



COMPONENT NEWS

PREPRODUCTION ENGINEERING

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SEND INFORMATION, COMMENTS OR REQUESTS FOR COPIES TO DEL. STA. 50-440, OR CALL EXT. 272.

COMPILED BY PRODUCT RELIABILITY INFORMATION

NO. 95

DATE 12-17-68

VARIABLE FREQUENCY POWER GENERATOR

We have finally received the long awaited *CML* Variable Frequency Power Generator. The condensed specs are listed for general information. Instruction manuals and complete specs are on file in the Environmental Test Lab and Instrument Control.

OUTPUT:

| | |
|------------------|--|
| Power: | 5kVA |
| Voltage: | 0-130V or 0-260V |
| FREQUENCY RANGE: | 20 Hz to 6 kHz |
| POWER FACTOR: | 0.7 lead or lag 1.0 at rated VA output |
| PEAK CURRENT: | 90 Amp for 1/2 cycle |
| REGUALTION: | <1% no lead to full load ±0.5% for ±5% line variation |
| RECOVERY TIME: | <50μ sec |
| DISTORTION: | <3% total harmonic distortion |
| POWER INPUT: | 208/230V 3 phase 47-65 Hz |

Because of the input power requirements it will be necessary to have the Facilities department install proper circuit breakers and cable connector if use is desired outside of the Environmental Test Lab. For further information contact me at Ext 7141.

-Ray Barrett

SINGLE-CONDUCTOR INSULATED WIRES (175-xxxx-xx)

A list detailing the following characteristics of single-conductor, insulated wire stocked by *TEKTRONIX, INC.* is now available for distribution:

- | | |
|--|----------------------------------|
| 1. <i>TEKTRONIX, INC.</i> part number. | 6. Insulation (type, color) |
| 2. AWG size | 7. Insulation temperature rating |
| 3. Construction | 8. Diameter over conductor |
| 4. Maximum voltage rating | 9. Diameter over insulation |
| 5. Maximum current rating | |

For copies of this list, contact me at Ext 416.

-Mel Christensen

CRIMP CONNECTORS FOR .025" SQUARE PIN SYSTEM

Evaluation is nearing completion on a family of crimp connectors for the .025" square pin system. Typical specifications are indicated below.

Description:

A connector that crimps into a stranded wire or cable and accepts a .025 inch square mating pin. The connector is constructed from .0045 inch thick beryllium copper and plated with 50 μ inch of hard gold over 50 μ inch of nickel. All contact areas are identical - wire crimp barrels differ by part number.

Wire Ranges:

| <u>Wire range, AWG</u> | <u>TEK P/N</u> |
|------------------------|----------------|
| 28 thru 32 | 131-0708-00 |
| 22 thru 26 | 131-0707-00 |
| 18 thru 20 | 131-0760-00 |

Insertion Force, average 10 pieces:

| <u>Initial</u> | <u>After 20 cycles</u> |
|----------------|------------------------|
| 13.5 oz | 11.1 oz |

Withdrawal Force, average 10 pieces:

| <u>Initial</u> | <u>After 20 cycles</u> |
|----------------|------------------------|
| 9.2 oz | 9.0 oz |

Resistance thru connector, crimp to mating pin:

2 m Ω approximately

Current carrying capability and minimum force to remove wire from crimp:

| <u>TEK P/N</u> | <u>Wire size, AWG</u> | <u>Max. Current</u> | <u>Crimp Tensile Strength</u> |
|----------------|-----------------------|---------------------|-------------------------------|
| 131-0708-00 | 32 | | 1.5 lbs. |
| | 28 | | 4.7 " |
| 131-0707-00 | 26 | 4.5 Amps | 7.5 " |
| | 22 | 5.5 Amps | 19.5 " |
| 131-0760-00 | 20 | To be evaluated | 32.5 " |
| | 18 | To be evaluated | 37.5 " |

Mechanical Cycle Life:

25 insertion and withdrawal cycles

Environmental Test Results:

After 25 insertion and withdrawals, a 10 day humidity exposure and sulfide test exposure, contact resistance will change no more than 1 milliohm.

For further information or evaluation of a special configuration contact me at Ext 414.

-Gary Virgin