

PRODUCT INFORMATION PACKET



Model No: TCA0553AE231GAA009

Catalog No: R859

TerraMAX® Cast Iron Motor, 75 & 60 HP, 3 Ph, 60 & 50 Hz, 230/460 & 200/400 V, 1200 & 1000 RPM,
280M Frame, TEFC





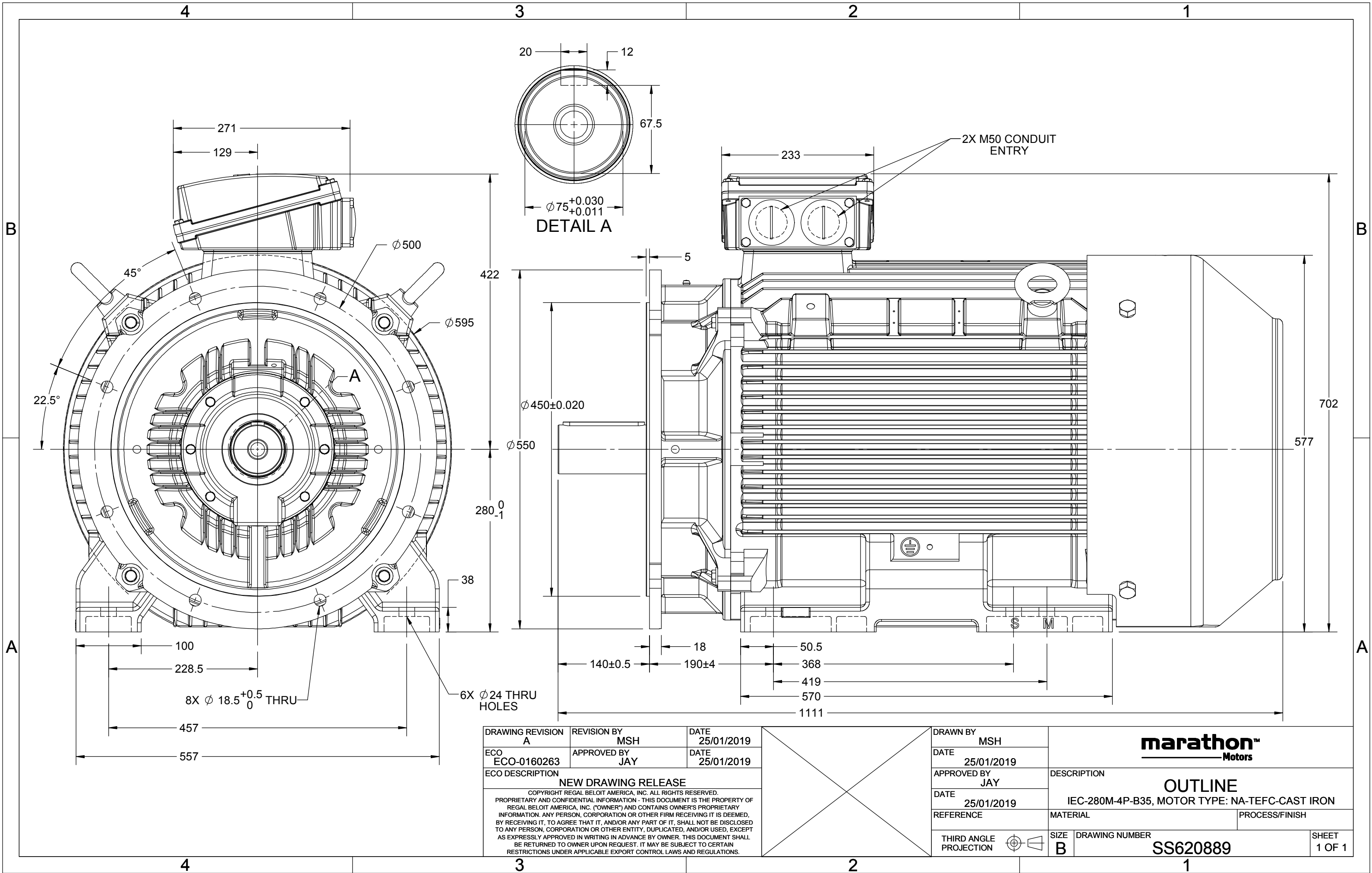
Nameplate Specifications

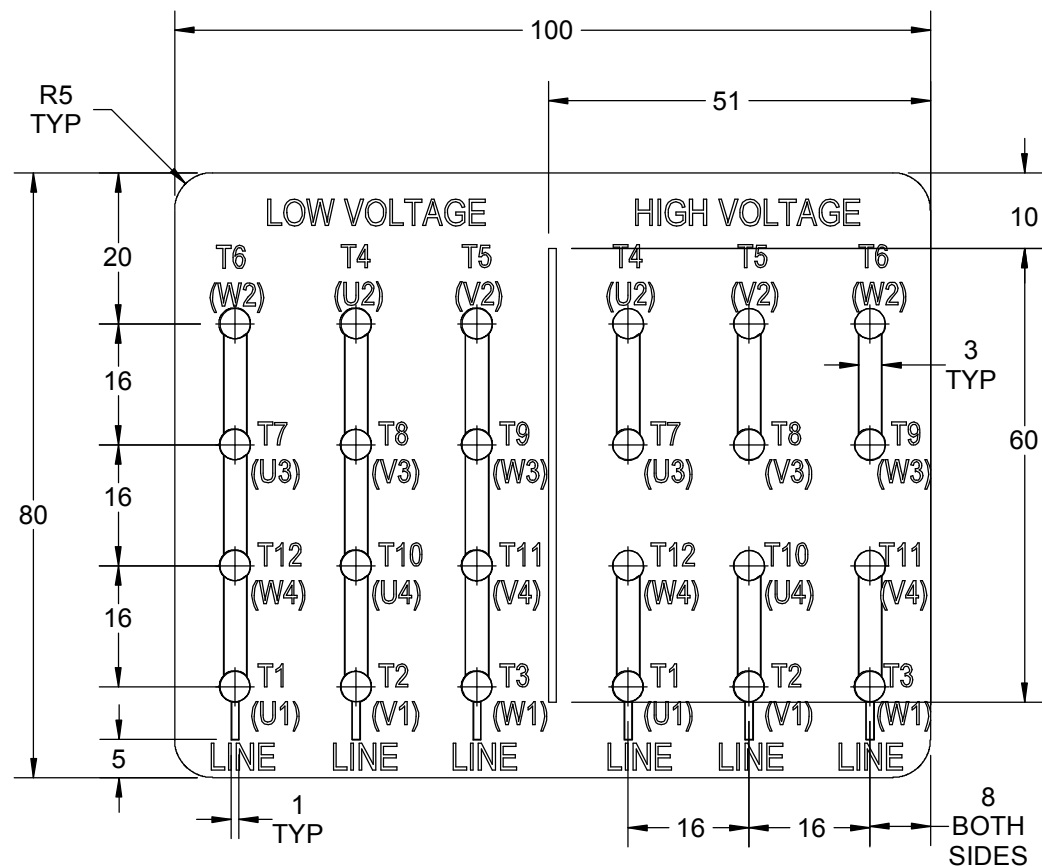
Phase	3	Output HP	75 & 60 Hp
Output KW	55.0 & 45.0 kW	Voltage	230/460 & 200/400 V
Speed	1190 & 990 r/min	Service Factor	1.15 & 1.15
Frame	280M	Enclosure	Totally Enclosed Fan Cooled
Thermal Protection	No Protection	Efficiency	94.5 & 93.7 %
Ambient Temperature	40 °C	Frequency	60 & 50 Hz
Current	174/87 & 166/83 A	Power Factor	84
Duty	Continuous	Insulation Class	F
Design Code	N (IEC)	KVA Code	G
Drive End Bearing Size	6317	Opp Drive End Bearing Size	6317
UL	Recognized	CSA	N
CE	Y	IP Code	55
Number of Speeds	1	Efficiency Class	IE3

Technical Specifications

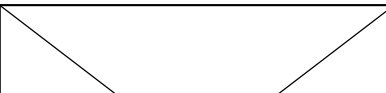

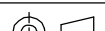
Electrical Type	Squirrel Cage Inverter Rated	Starting Method	Line Or Inverter
Poles	6	Rotation	Reversible
Resistance Main	.07 Ω	Mounting	B3
Motor Orientation	Horizontal	Drive End Bearing	Ball
Opp Drive End Bearing	Ball	Frame Material	Cast Iron
Shaft Type	IEC	Shaft Diameter	75.000 in
Assembly/Box Mounting	F3	Inverter Load	CONSTANT 2:1/VARIABLE 10:1
Connection Drawing	8442000677	Outline Drawing	SS620889

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1. PRESSURE-SENSITIVE ADHESIVE TAPE COATED WITH ANTI-ADHESIVE.
2. YELLOW COLOR BACK GROUND LETTERS WILL BE BLACK.
3. THE TOLERANCE OF THE LINEAR SIZE OF THE TOLERANCE WITHOUT THE TOLERANCE BY THE TABLE.
4. LEAD TERMINAL MARKINGS FONT SIZE : T1-T12 & U1-U4,V1-V4& W1-W4 OF ARIAL WITH 3mm SIZE
5. OTHER LETTER FONT SIZE SHOULD BE 3.5mm.

DRAWING REVISION C		REVISION BY NIV		DATE 05/03/2019				DRAWN BY NIV		 Regal Beloit America, Inc.					
ECO ECO-0162986		APPROVED BY JAY		DATE 05/03/2019				DATE 29/01/2019							
ECO DESCRIPTION UPDATED DRAWING 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.								APPROVED BY JAY		DESCRIPTION CONNECTION DIAGRAM 12 LEAD -DELTA CONNECTION					
								DATE 29/01/2019							
														REFERENCE	
						THIRD ANGLE PROJECTION				SIZE A		DRAWING NUMBER 8442000677		SHEET 1 OF 1	



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

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER: _____
ORDER #: _____
CONN. DIAGRAM: 8442000677
OUTLINE: SS620889
WINDING: IE3L2806202 NONE 1
SPEED: _____

CUSTOMER P.O. #: _____
REFERENCE MODEL #: TCA0553AE231GAA009
CAT #: R859
CUSTOMER PART #: _____
MOUNTING: F3

TYPICAL MOTOR PERFORMANCE DATA

HP	KW	SYNC RPM	FL RPM	FRAME	ENCLOSURE	TYPE	KVA CODE	DESIGN
75	55.00	1200	1190	280M	TEFC	TCA 280MA06	G	N

PH	HZ	VOLTS	AMPS	START TYPE	DUTY	INSL	S.F.	AMB (* C)	ELEV.(Ft.)
3	60/50	230/460#200/400	174/87&166/83	LINE OR INVERTER	CONT	F	1.15	40	3300

F.L. EFF	94.5	3/4 LD EFF	94.5	1/2 LD EFF	93.3	GTD EFF	ELECT. TYPE
F.L. PF	84.0	3/4 LD PF	81.0	1/2 LD PF	73.0	93.7	SQ CAGE INV RATED

F.L. TORQUE	LR AMPS @ 460 V	L.R. TORQUE	B.D. TORQUE	F.L. RISE (* C)
331 LB-FT	549	583 LB-FT 176%	792 LB-FT 239%	80

SOUND PRESSURE @ 3 FT.	SOUND	POWER	ROTOR WK ²	MAX. LOAD WK ²	SAFE STALL TIME	STARTS/HOUR	APROX.	MOTOR WGT
68 dBA	77 dBA		63.5 LB-FT ²	63.5 LB-FT ²	15 SEC.	2	699	KG.

*** SUPPLEMENTAL INFORMATION ***

DE BRACKET TYPE	ODE BRACKET TYPE	MOUNT TYPE	MOTOR ORIENTATION	SEVERE DUTY	HAZARDOUS LOCATION	DRIP COVER	SCREENS	PAINT
FF-FLANGE-500	STANDARD	B3	HORIZONTAL	NO	NONE	NO	NONE	BLUE (ENAMEL)

BEARINGS	GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT	MATERIAL	FRAME MATERIAL
DE ODE							
BALL BALL	SG S5-V100	STANDARD IEC	NONE	NONE	1045 HOT ROLLED (C-204)		CAST IRON
6314 6314							

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
0.042	0.030	0.284	0.416	8.596	0.150	ODE

* N O T E S *		INVERTER TORQUE: CONSTANT 2:1/VARIABLE 10:1 INV. HP SPEED RANGE: NONE
		ENCODER: NONE NONE NONE PPR

PREPARED BY: _____ DATE: 11/27/2020	BRAKE: NONE NONE NONE FT-LB: NA VOLTAGE: NONE UL: V - LI,ME-INS,CONST UL REC	HZ: _____
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FORM: 3531 REV_4 2/27/06

REGAL®

Data Sheet									
Date: 4/9/2020		TCA0553AE231GAA009							
Customer: _____		Submittal							
Attention: _____		Data @ 460 V							
Submitted by: _____									
Motor Load Data									
Load	0%	25%	50%	75%	100%	115%	125%	LR	
Current (Amps)	30.3	38.4	51.3	69.0	87.0	101	110	549	
Torque (ft-lb)	0.00	82.3	165	248	331	382	416	583	
RPM	1200	1197	1195	1192	1190	1,187	1185	0	
Efficiency (%)		89.4	93.3	94.5	94.5	94.1	93.9		
P.F. (%)	6.0	51.0	73.0	81.0	84.0	85.0	85.0	63.4	
Motor Speed Data									
	LR	Pull-Up	BD	Rated	Idle				
Speed (RPM)	0	400	1138	1190	1200				
Current (Amps)	549	521	295	87.0	30.3				
Torque (ft-lb)	583	554	792	331	0.00				
Information Block									
HP	75.0								
Sync. RPM	1200								
Frame	280								
Enclosure	TEFC								
Construction	TCA 280MA06								
Voltage	230/460#200/400 V								
Frequency	60 Hz								
Design	N								
LR Code letter	G								
Service Factor	1.15								
Temp Rise @ FL	80 °C								
Duty	CONT								
Ambient	40 °C								
Elevation	3,300 feet								
Rotor/Shaft wk ²	63.5 Lb-Ft ²								
Ref Wdg	IE3L2806202 NONE								
Sound Pressure @ 1M	70 dBA								
VFD Rating	CONSTANT 2:1/VARIABLE 10:1								
Outline Dwg	SS620889								
Conn. Diag	8442000677								
Additional Specifications:									
0									
0									
EQUIV CKT (OHMS / PHASE)									
	R1	R2	X1	X2	Xm				
	0.0420	0.0300	0.2840	0.4160	8.5960				

LOAD

IEC

Speed -Torque Curve

RPM

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 : TCA0553AE231GAA009

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

Catalog No : R859

Rework No : N/A

Directives :

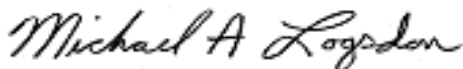
Low Voltage Directive 2014/35/EU

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