

**HV JUICE** 



# CLEAR LENS LIFT FRONT HOOD PAGE 3

The Future is

**14064-1** 

**14001** 



GDEL

# LV Live Work Mats by Balmoral PAGE 2

www.transnet.co.nz

40 CAL/CM2

# ALLIED INSULATORS AIRBREAK SWITCHES PAGE 4

This Issue

10KV INSULATION TESTER

RSES SCREENED SEPARABLE ELBOWS

100% NEW PAGE 7

# **DOING LIVE WORK?**



#### **BALMORAL INSULATING MATS & COVERS**

#### **Features**

- EPDM Rubber or PVC material options
- Dual colour material safety options available
- Ground covers are non-slip & flexible
- PVC style line covers have crease to conform to line
- Meets all relevant international standards
- Weather resistant
- Stamped & rated to comply with Australian & International Standards
- Off-cuts in the manufacturing process are recycled into firehose when possible

#### **HELMET WITH INTEGRATED FACE SHIELD**

The ErgoS Intec power is a helmet with integrated face shield to protect its wearer from getting burned in case of an arc flash incident. It is a very ergonomic solution for all day work

#### **Features**

- Premium anti-fog coating
- Helmet useable until -40°C
- Arc Protection Classification ASTM F2178, ATMV - 28 cal/  $\rm cm^2$
- Colour Reproduction Index/ Optical Class >93%/Klasse 1
- Durability 4 years

#### balmoral® engineering

### MARIGOLD RUBBER INSULATING GLOVES

#### **Features & Benefits**

- Pure latex gloves manufactured under ISO 9001 & ISO 14001
- Dual layer construction
- Certified to EN 60903
- Also available in ASTM D120 •
- Ergonomically shaped
- Excellent strength & durability •
- Supreme feel & flexibility •
- Manufactured without the use of solvents & hazardous chemicals

Glove Size	Nominal Hand Circumference			
7	7 inches	178 mm		
8	8 inches	203 mm		
81⁄2	8½ inches	216 mm		
9	9 inches	229 mm		
91⁄2	9½ inches	241 mm		
10	10 inches	254 mm		
101⁄2	10½ inches	267 mm		
11	11 inches	279 mm		
Tolerance = +/- 13 mm				
*Allow an extra half inch if using				
cotton inners				

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- Low temperature, acid, & ٠ ozone resistant
- Leather overgloves also available
- Chlorinated for easy donning & duffing
- Straight, contour & bell cuff styles available
- Arc Flash certified

#### How To Order





A - Glove Type: RIG (Rubber Insulating Glove) B - Class: 00/0/1/2/3/4

- C Length: 11/14/16/18 (inches)
- D Colour: R/Y/YB/BY (Red, Yellow, Yellow under Black, Black under Yellow)
- E Cuff: S/C/B (Straight, Contour, Bell)
- F Size: 7/8/8H/9/9H/10/10H/11 (H= 1/2 sizes)

	Class Colour	Max Use* Voltage AC/DC	Illustrative Labelling	
	00 BEIGE	500/750	ANSI ASTM D120 EN60903 MAX USE 500 V AC TYPE 1 <b>10</b> CLASS 00	
8 9 10 1 1 1 1 m 2	0 RED	1,000/1,500	ANSI ASTM D120 EN60903 MAX USE 1,000 V AC TYPE 1 <b>10</b> CLASS 0	
	1 WHITE	7,500/11,250	ANSI ASTM D120 EN60903 MAX USE 7,500 V AC TYPE 1 <b>10</b> CLASS 1	
	2 YELLOW	17,000/ 25,500	ANSI ASTM D120 EN60903 MAX USE 17,000 V AC TYPE 1 <b>10</b> CLASS 2	
Glove Length	3 GREEN	26,500/39,750	ANSI ASTM D120 EN60903 MAX USE 26,500 V AC TYPE 1 <b>10</b> CLASS 3	
280 mm (11 inch) 360 mm (14 inch)	4 ORANGE	36,000/ 54,000	ANSI ASTM D120 EN60903 MAX USE 36,000 V AC TYPE 1 <b>10</b> CLASS 4	
400 mm (16 inch)	Insulating Gloves and Sleeves must have a colour coded label to meet appropriate ASTM Specifications.			
460 mm (18 inch)	*Max Usage Voltage when worn with leather protectors			



# **ARC FLASH PROTECTION - LIFT FRONT HOOD**

![](_page_2_Picture_1.jpeg)

![](_page_2_Picture_2.jpeg)

# OEL LIFT FRONT HOOD WITH CLEAR LENS – 40 CAL

# FEATURES

6

- Innovative design
- Extended peripheral vision
- Permanent clear
- Permanent anti-fog
- Highly transparent
- Lift front design
- Indirect ventilation
- Made In America
- Advanced Colour Differention Technology
- Lightweight polycarbonate material
- Meets CSAZ462, NFPA 70E, ASTM 1506-2001 and OSHA 1910-269 requirements

The 40 Cal clear lens lift front hood maximises the ATPV (Arc Thermal Protection Value) of 40 Cal/cm<sup>2</sup> with a grey colour providing excellent field of view and an ergonomic assembly that is convenient for the worker.

OEL Arc Rated clothing is built from the highest grade of FR textiles in the USA and meets all relevant international standards. OEL offers a superior product to its competition. Rest assured that you and your employees are taken care of.

OEL Arc Rated clothing is available in Switchgear Hoods, Coveralls, Jacket & Bibs, and Long (50") Coats, in sizes S to 5XL from 12 Cal up to 74 Cal.

VIEW THE FULL RANGE ON OUR WEBSITE

![](_page_2_Picture_20.jpeg)

![](_page_2_Picture_21.jpeg)

The Future is

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# **ALLIED INSULATORS AIRBREAK SWITCHES**

![](_page_3_Figure_1.jpeg)

Problems with insulators breaking? Fix with proven durable UK designed & manufactured ABS

Possibly the fastest and easiest ABS to install on the NZ market today Ground mounted handles or adjustable to any height on your pole

Plain break arcing horns or load break interrupter head options available Available in all voltages 12kV-36kV and ratings up to 630A

Manufactured and tested in accordance with IEC30265-1, IEC60694, IEC 62271, BSEN60129, and ENATS 41-36

Easy retrofit for replacement of standard NZ ABS on double crossarms

-

Extra wide clearance when open - no issues with MAD when earthing deenergised side of the ABS

Meets requirements of ENA Engineering Recommendation G18

Operational Category (ENA Engineering Recommendation G18)

CAT 2 CAT 0

Recommendation G18)			
MECHANISM	DEPENDENT INDEPENDEN MANUAL MANUAL		
ARC CONTROL	ARCING INTERRUPTER HORNS HEADS		
RATED CONTROL (UR)	11KV/36V		
NUMBER OF PHASES	3		
FREQUENCY (F)	50/60HZ		
RATED NORMAL CURRENT (LR)	20A	630A	
RATED PEAK WITHSTAND CURRENT (LP)	4	0KA	

![](_page_3_Picture_14.jpeg)

![](_page_3_Picture_15.jpeg)

Made in the UK

Assembled & customised to your specifications in NZ

![](_page_3_Picture_18.jpeg)

![](_page_3_Picture_19.jpeg)

More questions? Contact your TransNet rep or our office on 0800 442 182 to book an on site demonstration.

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#### sales@transnet.co.nz

#### www.transnet.co.nz

# **ESSENTIAL TEST & MEASUREMENT**

![](_page_4_Figure_1.jpeg)

## **DUSPOL CONTINUITY TESTER**

# **KEY FEATURES**

- Direct display without activating a pushbutton – high-resistance test
- Load connection via pushbutton low-resistance test
- Continuity test via buzzer and LED and/or LCD
- Vibration alert in tester handle
- Illumination of measuring point
- Rugged housing with rubberized grip
- Impact resistant, dust-tight and splashing water protected housing (IP64)

# **MEASUREMENT FEATURES**

- Single pole phase test
- Voltage indicator

# GOSSEN METRAWATT

- Continuity test
- Polarity test

![](_page_4_Picture_17.jpeg)

# **MI3210 TERAOHM XA 10KV INSULATION TESTER**

The MI3210 is a portable battery or mains powered test instrument with excellent IP protection, intended for diagnosing of Insulation Resistance by using high DC test voltages of up to 10 kV. Because of its robustness and high immunity to radiated RF fields it is best suited for industrial environment.

#### **KEY FEATURES**

- Insulation resistance up to 20  $T\Omega$
- Adjustable test voltage (50V...10kV) 50V & 100V step
- Capacitance measurement
- Charging rate for capacitive load < 3 s / µF at 10kV
- Automatic discharge of test object after completion of measurement
- Guard terminal
- High voltage breakdown detection
- Results in numerical & graphical form
- PC software HVLink PRO downloading & analysing of results & report printing
- Isolated RS232 & USB communication ports, BT interface

![](_page_4_Picture_31.jpeg)

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#### **MEASURING FUNCTIONS**

- Insulation Measurement
- Diagnostic Test (PI, DAR, DD)
- Step Voltage Test
- Mains & rechargeable battery power supply

![](_page_4_Picture_37.jpeg)

#### **VIEW FULL SPECIFICATIONS**

![](_page_4_Picture_40.jpeg)

www.transnet.co.nz Keyword MI3210

www.transnet.co.nz

# **RAYCHEM COLD APPLIED JOINTS & TERMINATIONS**

![](_page_5_Picture_1.jpeg)

![](_page_5_Picture_2.jpeg)

CATJ joints offer a reliable, robust and easy-to-install full cold applied transition jointing system to assure and maintain high network reliability. The key components are pre-expanded allowing a very short parking length during cable preparation and fast installation. Paper cables are sealed with oil blocking silicone tubing and oil-blocking material. The high performance material properties in combination with pressure tapes provide reliable sealing and protection against oil and water. A silicone rubber joint body

# CATJ COLD APPLIED JOINTS FOR 3-CORE PAPER & POLYMERIC INSULATED CABLES

with integrated geometrical stress cones and Faraday cage provides excellent electrical performance. Raychem CATJ cold applied transition joints are designed to cover a wide range of applications and to accommodate the variety of cable and conductor types in the networks. Rangetaking mechanical connectors are supplied with the kit, ensuring reliable installation and service.

#### FEATURES

- Entirely cold-applied solution with cold shrinkable silicone joint body and oil-blocking materials
- Novel crutch filling and core sealing materials providing high-quality oilblocking properties

- Electrical stress control of the screen cut area by integrated conductive geometrical stress cones
- Electrical stress control of the connector area by an integrated screened connection area (Faraday cage)
- Well known and easy to install holdout system
- Proven solderless shield continuity concept
- Exceeds CENELEC HD 629.2 requirements which include IEC, BS, VDE and other international standards like IEEE-404
- Mechanical shear bolt connector to IEC 61238-1 supplied with the kit

![](_page_5_Picture_15.jpeg)

These cold shrink terminations are made from a high performance, liquid silicone material specially formulated for excellent tracking and split resistance. The extra-long silicone stress cone is integrated within the termination to ensure correct positioning.

#### FEATURES

- Easy to install spiral holdout
- Integrated sealing mastic
- Outstanding weathering, UV & Ozone Resistance
- Chemically resistant
- Resistant to fungi
- Excellent electrical properties, with good tracking resistance & high dielectric strength
- Electrical stress control of the screen cut area using integrated conductive geometrical stress cones
- Hydrophobic (water-repellent)
- Non-flammable
- Self-extinguishing
- Wide temperature range -45 to +150°C

# CSTI/CSTO Cold Shrink Terminations for Polymeric Insulated Cables

- Mechanical shear bolt lug & compression lug to IEC 61238-1 can be supplied
- CENELEC HD 629.1.S2, requirements which include IEC, BS, VDE & other international specifications, IEEE-48
- Manufacturing site ISO 9001 & ISO 14001 qualified

#### BENEFITS

- Pre-expanded termination body with integrated stress control deflector & sealing mastic
- Single piece silicone termination body with optimal mechanical expansion ratio allows a wide application range
- Moisture sealing at the lug is integrated no additional sealing tapes
- Well-known and easy-to-install holdout system, rip cord pulling direction towards the lug not the bottom of the termination
- Easy to install in tight switchgear compartments

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Ravchem

from TE Connectivity

# **RAYCHEM SCREENED SEPARABLE ELBOWS**

![](_page_6_Figure_1.jpeg)

# **RSES SCREENED ELBOW SEPARABLE CONNECTORS**

#### FOR INTERFACE A (EN 50180/EN 50181): 250A **UP TO 24 kV WITH INTEGRATED SEALING**

#### **FEATURES**

- Wide range taking
- Mechanical shearbolt cable lugs included
- Hybrid material design for excellent mechanical and electrical performance
- Reliable operation even under harsh environmental conditions
- Can be sheath tested without removal from cable or switchgear
- Screened connector body for improved safety
- Molded cable adapter with integrated

TE's Raychem Screened Elbow Separable connectors RSES are designed to connect single-core polymeric cables to medium voltage gas insulated switchgears and other equipments using bushings type "A" (according to EN 50180/EN 50181) specified for 250A continuous current. The RSES connectors are compliant with CENELEC HD 629.1 S2 02/2006+A1:2008. and tested for a system voltage up to 24 kV.

Made of a combination of durable EPDM rubber for the outer body and highly modified silicone rubber for the inner insulation, RSES are equally suited for indoor and outdoor installations even in harshest environments while offering outstanding electrical performance. The separable connectors are screened by an earthed outer conductive layer that ensures a safe and reliable operation. Furthemore the improved cable adapter with integrated sealing enables a fast and easy installation.

Using mechanical shear bolt cable lugs,

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Ph

![](_page_6_Picture_15.jpeg)

sealing for easier installation

- Voltage Detection point (VD)
- Wire shield earthing accessories included

RSES are easy and quick to install while supporting a wide range of different cable cross sections (16-150 mm<sup>2</sup>). These RSES connectors are equipped with a capacitive Voltage Detection point (VD) to determine the presence of voltage in the cable network and Wire Shield Earthing Accessori

RSSS straight separable connectors are also available on request, please contact us for more information.

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ł	AC Voltage Withstand, 5 min		
	DC Voltage Withstand, 15 min		
	TE's RSES separable connector routine test procedure includin		

Cat No.	Connector Type*	Conductor Cross-Section (mm <sup>2</sup> )*			Diameter over
		12kV	17.5kV	24kV	(mm)
RSES-VD-525A-E	ELBOW	16**- 70	16**- 50	16**	15.3-25.0
RSES-VD-525B-E	ELBOW	95	50-95	25-95	21.9-28.5
RSES-VD-525C-E	ELBOW	95-150	70-120	70-95	15.3-25.0
RSES-VD-525D-E	ELBOW	-	120-150	70-150	21.9-28.5

\* Applicable for conductors acc. to IEC 60228 class 1, class 2 compacted and class 5 compacted. \*\* For Al class 1 & Cu class 5: 25mm<sup>2</sup>; For Cu class 1: 10mm<sup>2</sup>

VD = kit with voltage detection point

E = kit with wire shield earthing accessories

#### **Technical Data**

Conductor Cross Section Range	16-150MM <sup>2</sup>
Diameter Over Conductor (round, stranded)	4.6-15.0MM
Diameter Over Conductor (round, solid)	3.5-13.8MM
Cable Insulation Diameter Range	12.7-28.5MM
Maximum System Voltage	24KV
Continuous Current Rating	250A
Basic Impulse Level	125KV
Partial Discharge at $2U_0$	<3PC
AC Voltage Withstand, 5 min	57KV
DC Voltage Withstand, 15 min	76KV

's pass a 100% Withstand and Partial Discharge Test.

# Sustainability, Innovation & Infrastructure

# Fully Operational 150kW Microgrid

![](_page_7_Picture_2.jpeg)

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![](_page_7_Picture_15.jpeg)

![](_page_7_Picture_16.jpeg)

supply back to the grid when required.

![](_page_7_Picture_18.jpeg)

![](_page_7_Picture_19.jpeg)

![](_page_7_Picture_20.jpeg)

This Micro Grid is the only one of its kind in New Zealand and

EEA Conference & Events: 04 384 1511 | eea2019@confer.co.nz

# **EEA CONFERENCE 2019**

#### 26TH-27TH JUNE, SKYCITY CONVENTION CENTRE

We'll be located in the same position as last year in the middle of the exhibition hall (stands 76, 77, 84 & 85).
We're excited to have our supply partner TE Connectivity on the stand with us again and another supply partner – Ormazabal – have a stand this year just next to ours (stand 31 & 32), so be sure to check them out. They have a range of distribution network substation solutions.

As always, we'll have the latest innovations from our suppliers on show, be sure to stop by and check them out.

# EEA TRADE EXHIBITION PUBLIC VIEWING HOURS:

Wednesday 26th June, 9am – 12pm & 2pm – 5pm

Thursday 27th June, 9am – 12pm

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