



TECH Corner - Earthsets TEN GROUP

Commonly known as “PED’s or Portable Earthing Devices, Earthsets, Earthsticks, Earthing Devices” are devices attached to temporarily de-energised conductors or contact points and a known ground.

PED’s are safety devices that are type tested and manufactured to withstand the maximum fault current for the specific portion of the network being worked on in the event that the conductor or contact point is accidentally energised.



PED’s are designed so that they provide enough time, usually several milliseconds to carry fault current long enough for a circuit breaker or fuse to interrupt the flow of current. Consult your local regulatory utility authority for applicable legislative requirements. Always prove conductors are de-energised using an approved voltage detector before applying PEDs.

Earth sets supplied by TEN Group conform with IEC 61230.

PED’s are intended to carry fault current once. After being subjected to fault current they should be removed from service and destroyed.

References: IEC 61230, ASTM F855

Care & Maintenance

PED’s should be visually inspected before each use and cleaned regularly with a suitable cleaning product.

Ensure that bolted connections are still tight, clamps are operating correctly and that there is no damage to cable or joints.

Remove from service and tag accordingly any PED with visual defects such as:

- Extensively damaged sheath material, Nicks, Cuts or Cracks
- Badly Damaged or flattened cable
- Exposed or broken strands
- Swollen jacket or soft spots indicating internal corrosion
- Cracked or broken ferrules and clamps



PED’s should never be modified under any circumstance without the consent of the manufacturer. Components and assembly methods used are fault current type tested, so exact manufacturer specifications must be used at all times.

Storage

To prolong the life of your PED’s they should be:

- Neatly coiled in a protective carry bag
- Stored in a dedicated area away from sharp or heavy objects
- Stored in a cool dry area



TEN Group Australia

QLD : 2/186 Granite St
NSW : 6/15-17 Ace Cres
VIC : 12 Dunlopillo Dve
WA :

GEEBUNG 4034
TUGGERAH 2259
DANDENONG STH 3175
PERTH 6163

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P | F +61 2 4351 5400 | 5411
P | F +61 408 228 473
P | F +61 488 275 928

www.tengroup.com.au 1300 ASK TEN

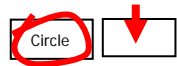
TEN Group New Zealand

NTH : 4/630 Great South Rd
STH :

Papatoetoe, AUCKLAND
Rangiora, CHRISTCHURCH

P | F +64 9 270 0007 | 0009
P | F +64 21 412 420

www.tengroup.co.nz 0800 ASK TEN



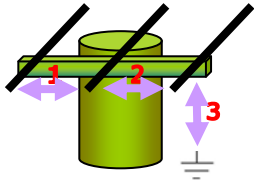
Network Properties (Enter Value)

Maximum Fault Current (kA) for Second Maximum Voltage (kV)

PED Assembly Type (Circle)

Drawing						
Description	3 Phase with Separate Downlead	3 Phase with Centre Attached Downlead	3 Phase Trifurcating Plate with Attached Downlead	Downlead Only, Single	3 Phase Linked Downlead	2 Phase, Jumper Earth

Cable Length Required (Enter Value)



Length of Cable (m) 1. Phase to Phase Length 2. Phase to Phase Length 3. Phase to Ground Length

Fill in cable length requirements as applicable. Always remember to nominate a slightly longer cable length than what is required, but remember not to add too much slack as this can cause the cable to flick out and injure workers under an unexpected fault condition.

Phase/Conductor Clamps to suit (Enter Value)

Overhead Conductor OD (mm)	Min	Max	Circular OD (mm)	Min	Max	Busbar Vertical (mm)	Thick	Busbar Horizontal (mm)	Thick	Fixed Ball Joint OD of Ball (mm)	20
	Al			Al			Width		Long		25
	Cu			Cu			Other				
	St		St								

Notes or if other, please provide details: _____

Phase/Conductor Clamp Fitting (Circle)

Snap On Shotgun Screw Up Bayonet Screw Up Rubber Handle Fixed Stick * Tee Handle

Notes: _____ * Fixed Stick Length (m) : _____

Downlead/Earth Tail Clamp to suit (Enter value)

Overhead Conductor OD (mm)	Min	Max	Circular OD (mm)	Min	Max	Busbar Vertical (mm)	Thick	Busbar Horizontal (mm)	Thick	Fixed Ball Joint OD of Ball (mm)	20
	Al			Al			Width		Long		25
	Cu			Cu			Other				
	St		St								

Notes or if other, please provide details: _____

Downlead/Earth Tail Clamp Fitting (Circle)

Tee Handle Rubber Handle Bayonet Screw Up Shotgun Screw Up Fixed Stick * Snap On

Notes: _____ * Fixed Stick Length (m) : _____

Contact me with information on these items (Ticks and Values)

Carry Bag	<input type="checkbox"/>	Specifications:	<input type="text"/>	Fixed Earthing Points	<input type="checkbox"/>
Stick/s	<input type="checkbox"/>	Min Height	<input type="text"/>	Earthing Stubs	<input type="checkbox"/>
Stick Type	<input type="checkbox"/>	Universal	<input type="checkbox"/>	Temporary Earth Rod Driver	<input type="checkbox"/>
Adaptors	<input type="checkbox"/>	Shotgun	<input type="checkbox"/>	Portable Earth Tester	<input type="checkbox"/>
		Bayonet	<input type="checkbox"/>		
			Kit	Y / N	
			Bayonet	<input type="checkbox"/>	
			Snap-On	<input type="checkbox"/>	
				Hex	
				Line Clamp	

Customer Details

Name: _____ Company Represented: _____

Street Address: _____ Suburb _____ State _____

Phone Office: _____ Mobile: _____ Fax: _____

Email: _____