ELASPEED™

Medium Voltage 3C PILC Transition Splice Kits

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ELASPEED™ 3C PILC Transition Splice

DESCRIPTION

Prysmian 3C Transition Splices are designed to give the reliability required when splicing three conductor paper lead cable (PILC) to three single conductor solid dielectric polymeric cables. The major cold shrink components of the splice kits are manufactured from specialty formulated EPR materials. These components when installed shrink uniformly to create a joint that not only can withstand high electrical stresses, but also performs well against highly physical stresses caused by internal oil pressure and extreme water pressure. Additionally, the trifurcating break out boot and splice jackets exhibit excellent resistance to abrasion. Prysmian Transition splice meets or exceeds IEEE 404 and covers voltages from 5kV to 28kV. Connectors can be supplied in the kit as required. Because of the variables covering many PILC cables, please contact Prysmian with cable details before making a final kit selection.

SPECIFICATIONS AND RATINGS:

- IEEE 404

Splice Kit Selection

The splice kit is assembled after considering the cable dimensions of the three core (3C) PILC cable, the solid dielectric polymeric cables, and the connector selected.

EXAMPLE: 25SIPJC-T3EF-NG-ALSB3

Splice Kit	—	Grounding Kit	—	Connector
↑		↑		↑
Table 1 Table 2		NG = None Table 3		NC = None Table 4

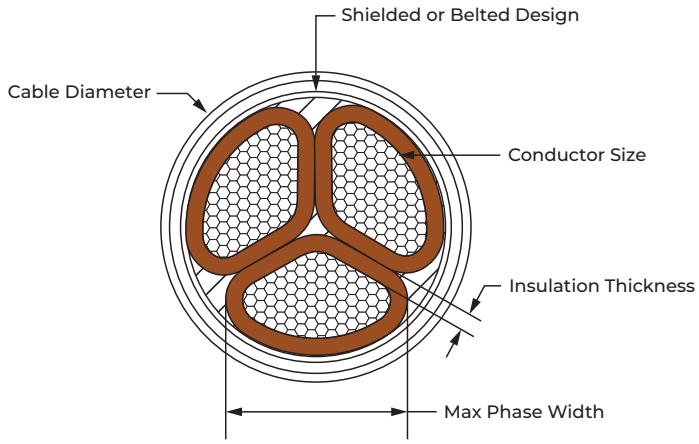
TABLE 1 – Splice Kit per 15kV Cables

		RANGES PER 15kV CABLES							
		3C PILC Cable		1C Solid Dielectric Cable			Connector Limits		
Catalog ID	Voltage Range	Round Cable Size	Sectored Cable Size	Cable Size	Insulation OD	Max Cable OD	Min Connector Diameter	Max Connector Diameter	Max Connector Length
15SEJC-T3AA	5-15kV	3/0 - 250	3/0 - 250	2 - 250	0.75" - 1.26"	1.496"	0.56"	1.10"	6.69"
15SFJC-T3BB	5-15kV	500 - 750	500 - 750	3/0 - 500	0.91" - 1.42"	1.890"	0.76"	1.30"	6.69"
25SHJC-T3DE	5-28kV	450 - 750	400 - 750	4/0 - 500	0.96" - 1.57"	1.969"	0.76"	1.46"	8.66"
25SIPJC-T3EF	5-28kV	650 - 1000	600 - 700	350 - 750	1.09" - 1.77"	2.244"	0.87"	1.65"	8.66"

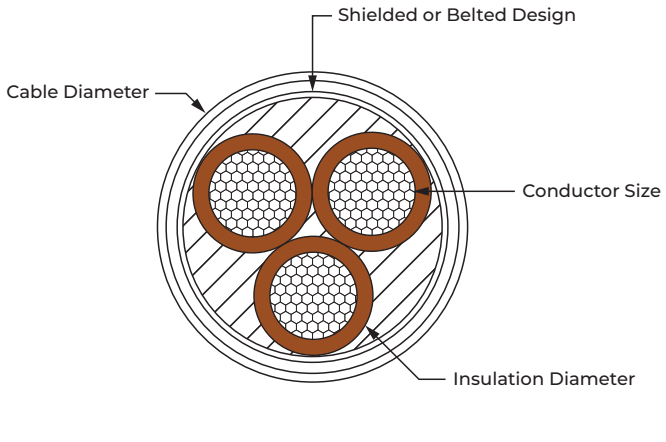
TABLE 2 – Splice Kit per 25kV Cables

		RANGES PER 25kV CABLES							
		3C PILC Cable		1C Solid Dielectric Cable			Connector Limits		
Catalog ID	Voltage Range	Round Cable Size	Sectored Cable Size	Cable Size	Insulation OD	Max Cable OD	Min Connector Diameter	Max Connector Diameter	Max Connector Length
25SHJC-T3DE	5-28kV	250 - 500	250 - 500	2/0 - 500	0.96" - 1.57"	1.969"	0.76"	1.46"	8.66"
25SIPJC-T3EF	5-28kV	400 - 800	400 - 650	250 - 750	1.09" - 1.77"	2.244"	0.87"	1.65"	8.66"

NOTE: 3C PILC cable ranges are conservative estimates based on calculations per AEIC CS1-90 and the 1C Solid Dielectric Cable ranges are based on calculations from ICEA S-94-649. For unique cable designs that deviate from the voltage this table was based on, please contact your Prysmian representative for assistance. There are several parameters in a 3C PILC Cable design that can impact its dimensions. If you do not have access to a cable specification, obtain a cable sample and take measurements using calibrated calipers (see images below).



SECTORED CONDUCTOR



ROUND CONDUCTOR

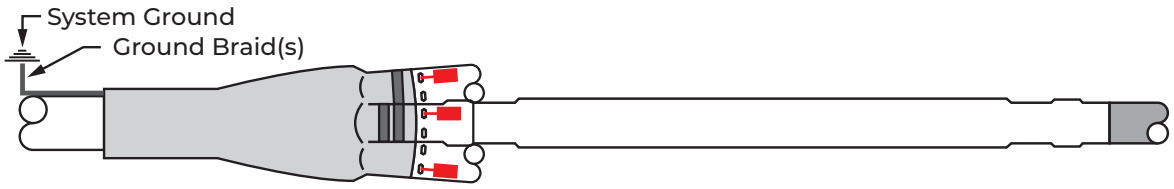
Splice Kit Selection

EXTERNAL GROUNDING ADD-ONS:

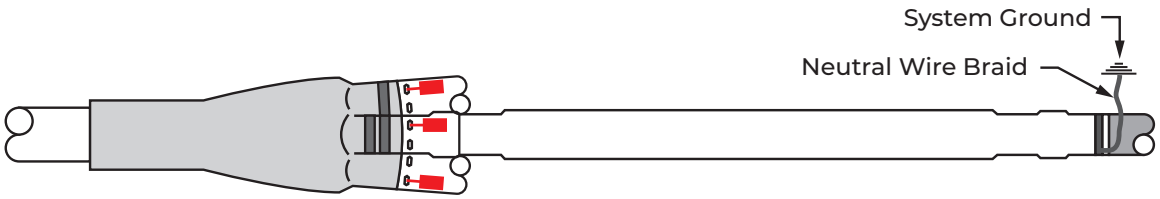
Prysmian Elaspeed Splice is a fully integrated splice that can be left internally grounded or externally grounded. External grounding options will depend on the cable neutral shield. If you are working with Jacketed Concentric Neutral or Flat Strap cable the neutrals can be pulled out of the splice and grounded. Alternatively ground braids can be utilized to externally ground the splice. Add the Ground Kit catalog ID to the kit designation. If no grounding kit add-on is needed use “NG”.

TABLE 3 – Grounding Kits

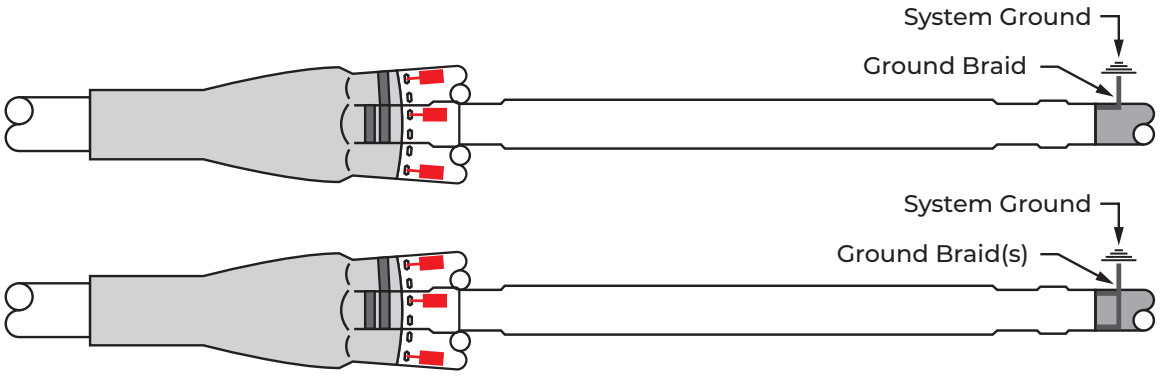
Catalog ID	Description	Braid Size	Ground Length	Install Option 1	Install Option 2
NG	No Grounding Kit Included	–	–	–	–
GB1200	One #2 AWG Ground Braid with Solder Block	#2 AWG	24”	1 at Lead Sheath / PILC Cable	–
GB3200	Three #2 AWG Ground Braids with Solder Block	#2 AWG	24”	3 at Lead Sheath / PILC Cable	1 Braid at Each Solid Diectric Cable
GB6200	Six #2 AWG Ground Braids with Solder Block	#2 AWG	24”	2 Braids per Solid Dielectric Cable	3 Braids at Lead Sheath / PILC Cable and 1 Braid at Each Solid Diectric Cable



External Grounding the PILC Cable with Ground Braid(s)



External Grounding the Solid Dielectric Cable with Neutral Wires



External Grounding the Solid Dielectric Cables with One or Two Ground Braids per Cable

Splice Kit Selection

SPLICE CONNECTOR ADD-ON:

The Prysmian Elaspeed Splice is compatible with a wide range of connectors available in the market so long as they meet the requirements of NOTE 3. Below are the recommended splice connectors Prysmian can supply with these kits. If no connector is to be included in the kit use “NC”, otherwise use the catalog ID listed in the table

TABLE 4 – Recommended Shear Bolt Connectors

Catalog ID	Round Conductor NOTE 1	Sector Conductor NOTE 2	Tooling	Splice Kits NOTE 3			
				15SEJC-T3AA	15SFJC-T3BB	25SHJC-T3DE	25SIPJC-T3EF
NC	–	–	–	–	–	–	–
ALSB1	#6 AWG – 3/0 AWG	#2 AWG – 1/0 AWG	5 mm Hex Key	X	X	X	–
ALSB2	#2 AWG – 250 kcmil	#2 AWG – 4/0 AWG	5 mm Hex Key	X	X	X	X
ALSB3	1/0 AWG – 500 kcmil	1/0 AWG – 500 kcmil	6 mm Hex Key	–	–	X	X
ALSB4	350 kcmil – 750 kcmil	350 kcmil – 500 kcmil	8 mm Hex Key	–	–	–	X

NOTE 1: Covers round solid, compact, compressed, and concentric conductor sizes.

NOTE 2: Refers to sector stranded 120° conductors. If you’re splicing a conductor with a different sector stranding, please contact your Prysmian Representative for guidance. If a sector cable is not compatible with a particular connector listed but meets the round conductor requirement, it is possible to round a sector conductor using specific dies.

NOTE 3: If using a connector not listed in this table, ensure that the connector selected meets the connector limits specified in Tables 1 and 2 and are designed for use with PILC cables. Using a connector without proper oil stop will compromise the joint.

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