

# PRODUCT INFORMATION PACKET

marathon®  
Motors

Model No: 284TTFC6027

Catalog No: E961C

General Purpose Motor, 25 & 20 HP, 3 Ph, 60 & 50 Hz, 208-230/460 & 190/380 V, 1800 & 1500 RPM,  
284T Frame, TEFC



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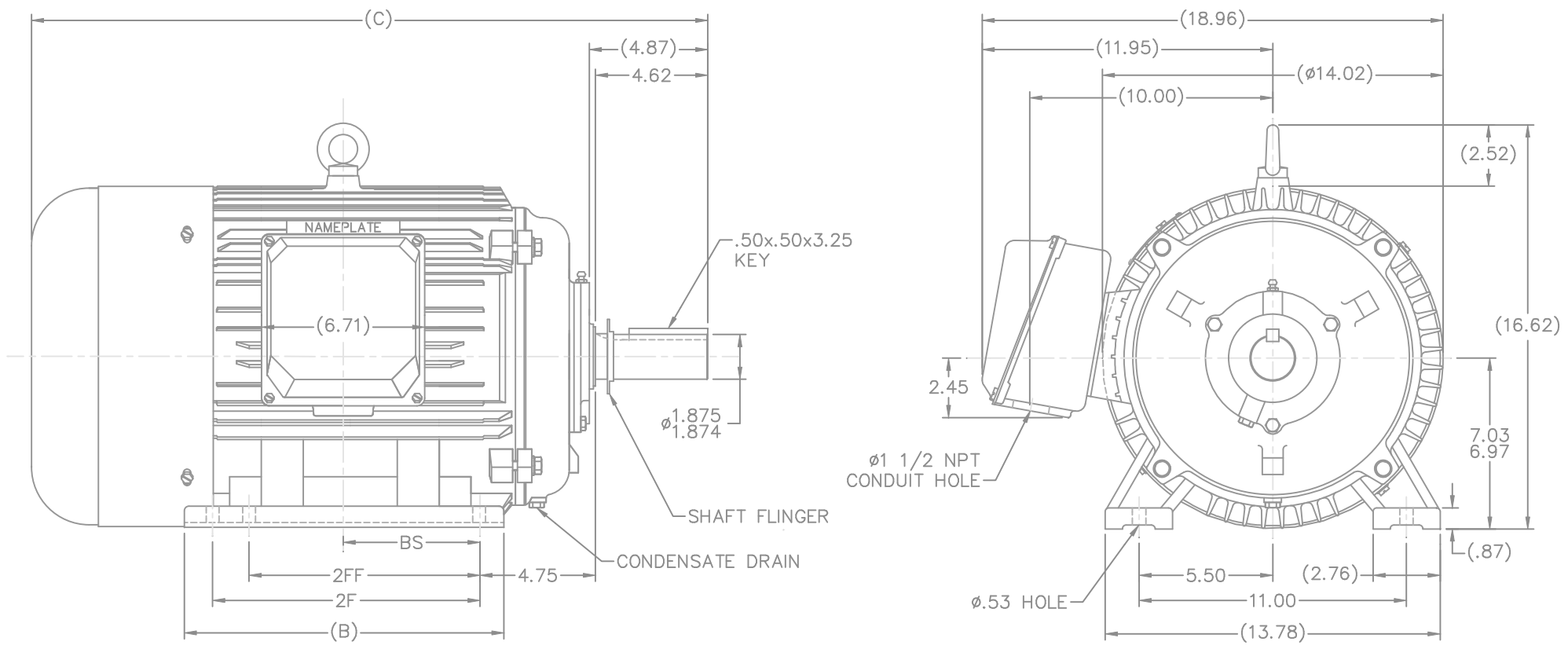
RegalRexnord

### Nameplate Specifications

Phase	<b>3</b>	Output HP	<b>25 &amp; 20 Hp</b>
Output KW	<b>18.7 &amp; 14.9 kW</b>	Voltage	<b>208-230/460 &amp; 190/380 V</b>
Speed	<b>1782 &amp; 1480 rpm</b>	Service Factor	<b>1.15 &amp; 1.0</b>
Frame	<b>284T</b>	Enclosure	<b>Totally Enclosed Fan Cooled</b>
Thermal Protection	<b>No Protection</b>	Efficiency	<b>93 &amp; 93 %</b>
Ambient Temperature	<b>40 °C</b>	Frequency	<b>60 &amp; 50 Hz</b>
Current	<b>66-58.5/29.3 &amp; 60/30 A</b>	Power Factor	<b>78</b>
Duty	<b>Continuous</b>	Insulation Class	<b>F</b>
Design Code	<b>B</b>	KVA Code	<b>H</b>
Drive End Bearing Size	<b>6311</b>	Opp Drive End Bearing Size	<b>6309</b>
UL	<b>Recognized</b>	CSA	<b>Y</b>
CE	<b>Y</b>	IP Code	<b>43</b>
Number of Speeds	<b>1</b>		

### Technical Specifications

Electrical Type	<b>Squirrel Cage Inverter Rated</b>	Starting Method	<b>Line Or Inverter</b>
Poles	<b>4</b>	Rotation	<b>Reversible</b>
Resistance Main	<b>.058 Ohms</b>	Mounting	<b>Rigid Base</b>
Motor Orientation	<b>Horizontal</b>	Drive End Bearing	<b>Ball</b>
Opp Drive End Bearing	<b>Ball</b>	Frame Material	<b>Cast Iron</b>
Shaft Type	<b>T</b>	Overall Length	<b>26.26 in</b>
Shaft Diameter	<b>1.880 in</b>	Shaft Extension	<b>4.87 in</b>
Assembly/Box Mounting	<b>F1/F2 CAPABLE</b>	Inverter Load	<b>CONSTANT 20:1</b>
Connection Drawing	<b>004172.03</b>	Outline Drawing	<b>16953960ME-284T</b>



NOTE: 286T HAS 6 MTG. HOLES, USING 284T AND 286T LOCATIONS

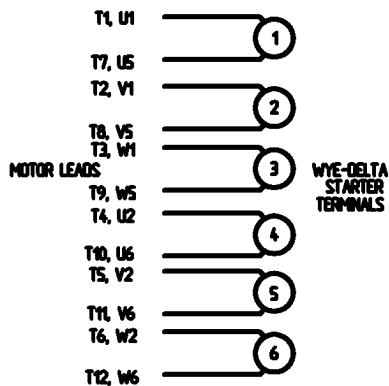
DASH	FRAME	C	B	BS	2F	2FF
1248	284T	26.26	11.61	4.90	--	9.50
1398	286T	27.83	13.11	5.68	11.00	9.50

NO.		REVISION		BY & DATE		TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN	
NO.		REVISION		BY & DATE		TOLERANCES UNLESS SPECIFIED		MARATHON ELECTRIC		DRAWN	
1	NEW DRAWING			TJB	05-29-2003	ML	.XXX ±.0005	TITLE OUTLINE - RIGID 280T FR. - TEFC		ML	05-29-2003
						CHK	ANG ±7'30"	MAT'L		GK	05-29-2003
						RFP		FINISH			
						DIST	WA	CAD FILE 16953960me		SCALE	1=4
								SIZE	DRAWING NO.	PAGE	OF
								B	169539-60ME	1	REV.
											1

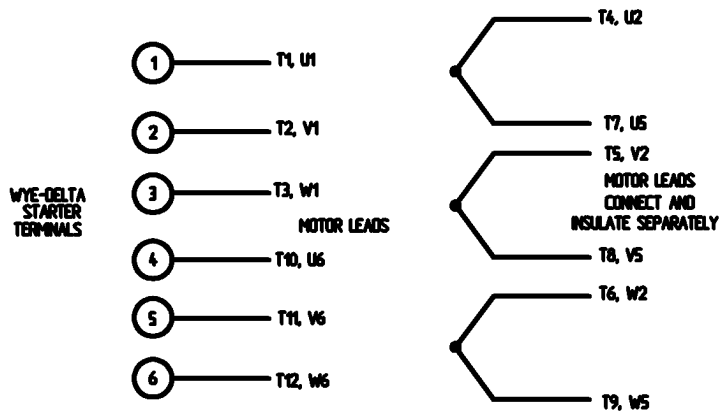
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WYE - DELTA STARTING USEABLE ON 2,4 AND 6 POLE MOTORS.

LOW VOLTAGE CONNECTION

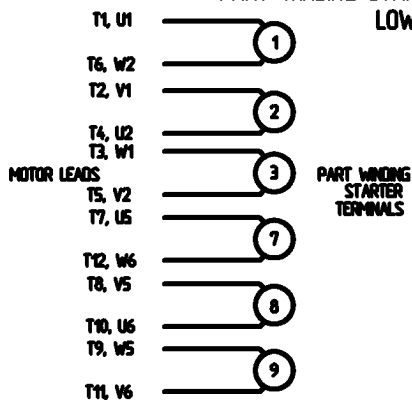


HIGH VOLTAGE CONNECTION



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

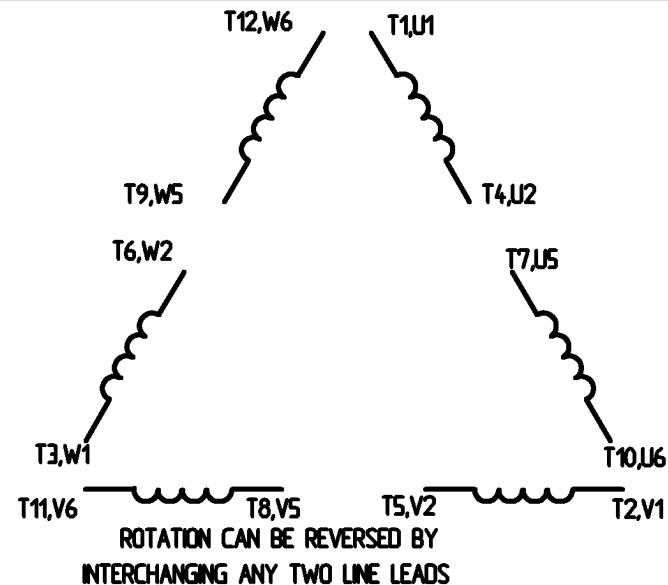
PART WINDING START USABLE ON 4 & 6 POLE MOTORS  
LOW VOLTAGE CONNECTION ONLY



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.

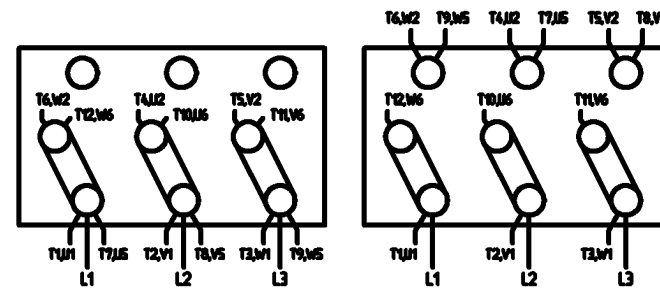
LINE LEADS



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



				TOLERANCES UNLESS SPECIFIED			<b>ELECTRIC MOTORS GEARMOTORS AND DRIVES</b>	DRAWN <b>CW 08/28/02</b>	
				DEC.	INCHES			CHK	APPO
				X	+ .1	TITLE <b>DELTA - WYE CONNECTION DIAGRAM IEC CAST IRON MOTORS</b>		SCALE <b>1:1</b>	REF
				XX	+ .01	MATERIAL		FINISH	PREV
				XXX	+ .005	NO.		REVISION	BY & DATE
				XXXX	+ .0005	RFP		CAD FILE	00417203
				ANG	+ 1/2°	SIZE <b>A</b>		DRAWING NO. <b>004172-03</b>	REV.
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ERROR: syntaxerror  
OFFENDING COMMAND: --nostringval--

STACK:

/CB  
-dictionary-  
/Pscript\_WinNT\_Compat  
-dictionary-

**CERTIFICATION DATA SHEET**

**Model#:** 284TTFC6027 AA  
**CONN. DIAGRAM:** 004172.03  
**OUTLINE:** 169539.60ME

**WINDING#:** T14504005 NONE 3  
**ASSEMBLY:** F1/F2 CAPABLE

**TYPICAL MOTOR PERFORMANCE DATA**

HP	KW	SYNC. RPM	F.L. RPM	FRAME	ENCLOSURE	KVA CODE	DESIGN
25&20	18.7&14.9	1800	1782&1480	284T	TEFC	H	B

PH	Hz	VOLTS	FL AMPS	START TYPE	DUTY	INSL	S.F	AMB°C	ELEVATION
3	60/50	208- 230/460#190/ 380	66- 58.5/29.3&60/ 30	LINE OR INVERTER	CONTINUOU S	F2	1.15/1.0	40	3300

FULL LOAD EFF: 93&93	3/4 LOAD EFF: 94.1	1/2 LOAD EFF: 93.6	GTD. EFF	ELEC. TYPE	NO LOAD AMPS
FULL LOAD PF: 78&80.5	3/4 LOAD PF: 80	1/2 LOAD PF: 69	92.4	SQ CAGE INV RATED	24 / 12

F.L. TORQUE	LOCKED ROTOR AMPS	L.R. TORQUE	B.D. TORQUE	F.L. RISE°C
73.5 LB-FT	400 / 200	145 LB-FT 197	225 LB-FT 306	45

SOUND PRESSURE @ 3 FT.	SOUND POWER	ROTOR WK^2	MAX. WK^2	SAFE STALL TIME	STARTS /HOUR	APPROX. MOTOR WGT
75 dBA	85 dBA	4.23 LB-FT^2	- LB-FT^2	20 SEC.	2	394 LBS.

**\*\*\* SUPPLEMENTAL INFORMATION \*\*\***

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

BEARINGS		GREASE	SHAFT TYPE	SPECIAL DE	SPECIAL ODE	SHAFT MATERIAL	FRAME MATERIAL
DE	OPE						
BALL	BALL	POLYREX EM	T	NONE	NONE	1045 HOT ROLLED (C-204)	CAST IRON
6311	6309						

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

\*  
N  
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S  
\*

INVERTER TORQUE: CONSTANT 20:1 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

DATE: 06/27/2017 12:55:33 AM  
 FORM 3531 REV.3 02/07/99

\*\* Subject to change without notice.

Data Sheet

Date: 12/14/2018  
 Customer: \_\_\_\_\_  
 Attention: \_\_\_\_\_  
 Submitted by: FAREEDA DUDEKULA



284TFC6027

Submittal

Data @ 460 V

Motor Load Data

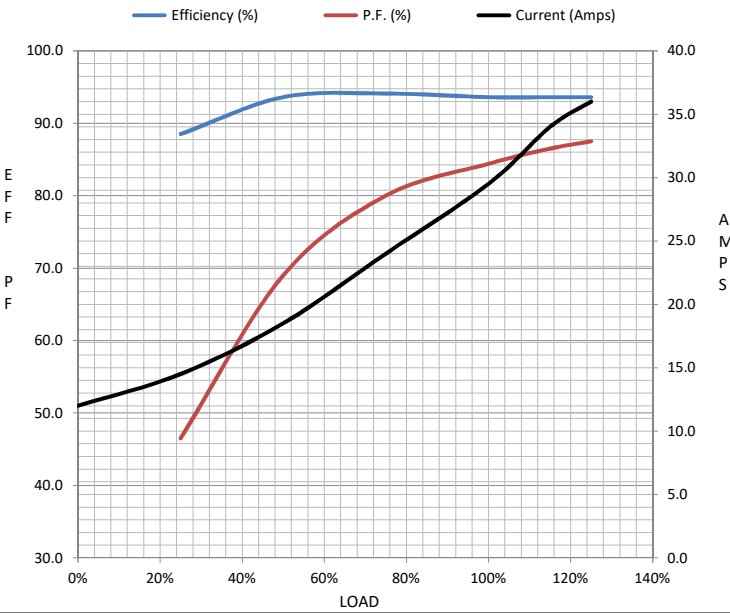
Load	0%	25%	50%	75%	100%	115%	125%	LR
Current (Amps)	12.0	14.5	18.5	24.0	29.5	34.0	36.0	200
Torque (ft-lb)	0.00	18.6	37.5	56.0	73.5	84.5	93.5	145
RPM	1800	1792	1783	1775	1770	1,767	1762	0
Efficiency (%)		88.5	93.6	94.1	93.6	93.6	93.6	
P.F. (%)	5.5	46.5	69.0	80.0	84.4	86.5	87.5	0.0

Motor Speed Data

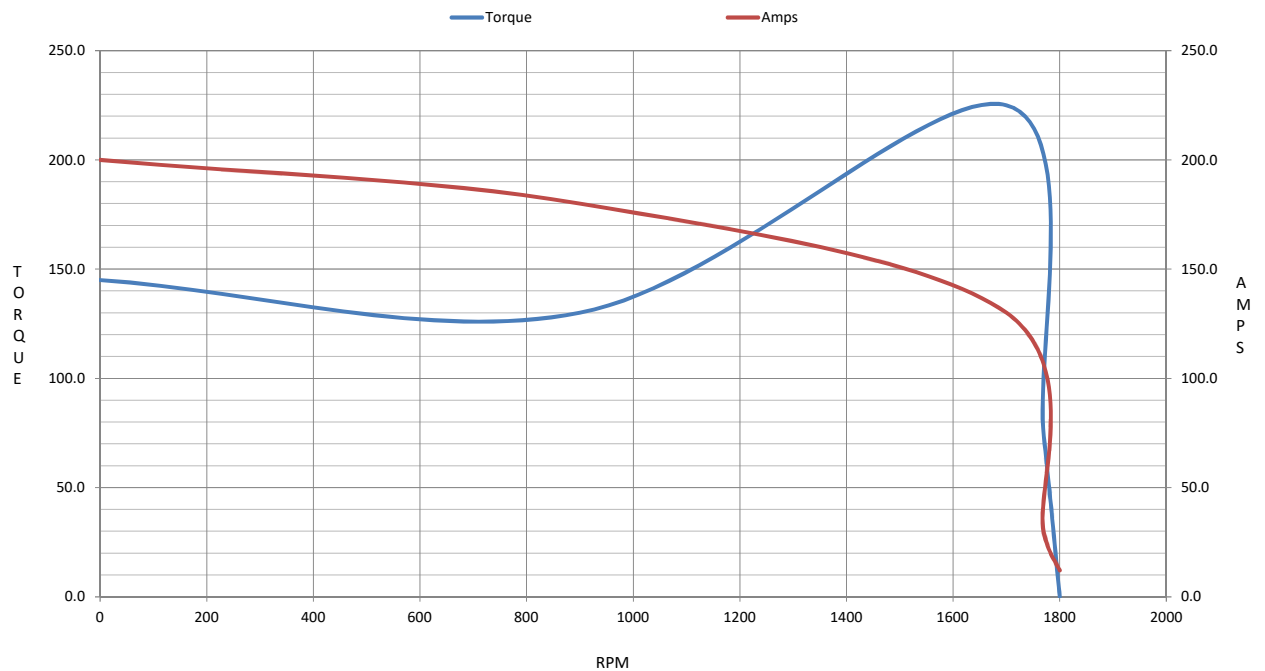
	LR	Pull-Up	BD	Rated	Idle
Speed (RPM)	0	900	1700	1770	1800
Current (Amps)	200	180	130	29.5	12.0
Torque (ft-lb)	145	130	225	73.5	0.00

Information Block

HP	25.0			
Sync. RPM	1800			
Frame	284			
Enclosure	TEFC			
Construction	TFS			
Voltage	208-230/460#190/380 V			
Frequency	60 Hz			
Design	A			
LR Code letter	H			
Service Factor	1.15			
Temp Rise @ FL	44 °C			
Duty	CONT			
Ambient	40 °C			
Elevation	1,000 feet			
Rotor/Shaft wk <sup>2</sup>	4.2 Lb-Ft <sup>2</sup>			
Ref Wdg	T14504005 NONE			
Sound Pressure @ 1M	75 dBA			
VFD Rating	CONSTANT 20:1			
Outline Dwg	169539.60ME			
Conn. Diag	004172.03			
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





## 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 : 284TTFC6027

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

Catalog No : E961C

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 09/17/2022

**CE 22**