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# PRODUCT SPECIFICATION

## KRIMPTITE AND VIBRAKRIMP QUICK DISCONNECTS

### 1.0 SCOPE

- A. THIS PRODUCT SPECIFICATION COVERS THE KRIMPTITE AND VIBRAKRIMP QUICK DISCONNECTS (UNINSULATED) FOR 22 AWG TO 10 AWG WIRE.

### 2.0 PRODUCT DESCRIPTION

#### 2.1 UNINSULATED QUICK DISCONNECTS

- A. 19008 KRIMPTITE UNINSULATED FEMALE FLAG QUICK DISCONNECTS (22 – 10 AWG)
- B. 19009 VIBRAKRIMP UNINSULATED FEMALE FLAG QUICK DISCONNECTS (22 – 14 AWG)
- C. 19016 KRIMPTITE UNINSULATED FEMALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)
- D. 19018 VIBRAKRIMP UNINSULATED FEMALE STRAIGHT QUICK DISCONNECTS (22 – 14 AWG)
- E. 19022 KRIMPTITE UNINSULATED MALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)
- F. 19024 VIBRAKRIMP UNINSULATED MALE STRAIGHT QUICK DISCONNECTS (22 – 10 AWG)

#### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

- A. THE DIMENSIONAL CHARACTERISTICS ARE IDENTIFIED ON THE SALES DRAWINGS.
- B. MATERIALS:
  - I. BASE MATERIAL IS C26000 BRASS IN VARIOUS THICKNESSES WITH THE EXCEPTION OF 19022 AND 19024, WHICH ARE MADE FROM C26000 BRASS OR C11000 COPPER.
  - II. PLATING IS MATTE TIN WITH THE FOLLOWING EXCEPTIONS
    - 1. 19022 AND 19024 ARE PLATED WITH ZINC CHROMATE.
    - 2. SOME SPECIAL PARTS ARE NICKEL OR NICKEL-OVER-TIN PLATED, TYPICALLY INDICATED WITH A “-N” AS A SUFFIX TO THE ENGINEERING NUMBER.
  - III. PARTS HAVE NO INSULATION. SERIES 19009 AND 19018 HAVE A BUILT-IN WIRE INSULATION GRIP, AND SERIES 19024 WIRE GRIP CONSISTS OF A TIN-PLATED BRASS FERRULE.

#### 2.3 SAFETY AGENCY APPROVALS

- A. MOST PARTS ARE UL LISTED E79133 CATEGORY RFWV, CONSULT WEBSITE OR FACTORY FOR DETAILS
- B. MOST PARTS ARE CSA CERTIFIED LR18689 CLASS 6227-01, CONSULT WEBSITE OR FACTORY FOR DETAILS
- C. ALL PARTS ARE ROHS COMPLIANT

REVISION: <b>B</b>	ECR/ECN INFORMATION: EC No: <b>IPG2012-0494</b> DATE: <b>2012 / 06 / 28</b>	TITLE: <b>PRODUCT SPECIFICATION- KRIMPTITE AND VIBRAKRIMP QUICK DISCONNECTS</b>	SHEET No. <b>1 of 4</b>
DOCUMENT NUMBER: <b>PS-19902-005</b>	CREATED / REVISED BY: <b>E. THRODAHL</b>	CHECKED BY: <b>J. MACNEIL</b>	APPROVED BY: <b>J. MACNEIL</b>



# PRODUCT SPECIFICATION

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

- A. UL STANDARD FOR ELECTRICAL QUICK-CONNECT TERMINALS ANSI/UL 310
- B. CSA STANDARD CSA-C22.2 NO 153-09 FOR ELECTRICAL QUICK-CONNECT TERMINALS

## 4.0 RATINGS

### 4.1 VOLTAGE

- A. VOLTAGE RATINGS APPLY TO INSULATED PARTS AND THEREFORE DO NOT APPLY TO PARTS COVERED IN THIS SPECIFICATION.

### 4.2 CURRENT

- A. THE AMPERAGE RATING IS BASED ON THE WIRE AWG APPLIED TO THE TERMINALS PER UL 310 SHOWN BELOW.

TABLE 4.2.B

WIRE AWG	MAX AMPERE RATING
22	3
20	4
18	7
16	10
14	15
12	20
10	24

### 4.3 MAXIMUM OPERATING TEMPERATURE – 149°C (300°F)

## 5.0 PERFORMANCE – SAMPLE PREPARATION, WIRE REQUIREMENTS, TESTS DESCRIPTIONS AND TABLE INFORMATION ARE PER UL STANDARD 310.

### 5.1 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Crimp Pullout Force (Axial)	Test Samples Crimped to Min/Max wire awg are subjected to an axial pullout force on the wire at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	The Test Samples must withstand Table 10.1 Force applied for 1 minute
2	Engage / Disengage Test	Samples to be Mated/Unmated to Unplated Brass Test Tabs for 6 Mating Cycles	Samples must meet the Requirements of Table 11.1

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## 5.2 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
3	Temperature Test	The Test Specimens shall be subjected to continuous current per Table 4.2.B until Stabilization.	Temperature Rise must not exceed 30C
4	Heat Cycling Test	The Temperature Test Samples shall complete 500 cycles of equal current on and off (45 min on/ 15 min off) at the current levels noted in Table 12.1.	Temperature Rise shall not rise more than 15C from 24 <sup>th</sup> Cycle and not more than 85C at the 500 <sup>th</sup> Cycle

Table 10.1

WIRE AWG	MIN PULL FORCE (LBS)
22	8
20	13
18	20
16	30
14	50
12	70
10	80

TABLE 11.1

Tab size	First Insertion Force (lbs)	First Withdrawal Force (lbs)	Sixth Withdrawal Force (lbs)
.250 x .032 (6.35 x 0.81)	16 MAX	3 MIN, 16 MAX	3 MIN
.205 x .020 (5.21 x 0.51)	15 MAX	3 MIN, 20 MAX	2 MIN
.205 x .032 (5.21 x 0.81)	15 MAX	3 MIN, 20 MAX	2 MIN
.187 x .020 (4.75 x 0.51)	15 MAX	3 MIN, 20 MAX	2 MIN
.187 x .032 (4.75 x 0.81)	15 MAX	3 MIN, 20 MAX	2 MIN
.110 x .020 (2.79 x 0.51)	12 MAX	2 MIN, 14 MAX	1 MIN
.110 x .032 (2.79 x 0.81)	12 MAX	2 MIN, 14 MAX	1 MIN

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# PRODUCT SPECIFICATION

TABLE 12.1

Wire AWG	Current Cycling Amperes
22	6
20	8
18	14
16	20
14	30
12	40
10	48

## 6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

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