	900 LB-FT 305	55

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
80 dBA	90 dBA	27 LB-FT^2	- LB-FT^2	- SEC.	-	1308 LBS.

EQUIVALENT WYE CKT.PARAMETERS (OHMS PER PHASE)

R1	R2	X1	X2	XM
0.03408	0.021016	0.236288	0.219248	6.816

RM	ZREF	XR	TD	TD0
332.28	2.84	5.7	0.0347	0.895

*** SUPPLEMENTAL INFORMATION ***

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL						
6316	6313	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON

THERMO-PROTECTORS				THERMISTORS	CONTROL	SPACE /n HEATERS
THERMOSTATS	PROTECTORS	WDG RTDs	BRG RTDs			
TSTATS (N/C)	NOT	NONE	NONE	NONE	FALSE	NONE VOLTS

If Inverter equals NONE, contact factory for further information

INVERTER TORQUE: CONSTANT 2000:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED
ENCODER: PROVISIONS ONLY DYNAPAR HS35 NONE NONE PPR
BRAKE: NONE NONE NONE P/N NONE

*
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NONE	NONE	
NONE FT-LB	NONE V	NONE Hz

DATE: 06/21/2017 08:12:08 AM
FORM 3531 REV.3 02/07/99
** Subject to change without notice.

Data Sheet

Date: 20-06-2017

Customer:

Attention:

Submitted by: FAREEDA DUDEKULA



405THFS8036

Submittal

Data @ 460 V

Motor Load Data

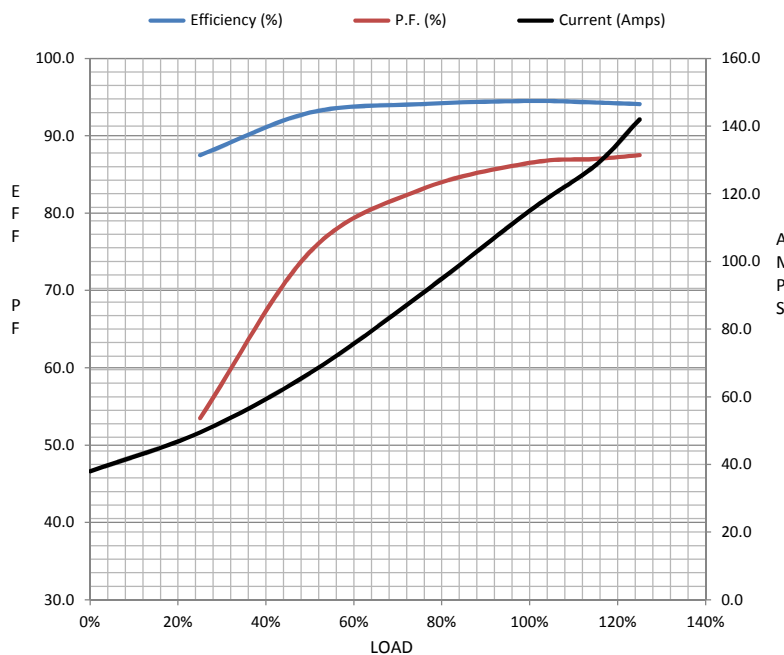
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	38.0	49.5	67.0	90.0	115	129	142	900	
Torque (ft-lb)	0.00	73.0	147	220	295	333	370	585	
RPM	1800	1796	1792	1788	1785	1,783	1780	0	
Efficiency (%)		87.5	93.0	94.1	94.5	94.3	94.1		
P.F. (%)	8.5	53.5	75.0	83.0	86.5	87.0	87.5	30.5	

Motor Speed Data

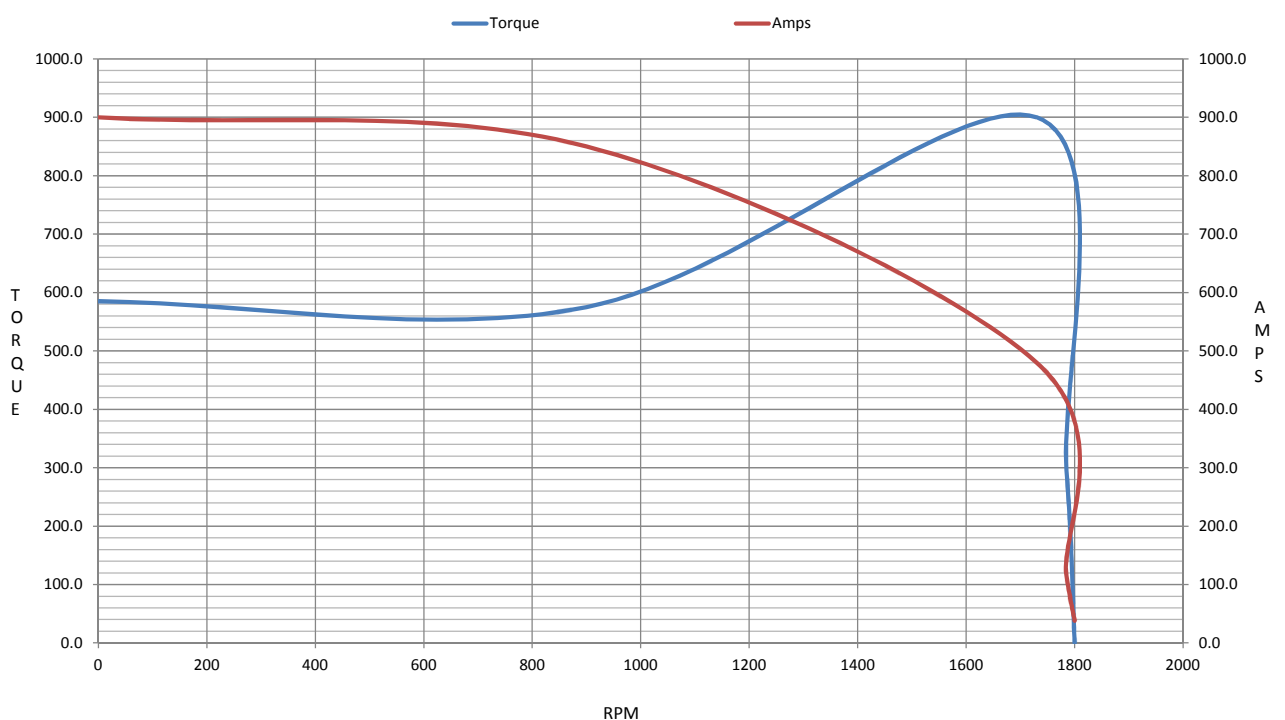
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1730	1785	1800
Current (Amps)	900	850	480	115	38.0
Torque (ft-lb)	585	575	900	295	0.00

Information Block

HP	100.0			
Sync. RPM	1800			
Frame	405			
Enclosure	TEFC			
Construction	TFS			
Voltage	230/460 V			
Frequency	60 Hz			
Design	A			
LR Code letter	J			
Service Factor	1.0			
Temp Rise @ FL	55 ° C			
Duty	CONT			
Ambient	40 ° C			
Elevation	1,000 feet			
Rotor/Shaft wk ²	27.0 Lb-Ft ²			
Ref Wdg	T4054115 R6			
Sound Pressure @ 1M	80 dBA			
VFD Rating	CONSTANT 2000:1			
Outline Dwg	B-SS515694-1675			
Conn. Diag	A-EE7308AD			
Additional Specifications:				
0				
365THFS8036				
EQUIV CKT (OHMS / PHASE)				
R1	R2	X1	X2	Xm
0.0340	0.0210	0.2360	0.2190	6.8160



Speed - Torque Curve



EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 405THFS8036

(Model No. may contain prefix and/or suffix characters)

Catalog No : Y575

Rework No : N/A

Directives :

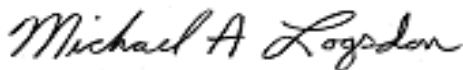
Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:



Julian Clark
Marketing Engineer

Created on 09/01/2022

CE 22