



Año CXX Panamá, R. de Panamá jueves 02 de diciembre de 2021 N° 29427-A

CONTENIDO

AUTORIDAD NACIONAL DE LOS SERVICIOS PÚBLICOS

Resolución AN N° 17216-Elec
(De miércoles 27 de octubre de 2021)

POR LA CUAL SE APRUEBA LA CELEBRACIÓN DE LA CONSULTA PÚBLICA NO. 005-21-ELEC, PARA CONSIDERAR LA PROPUESTA DEL PLAN DE EXPANSIÓN DEL SISTEMA INTERCONECTADO NACIONAL CORRESPONDIENTE AL AÑO 2020-2034 (PESIN 2020), PRESENTADA POR LA EMPRESA DE TRANSMISIÓN ELÉCTRICA, S.A. (ETESA). ANEXO-XIII

ANEXO XIII

De la foja 2401 a la foja 2600

República de Panamá

AUTORIDAD NACIONAL DE LOS SERVICIOS PÚBLICOS

Resolución AN No. 17216-Elec

Panamá, 27 de octubre de 2021

“Por la cual se aprueba la celebración de la Consulta Pública No. 005-21-Elec, para considerar la propuesta del Plan de Expansión del Sistema Interconectado Nacional correspondiente al año 2020-2034 (PESIN 2020), presentada por la Empresa de Transmisión Eléctrica, S.A. (ETESA).”

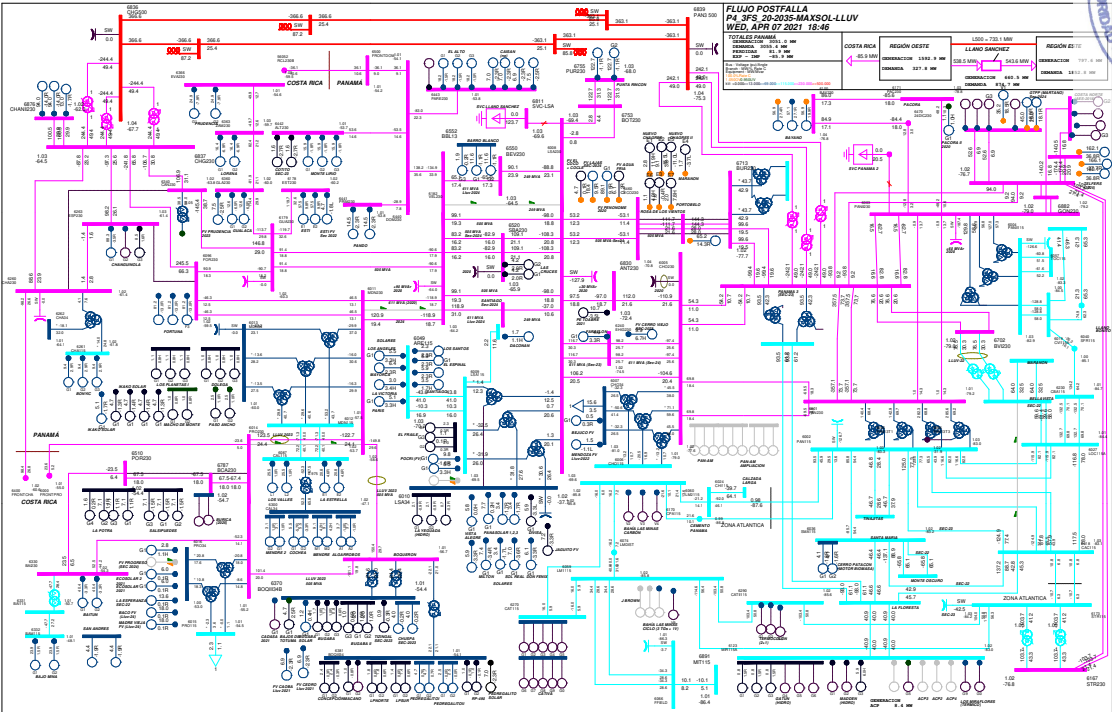


Gráfico 576. Evento P4_3FS, caso 20-2035-MaxSol-Lluv. Flujo postfalla

R

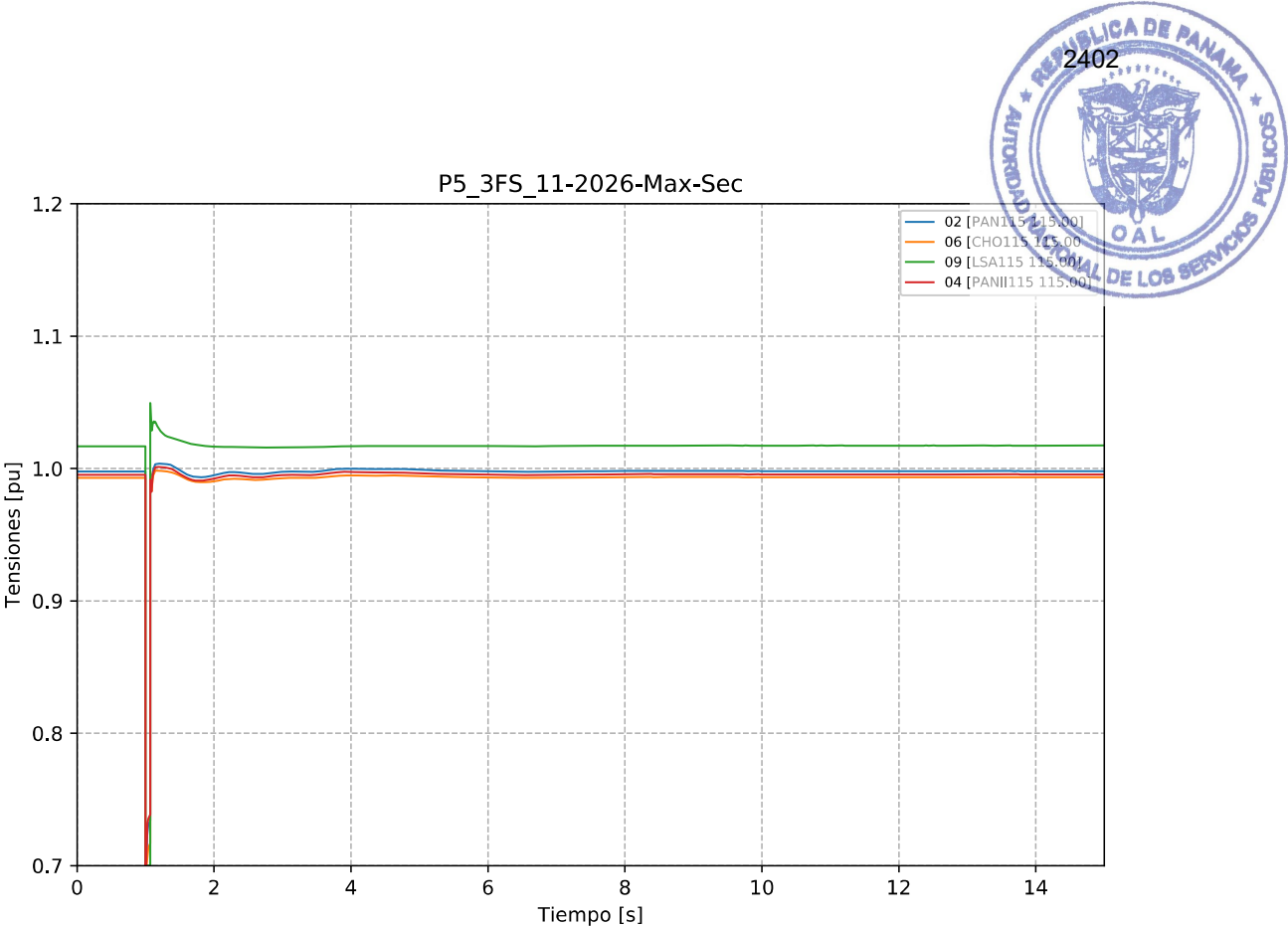


Gráfico 577. Evento P5_3FS, caso 11-2026-Max-Sec. Tensiones en la zona de influencia 115 kV.

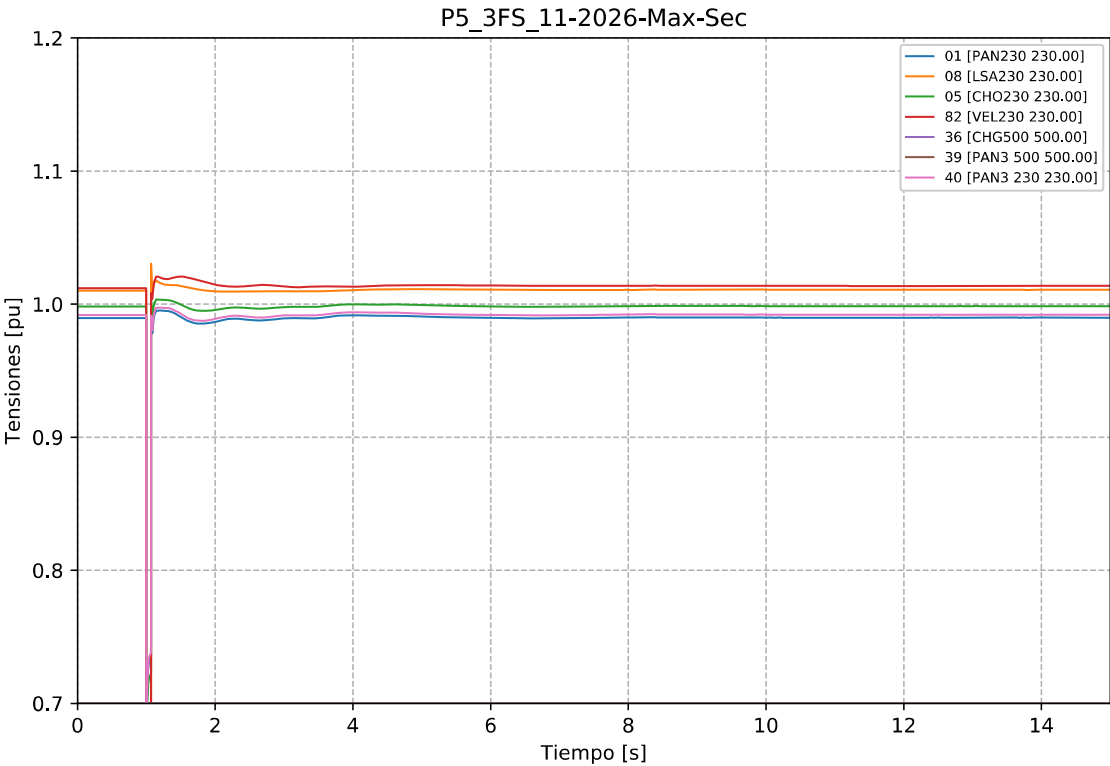


Gráfico 578. Evento P5_3FS, caso 11-2026-Max-Sec. Tensiones en la zona de influencia 230 kV.

AD

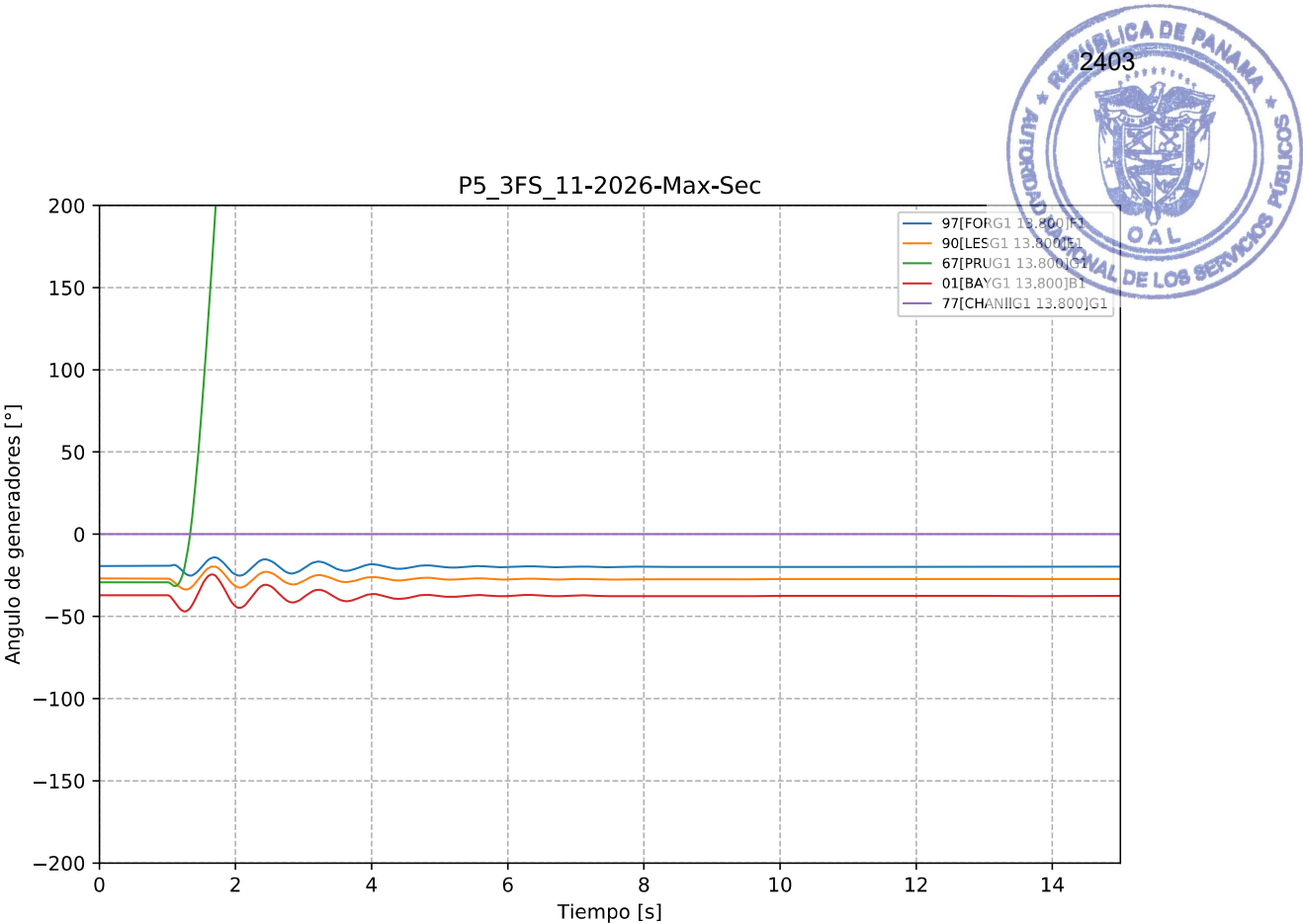


Gráfico 579. Evento P5_3FS, caso 11-2026-Max-Sec. Ángulo de Generadores Hidroeléctricos.

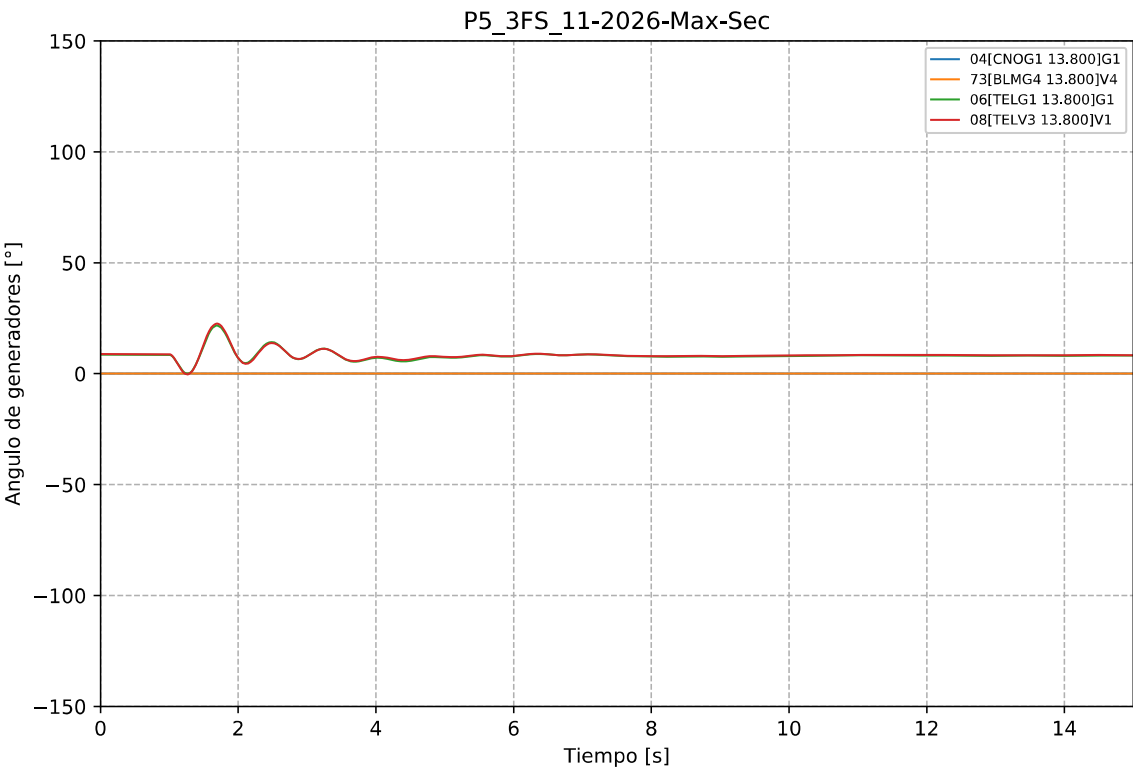


Gráfico 580. Evento P5_3FS, caso 11-2026-Max-Sec. Ángulo de generadores Térmicos.

AD

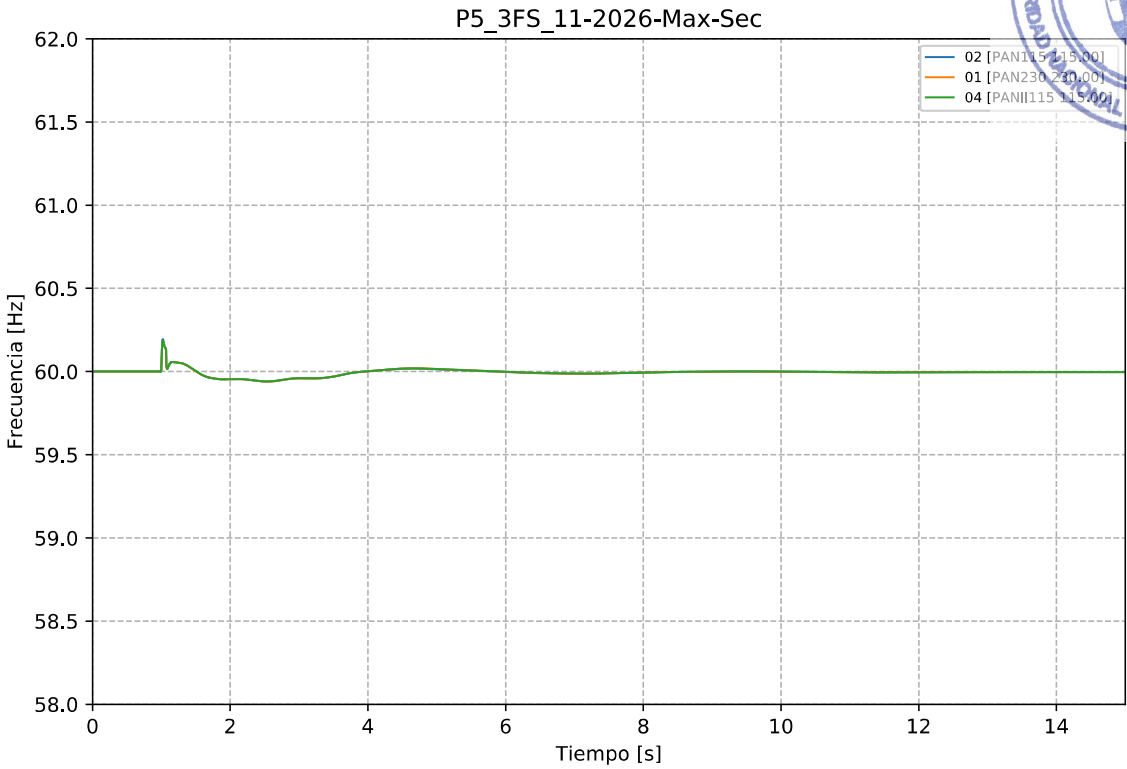


Gráfico 581. Evento P5_3FS, caso 11-2026-Max-Sec. Frecuencia.

AD

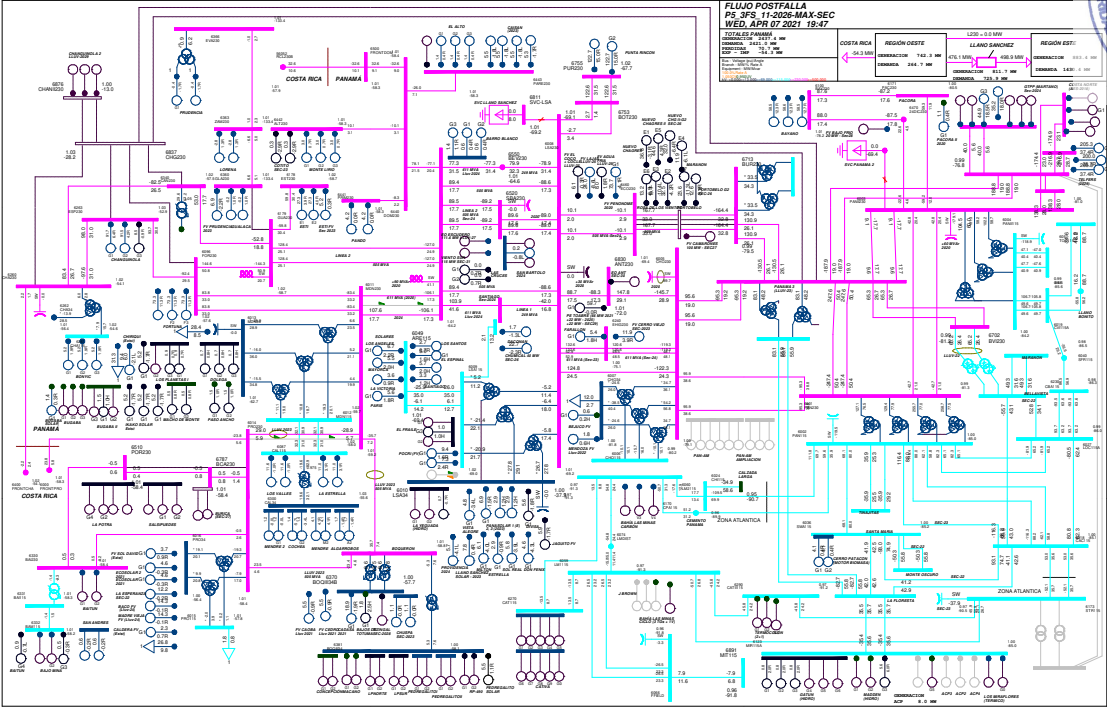


Gráfico 582. Evento P5_3FS, caso 11-2026-Max-Sec. Flujo postfalla

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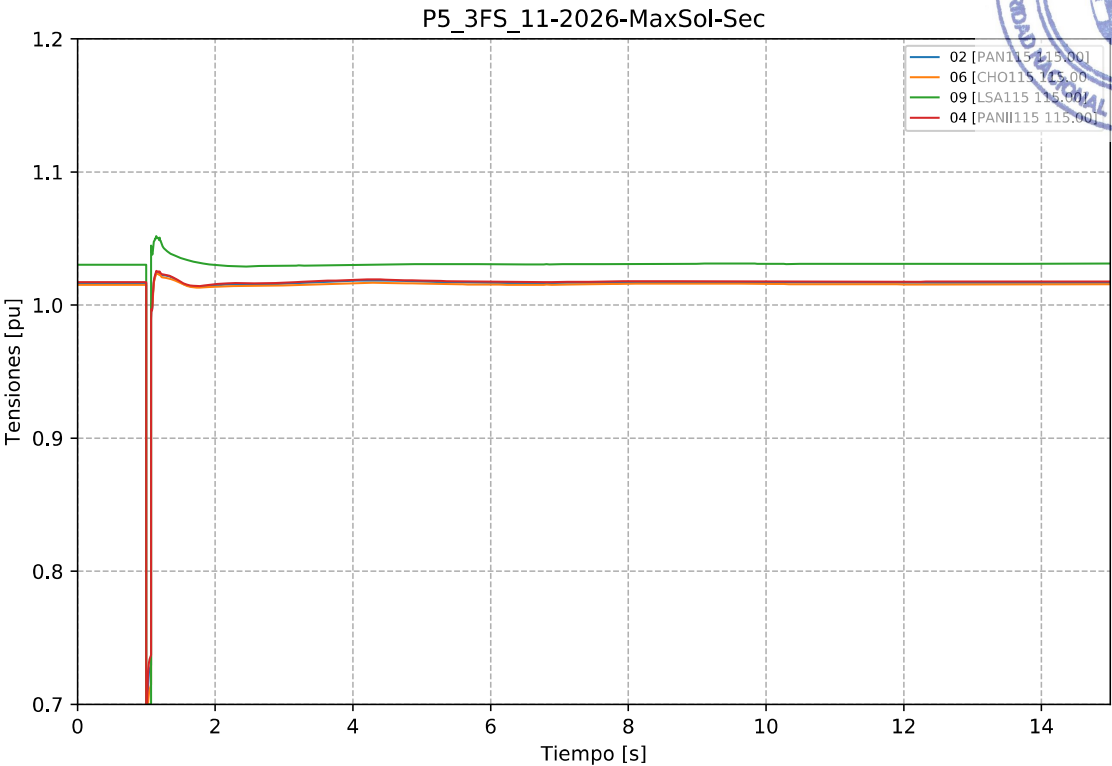


Gráfico 583. Evento P5_3FS, caso 11-2026-MaxSol-Sec. Tensiones en la zona de influencia 115 kV.

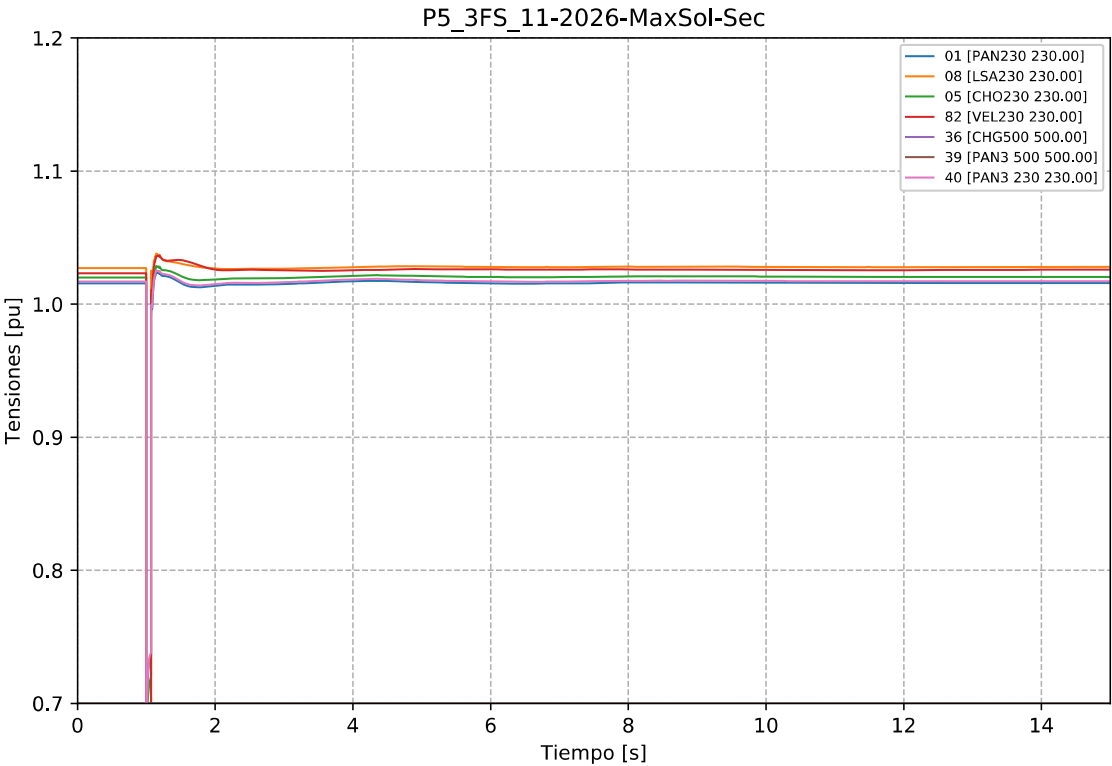


Gráfico 584. Evento P5_3FS, caso 11-2026-MaxSol-Sec. Tensiones en la zona de influencia 230 kV.

Handwritten signature or initials.

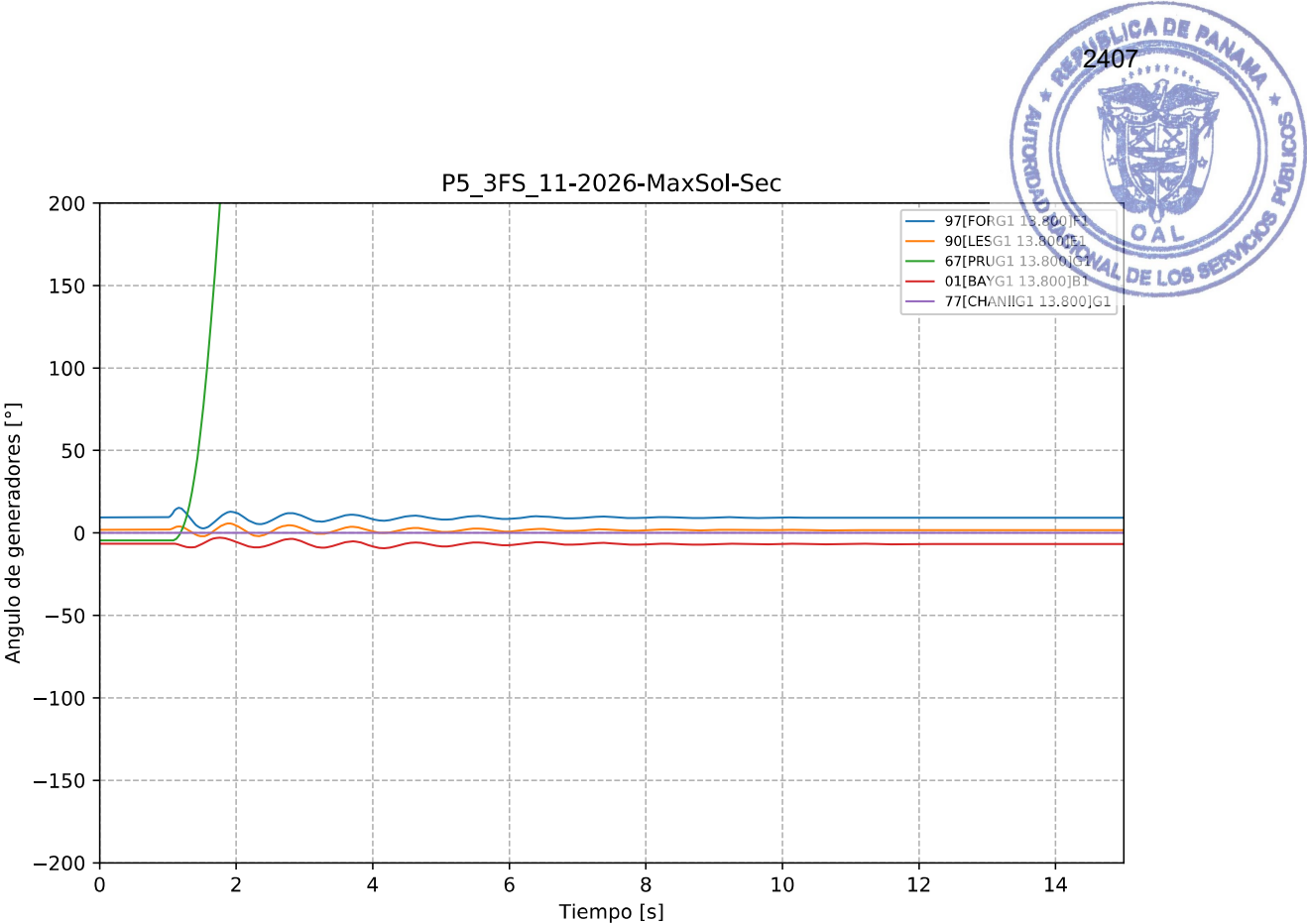


Gráfico 585. Evento P5_3FS, caso 11-2026-MaxSol-Sec. Ángulo de Generadores Hidroeléctricos.

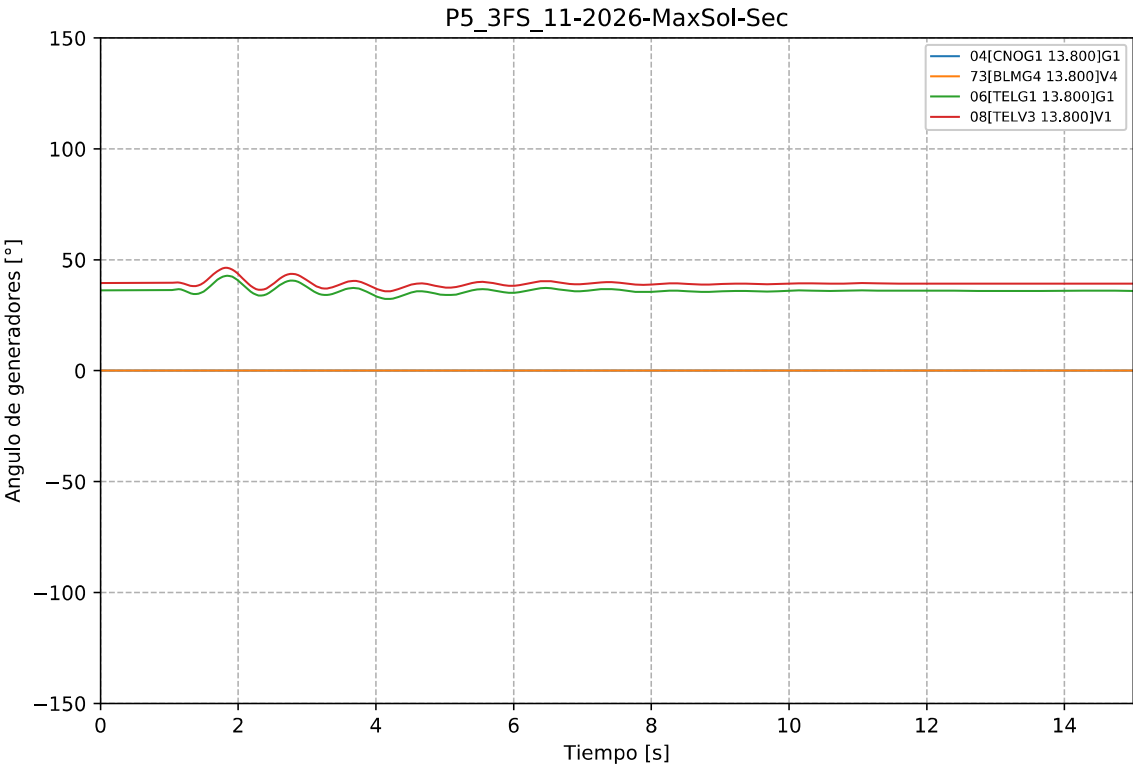


Gráfico 586. Evento P5_3FS, caso 11-2026-MaxSol-Sec. Ángulo de generadores Térmicos.

AD

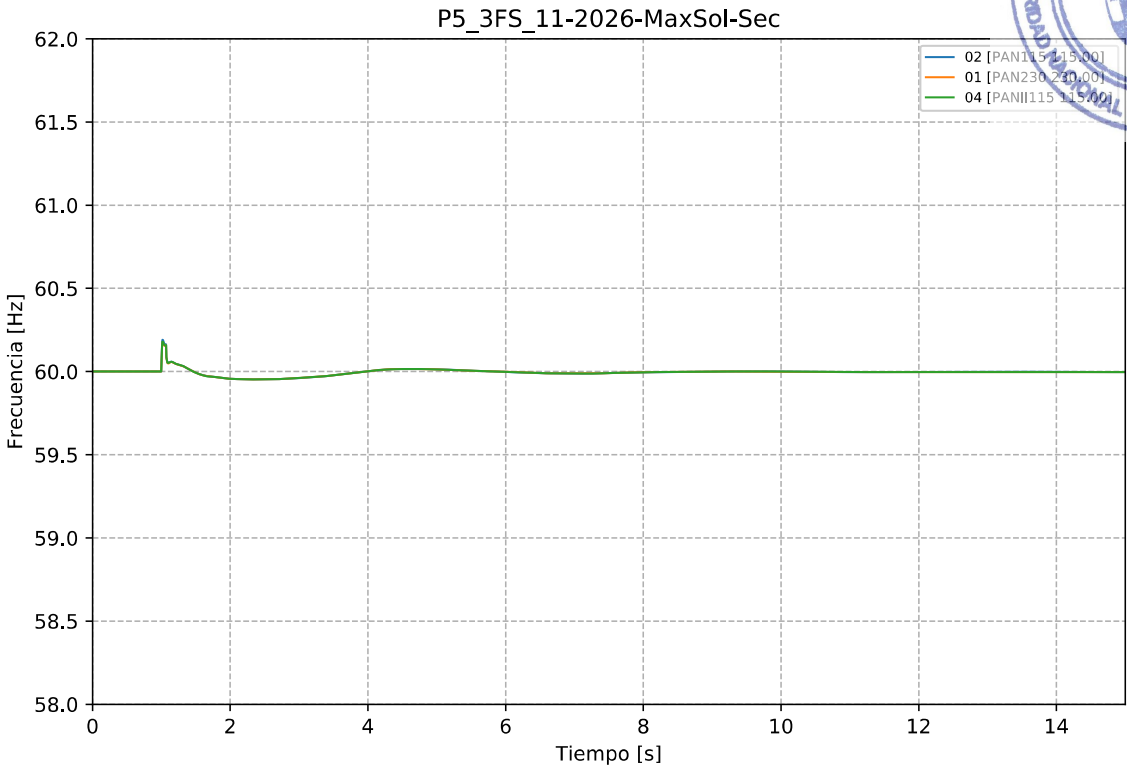


Gráfico 587. Evento P5_3FS, caso 11-2026-MaxSol-Sec. Frecuencia.

AD

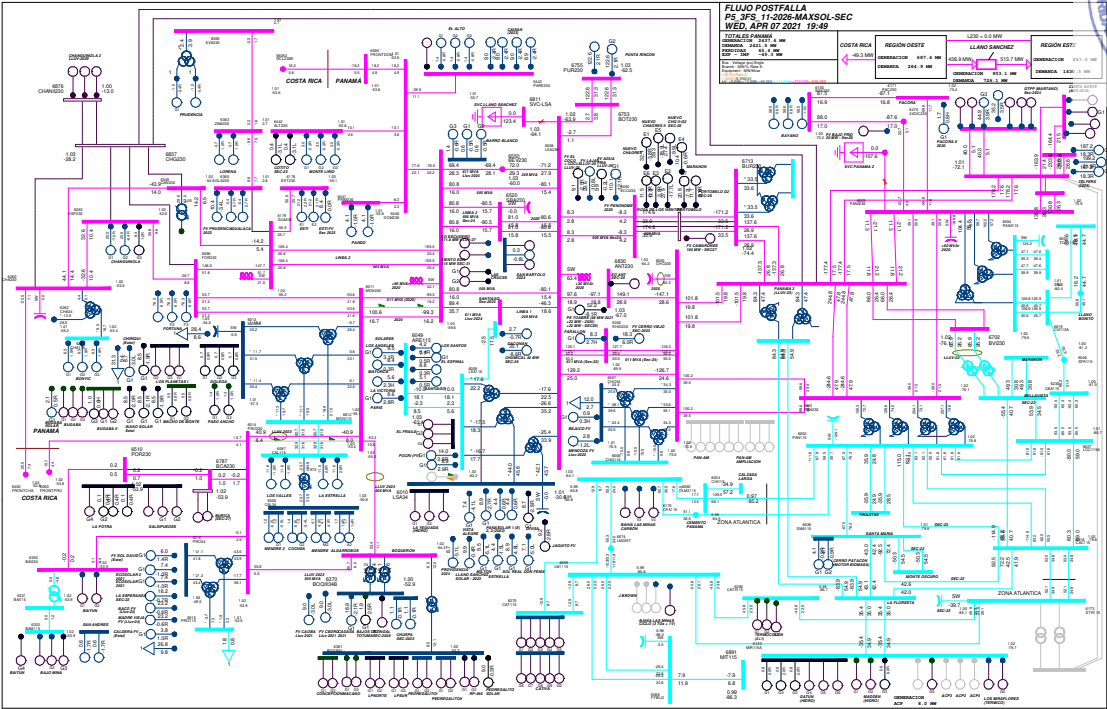


Gráfico 588. Evento P5_3FS, caso 11-2026-MaxSol-Sec. Flujo postfalla

R

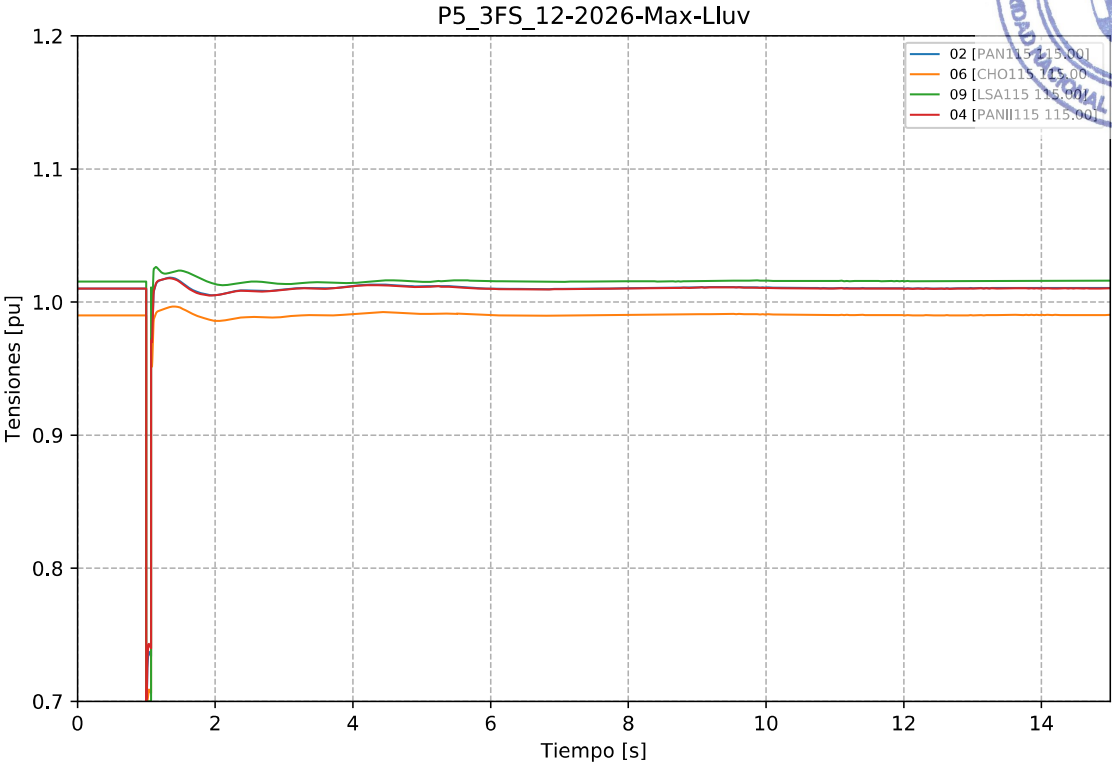


Gráfico 589. Evento P5_3FS, caso 12-2026-Max-Lluv. Tensiones en la zona de influencia 115 kV.

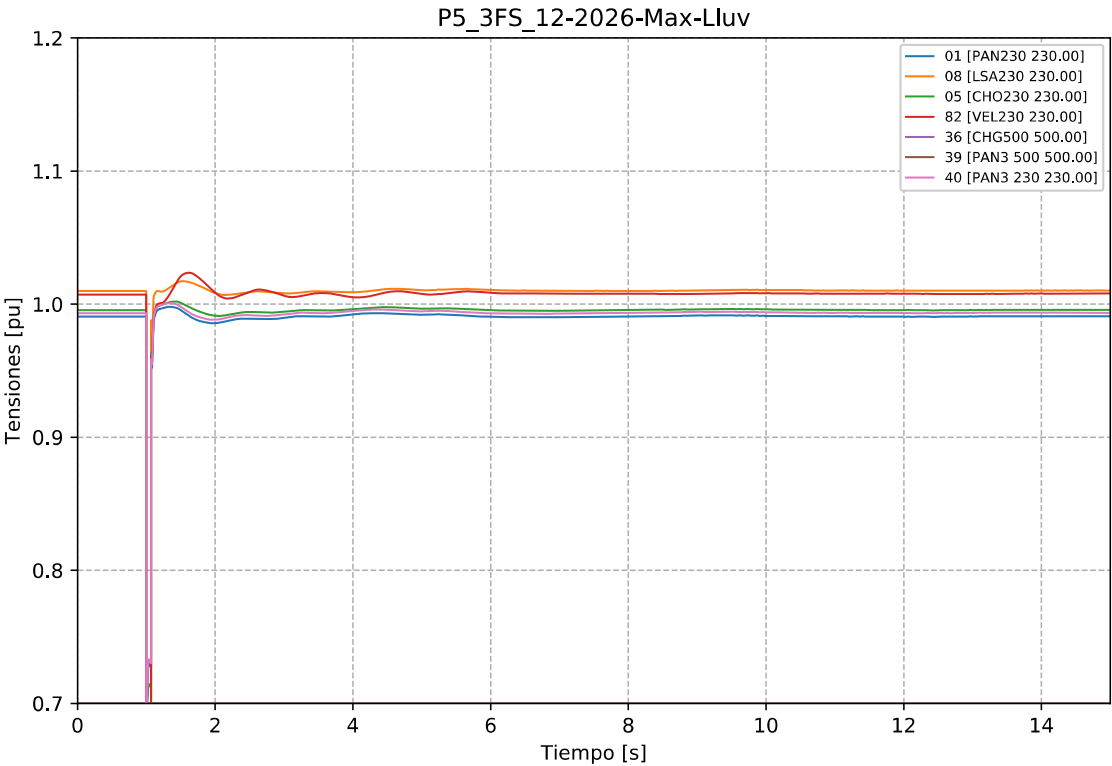


Gráfico 590. Evento P5_3FS, caso 12-2026-Max-Lluv. Tensiones en la zona de influencia 230 kV.

AB

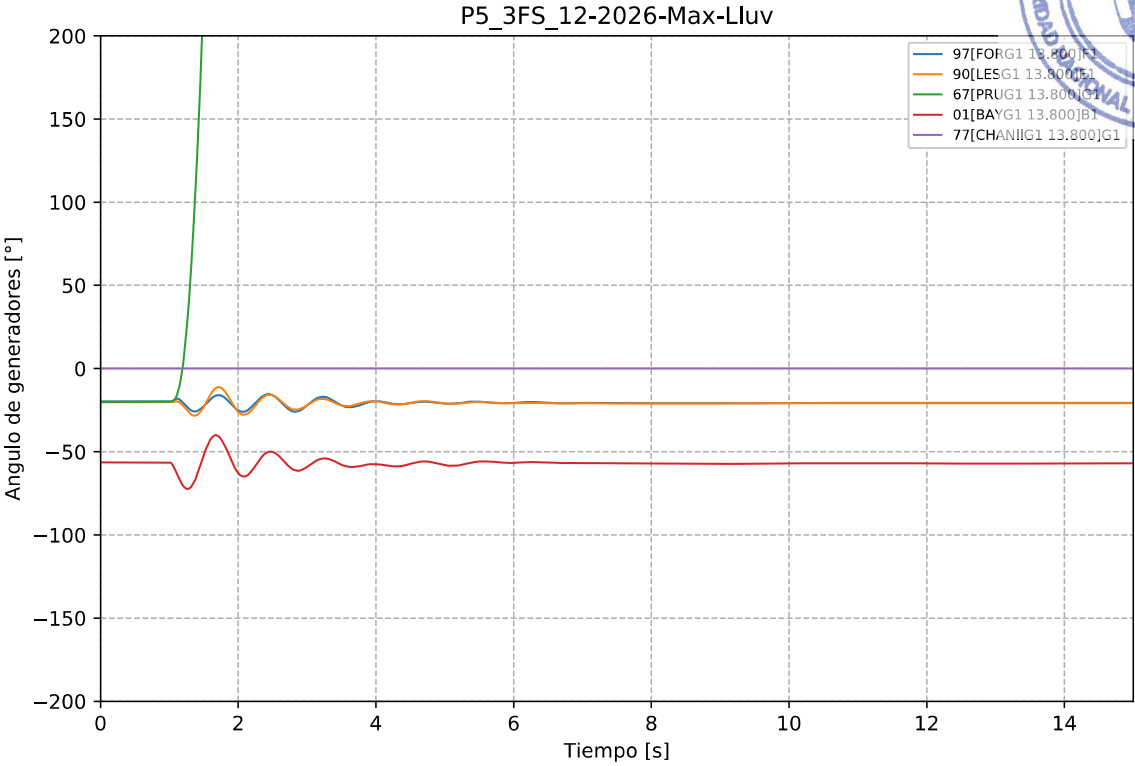


Gráfico 591. Evento P5_3FS, caso 12-2026-Max-Lluv. Ángulo de Generadores Hidroeléctricos.

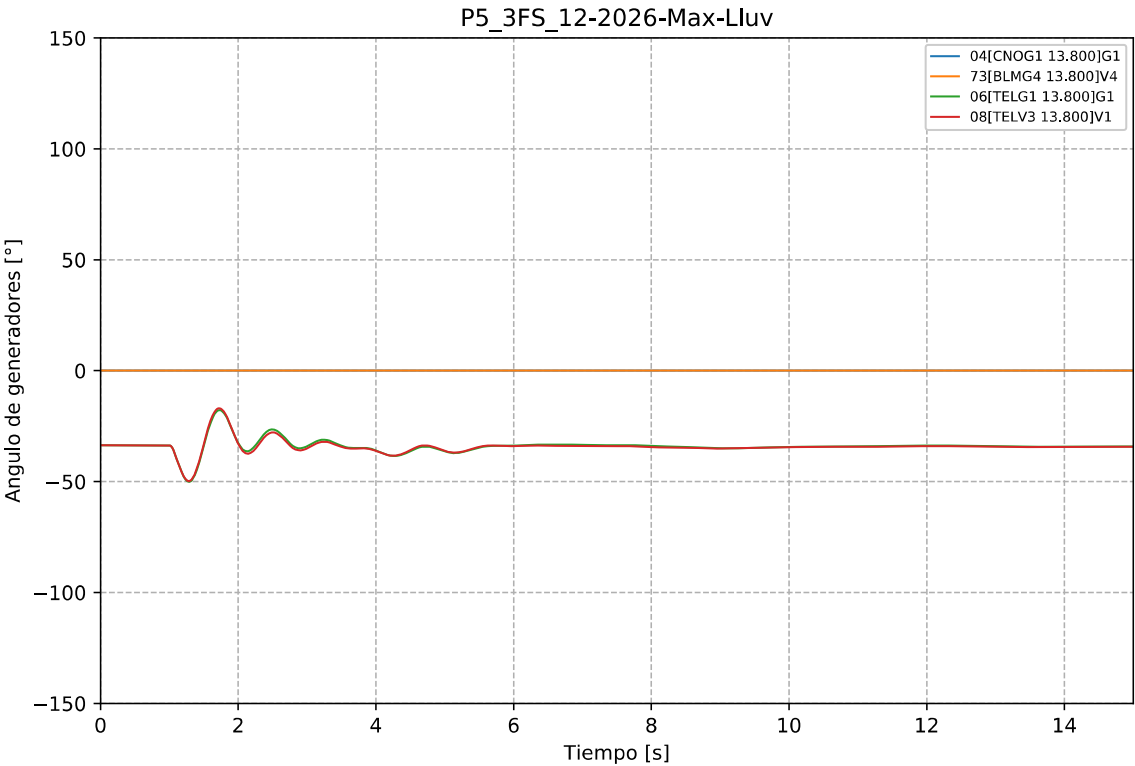


Gráfico 592. Evento P5_3FS, caso 12-2026-Max-Lluv. Ángulo de generadores Térmicos.

AD

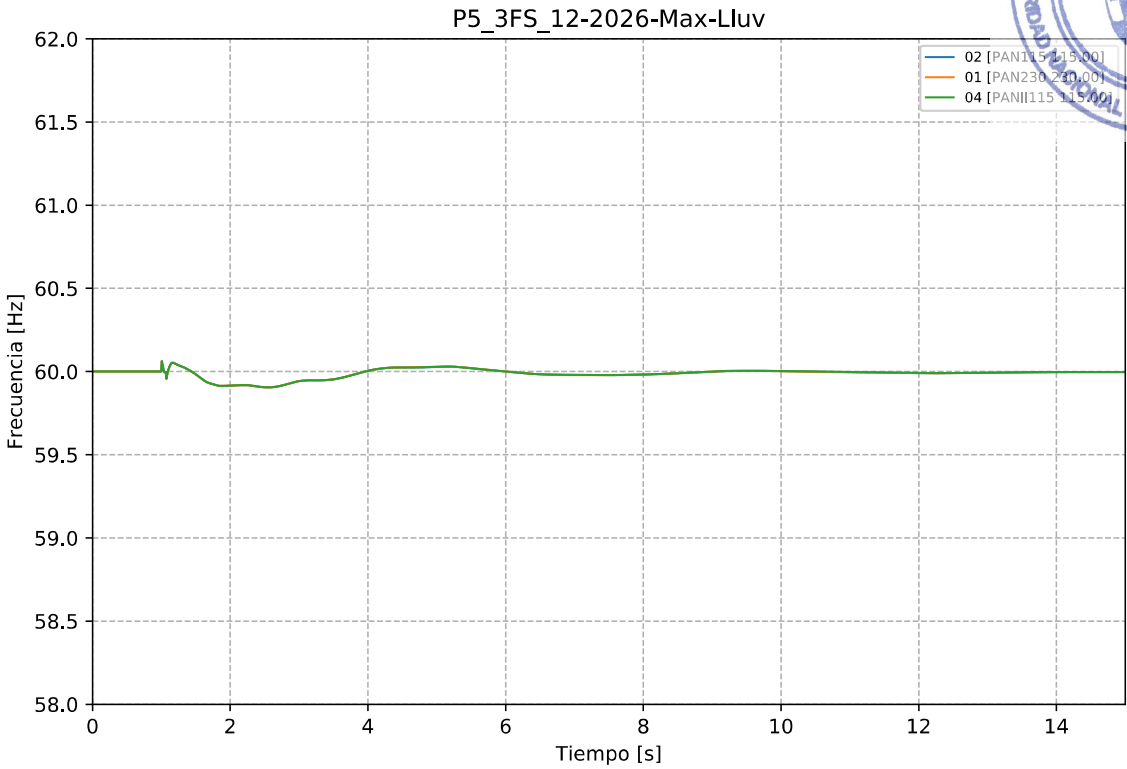


Gráfico 593. Evento P5_3FS, caso 12-2026-Max-Lluv. Frecuencia.

AD

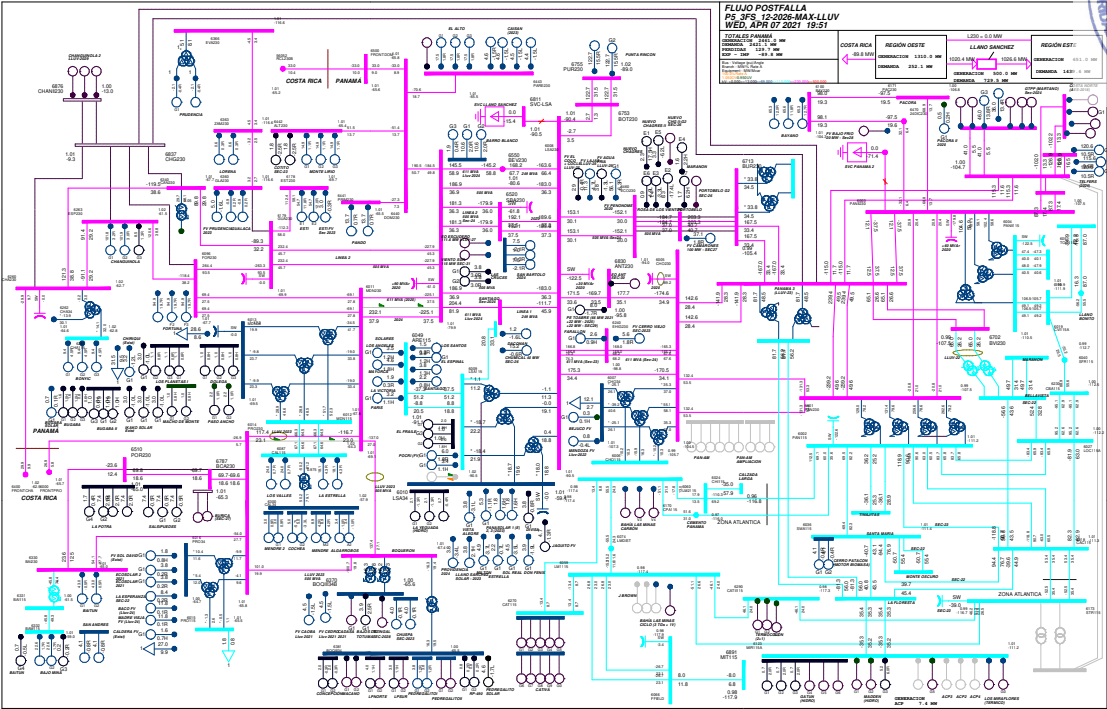


Gráfico 594. Evento P5_3FS, caso 12-2026-Max-Lluv. Flujo postfalla

R

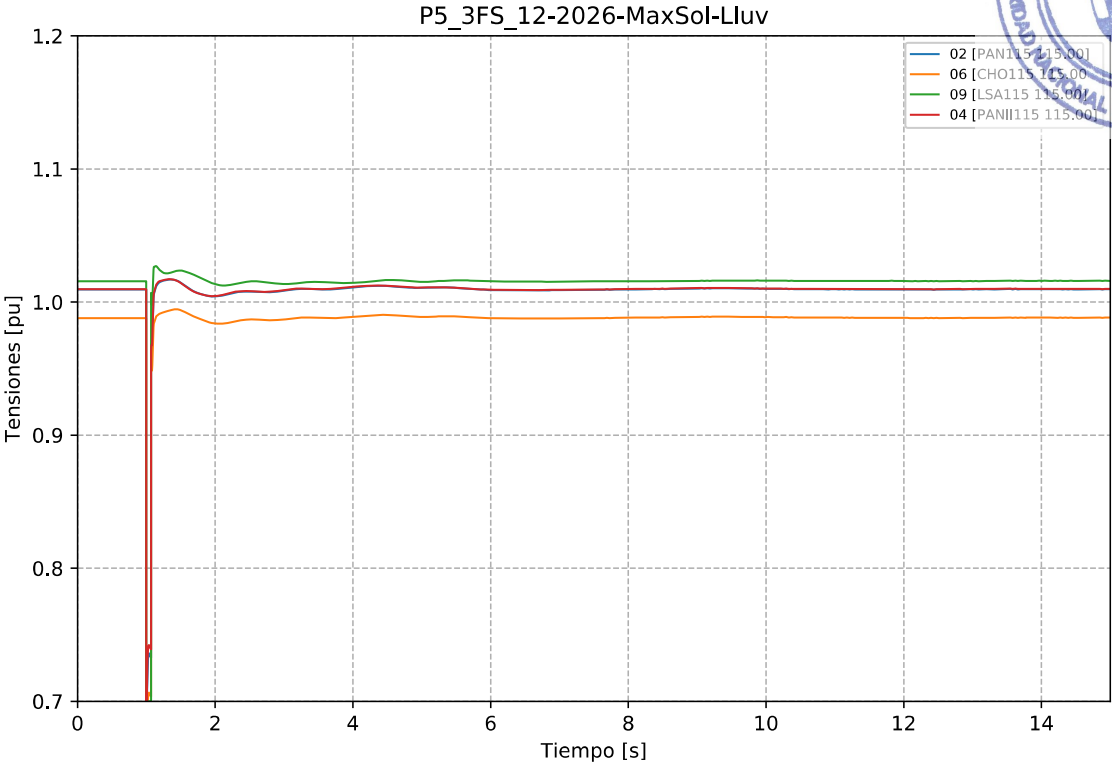


Gráfico 595. Evento P5_3FS, caso 12-2026-MaxSol-Lluv. Tensiones en la zona de influencia 115 kV.

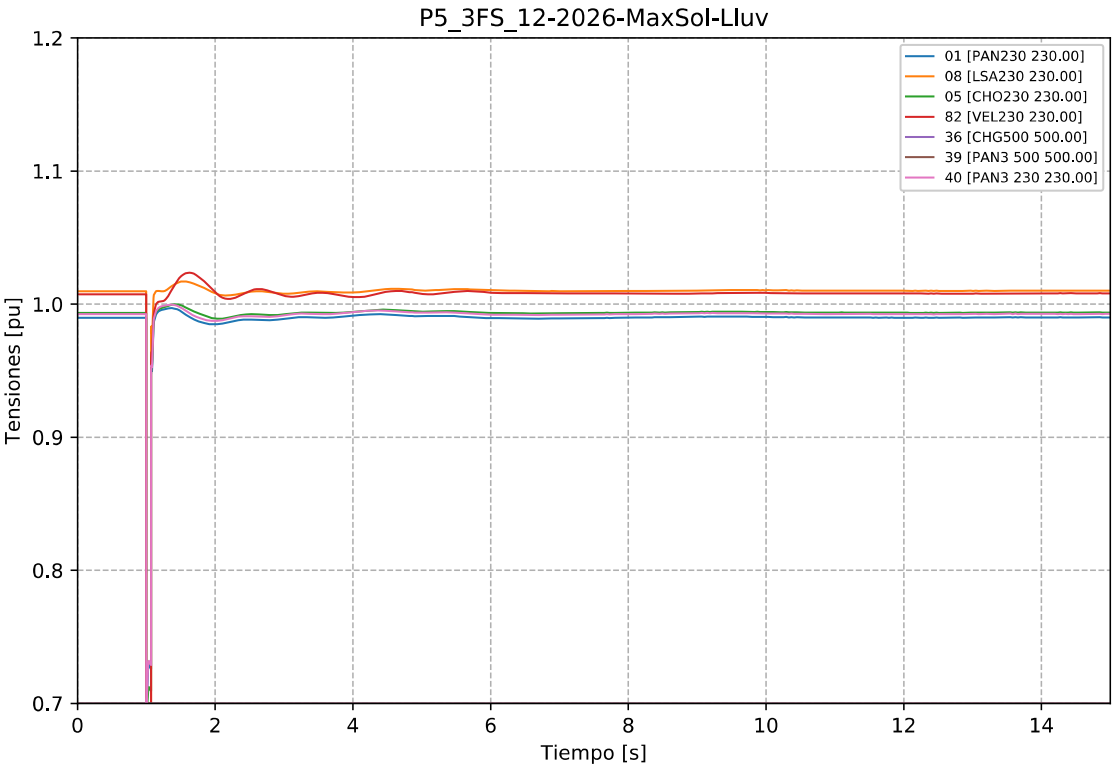


Gráfico 596. Evento P5_3FS, caso 12-2026-MaxSol-Lluv. Tensiones en la zona de influencia 230 kV.

AB

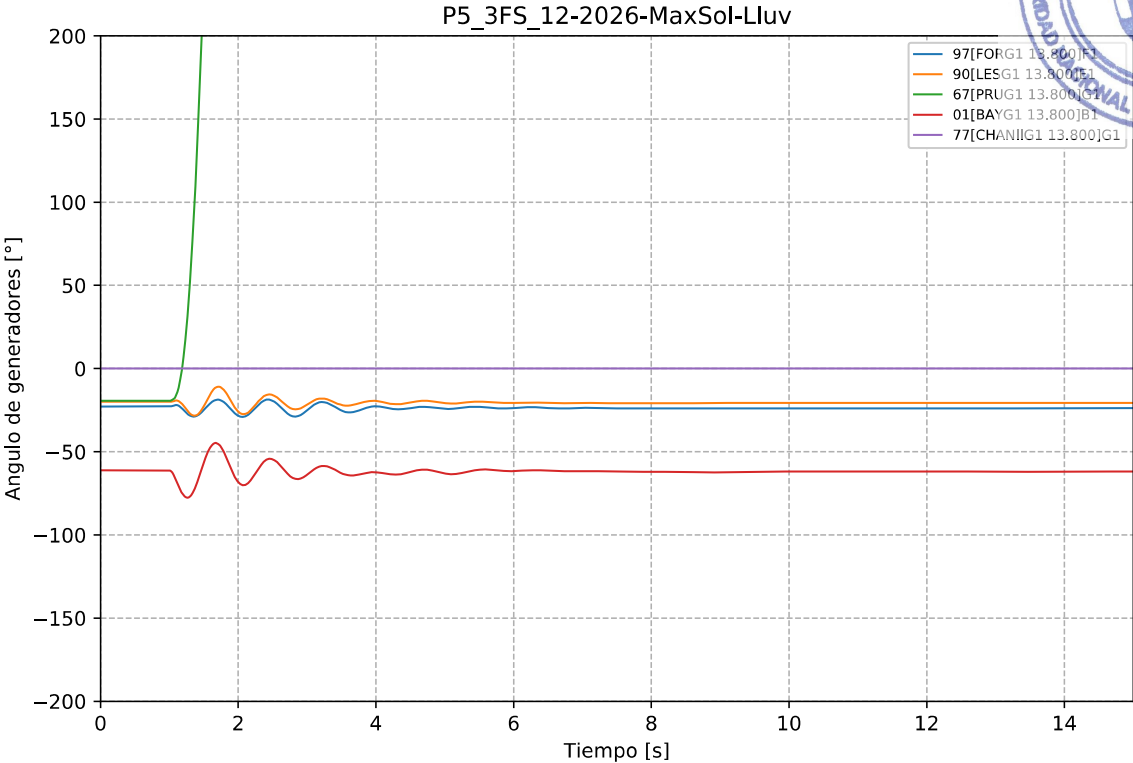


Gráfico 597. Evento P5_3FS, caso 12-2026-MaxSol-Lluv. Ángulo de Generadores Hidroeléctricos.

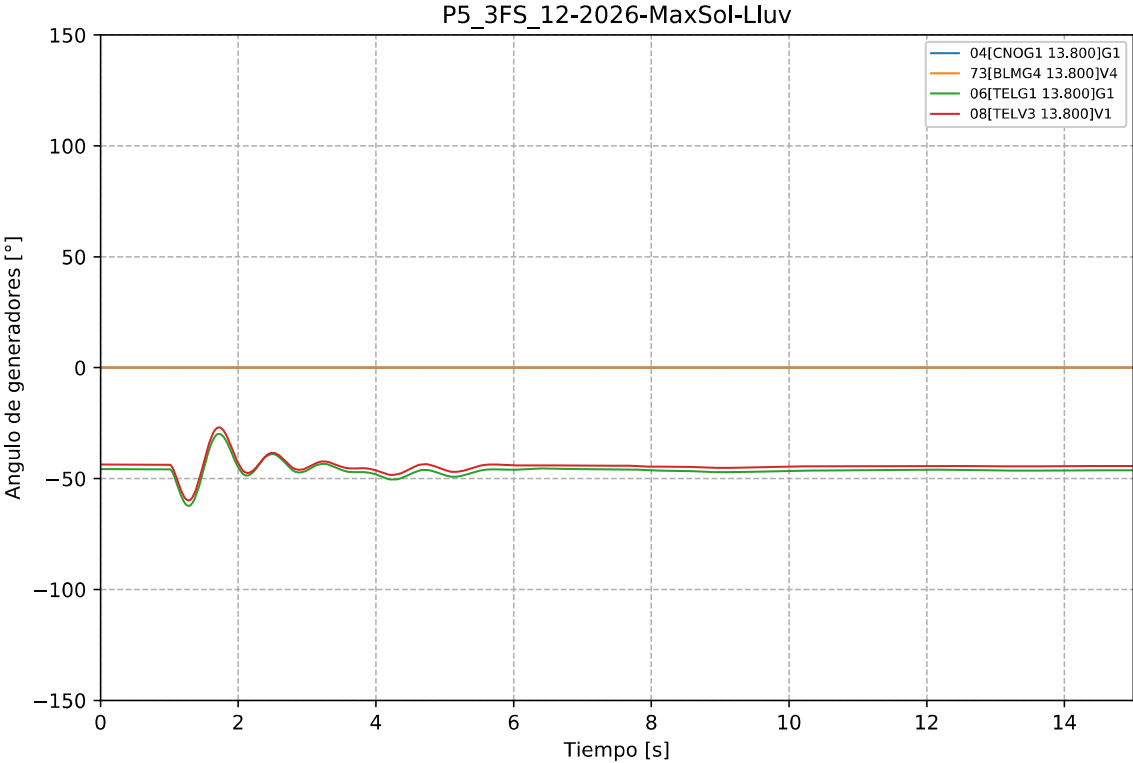


Gráfico 598. Evento P5_3FS, caso 12-2026-MaxSol-Lluv. Ángulo de generadores Térmicos.

AD

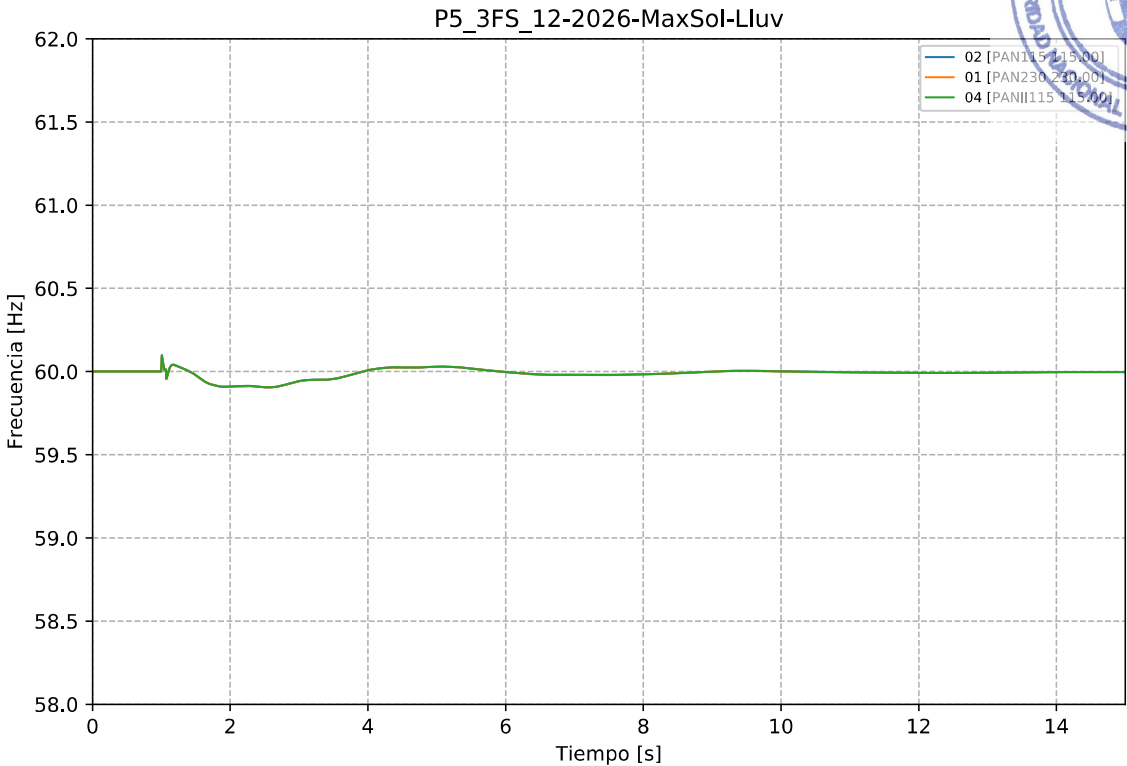


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AD

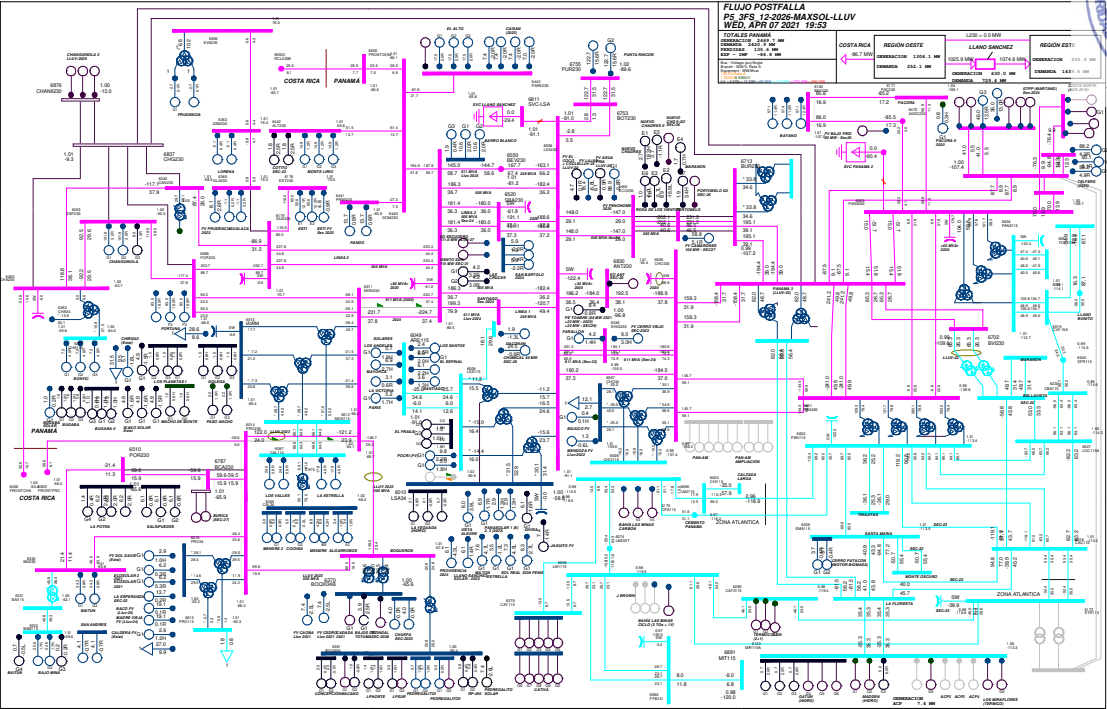


Gráfico 600. Evento P5_3FS, caso 12-2026-MaxSol-Lluv. Flujo postfalla

B

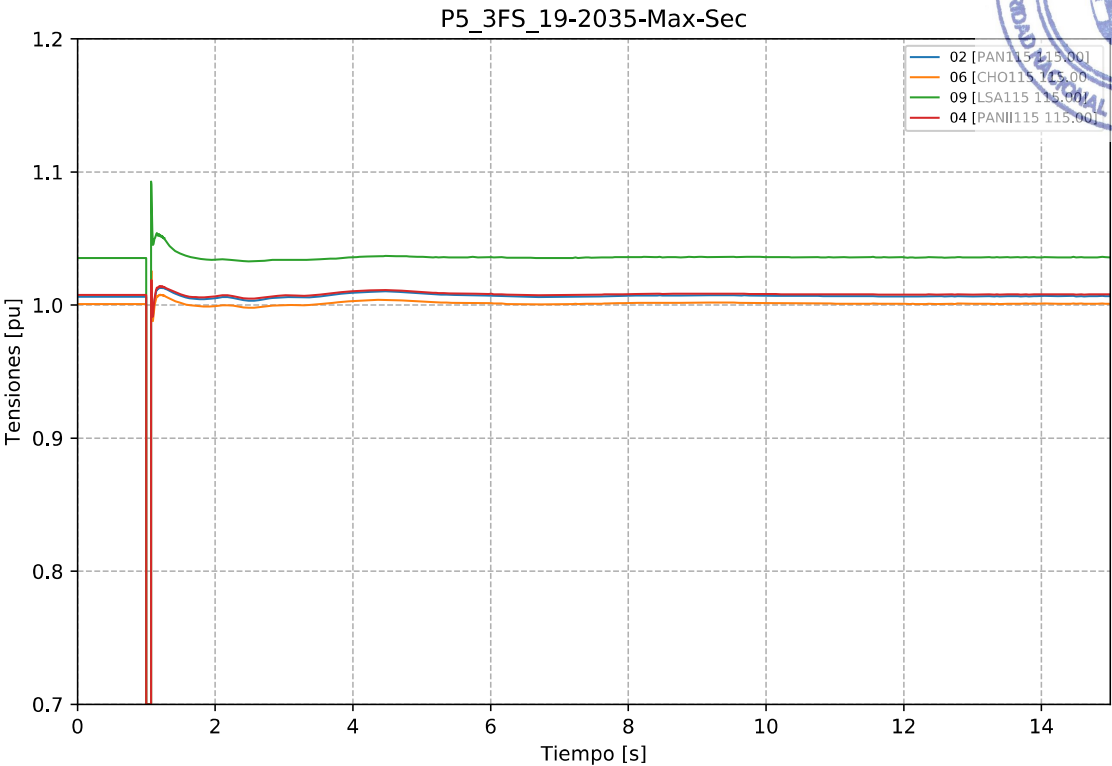


Gráfico 601. Evento P5_3FS, caso 19-2035-Max-Sec. Tensiones en la zona de influencia 115 kV.

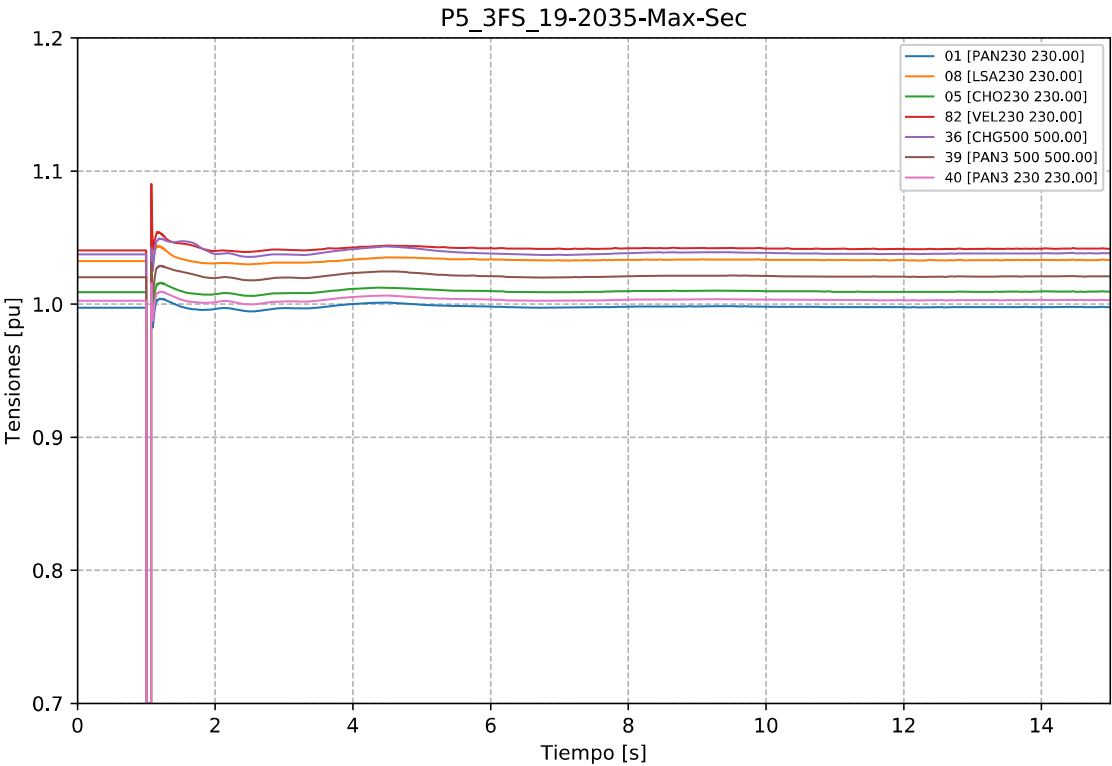


Gráfico 602. Evento P5_3FS, caso 19-2035-Max-Sec. Tensiones en la zona de influencia 230 kV.

AD

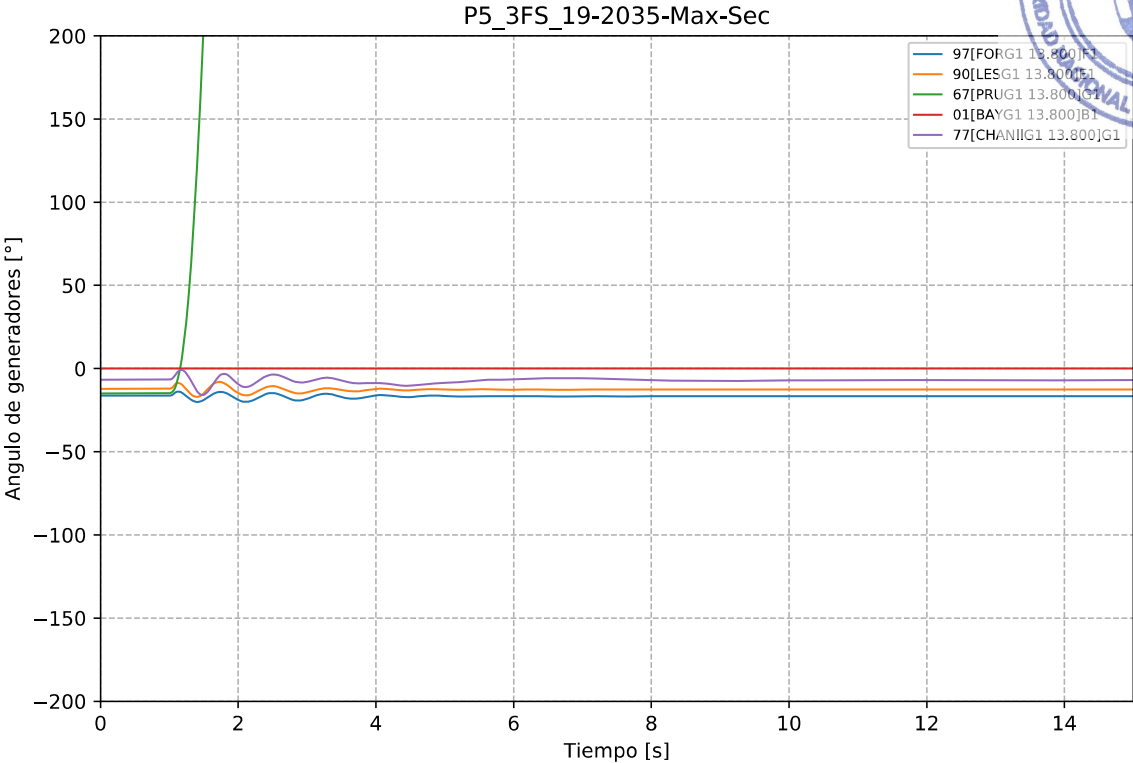


Gráfico 603. Evento P5_3FS, caso 19-2035-Max-Sec. Ángulo de Generadores Hidroeléctricos.

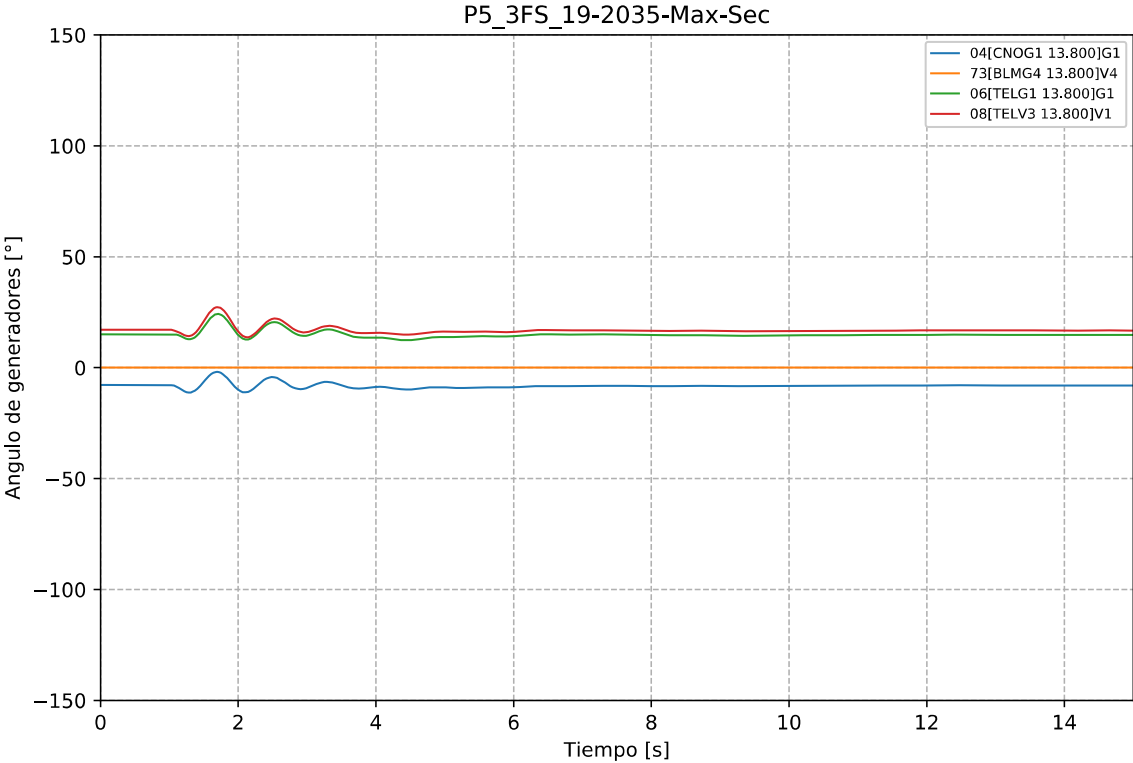


Gráfico 604. Evento P5_3FS, caso 19-2035-Max-Sec. Ángulo de generadores Térmicos.

AD

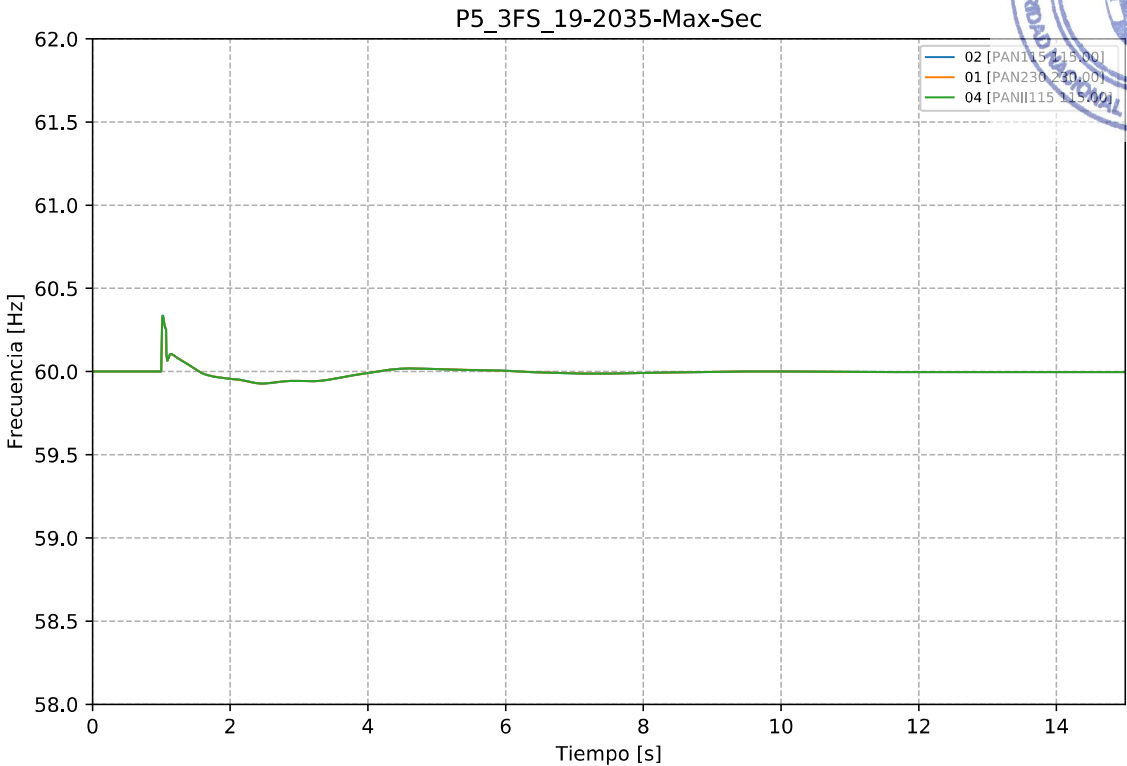


Gráfico 605. Evento P5_3FS, caso 19-2035-Max-Sec. Frecuencia.

AD

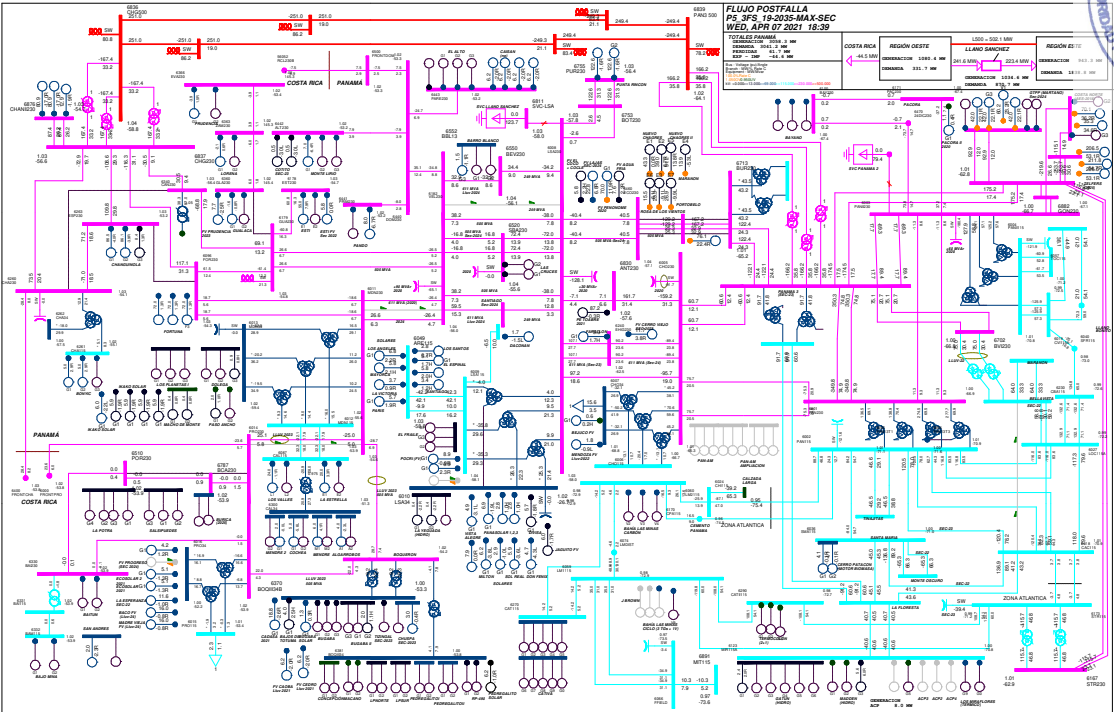


Gráfico 606. Evento P5_3FS, caso 19-2035-Max-Sec. Flujo postfalla

R

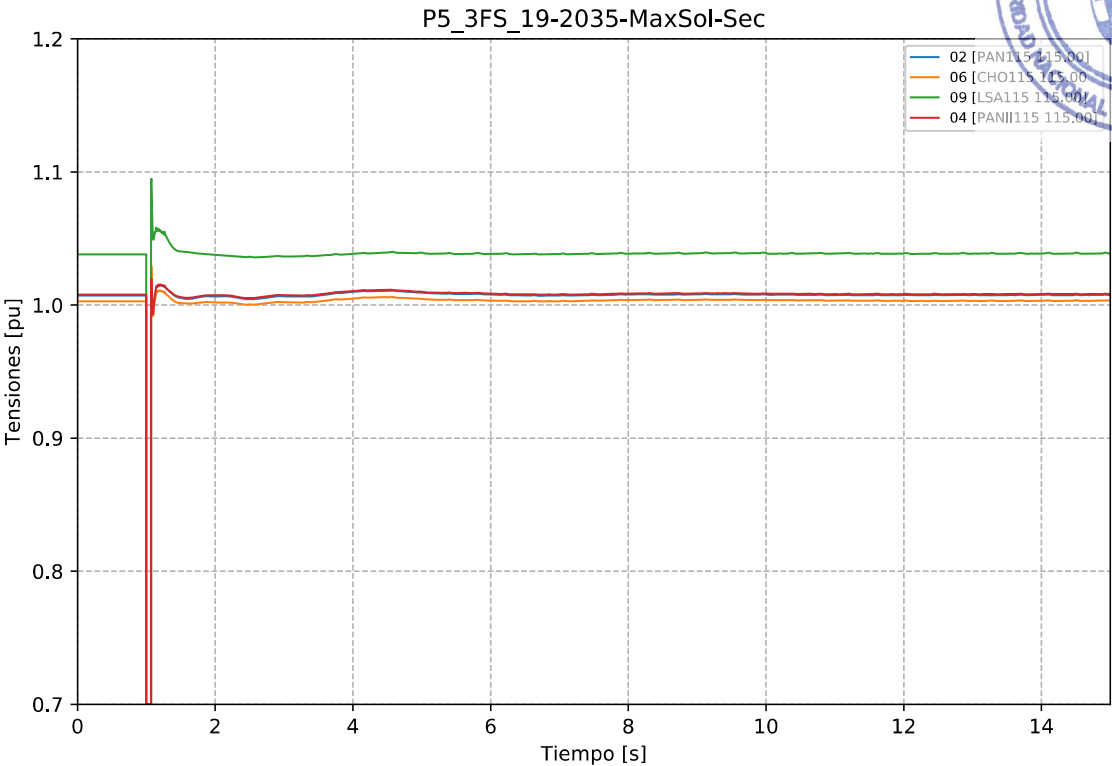


Gráfico 607. Evento P5_3FS, caso 19-2035-MaxSol-Sec. Tensiones en la zona de influencia 115 kV.

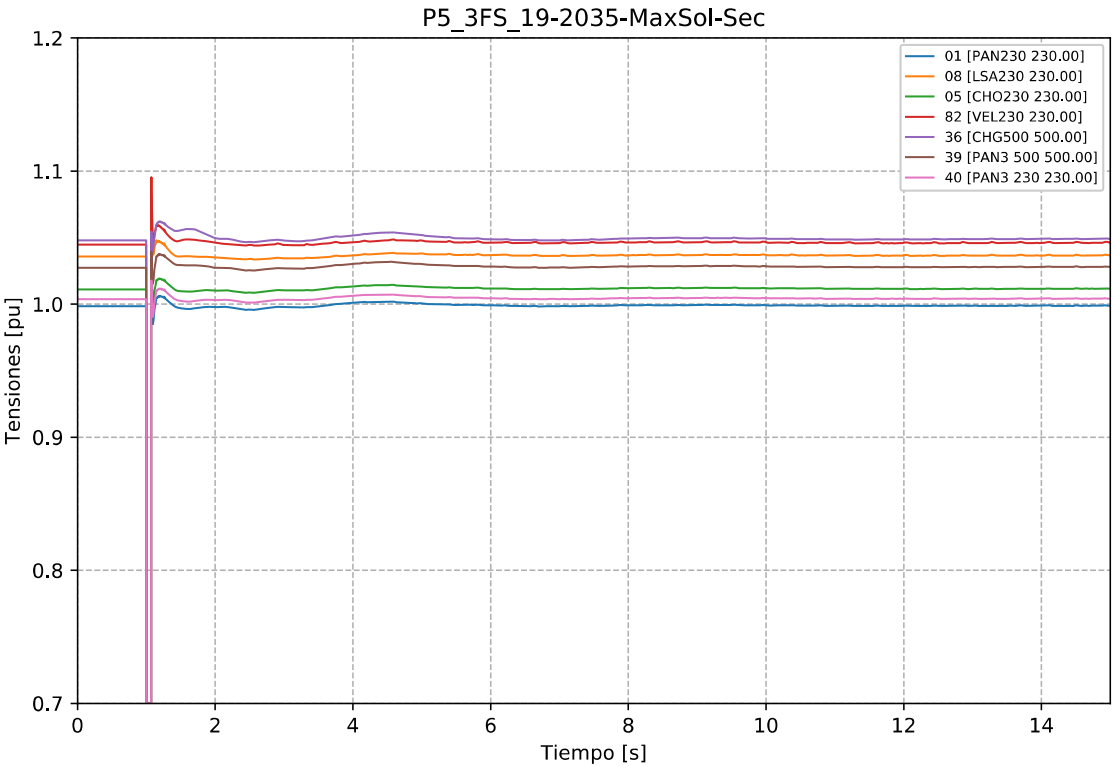


Gráfico 608. Evento P5_3FS, caso 19-2035-MaxSol-Sec. Tensiones en la zona de influencia 230 kV.

AB

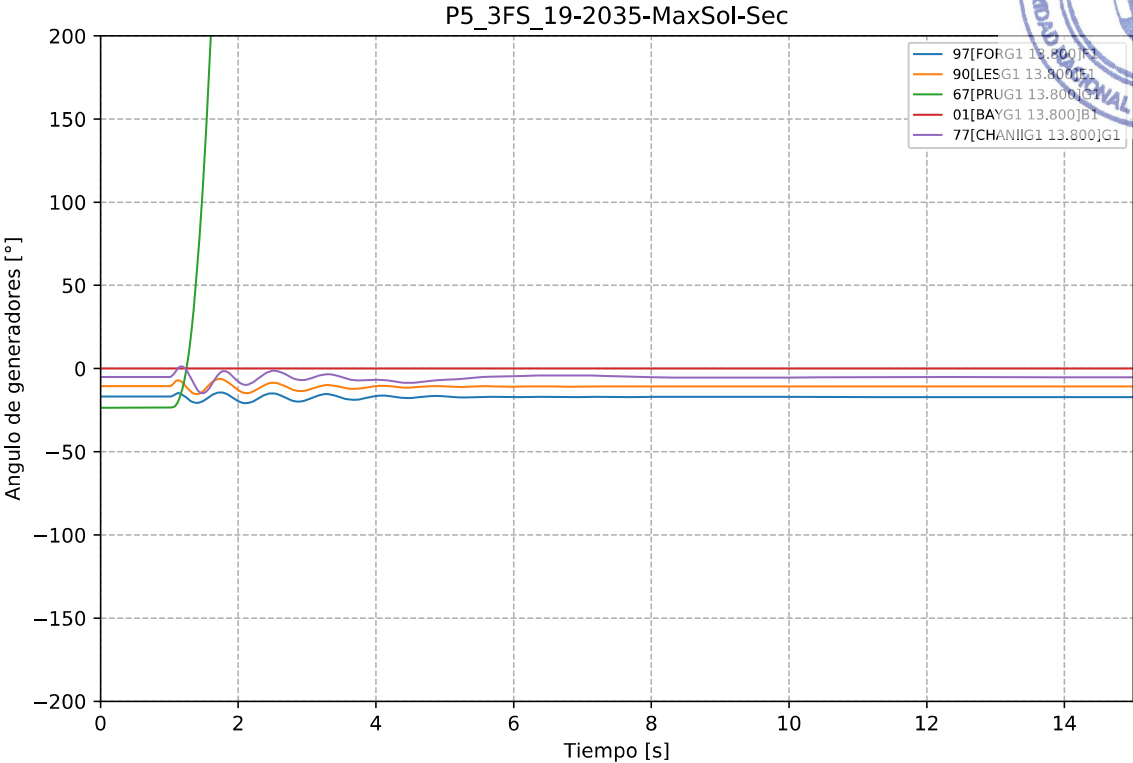


Gráfico 609. Evento P5_3FS, caso 19-2035-MaxSol-Sec. Ángulo de Generadores Hidroeléctricos.

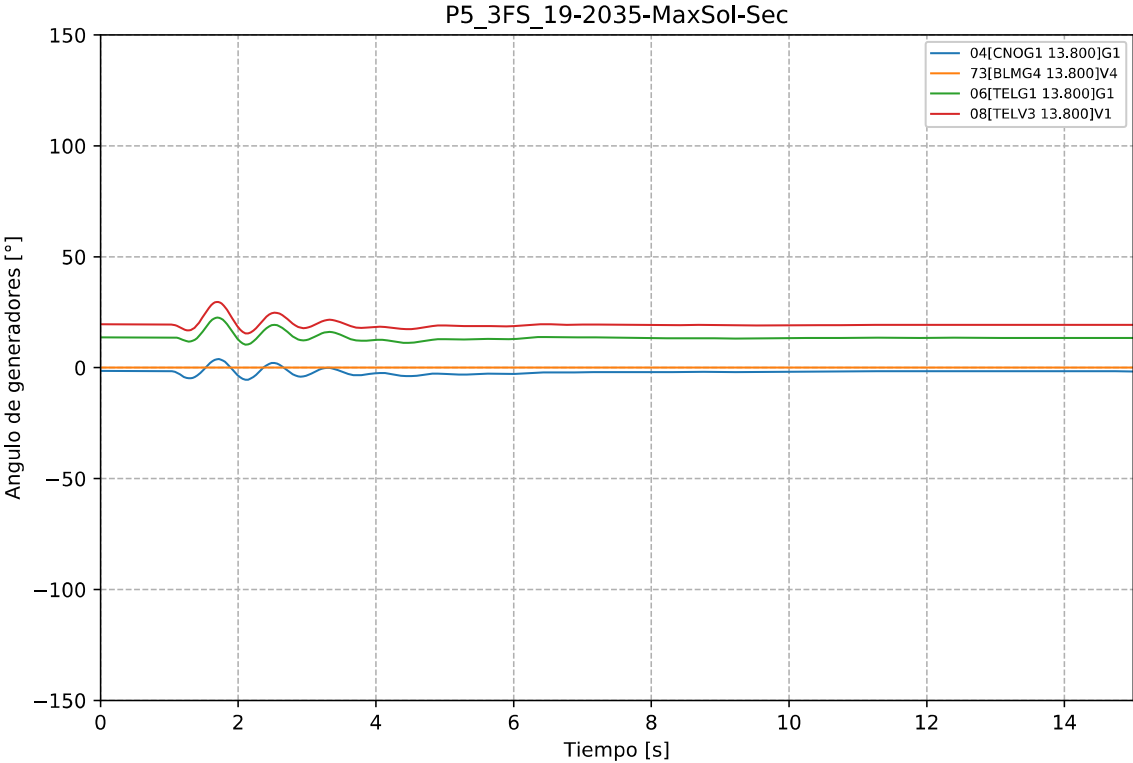


Gráfico 610. Evento P5_3FS, caso 19-2035-MaxSol-Sec. Ángulo de generadores Térmicos.

AD

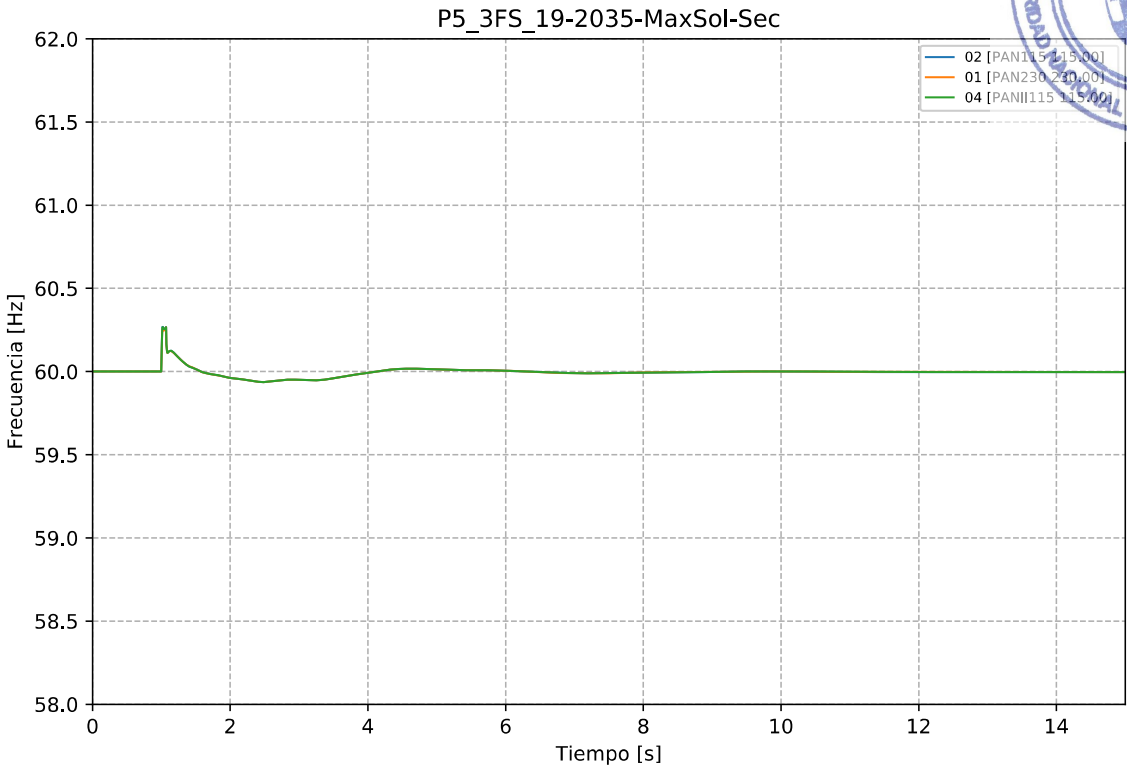


Gráfico 611. Evento P5_3FS, caso 19-2035-MaxSol-Sec. Frecuencia.

AD

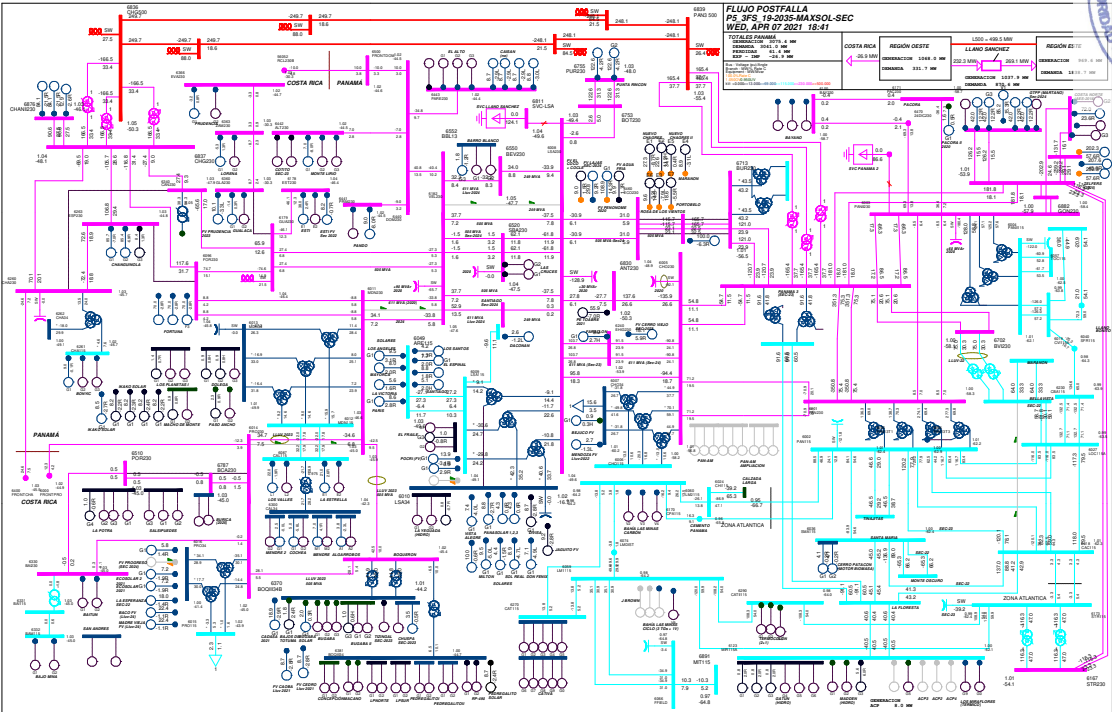


Gráfico 612. Evento P5_3FS, caso 19-2035-MaxSol-Sec. Flujo postfalla

R

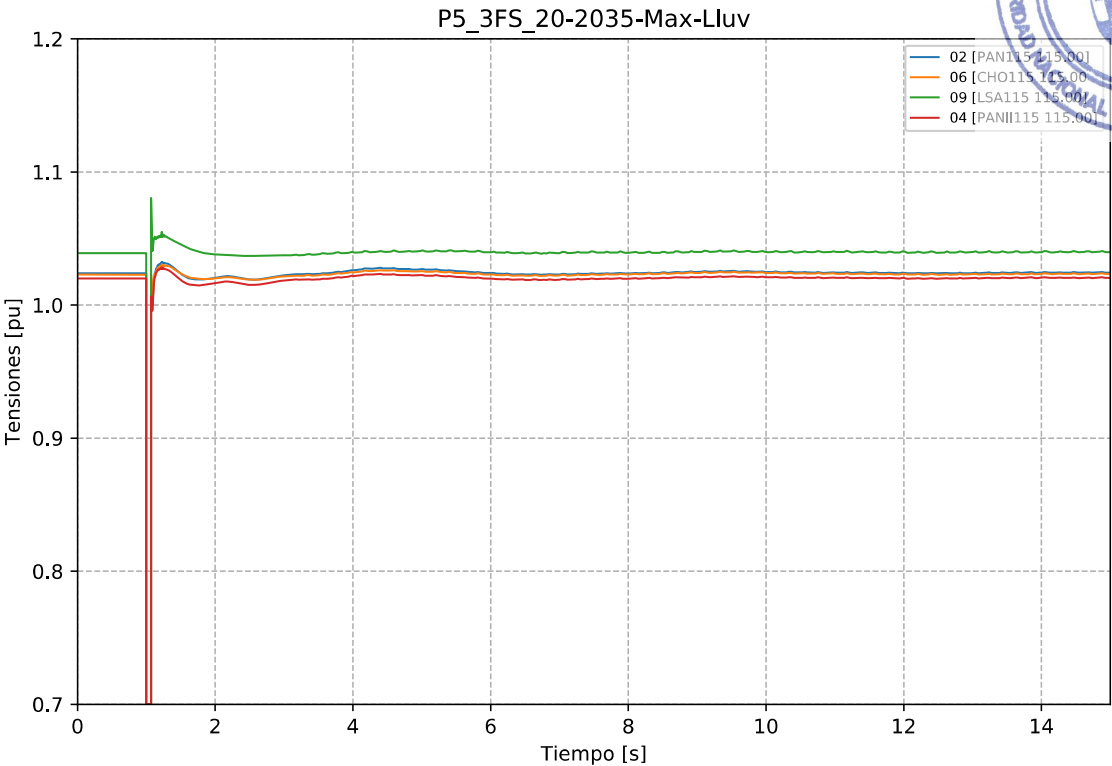


Gráfico 613. Evento P5_3FS, caso 20-2035-Max-Lluv. Tensiones en la zona de influencia 115 kV.

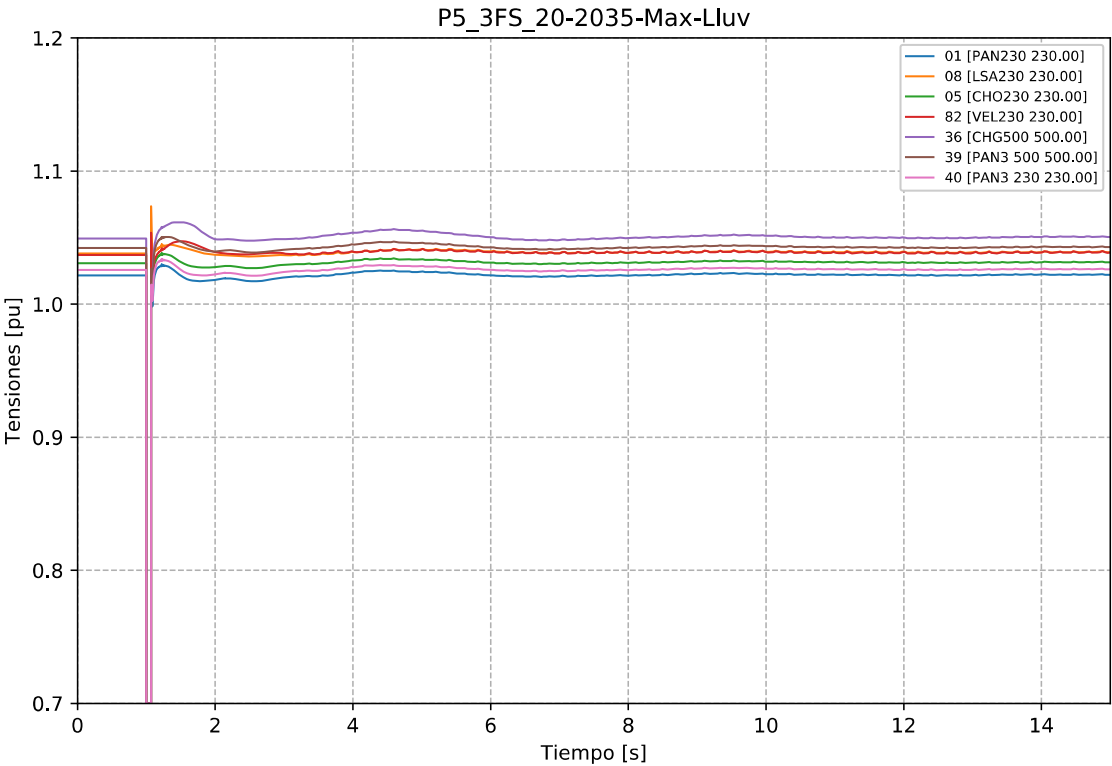


Gráfico 614. Evento P5_3FS, caso 20-2035-Max-Lluv. Tensiones en la zona de influencia 230 kV.

AD

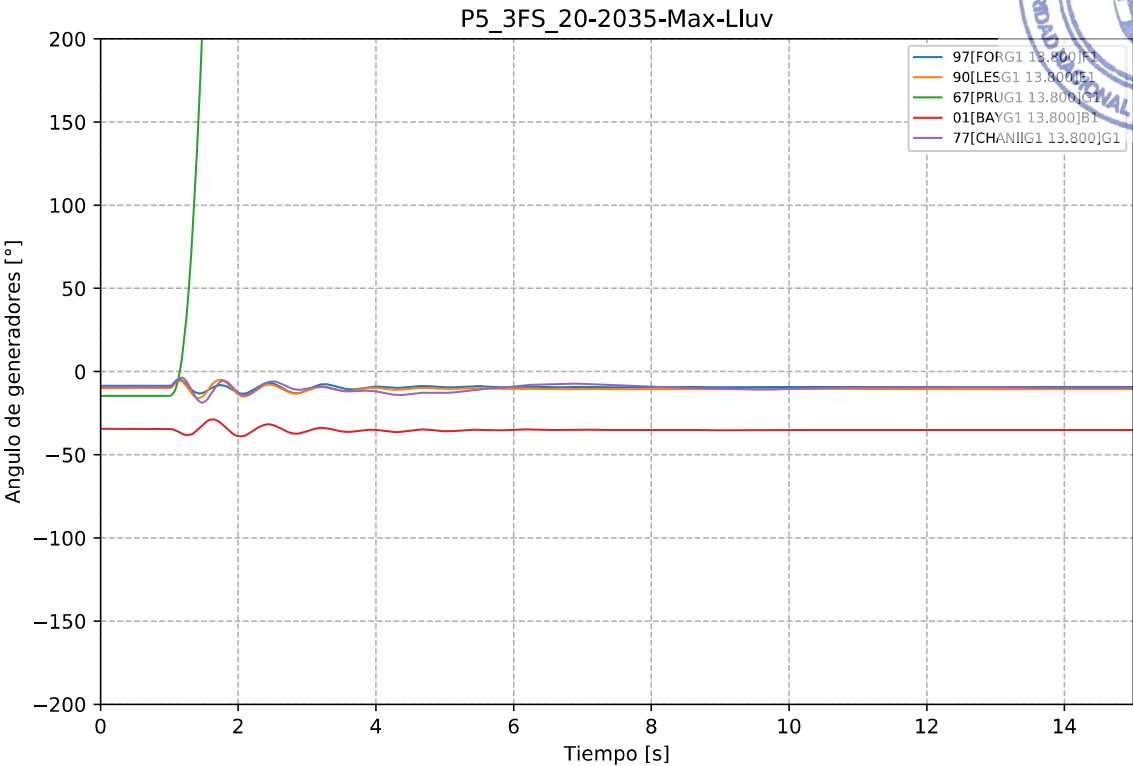


Gráfico 615. Evento P5_3FS, caso 20-2035-Max-Lluv. Ángulo de Generadores Hidroeléctricos.

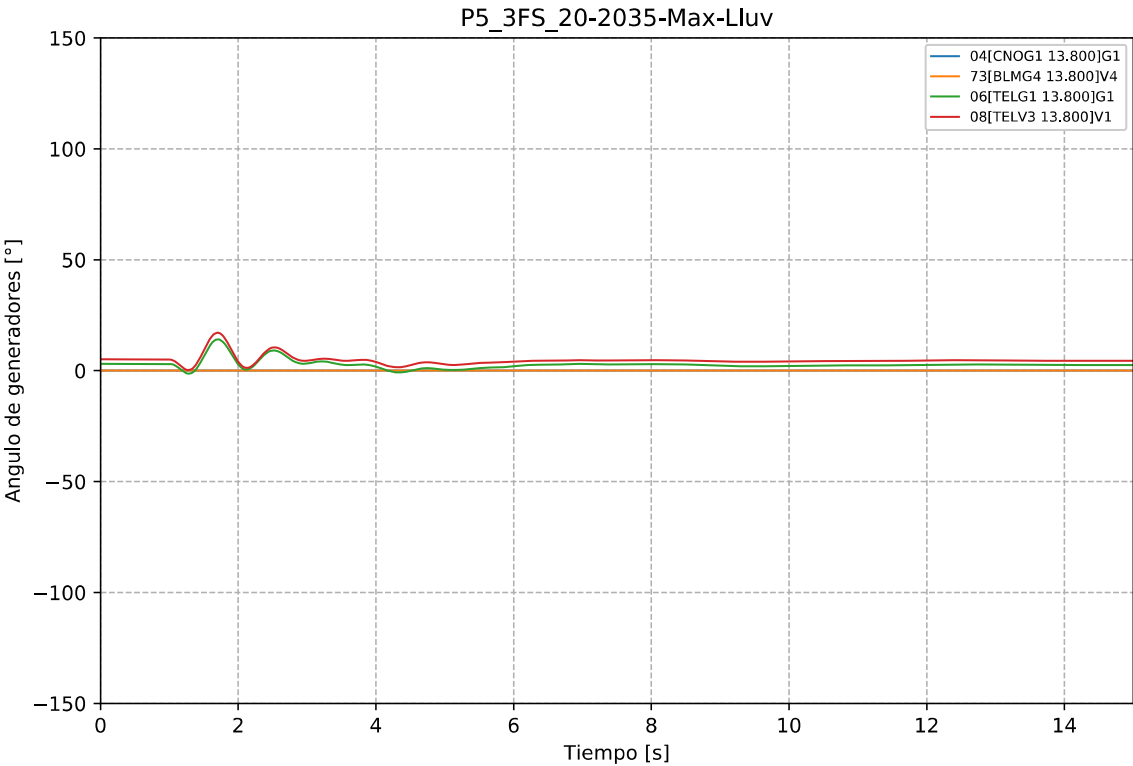


Gráfico 616. Evento P5_3FS, caso 20-2035-Max-Lluv. Ángulo de generadores Térmicos.

AD

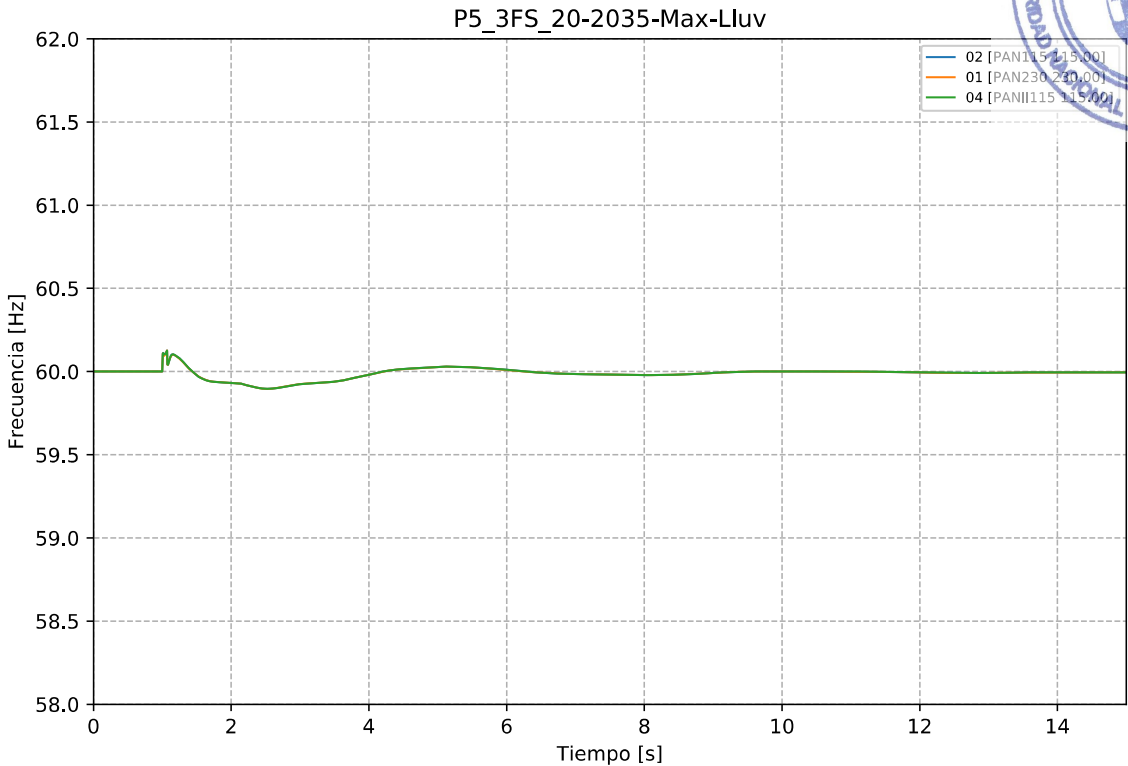


Gráfico 617. Evento P5_3FS, caso 20-2035-Max-Lluv. Frecuencia.

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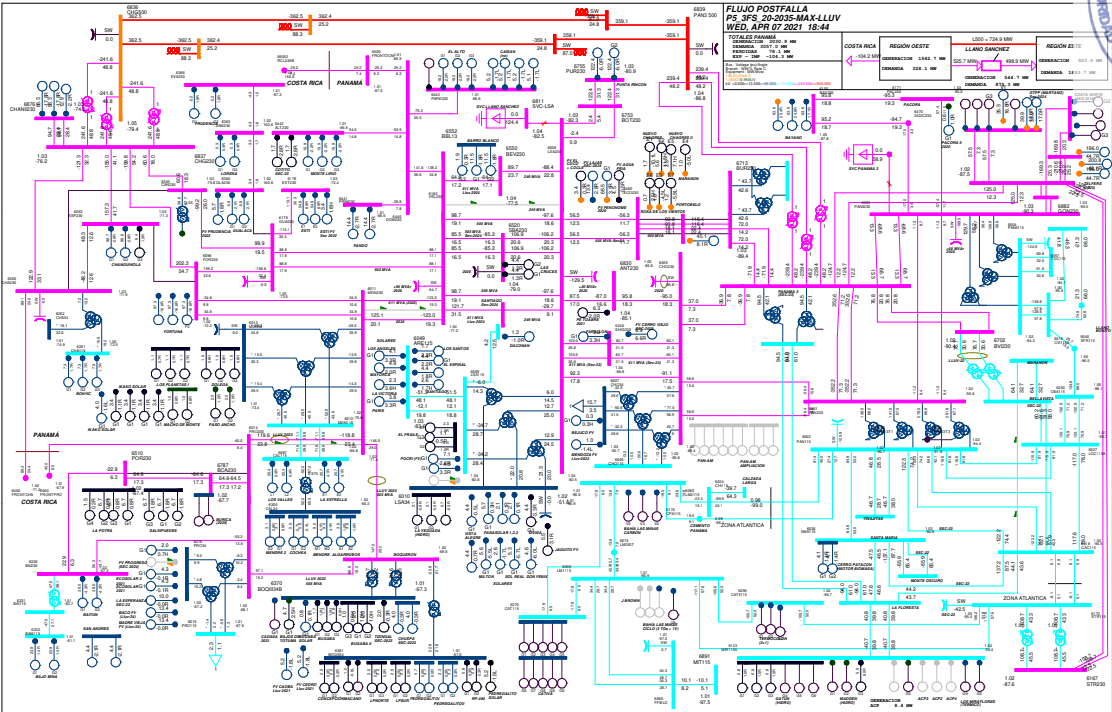


Gráfico 618. Evento P5_3FS, caso 20-2035-Max-Lluv. Flujo postfalla

R

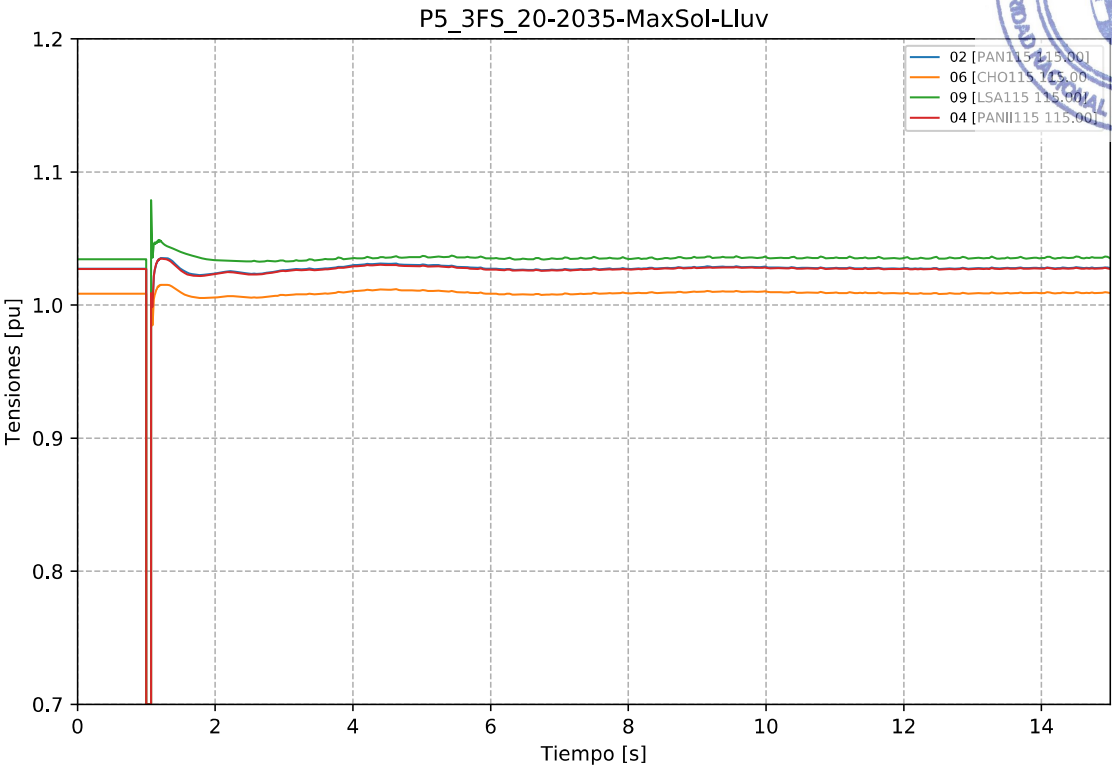


Gráfico 619. Evento P5_3FS, caso 20-2035-MaxSol-Lluv. Tensiones en la zona de influencia 115 kV.

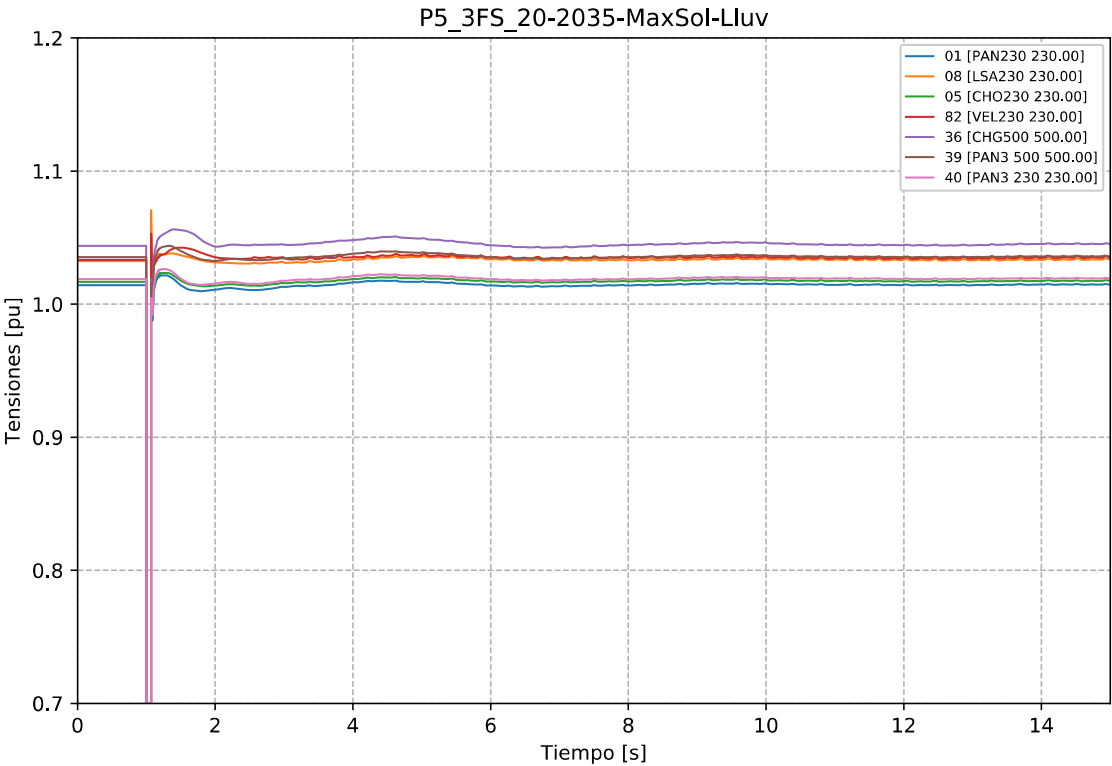


Gráfico 620. Evento P5_3FS, caso 20-2035-MaxSol-Lluv. Tensiones en la zona de influencia 230 kV.

AD

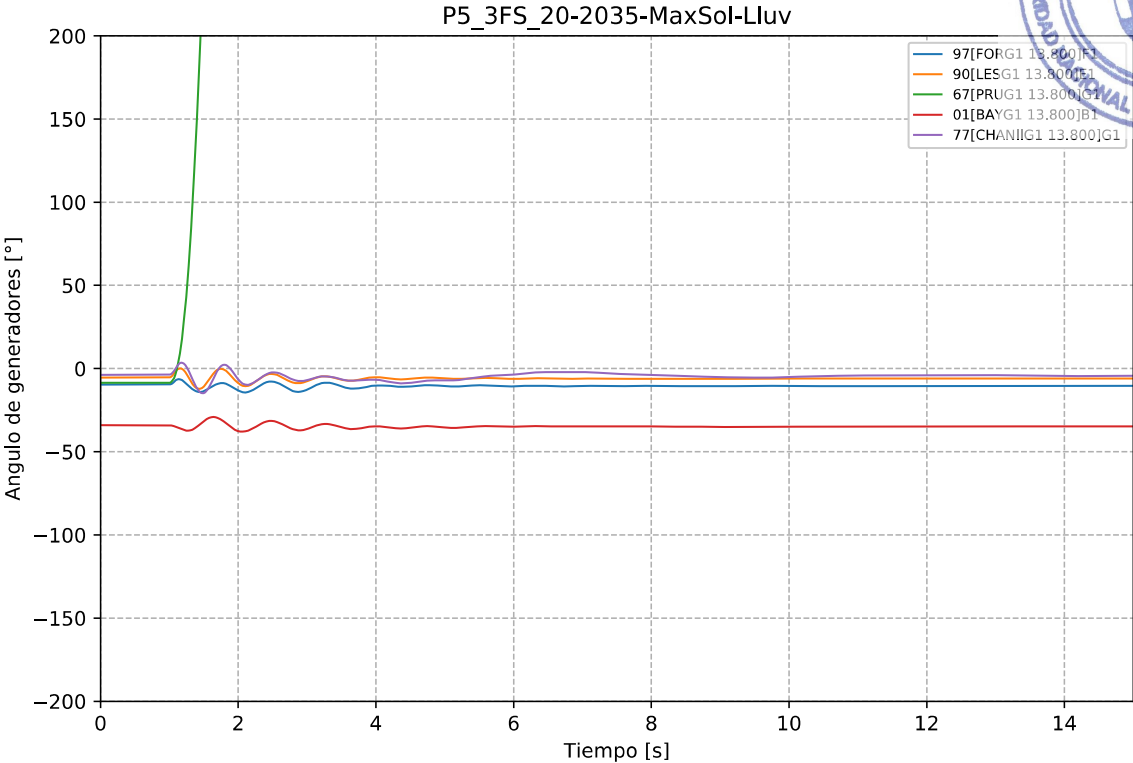


Gráfico 621. Evento P5_3FS, caso 20-2035-MaxSol-Lluv. Ángulo de Generadores Hidroeléctricos.

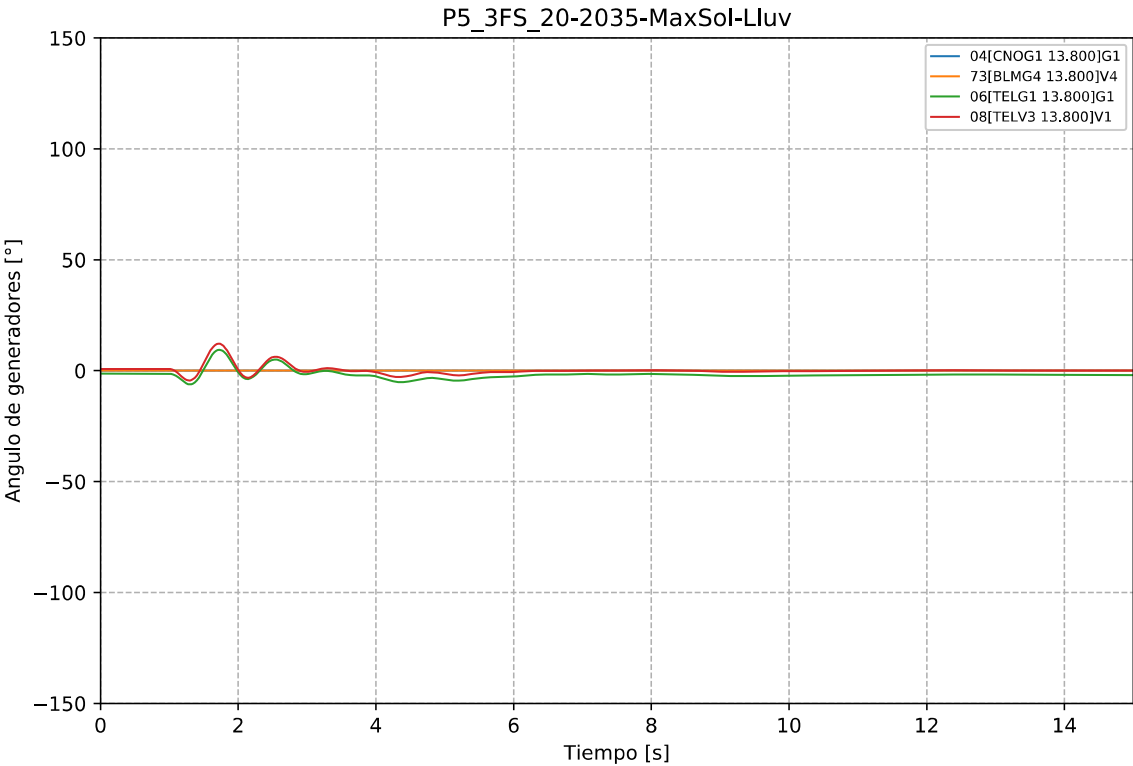


Gráfico 622. Evento P5_3FS, caso 20-2035-MaxSol-Lluv. Ángulo de generadores Térmicos.

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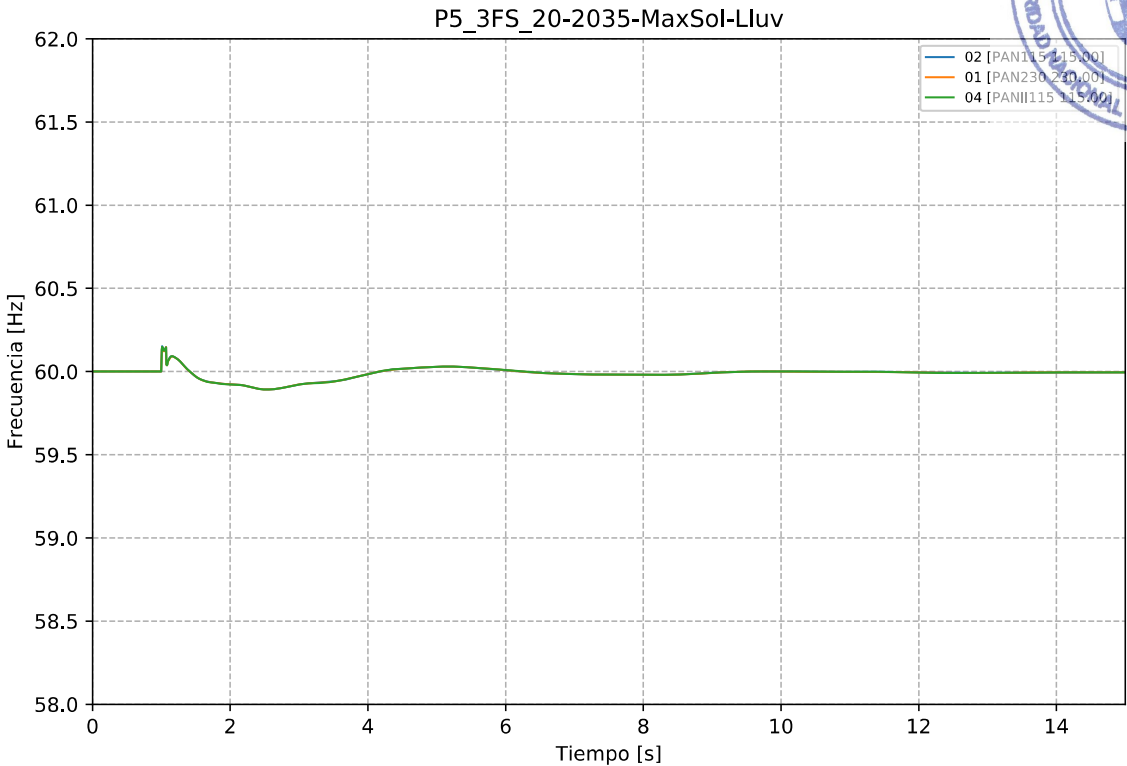


Gráfico 623. Evento P5_3FS, caso 20-2035-MaxSol-Lluv. Frecuencia.

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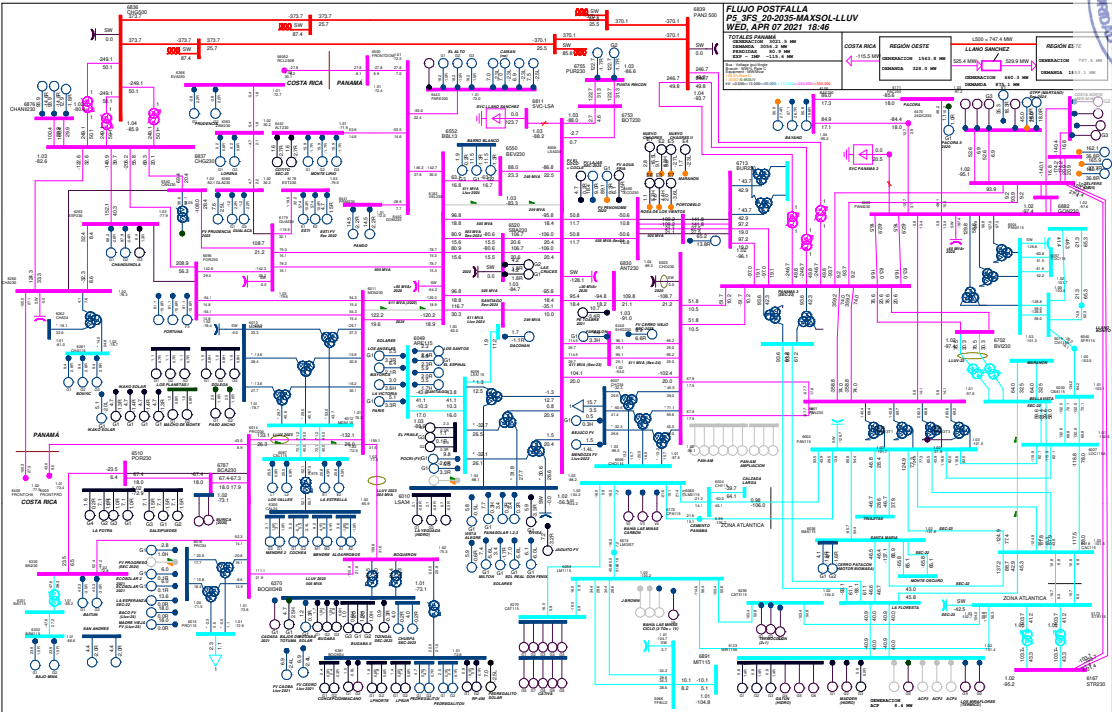


Gráfico 624. Evento P5_3FS, caso 20-2035-MaxSol-Lluv. Flujo postfalla

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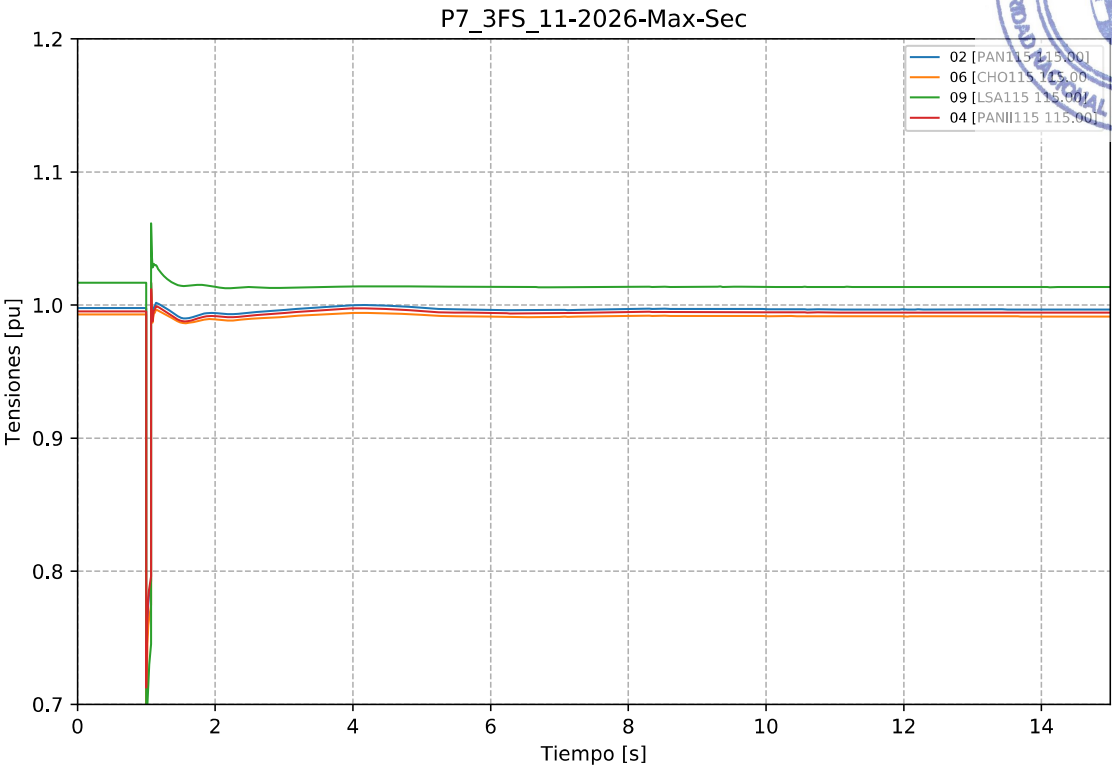


Gráfico 625. Evento P7_3FS, caso 11-2026-Max-Sec. Tensiones en la zona de influencia 115 kV.

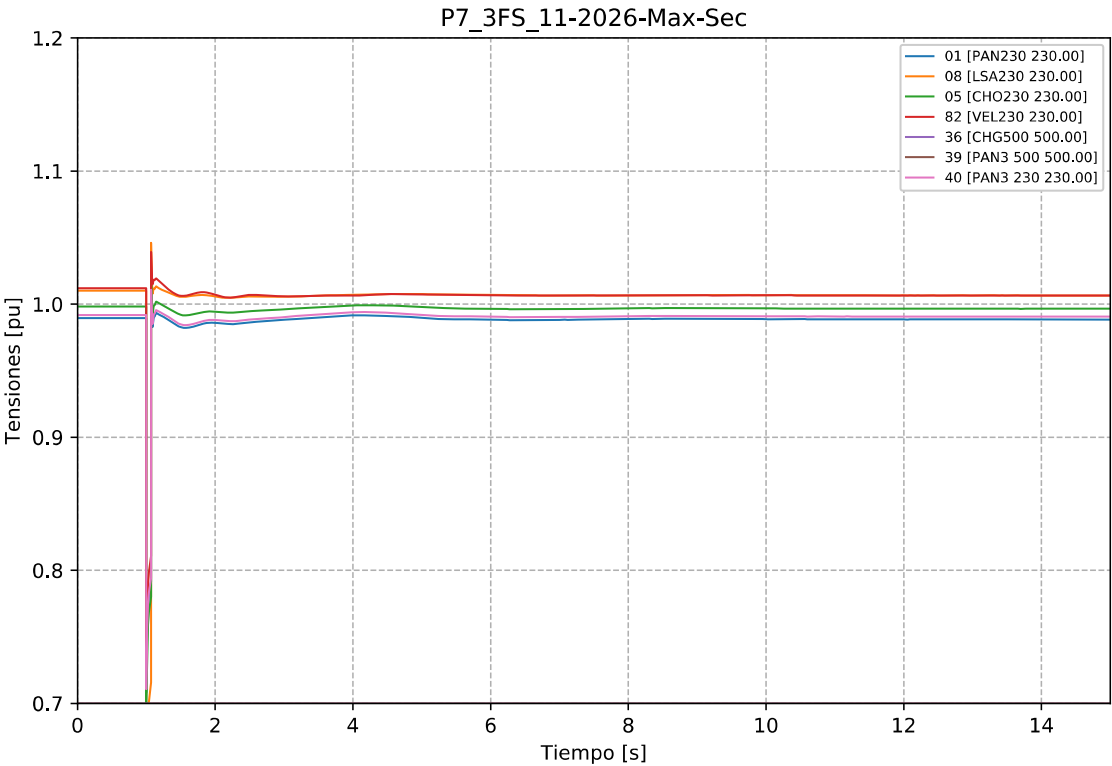


Gráfico 626. Evento P7_3FS, caso 11-2026-Max-Sec. Tensiones en la zona de influencia 230 kV.

AD

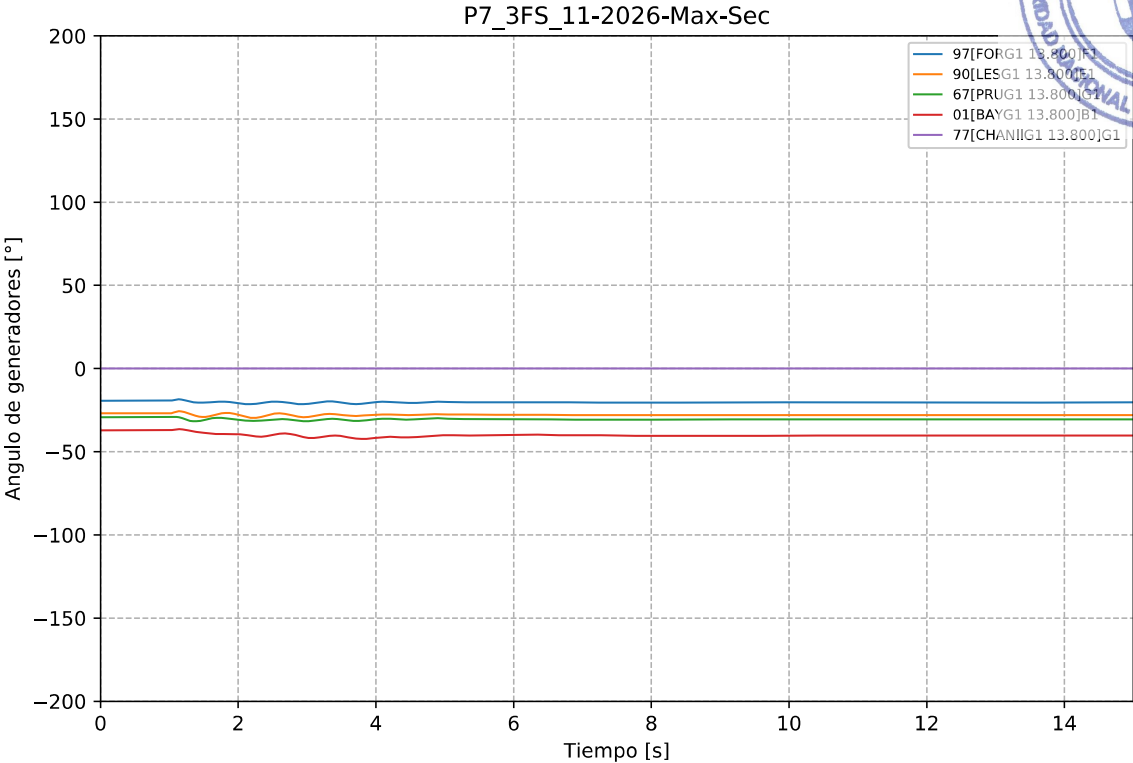


Gráfico 627. Evento P7_3FS, caso 11-2026-Max-Sec. Ángulo de Generadores Hidroeléctricos.

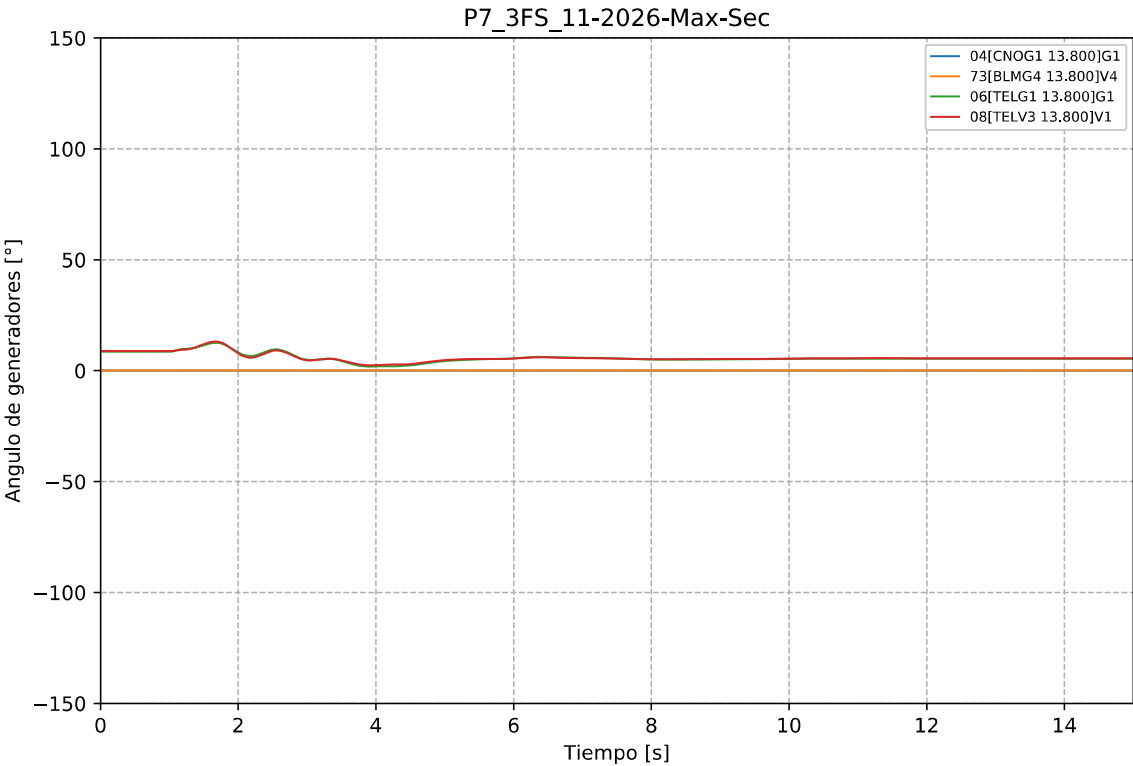


Gráfico 628. Evento P7_3FS, caso 11-2026-Max-Sec. Ángulo de generadores Térmicos.

AD

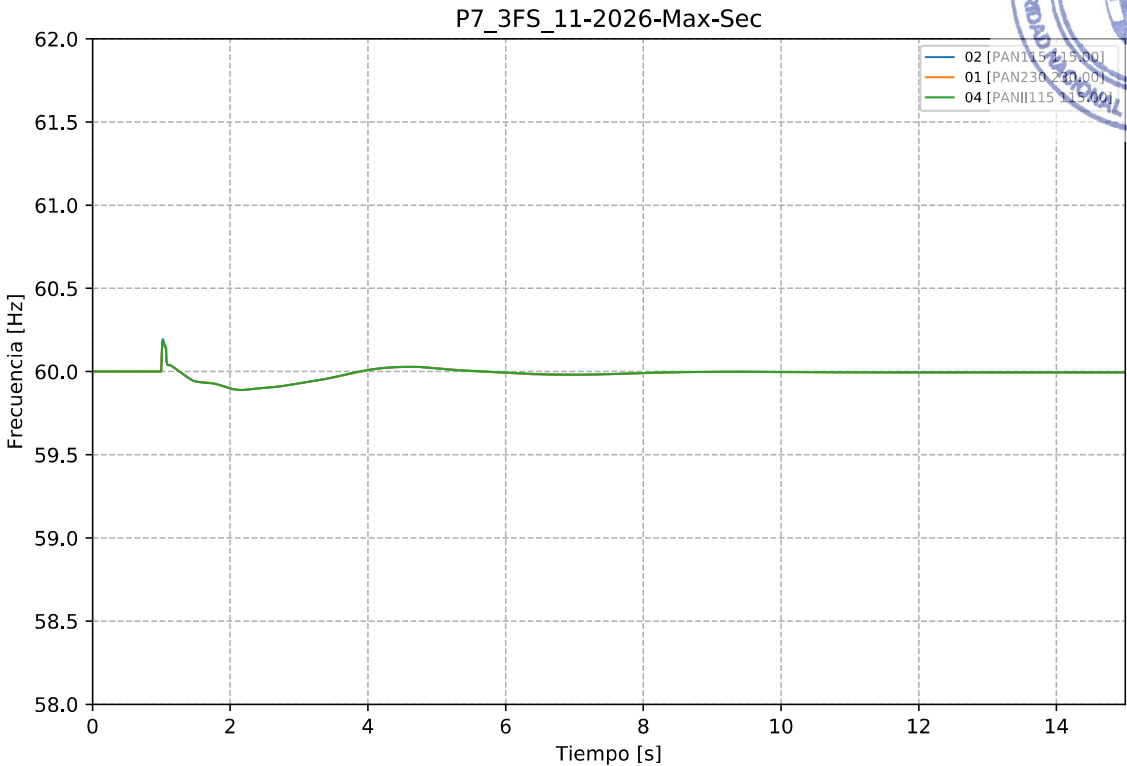


Gráfico 629. Evento P7_3FS, caso 11-2026-Max-Sec. Frecuencia.

AD

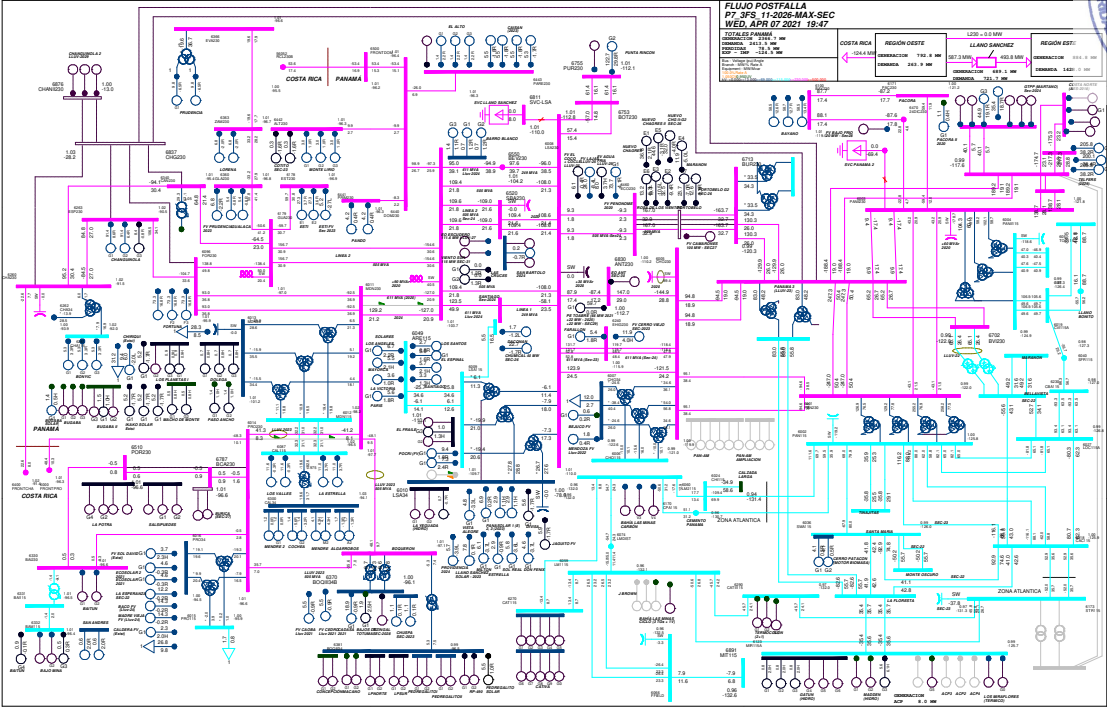


Gráfico 630. Evento P7_3FS, caso 11-2026-Max-Sec. Flujo postfalla

R

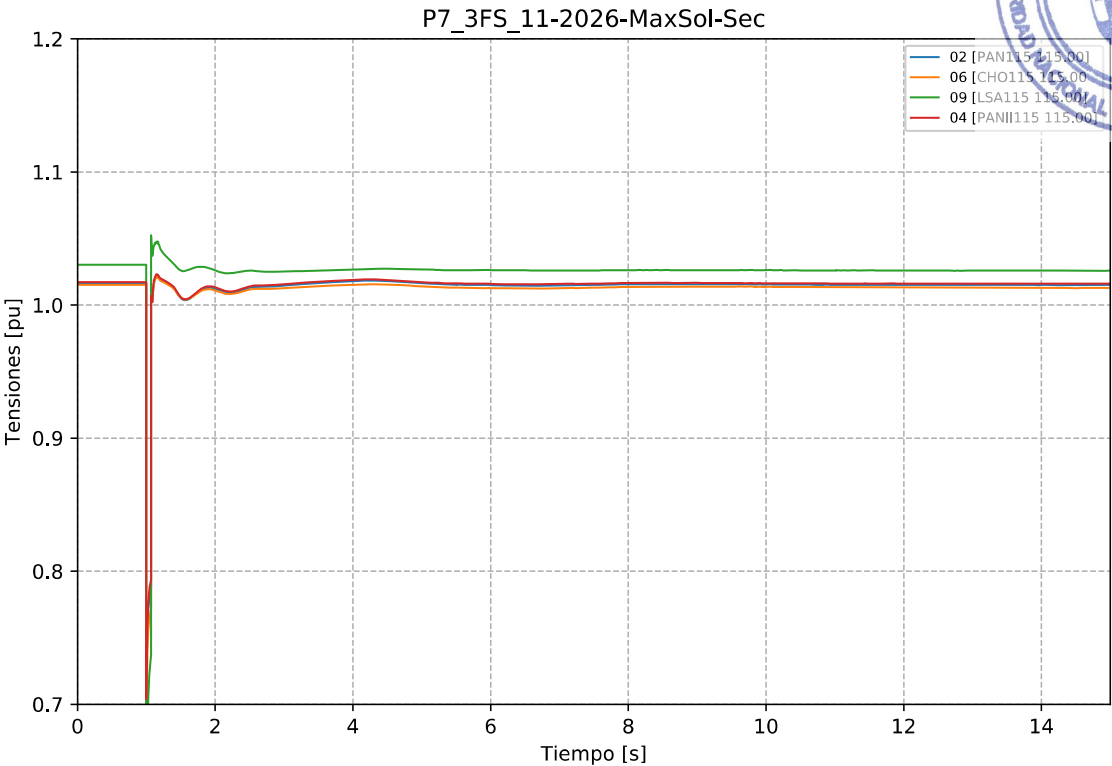


Gráfico 631. Evento P7_3FS, caso 11-2026-MaxSol-Sec. Tensiones en la zona de influencia 115 kV.

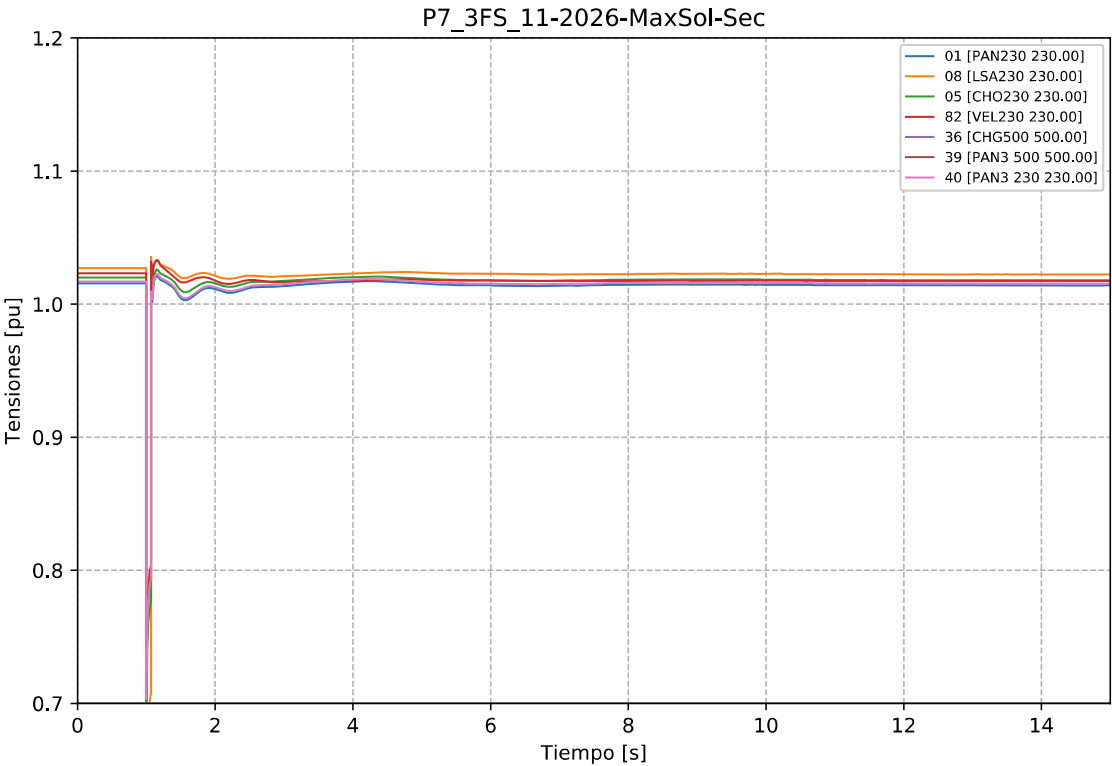


Gráfico 632. Evento P7_3FS, caso 11-2026-MaxSol-Sec. Tensiones en la zona de influencia 230 kV.

AB

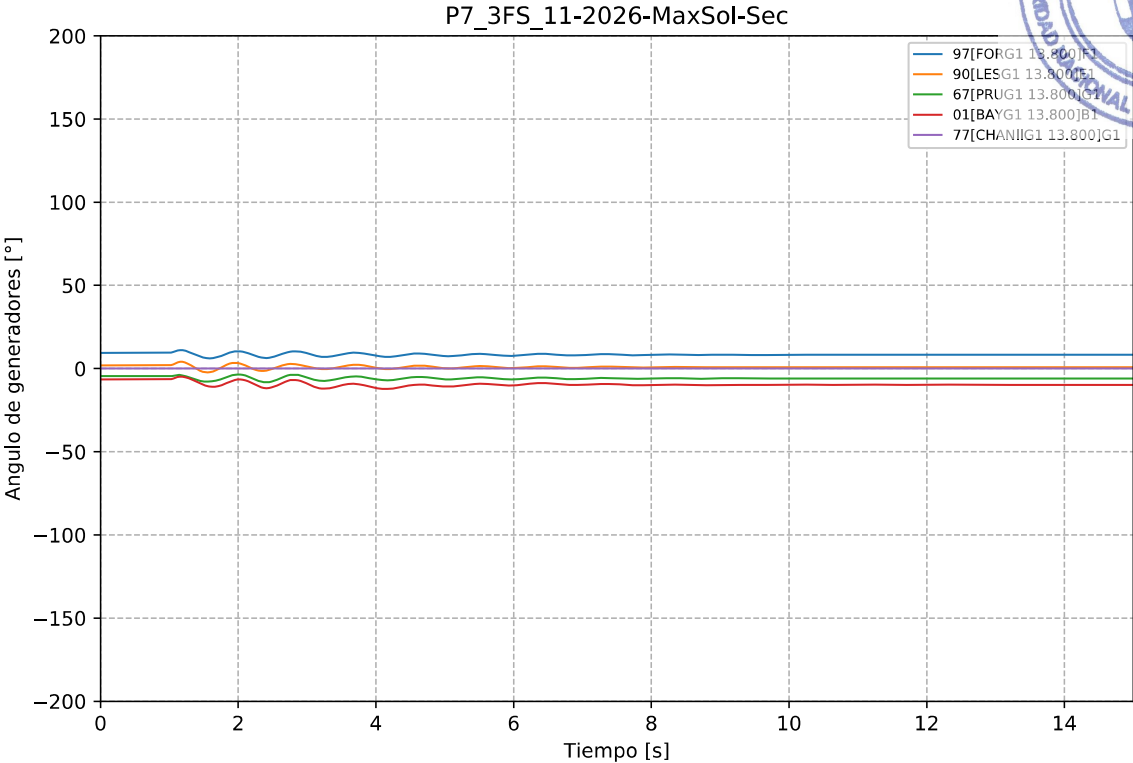


Gráfico 633. Evento P7_3FS, caso 11-2026-MaxSol-Sec. Ángulo de Generadores Hidroeléctricos.

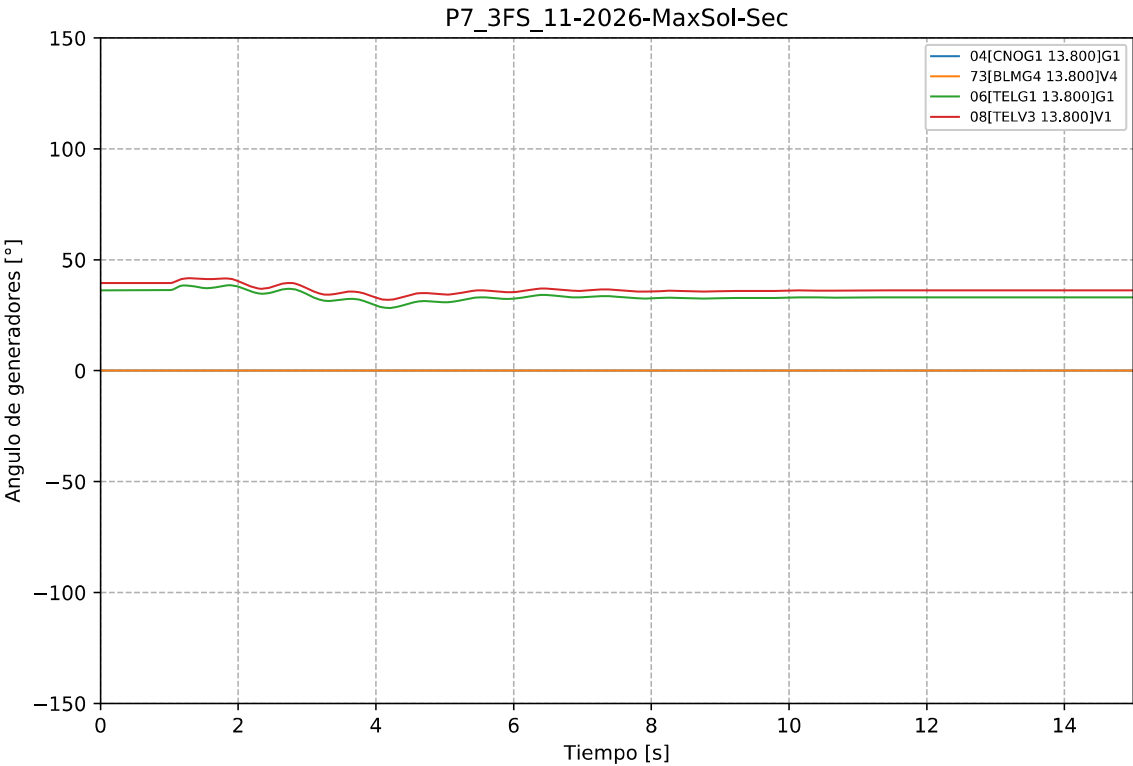


Gráfico 634. Evento P7_3FS, caso 11-2026-MaxSol-Sec. Ángulo de generadores Térmicos.

AD

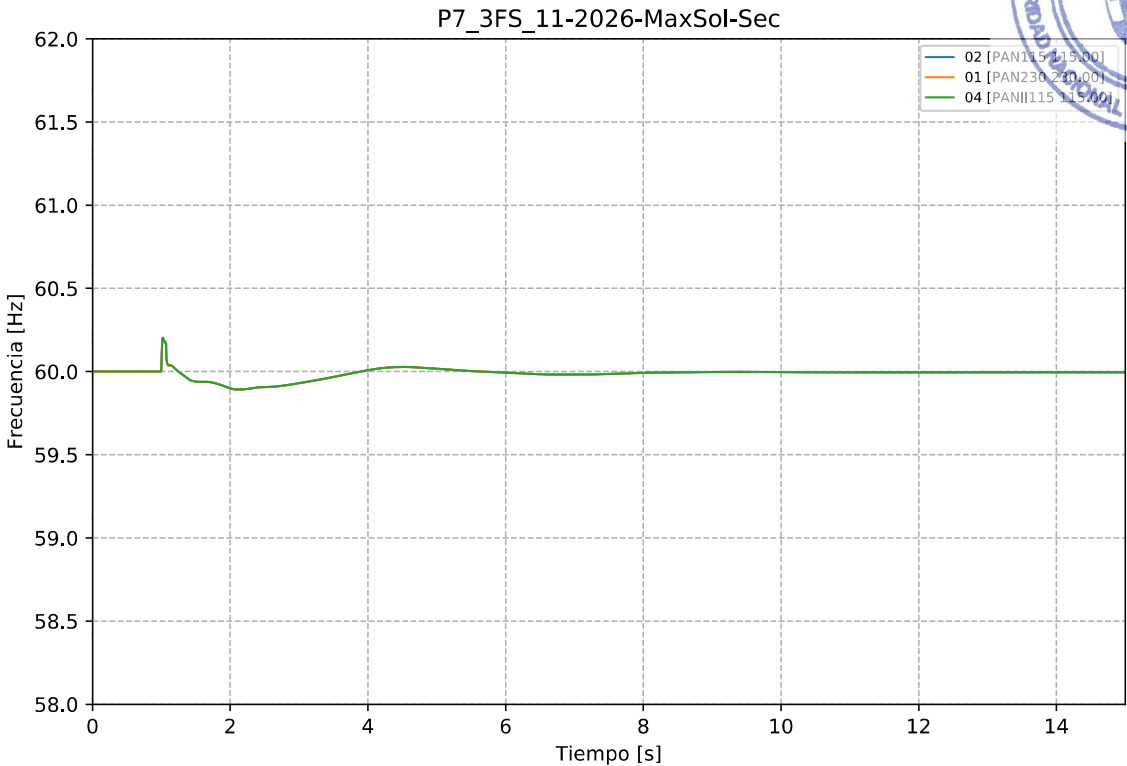


Gráfico 635. Evento P7_3FS, caso 11-2026-MaxSol-Sec. Frecuencia.

AD

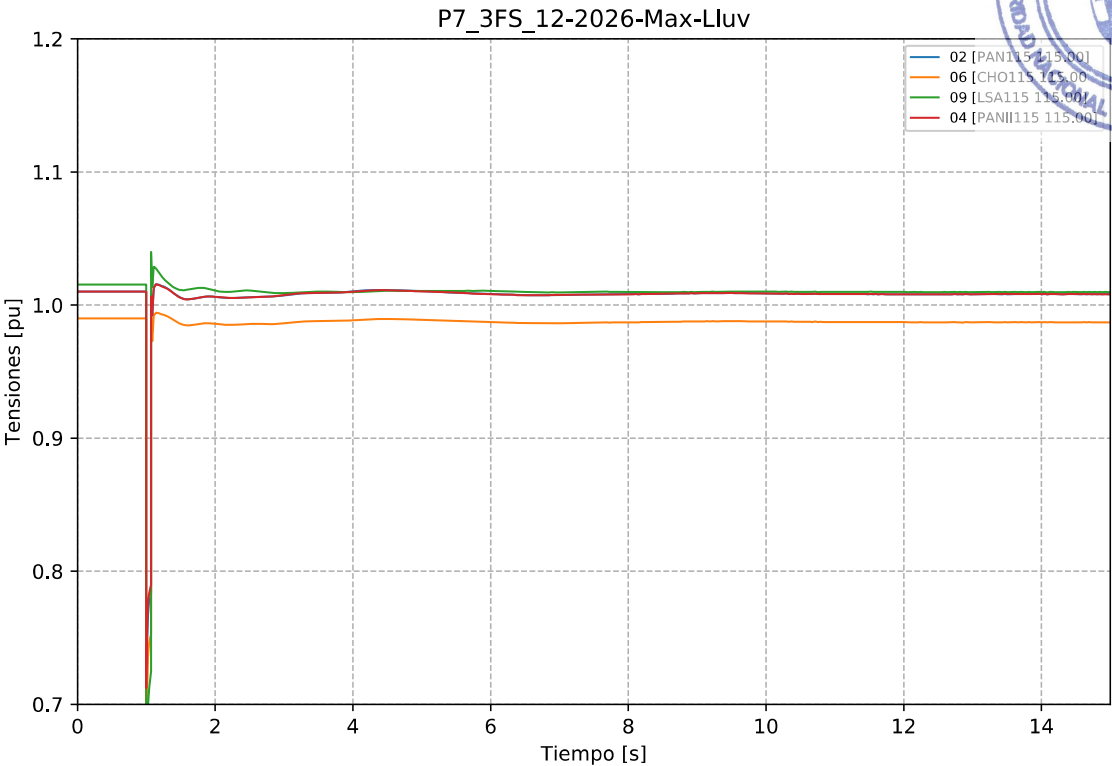


Gráfico 637. Evento P7_3FS, caso 12-2026-Max-Lluv. Tensiones en la zona de influencia 115 kV.

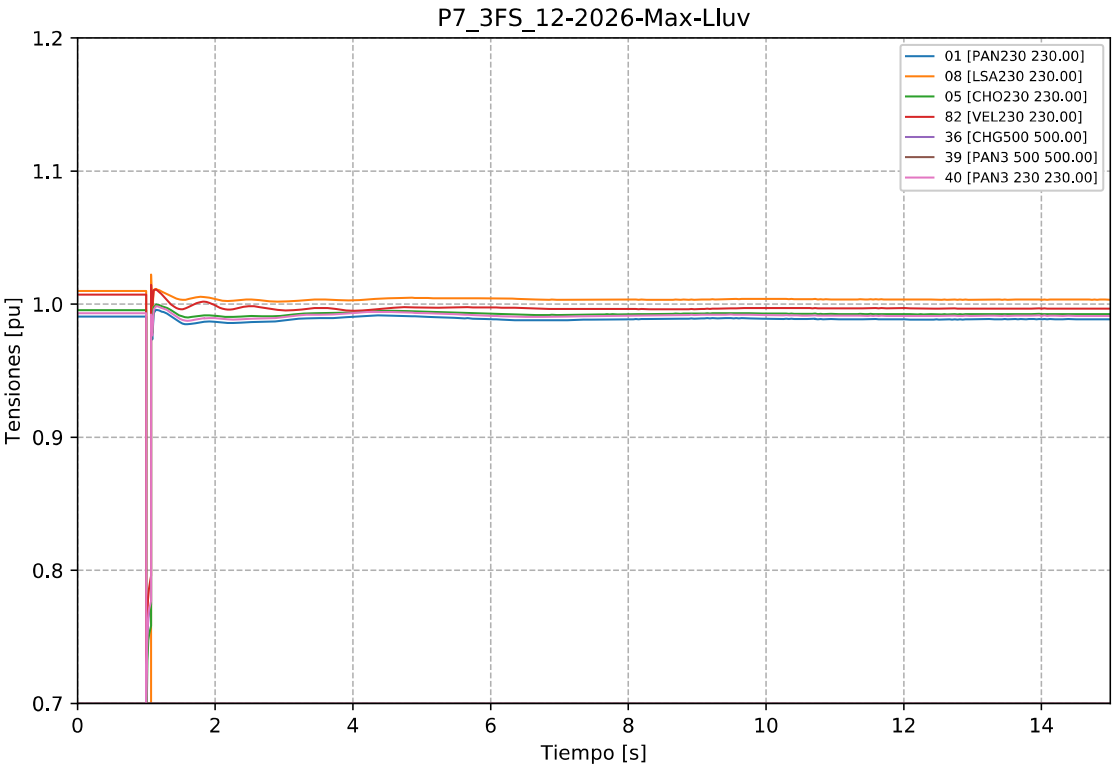


Gráfico 638. Evento P7_3FS, caso 12-2026-Max-Lluv. Tensiones en la zona de influencia 230 kV.

AB

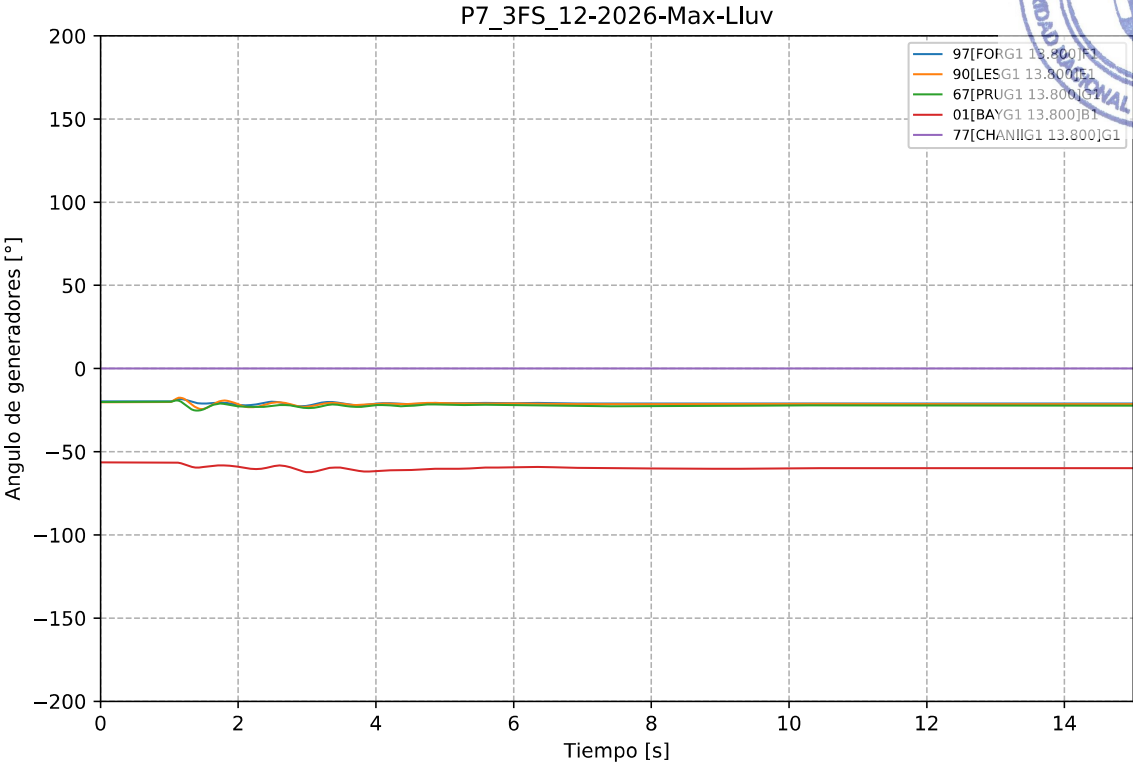


Gráfico 639. Evento P7_3FS, caso 12-2026-Max-Lluv. Ángulo de Generadores Hidroeléctricos.

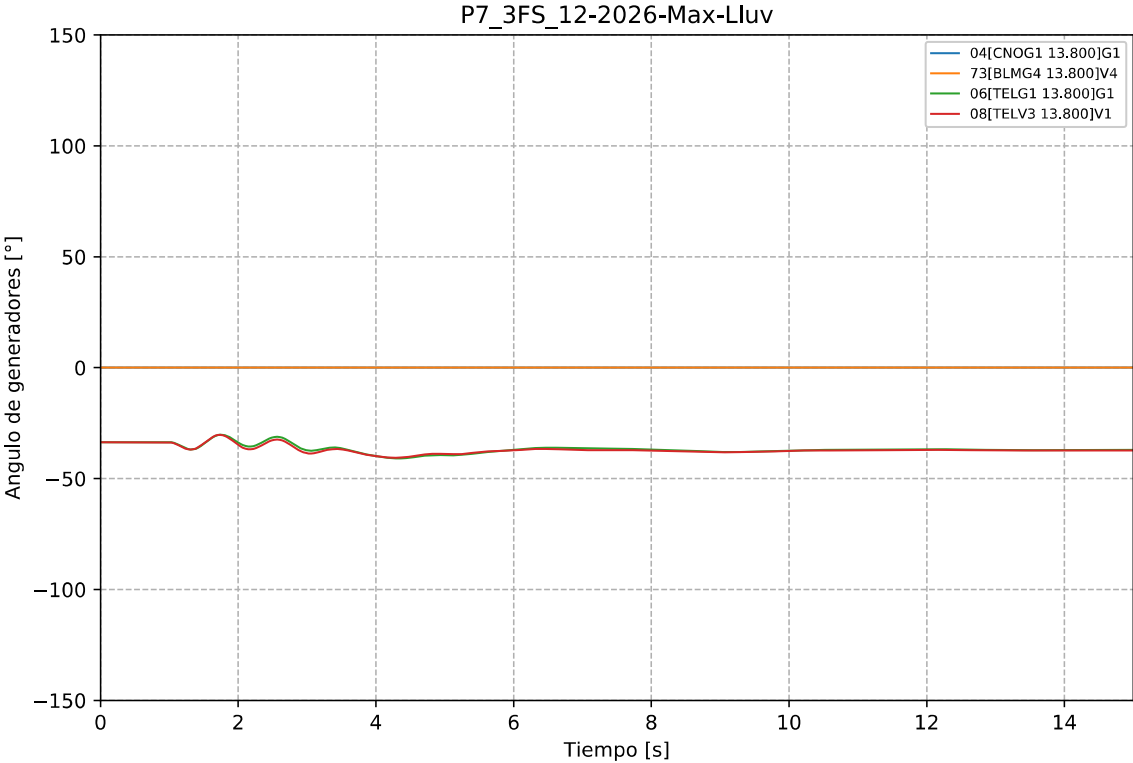


Gráfico 640. Evento P7_3FS, caso 12-2026-Max-Lluv. Ángulo de generadores Térmicos.

Handwritten signature or initials.

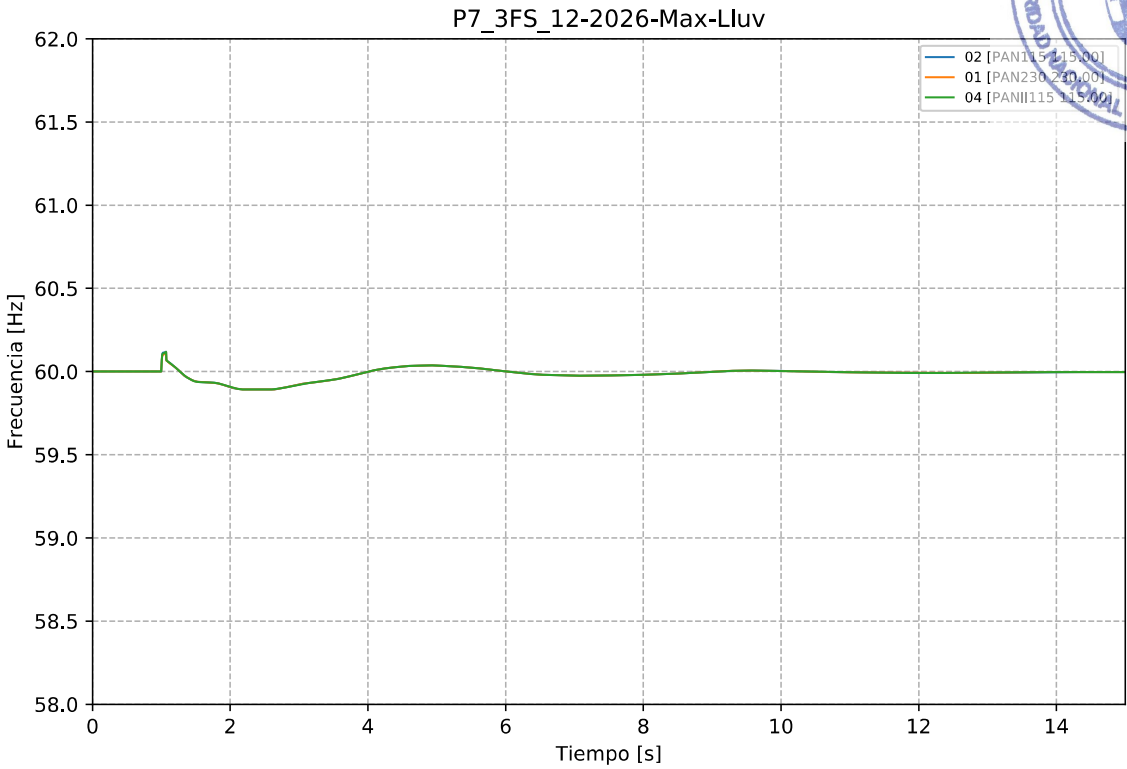


Gráfico 641. Evento P7_3FS, caso 12-2026-Max-Lluv. Frecuencia.

Handwritten signature or initials.

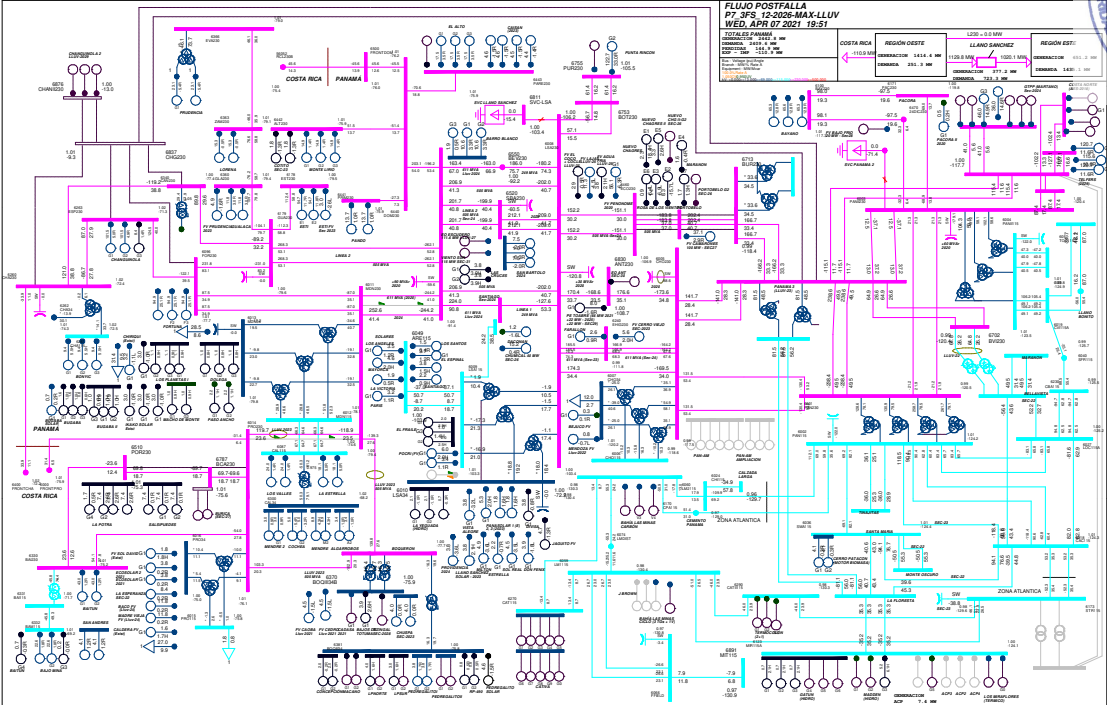


Gráfico 642. Evento P7_3FS, caso 12-2026-Max-LLuv. Flujo postfalla

R

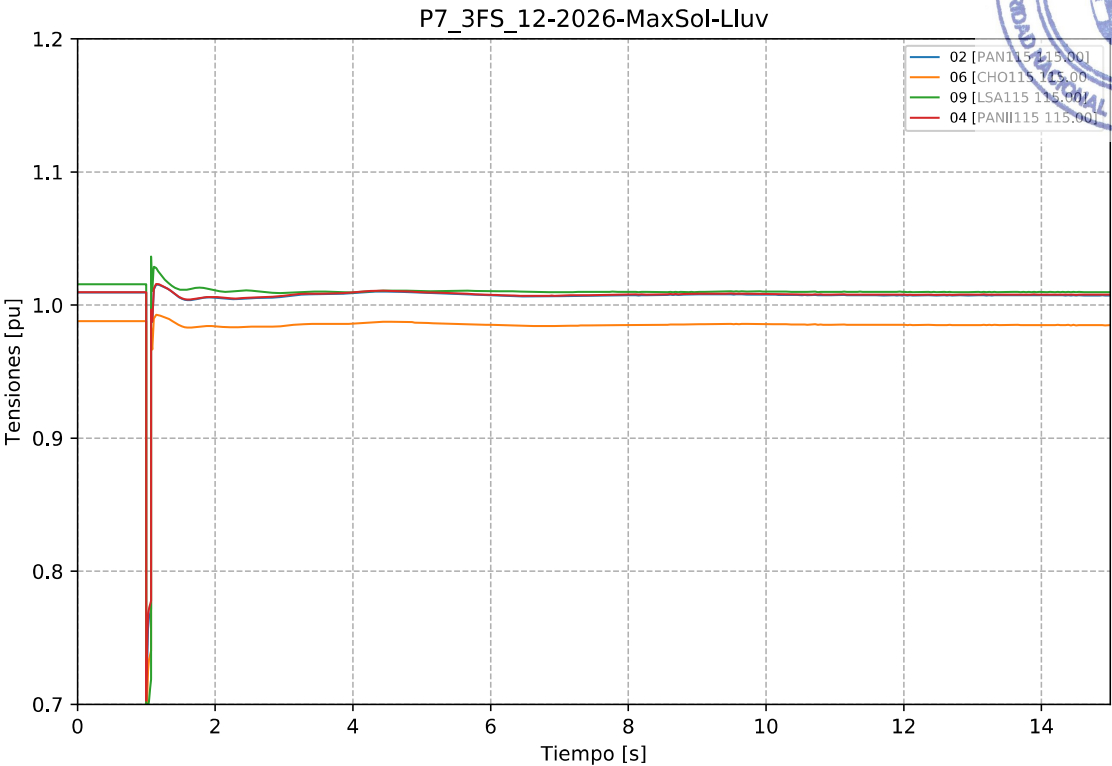


Gráfico 643. Evento P7_3FS, caso 12-2026-MaxSol-Lluv. Tensiones en la zona de influencia 115 kV.

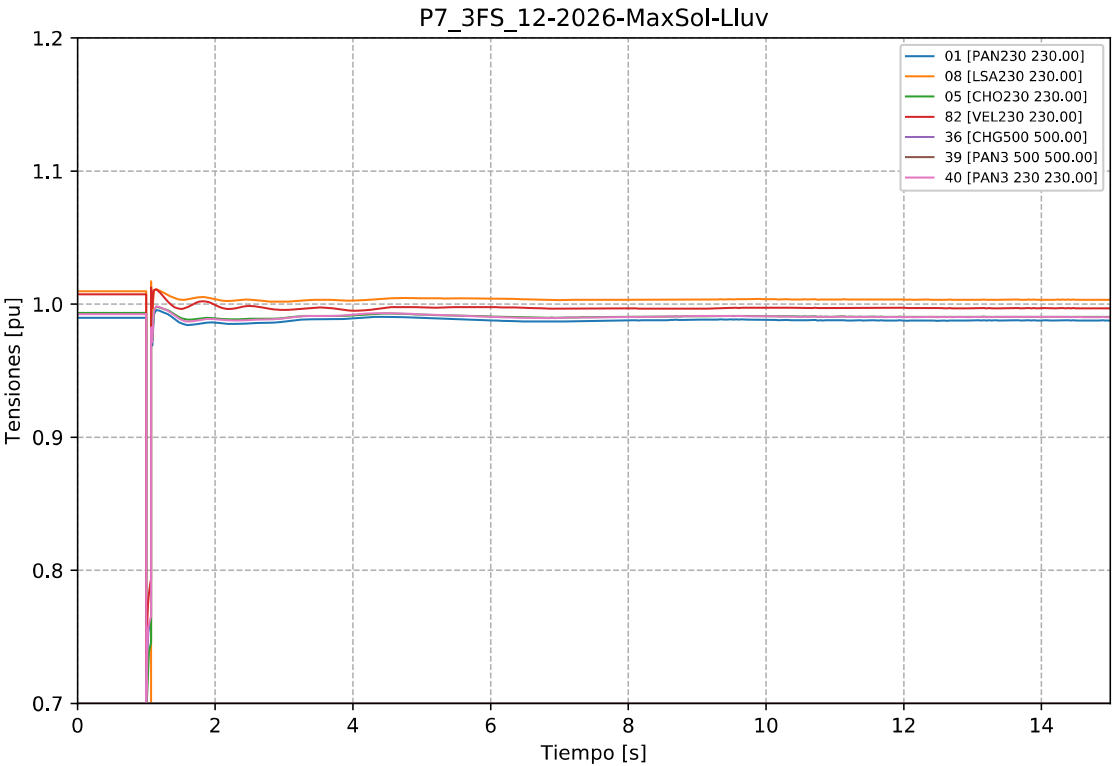


Gráfico 644. Evento P7_3FS, caso 12-2026-MaxSol-Lluv. Tensiones en la zona de influencia 230 kV.

AB

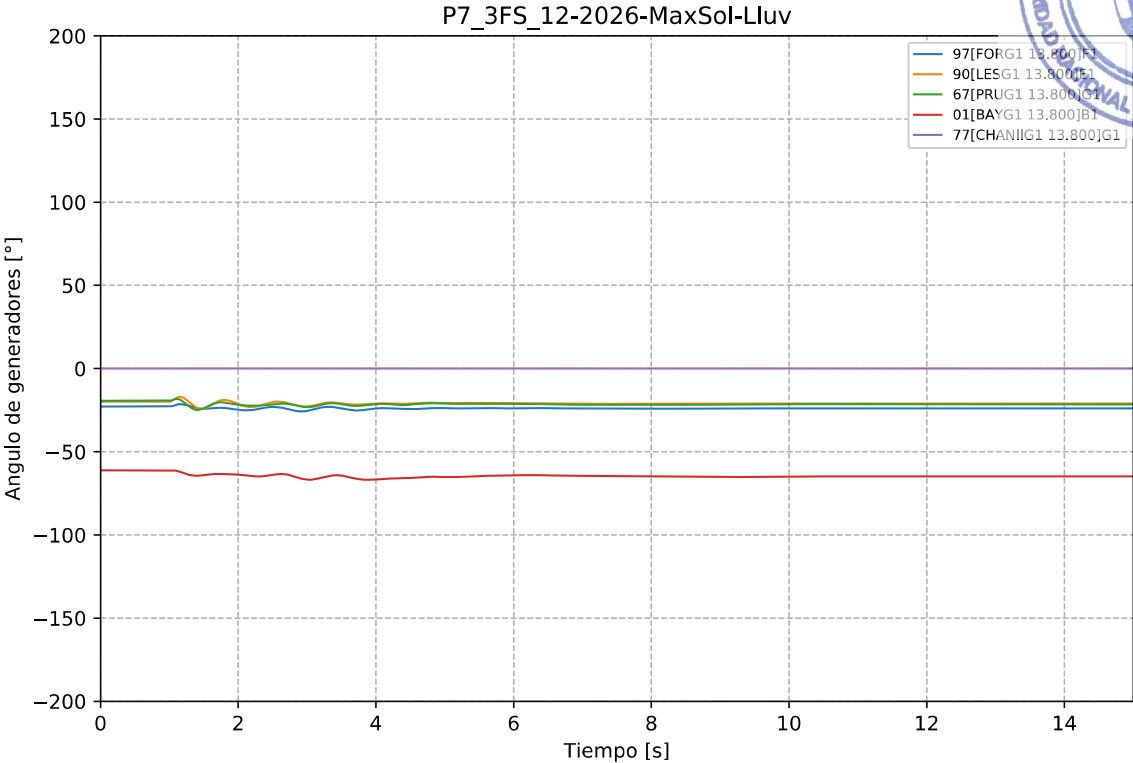


Gráfico 645. Evento P7_3FS, caso 12-2026-MaxSol-Lluv. Ángulo de Generadores Hidroeléctricos.

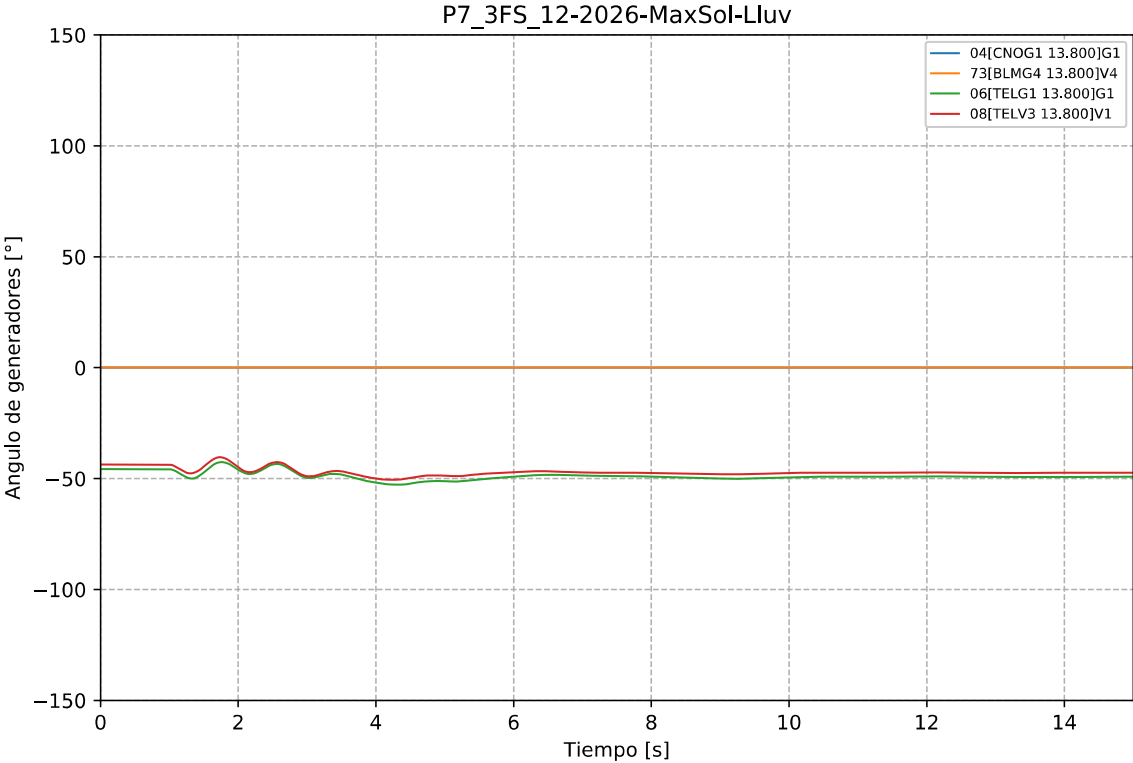


Gráfico 646. Evento P7_3FS, caso 12-2026-MaxSol-Lluv. Ángulo de generadores Térmicos.

AD

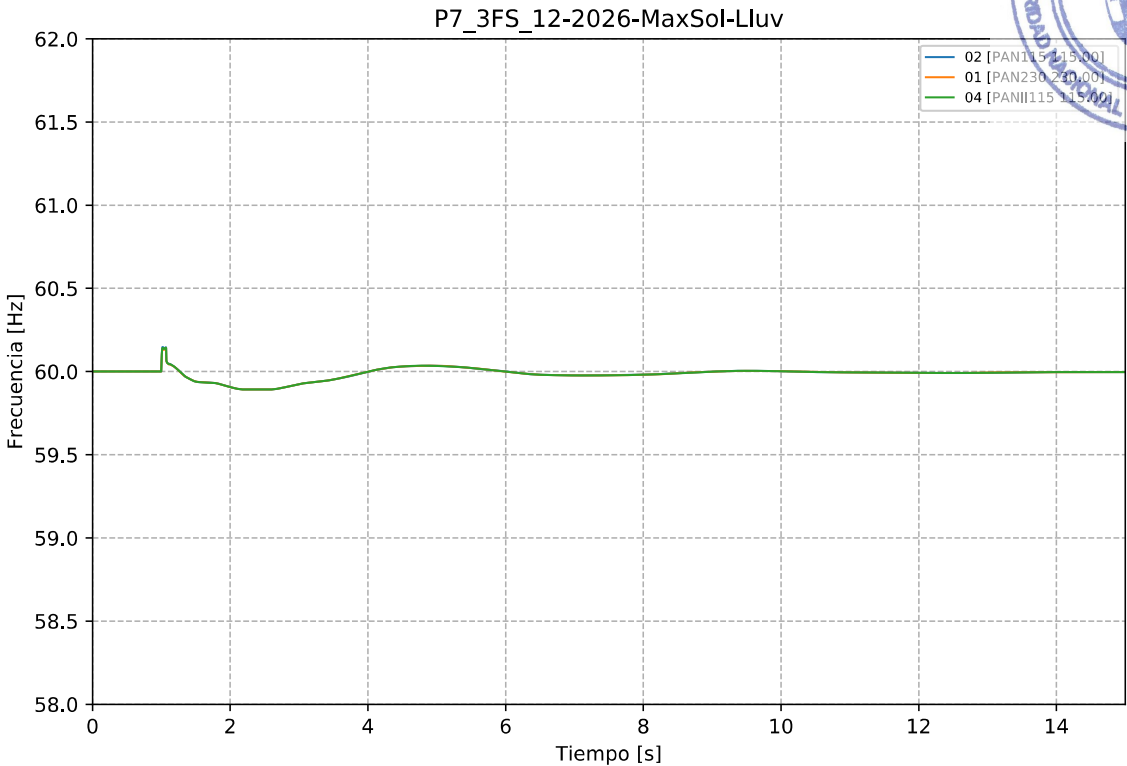


Gráfico 647. Evento P7_3FS, caso 12-2026-MaxSol-Lluv. Frecuencia.

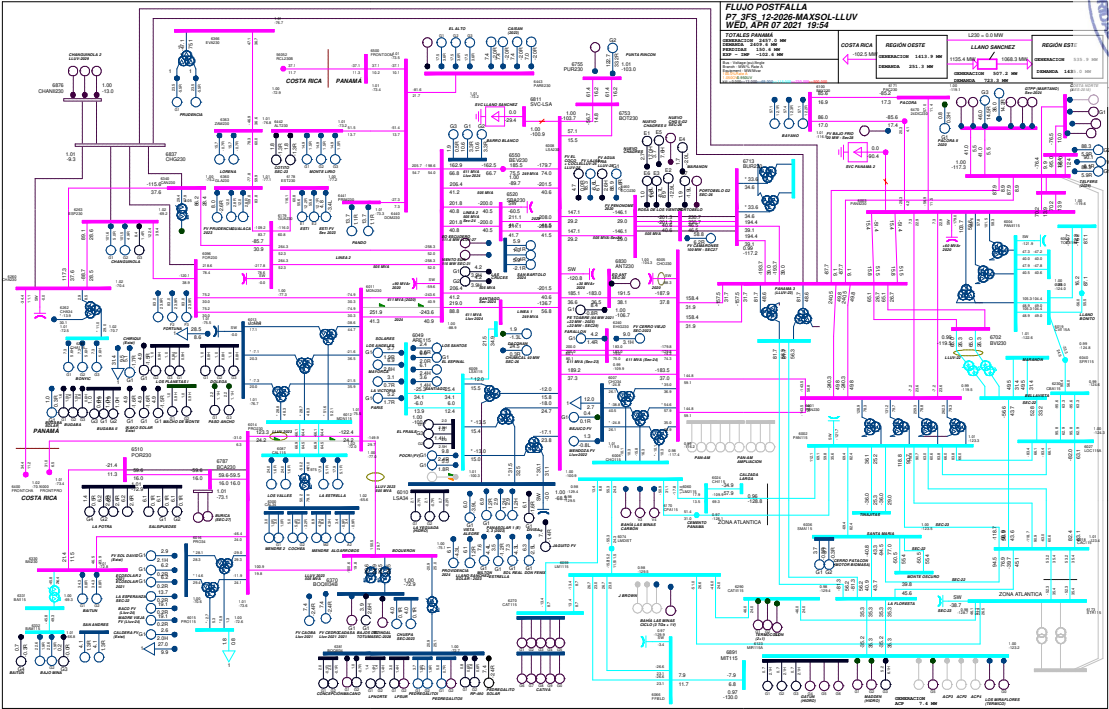


Gráfico 648. Evento P7_3FS, caso 12-2026-MaxSol-Lluv. Flujo postfalla

R

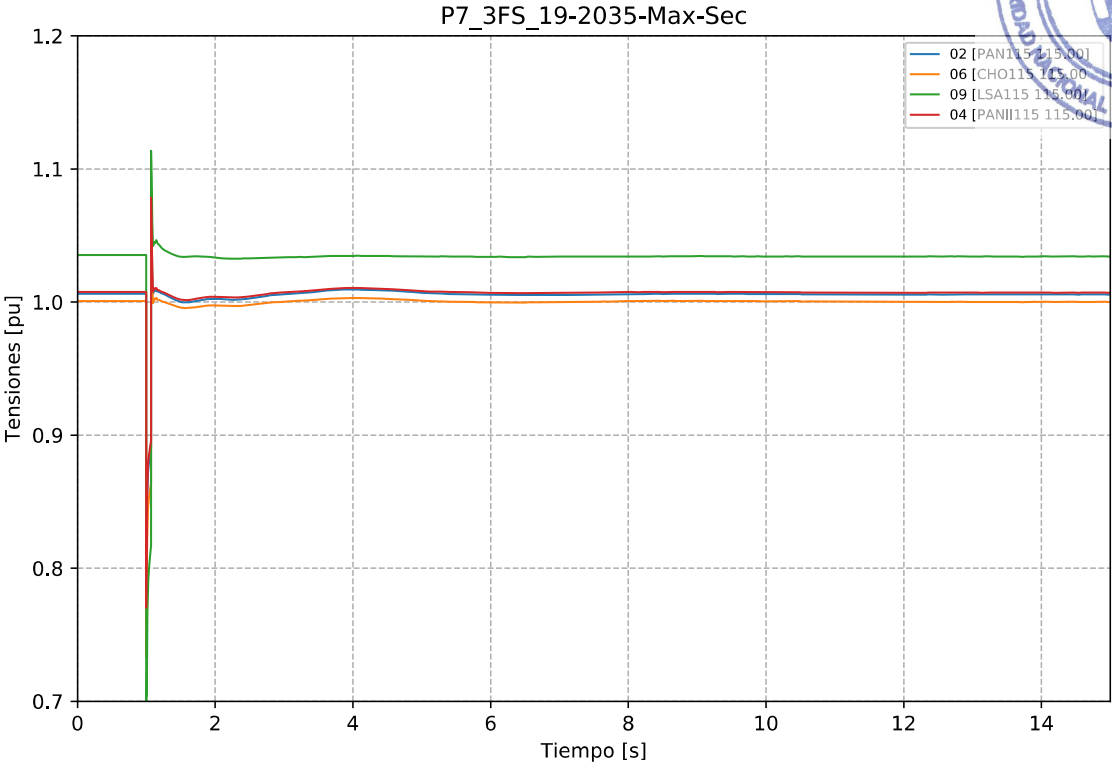


Gráfico 649. Evento P7_3FS, caso 19-2035-Max-Sec. Tensiones en la zona de influencia 115 kV.

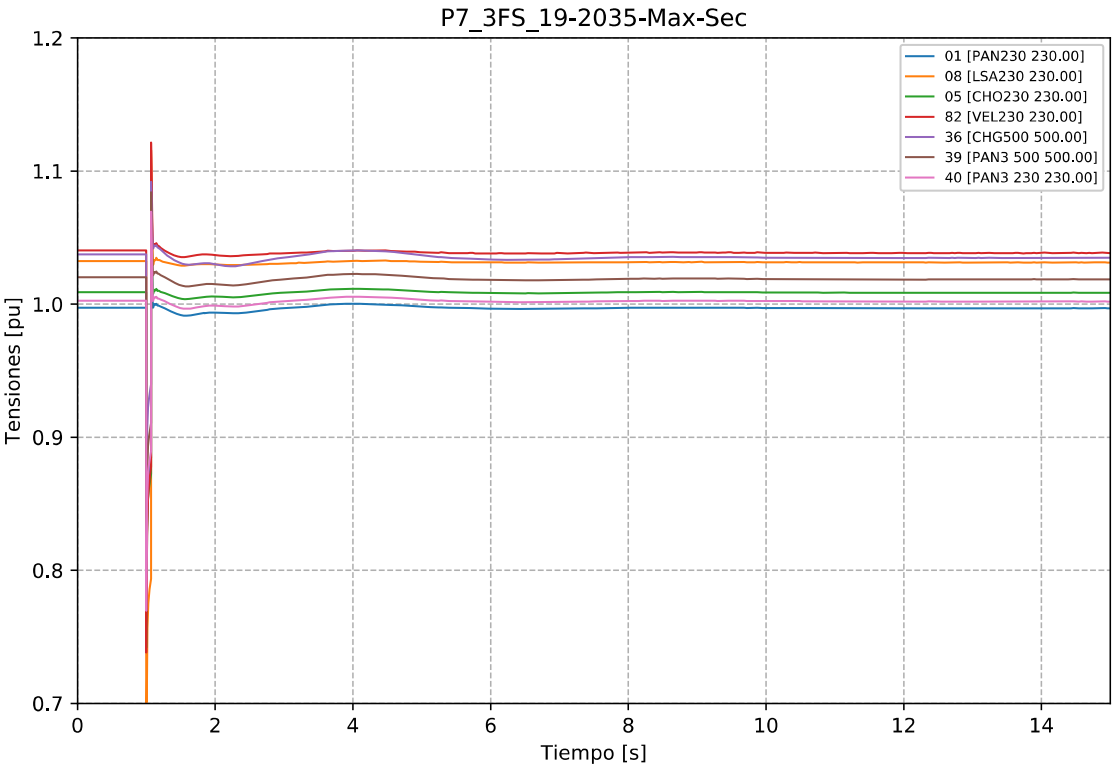


Gráfico 650. Evento P7_3FS, caso 19-2035-Max-Sec. Tensiones en la zona de influencia 230 kV.

AD

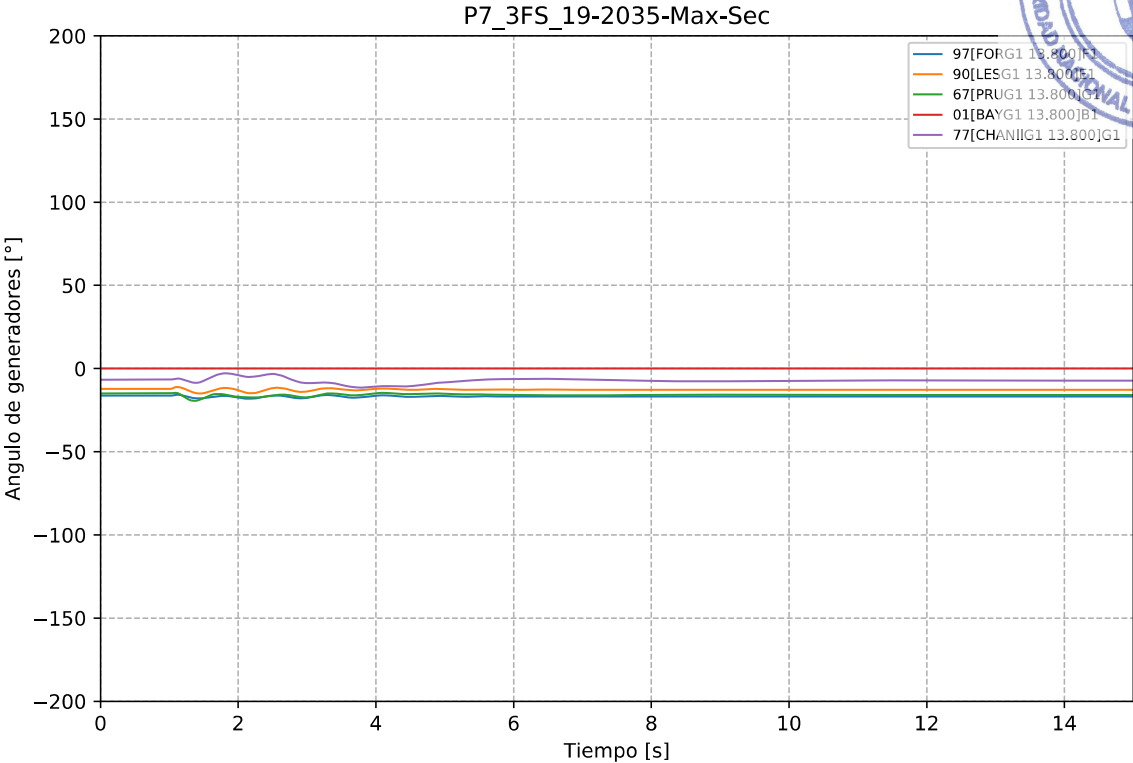


Gráfico 651. Evento P7_3FS, caso 19-2035-Max-Sec. Ángulo de Generadores Hidroeléctricos.

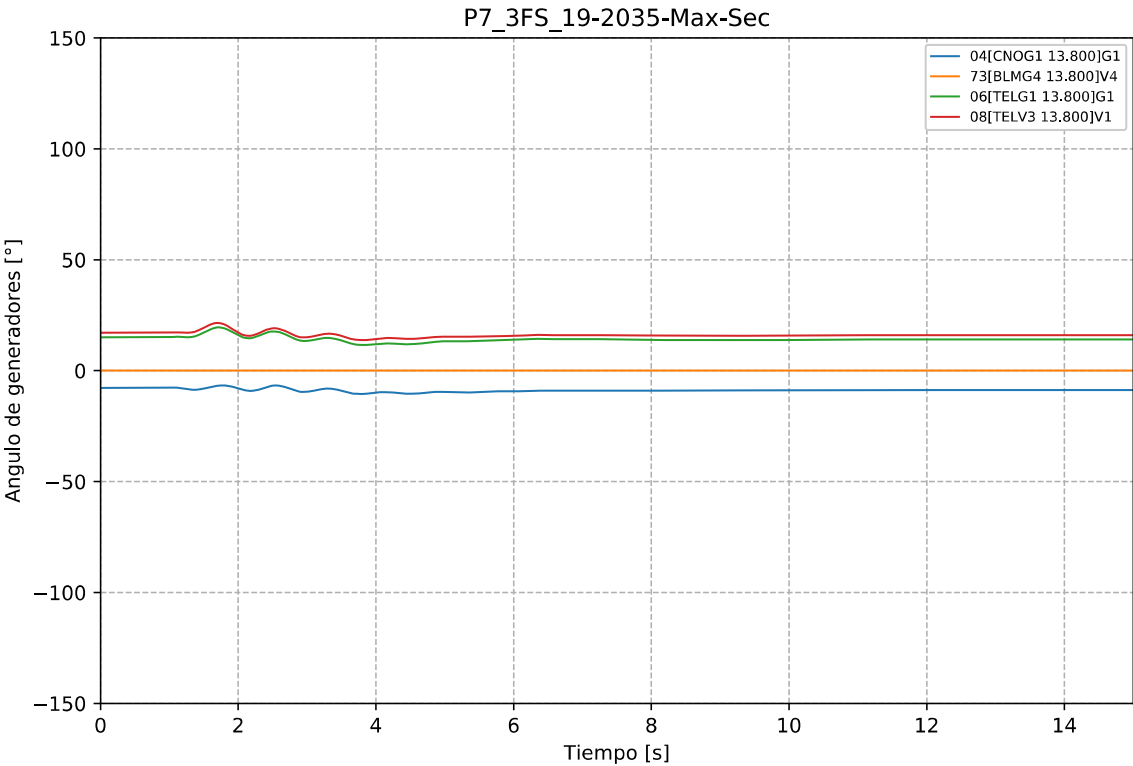


Gráfico 652. Evento P7_3FS, caso 19-2035-Max-Sec. Ángulo de generadores Térmicos.

AD

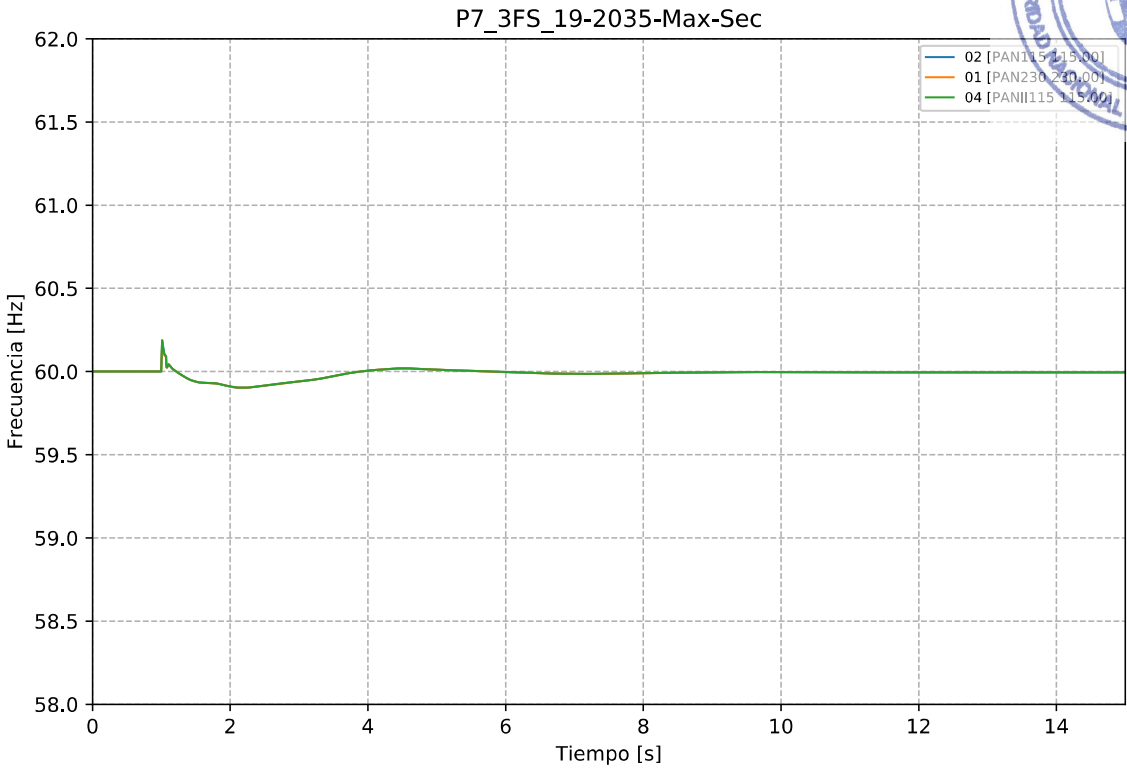


Gráfico 653. Evento P7_3FS, caso 19-2035-Max-Sec. Frecuencia.

AD

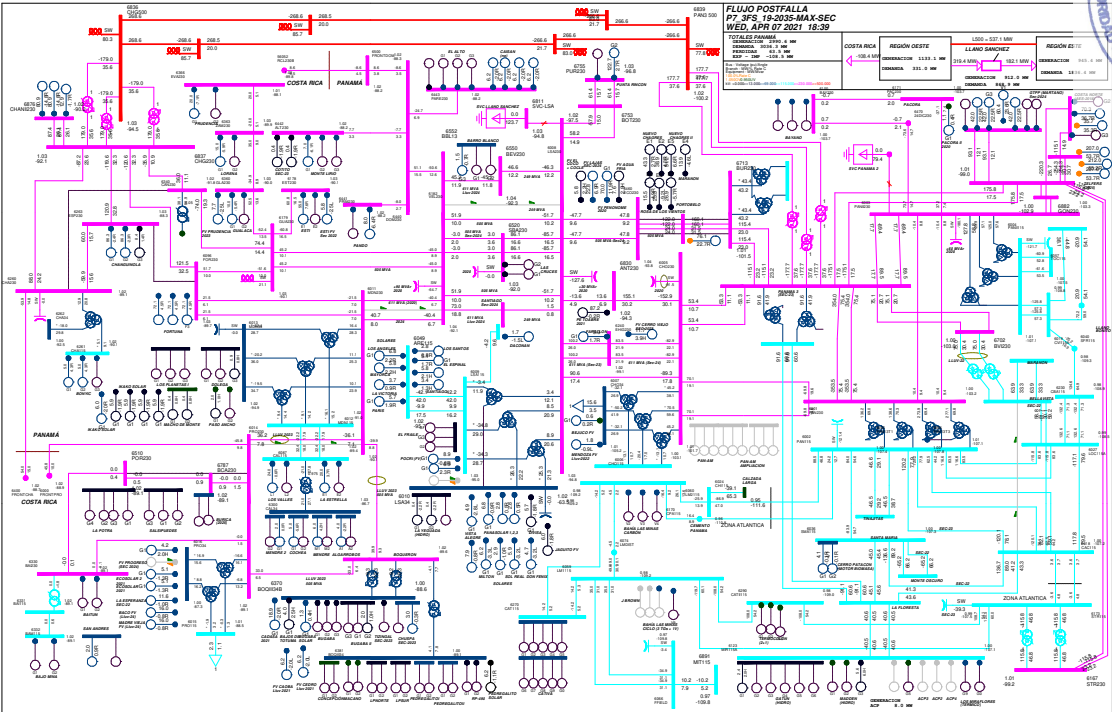


Gráfico 654. Evento P7_3FS, caso 19-2035-Max-Sec. Flujo postfalla

R

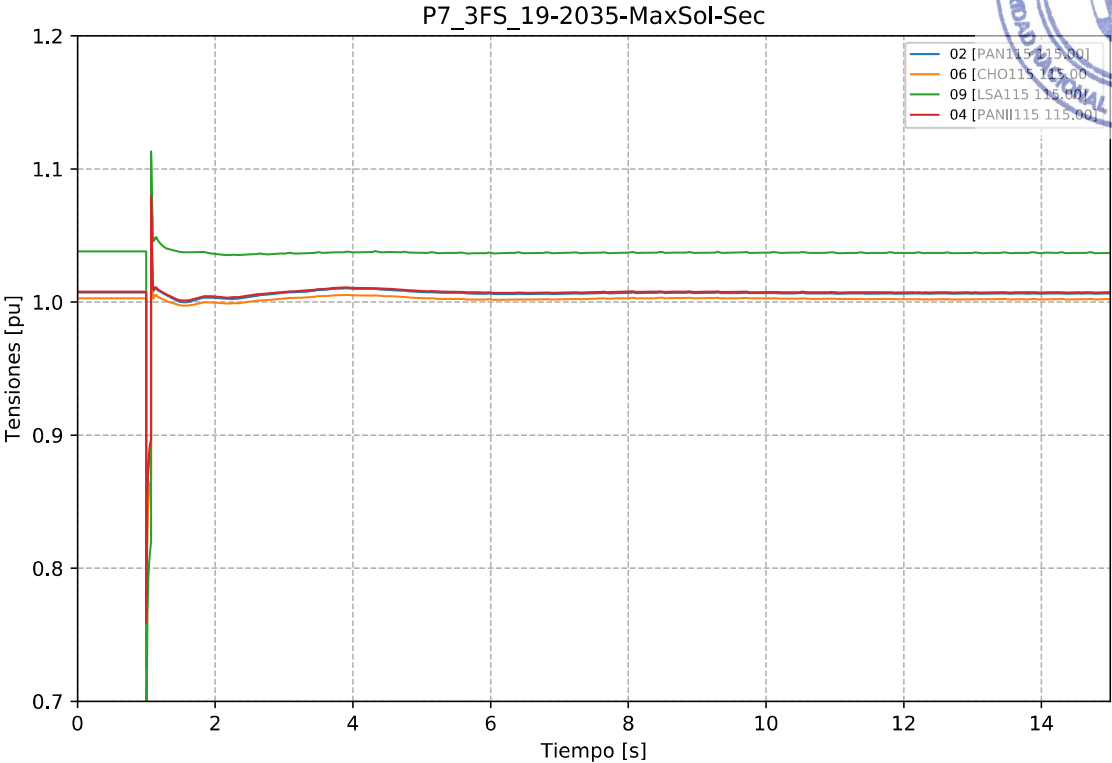


Gráfico 655. Evento P7_3FS, caso 19-2035-MaxSol-Sec. Tensiones en la zona de influencia 115 kV.

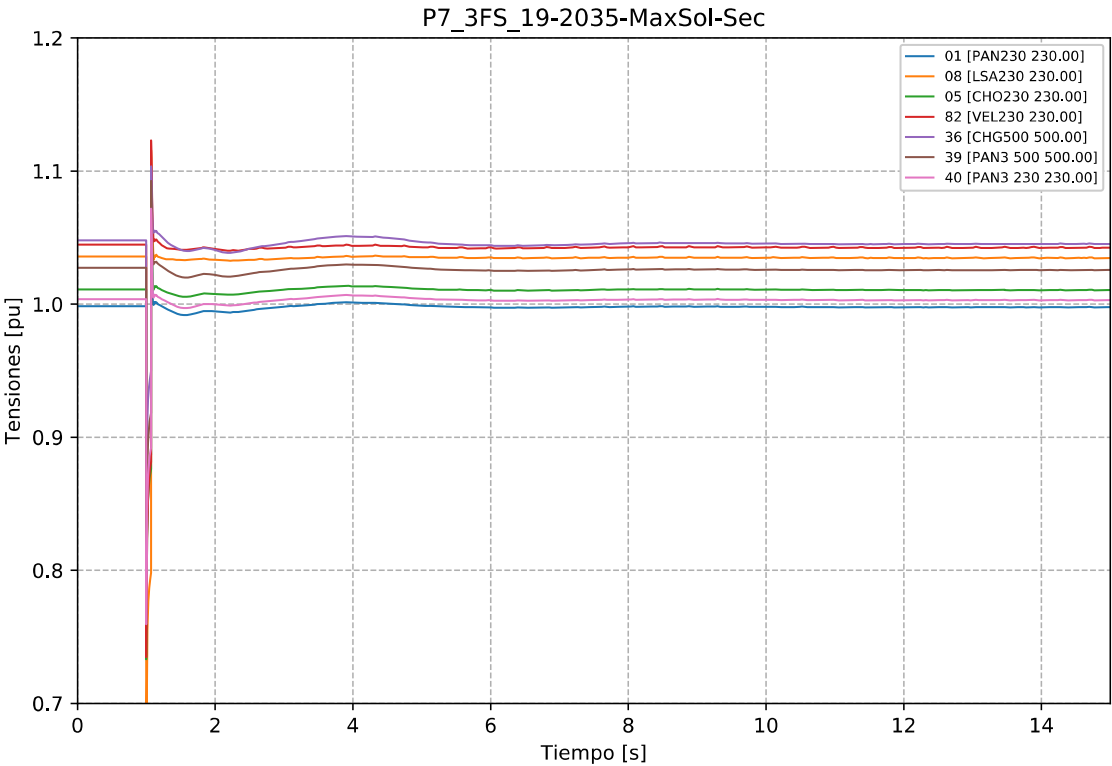


Gráfico 656. Evento P7_3FS, caso 19-2035-MaxSol-Sec. Tensiones en la zona de influencia 230 kV.

AD

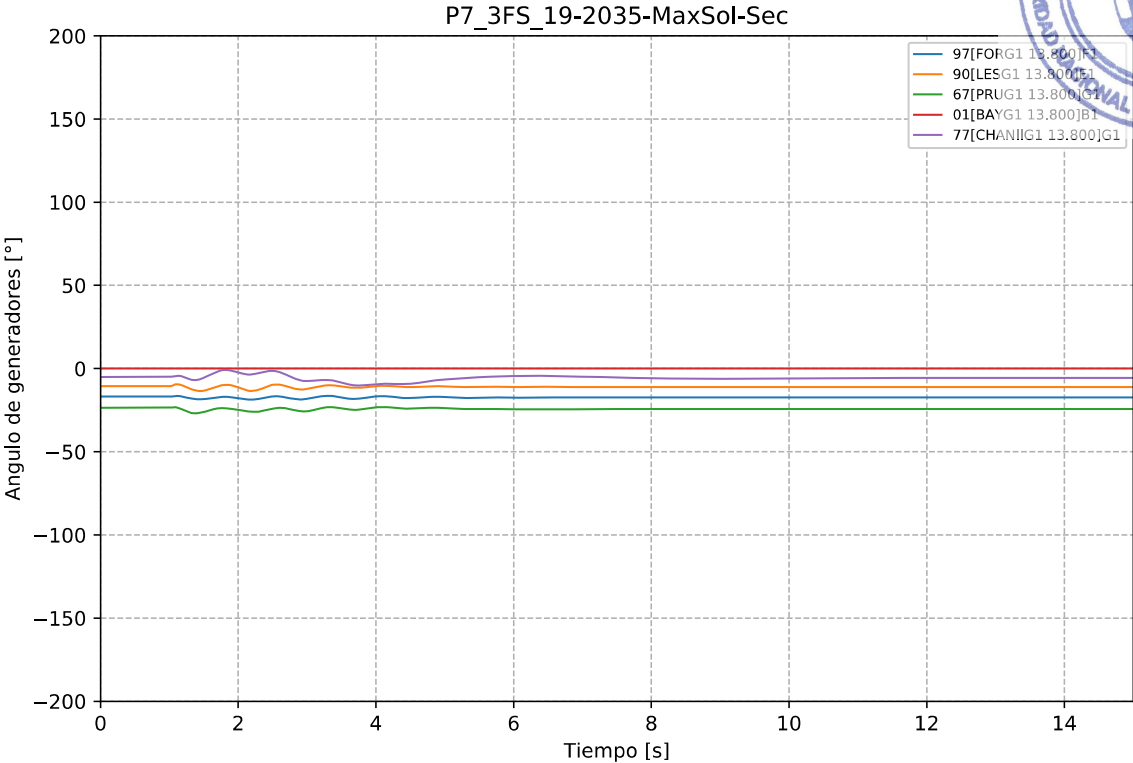


Gráfico 657. Evento P7_3FS, caso 19-2035-MaxSol-Sec. Ángulo de Generadores Hidroeléctricos.

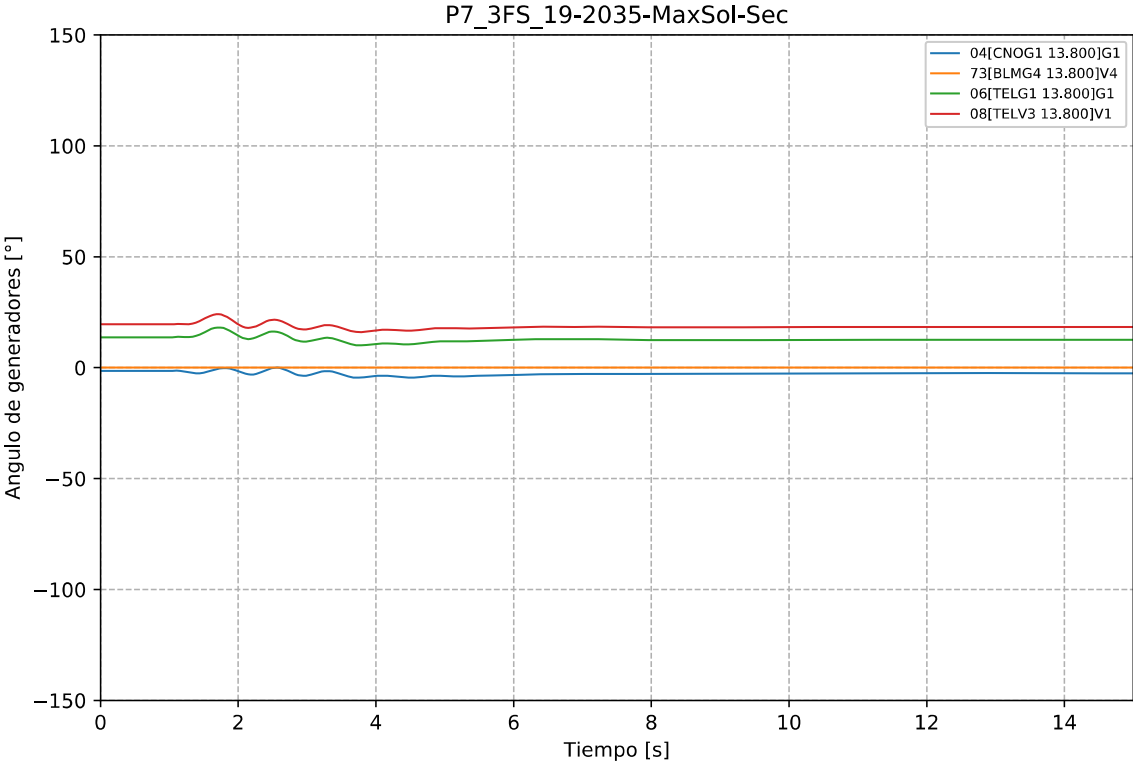


Gráfico 658. Evento P7_3FS, caso 19-2035-MaxSol-Sec. Ángulo de generadores Térmicos.

AD

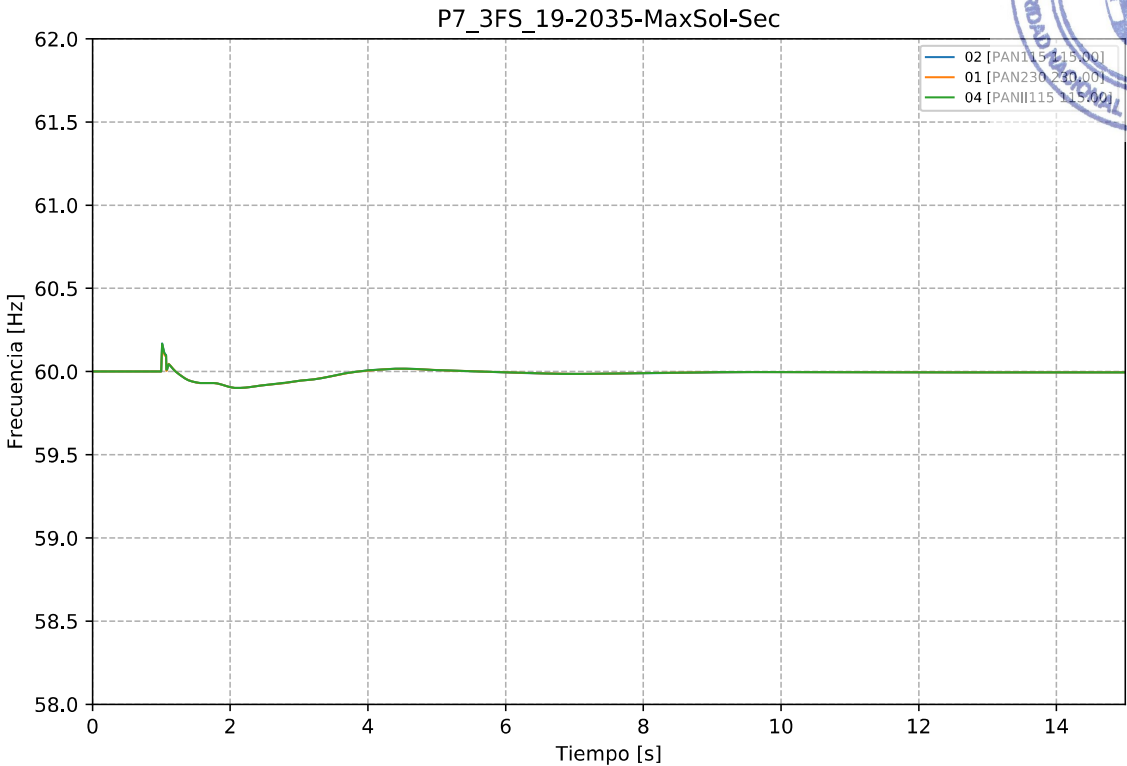


Gráfico 659. Evento P7_3FS, caso 19-2035-MaxSol-Sec. Frecuencia.

AD

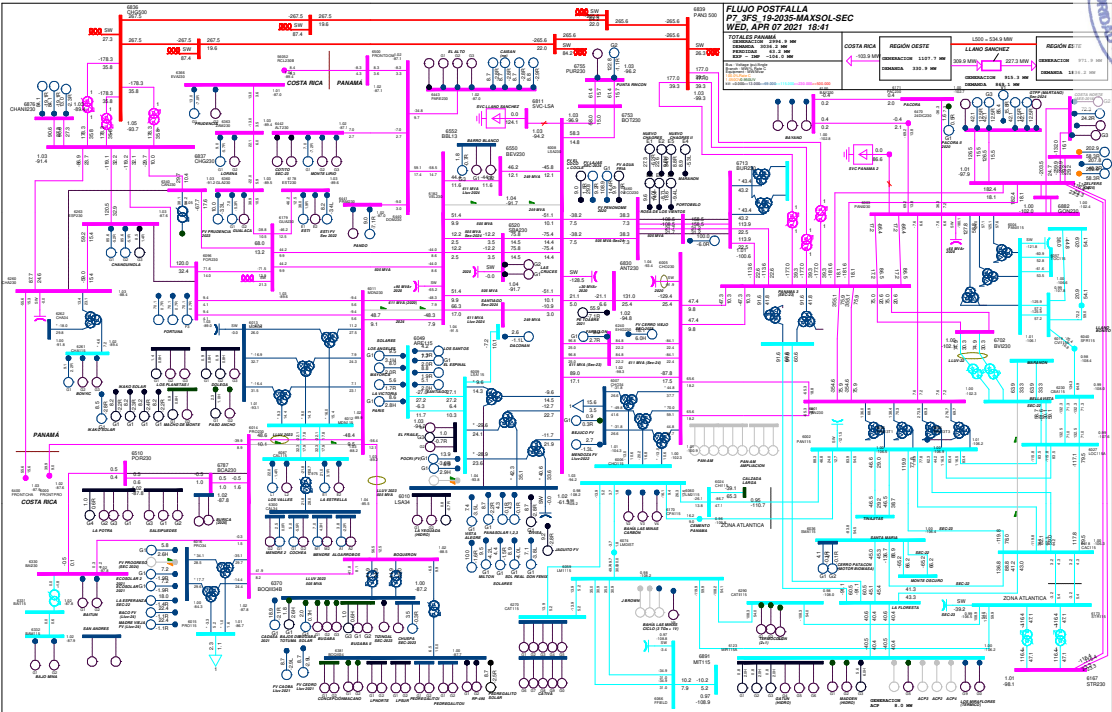


Gráfico 660. Evento P7_3FS, caso 19-2035-MaxSol-Sec. Flujo postfalla

R

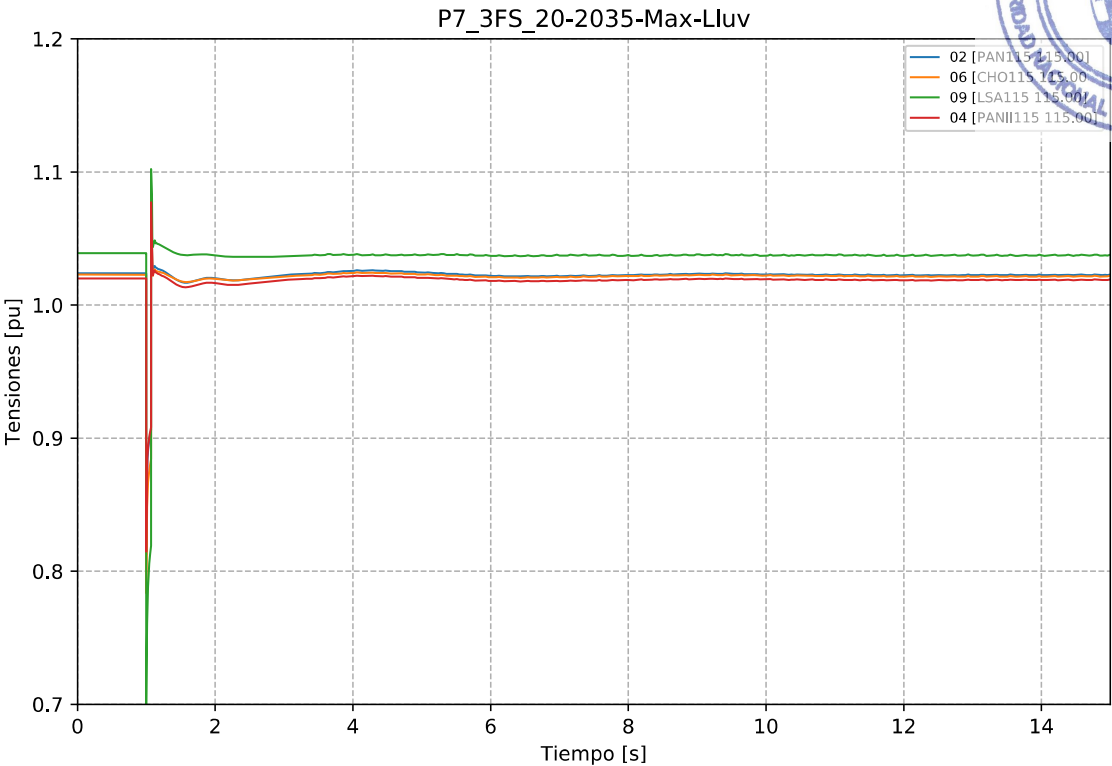


Gráfico 661. Evento P7_3FS, caso 20-2035-Max-Lluv. Tensiones en la zona de influencia 115 kV.

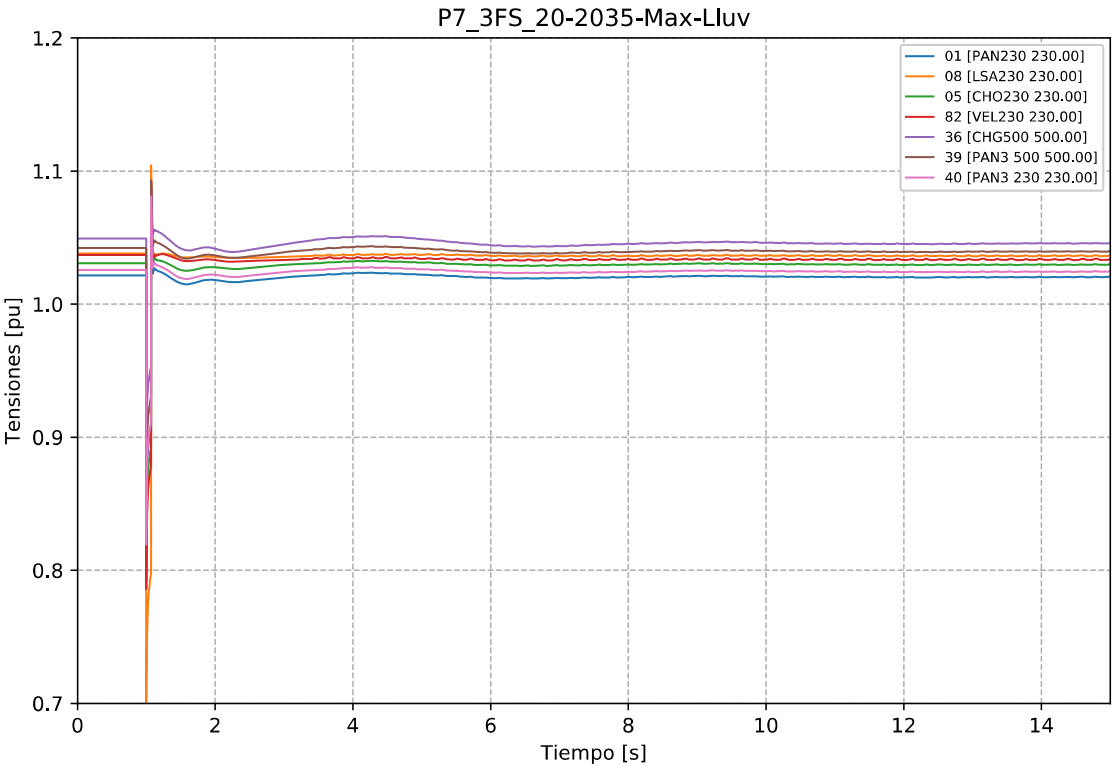


Gráfico 662. Evento P7_3FS, caso 20-2035-Max-Lluv. Tensiones en la zona de influencia 230 kV.

AB

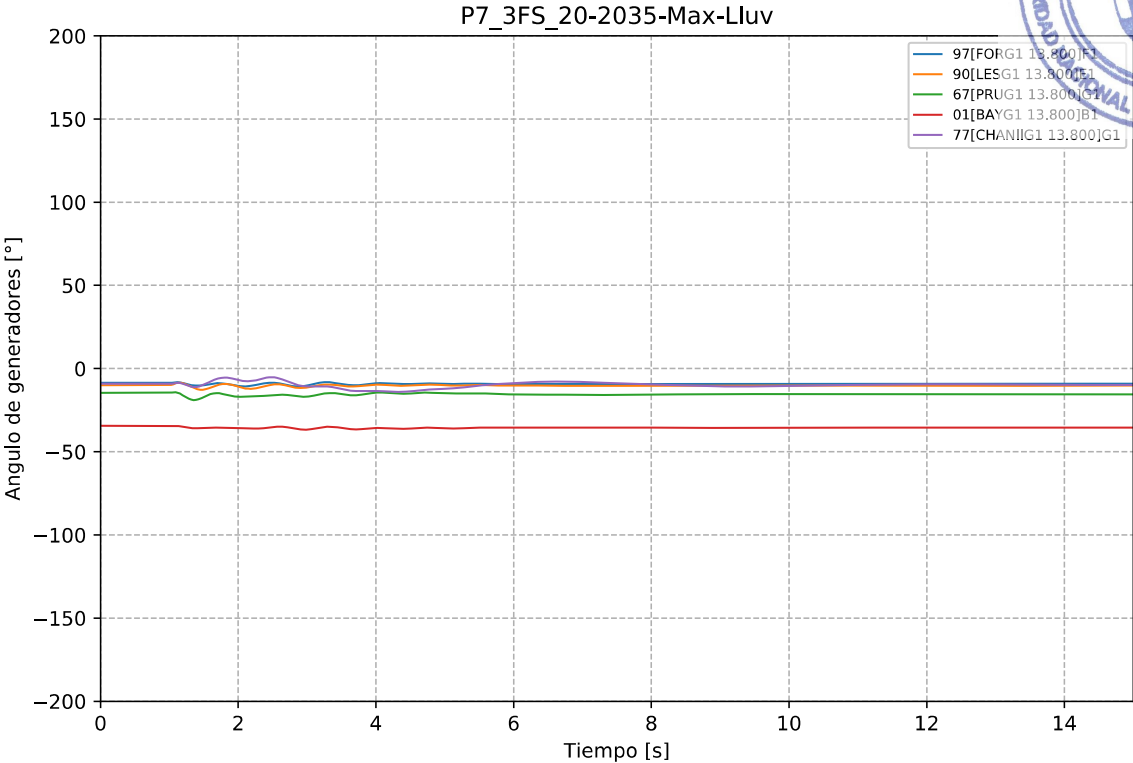


Gráfico 663. Evento P7_3FS, caso 20-2035-Max-Lluv. Ángulo de Generadores Hidroeléctricos.

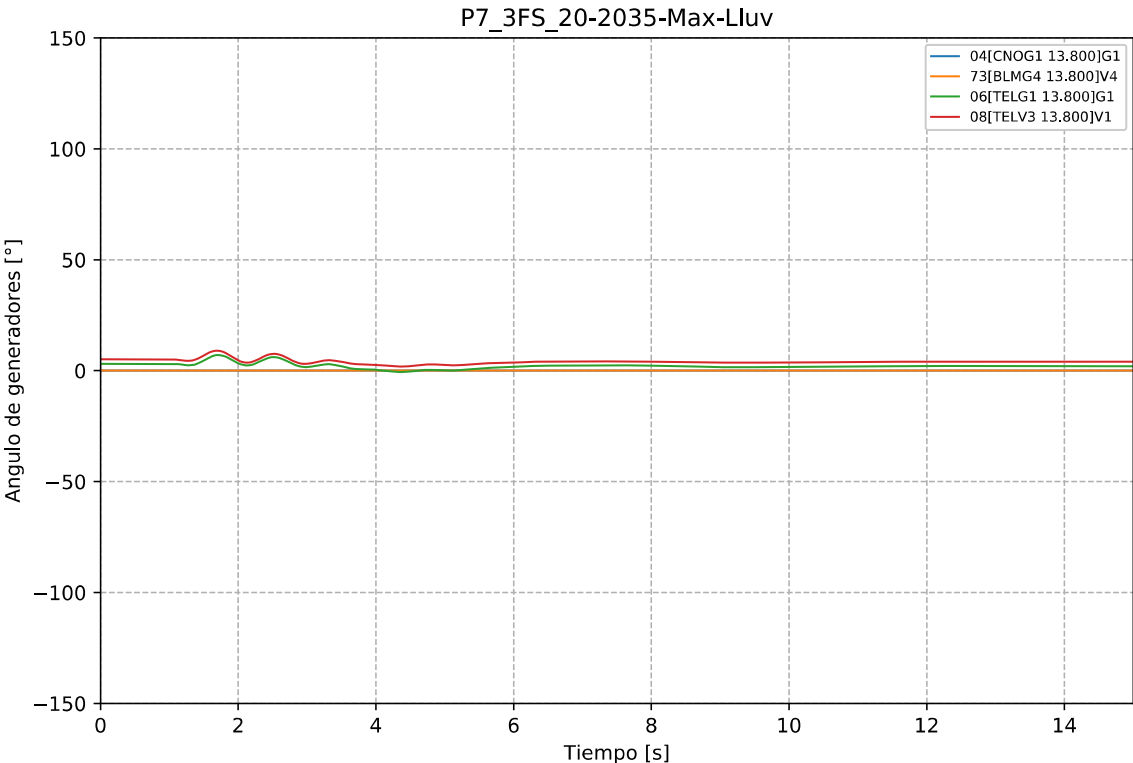


Gráfico 664. Evento P7_3FS, caso 20-2035-Max-Lluv. Ángulo de generadores Térmicos.

AD

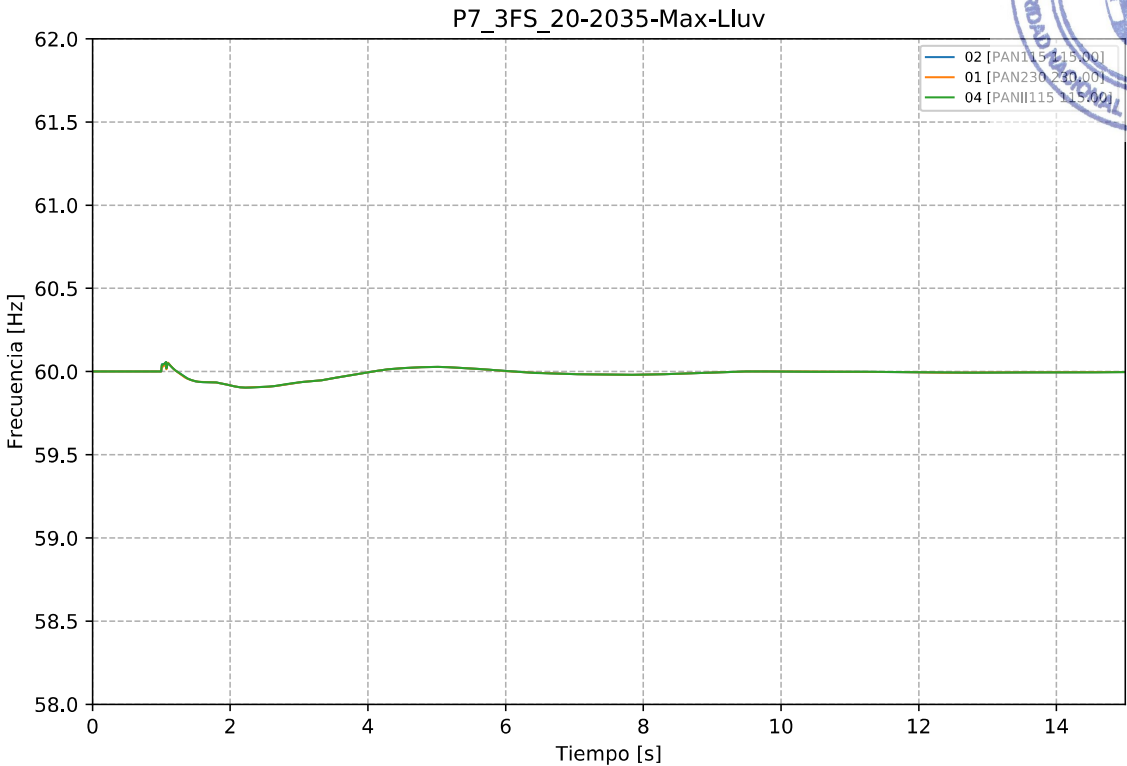


Gráfico 665. Evento P7_3FS, caso 20-2035-Max-Lluv. Frecuencia.

AD

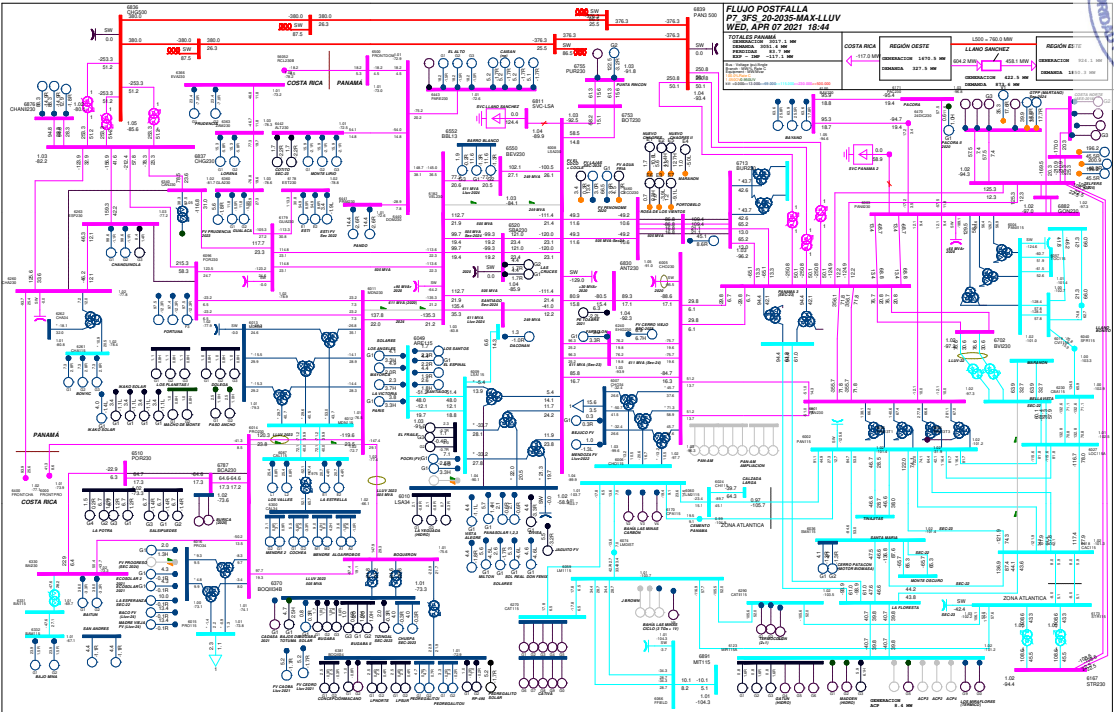


Gráfico 666. Evento P7_3FS, caso 20-2035-Max-Lluv. Flujo postfalla

R

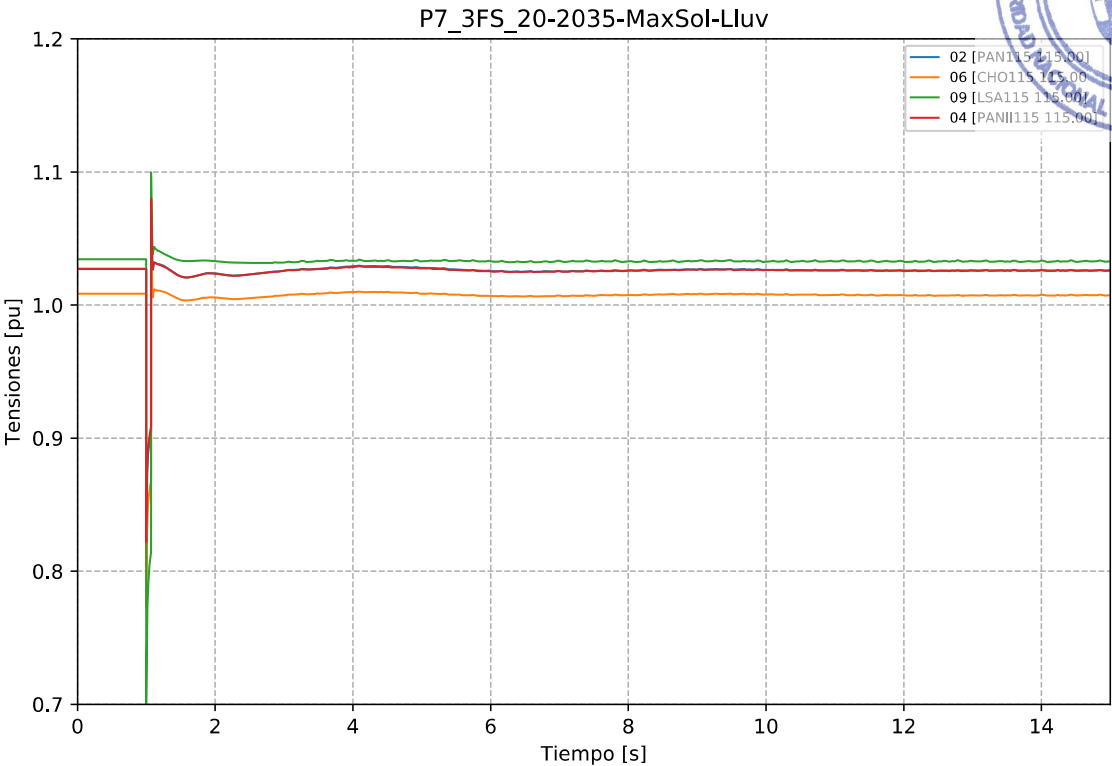


Gráfico 667. Evento P7_3FS, caso 20-2035-MaxSol-Lluv. Tensiones en la zona de influencia 115 kV.

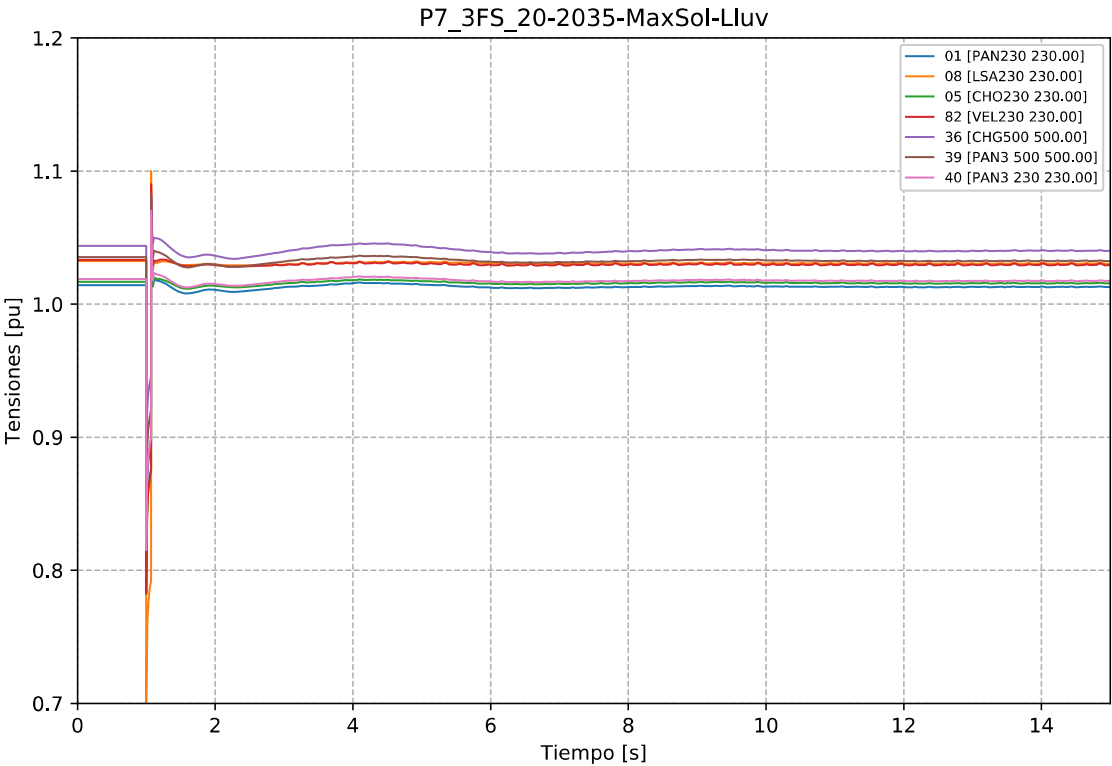


Gráfico 668. Evento P7_3FS, caso 20-2035-MaxSol-Lluv. Tensiones en la zona de influencia 230 kV.

AB

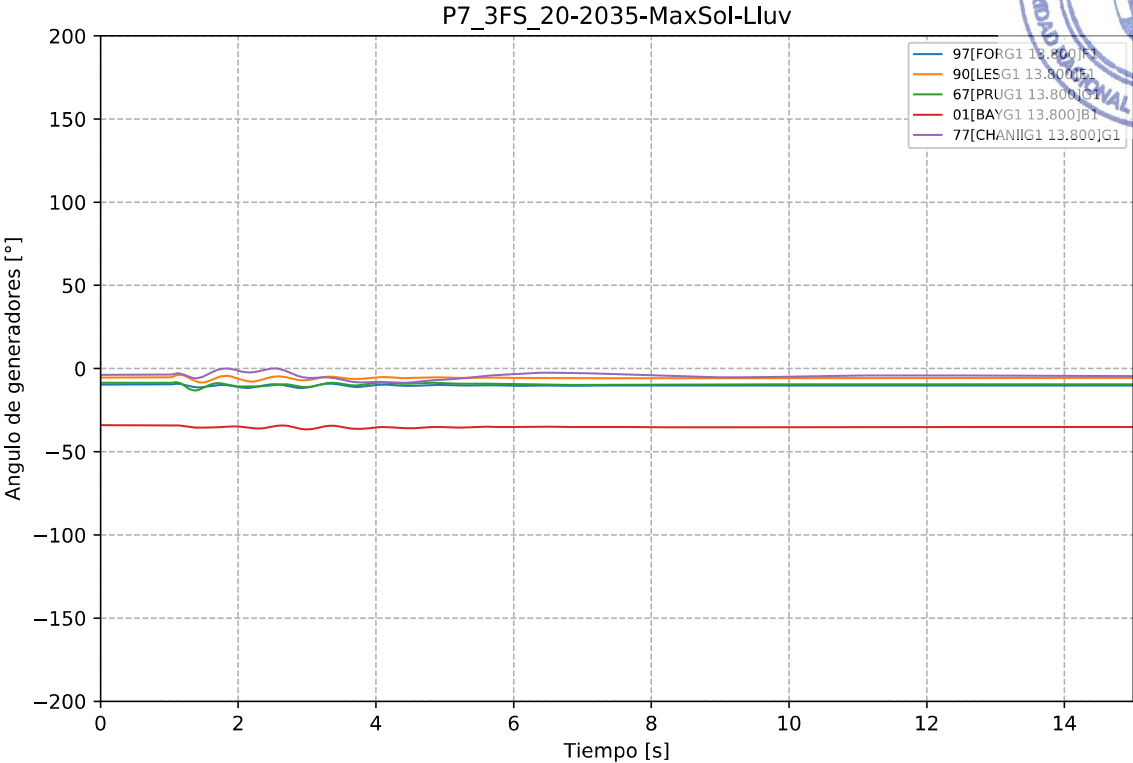


Gráfico 669. Evento P7_3FS, caso 20-2035-MaxSol-Lluv. Ángulo de Generadores Hidroeléctricos.

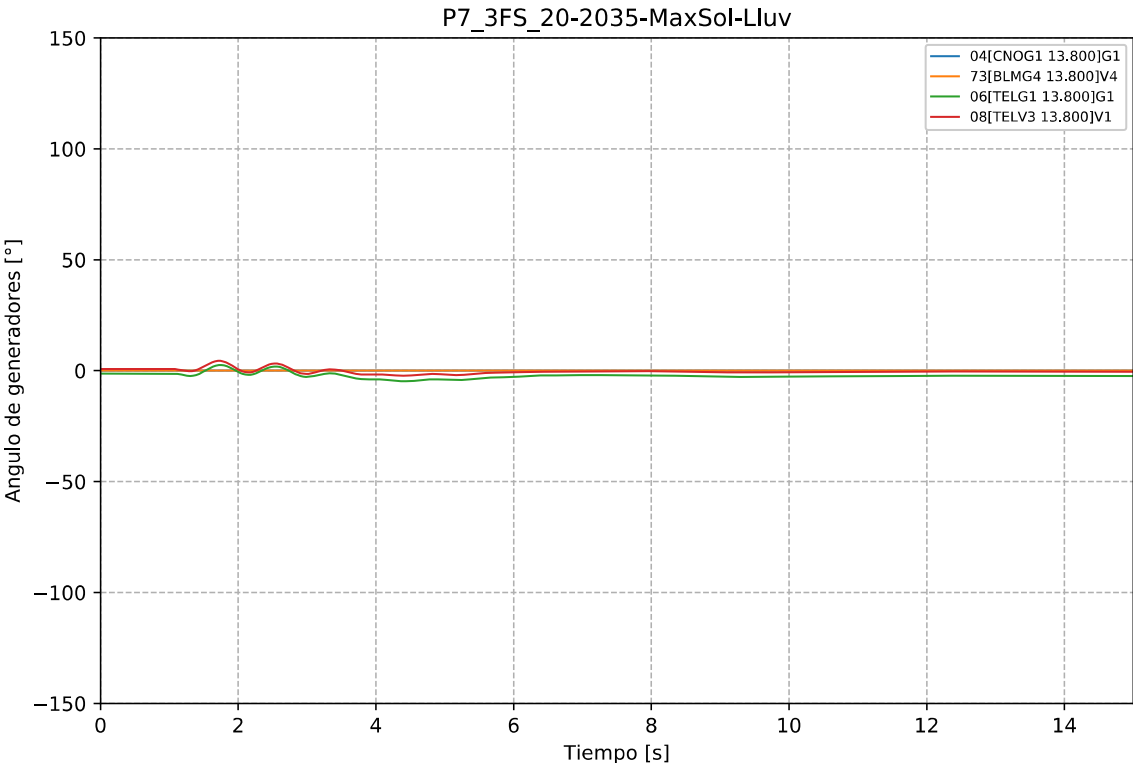


Gráfico 670. Evento P7_3FS, caso 20-2035-MaxSol-Lluv. Ángulo de generadores Térmicos.

AD

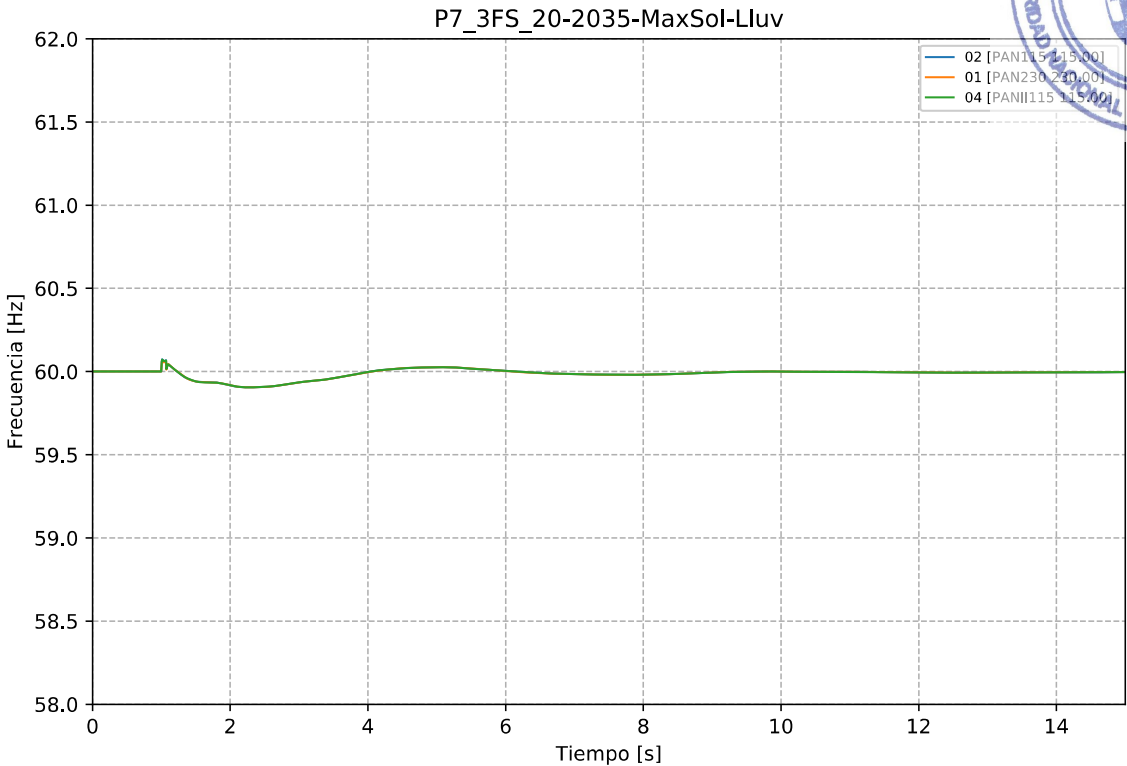


Gráfico 671. Evento P7_3FS, caso 20-2035-MaxSol-Lluv. Frecuencia.

AD

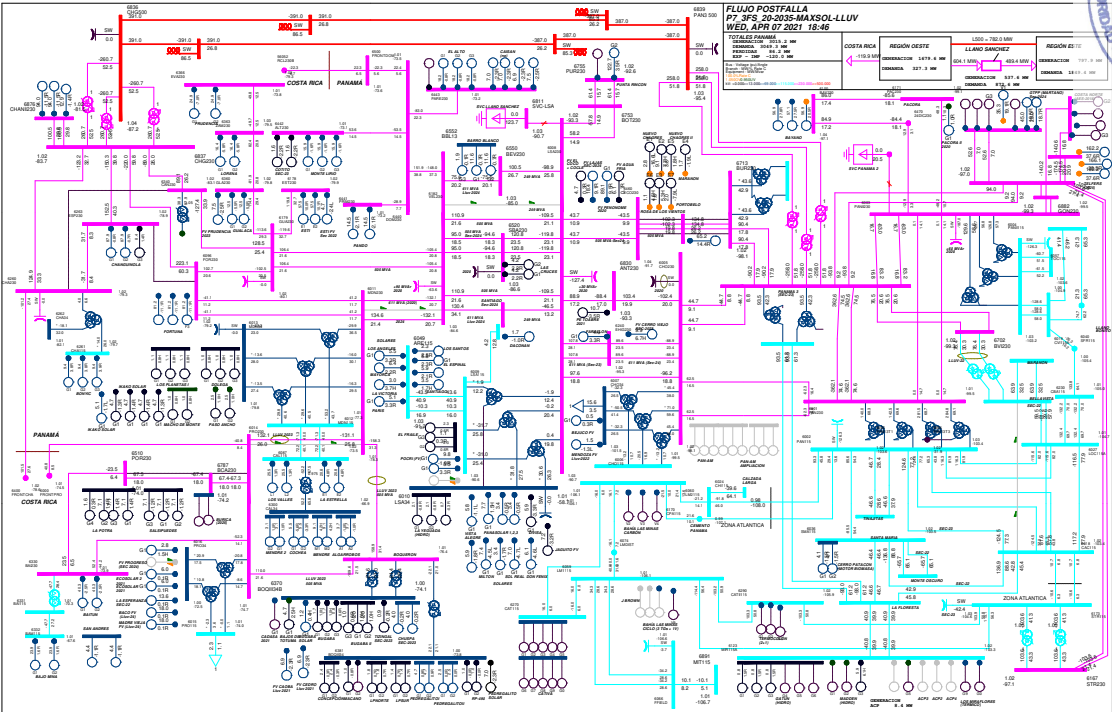


Gráfico 672. Evento P7_3FS, caso 20-2035-MaxSol-Lluv. Flujo postfalla

R

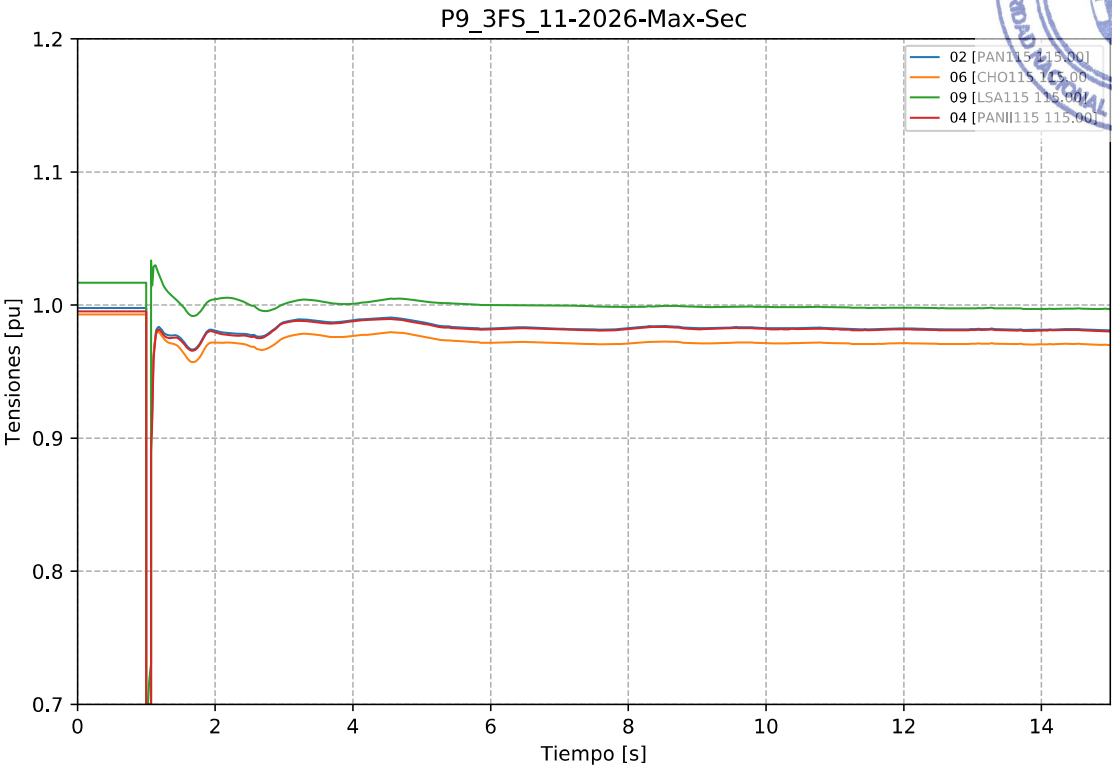


Gráfico 673. Evento P9_3FS, caso 11-2026-Max-Sec. Tensiones en la zona de influencia 115 kV.

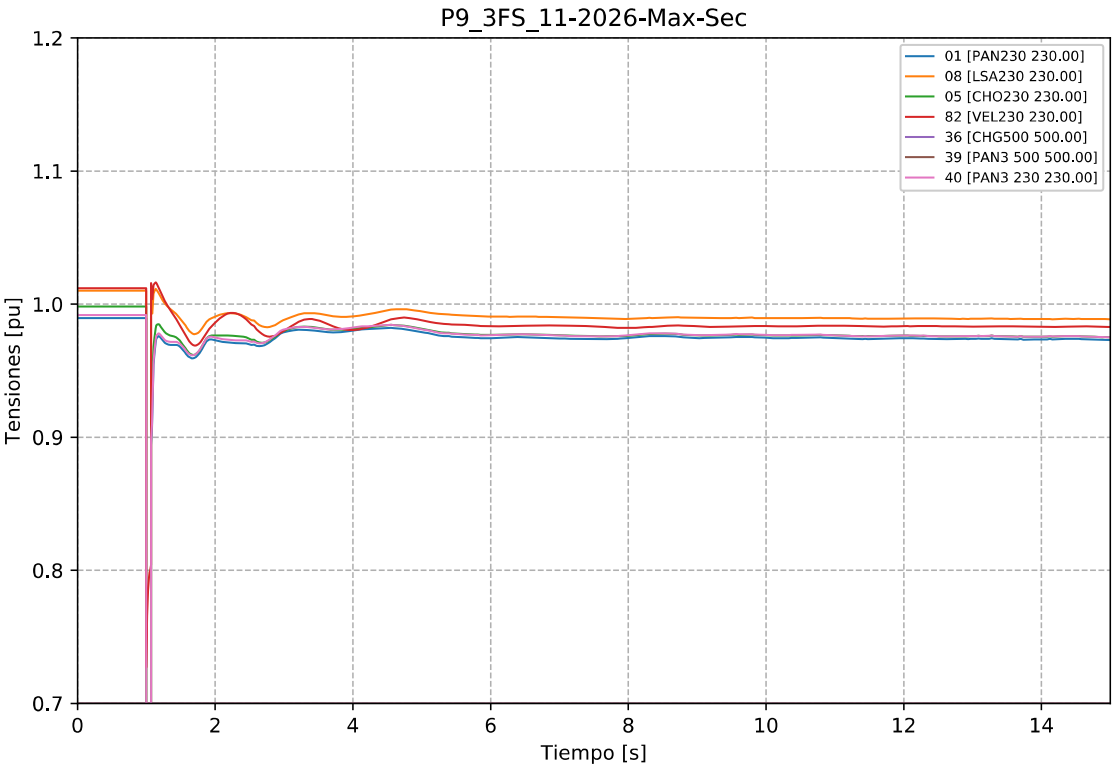


Gráfico 674. Evento P9_3FS, caso 11-2026-Max-Sec. Tensiones en la zona de influencia 230 kV.

AD

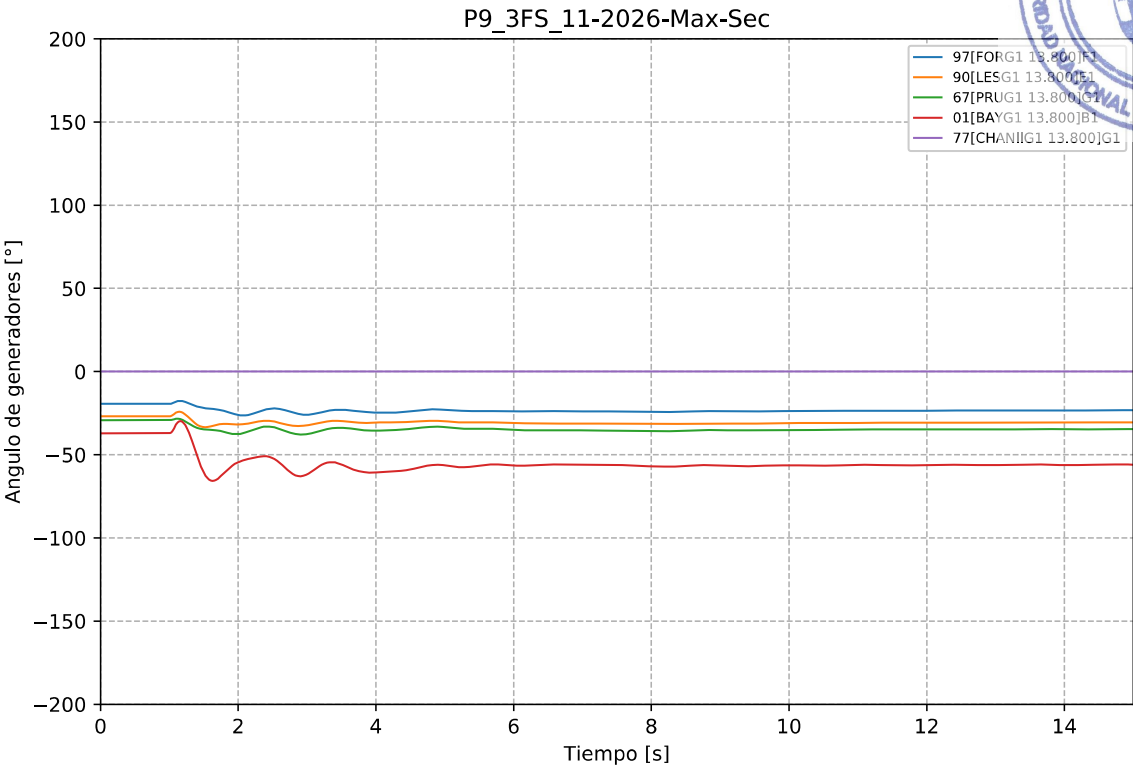


Gráfico 675. Evento P9_3FS, caso 11-2026-Max-Sec. Ángulo de Generadores Hidroeléctricos.

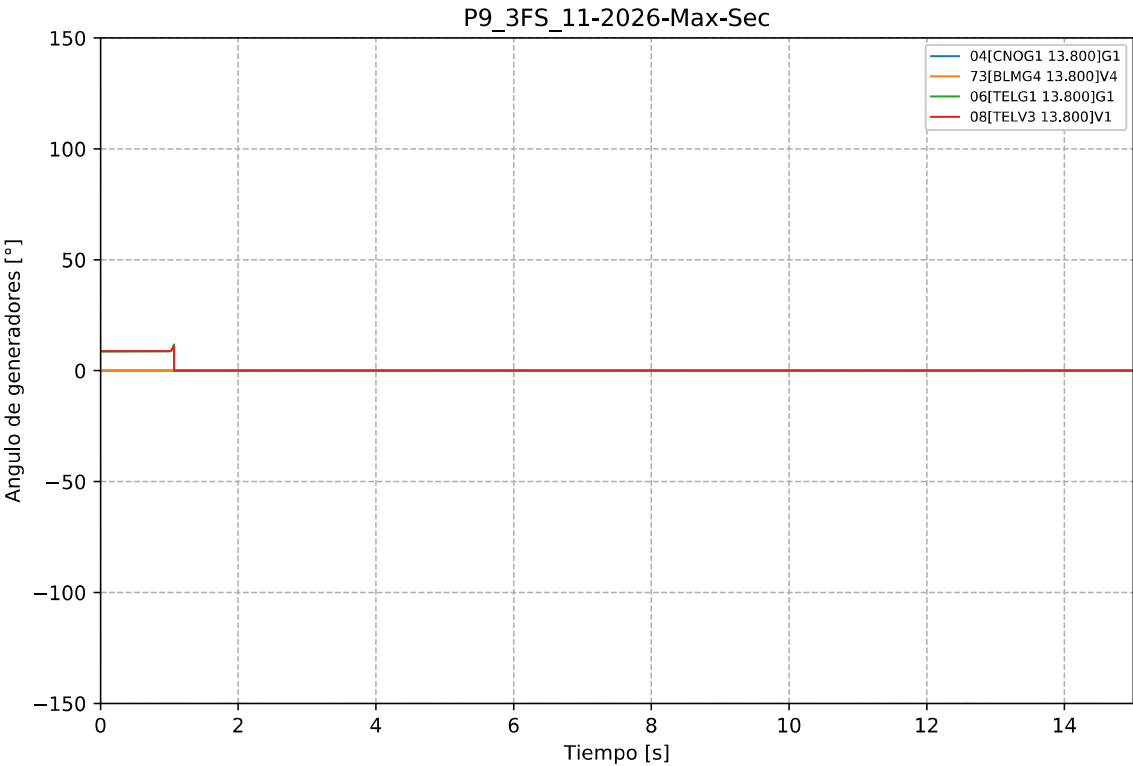


Gráfico 676. Evento P9_3FS, caso 11-2026-Max-Sec. Ángulo de generadores Térmicos.

AD

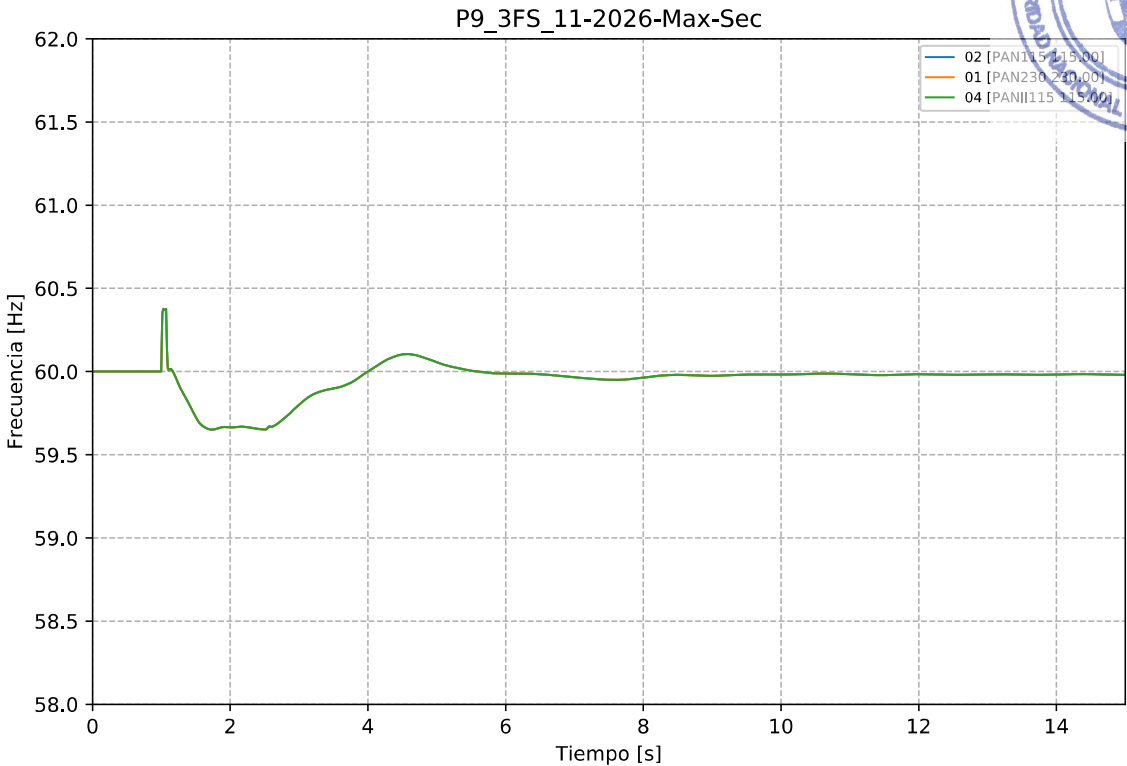


Gráfico 677. Evento P9_3FS, caso 11-2026-Max-Sec. Frecuencia.

Handwritten signature or initials.

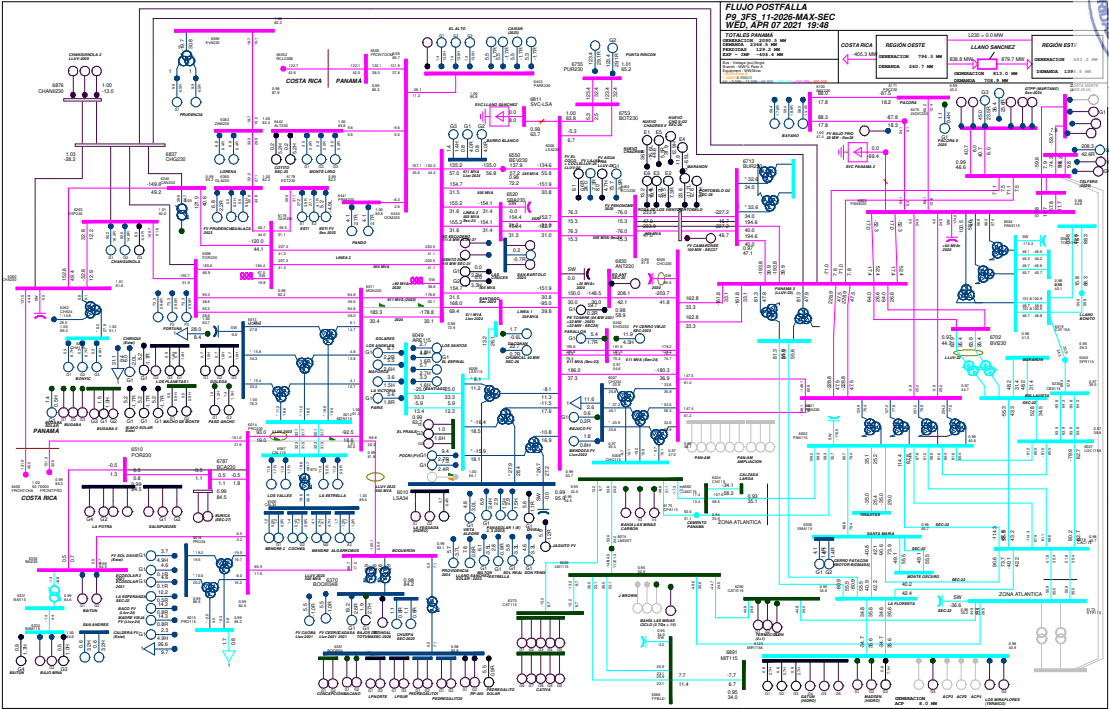


Gráfico 678. Evento P9_3FS, caso 11-2026-Max-Sec. Flujo postfalla

R

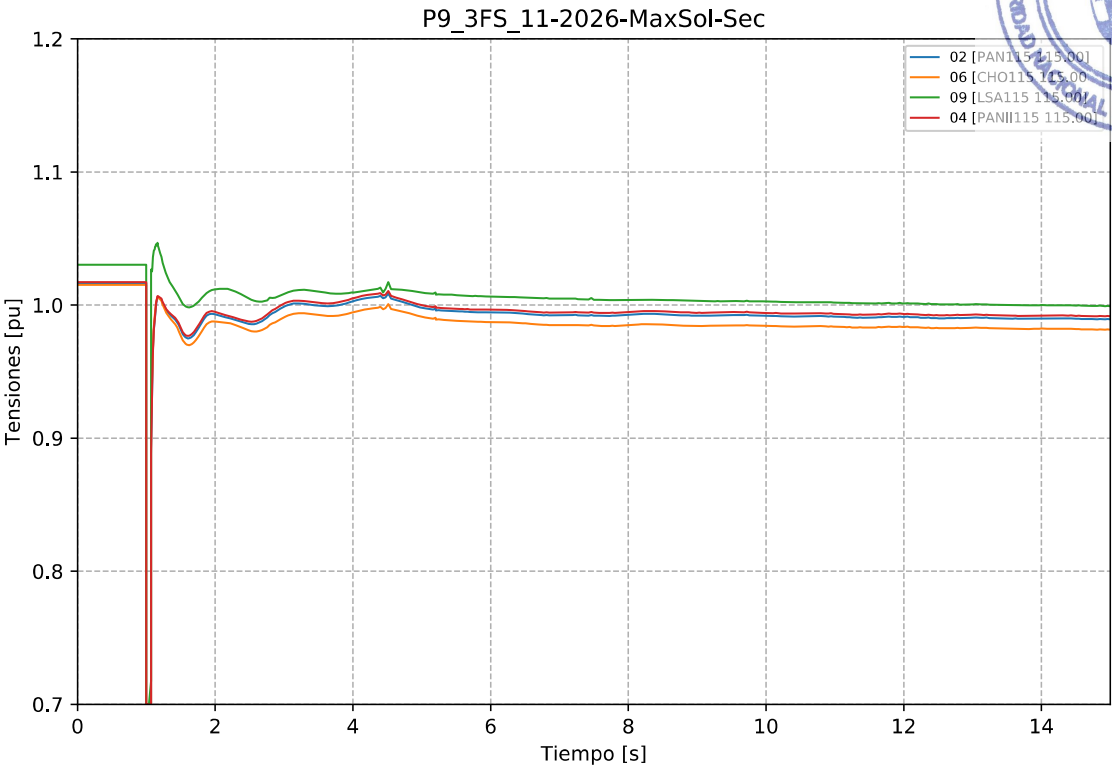


Gráfico 679. Evento P9_3FS, caso 11-2026-MaxSol-Sec. Tensiones en la zona de influencia 115 kV.

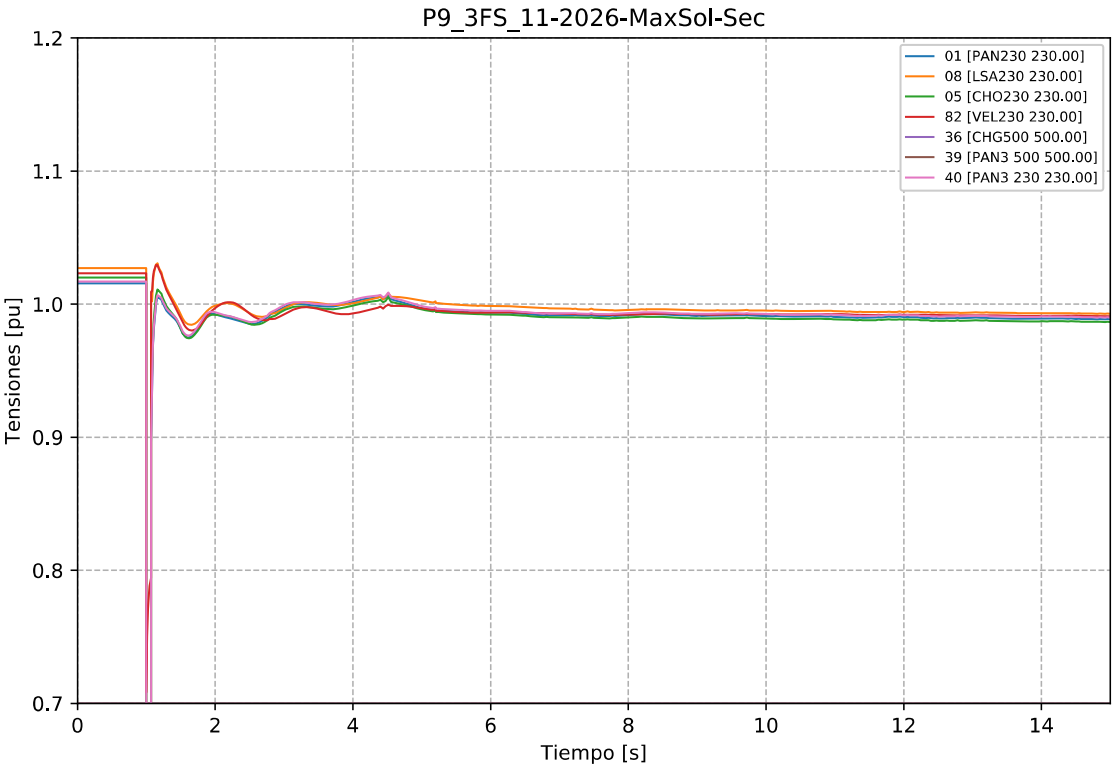


Gráfico 680. Evento P9_3FS, caso 11-2026-MaxSol-Sec. Tensiones en la zona de influencia 230 kV.

AB

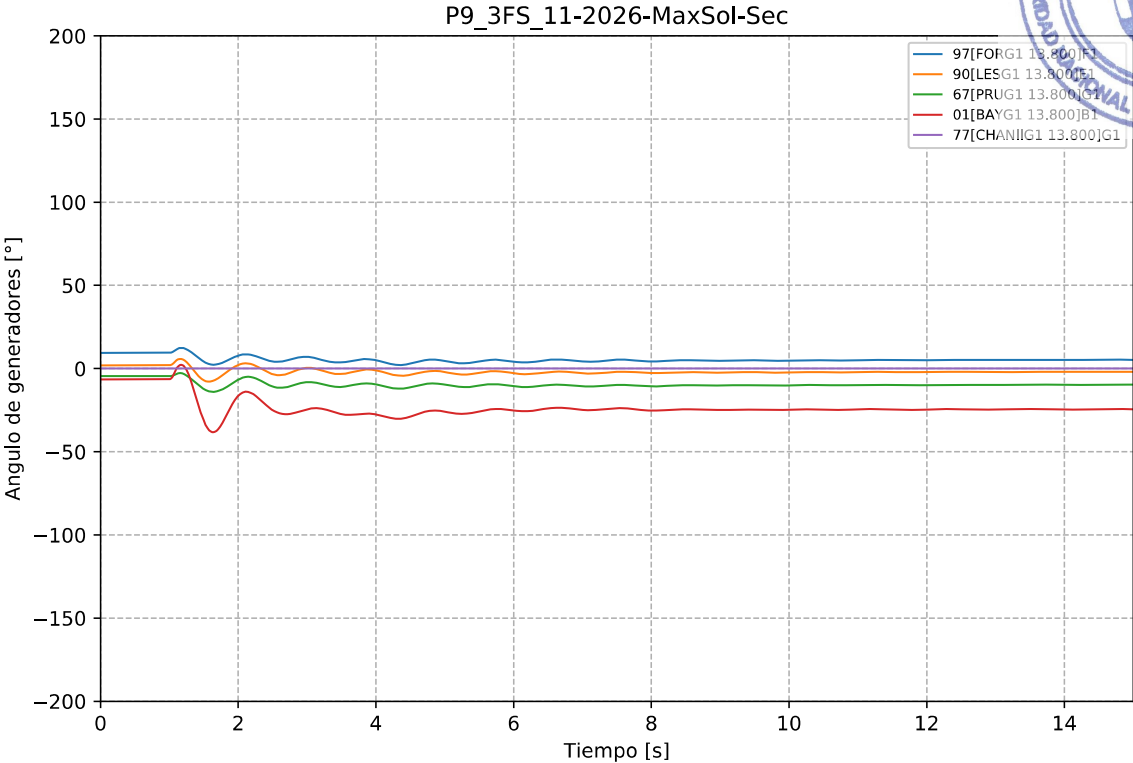


Gráfico 681. Evento P9_3FS, caso 11-2026-MaxSol-Sec. Ángulo de Generadores Hidroeléctricos.

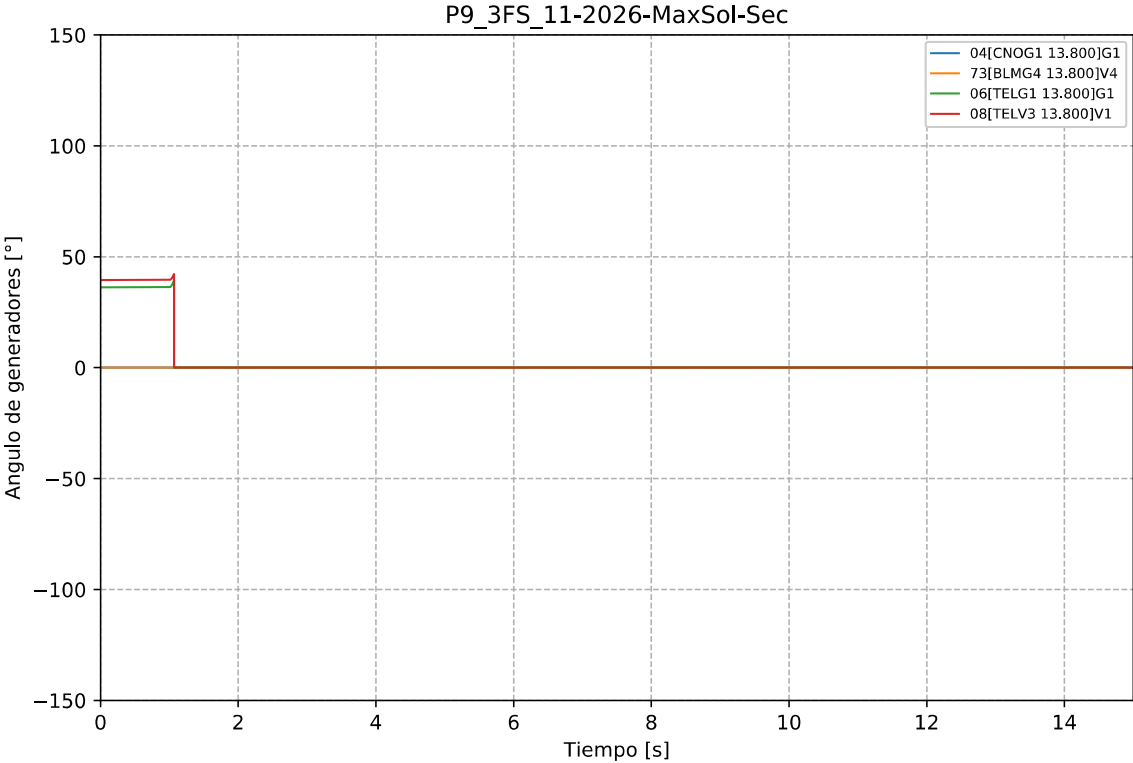


Gráfico 682. Evento P9_3FS, caso 11-2026-MaxSol-Sec. Ángulo de generadores Térmicos.

AD

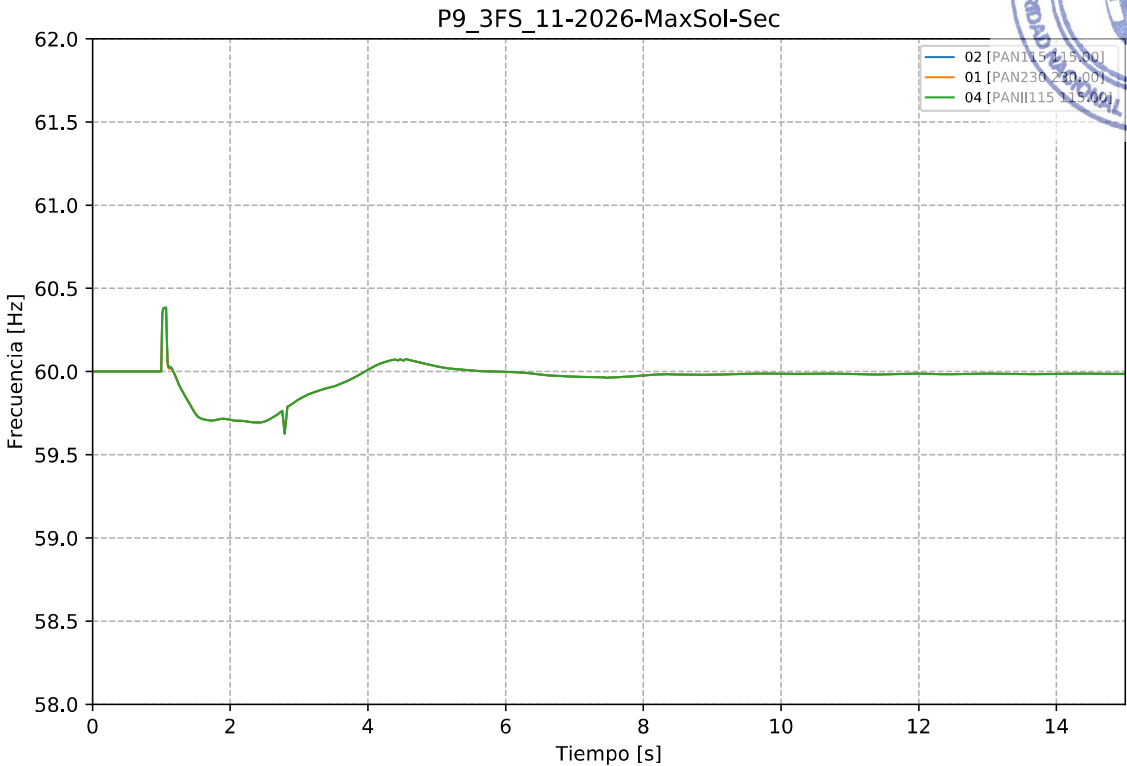


Gráfico 683. Evento P9_3FS, caso 11-2026-MaxSol-Sec. Frecuencia.

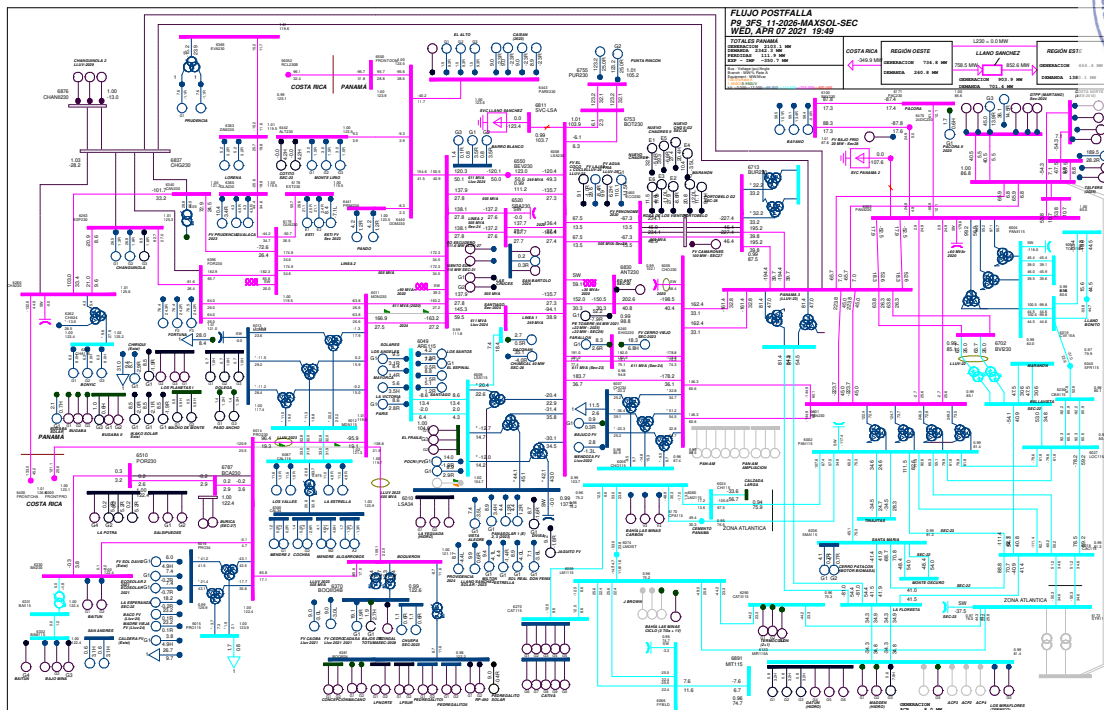


Gráfico 684. Evento P9_3FS, caso 11-2026-MaxSol-Sec. Flujo postfalla



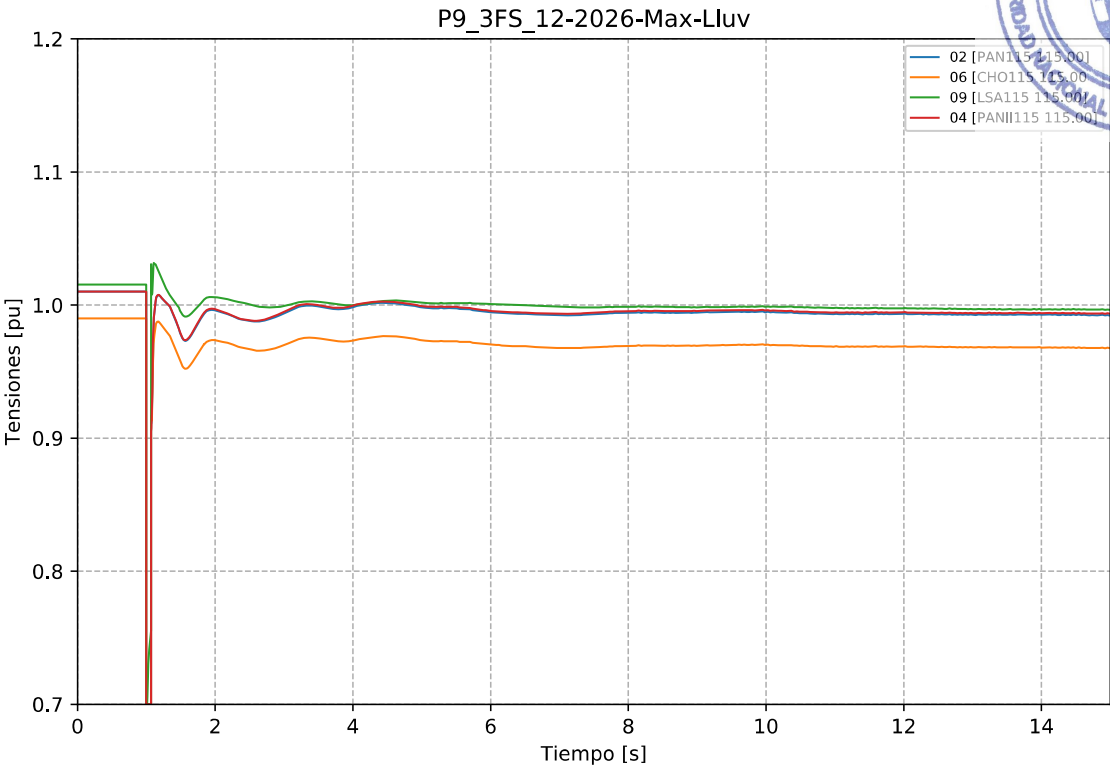


Gráfico 685. Evento P9_3FS, caso 12-2026-Max-Lluv. Tensiones en la zona de influencia 115 kV.

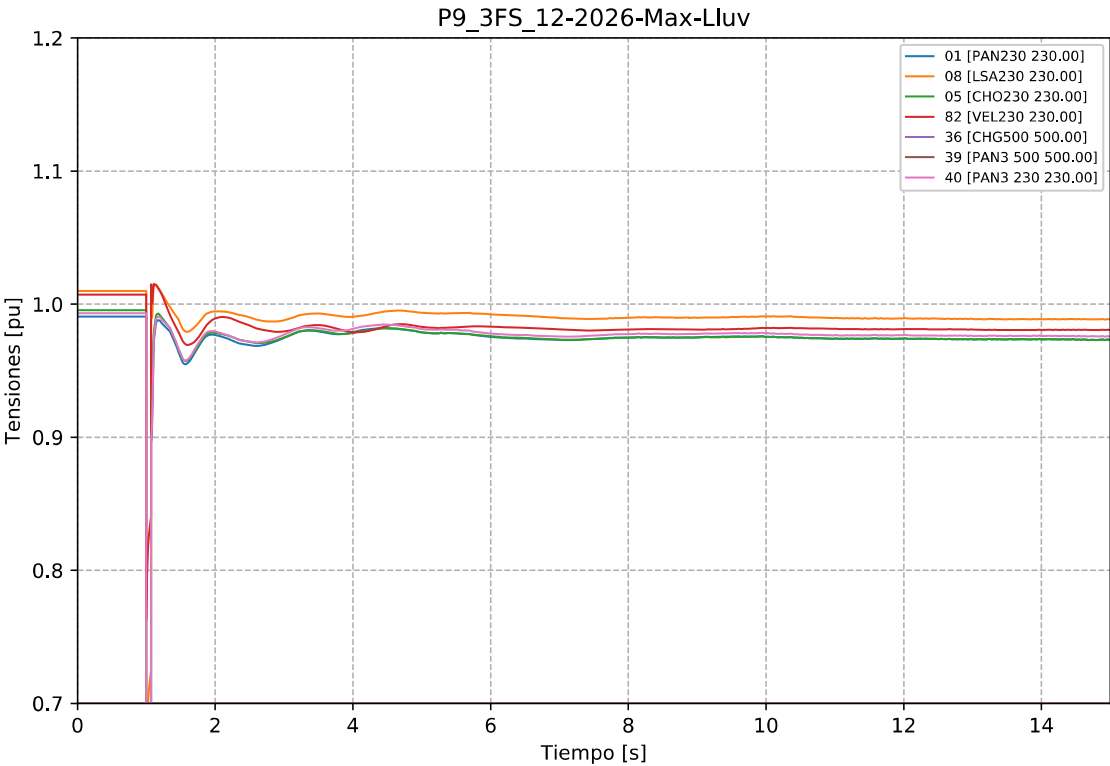


Gráfico 686. Evento P9_3FS, caso 12-2026-Max-Lluv. Tensiones en la zona de influencia 230 kV.

AD

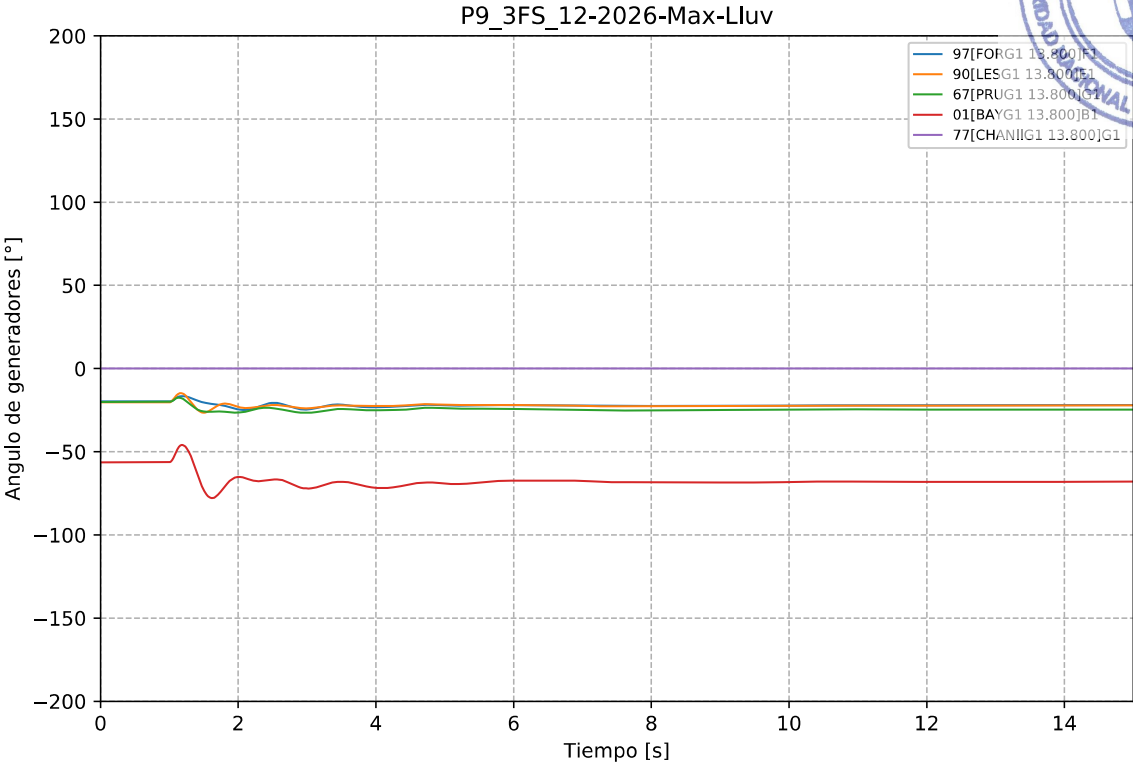


Gráfico 687. Evento P9_3FS, caso 12-2026-Max-Lluv. Ángulo de Generadores Hidroeléctricos.

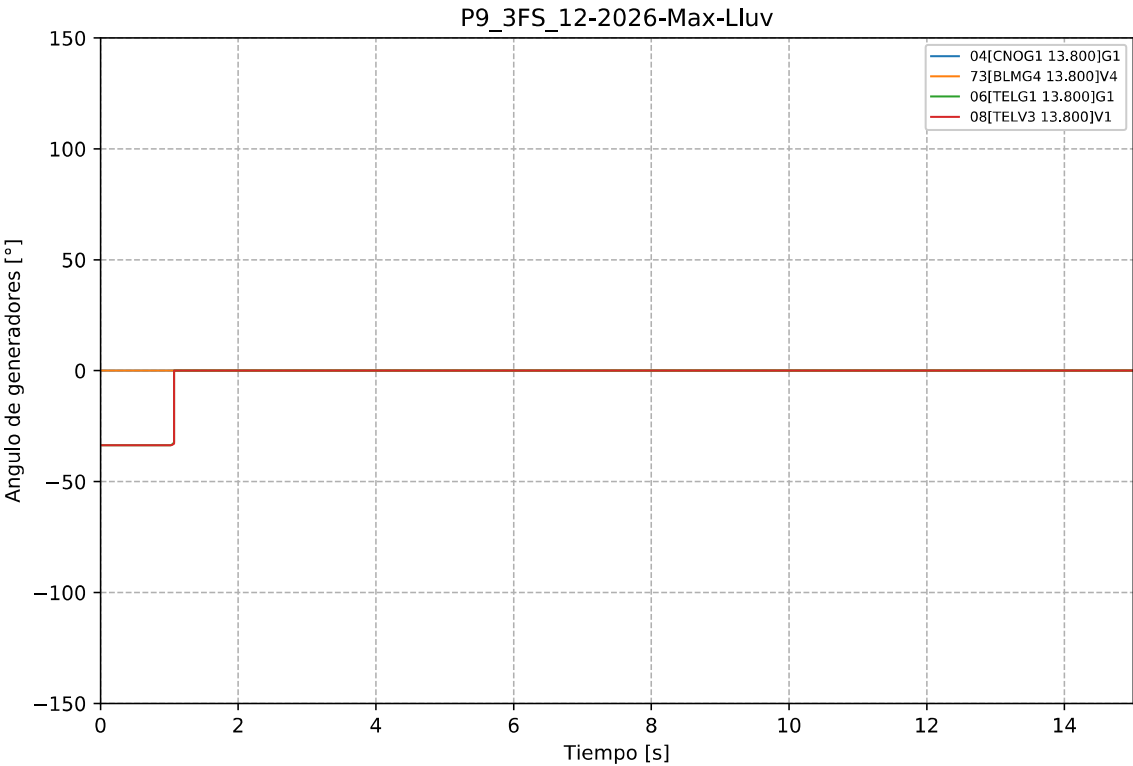


Gráfico 688. Evento P9_3FS, caso 12-2026-Max-Lluv. Ángulo de generadores Térmicos.

AD

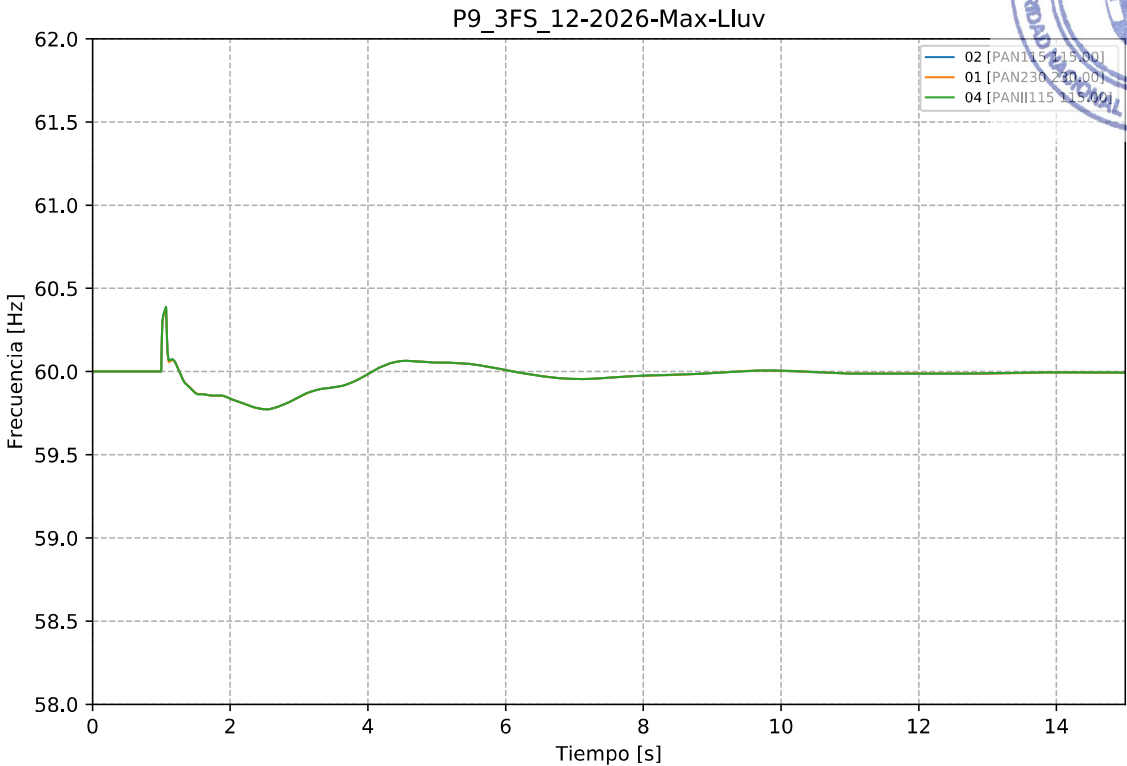


Gráfico 689. Evento P9_3FS, caso 12-2026-Max-Lluv. Frecuencia.

Handwritten signature or initials.

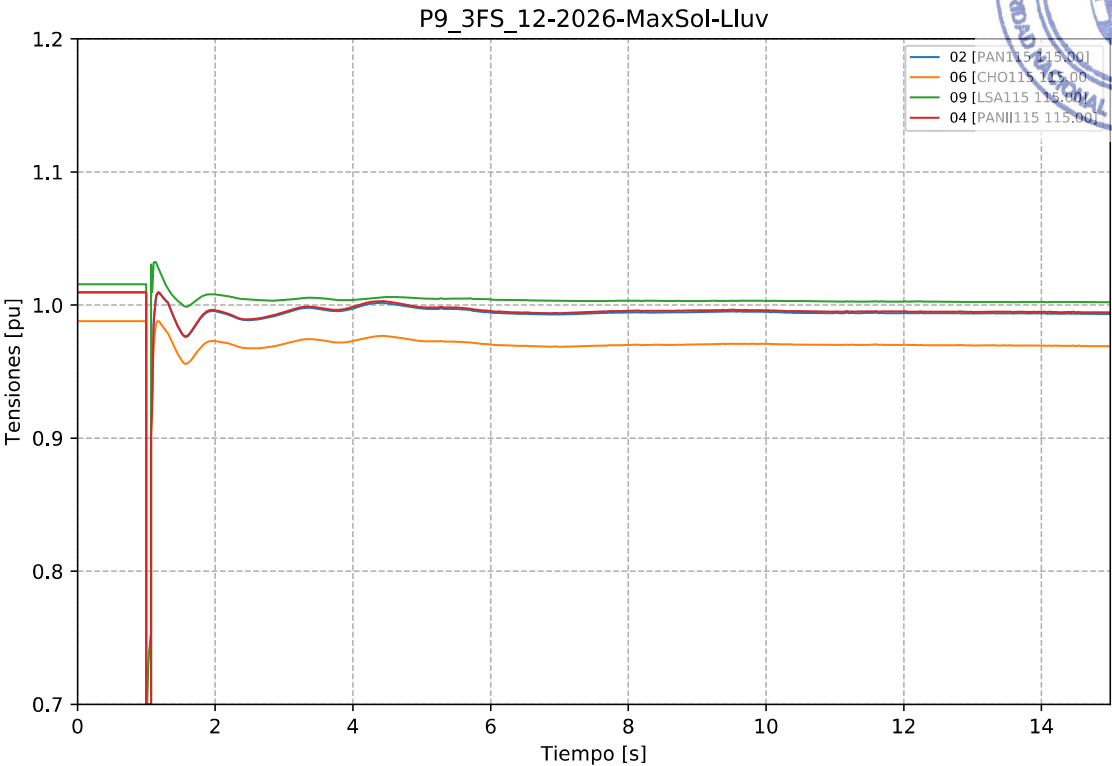


Gráfico 691. Evento P9_3FS, caso 12-2026-MaxSol-Lluv. Tensiones en la zona de influencia 115 kV.

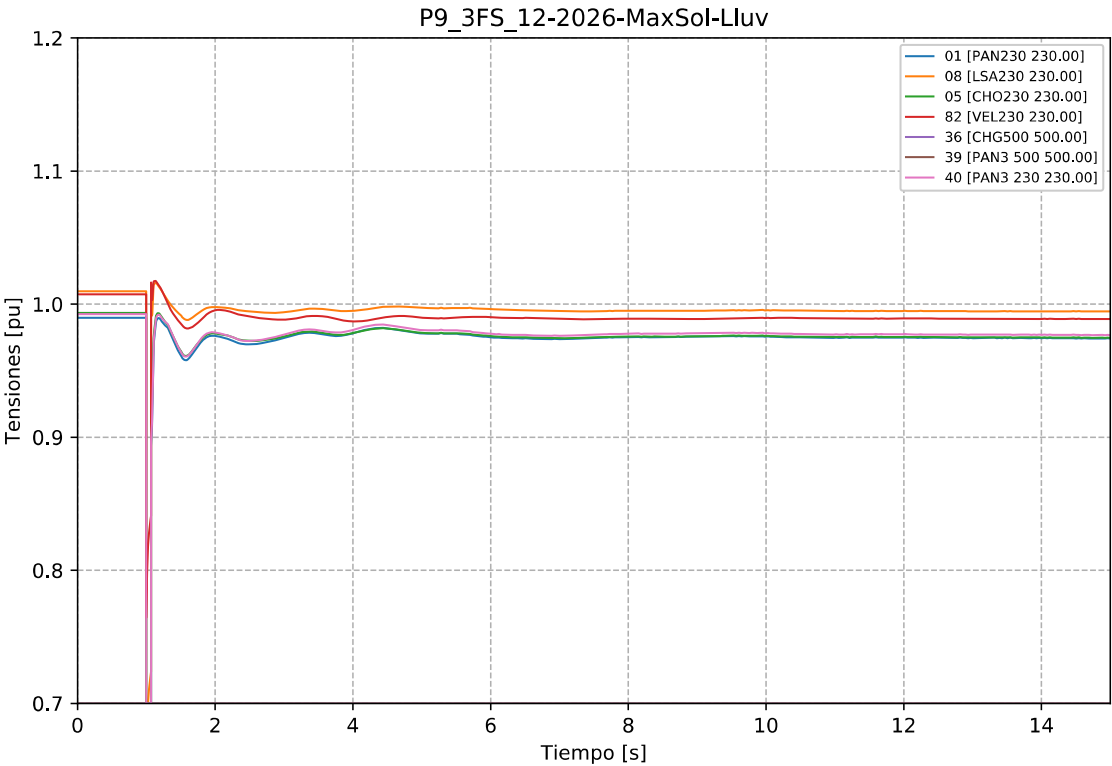


Gráfico 692. Evento P9_3FS, caso 12-2026-MaxSol-Lluv. Tensiones en la zona de influencia 230 kV.

AD

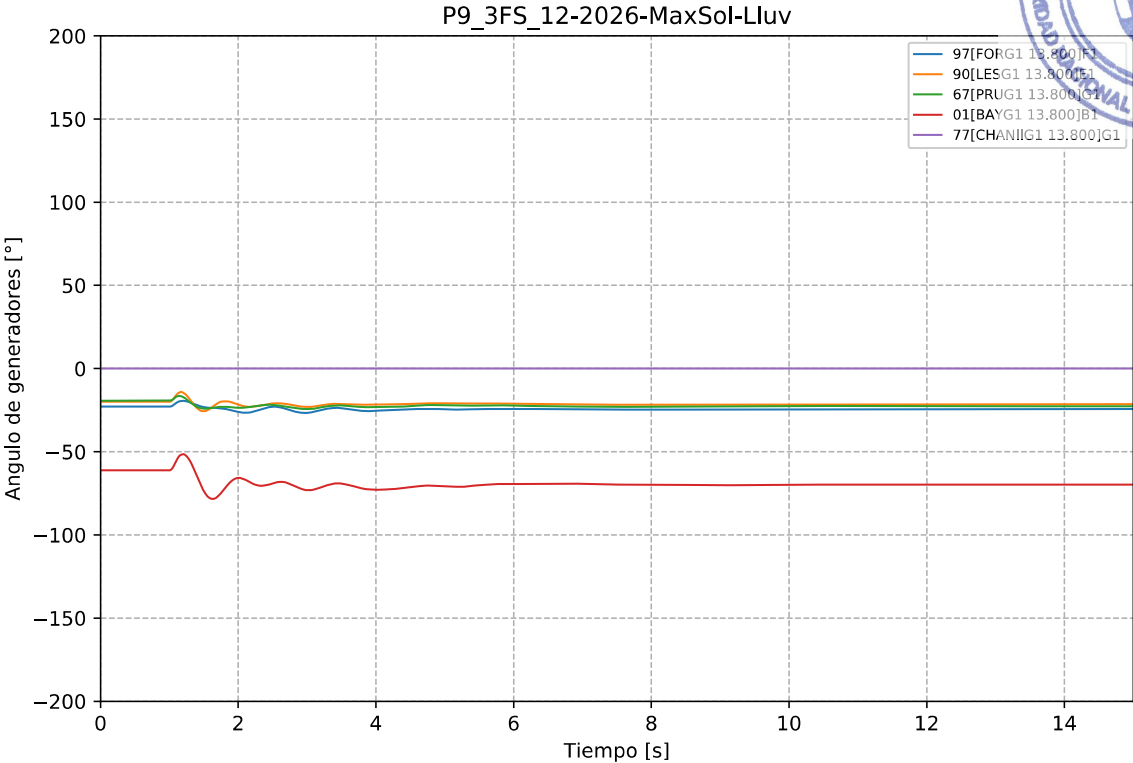


Gráfico 693. Evento P9_3FS, caso 12-2026-MaxSol-Lluv. Ángulo de Generadores Hidroeléctricos.

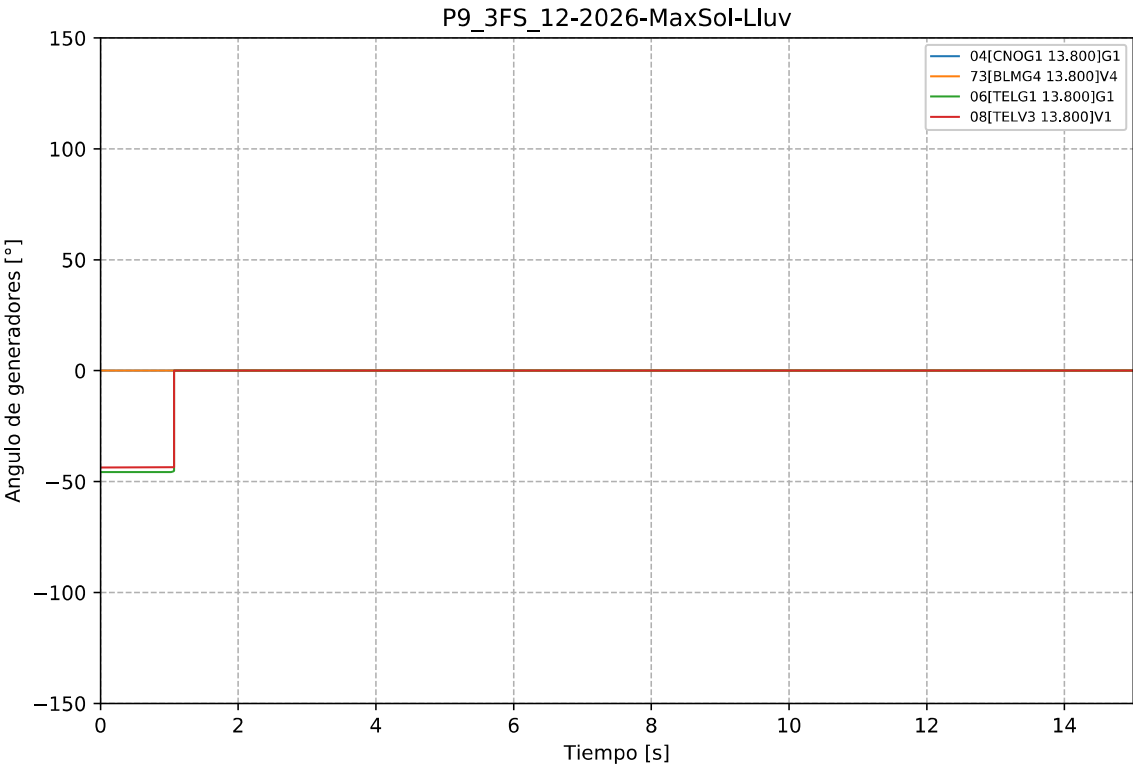


Gráfico 694. Evento P9_3FS, caso 12-2026-MaxSol-Lluv. Ángulo de generadores Térmicos.

AD

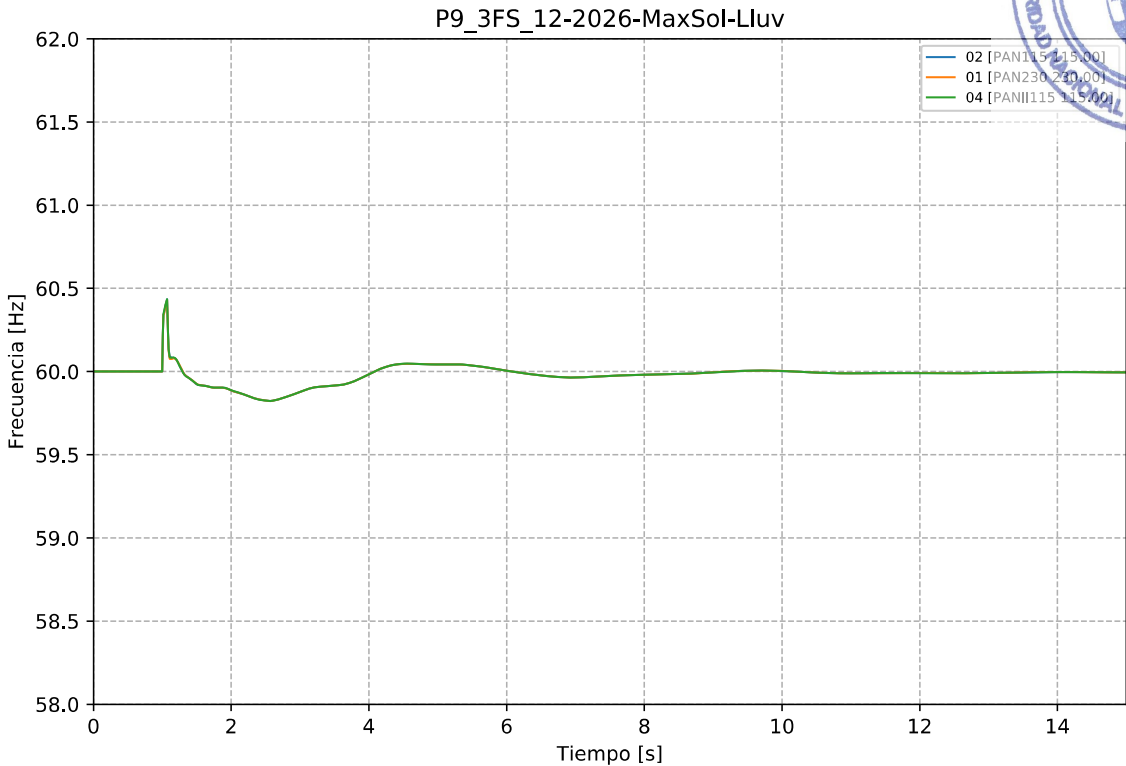


Gráfico 695. Evento P9_3FS, caso 12-2026-MaxSol-Lluv. Frecuencia.

AD

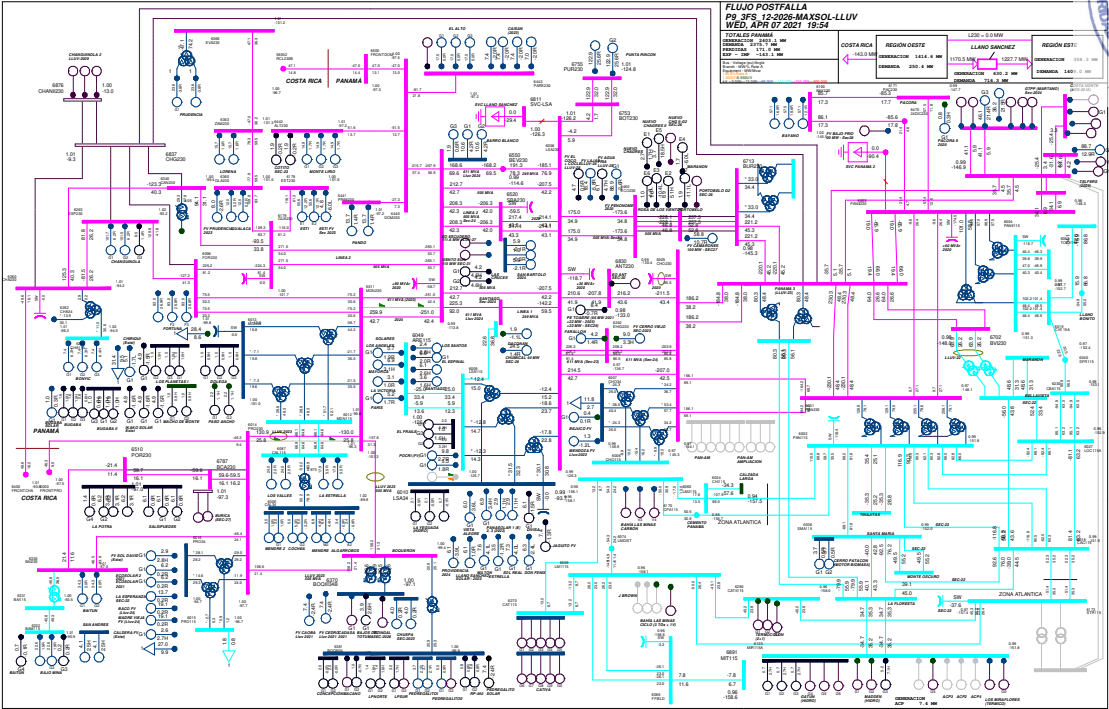


Gráfico 696. Evento P9_3FS, caso 12-2026-MaxSol-Lluv. Flujo postfalla

R

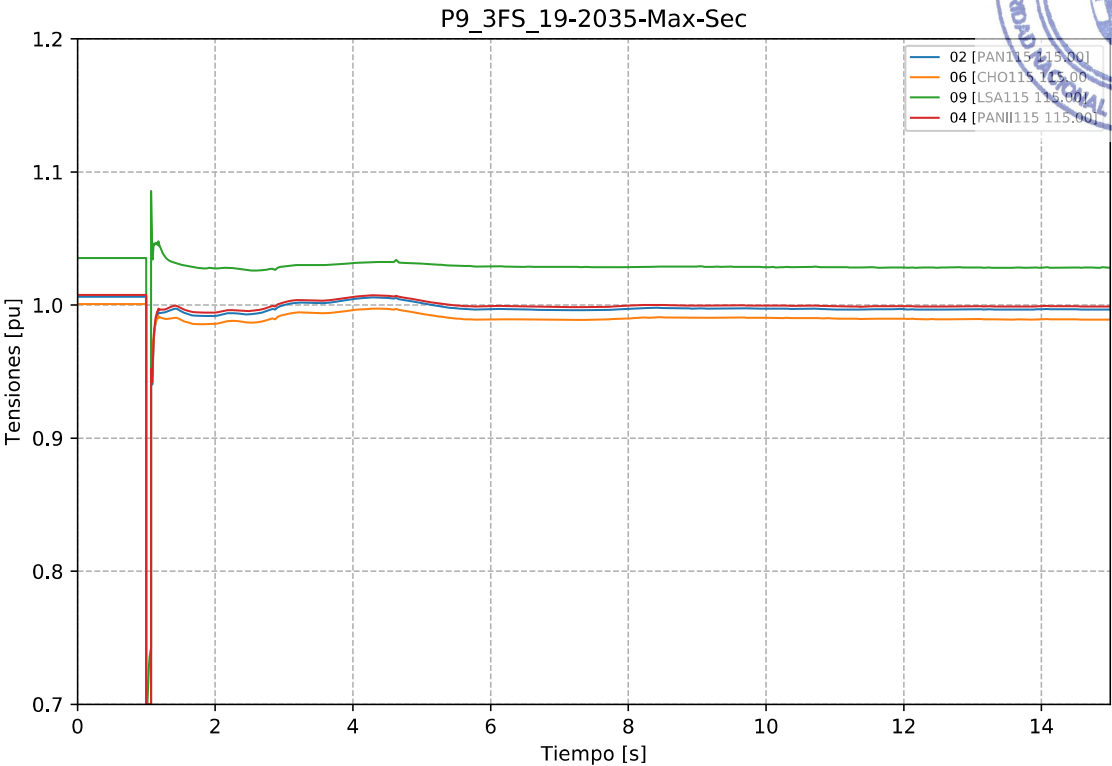


Gráfico 697. Evento P9_3FS, caso 19-2035-Max-Sec. Tensiones en la zona de influencia 115 kV.

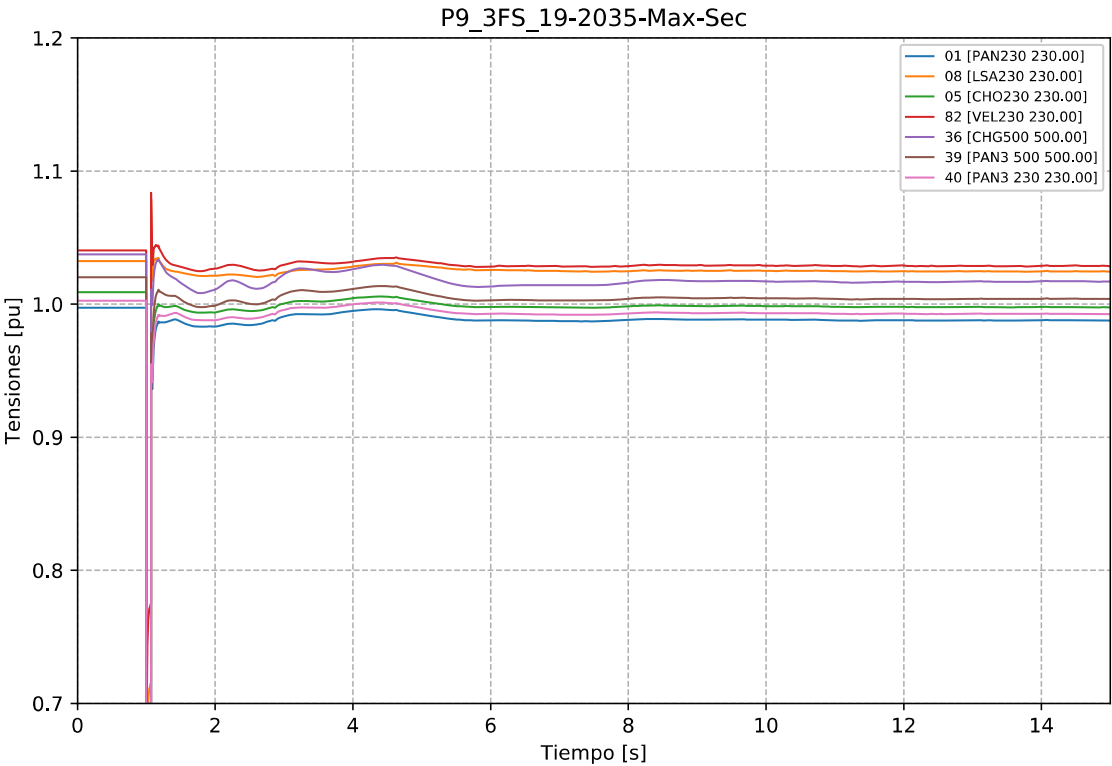


Gráfico 698. Evento P9_3FS, caso 19-2035-Max-Sec. Tensiones en la zona de influencia 230 kV.

AD

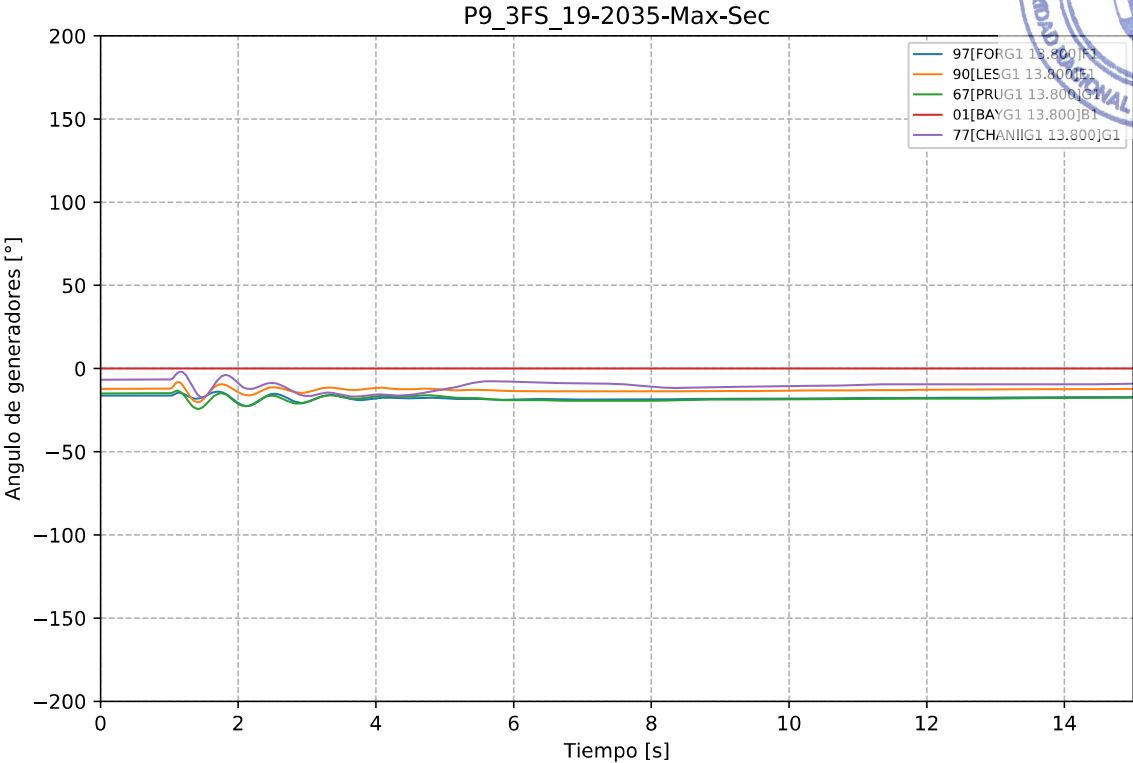


Gráfico 699. Evento P9_3FS, caso 19-2035-Max-Sec. Ángulo de Generadores Hidroeléctricos.

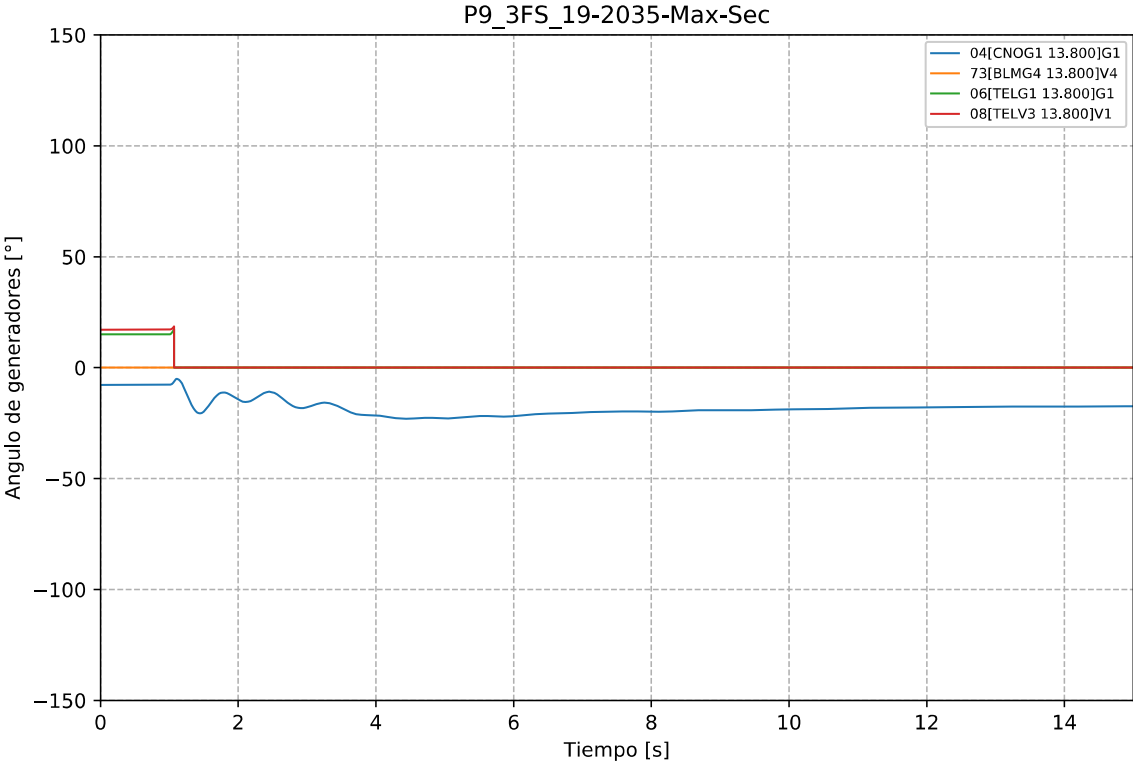


Gráfico 700. Evento P9_3FS, caso 19-2035-Max-Sec. Ángulo de generadores Térmicos.

AD

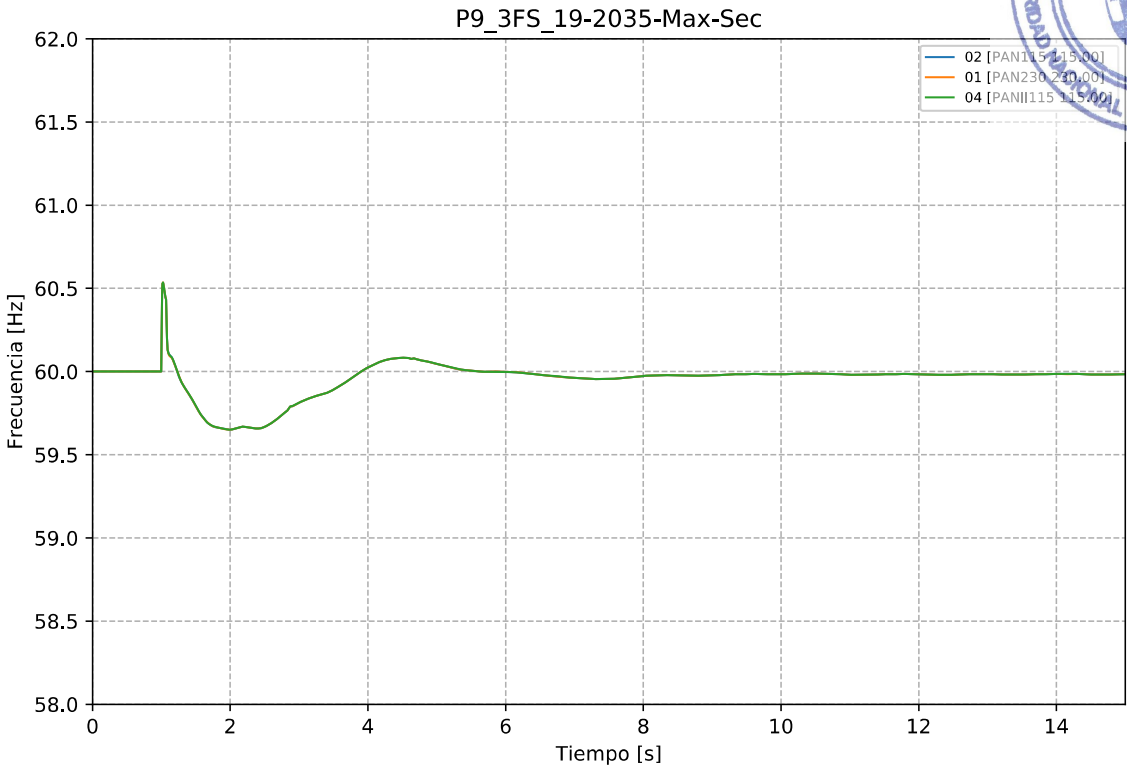


Gráfico 701. Evento P9_3FS, caso 19-2035-Max-Sec. Frecuencia.

AD

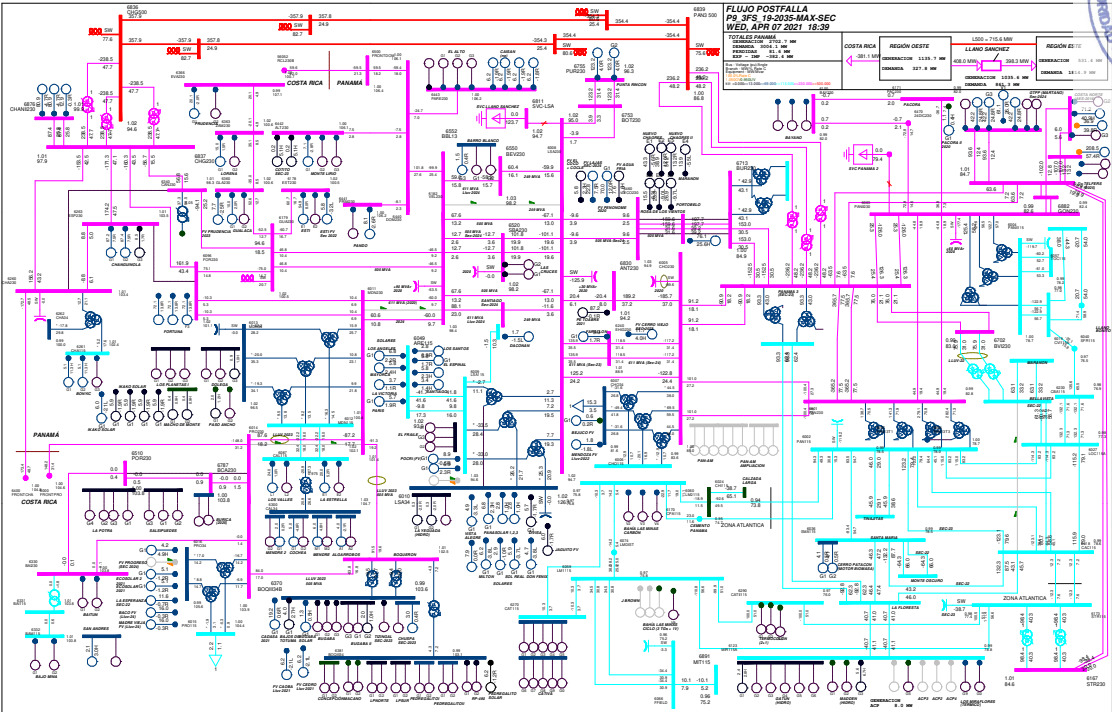


Gráfico 702. Evento P9_3FS, caso 19-2035-Max-Sec. Flujo postfalla

R

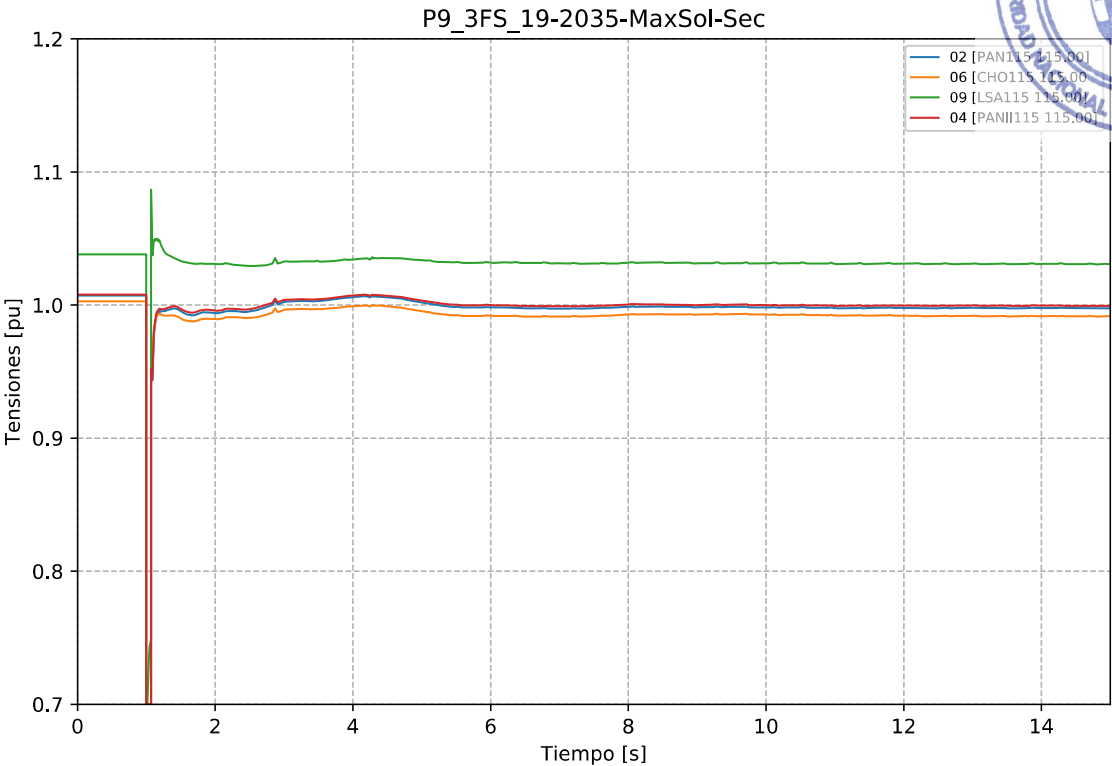


Gráfico 703. Evento P9_3FS, caso 19-2035-MaxSol-Sec. Tensiones en la zona de influencia 115 kV.

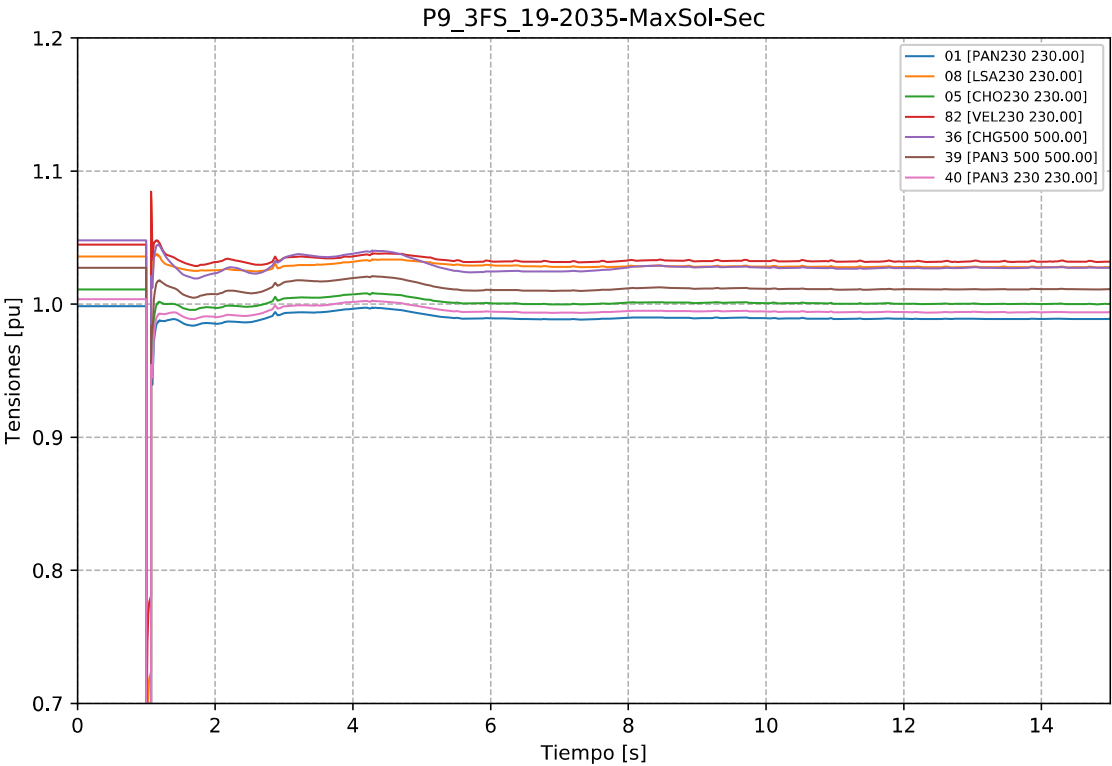


Gráfico 704. Evento P9_3FS, caso 19-2035-MaxSol-Sec. Tensiones en la zona de influencia 230 kV.

Handwritten signature or initials.

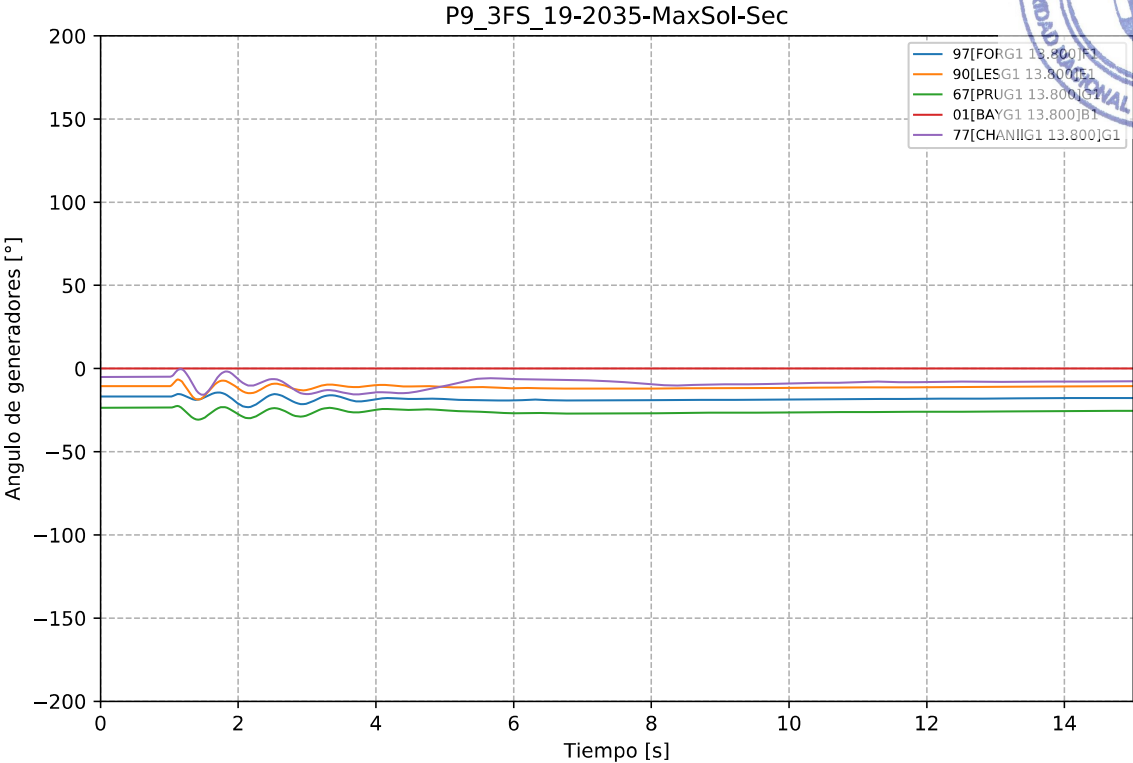


Gráfico 705. Evento P9_3FS, caso 19-2035-MaxSol-Sec. Ángulo de Generadores Hidroeléctricos.

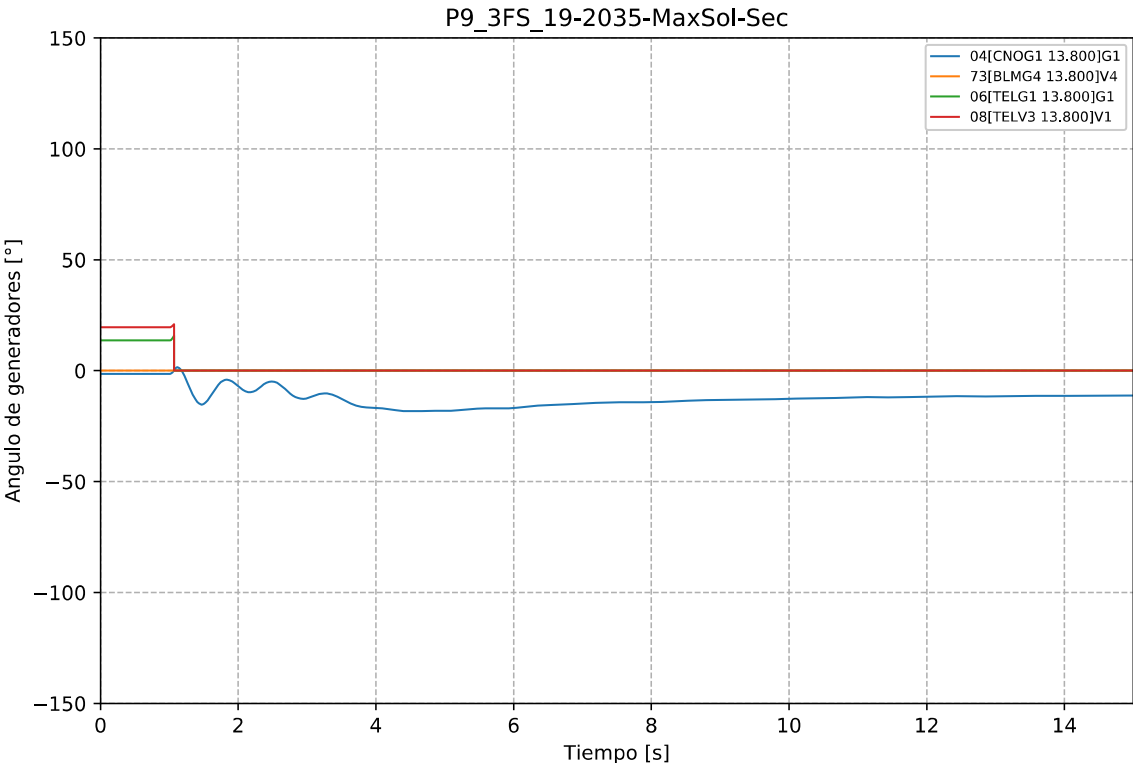


Gráfico 706. Evento P9_3FS, caso 19-2035-MaxSol-Sec. Ángulo de generadores Térmicos.

AD

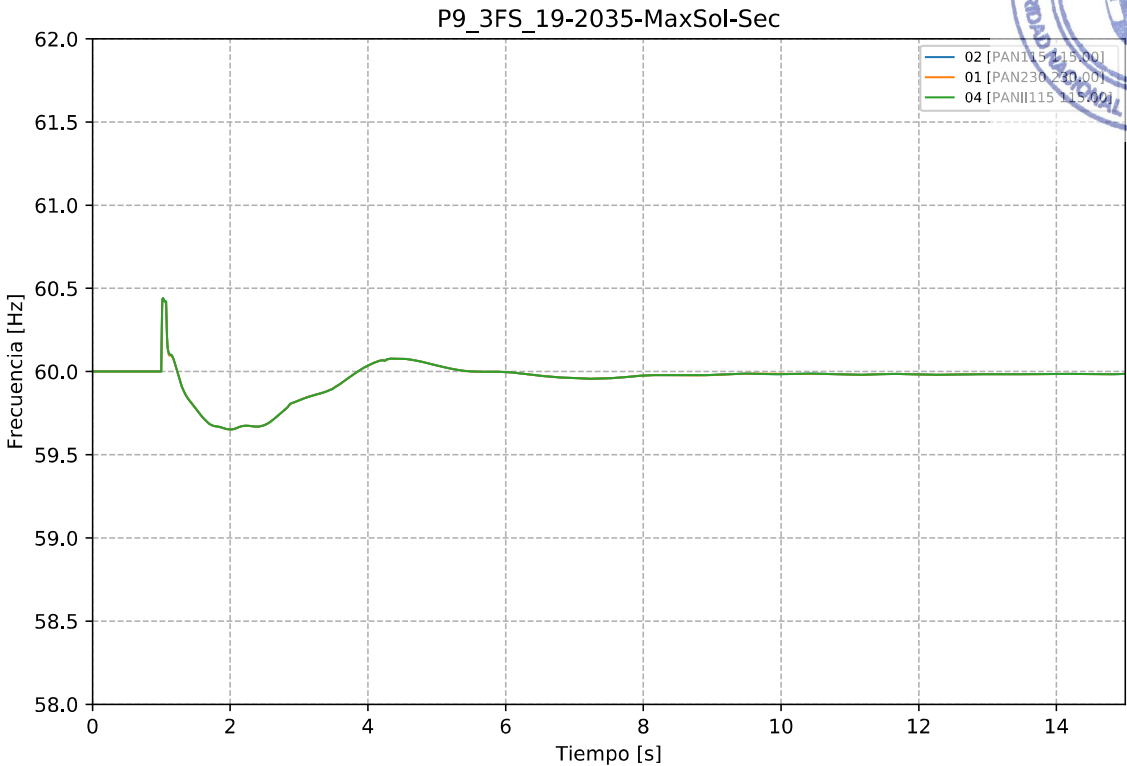
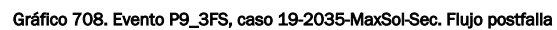


Gráfico 707. Evento P9_3FS, caso 19-2035-MaxSol-Sec. Frecuencia.

AD



16

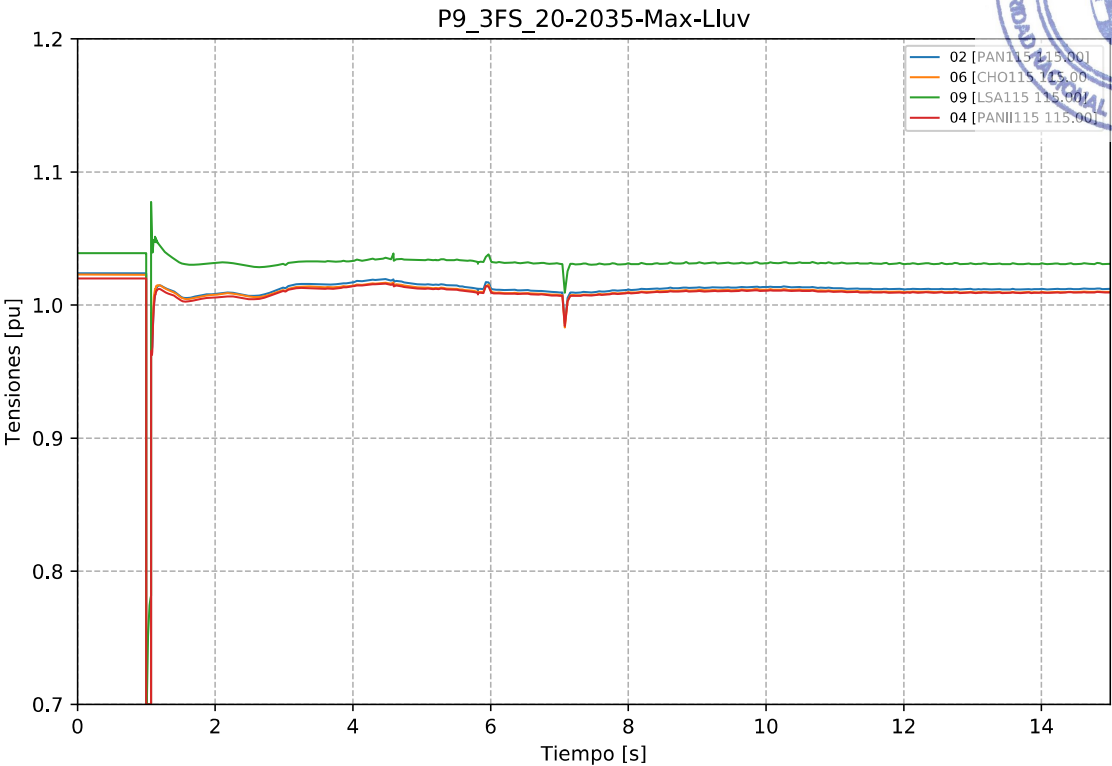


Gráfico 709. Evento P9_3FS, caso 20-2035-Max-Lluv. Tensiones en la zona de influencia 115 kV.

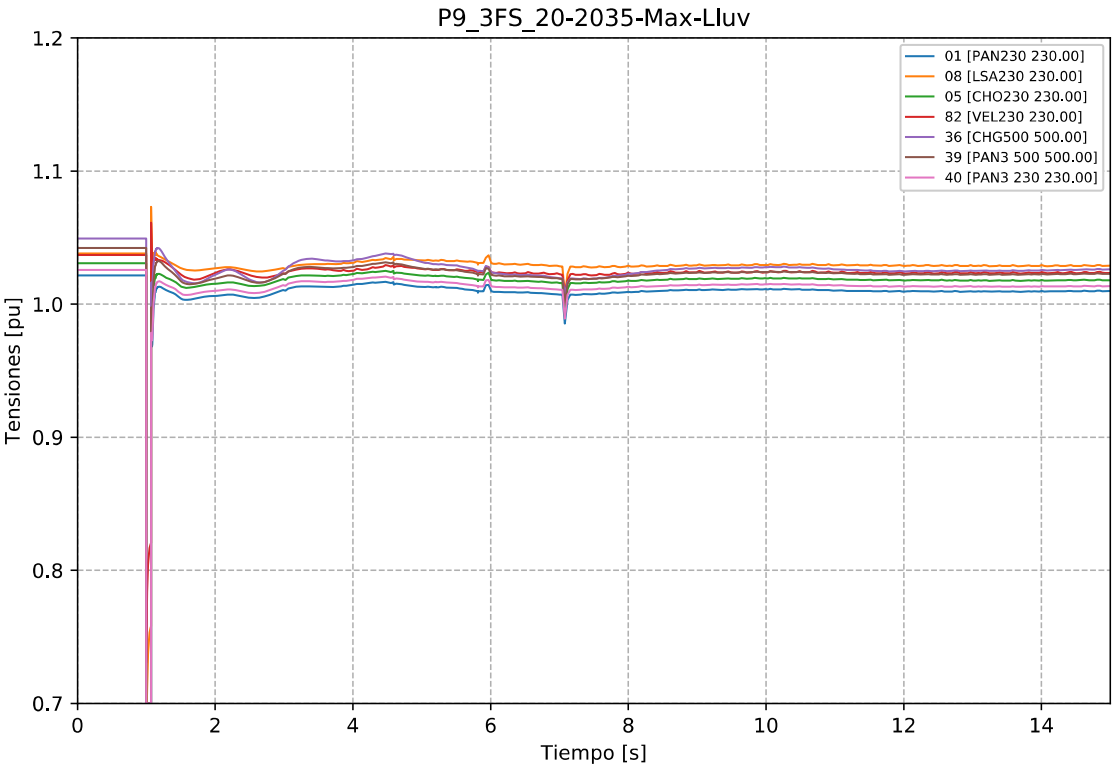


Gráfico 710. Evento P9_3FS, caso 20-2035-Max-Lluv. Tensiones en la zona de influencia 230 kV.

AD

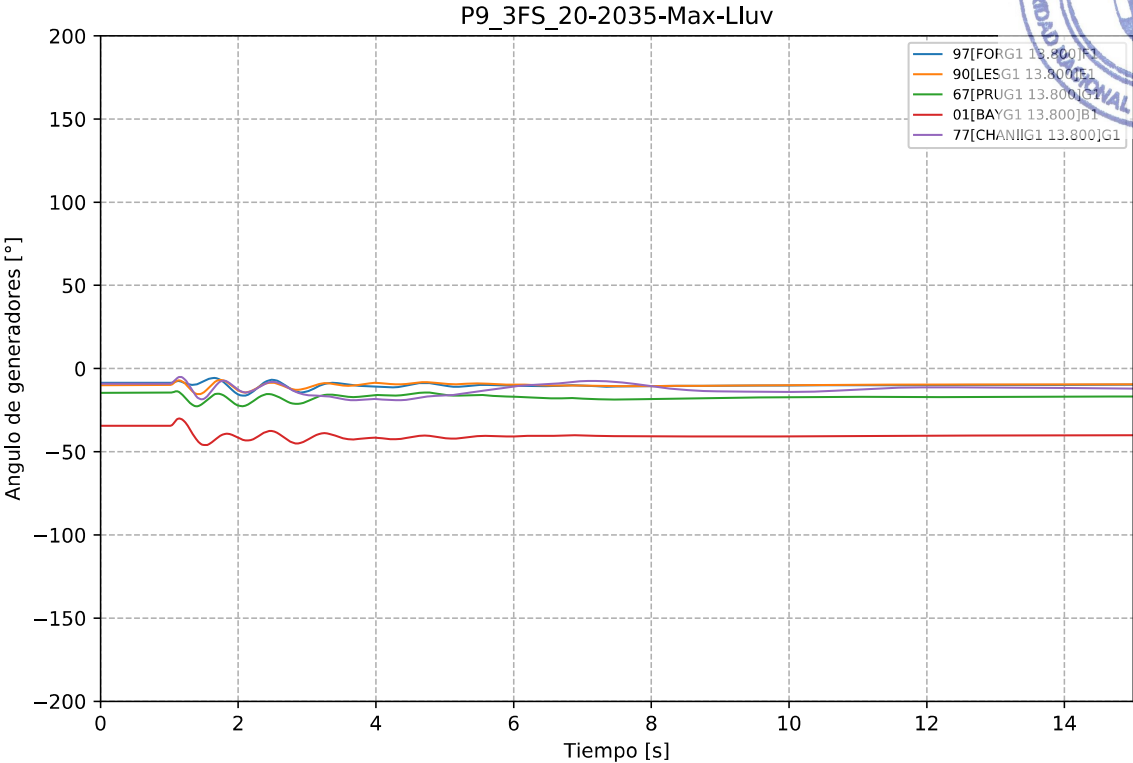


Gráfico 711. Evento P9_3FS, caso 20-2035-Max-Lluv. Ángulo de Generadores Hidroeléctricos.

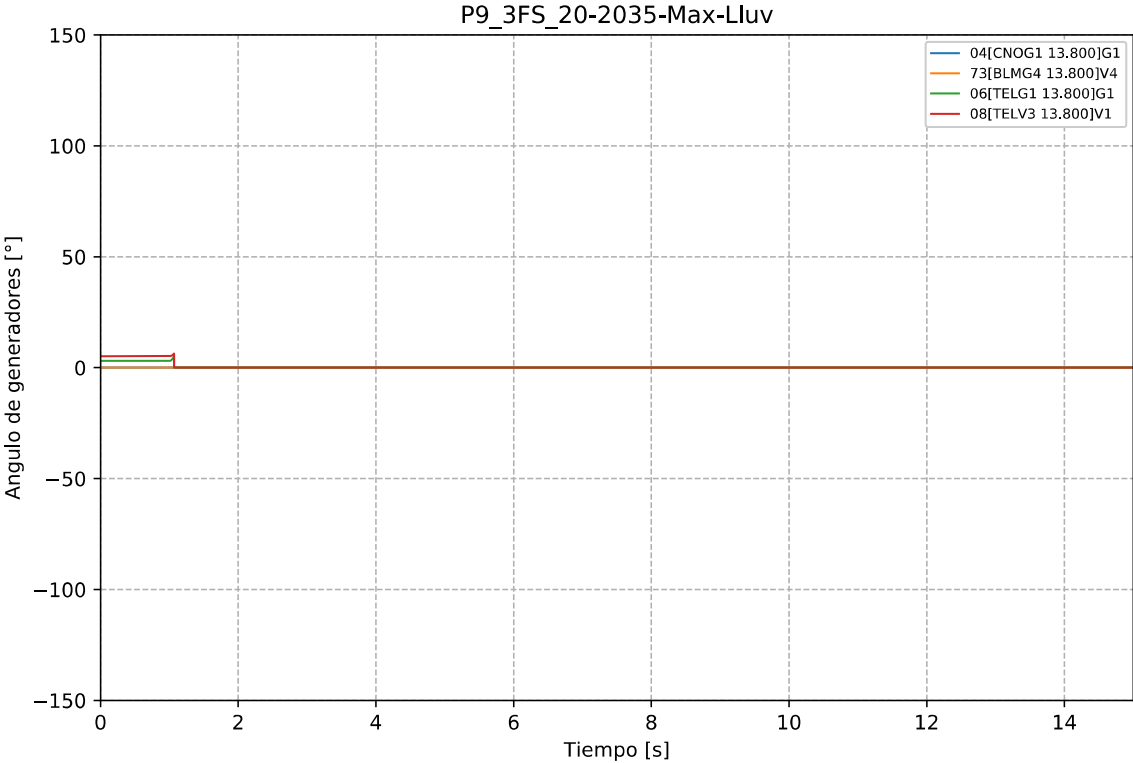


Gráfico 712. Evento P9_3FS, caso 20-2035-Max-Lluv. Ángulo de generadores Térmicos.

AD

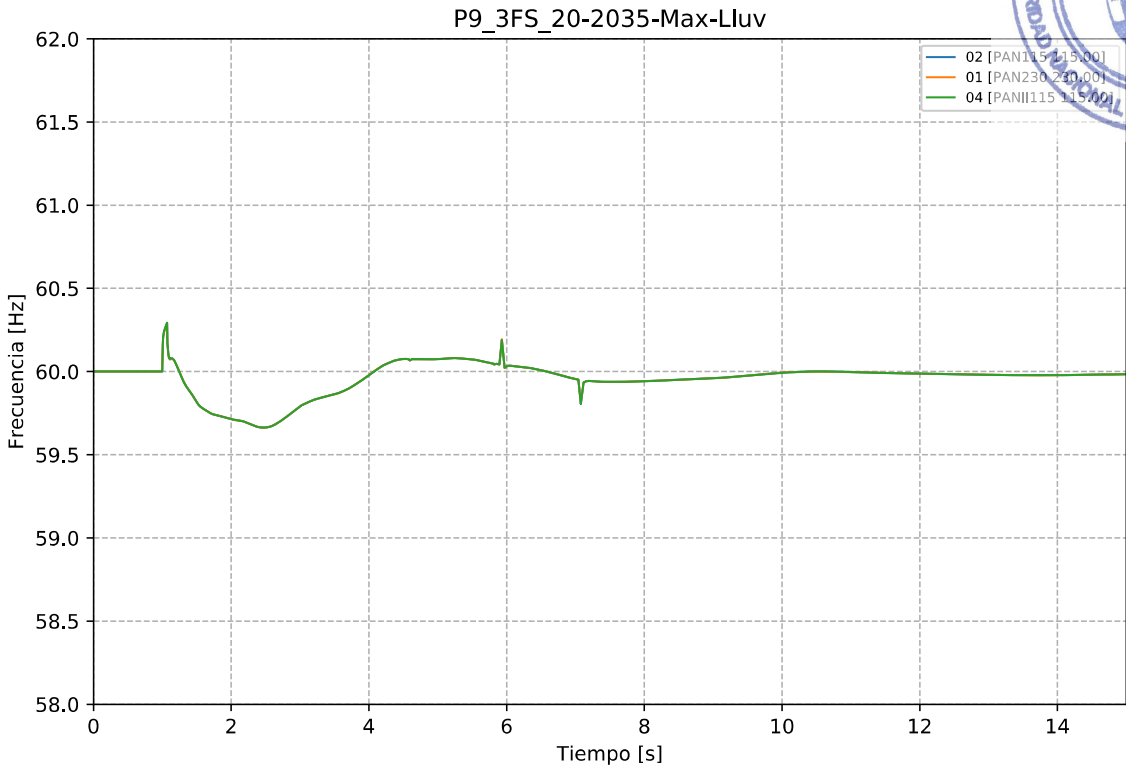


Gráfico 713. Evento P9_3FS, caso 20-2035-Max-Lluv. Frecuencia.

AD

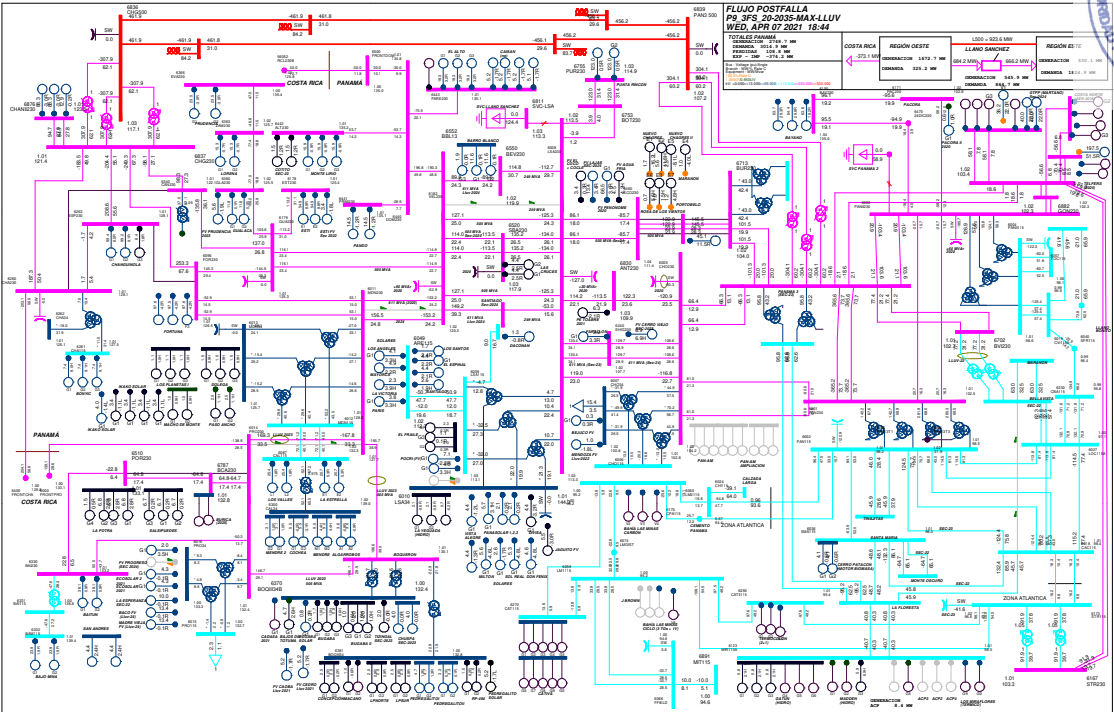


Gráfico 714. Evento P9_3FS, caso 20-2035-Max-Lluv. Flujo postfalla

B

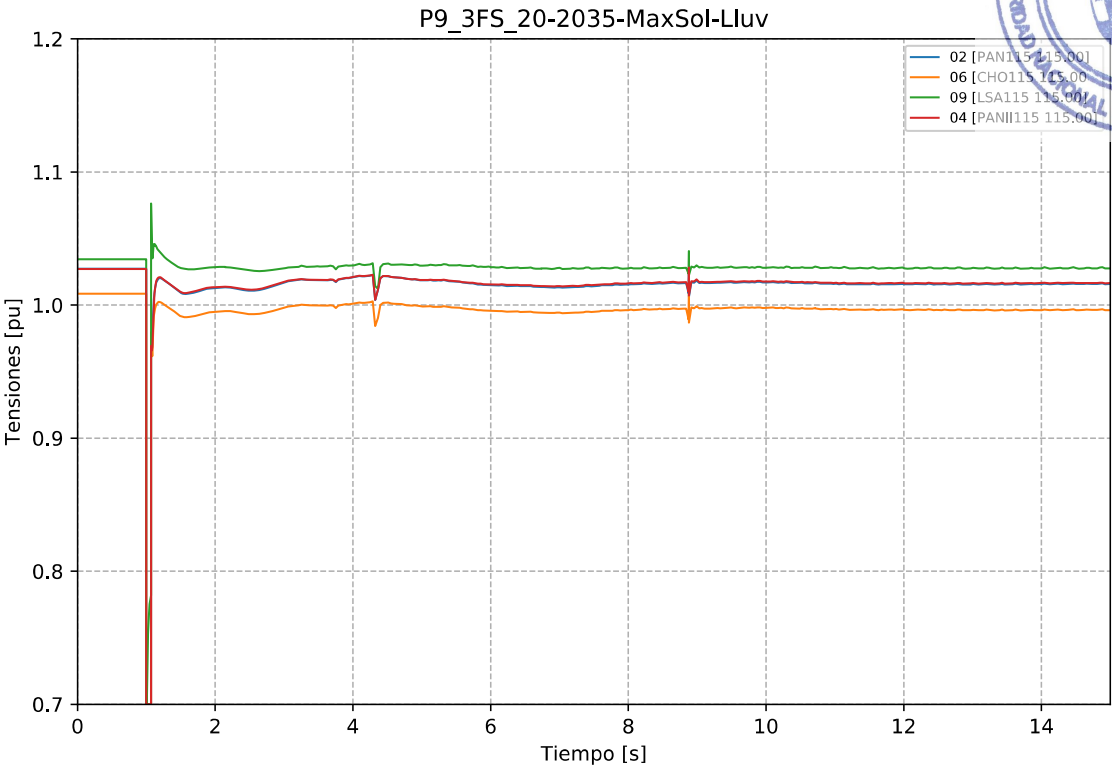


Gráfico 715. Evento P9_3FS, caso 20-2035-MaxSol-Lluv. Tensiones en la zona de influencia 115 kV.

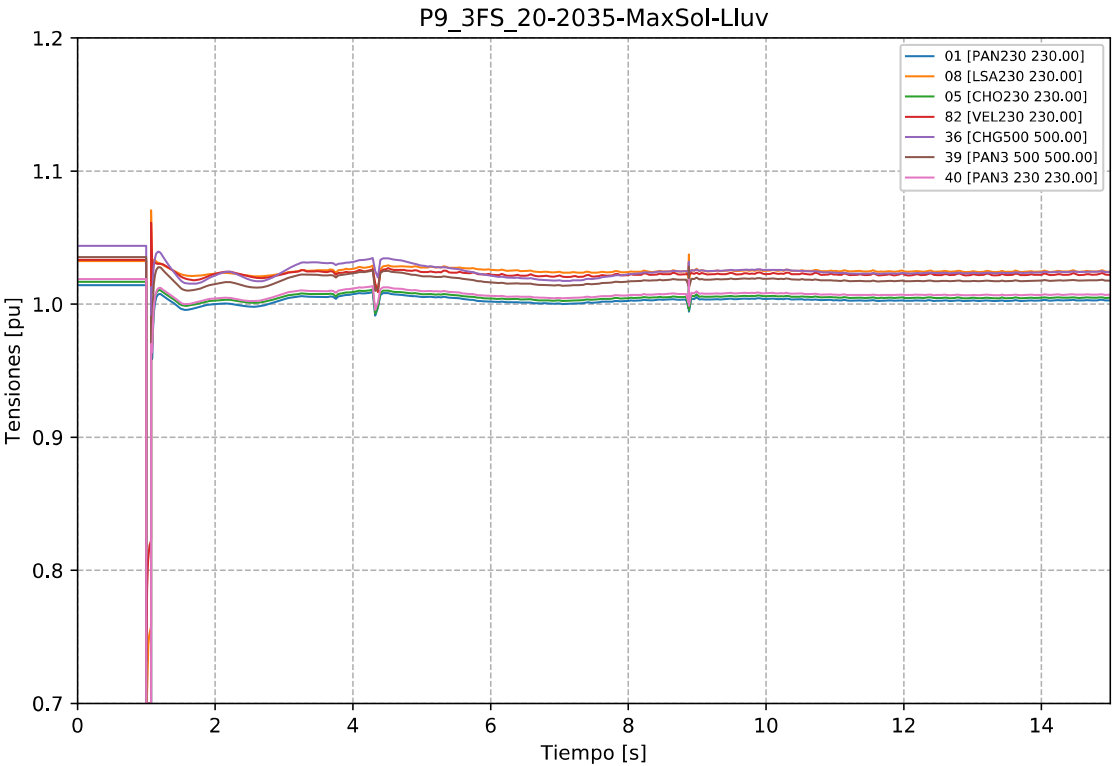


Gráfico 716. Evento P9_3FS, caso 20-2035-MaxSol-Lluv. Tensiones en la zona de influencia 230 kV.

AD

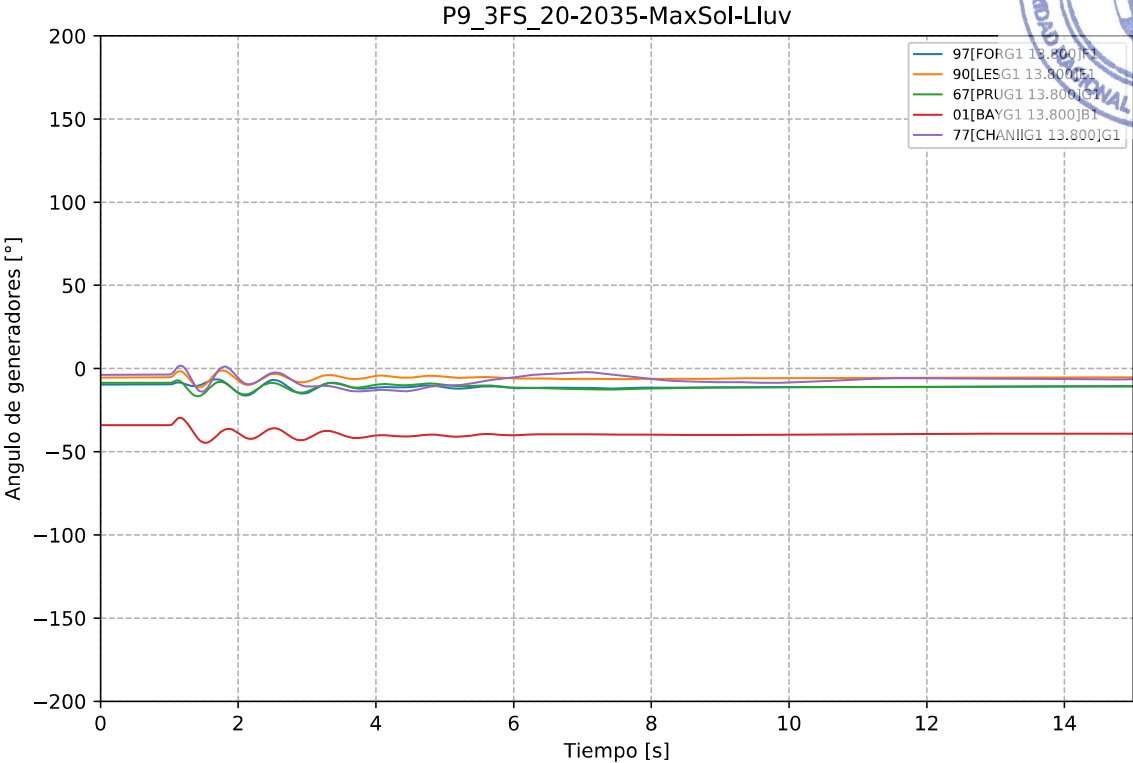


Gráfico 717. Evento P9_3FS, caso 20-2035-MaxSol-Lluv. Ángulo de Generadores Hidroeléctricos.

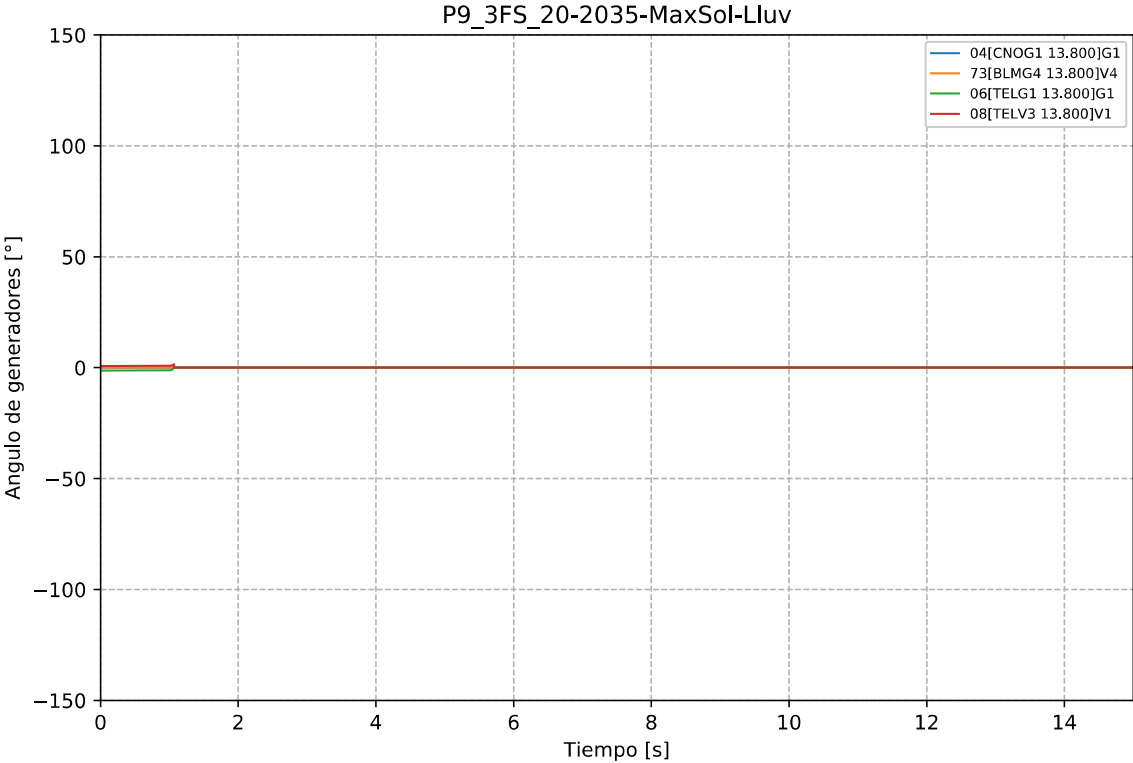


Gráfico 718. Evento P9_3FS, caso 20-2035-MaxSol-Lluv. Ángulo de generadores Térmicos.

AD

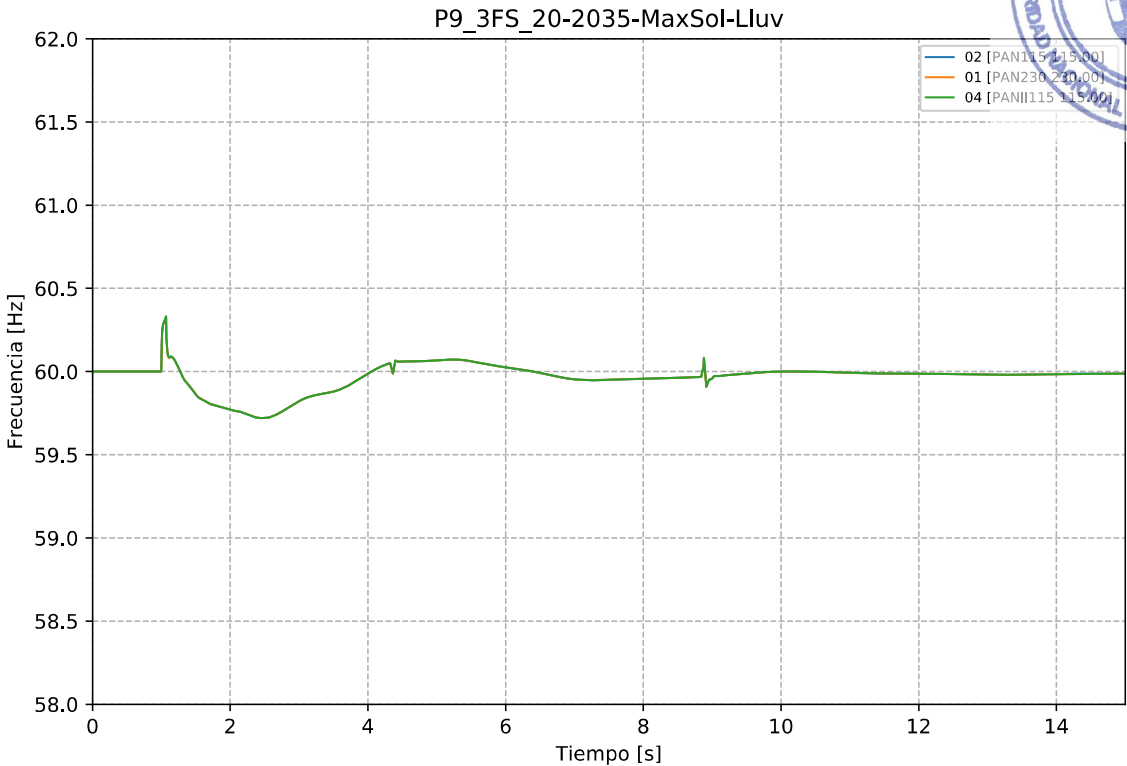


Gráfico 719. Evento P9_3FS, caso 20-2035-MaxSol-Lluv. Frecuencia.

Handwritten signature

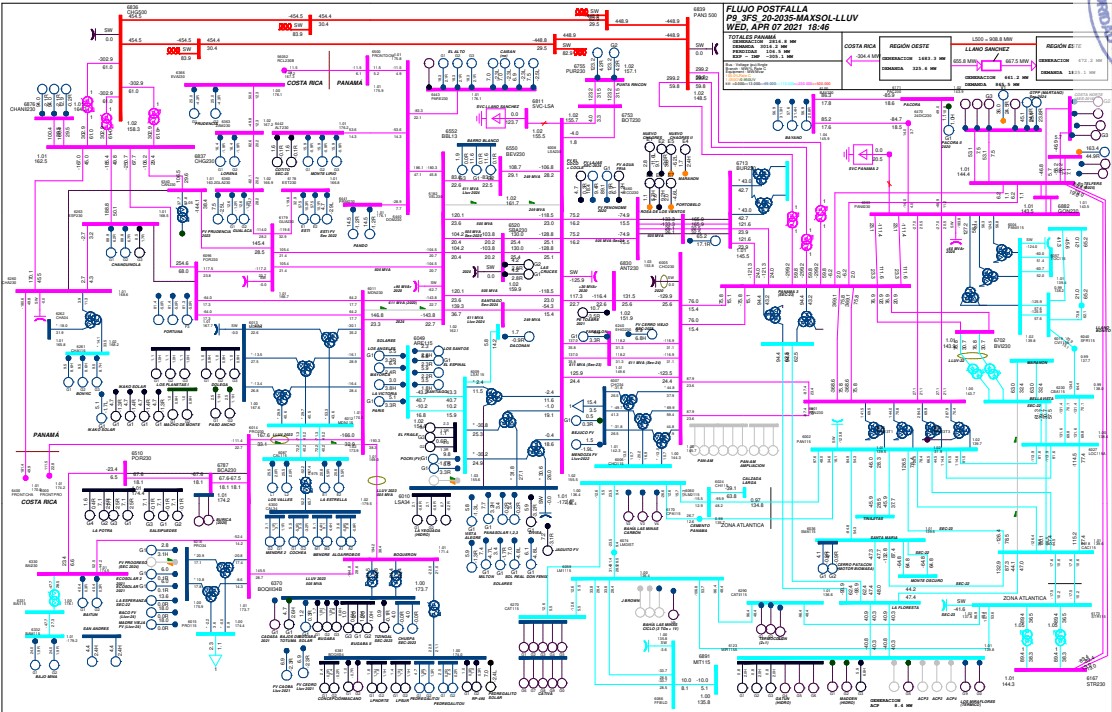


Gráfico 720. Evento P9_3FS, caso 20-2035-MaxSol-Lluv. Flujo postfalla

R

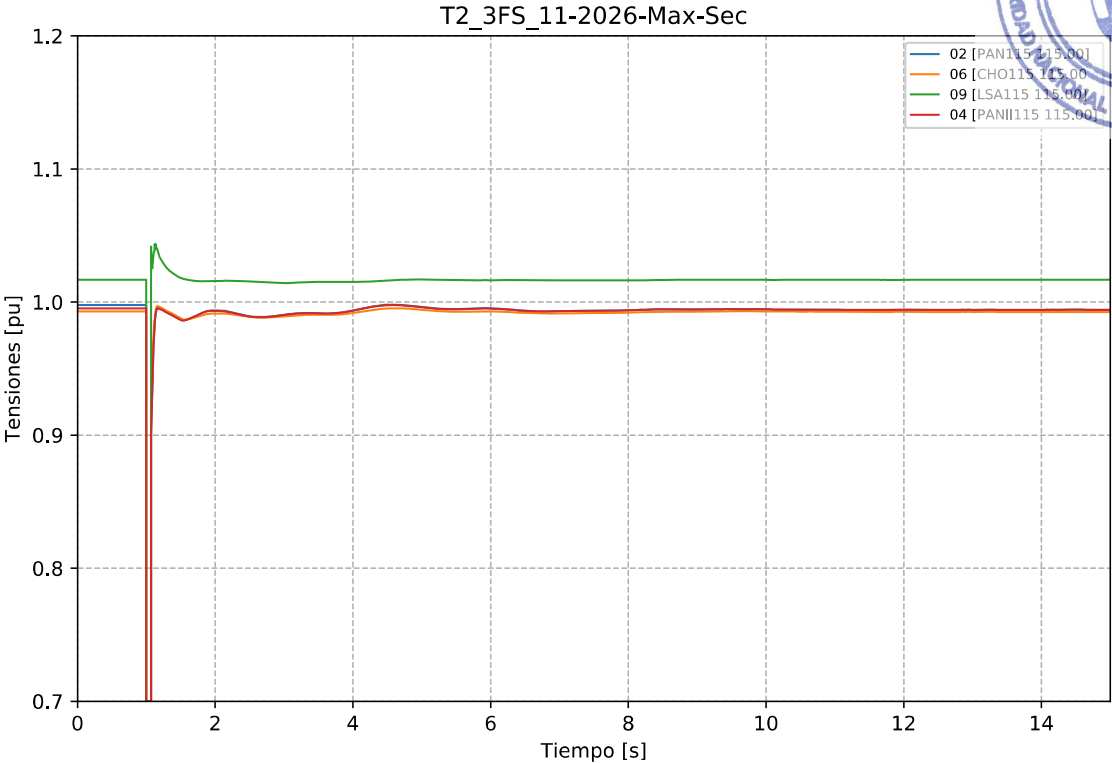


Gráfico 721. Evento T2_3FS, caso 11-2026-Max-Sec. Tensiones en la zona de influencia 115 kV.

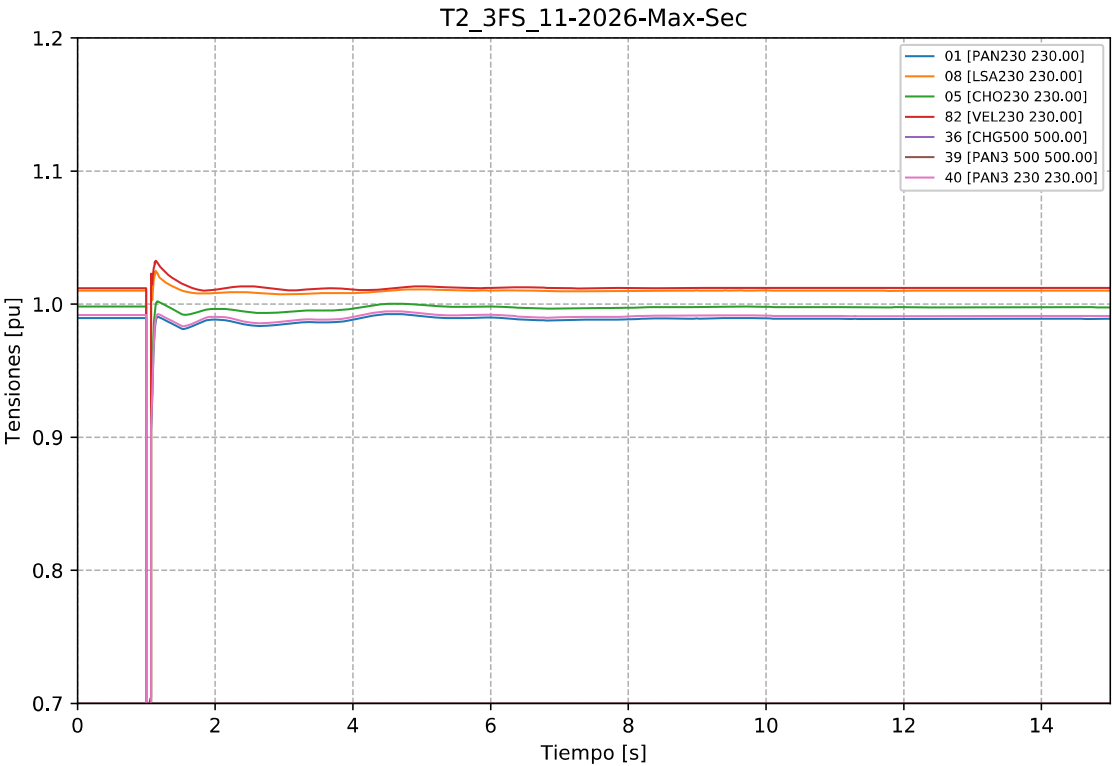


Gráfico 722. Evento T2_3FS, caso 11-2026-Max-Sec. Tensiones en la zona de influencia 230 kV.

AD

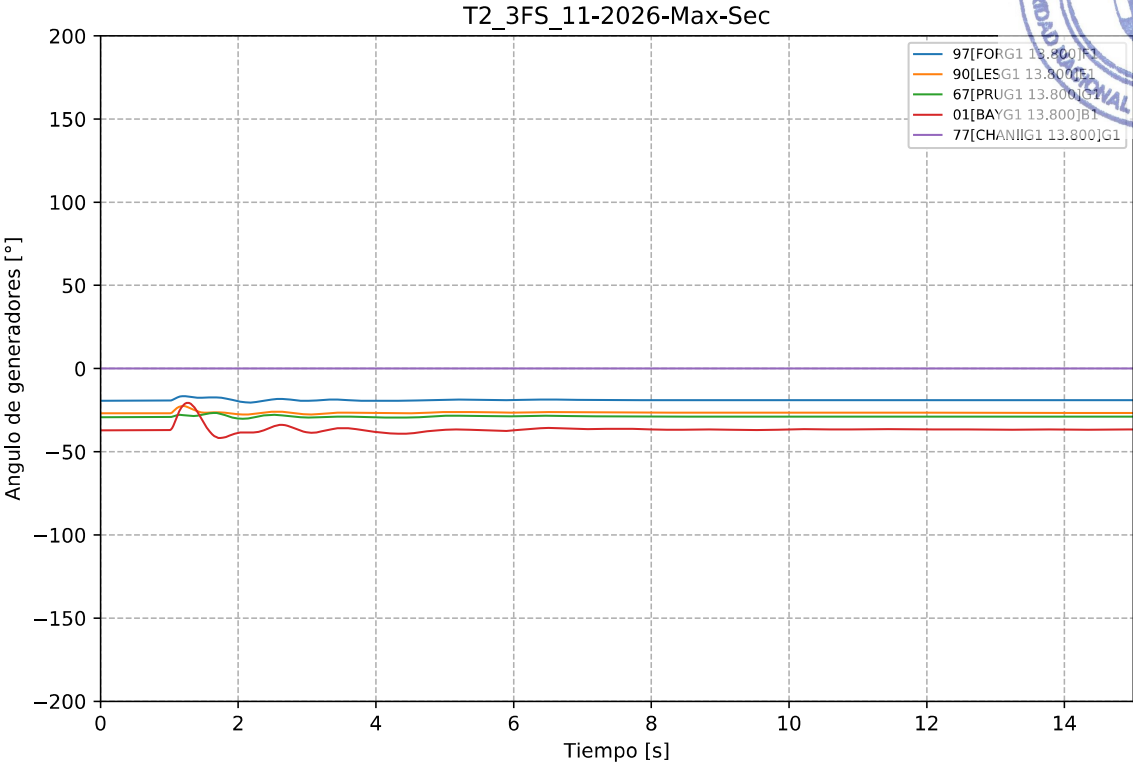


Gráfico 723. Evento T2_3FS, caso 11-2026-Max-Sec. Ángulo de Generadores Hidroeléctricos.

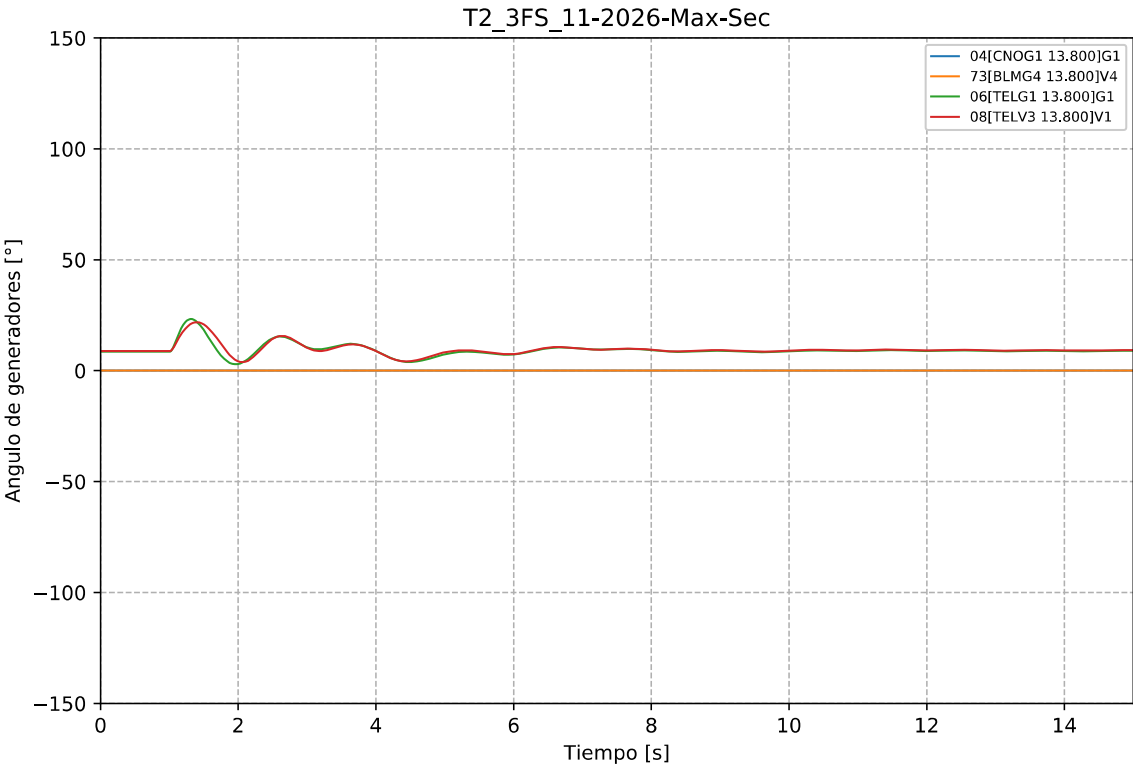


Gráfico 724. Evento T2_3FS, caso 11-2026-Max-Sec. Ángulo de generadores Térmicos.

AD

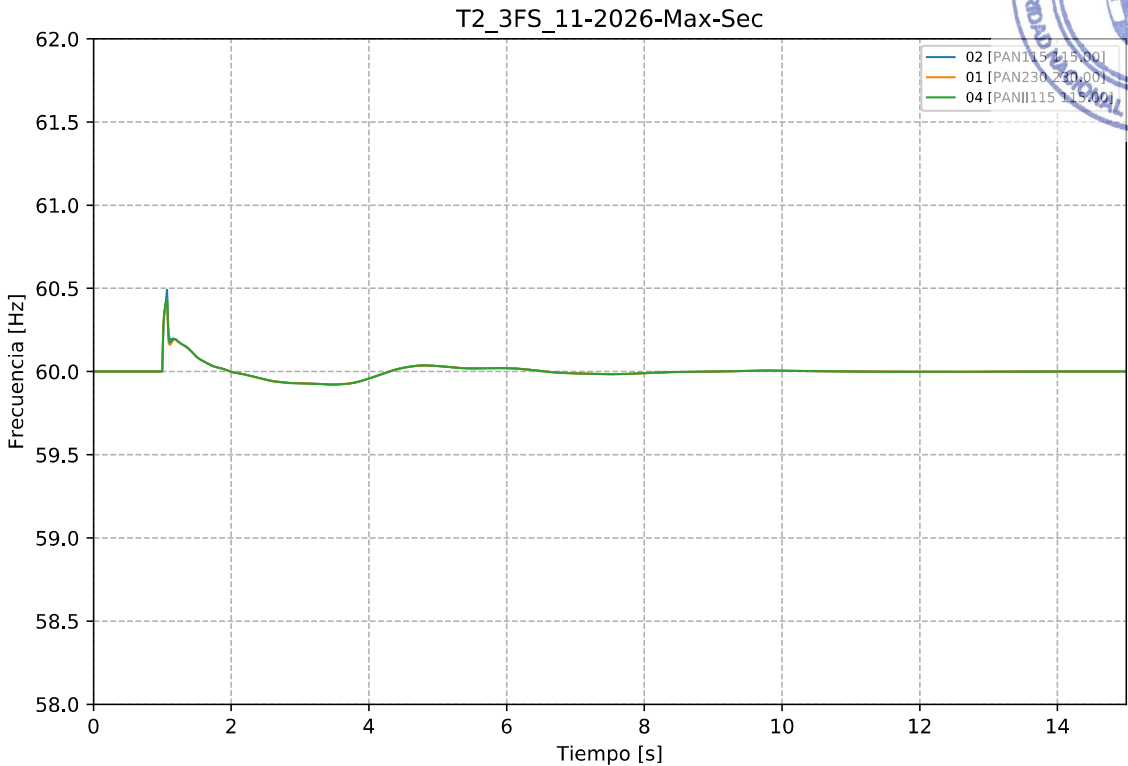


Gráfico 725. Evento T2_3FS, caso 11-2026-Max-Sec. Frecuencia.

AD

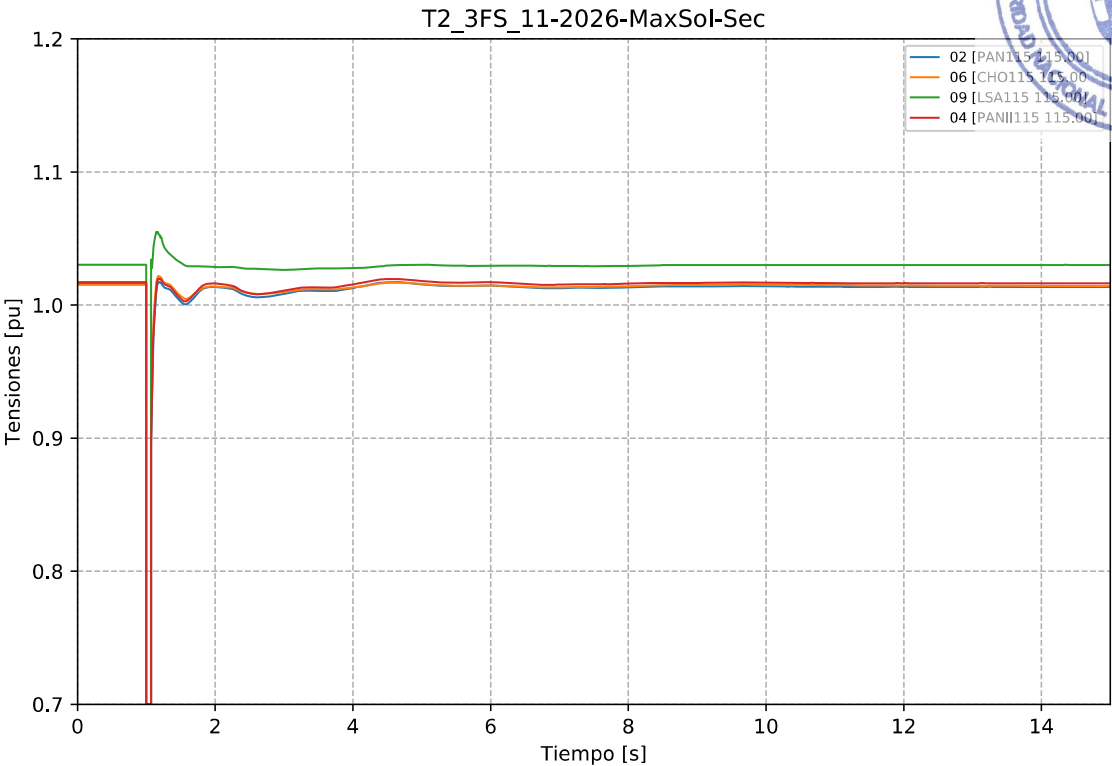


Gráfico 727. Evento T2_3FS, caso 11-2026-MaxSol-Sec. Tensiones en la zona de influencia 115 kV.

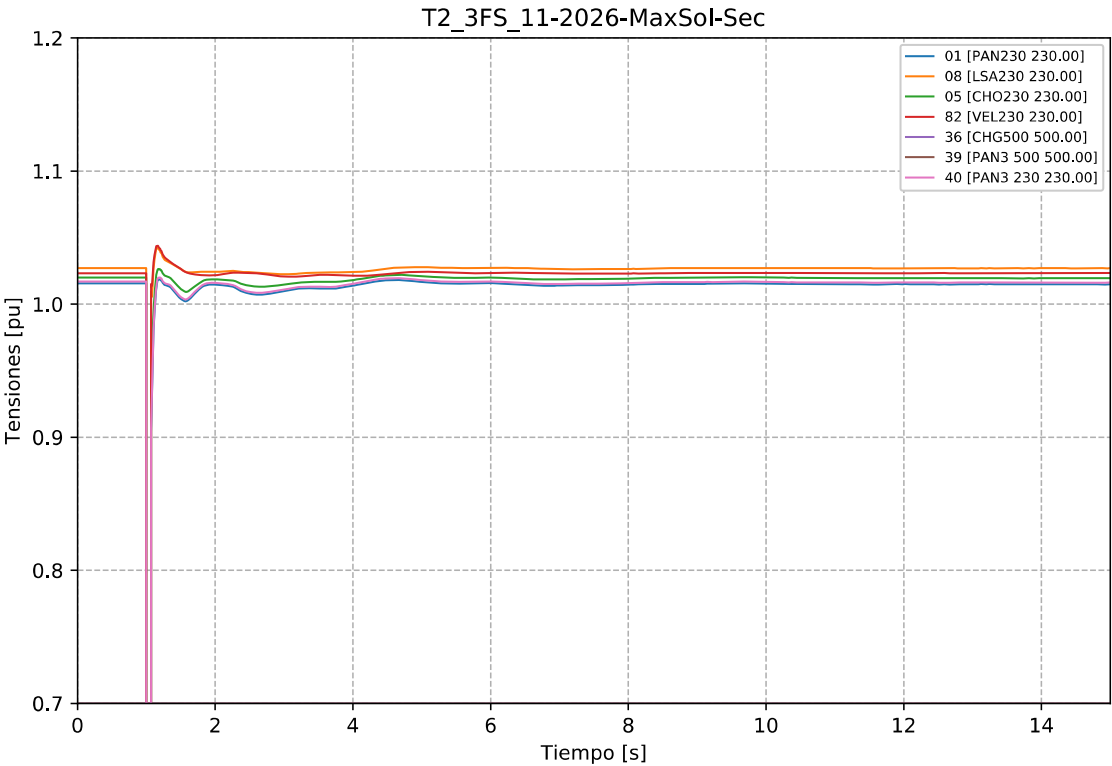


Gráfico 728. Evento T2_3FS, caso 11-2026-MaxSol-Sec. Tensiones en la zona de influencia 230 kV.

AB

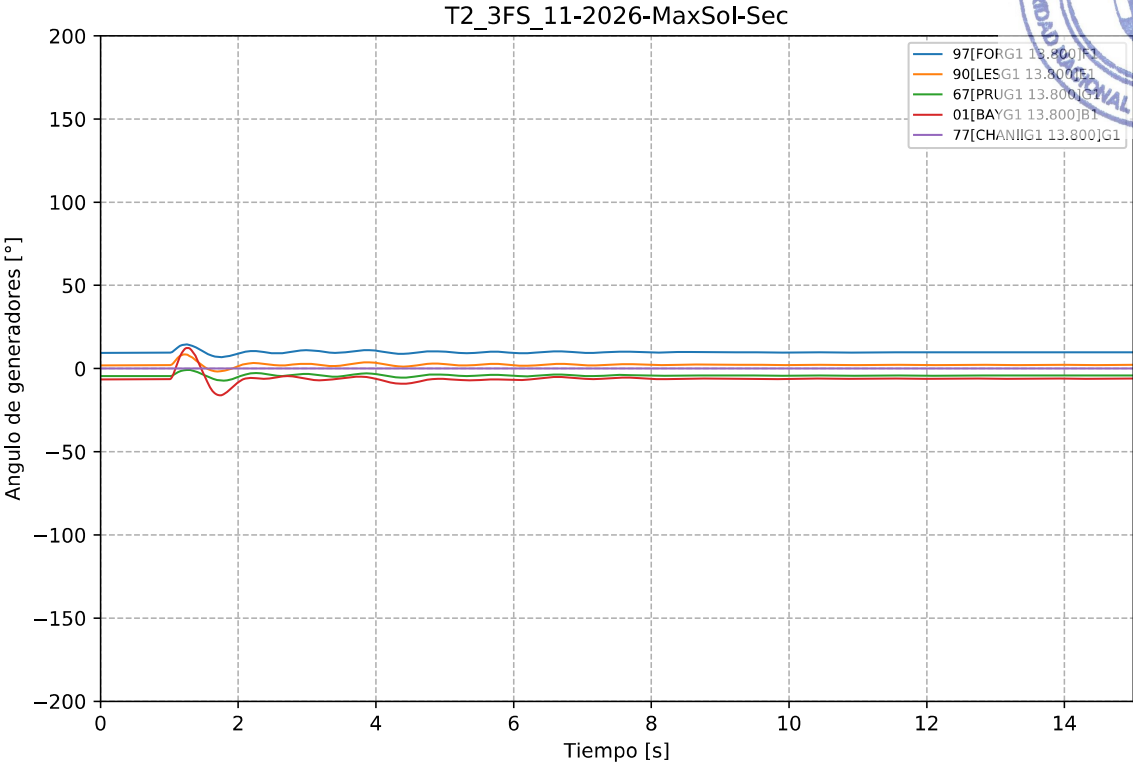


Gráfico 729. Evento T2_3FS, caso 11-2026-MaxSol-Sec. Ángulo de Generadores Hidroeléctricos.

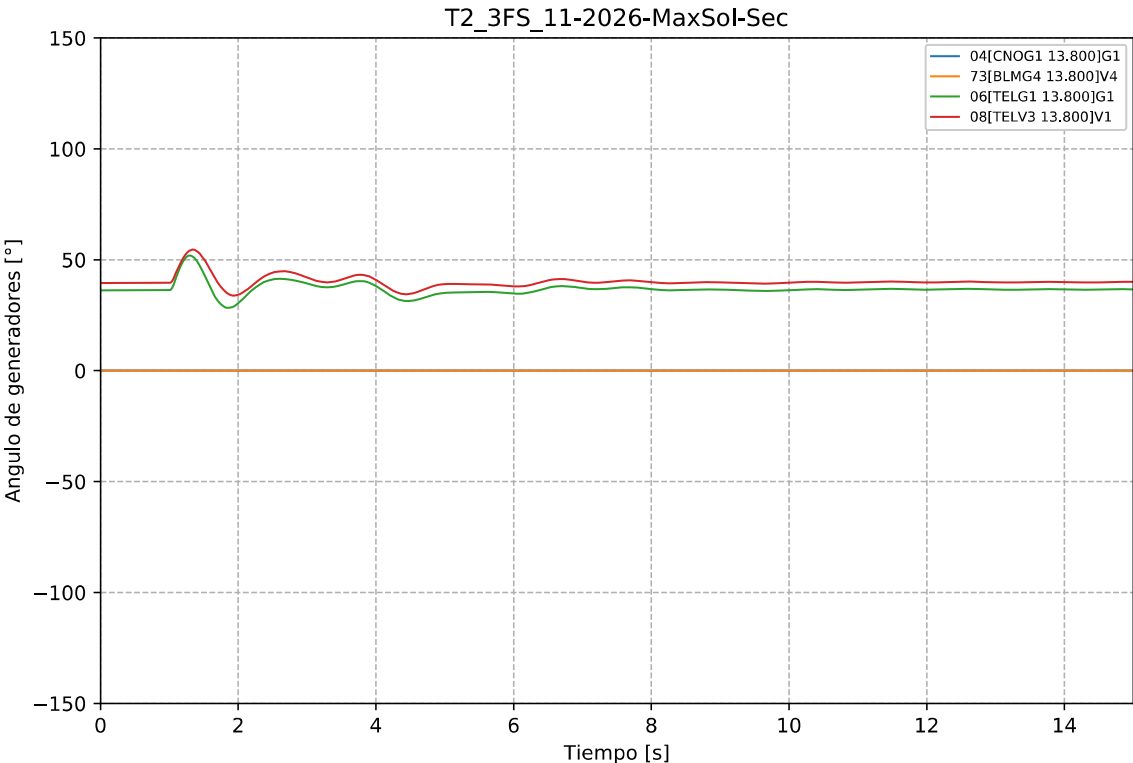


Gráfico 730. Evento T2_3FS, caso 11-2026-MaxSol-Sec. Ángulo de generadores Térmicos.

AD

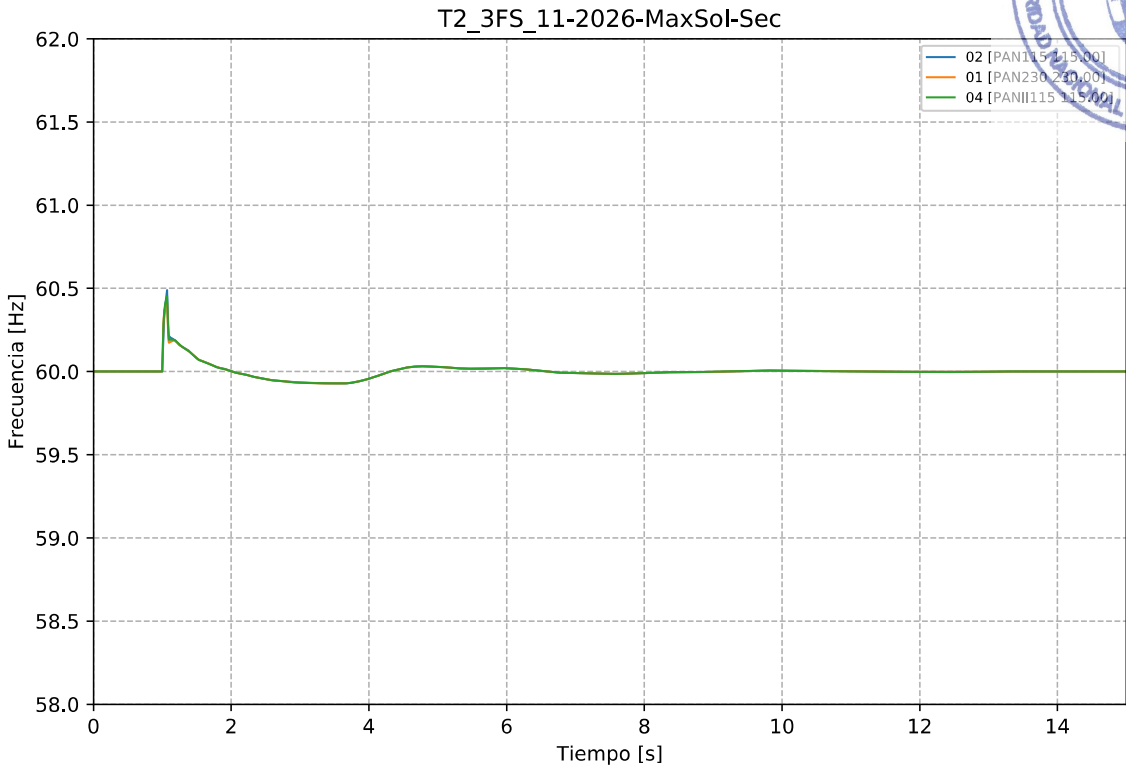


Gráfico 731. Evento T2_3FS, caso 11-2026-MaxSol-Sec. Frecuencia.

AD

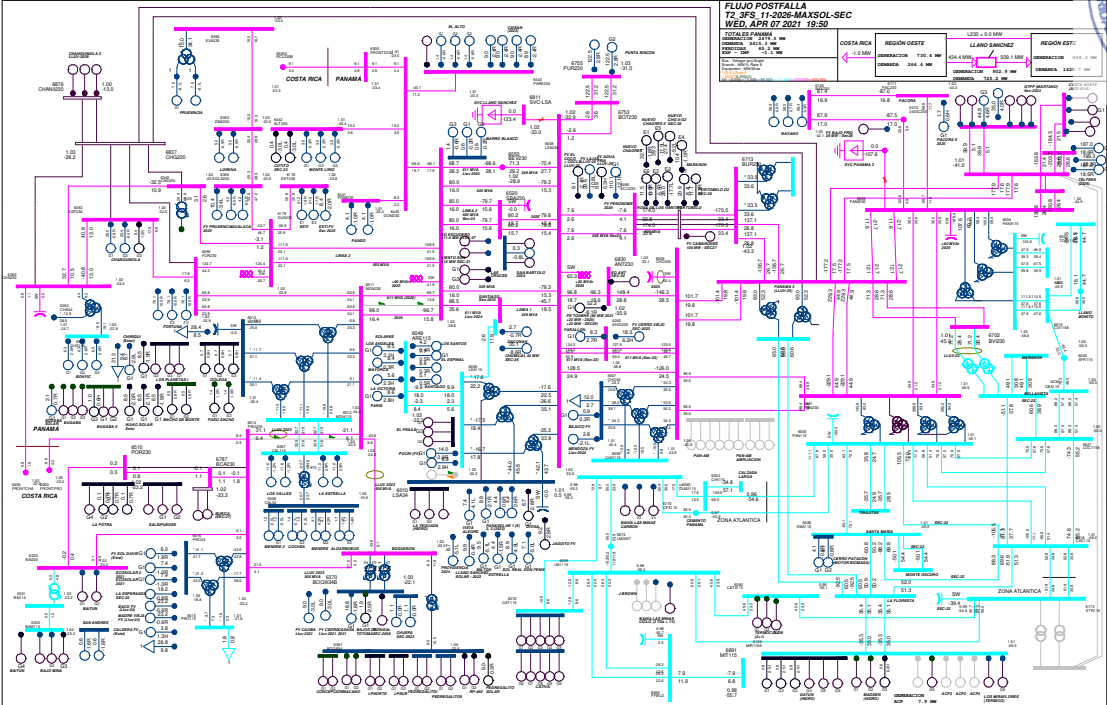


Gráfico 732. Evento T2_3FS, caso 11-2026-MaxSol-Sec. Flujo postfalla

R

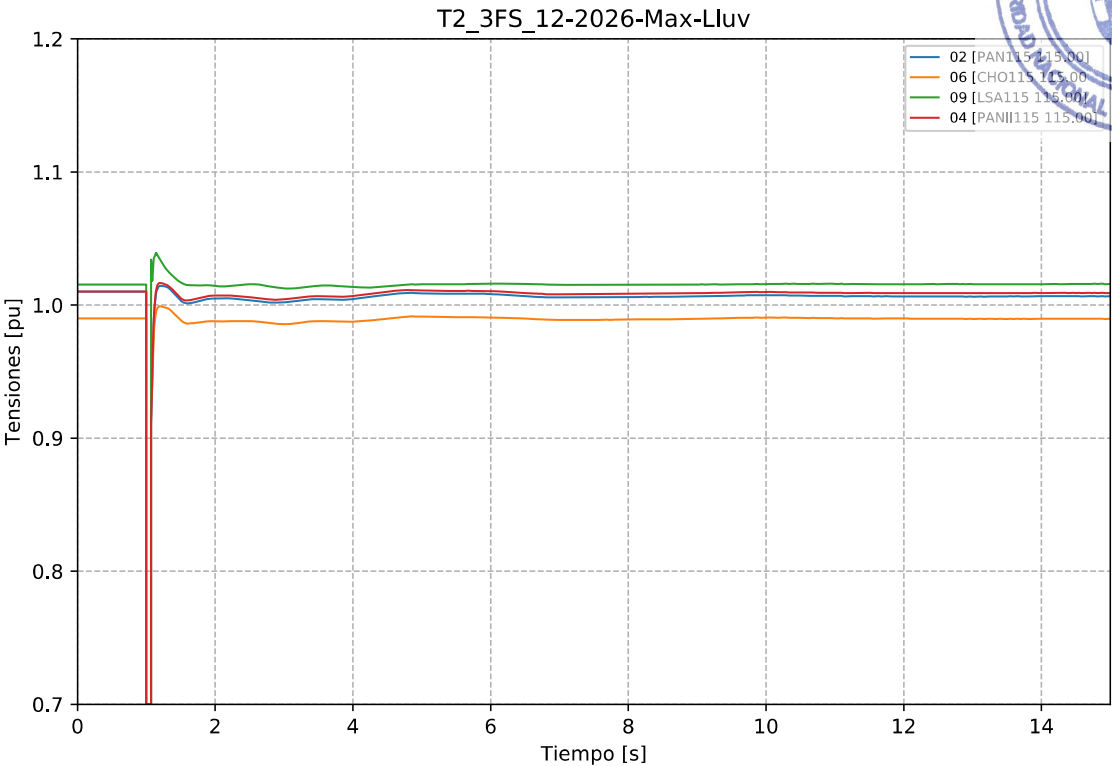


Gráfico 733. Evento T2_3FS, caso 12-2026-Max-Lluv. Tensiones en la zona de influencia 115 kV.

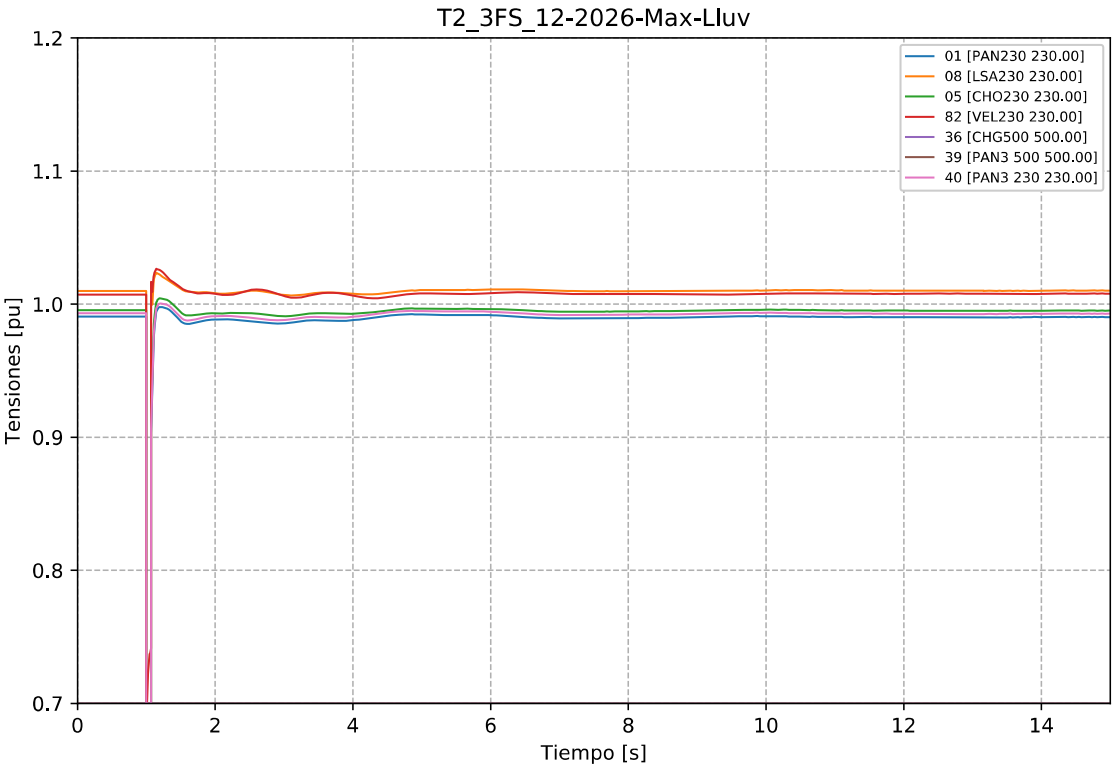


Gráfico 734. Evento T2_3FS, caso 12-2026-Max-Lluv. Tensiones en la zona de influencia 230 kV.

AD

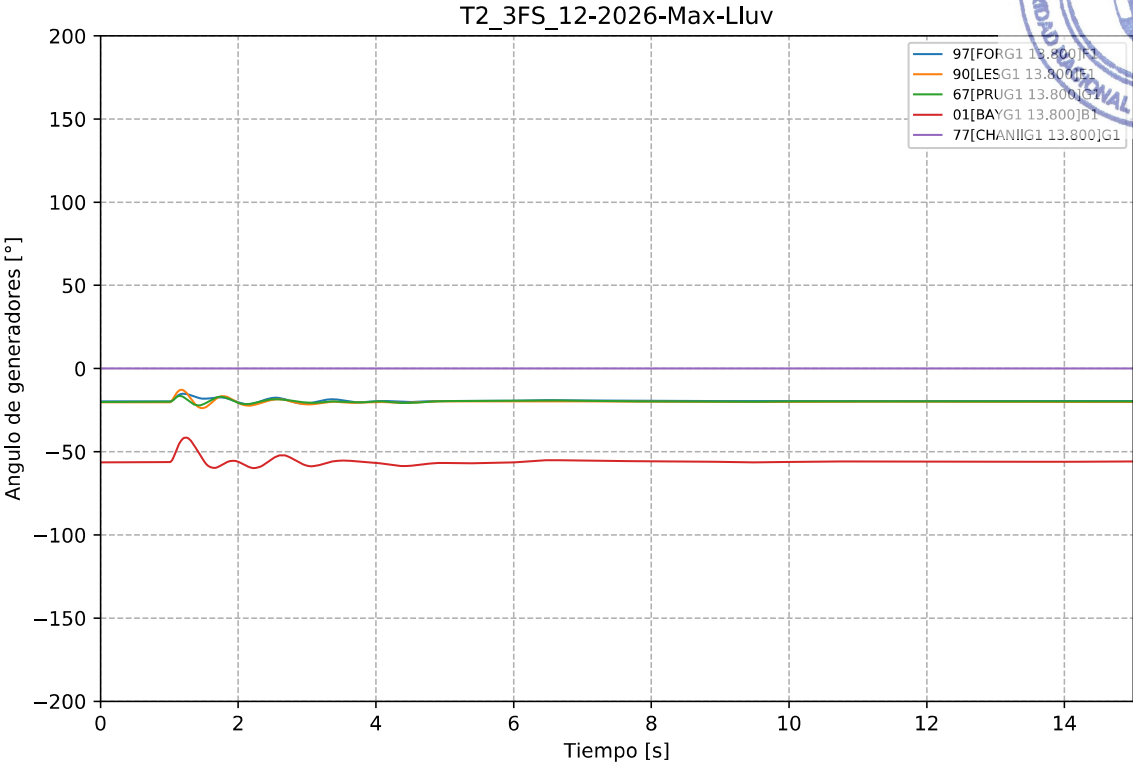


Gráfico 735. Evento T2_3FS, caso 12-2026-Max-Lluv. Ángulo de Generadores Hidroeléctricos.

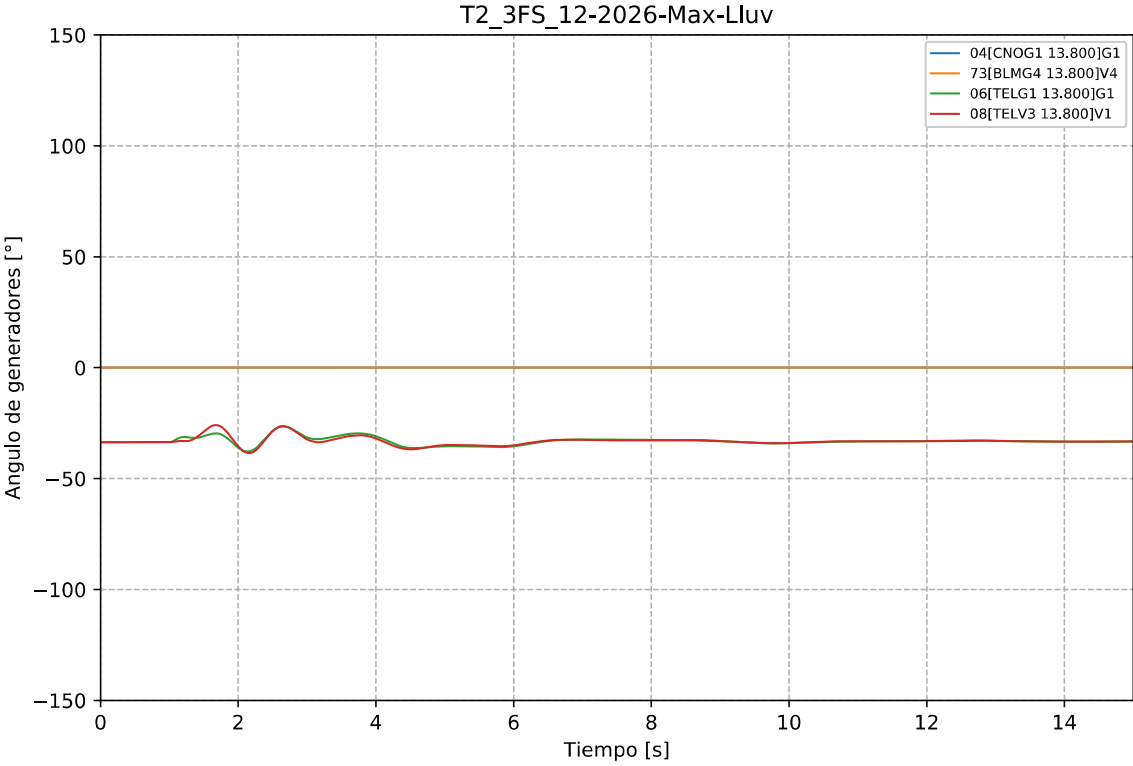


Gráfico 736. Evento T2_3FS, caso 12-2026-Max-Lluv. Ángulo de generadores Térmicos.

AD

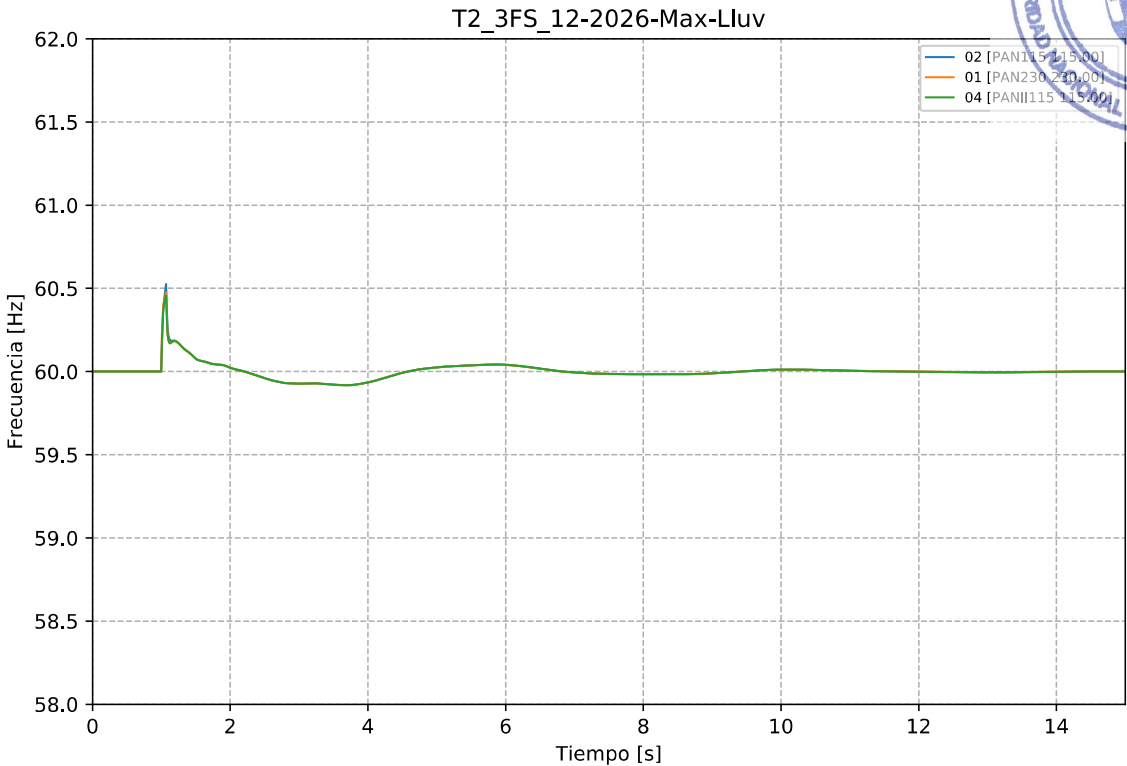


Gráfico 737. Evento T2_3FS, caso 12-2026-Max-Lluv. Frecuencia.

AD

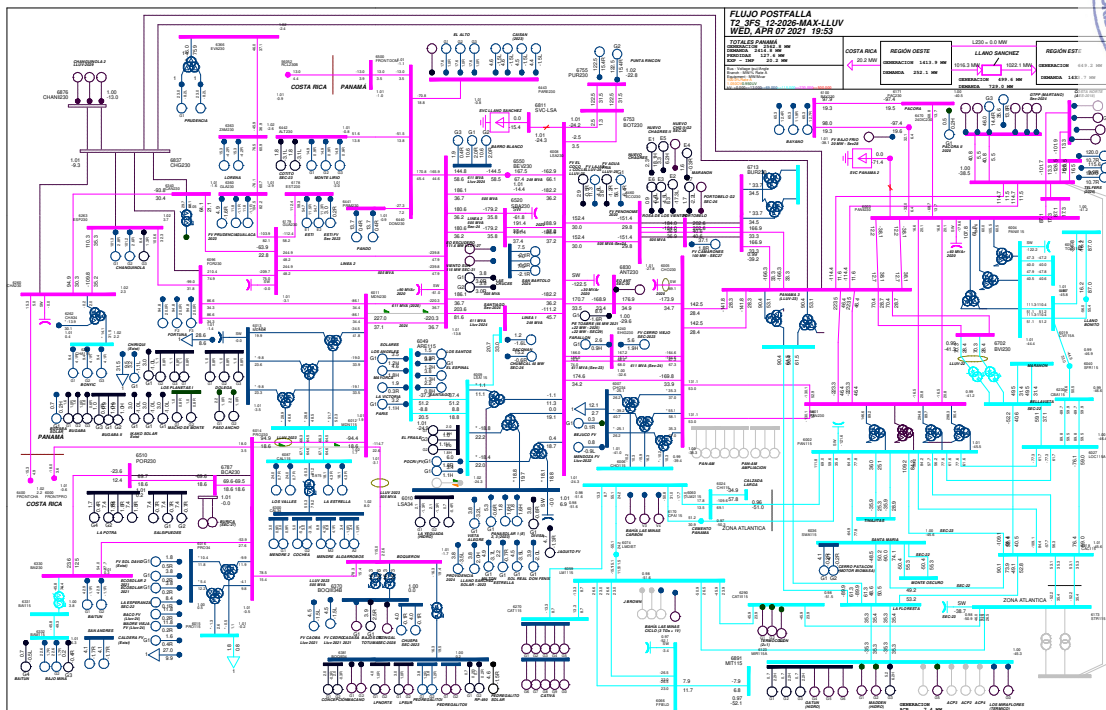


Gráfico 738. Evento T2_3FS, caso 12-2026-Max-Lluv. Flujo postfalla

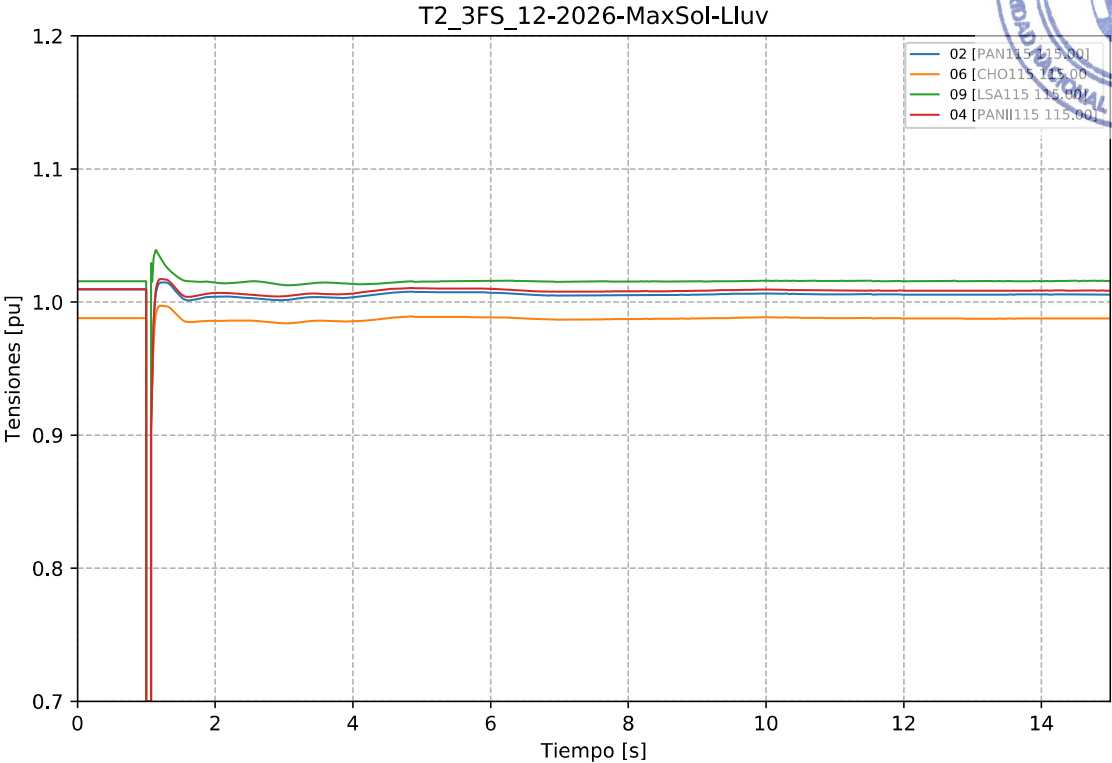


Gráfico 739. Evento T2_3FS, caso 12-2026-MaxSol-Lluv. Tensiones en la zona de influencia 115 kV.

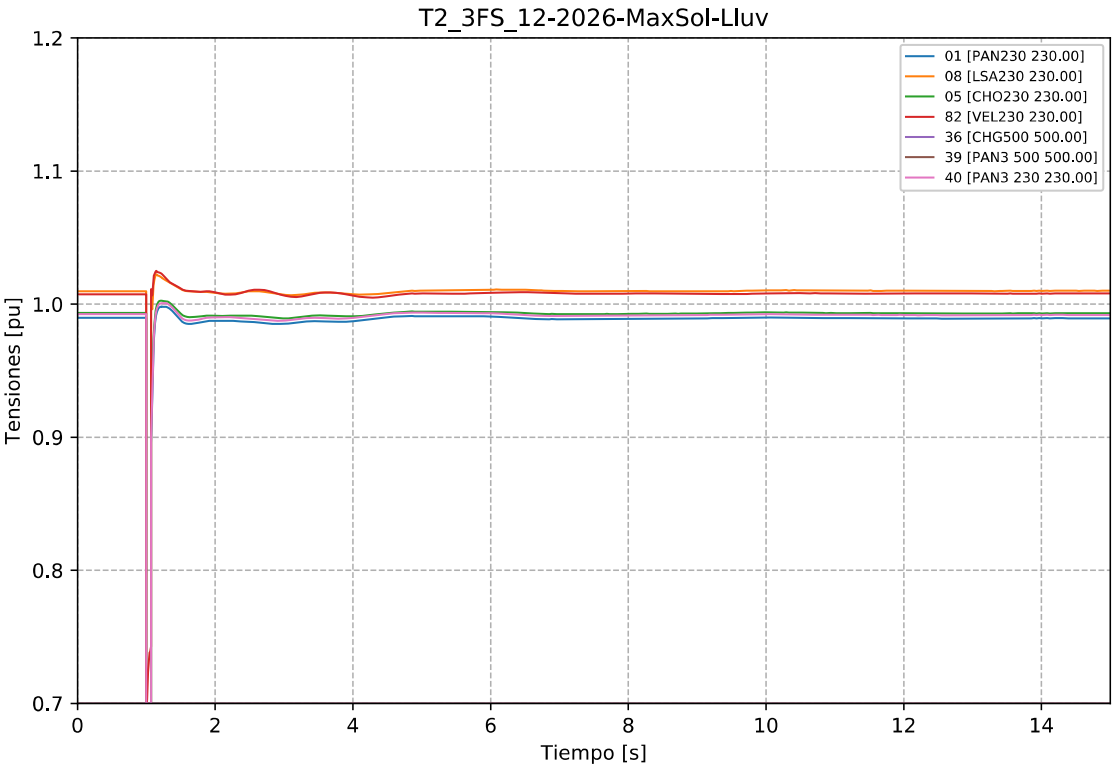


Gráfico 740. Evento T2_3FS, caso 12-2026-MaxSol-Lluv. Tensiones en la zona de influencia 230 kV.

AB

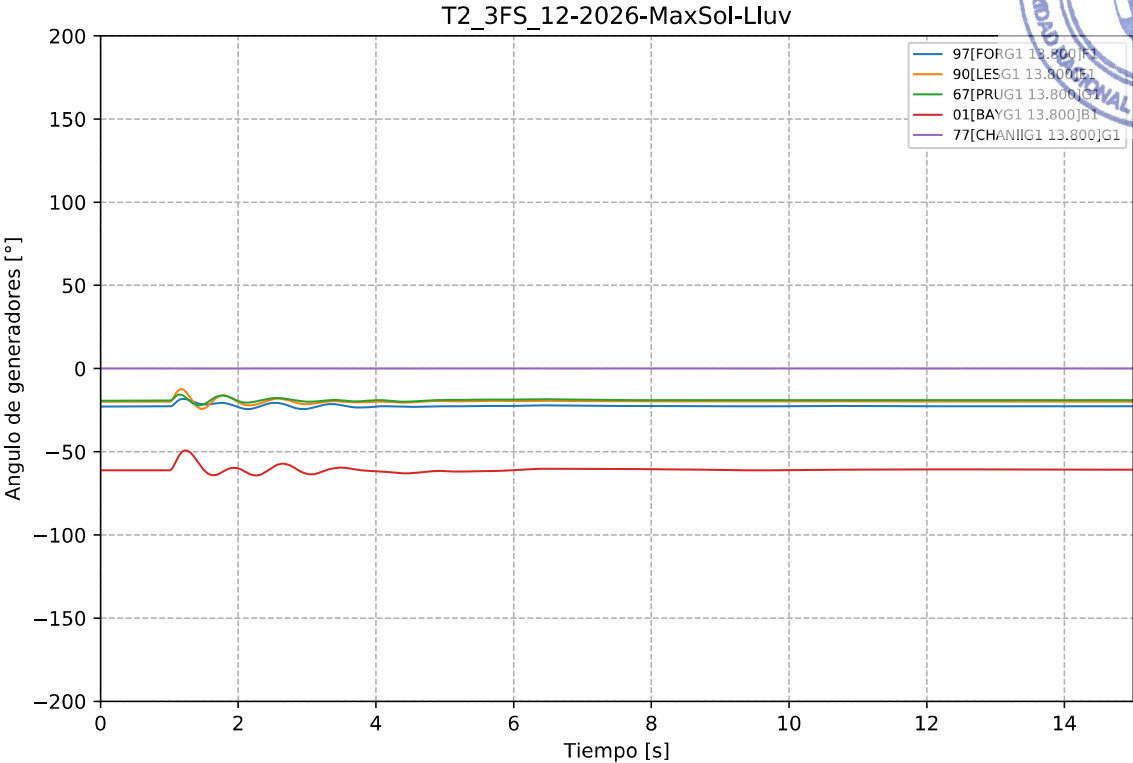


Gráfico 741. Evento T2_3FS, caso 12-2026-MaxSol-Lluv. Ángulo de Generadores Hidroeléctricos.

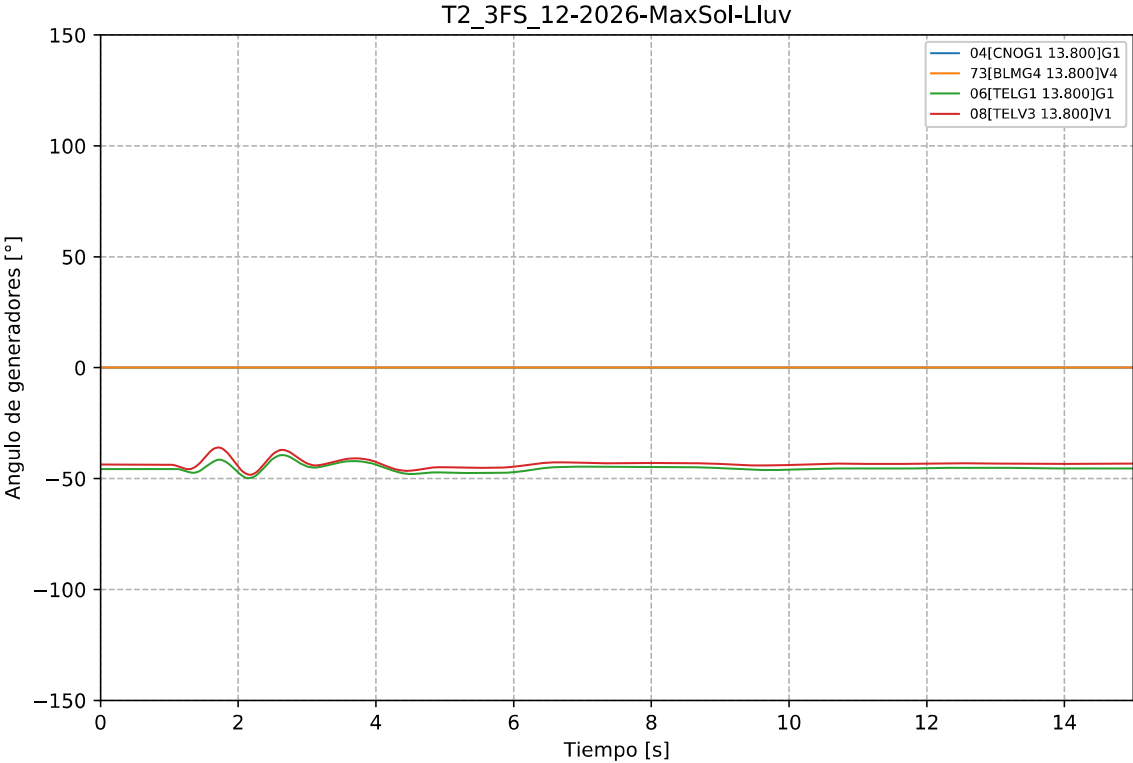


Gráfico 742. Evento T2_3FS, caso 12-2026-MaxSol-Lluv. Ángulo de generadores Térmicos.

AD

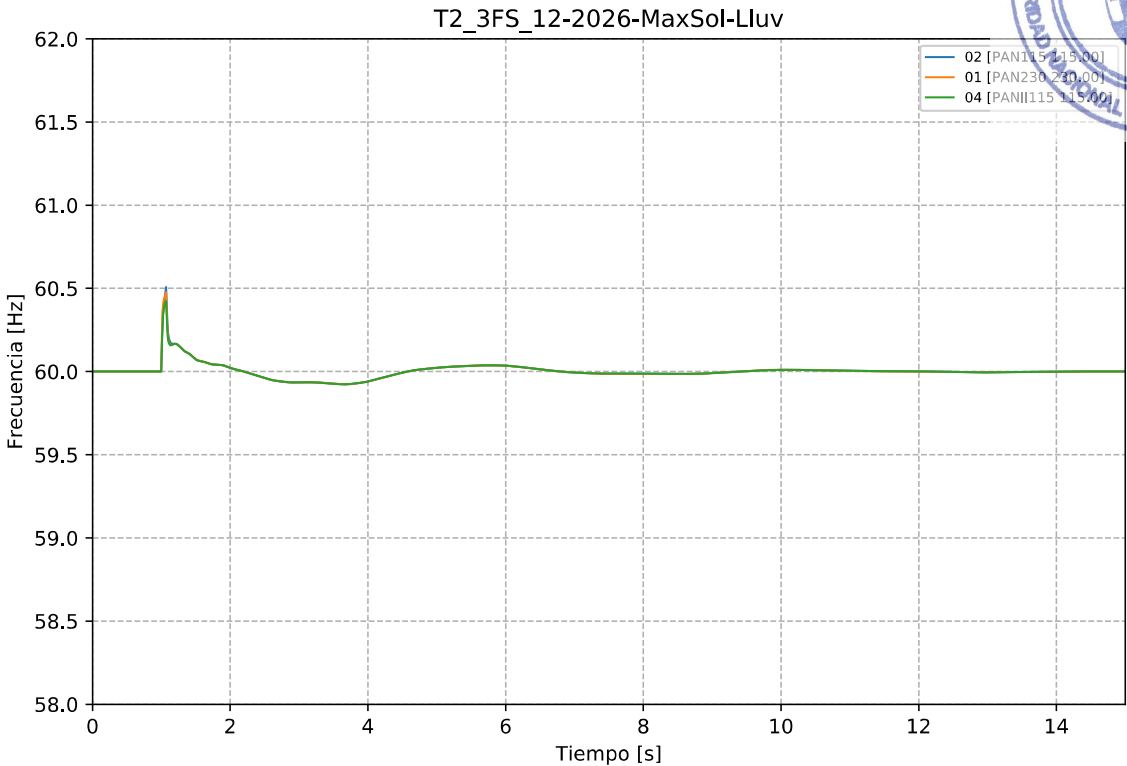


Gráfico 743. Evento T2_3FS, caso 12-2026-MaxSol-Lluv. Frecuencia.

AD

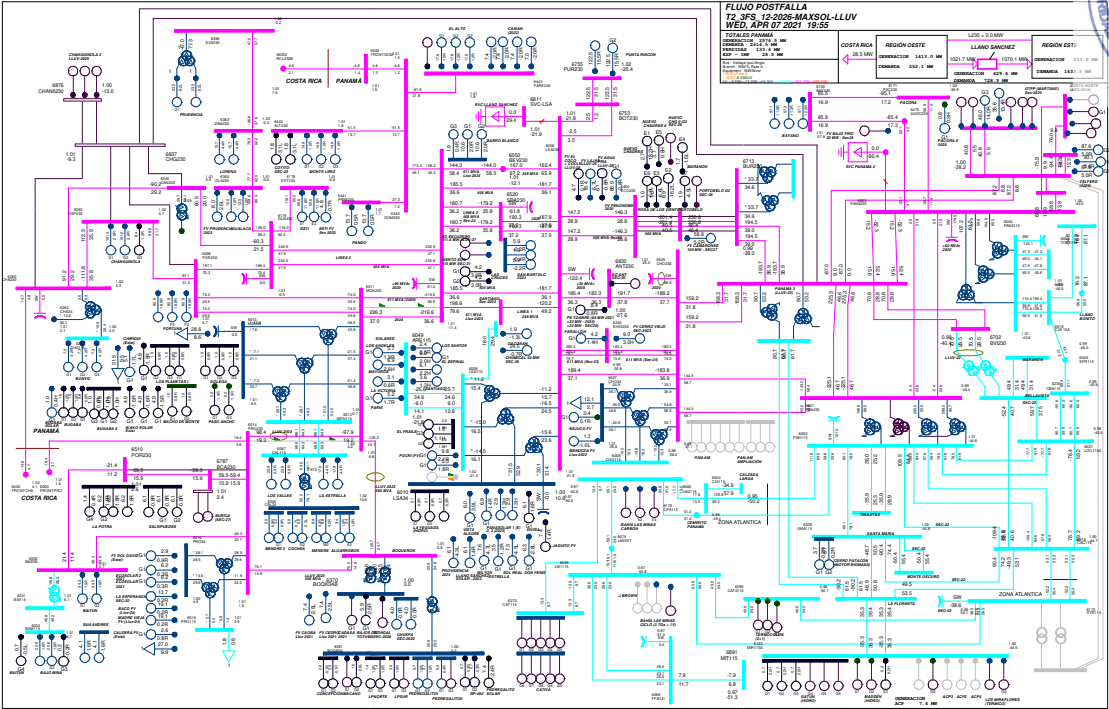


Gráfico 744. Evento T2_3FS, caso 12-2026-MaxSol-Lluv. Flujo postfalla

R

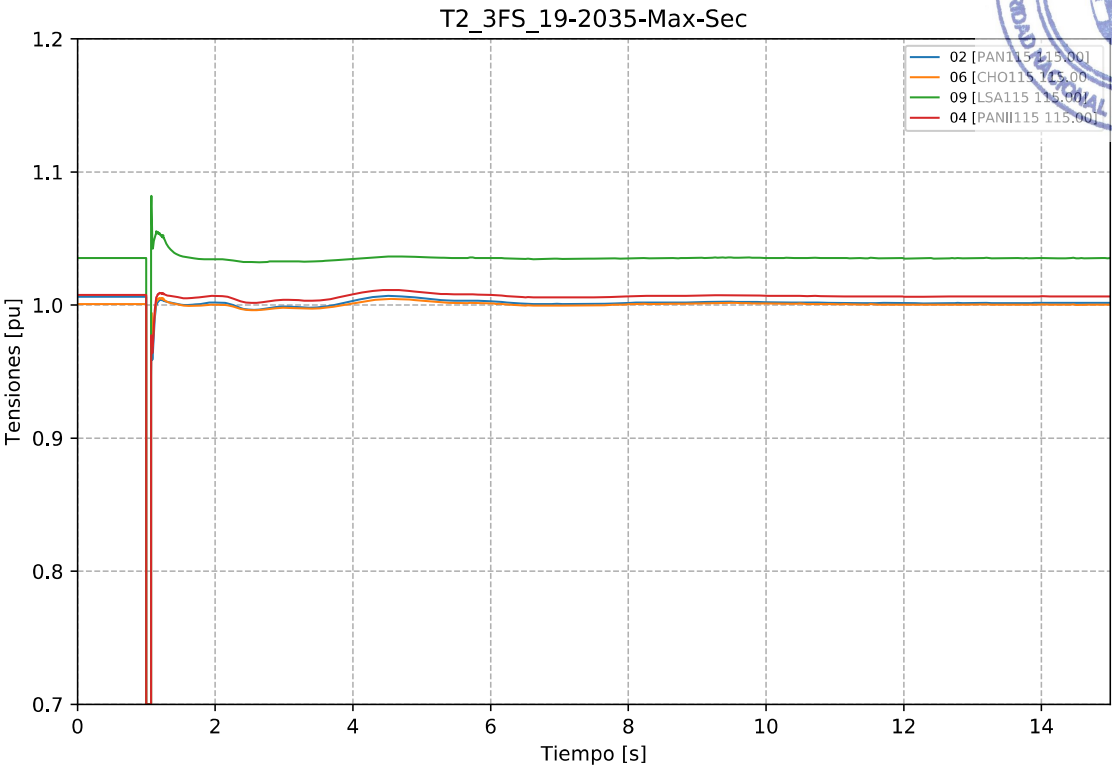


Gráfico 745. Evento T2_3FS, caso 19-2035-Max-Sec. Tensiones en la zona de influencia 115 kV.

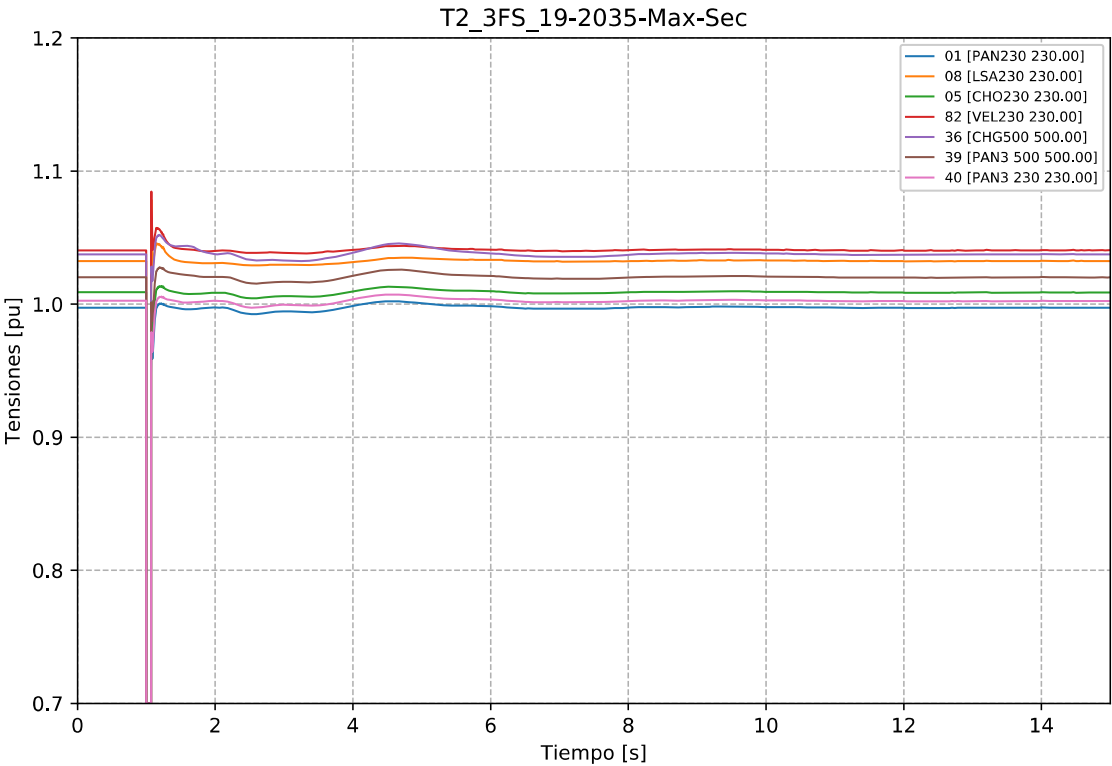


Gráfico 746. Evento T2_3FS, caso 19-2035-Max-Sec. Tensiones en la zona de influencia 230 kV.

AD

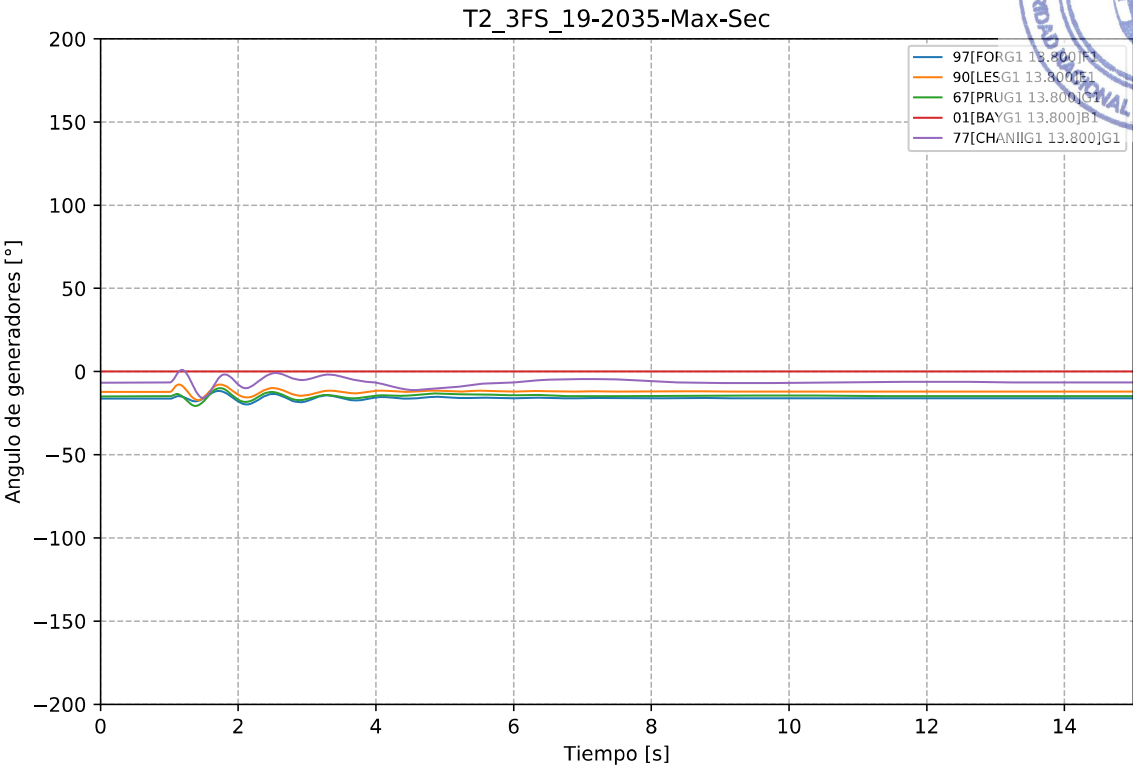


Gráfico 747. Evento T2_3FS, caso 19-2035-Max-Sec. Ángulo de Generadores Hidroeléctricos.

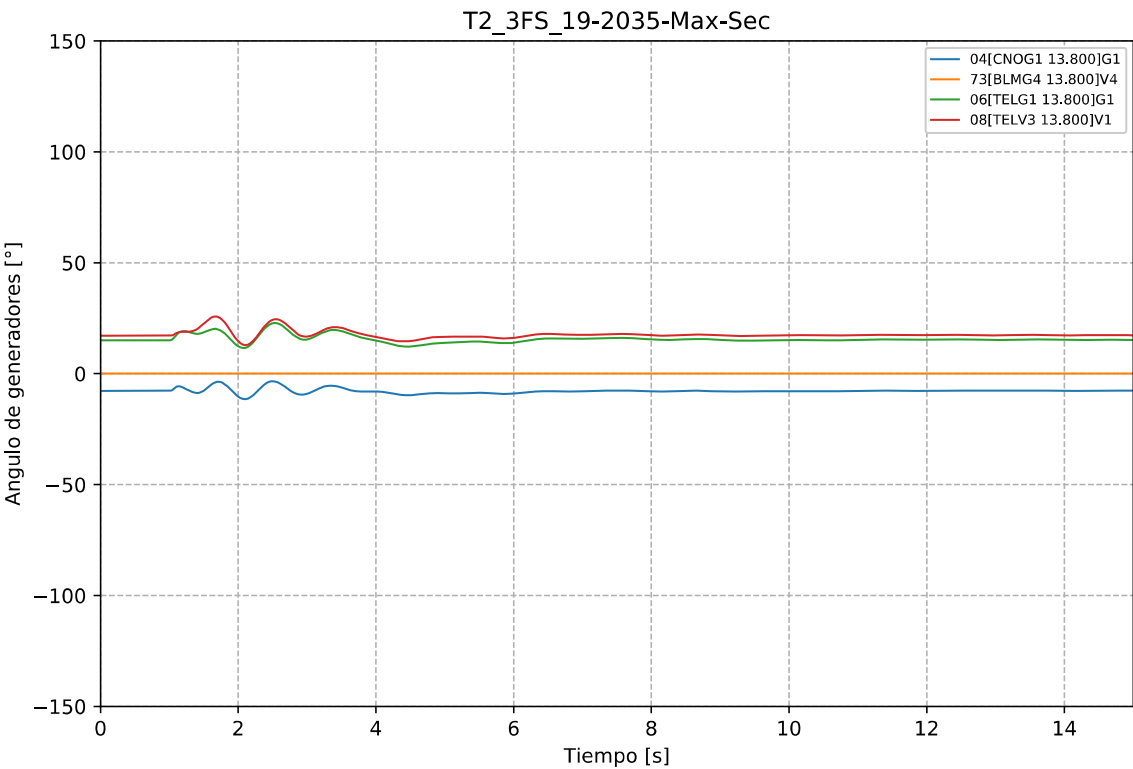


Gráfico 748. Evento T2_3FS, caso 19-2035-Max-Sec. Ángulo de generadores Térmicos.

AD

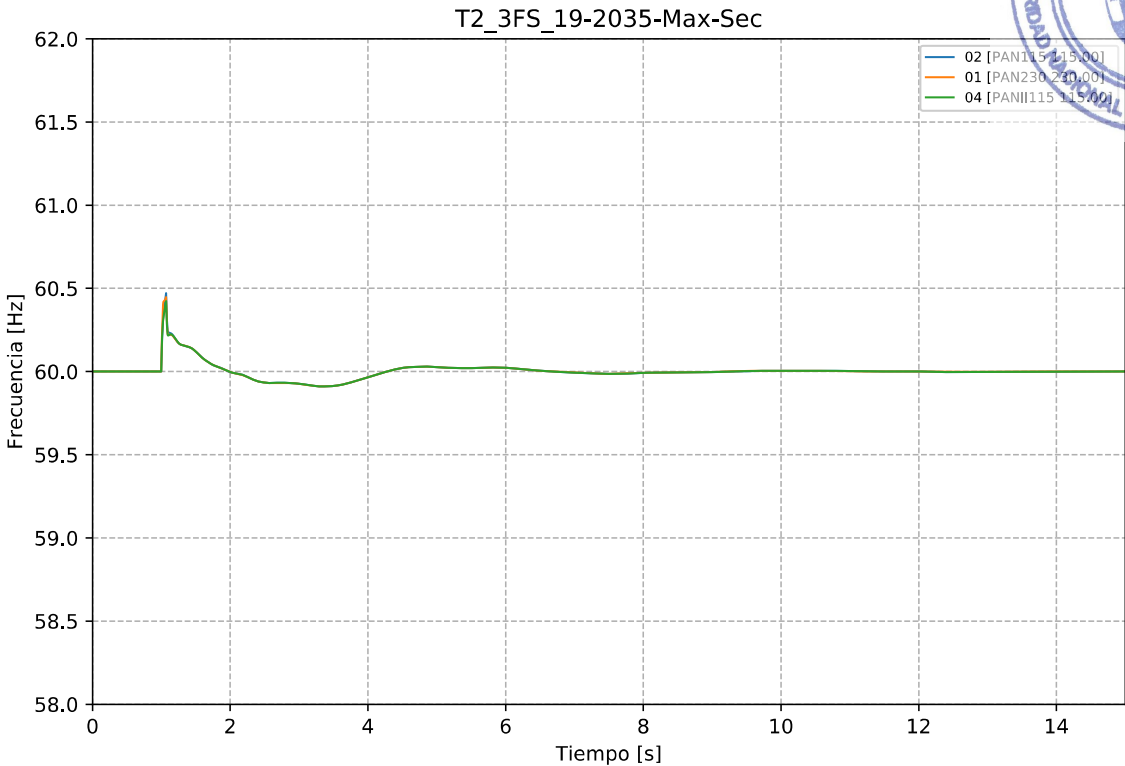


Gráfico 749. Evento T2_3FS, caso 19-2035-Max-Sec. Frecuencia.

AD

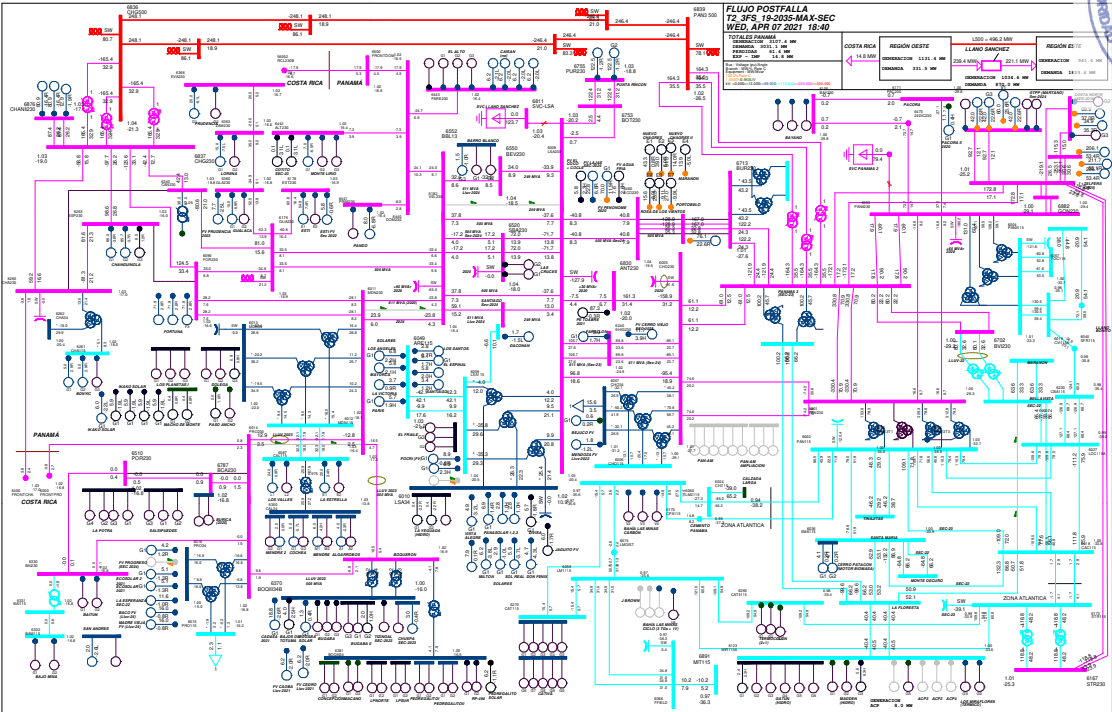


Gráfico 750. Evento T2_3FS, caso 19-2035-Max-Sec. Flujo postfalla

R

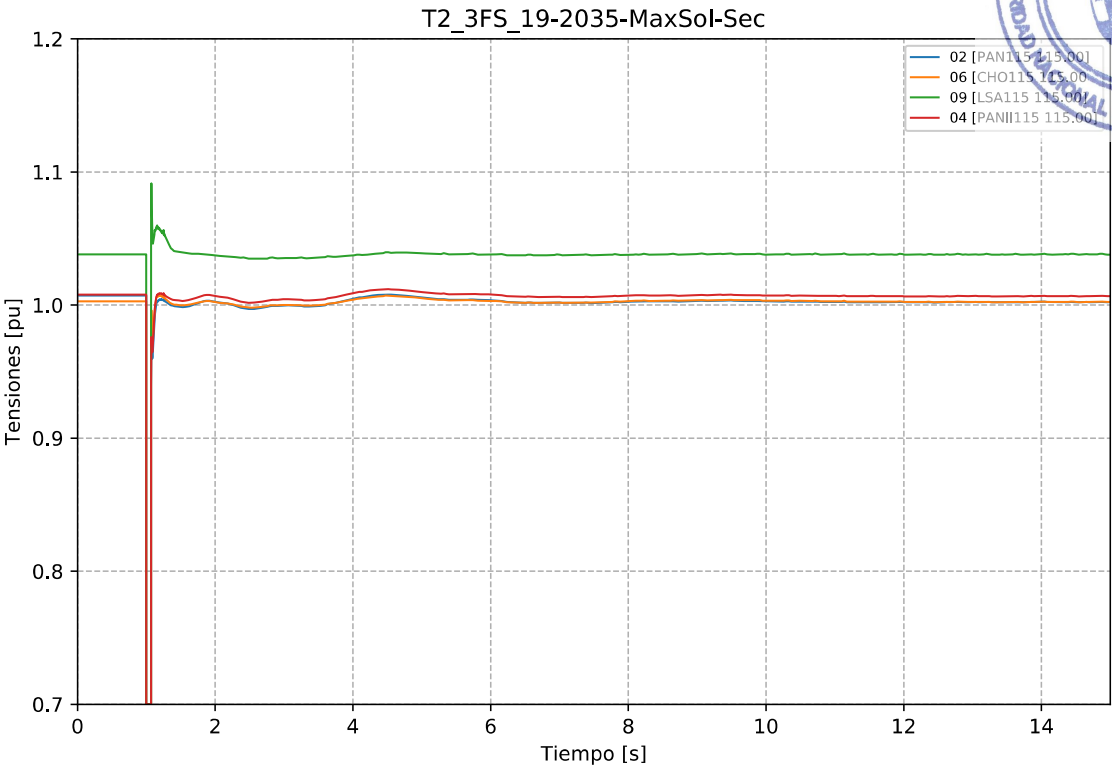


Gráfico 751. Evento T2_3FS, caso 19-2035-MaxSol-Sec. Tensiones en la zona de influencia 115 kV.

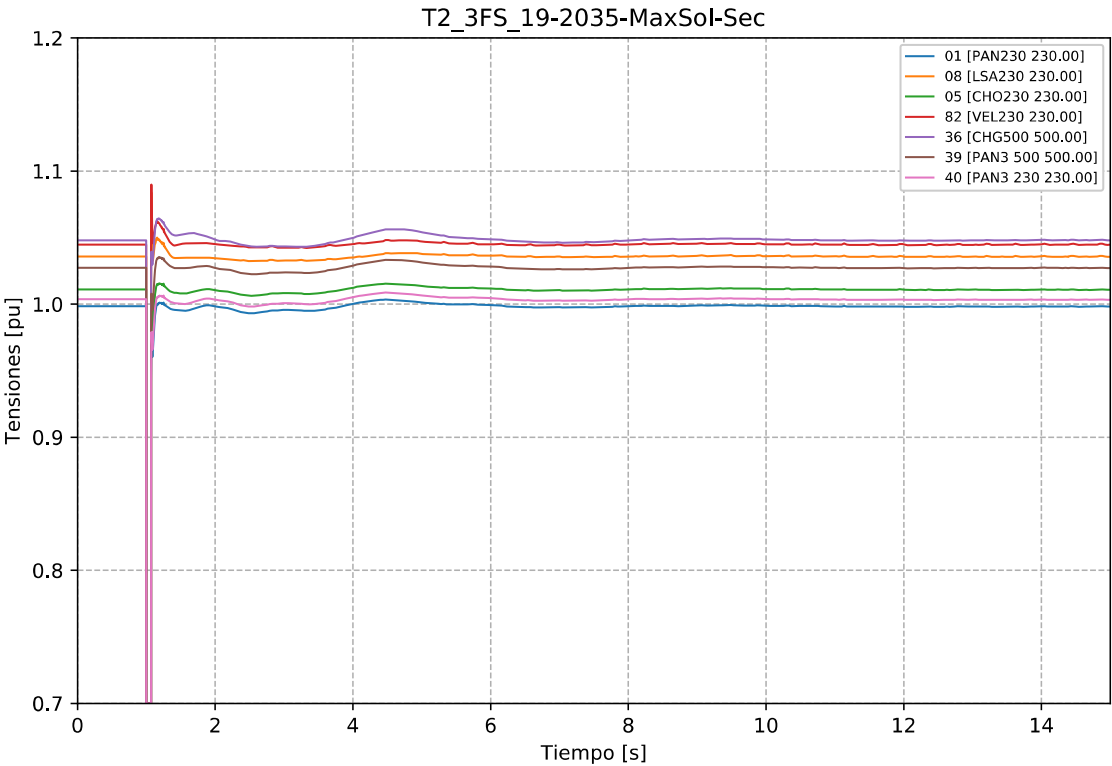


Gráfico 752. Evento T2_3FS, caso 19-2035-MaxSol-Sec. Tensiones en la zona de influencia 230 kV.

AB

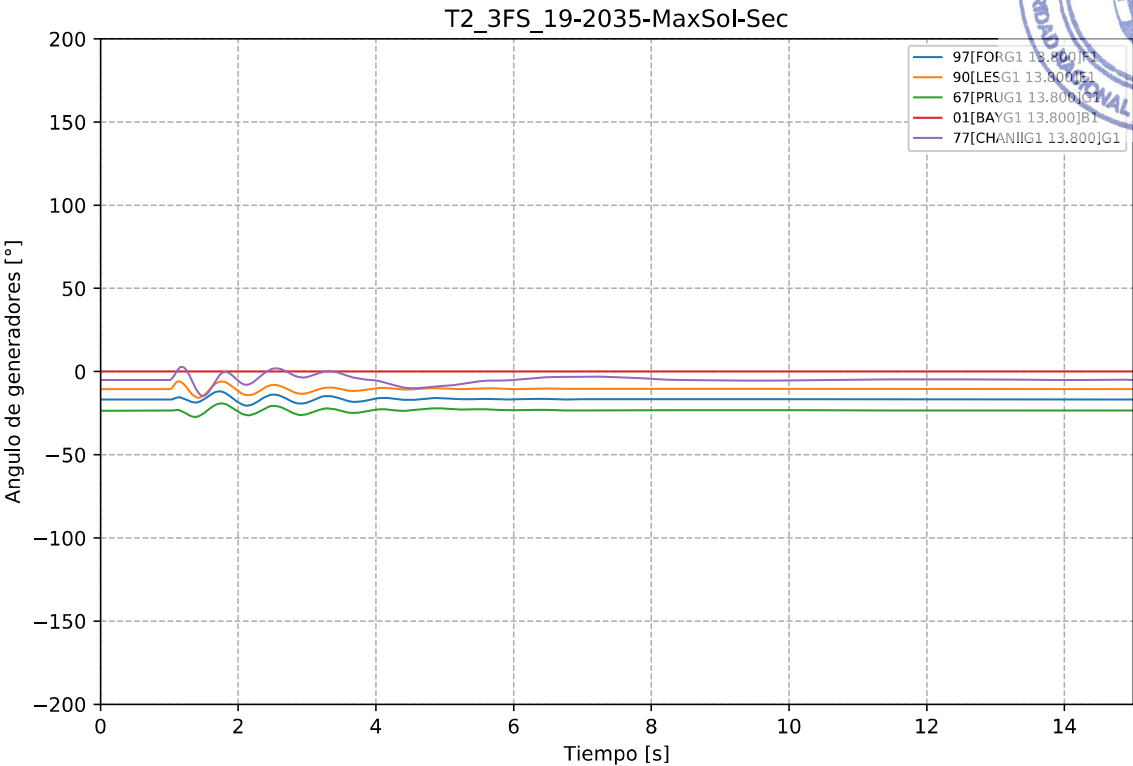


Gráfico 753. Evento T2_3FS, caso 19-2035-MaxSol-Sec. Ángulo de Generadores Hidroeléctricos.

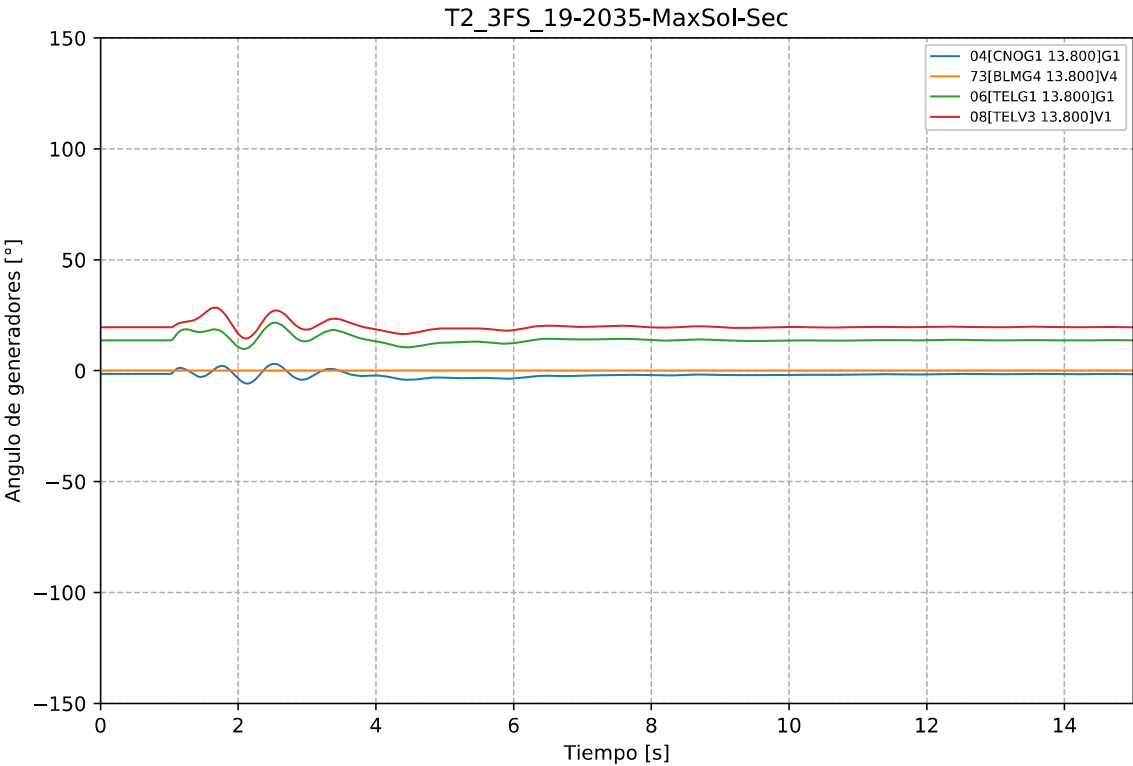


Gráfico 754. Evento T2_3FS, caso 19-2035-MaxSol-Sec. Ángulo de generadores Térmicos.

AD

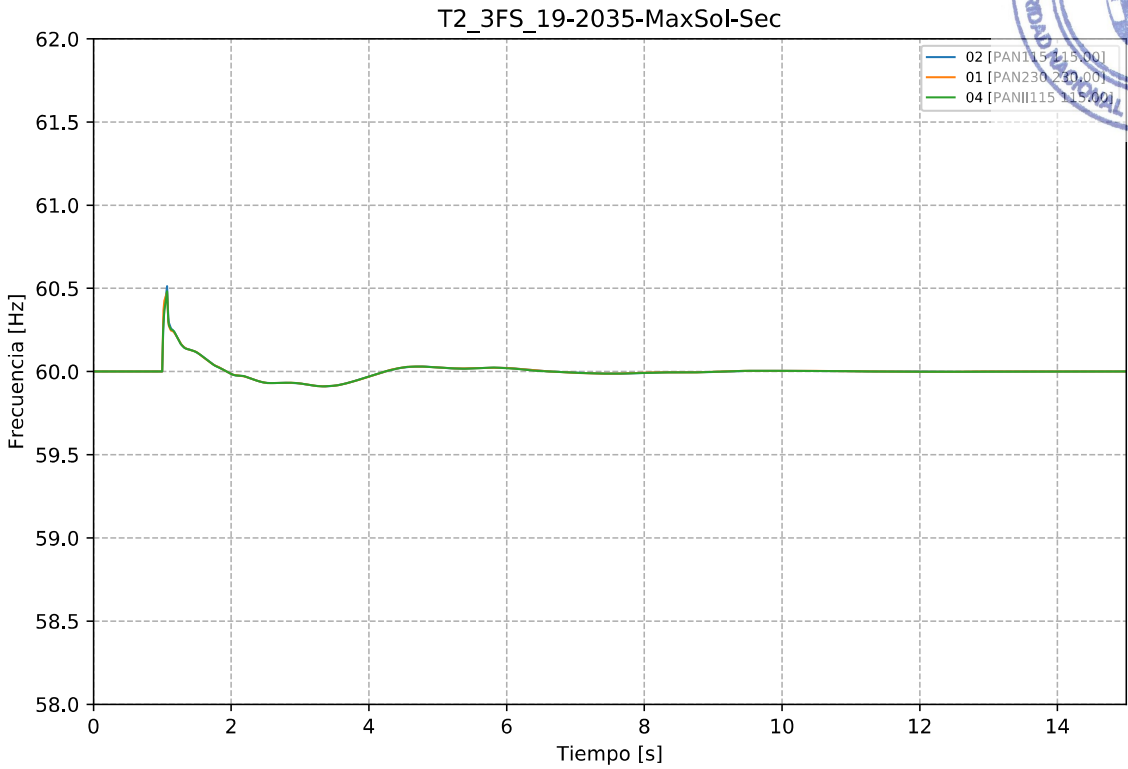


Gráfico 755. Evento T2_3FS, caso 19-2035-MaxSol-Sec. Frecuencia.

AD



TOMO III

PESIN 2020 - 2034

ANEXO 6

REPORTES DE CORTO CIRCUITO

(Escenario de Referencia)



2021		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	9296.4	10963.3
PAN115	115.00	17281.8	19806.4
PANII230	230.00	9145.8	10443.9
PANII115	115.00	12954.9	14683.4
CHO230	230.00	8359.5	12024.5
CHO115	115.00	9890	12380.7
LSA230	230.00	10145.7	9422
LSA115	115.00	10446.4	10436.6
MDN230	230.00	9738.7	13134.2
MDN115	115.00	9422.2	6432.7
PRO230	230.00	6354.6	6905.1
PRO115	115.00	5126.9	9518.9
CAC115	115.00	17002.4	19297
CAL115	115.00	6415	7201.2
STR115	115.00	11155.1	10535.6
GUA230	230.00	9425	9686.6
VEL230	230.00	10140.8	8642
EHIG230	230.00	6431.4	4750.5
CHA230	230.00	5204.5	4672
CHA115	115.00	3111.4	3562.4
CAN230	230.00	4964.2	4528.1
BOQIII230	230.00	7264.9	7521.6
SBA230	230.00	7683.6	5733.9
SBA115	115.00	3794.3	4060.5
BUR230	230.00	5328.4	4417.8

AB



2021 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	6520.5	8259.9
PAN115	115.00	13202.8	16151.6
PANII230	230.00	6032.9	7545.7
PANII115	115.00	9879.2	11970.5
CHO230	230.00	6278.7	9164.8
CHO115	115.00	8396.9	10825.7
LSA230	230.00	8487.4	8380
LSA115	115.00	9689.6	9891.1
MDN230	230.00	10690.7	14232.7
MDN115	115.00	10759.5	5932
PRO230	230.00	7623.2	7826.9
PRO115	115.00	5464.7	10330.2
CAC115	115.00	13070.2	15816.1
CAL115	115.00	8037.9	8378.1
STR115	115.00	10521.6	10106.5
GUA230	230.00	10633.4	10416.3
VEL230	230.00	9755.3	8367.3
EHIG230	230.00	5387.9	4307.3
CHA230	230.00	6098.3	5098.7
CHA115	115.00	3788.8	4123.4
CAN230	230.00	5313.8	4677.1
BOQIII230	230.00	8089.4	8048.8
SBA230	230.00	7138.4	5481.9
SBA115	115.00	3899.2	4122.3
BUR230	230.00	4246.9	3869.2
ANT230	230.00	4112.4	3426.1

AB



2022		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	9491.7	11181.9
PAN115	115.00	17642.7	19899.4
PANII230	230.00	9301.1	10039.4
PANII115	115.00	13105.4	13745.1
CHO230	230.00	8560.6	12214.2
CHO115	115.00	10737.7	13184.7
LSA230	230.00	10470.9	9870.2
LSA115	115.00	12074.8	11598.5
MDN230	230.00	9767.2	14226.5
MDN115	115.00	10575.8	4521.4
PRO230	230.00	6307.3	5695.7
PRO115	115.00	6875	13879.7
CAC115	115.00	17350.6	19385
CAL115	115.00	6890.3	11473.3
STR115	115.00	11582.2	10986.4
GUA230	230.00	9132.9	8586.3
VEL230	230.00	10216.8	9089.8
EHIG230	230.00	6549.4	5904.1
CHA230	230.00	5279.6	5783.6
CHA115	115.00	4957.3	7435.1
CAN230	230.00	4923.7	3990.2
BOQIII230	230.00	7277.2	6960.9
SBA230	230.00	7744.3	6550.6
SBA115	115.00	3682.8	4060.1
BUR230	230.00	5415.1	4394.9
ANT230	230.00	4789.3	3755.9

AB



2022 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	5825.7	7566.1
PAN115	115.00	10586	13497.6
PANII230	230.00	5789.4	7082.4
PANII115	115.00	9379	10935.8
CHO230	230.00	5782.2	8413.8
CHO115	115.00	8521.7	10953.4
LSA230	230.00	8201.7	8401.9
LSA115	115.00	10727.7	10725.2
MDN230	230.00	10474.9	15171.8
MDN115	115.00	11806.9	4264.2
PRO230	230.00	7415.3	6227.4
PRO115	115.00	7436.5	15507.5
CAC115	115.00	10497.4	13319.8
CAL115	115.00	8473	12986.7
STR115	115.00	5684.5	6691
GUA230	230.00	9880.4	8910
VEL230	230.00	9405.7	8544.3
EHIG230	230.00	5176.8	5072.7
CHA230	230.00	6207	6469.7
CHA115	115.00	5898.2	8845.7
CAN230	230.00	5202.2	4063.9
BOQIII230	230.00	7984.9	7325.1
SBA230	230.00	6925.5	6087.1
SBA115	115.00	3693.2	4047.5
BUR230	230.00	5133.4	5171.7
ANT230	230.00	4029.9	3387.4

AB



2023		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	9906.4	11270.7
PAN115	115.00	17561.3	19741.2
PANII230	230.00	10131.8	10666.4
PANII115	115.00	13636.8	14874.4
CHO230	230.00	8806.9	12626.4
CHO115	115.00	10933.4	13411.2
LSA230	230.00	10521.8	9819.6
LSA115	115.00	12039	11534.3
MDN230	230.00	9860.7	13279.6
MDN115	115.00	10445.2	6191
PRO230	230.00	6408.9	6947.1
PRO115	115.00	6800.4	13677.7
CAC115	115.00	17379.7	19466.8
CAL115	115.00	6747.8	7451.4
STR115	115.00	9737.2	9622.8
GUA230	230.00	9501.1	9745.8
VEL230	230.00	10307.5	8788.1
EHIG230	230.00	6660.6	5612.9
CHA230	230.00	5211.8	4673.9
CHA115	115.00	4739.3	4829.7
CAN230	230.00	4982.7	4538.8
BOQIII230	230.00	7346.5	7580.2
SBA230	230.00	7794.2	5835.5
SBA115	115.00	3844.5	4116.4
BUR230	230.00	7524.4	6511.4
ANT230	230.00	4855.2	3781.5

AB



2023 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	7702.7	9631.9
PAN115	115.00	13673.6	16912.2
PANII230	230.00	7548.3	9234.3
PANII115	115.00	11154.2	13235.4
CHO230	230.00	7243.4	10501.2
CHO115	115.00	9752	12262.8
LSA230	230.00	9075.1	8898.2
LSA115	115.00	11169.3	10913.8
MDN230	230.00	11658.9	15395
MDN115	115.00	12145.3	5172.1
PRO230	230.00	9202	9436.3
PRO115	115.00	8049.4	17375
CAC115	115.00	13587.2	16751.6
CAL115	115.00	8447.4	8760.2
STR115	115.00	6270.7	7075.1
GUA230	230.00	10944.9	10585.9
VEL230	230.00	10178.9	8568
EHIG230	230.00	5830.1	5144.7
CHA230	230.00	6151.4	5117.1
CHA115	115.00	5574.1	5370.4
CAN230	230.00	5358.1	4687.6
BOQIII230	230.00	8431.5	8335.8
SBA230	230.00	7388.8	5567.1
SBA115	115.00	3893.6	4107.5
BUR230	230.00	6759.8	7129.1
ANT230	230.00	4289.9	3490.7
PAN3 230	230.00	7775.8	9769.9
PAN3 115	115.00	11488.5	13497.8

AB



2024		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	11149.8	12923.8
PAN115	115.00	18190	21124.7
PANII230	230.00	10836.2	12236.8
PANII115	115.00	14104.8	15833.3
CHO230	230.00	9790.9	13962.2
CHO115	115.00	11675.1	14210.6
LSA230	230.00	10920.4	10113.8
LSA115	115.00	12926.4	12120.3
MDN230	230.00	10448.7	14012.5
MDN115	115.00	10683.8	5492.4
PRO230	230.00	7828.9	8461.3
PRO115	115.00	7519.5	15700.7
CAC115	115.00	18013.3	20869.1
CAL115	115.00	6802.4	7581
STR115	115.00	6998.3	7712.4
GUA230	230.00	9713.5	9884
VEL230	230.00	10653.4	8946.5
EHIG230	230.00	6989	5811.6
CHA230	230.00	5235.2	4684.7
CHA115	115.00	4752.7	4839.8
CAN230	230.00	5020.1	4555.2
BOQIII230	230.00	7610.1	7828.1
SBA230	230.00	8018.7	5897.8
SBA115	115.00	3837.2	4100.2
BUR230	230.00	9117.5	8735.5
ANT230	230.00	4993.2	3845.2
PAN3 230	230.00	11395.6	13253
PAN3 115	115.00	14375.8	16012

AB



2024 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	7561.4	9506.8
PAN115	115.00	13262.3	16521.3
PANII230	230.00	7426	9134.9
PANII115	115.00	11038.7	13143.9
CHO230	230.00	7153.6	10374.3
CHO115	115.00	9703.9	12214.2
LSA230	230.00	9053.9	8906
LSA115	115.00	11697.8	11286.9
MDN230	230.00	11692.6	15431.3
MDN115	115.00	12186.9	5165.1
PRO230	230.00	9222.8	9453.8
PRO115	115.00	8068.4	17422.3
CAC115	115.00	13176.2	16362
CAL115	115.00	8459.2	8762.1
STR115	115.00	6235.9	7053.9
GUA230	230.00	10973.9	10608.6
VEL230	230.00	10227.4	8601.4
EHIG230	230.00	5800.4	5159
CHA230	230.00	6158	5122
CHA115	115.00	5580.3	5375.9
CAN230	230.00	5366.9	4694.4
BOQIII230	230.00	8449.7	8350
SBA230	230.00	7445.1	5598.4
SBA115	115.00	4111.6	4263.5
BUR230	230.00	6675.8	7074.2
ANT230	230.00	4289	3493.2
PAN3 230	230.00	7631.3	9636.8
PAN3 115	115.00	11170.3	13221.3

AB



2025		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	11492.8	13113.6
PAN115	115.00	18782.4	21527.5
PANII230	230.00	10992.4	12075
PANII115	115.00	14336.7	15840
CHO230	230.00	9978.6	14187.8
CHO115	115.00	11810.7	14185.9
LSA230	230.00	10974.5	10132
LSA115	115.00	12929.6	12098.3
MDN230	230.00	10748.7	14367.9
MDN115	115.00	10849.8	5442.7
PRO230	230.00	7931.4	8541.5
PRO115	115.00	7561.5	15827.1
CAC115	115.00	18590.5	21257.9
CAL115	115.00	6905.2	7653.5
STR115	115.00	7032.5	7715.8
GUA230	230.00	10323.8	10360.7
VEL230	230.00	10758.4	9013.8
EHIG230	230.00	7023.2	5825.8
CHA230	230.00	5770.9	5053.9
CHA115	115.00	4964	5007.6
CAN230	230.00	7712.9	7018.2
BOQIII230	230.00	7730	7911.6
SBA230	230.00	8074.9	5905.3
BUR230	230.00	9331.1	8836.3
ANT230	230.00	5037.9	3857.6
CHG230	230.00	8920.2	8151.4
PAN3 230	230.00	11811.5	13539.8
PAN3 115	115.00	14708.2	16211.4

AB



2025 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	9097.4	11005.9
PAN115	115.00	15657.4	18835.8
PANII230	230.00	8845.1	10328.2
PANII115	115.00	12592.3	14458.1
CHO230	230.00	8303.4	11950.4
CHO115	115.00	10724.1	13183.5
LSA230	230.00	9834.7	9516.8
LSA115	115.00	12393.5	11852
MDN230	230.00	12072.5	15908
MDN115	115.00	12456.6	5207.7
PRO230	230.00	9396.4	9609.7
PRO115	115.00	8167.4	17663.1
CAC115	115.00	15532.2	18629.9
CAL115	115.00	8635.1	8900.1
STR115	115.00	6681.3	7450.2
GUA230	230.00	11559.5	11122.2
VEL230	230.00	10744.2	9026
EHIG230	230.00	6366.9	5532.9
CHA230	230.00	6616.1	5432.8
CHA115	115.00	5745.4	5504.4
CAN230	230.00	8183.6	7211.7
BOQIII230	230.00	8634.6	8511.6
SBA230	230.00	7855.1	5865.6
BUR230	230.00	7765.4	7884.2
ANT230	230.00	4595.4	3694.7
CHG230	230.00	9577.1	8425.8
PAN3 230	230.00	9246.3	11251.7
PAN3 115	115.00	12784.2	14674.8

AB



2026		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	10616.4	11276.5
PAN115	115.00	17658.7	18152.6
PANII230	230.00	10166.6	10089
PANIII115	115.00	13660.7	13632.6
CHO230	230.00	9345.2	13219.5
CHO115	115.00	11370.7	13456.7
LSA230	230.00	10372.8	8469.7
LSA115	115.00	12578.7	11198.6
MDN230	230.00	9471.7	11015.4
MDN115	115.00	10347.5	19053.1
PRO230	230.00	7431.5	6819.8
PRO115	115.00	7326.9	15146.8
CAC115	115.00	17490.5	17759.2
CAL115	115.00	6818.1	12930.2
STR115	115.00	6861.5	3741.4
GUA230	230.00	8682.2	6701.8
VEL230	230.00	9815.9	8029.3
EHIG230	230.00	6736.8	6079.7
CHA230	230.00	5716	3684.7
CHA115	115.00	5137.7	4765.5
CAN230	230.00	7009.2	5024.4
BOQIII230	230.00	7214.9	6318.8
SBA230	230.00	7543.7	6032.2
BUR230	230.00	8778.1	7562
ANT230	230.00	4899.2	3699.5
CHG230	230.00	8075.6	5774.2
PAN3 230	230.00	10880.6	11460.7
PAN3 115	115.00	13992.5	12831.5

AB



2026 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	9714.5	10627.8
PAN115	115.00	16494.2	17416.3
PANII230	230.00	9474.5	9673.5
PANII115	115.00	13106.9	13324.2
CHO230	230.00	8685.2	12349.7
CHO115	115.00	10942.8	13083.1
LSA230	230.00	9940.7	8303
LSA115	115.00	12424.6	11161.8
MDN230	230.00	11637.3	12846.5
MDN115	115.00	12203.6	16423.6
PRO230	230.00	9063.6	7649.1
PRO115	115.00	8028.1	17248.5
CAC115	115.00	16351.4	17052
CAL115	115.00	8665.1	17143.1
STR115	115.00	6747.7	3733.3
GUA230	230.00	10693.4	7364.6
VEL230	230.00	10549.5	8333.3
EHIG230	230.00	6468.2	5935.7
CHA230	230.00	6726	3908.7
CHA115	115.00	6089.2	5266.3
CAN230	230.00	7979.6	5267.5
BOQIII230	230.00	8463.9	6901
SBA230	230.00	7731.2	6106.3
BUR230	230.00	8127.8	7261.7
ANT230	230.00	4610.9	3595.8
CHG230	230.00	9390.6	6101.4
PAN3 230	230.00	9888.6	10753.1
PAN3 115	115.00	13275	12486.3

AB



2027		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	10794.2	11547.2
PAN115	115.00	17908.7	18457
PANII230	230.00	10315.2	10290.1
PANII115	115.00	13781.9	13768.3
CHO230	230.00	9469.4	13380.2
CHO115	115.00	11433.5	13496.9
LSA230	230.00	10497.1	9085.9
LSA115	115.00	12619.9	11526.4
MDN230	230.00	9688.5	11222.8
MDN115	115.00	10355.8	19303.6
PRO230	230.00	8108.6	7182.5
PRO115	115.00	7635.8	16053.9
CAC115	115.00	17734.7	18186.1
CAL115	115.00	6844.5	13027.8
STR115	115.00	6866.5	3728.8
GUA230	230.00	8742.1	6745.1
VEL230	230.00	9891.1	8236.6
EHIG230	230.00	6784.8	6140.4
CHA230	230.00	5723.8	3684
CHA115	115.00	5136.8	4761.9
CAN230	230.00	7041.8	5033.9
BOQIII230	230.00	7491.8	6459
SBA230	230.00	7628	6182.7
BUR230	230.00	8949.9	8110.2
ANT230	230.00	4916.5	3736
CHG230	230.00	8119.4	5785.3
PAN3 230	230.00	11070.2	11777.7
PAN3 115	115.00	14118.7	12986.9

AB



2027 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	9231.1	10324.6
PAN115	115.00	15812.2	16983.6
PANII230	230.00	8974.8	9376.6
PANII115	115.00	12613.7	12986.5
CHO230	230.00	8379.7	11931.6
CHO115	115.00	10651.9	12762.7
LSA230	230.00	9998.8	8833.3
LSA115	115.00	12438.6	11424.9
MDN230	230.00	11945.8	13089.7
MDN115	115.00	12285.6	16037.3
PRO230	230.00	10044.8	8077.1
PRO115	115.00	8374	18369.3
CAC115	115.00	15680.3	16748.5
CAL115	115.00	8676.8	17254.4
STR115	115.00	6573.3	3650.4
GUA230	230.00	10748.3	7382.7
VEL230	230.00	10726.7	8567.9
EHIG230	230.00	6360.5	5880.9
CHA230	230.00	6703.3	3891
CHA115	115.00	6070	5247.3
CAN230	230.00	7959.7	5240.2
BOQIII230	230.00	8809.2	7036.4
SBA230	230.00	8002.4	6336.2
BUR230	230.00	7876.5	7492.1
ANT230	230.00	4556.4	3581.8
CHG230	230.00	9364.1	6065.8
PAN3 230	230.00	9384.8	10467.6
PAN3 115	115.00	12784.2	12225.3

AB



2028		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	10898.8	11641.4
PAN115	115.00	17998.6	18508.1
PANII230	230.00	10335.9	10269.9
PANII115	115.00	13780.3	13711.7
CHO230	230.00	9472	13378
CHO115	115.00	11398.9	13438.6
LSA230	230.00	10520.2	9087.5
LSA115	115.00	12630	11520
MDN230	230.00	9311.2	10876.6
MDN115	115.00	10348.8	19078
PRO230	230.00	7939.6	7087.5
PRO115	115.00	7557.2	15832.7
CAC115	115.00	17819.4	18230.4
CAL115	115.00	6831.4	12980.1
STR115	115.00	6836.3	3688.1
GUA230	230.00	8294.1	6549.9
VEL230	230.00	9802.8	8181.7
EHIG230	230.00	6774.1	6117.9
CHA230	230.00	5621.9	3647.8
CHA115	115.00	5090	4727.8
CAN230	230.00	6789.5	4934.1
BOQIII230	230.00	7331.1	6371.1
SBA230	230.00	7793	6238.2
BUR230	230.00	8954.3	8097.3
ANT230	230.00	4906	3722
CHG230	230.00	7805.4	5662.8
PAN3 230	230.00	11095	11805.5
PAN3 115	115.00	14100.7	12946

AB



2028 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	9918.5	10901.7
PAN115	115.00	16718.1	17650.9
PANII230	230.00	9598.7	9800.2
PANII115	115.00	13108.9	13278.1
CHO230	230.00	8766.2	12443.5
CHO115	115.00	10907.8	12984.2
LSA230	230.00	10023.1	8832.4
LSA115	115.00	12432.4	11404.6
MDN230	230.00	11959.8	13093.9
MDN115	115.00	12406.4	15820.3
PRO230	230.00	10051.4	8075.8
PRO115	115.00	8373.9	18377.1
CAC115	115.00	16566.4	17395.6
CAL115	115.00	8703.9	17301.9
STR115	115.00	6680.9	3654.9
GUA230	230.00	10737.3	7373
VEL230	230.00	10601.5	8504.5
EHIG230	230.00	6468.2	5932.2
CHA230	230.00	6707.1	3888.8
CHA115	115.00	6066.7	5242.1
CAN230	230.00	7974.6	5239.4
BOQIII230	230.00	8829.8	7040.6
SBA230	230.00	7740.1	6216.7
BUR230	230.00	8259.8	7715.6
ANT230	230.00	4585.2	3588
CHG230	230.00	9396.2	6069.2
PAN3 230	230.00	10048.6	11018.7
PAN3 115	115.00	13311.2	12521.1

AB



2029		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	11118.8	11795.7
PAN115	115.00	18185.3	18566.7
PANII230	230.00	10524.5	10379.1
PANIII115	115.00	13880	13730.2
CHO230	230.00	9636.3	13591.3
CHO115	115.00	11485.6	13498.3
LSA230	230.00	10745	9204.4
LSA115	115.00	12803.9	11622.5
MDN230	230.00	9844.8	11357.2
MDN115	115.00	10586.9	18657.5
PRO230	230.00	8160	7206.2
PRO115	115.00	7659.2	16128.6
CAC115	115.00	18004.6	18286.8
CAL115	115.00	6905.7	13153.5
STR115	115.00	6866.9	3681.5
GUA230	230.00	8850.8	6780.9
VEL230	230.00	10150.1	8357.4
EHIG230	230.00	6852.7	6151
CHA230	230.00	5729.5	3676.1
CHA115	115.00	5127	4746.9
CAN230	230.00	7083.6	5034.6
BOQIII230	230.00	7573.1	6495
SBA230	230.00	7933	6328.1
BUR230	230.00	9080.9	8146.9
ANT230	230.00	4980.3	3746.3
CHG230	230.00	8172.9	5786.2
PAN3 230	230.00	11319	11961.7
PAN3 115	115.00	14226.4	13002.3

AB



2029 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	8796.6	9967
PAN115	115.00	15010.3	16286.8
PANII230	230.00	8491.1	8984.2
PANII115	115.00	12055.6	12473.5
CHO230	230.00	8006.3	11422.8
CHO115	115.00	10295.5	12355.6
LSA230	230.00	9562.9	8570.3
LSA115	115.00	12109.1	11191.9
MDN230	230.00	12056.7	13153.3
MDN115	115.00	12423.3	15652
PRO230	230.00	10077.9	8075.8
PRO115	115.00	8376.7	18405.2
CAC115	115.00	14895.9	16062.3
CAL115	115.00	8697.5	17266.8
STR115	115.00	6424.8	3542.6
GUA230	230.00	10981.3	7414.5
VEL230	230.00	10417.6	8393.4
EHIG230	230.00	6139.3	5695.3
CHA230	230.00	6903.2	3912.8
CHA115	115.00	6098.2	5239.8
CAN230	230.00	8504.8	5349
BOQIII230	230.00	8856	7036.9
SBA230	230.00	7570.8	6116.5
BUR230	230.00	7528.6	7222.4
ANT230	230.00	4423.9	3486
CHG230	230.00	10389.5	6281.4
PAN3 230	230.00	8882.1	10049.2
PAN3 115	115.00	12250.7	11849.1

AB



2030		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	11558.4	12120.2
PAN115	115.00	18863.1	19092.5
PANII230	230.00	10899	10640.1
PANIII115	115.00	14304.3	14053.4
CHO230	230.00	9909.7	13971.4
CHO115	115.00	11787	13827.7
LSA230	230.00	10700.6	9207.1
LSA115	115.00	12827.6	11669.3
MDN230	230.00	9624.2	11134.2
MDN115	115.00	10383.7	19689.7
PRO230	230.00	8078.6	7165
PRO115	115.00	7638.9	16050
CAC115	115.00	18673.5	18803.8
CAL115	115.00	6845.6	12769.2
STR115	115.00	7081.1	3773.1
GUA230	230.00	8844.2	6572.9
VEL230	230.00	9957.6	8236.2
EHIG230	230.00	6928.8	6229
CHA230	230.00	6116.1	3601.4
CHA115	115.00	5278.3	4773.5
CAN230	230.00	7877.4	4883.3
BOQIII230	230.00	7470.4	6439.9
SBA230	230.00	7839.3	6265.5
BUR230	230.00	9359.7	8339.2
ANT230	230.00	7345.1	6005.8
CHG500	500.00	4190.3	2298.1
CHG230	230.00	9667.1	5562
PAN3 500	500.00	4625.8	2170.3
PAN3 230	230.00	11783.4	12288.9
PAN3 115	115.00	14734.8	13353

AB



2030 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	10036.4	10970.4
PAN115	115.00	16876.1	17732.4
PANII230	230.00	9602.5	9790.2
PANII115	115.00	13198	13327.8
CHO230	230.00	8851.9	12571.8
CHO115	115.00	11050.4	13142.3
LSA230	230.00	10041.2	8865.7
LSA115	115.00	12502	11468.1
MDN230	230.00	12052.7	13126.4
MDN115	115.00	12361.7	16343
PRO230	230.00	10082.5	8086.9
PRO115	115.00	8396.2	18436.8
CAC115	115.00	16728	17477.4
CAL115	115.00	8690.7	16919.5
STR115	115.00	6796.3	3692
GUA230	230.00	11017.6	7204.8
VEL230	230.00	10625.8	8486.5
EHIG230	230.00	6512	5978.6
CHA230	230.00	7029.9	3753.1
CHA115	115.00	6171	5213.9
CAN230	230.00	8761.4	5002.8
BOQIII230	230.00	8855	7044.1
SBA230	230.00	7773.2	6223.7
BUR230	230.00	8361.7	7779.1
ANT230	230.00	6598.4	5652.5
CHG500	500.00	4420.2	2153.9
CHG230	230.00	10904.3	5695.5
PAN3 500	500.00	4305.2	2104.1
PAN3 230	230.00	10180.4	11086.2
PAN3 115	115.00	13497.2	12649.9

AB



2031		SECA	
NODO		3P (A)	1P (A)
PAN230	230.00	11711.3	12199.9
PAN115	115.00	19062.1	19165.2
PANII230	230.00	11023.2	10688.7
PANIII115	115.00	14387.5	14057.8
CHO230	230.00	10018.7	14108.1
CHO115	115.00	11822.7	13833.4
LSA230	230.00	10923.7	9298.6
LSA115	115.00	12965.9	11725
MDN230	230.00	9739	11224.5
MDN115	115.00	10381.1	19563
PRO230	230.00	8153.2	7194.9
PRO115	115.00	7663.6	16140.6
CAC115	115.00	18867.1	18871.6
CAL115	115.00	6788	12647.3
STR115	115.00	7063.3	3742.8
GUA230	230.00	8977.6	6604.8
VEL230	230.00	10223.7	8336.2
EHIG230	230.00	6978.6	6238.4
CHA230	230.00	6122.3	3592.3
CHA115	115.00	5267.5	4757.9
CAN230	230.00	7933	4880.1
BOQIII230	230.00	7526.2	6458.1
SBA230	230.00	8175.6	6384.5
BUR230	230.00	9444.8	8355.4
ANT230	230.00	7407.6	6017.8
CHG500	500.00	4222.3	2272.4
CHG230	230.00	9750.1	5558.8
PAN3 500	500.00	4671.4	2142.8
PAN3 230	230.00	11943.3	12371.9
PAN3 115	115.00	14817.8	13347.2

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2031 LLUVIOSA			
NODO		3P (A)	1P (A)
PAN230	230.00	10761.3	11525.4
PAN115	115.00	17896.3	18432.5
PANII230	230.00	10301.2	10251.2
PANIII115	115.00	13873.7	13775.6
CHO230	230.00	9321	13196.4
CHO115	115.00	11392.8	13460.8
LSA230	230.00	10302.6	9005.1
LSA115	115.00	12691.4	11578.4
MDN230	230.00	12190.7	13237
MDN115	115.00	12414.7	16304.4
PRO230	230.00	10136.3	8112.5
PRO115	115.00	8419.3	18506.1
CAC115	115.00	17728.8	18158.7
CAL115	115.00	8707.2	16959.3
STR115	115.00	6943.9	3720.1
GUA230	230.00	11242.3	7277.5
VEL230	230.00	10829.6	8575.6
EHIG230	230.00	6693.1	6085.7
CHA230	230.00	7083.6	3769.8
CHA115	115.00	6196.3	5230.9
CAN230	230.00	8909.6	5047.1
BOQIII230	230.00	8910.3	7070.5
SBA230	230.00	7877.3	6282.6
BUR230	230.00	8806.7	8034.1
ANT230	230.00	6757.4	5736.4
CHG500	500.00	4534.2	2160.1
CHG230	230.00	11130.5	5752.8
PAN3 500	500.00	4506.2	2117.6
PAN3 230	230.00	10926.9	11654.9
PAN3 115	115.00	14120.5	12997.6

AB



TOMO III

PESIN 2020 - 2034

ANEXO 7

CURVAS QV

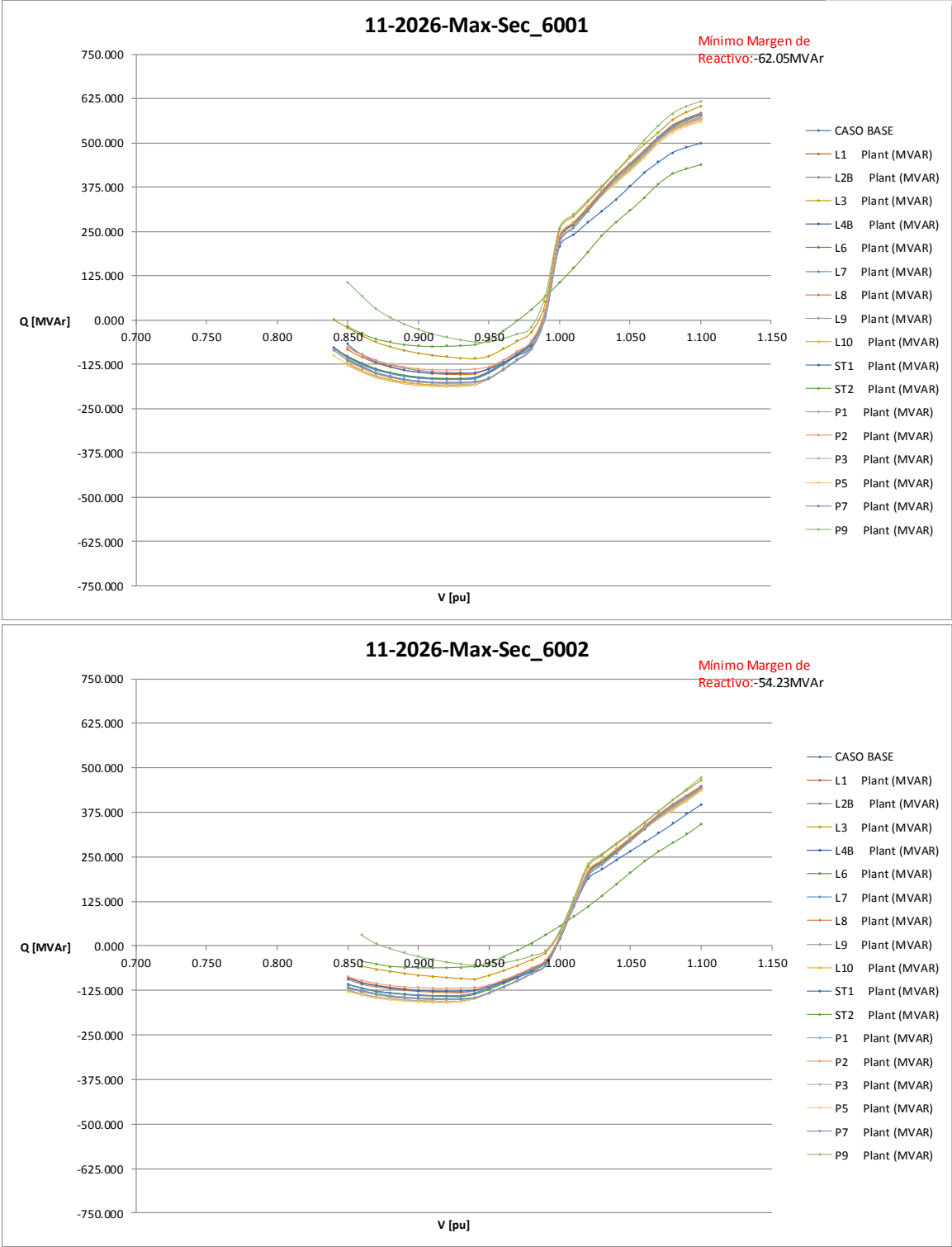
ESCENARIO DE REFERENCIA

(Largo Plazo)

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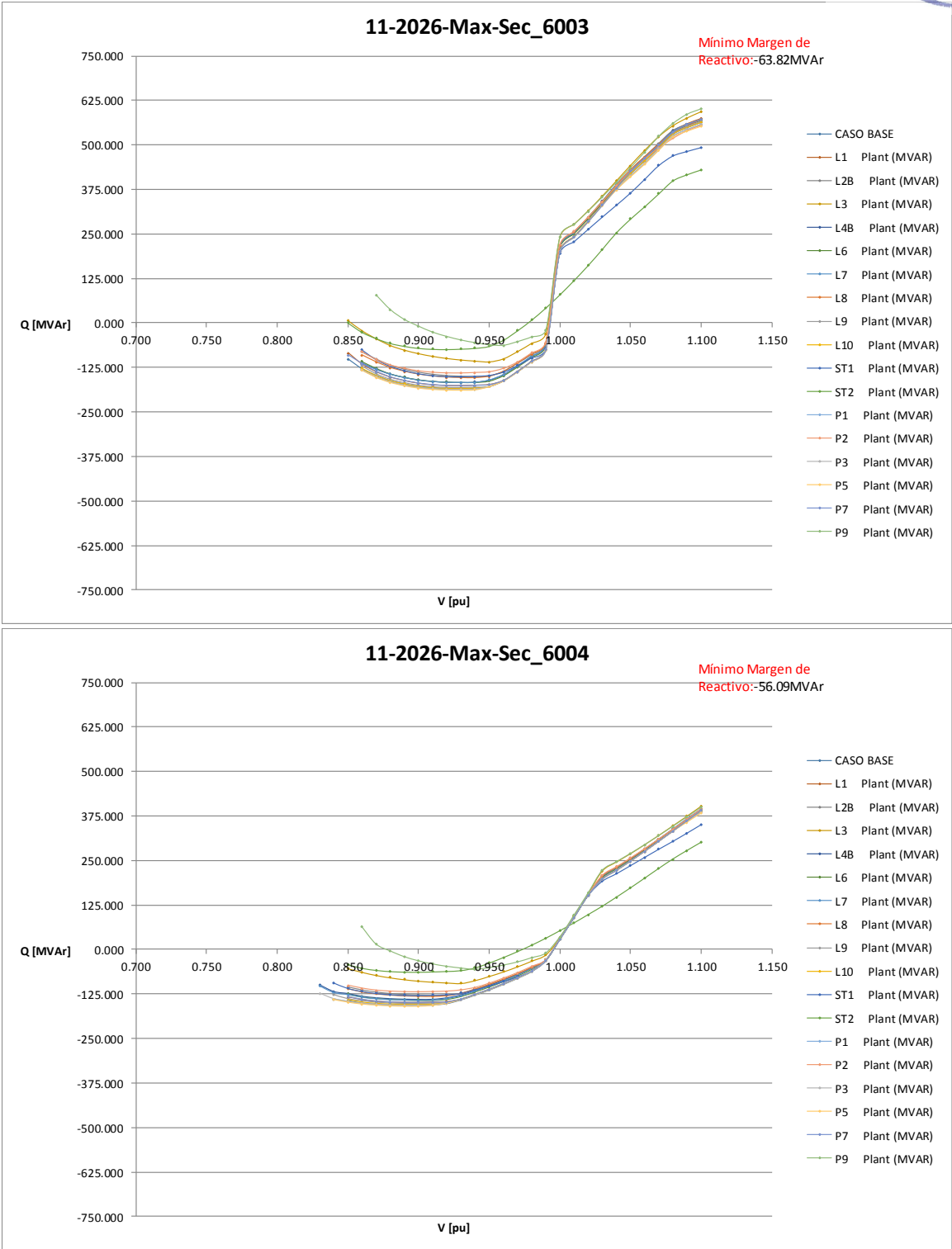
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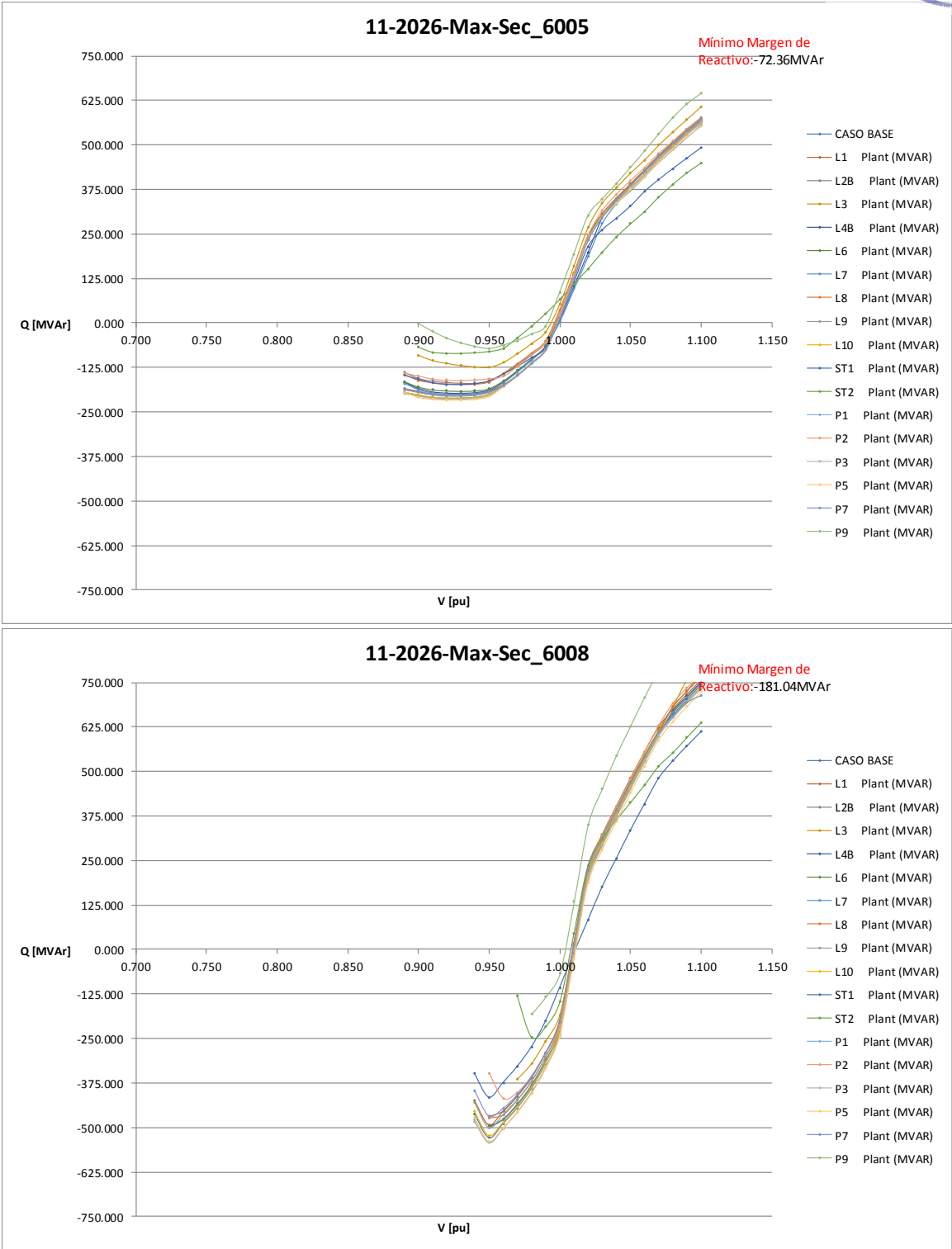
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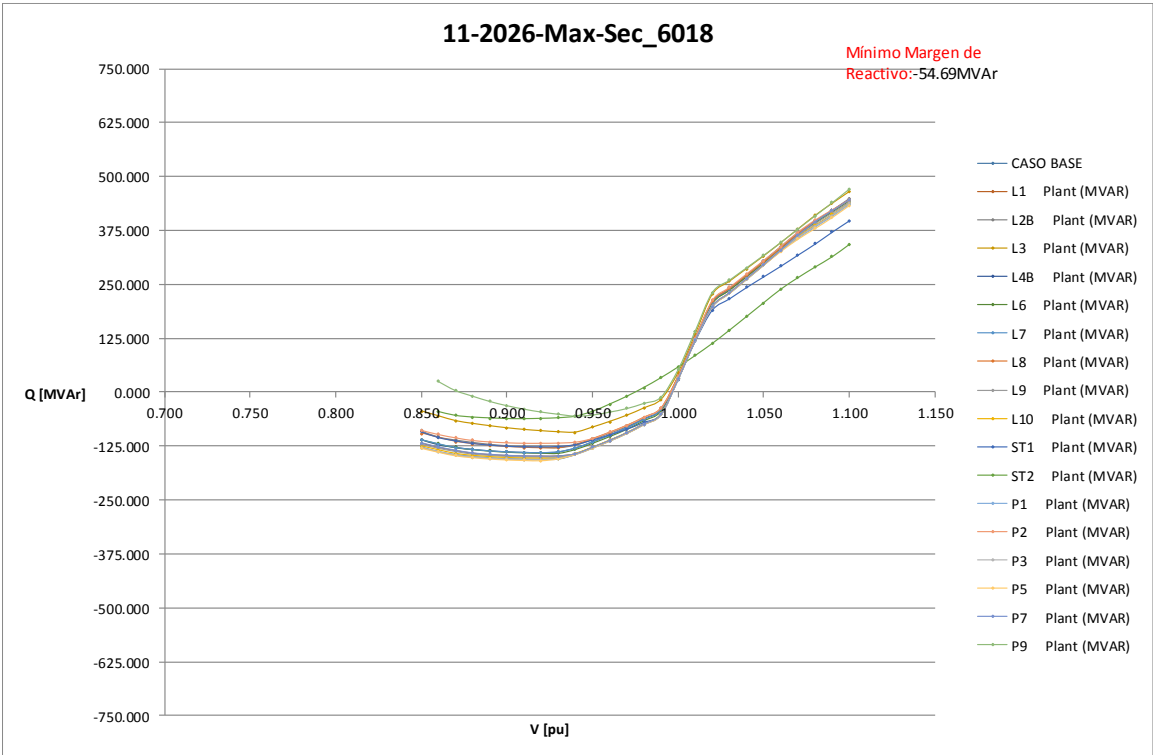
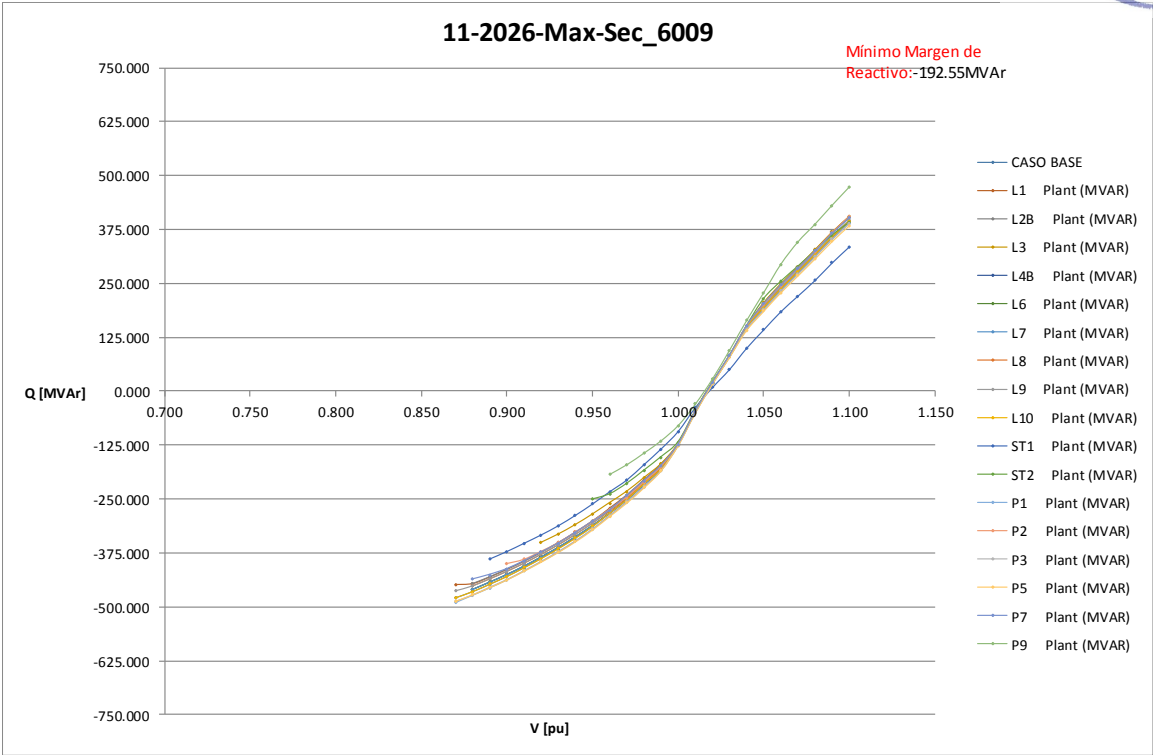
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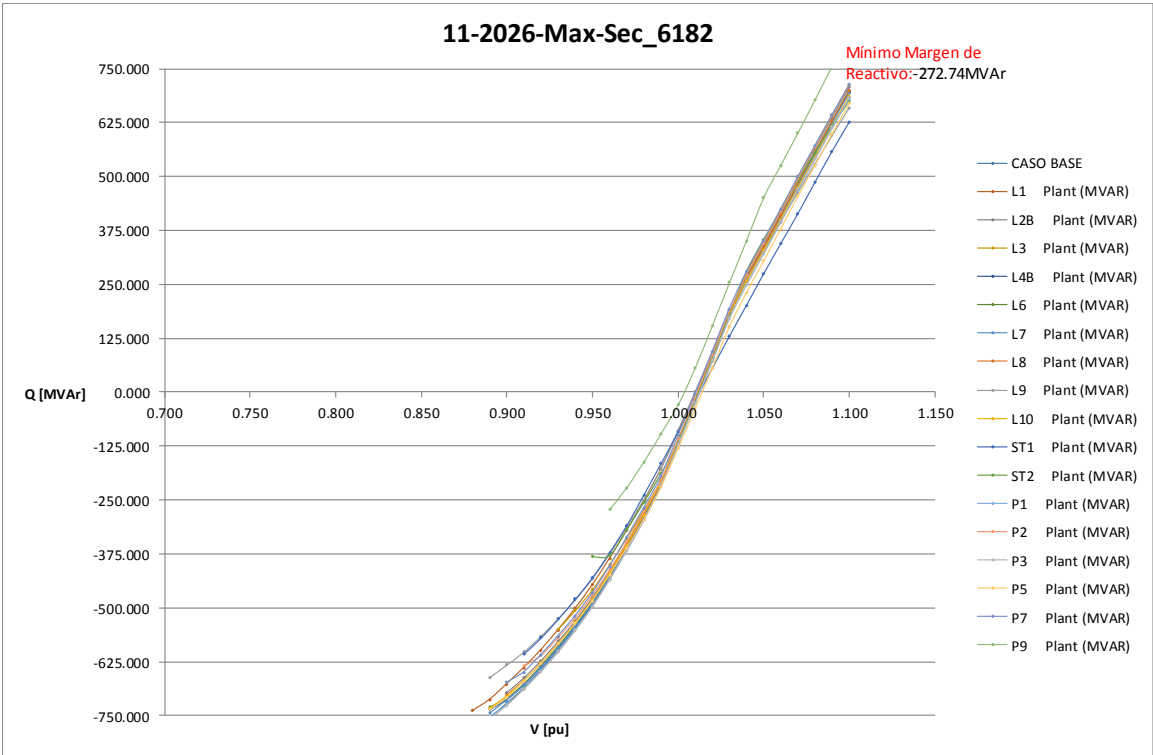
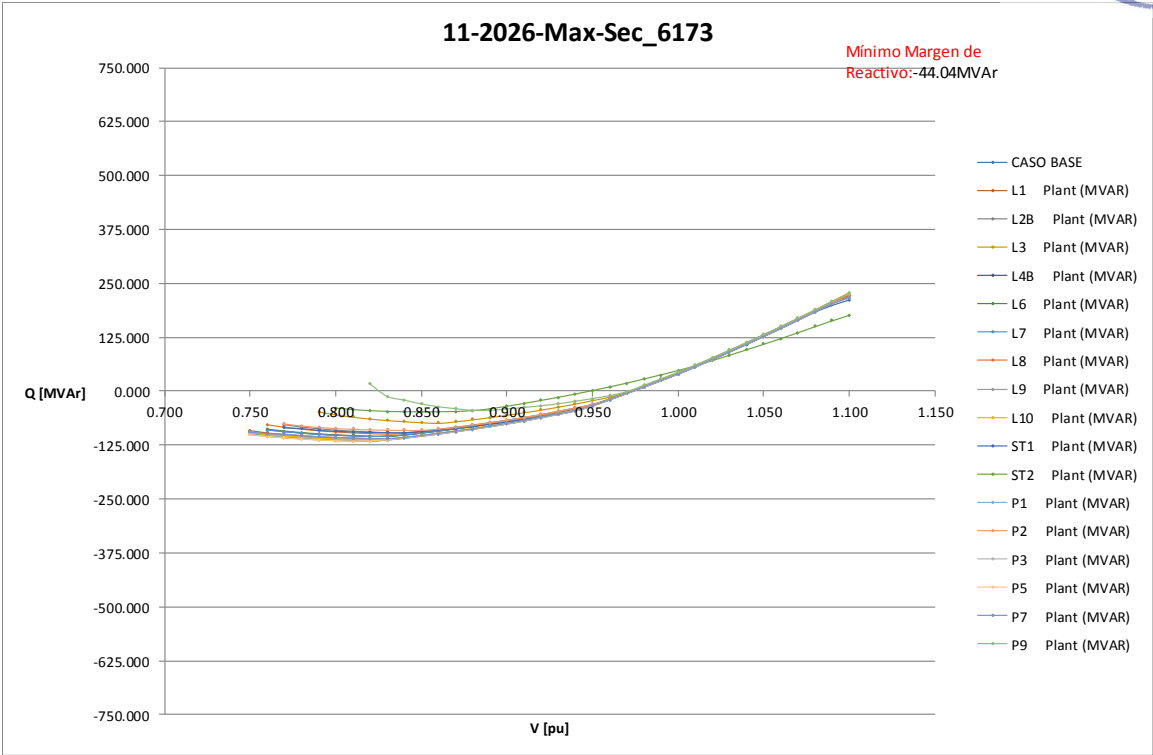
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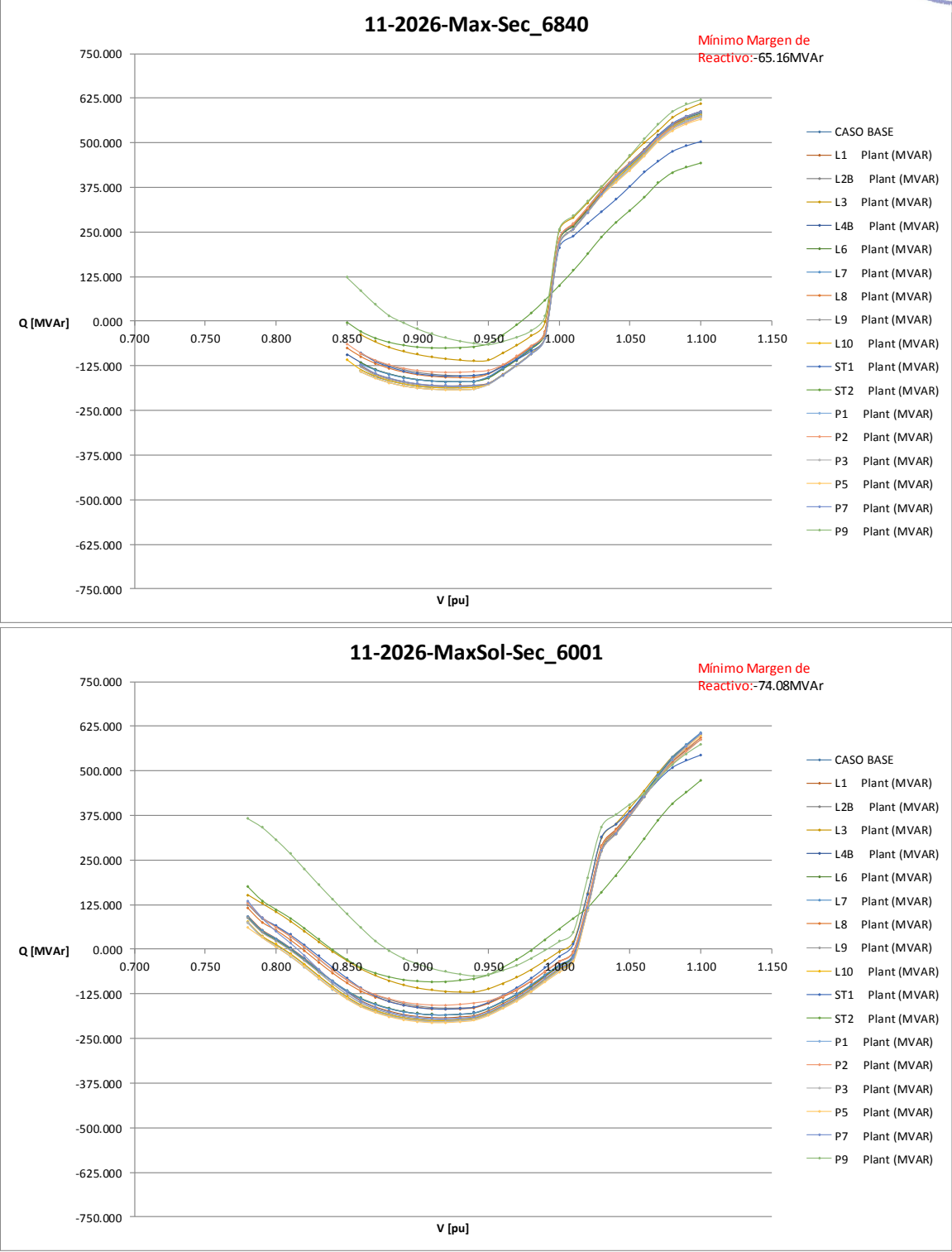
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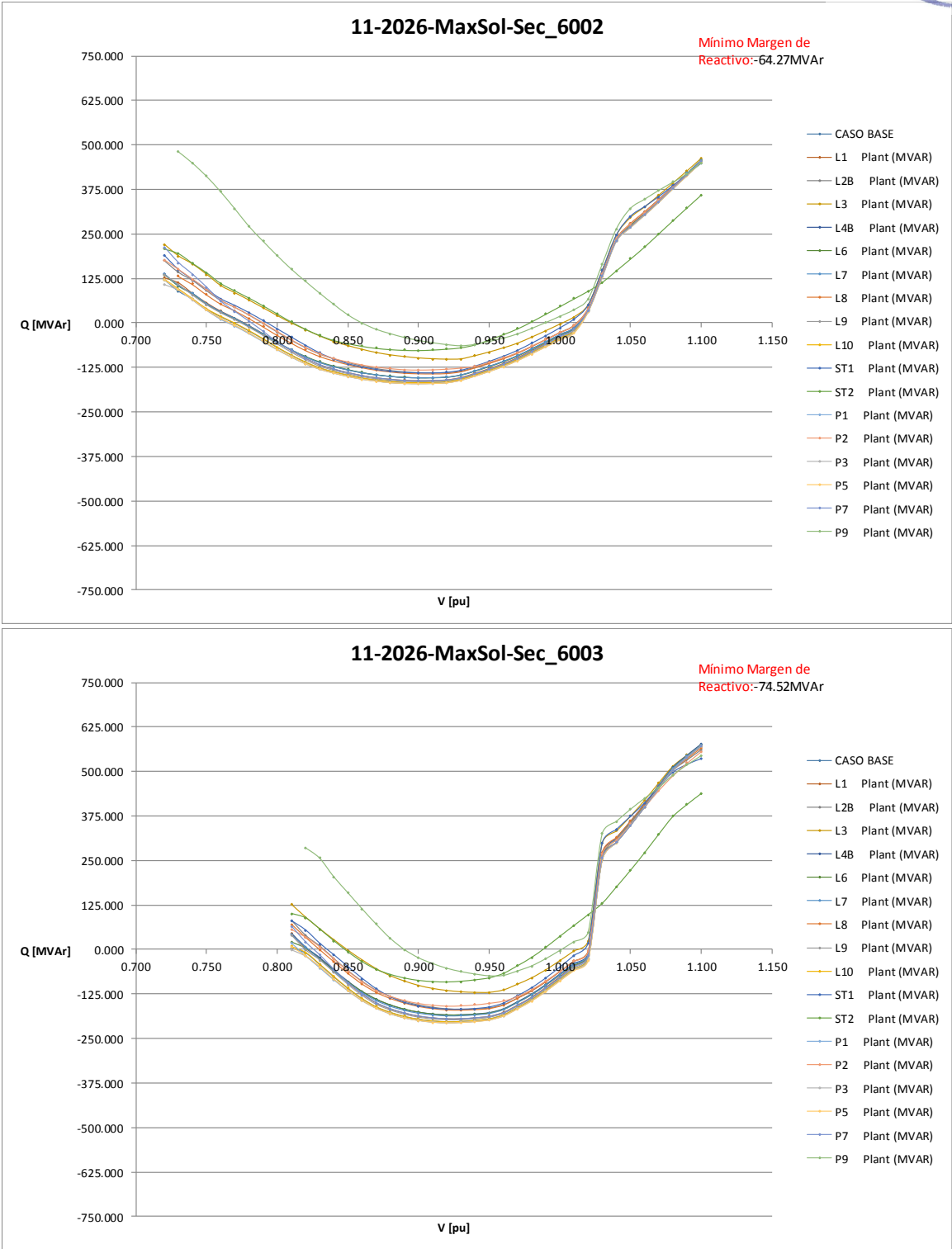
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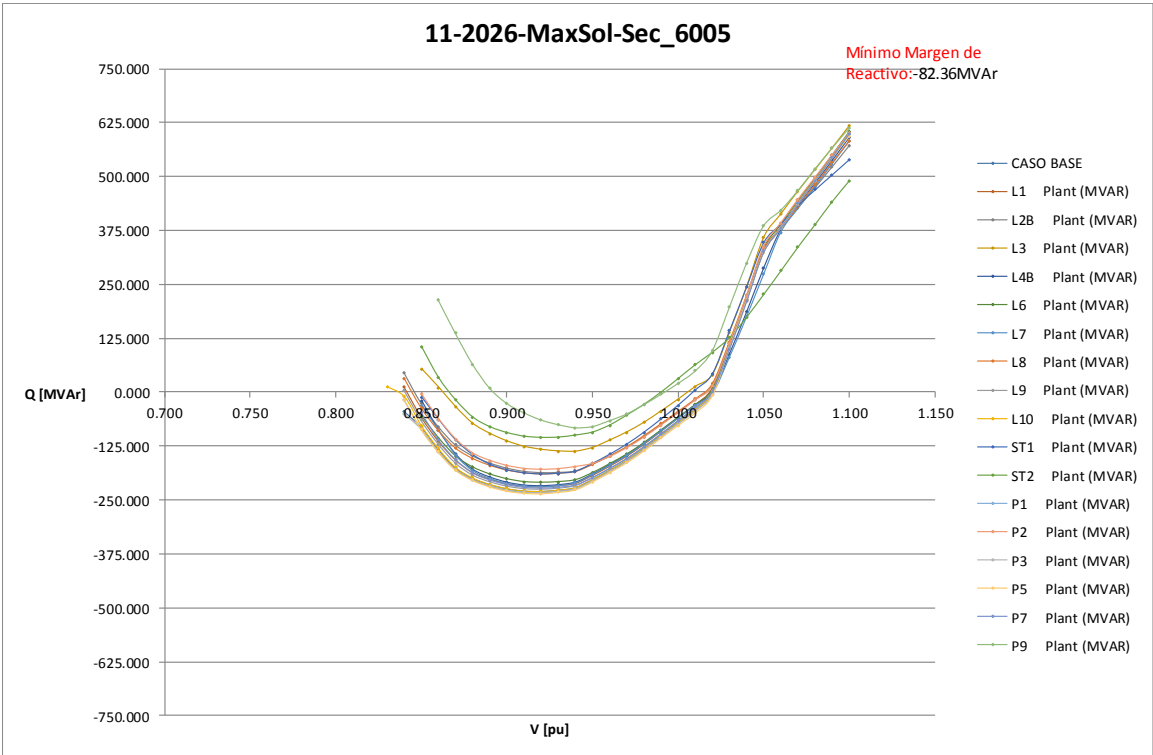
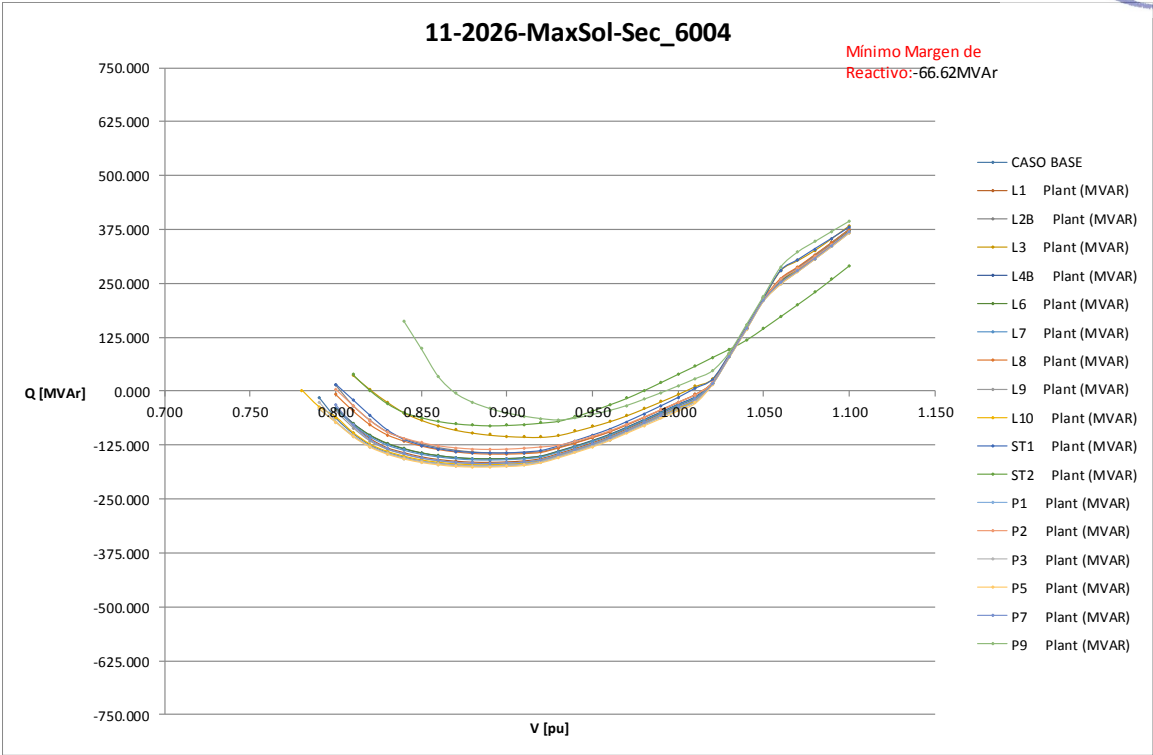
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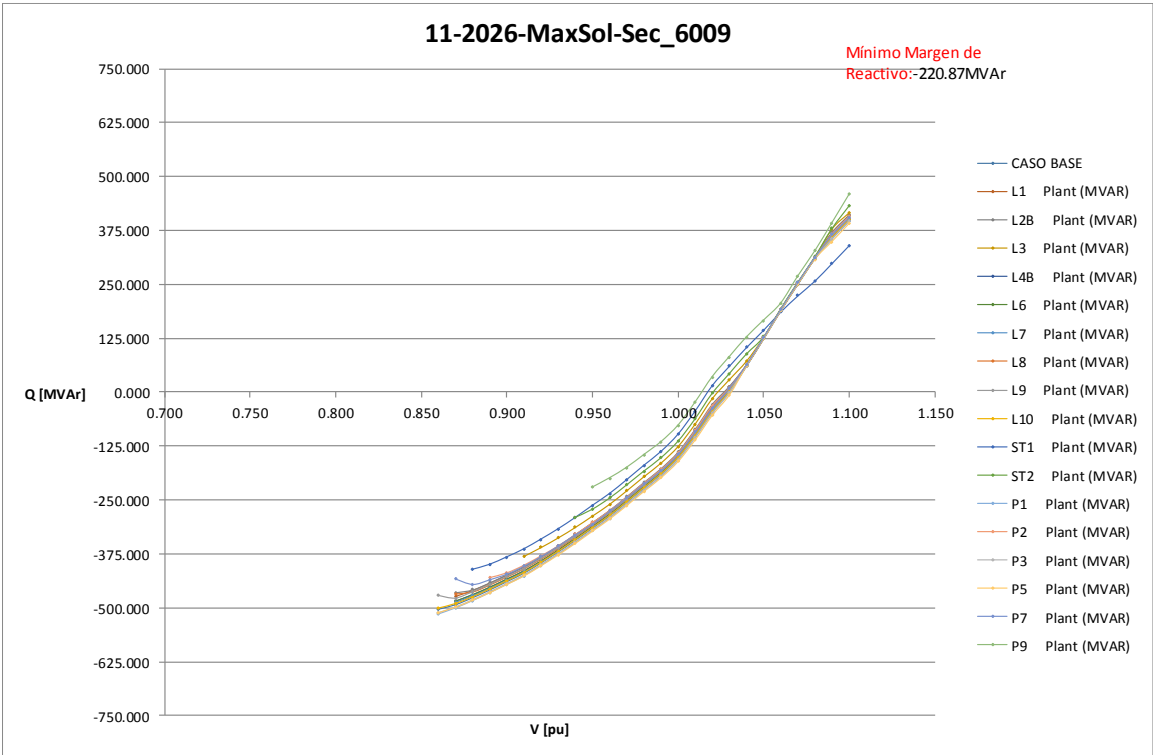
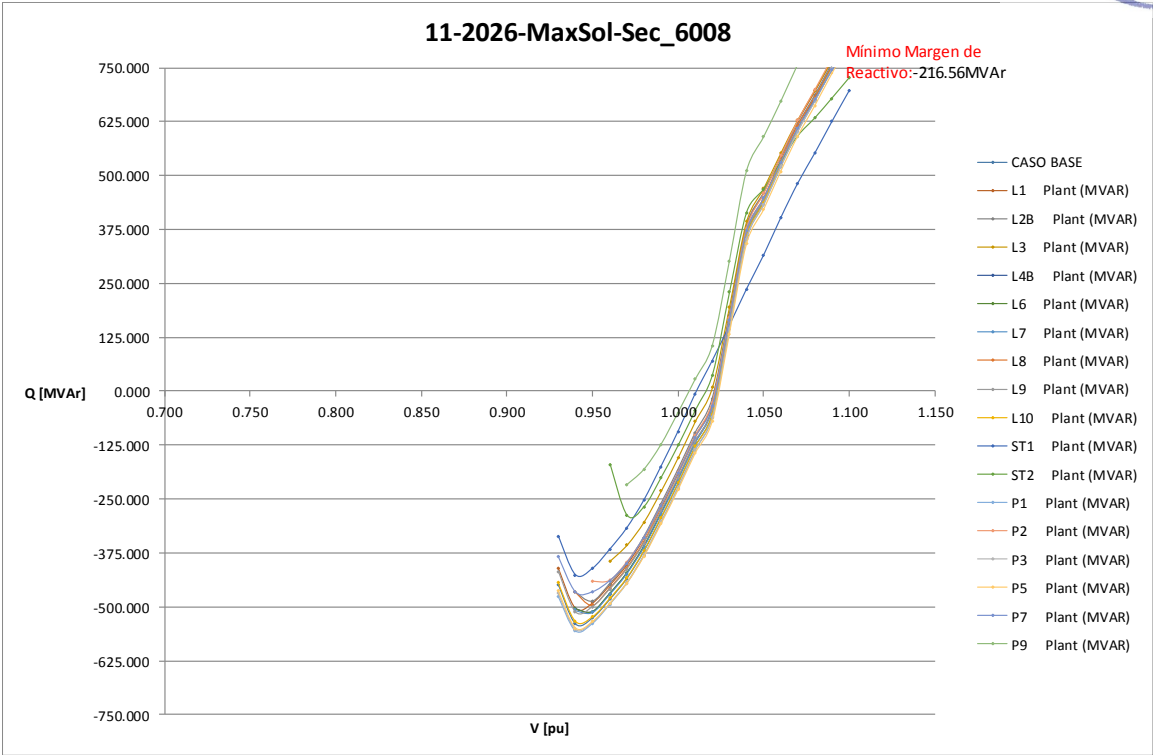
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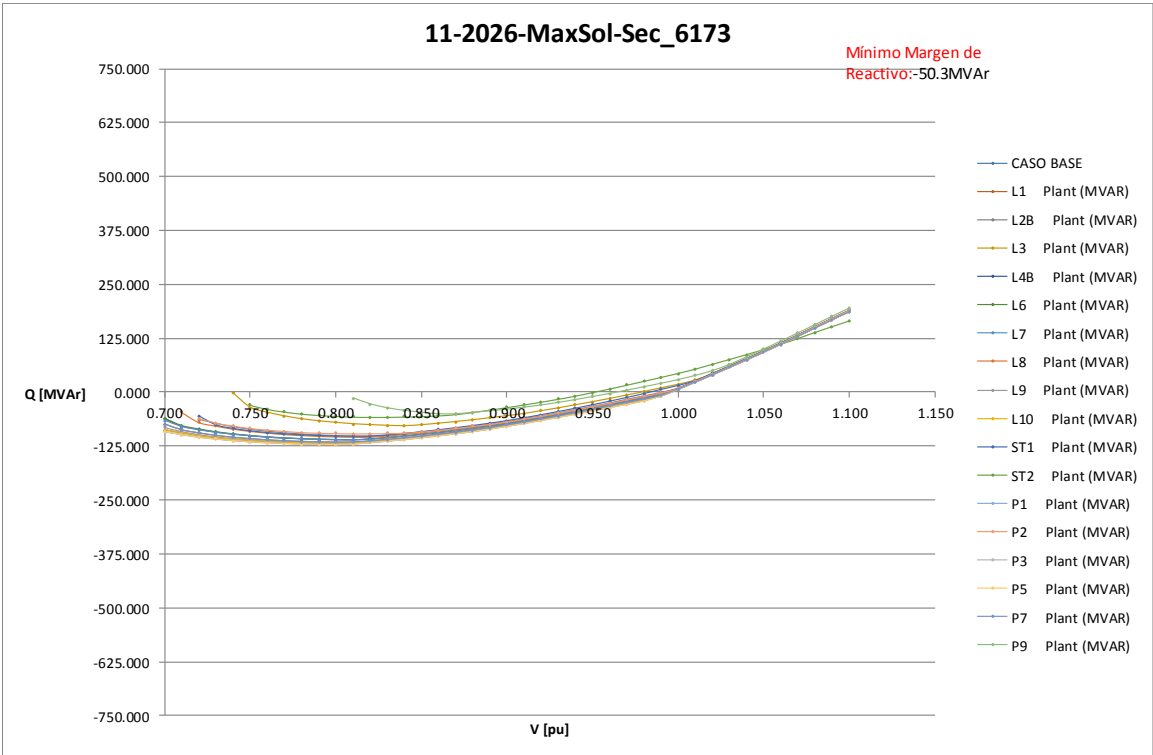
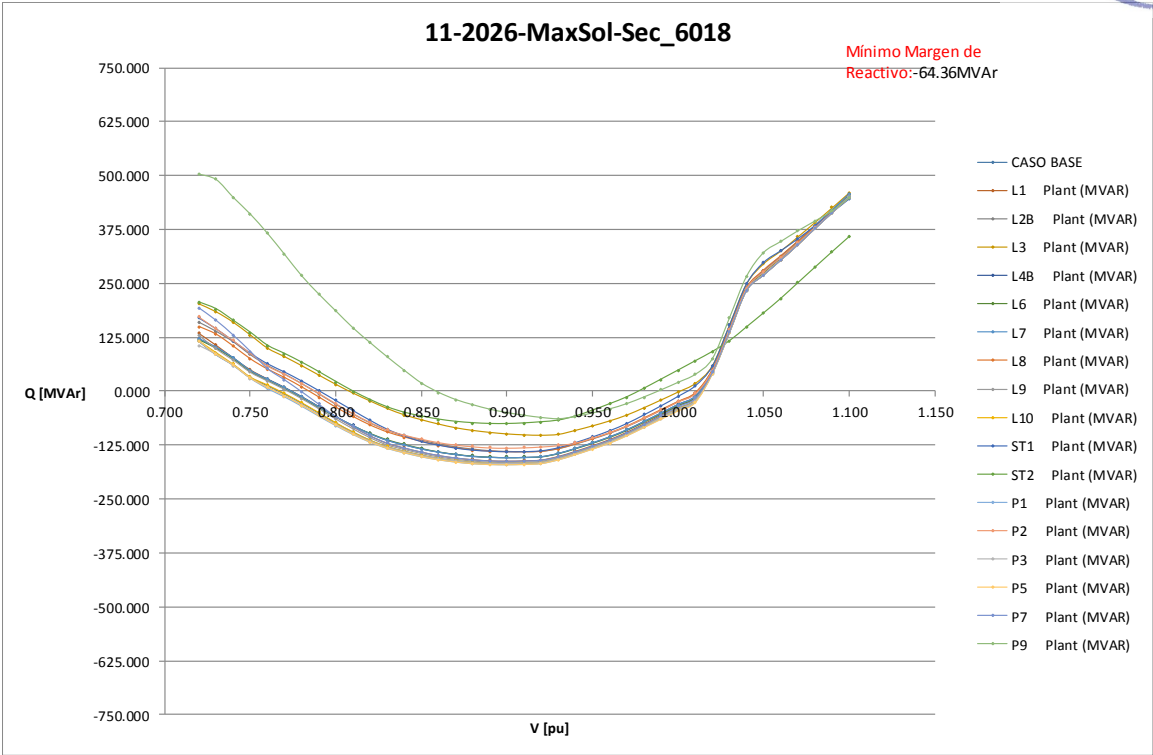
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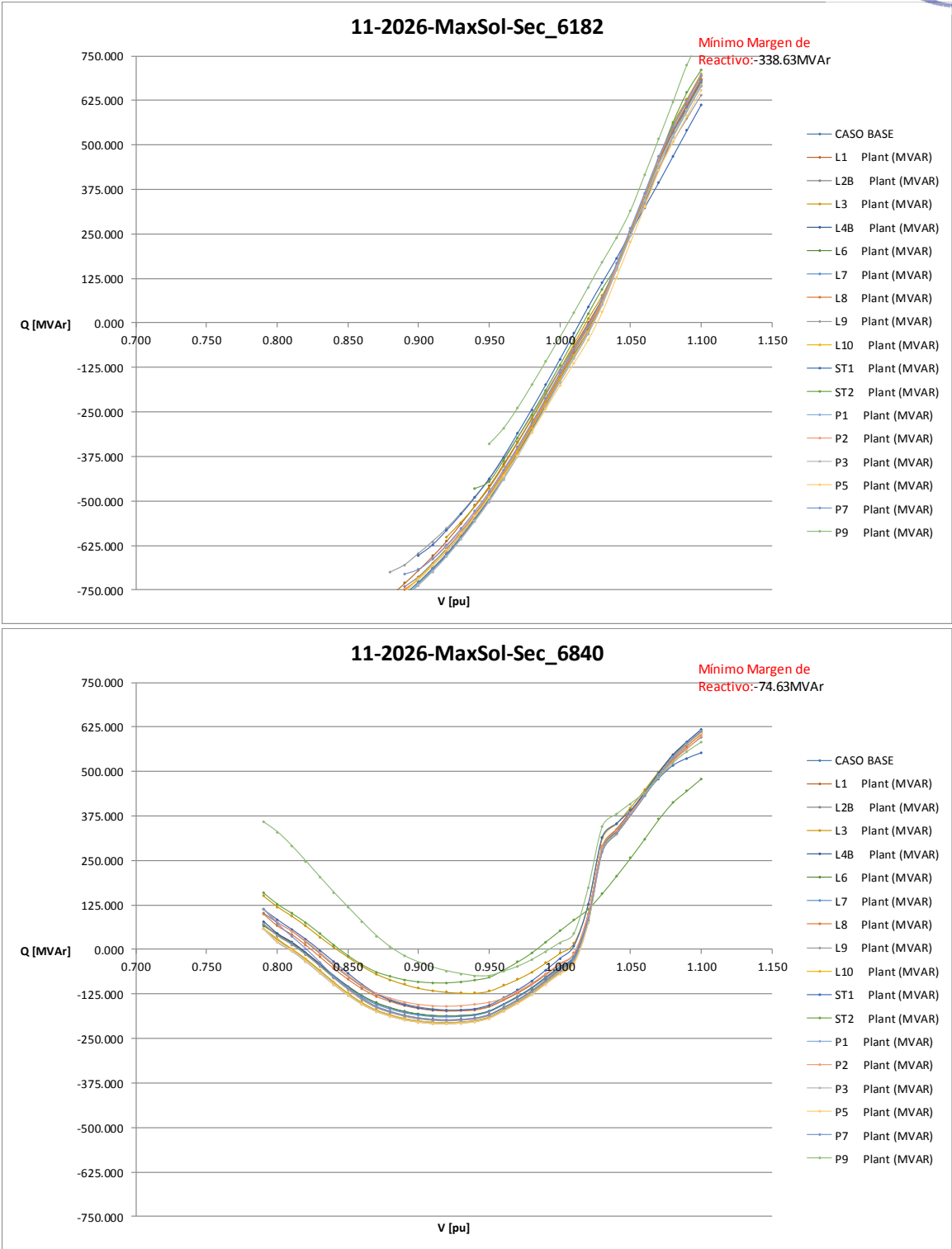
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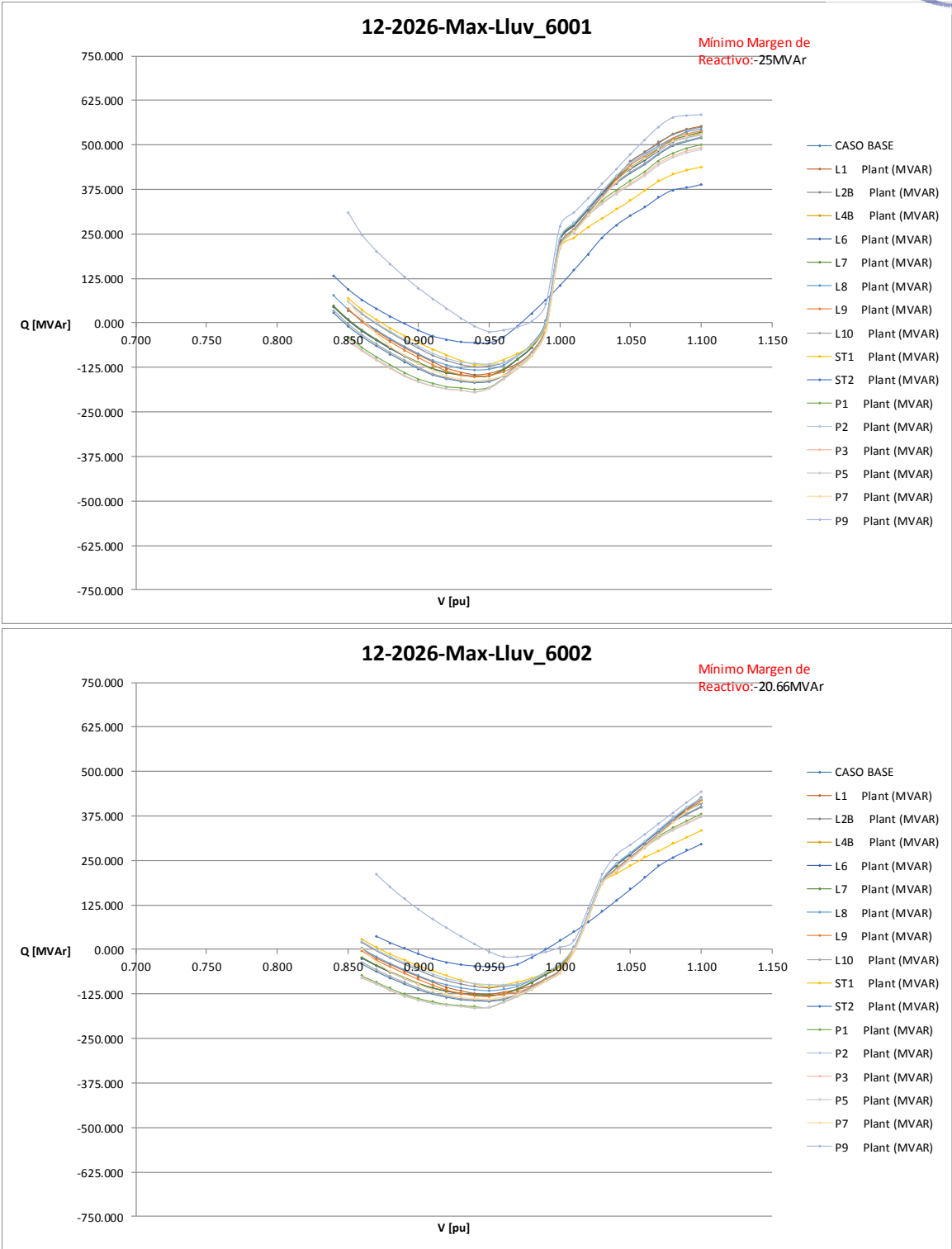
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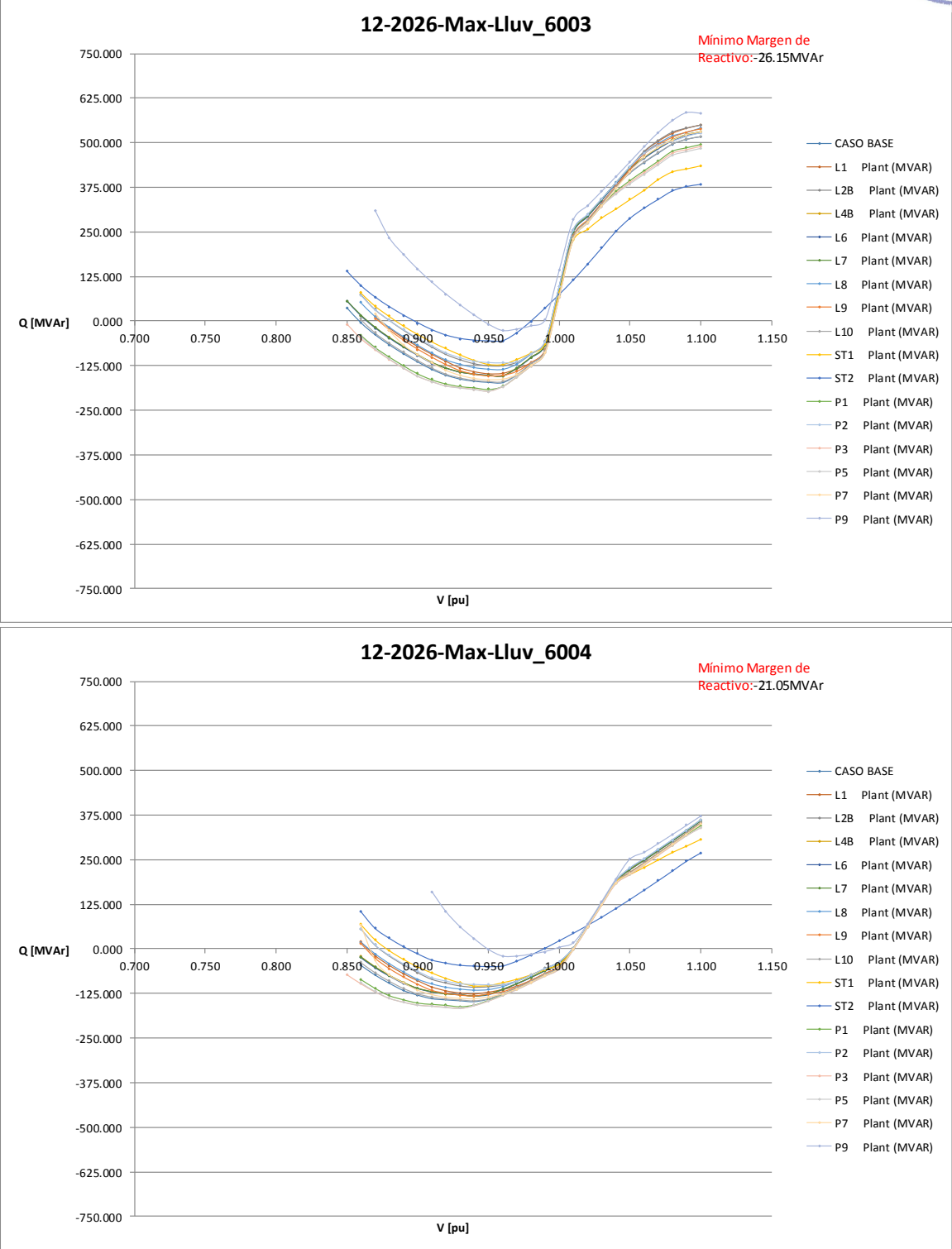
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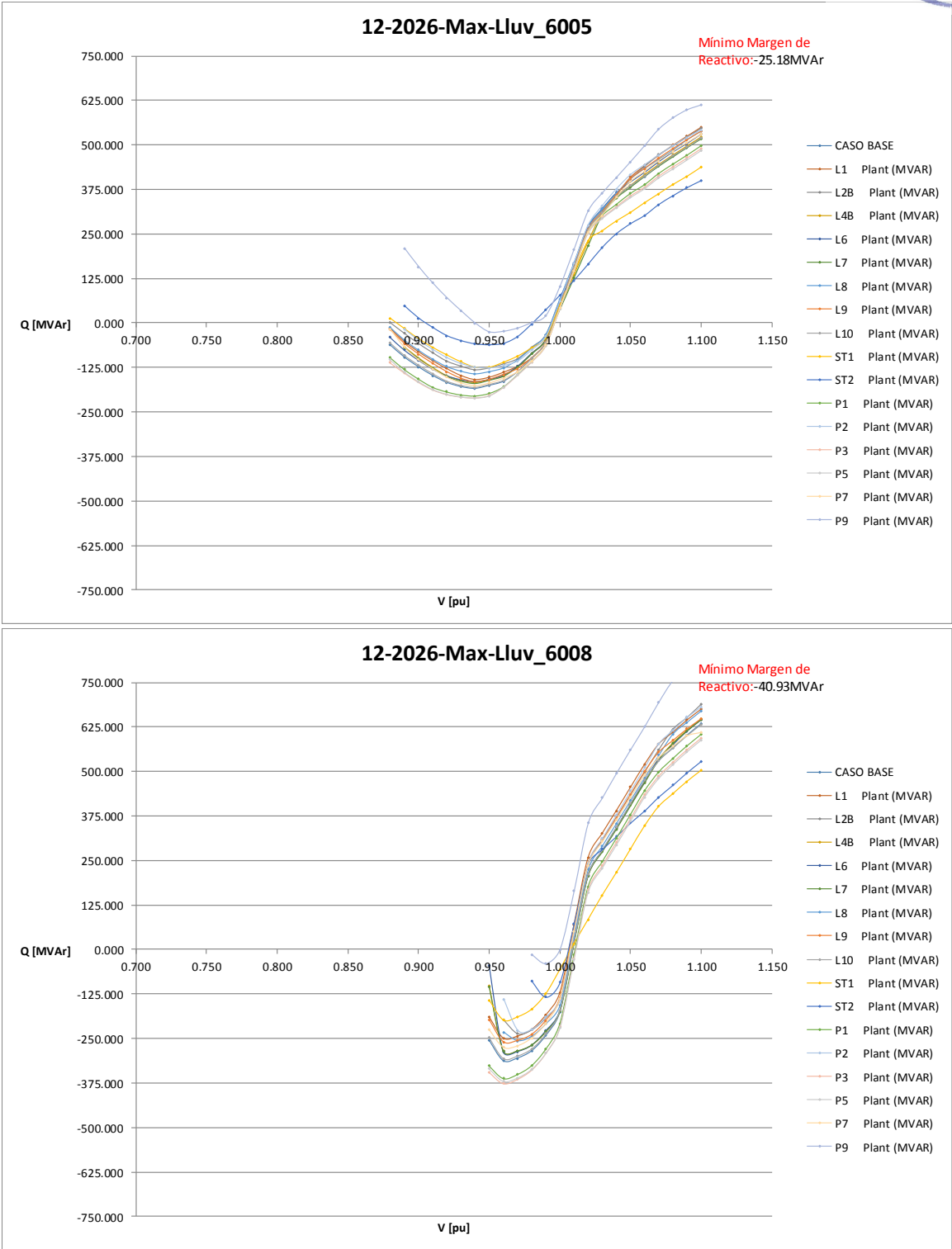
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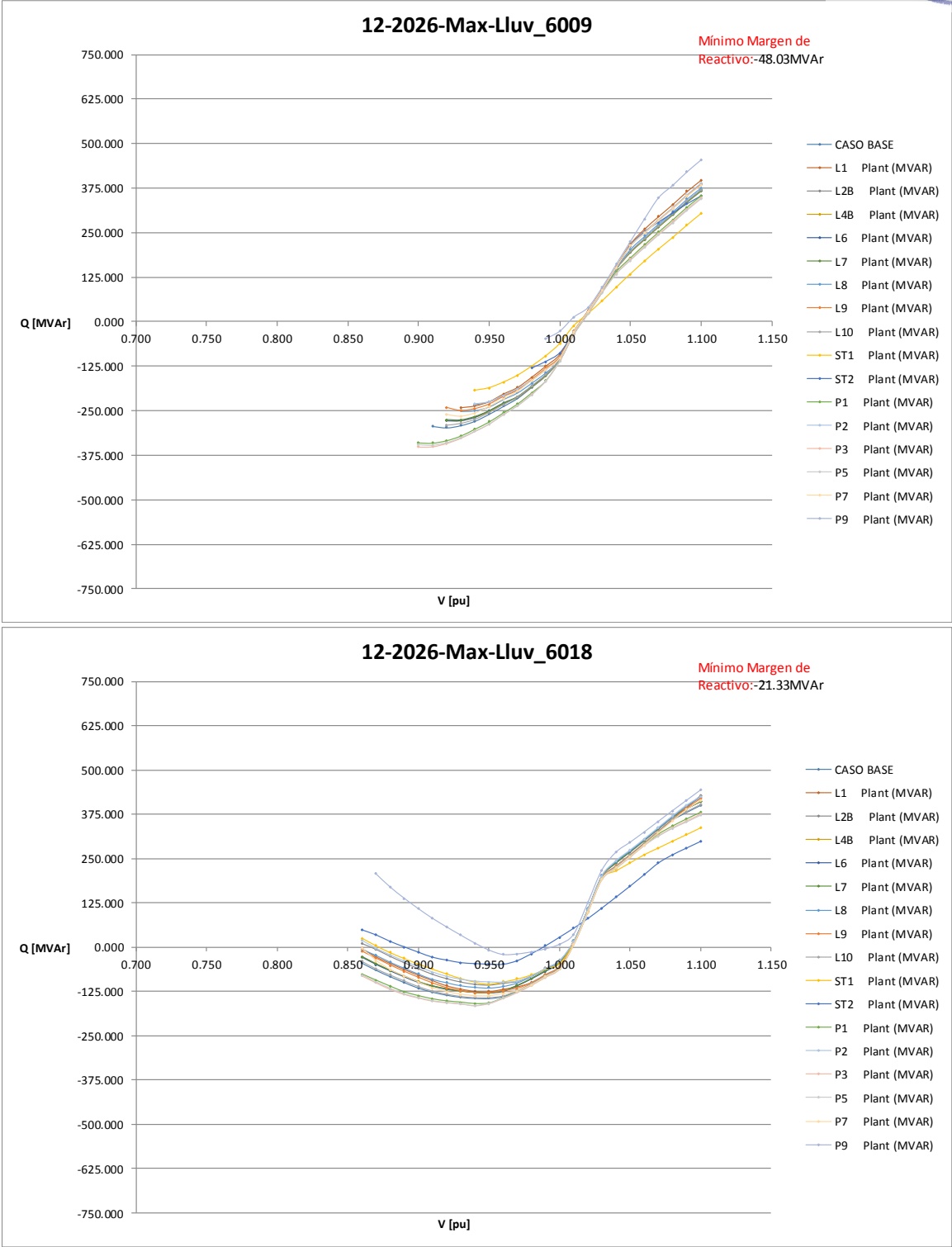
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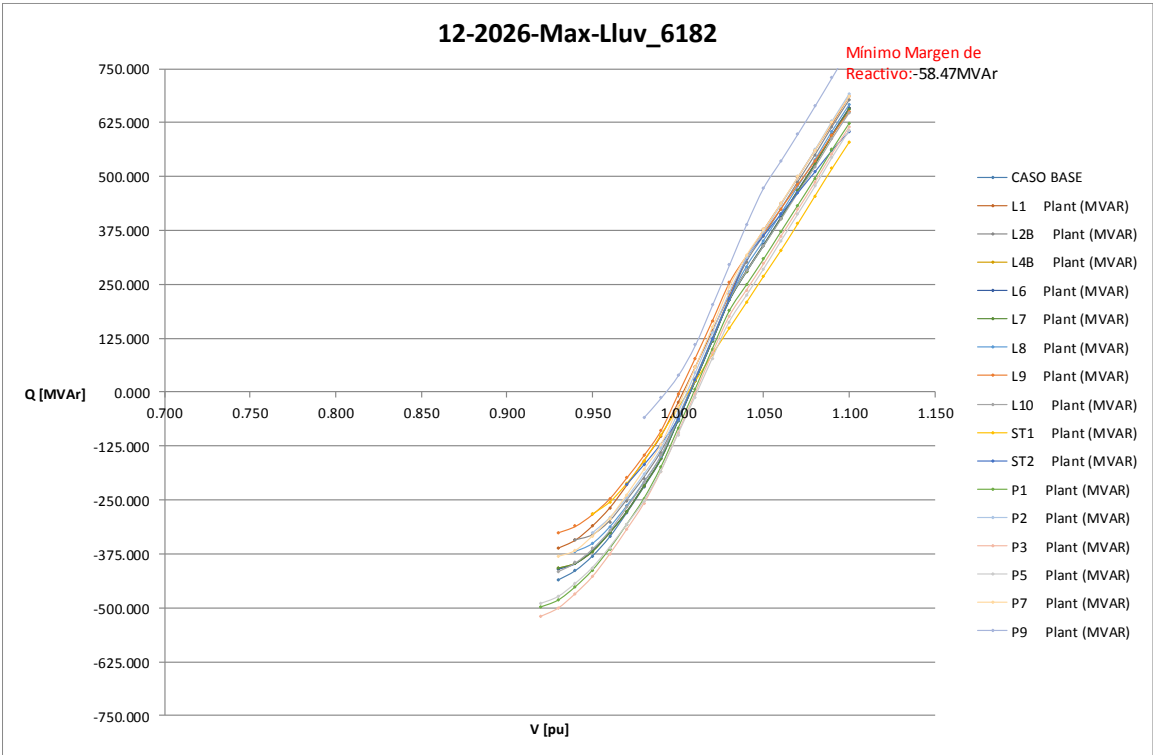
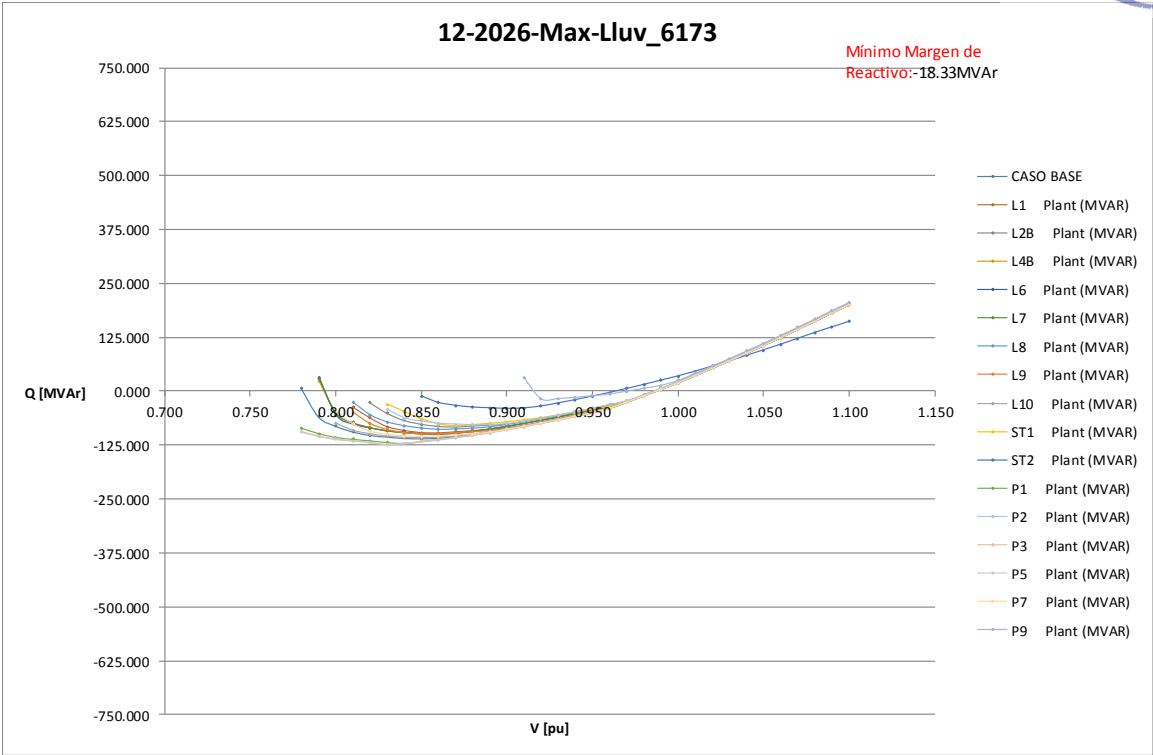
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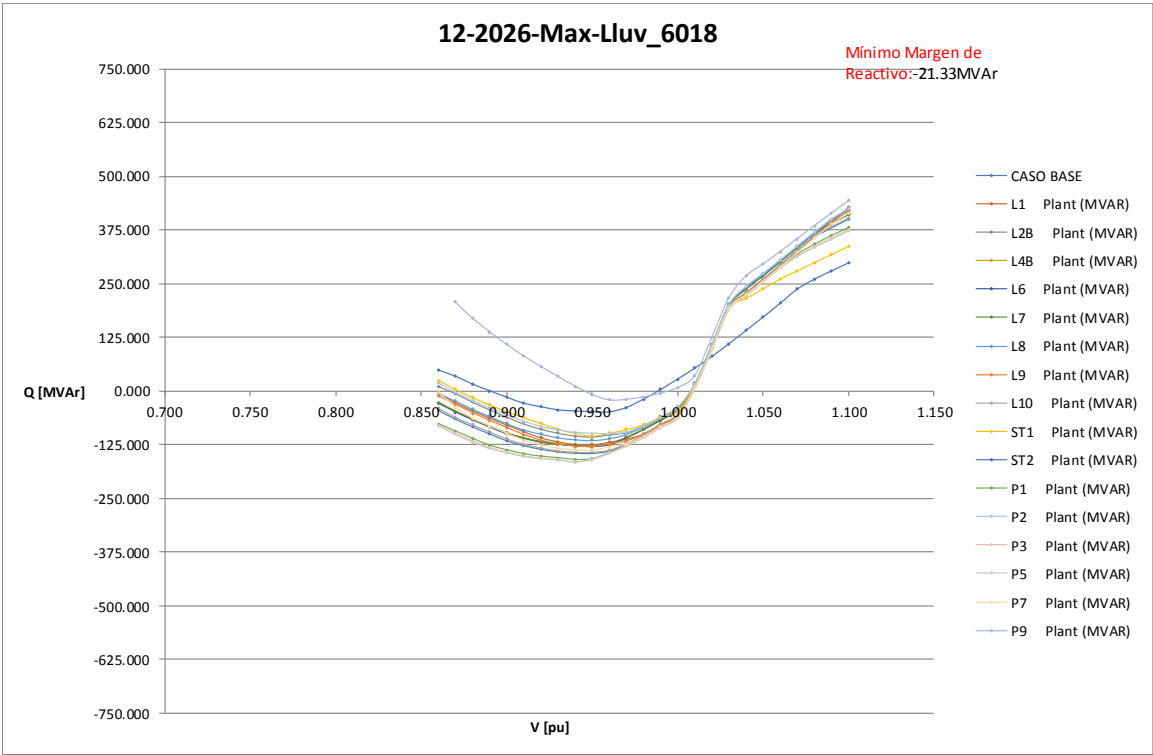
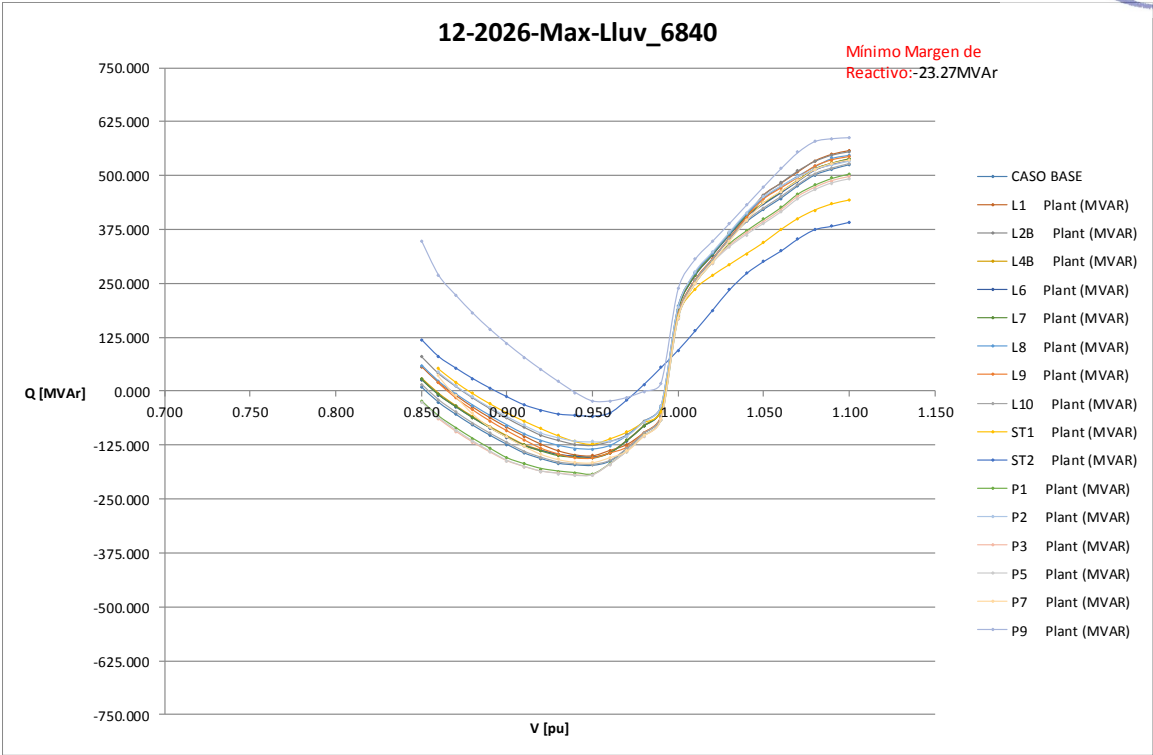
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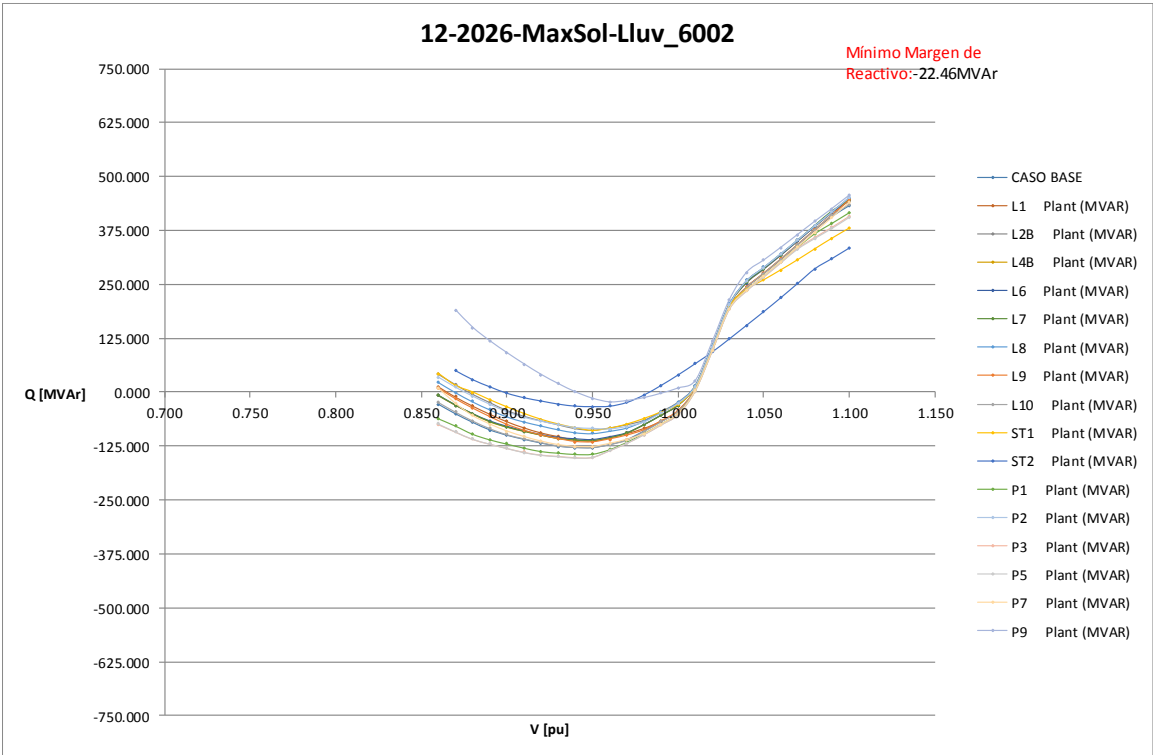
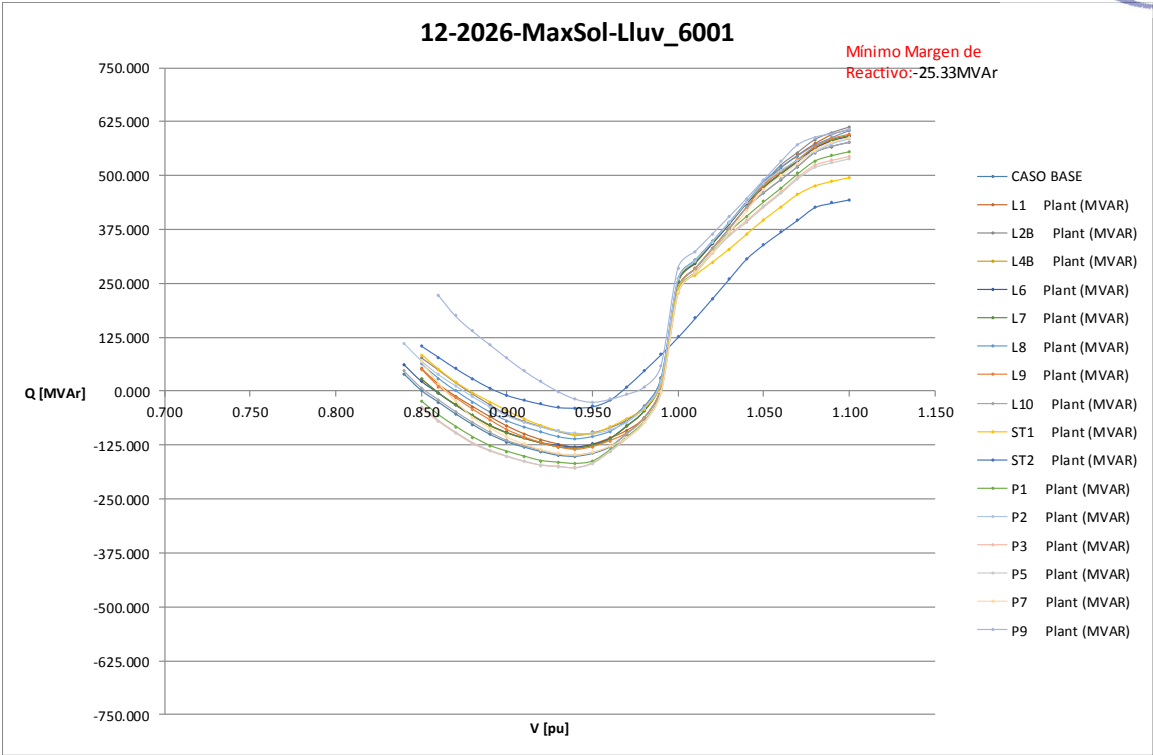
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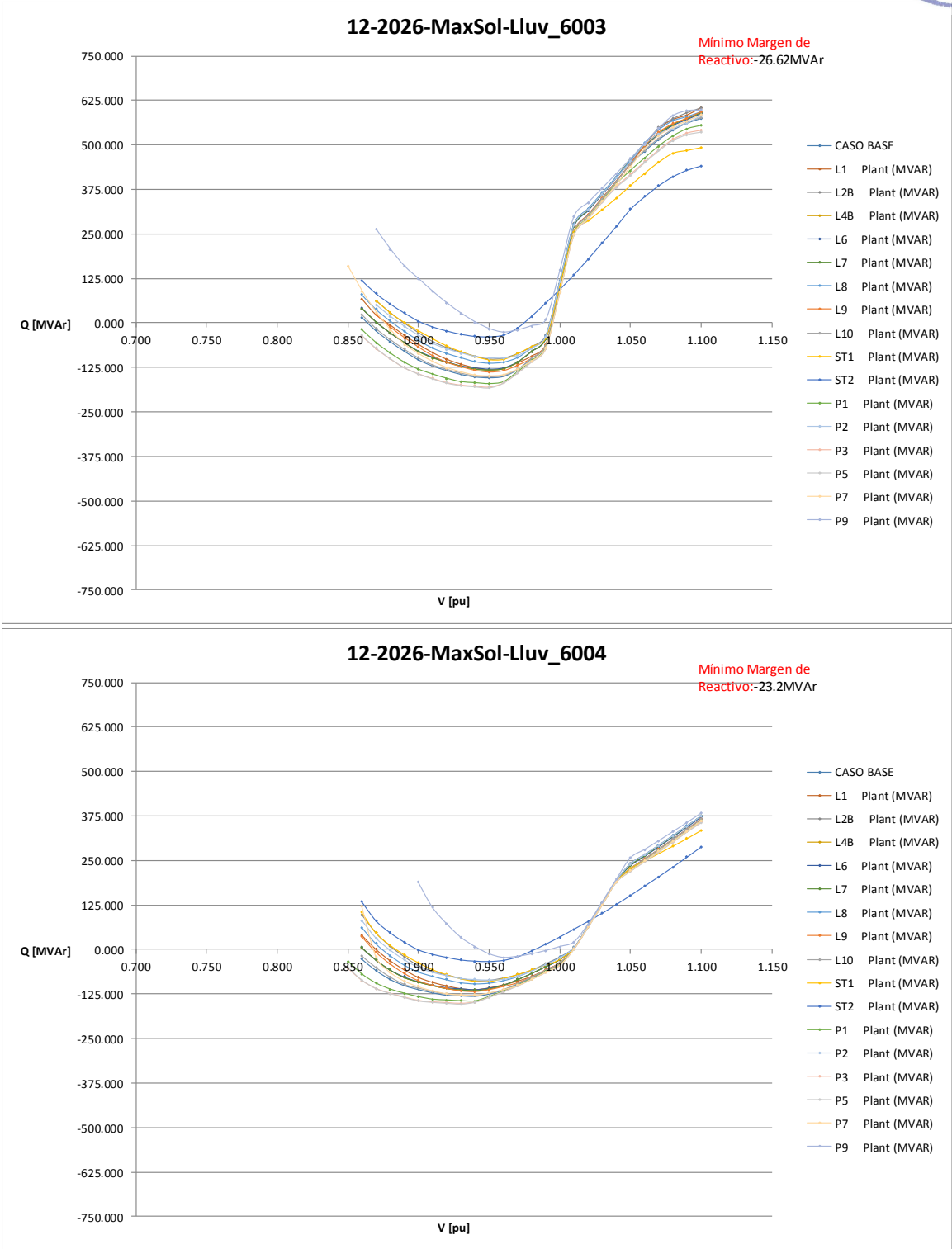
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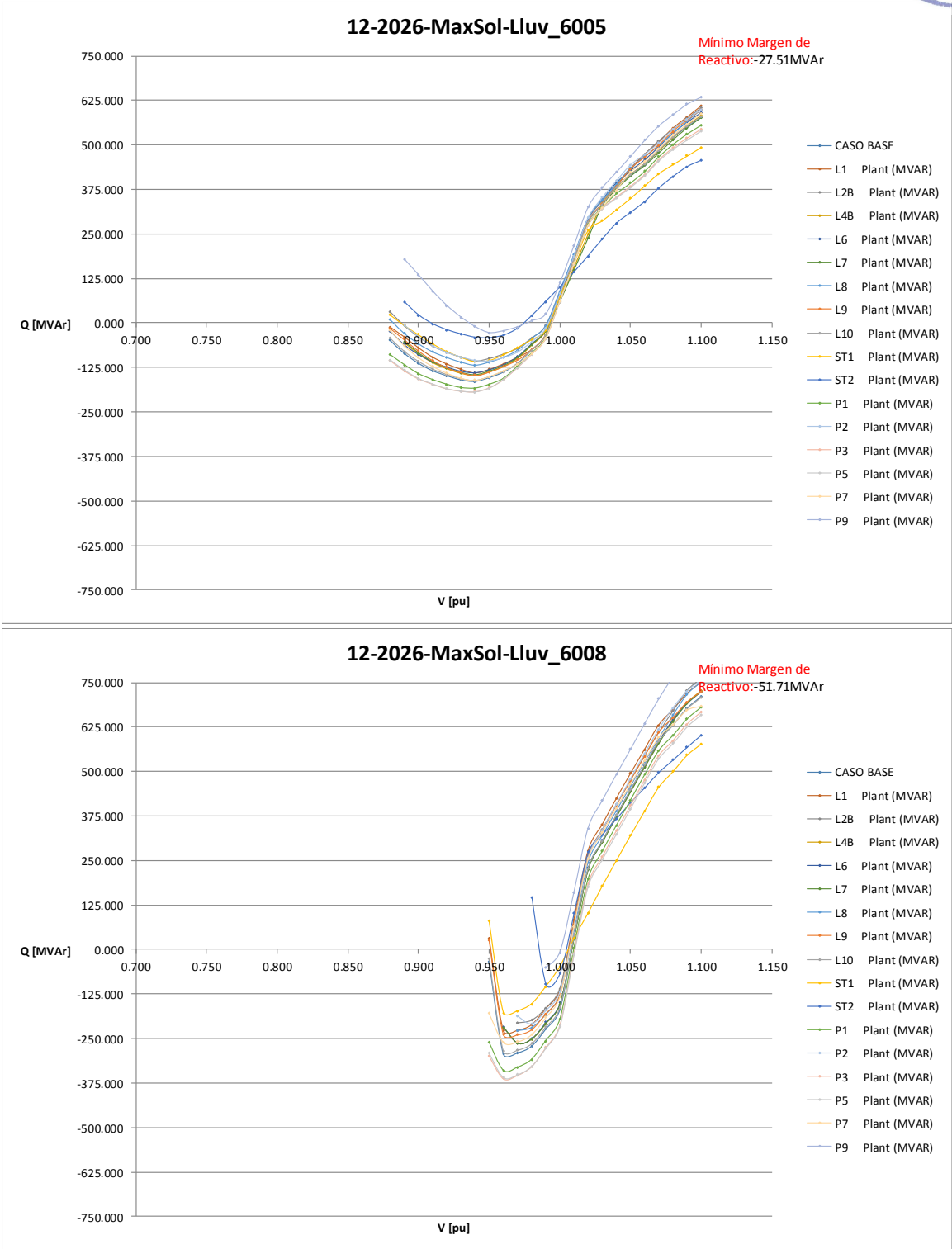
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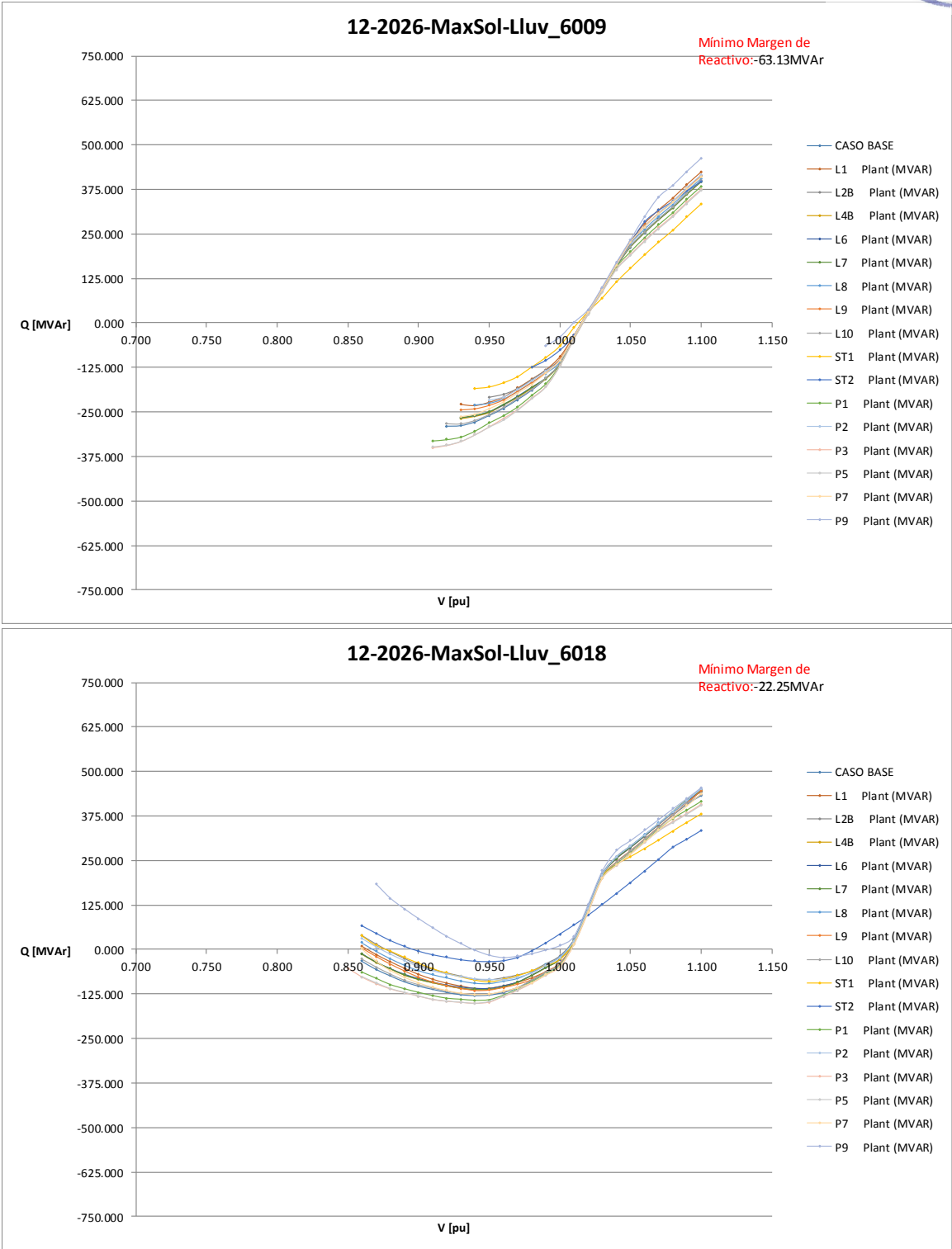
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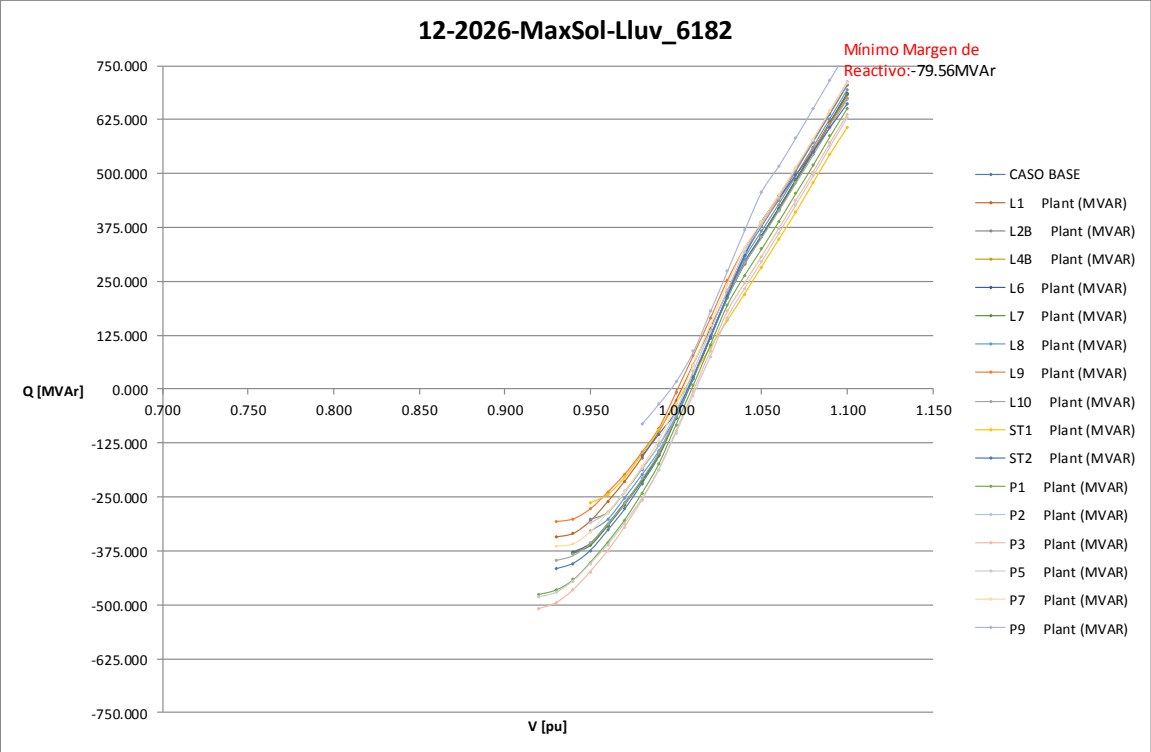
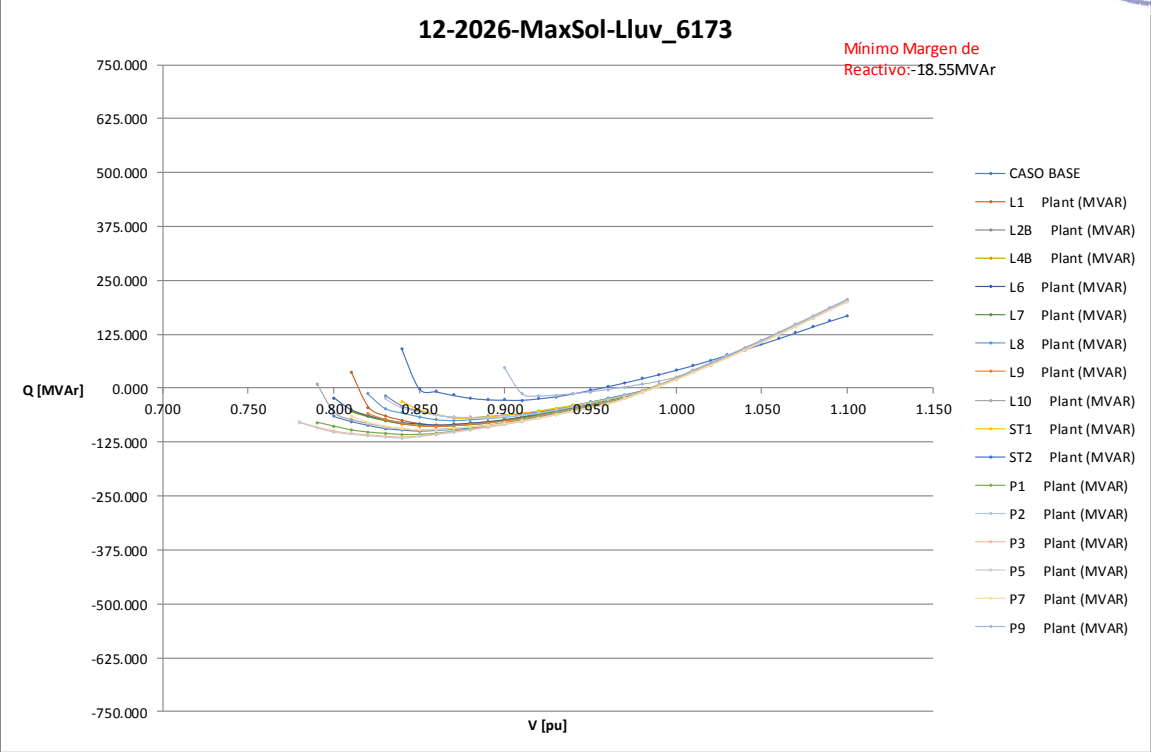
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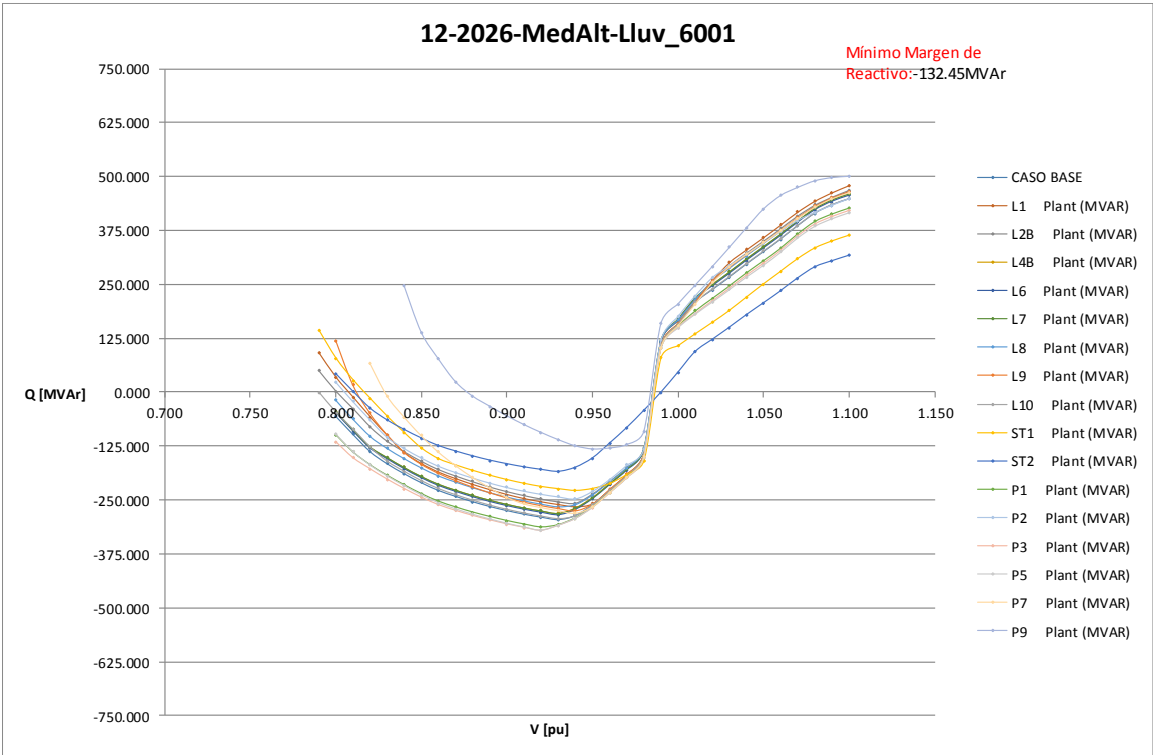
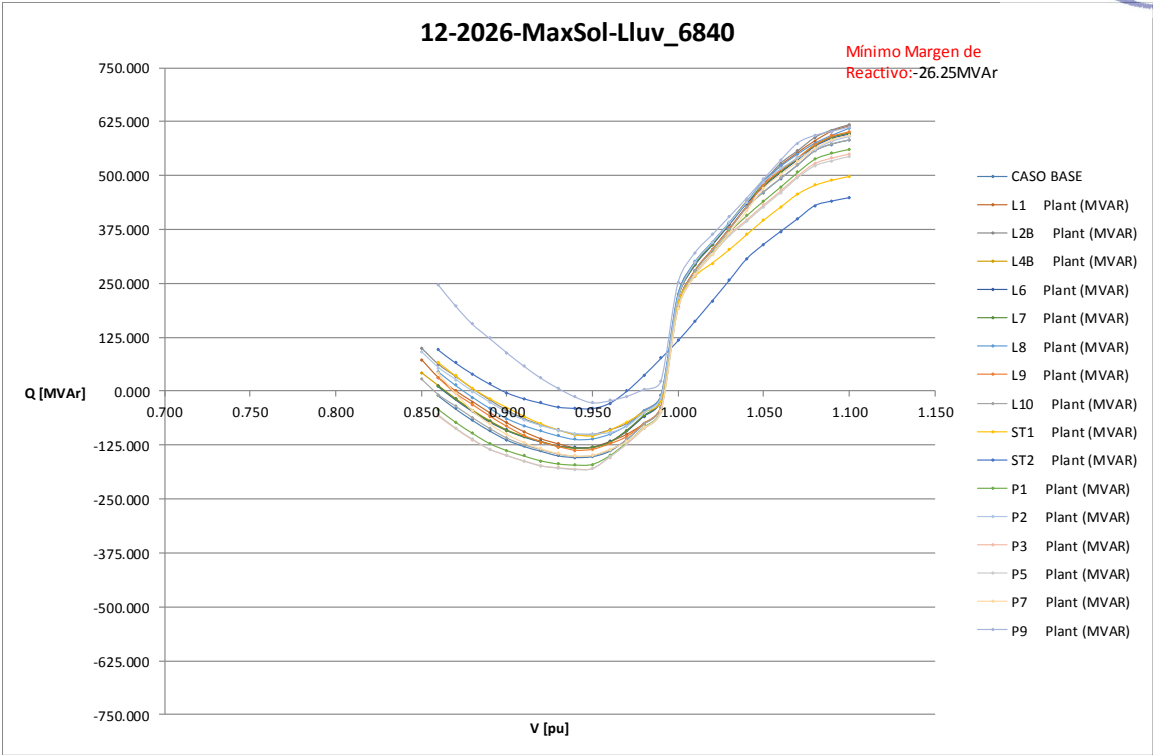
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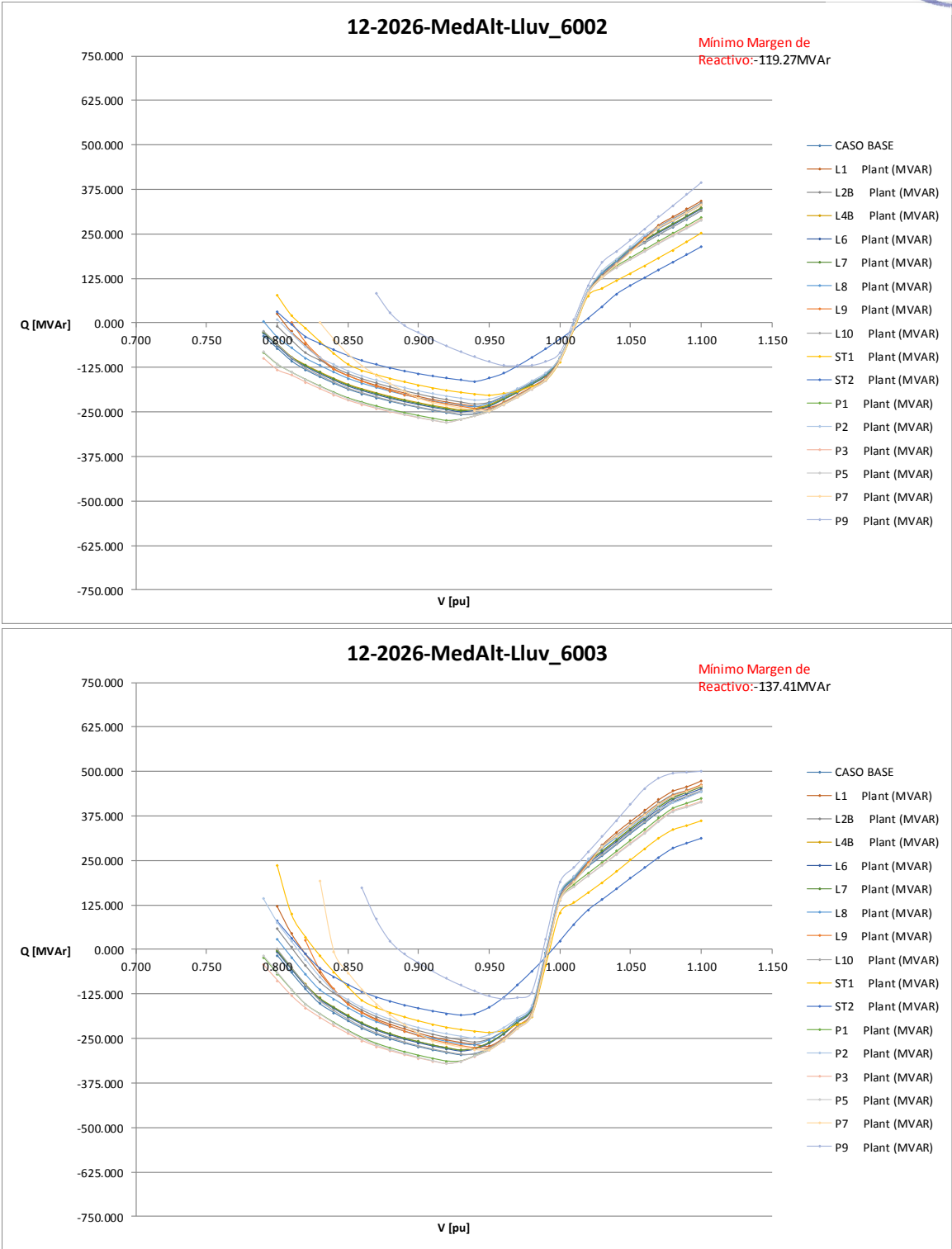
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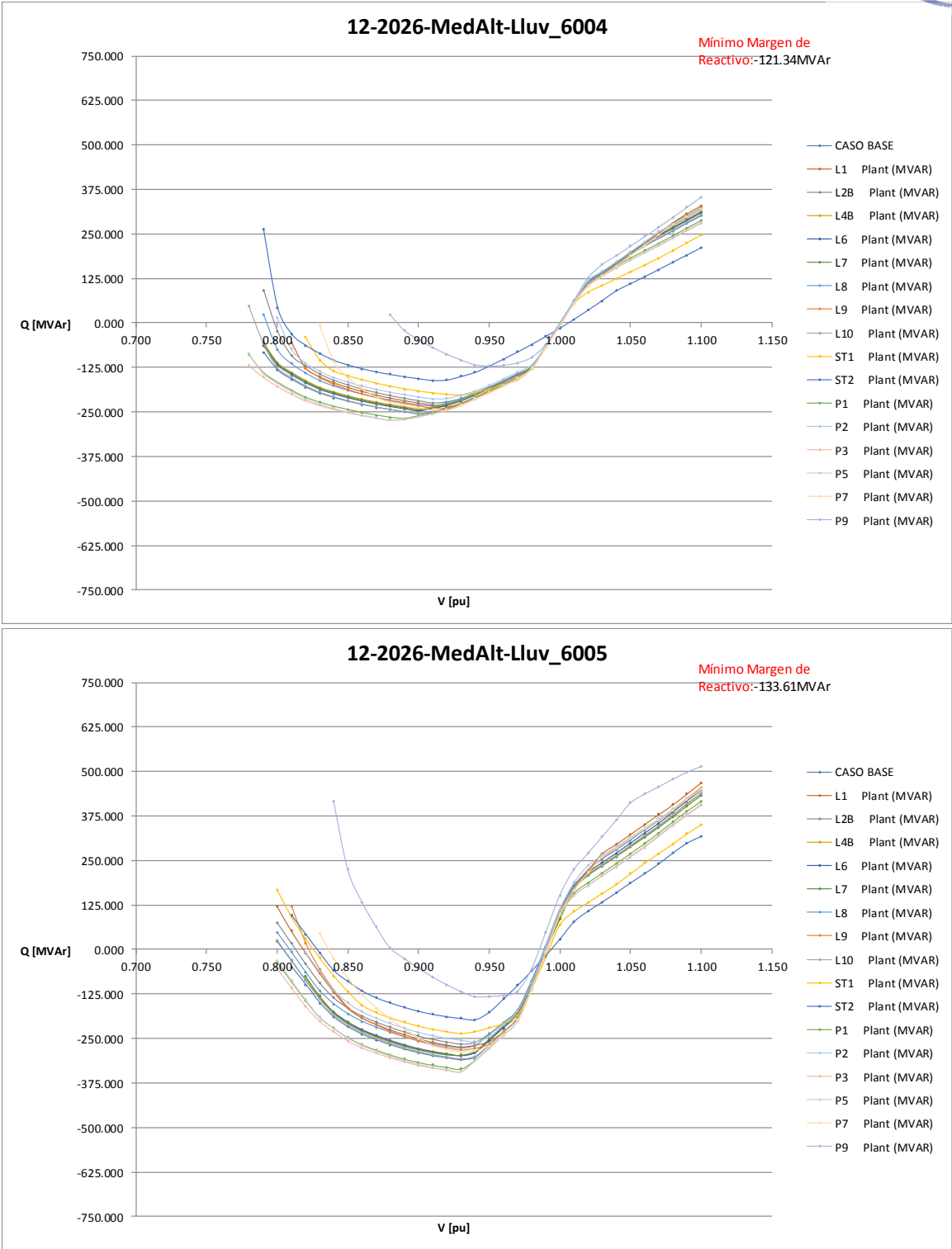
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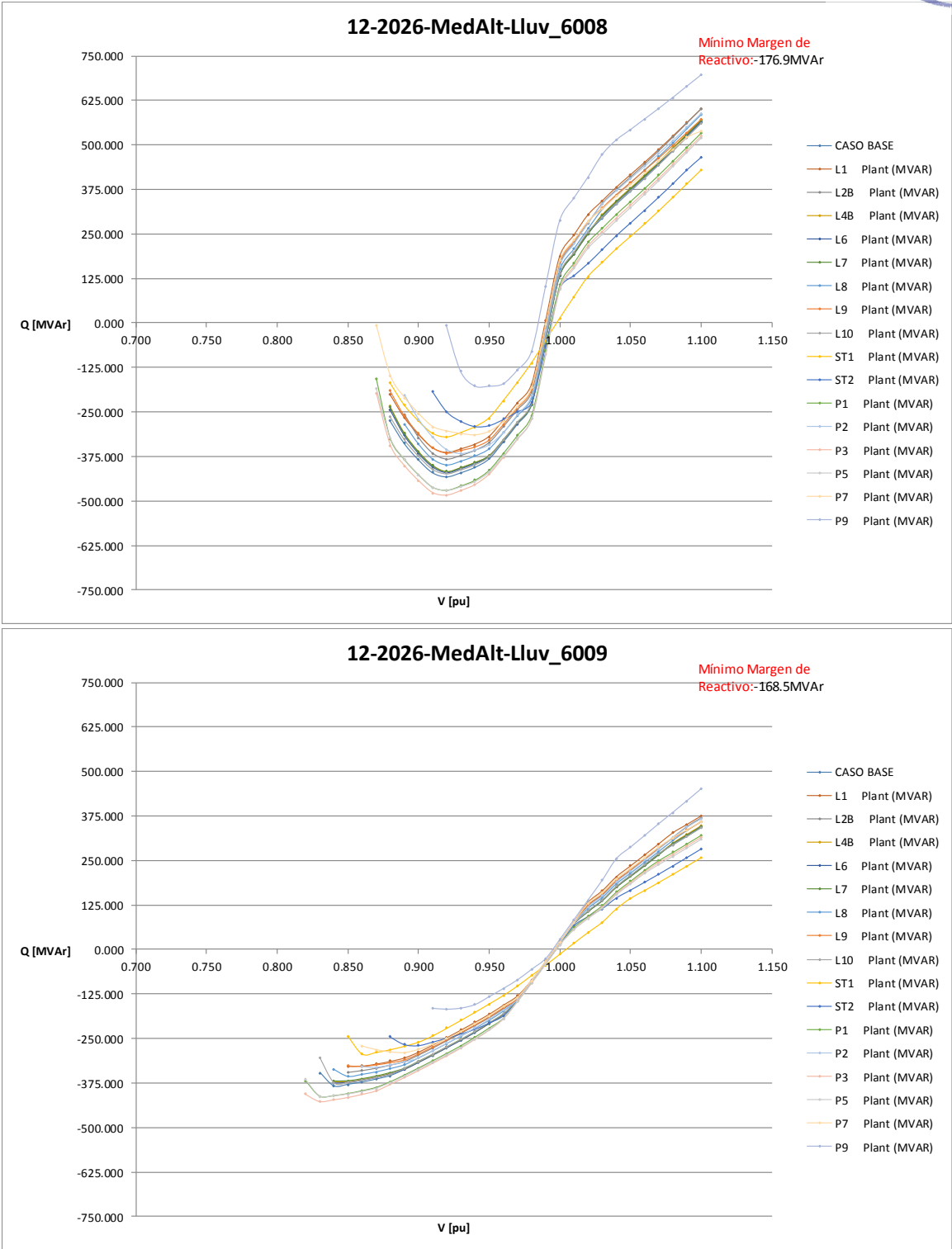
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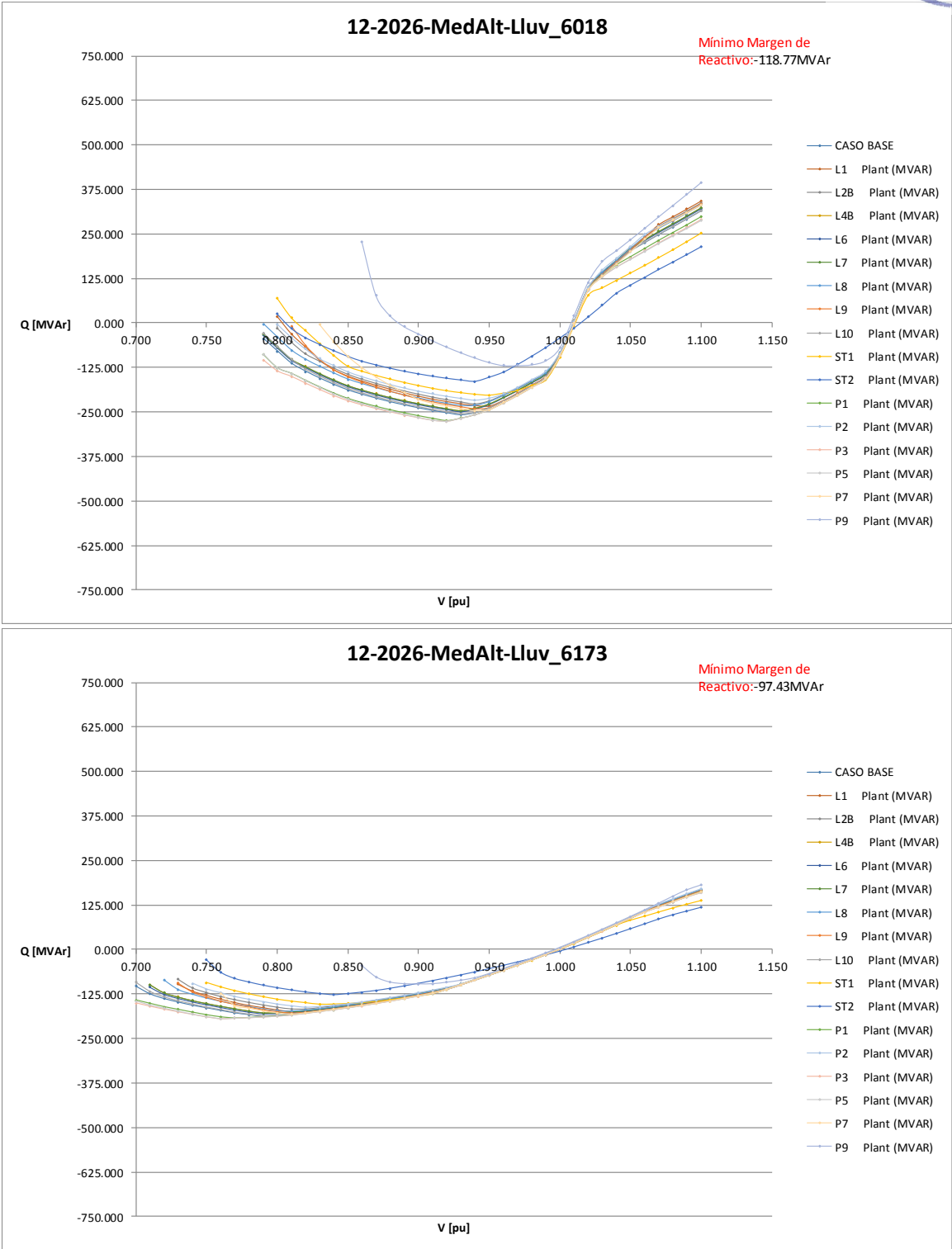
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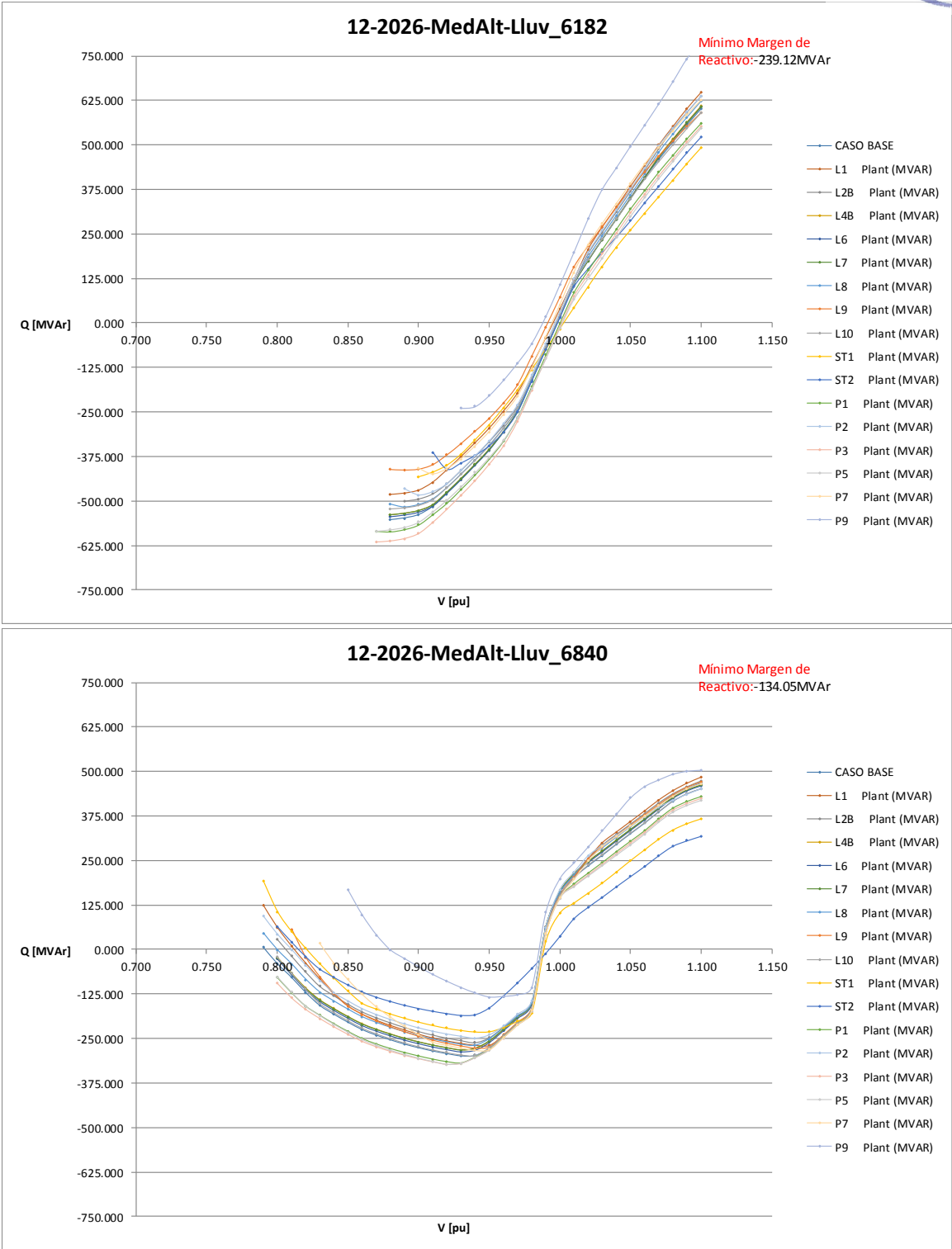
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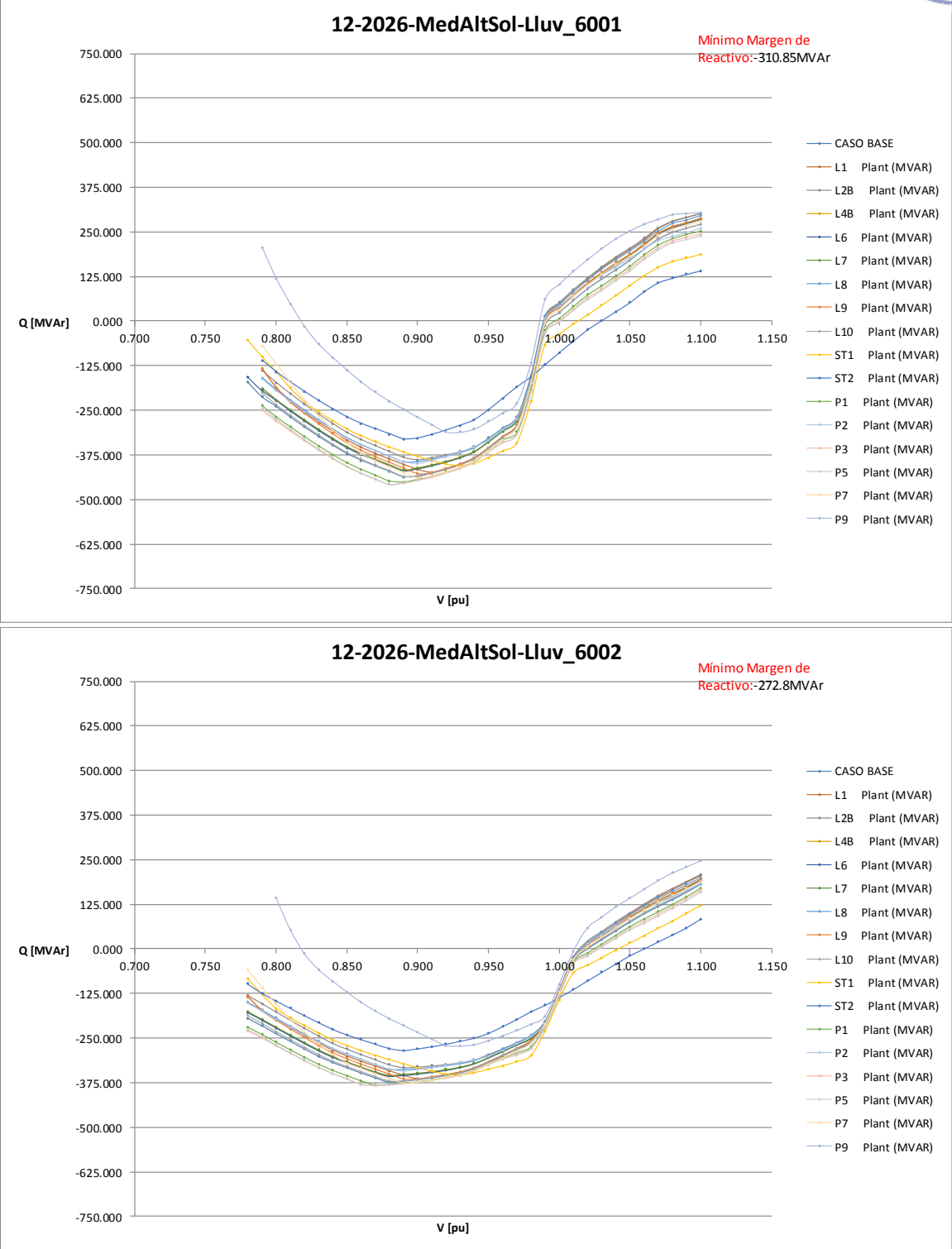
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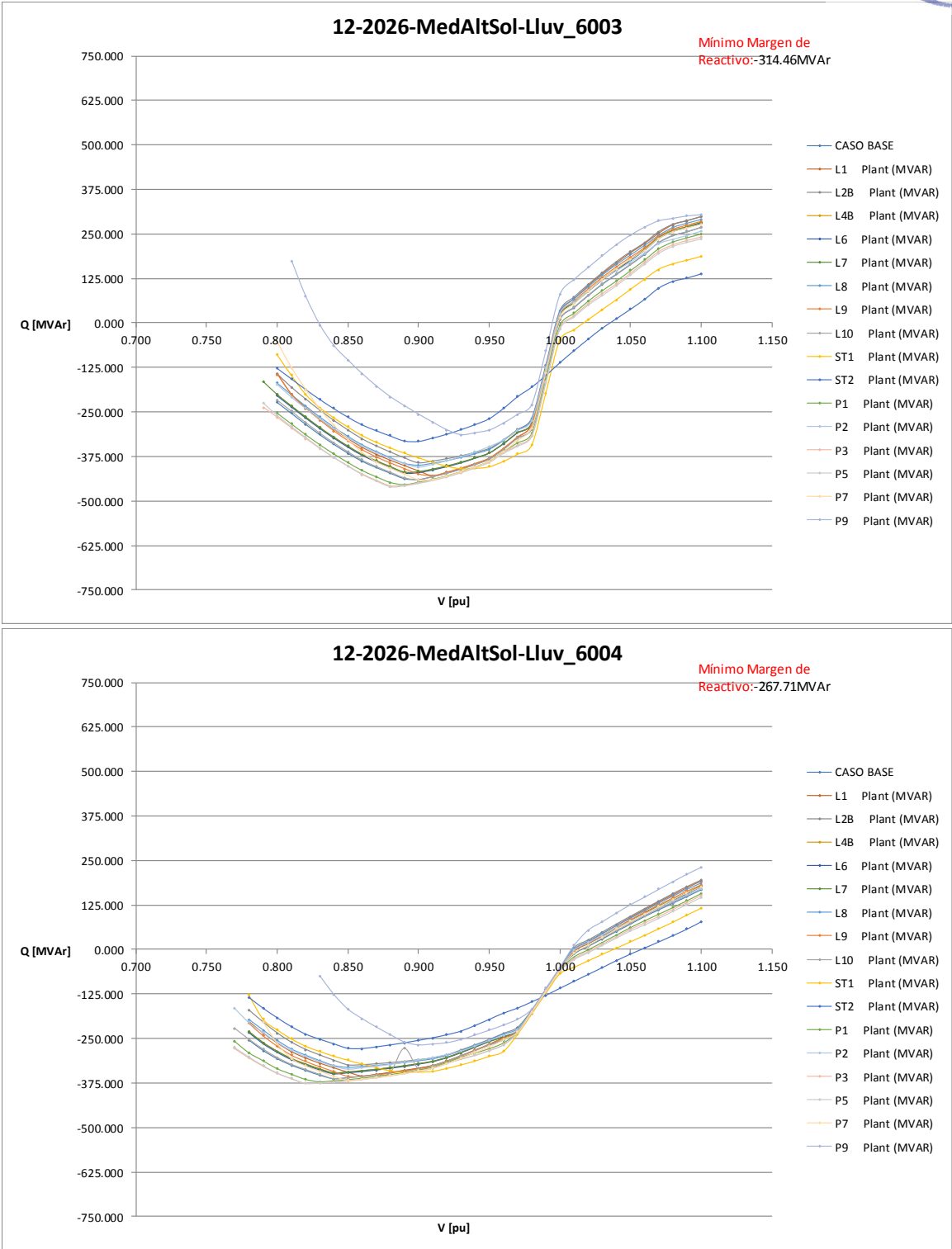
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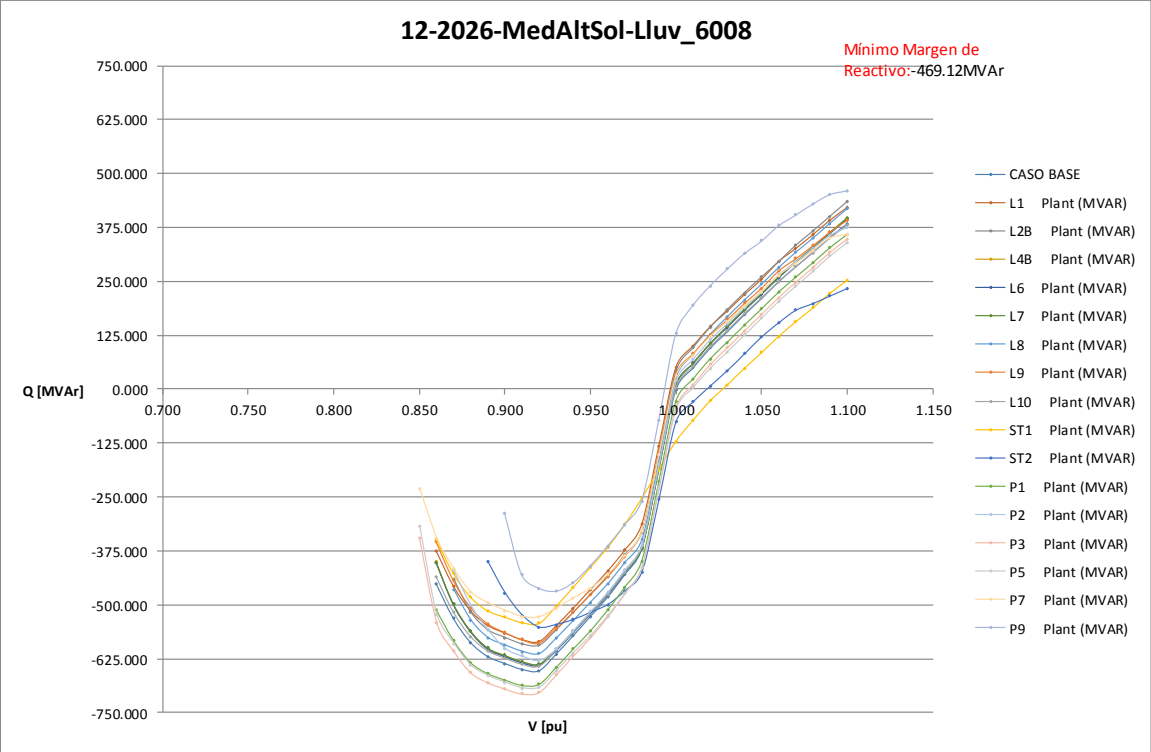
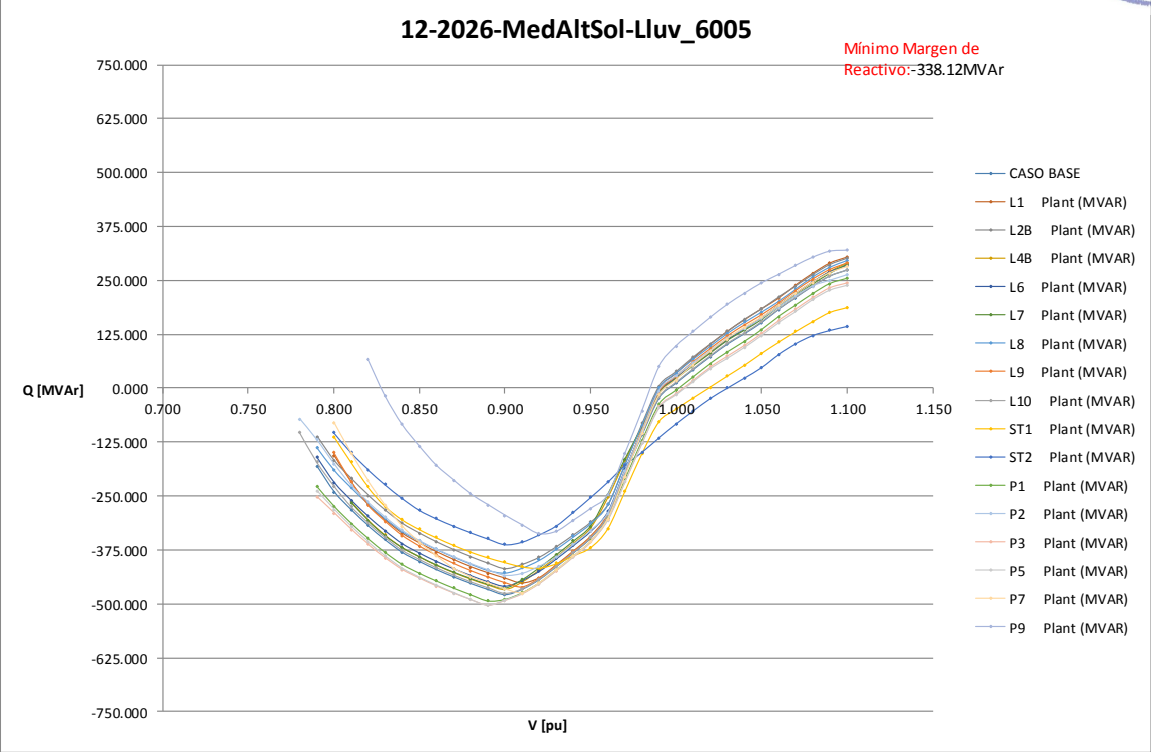
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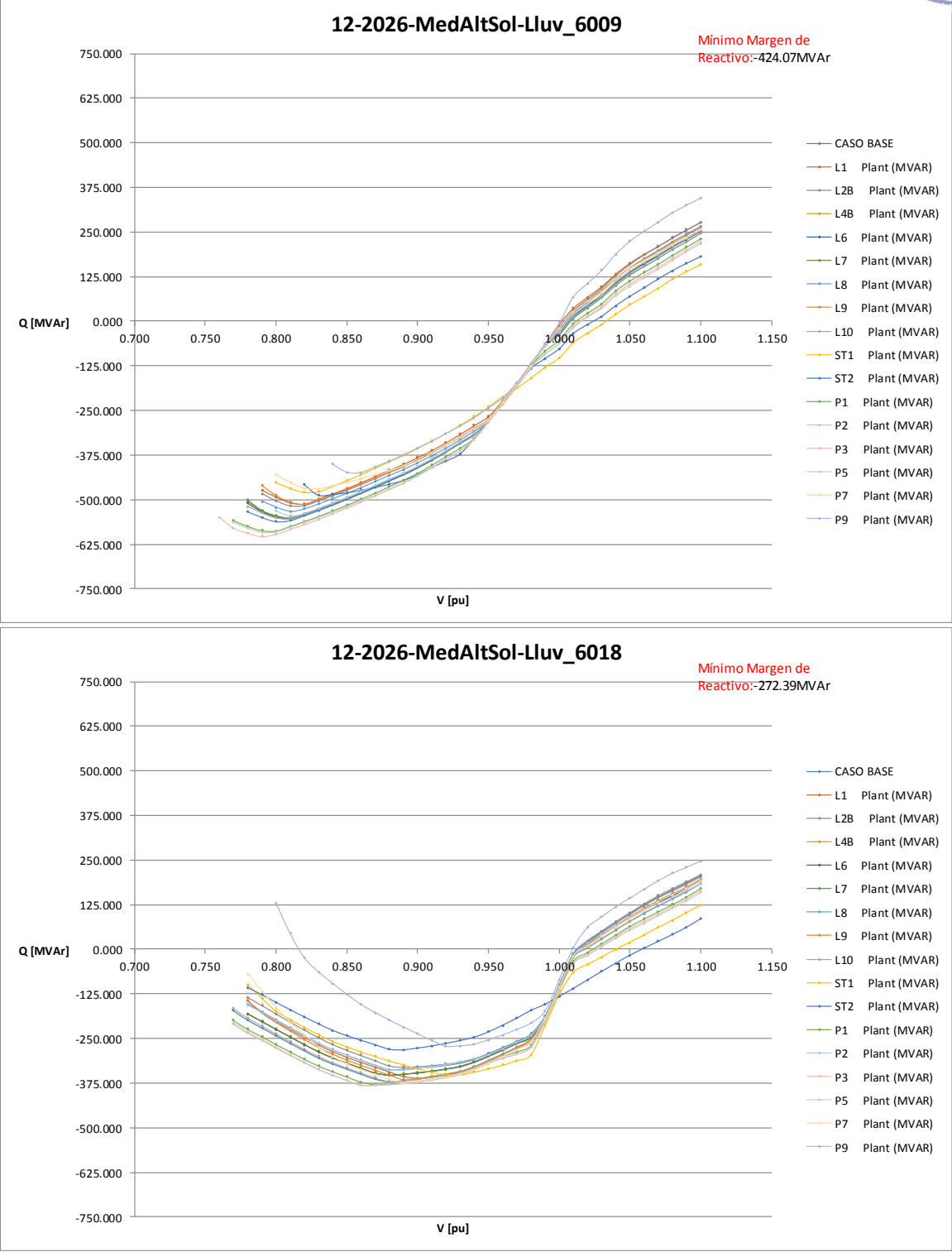
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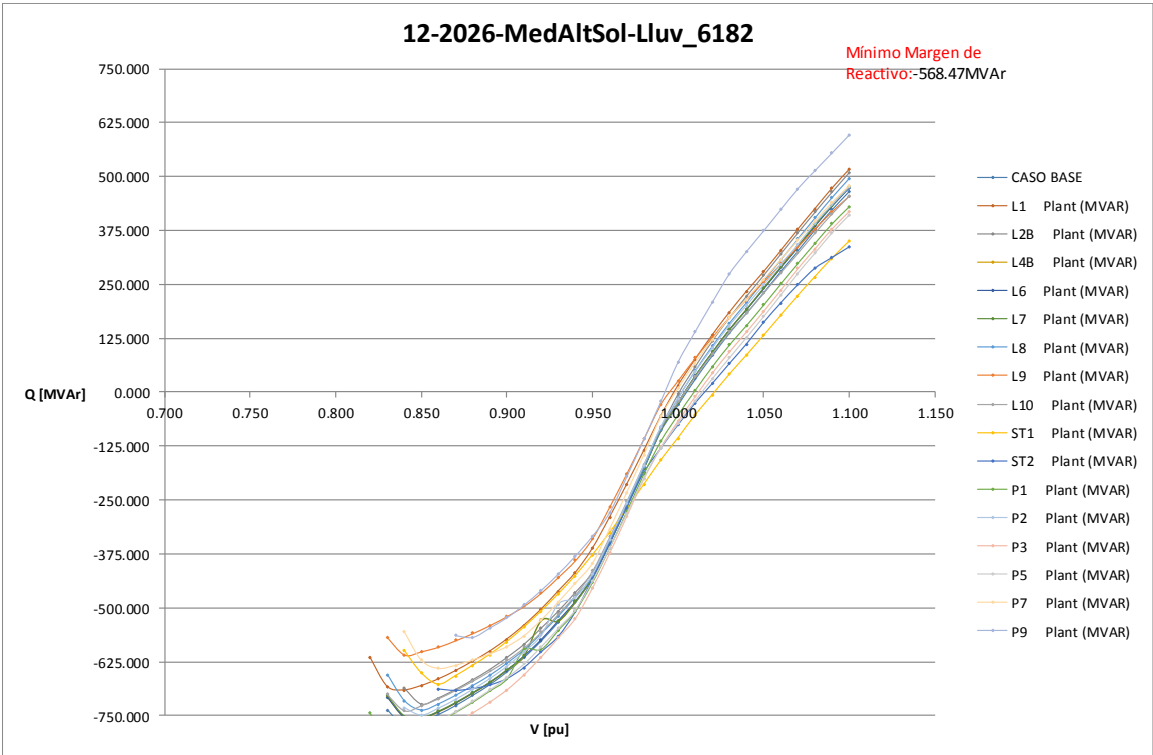
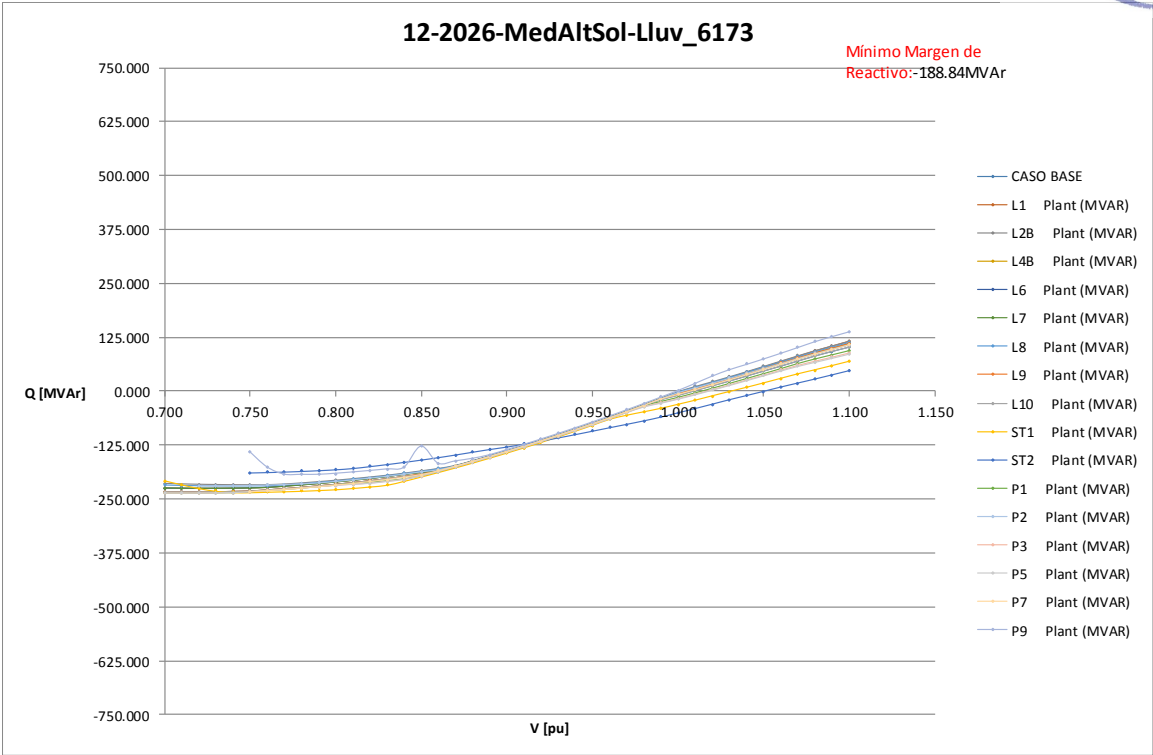
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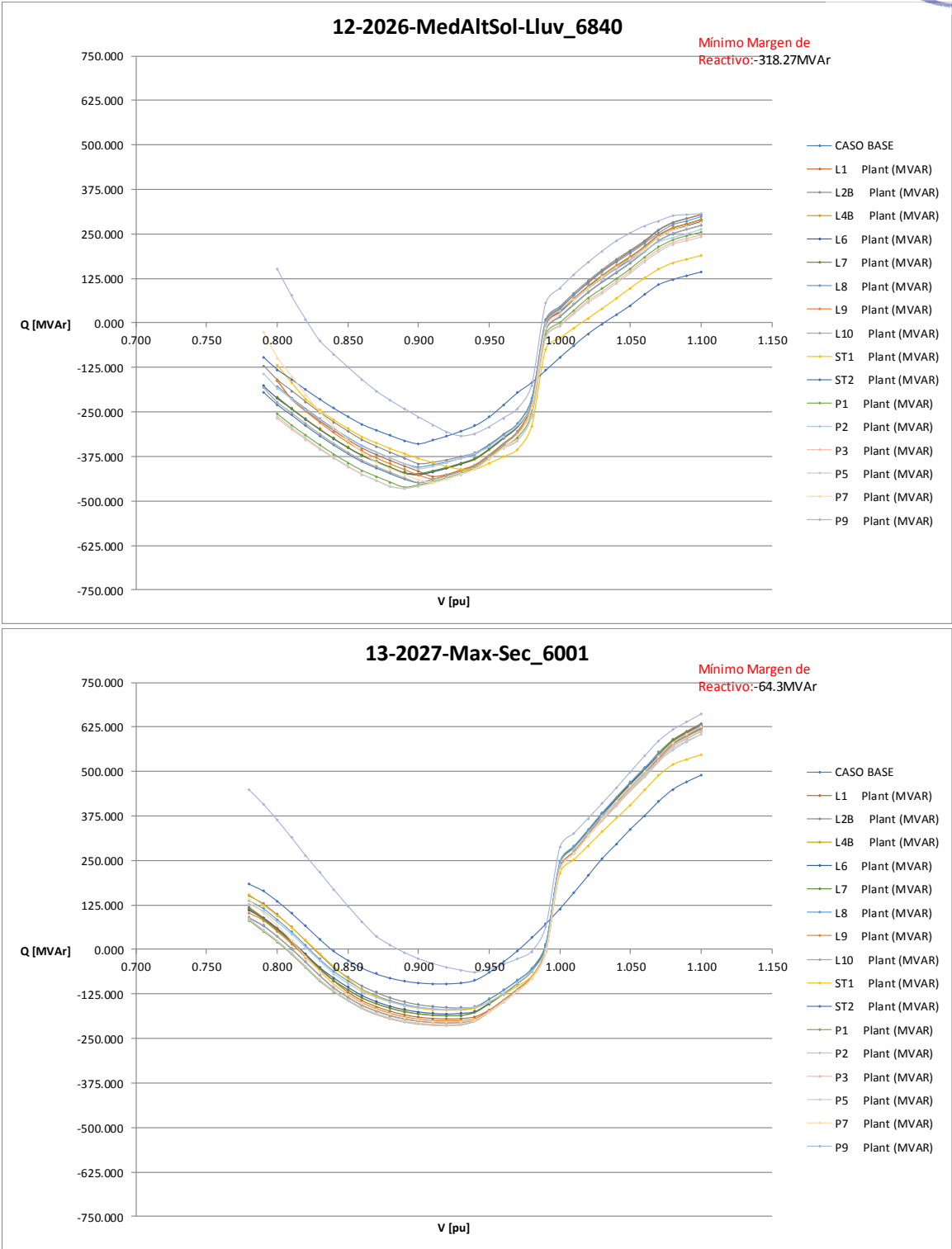
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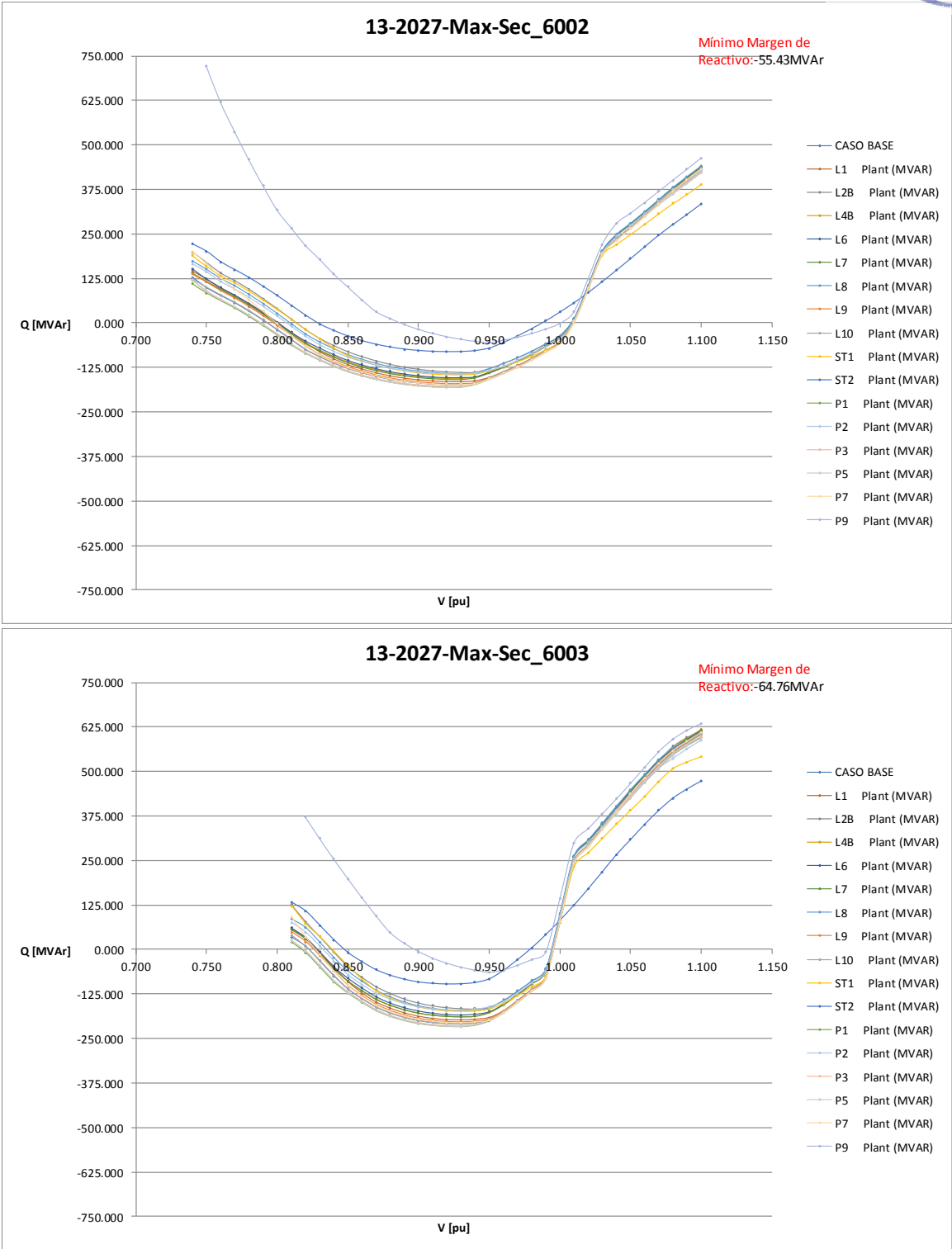
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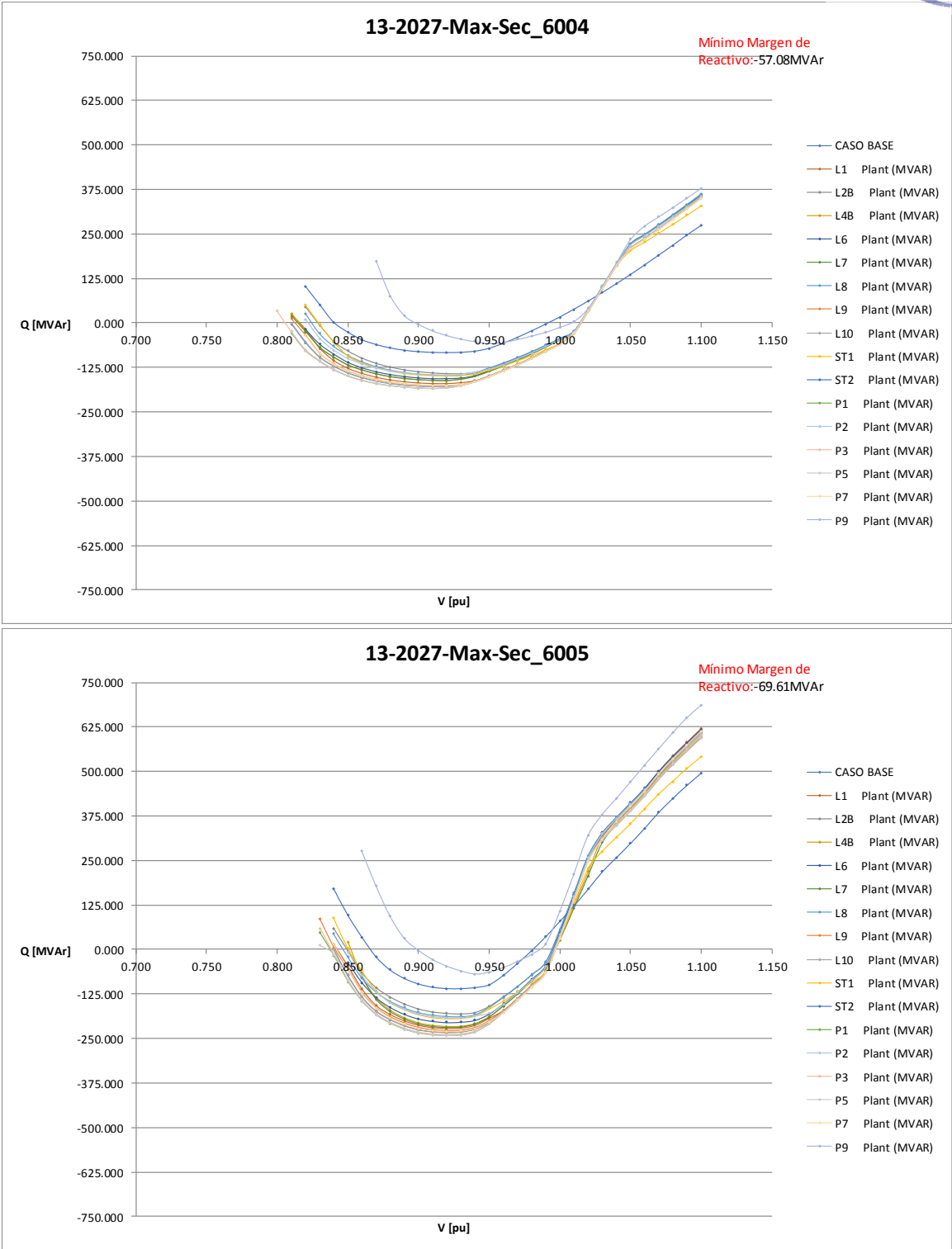
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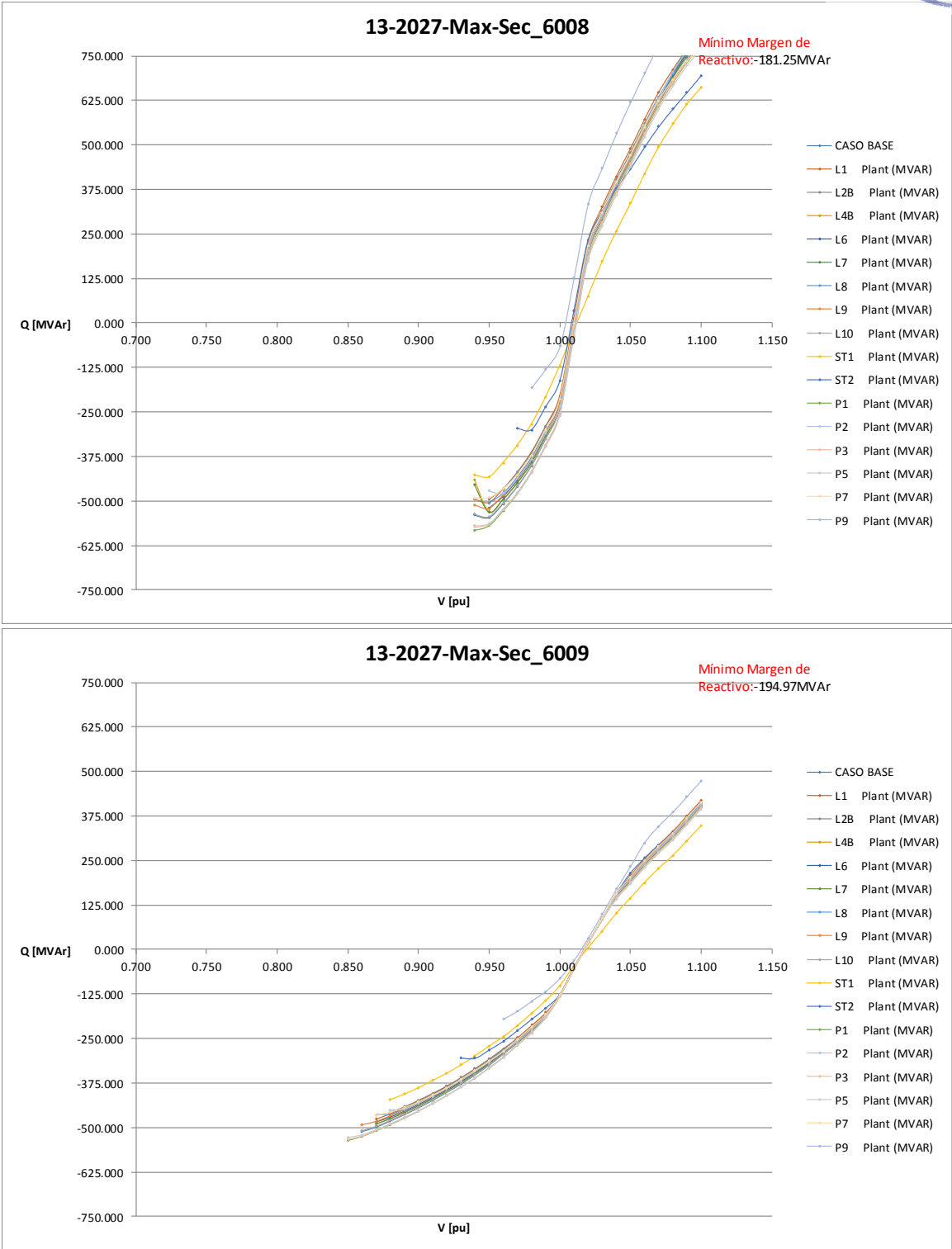
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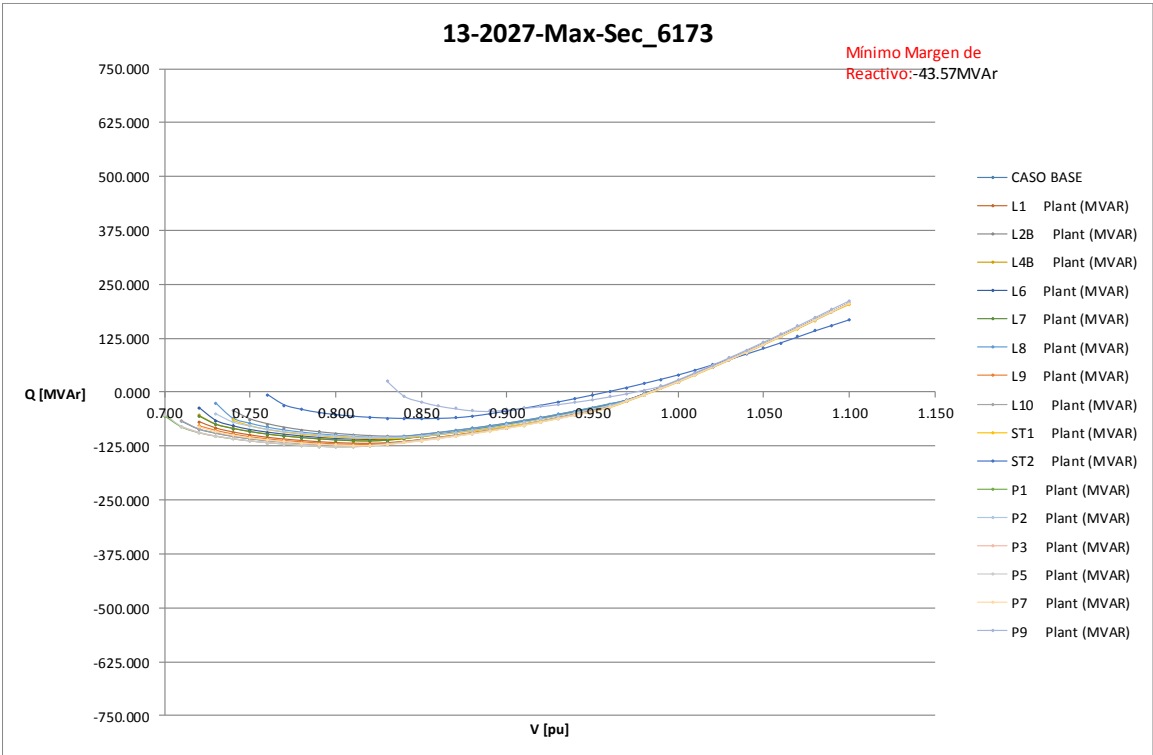
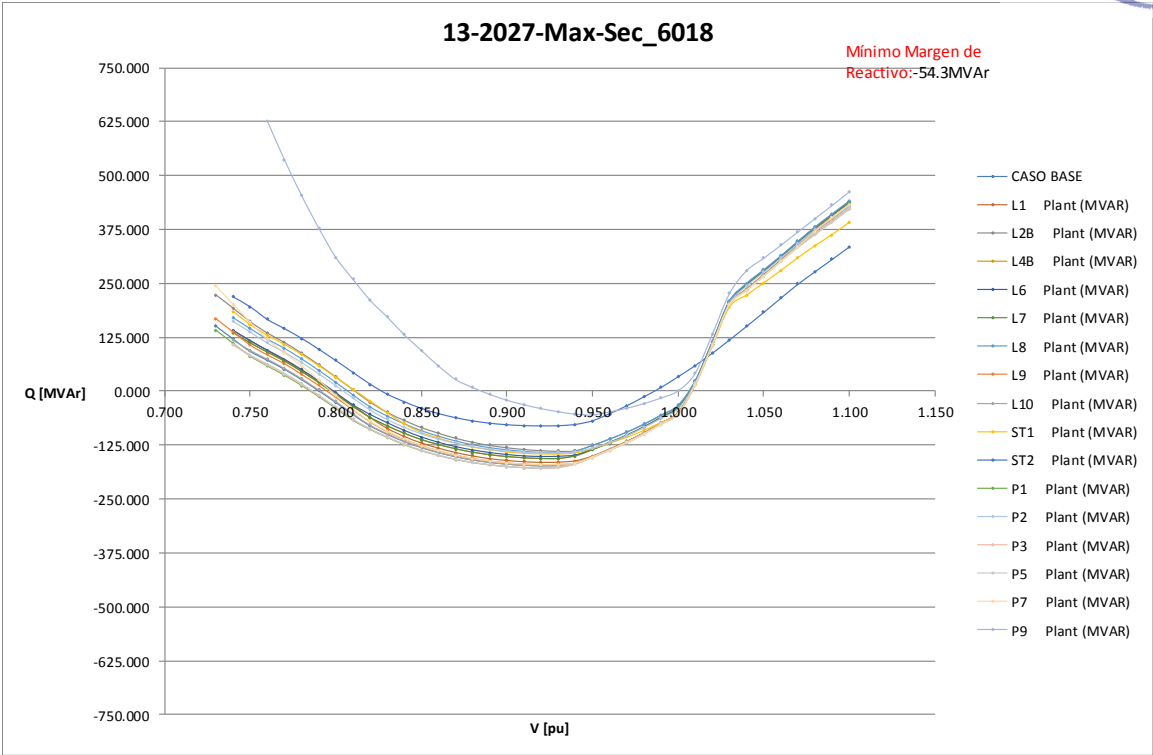
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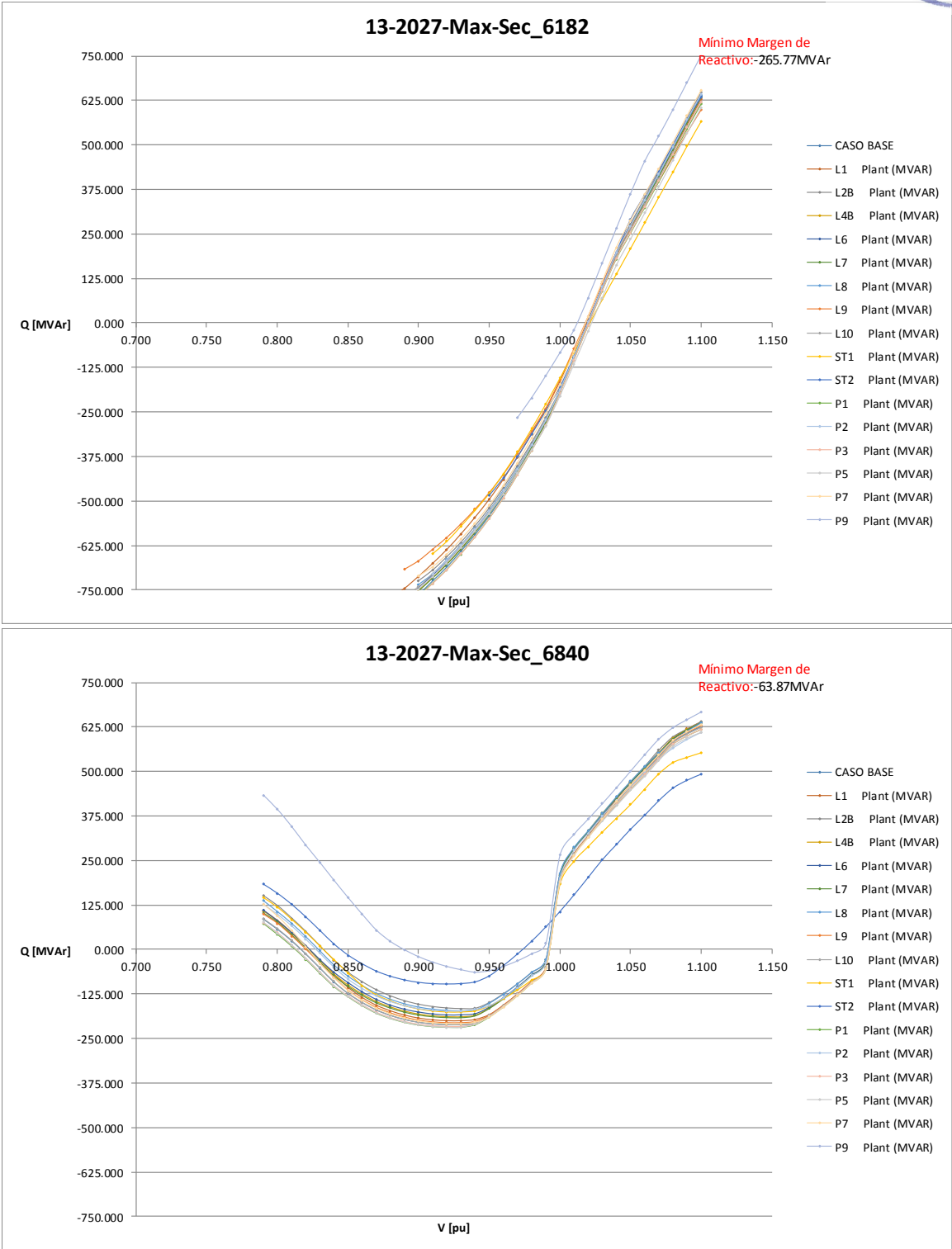
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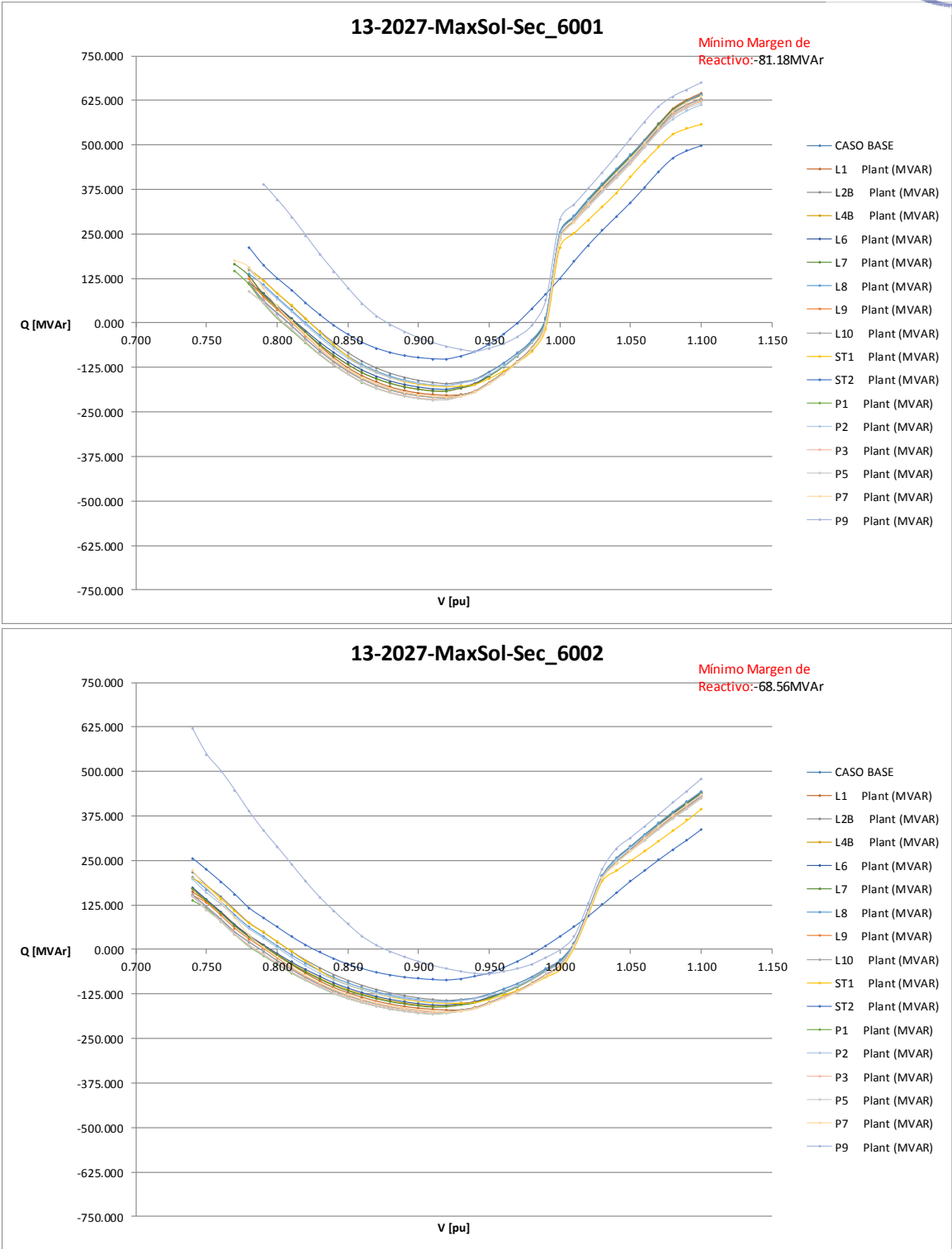
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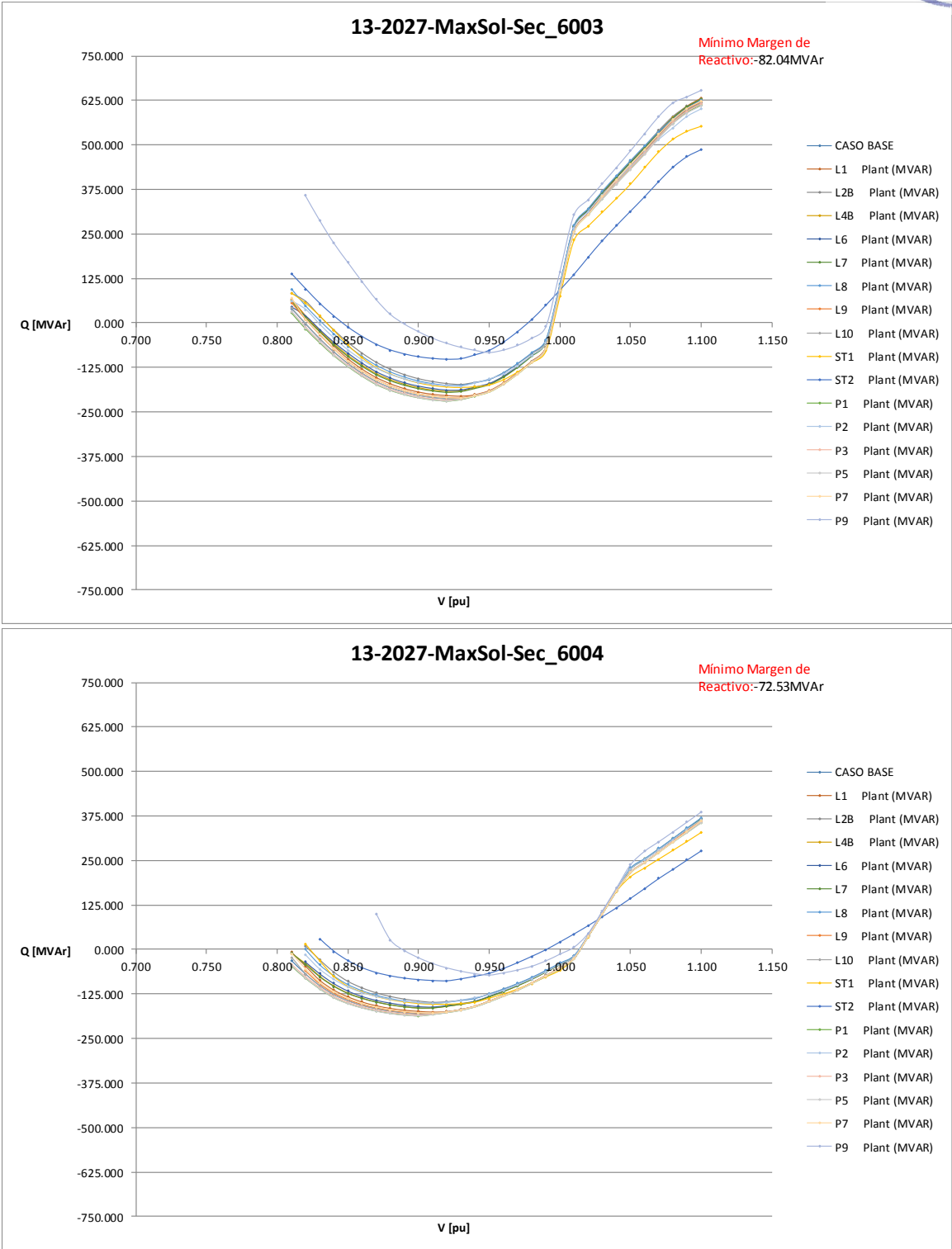
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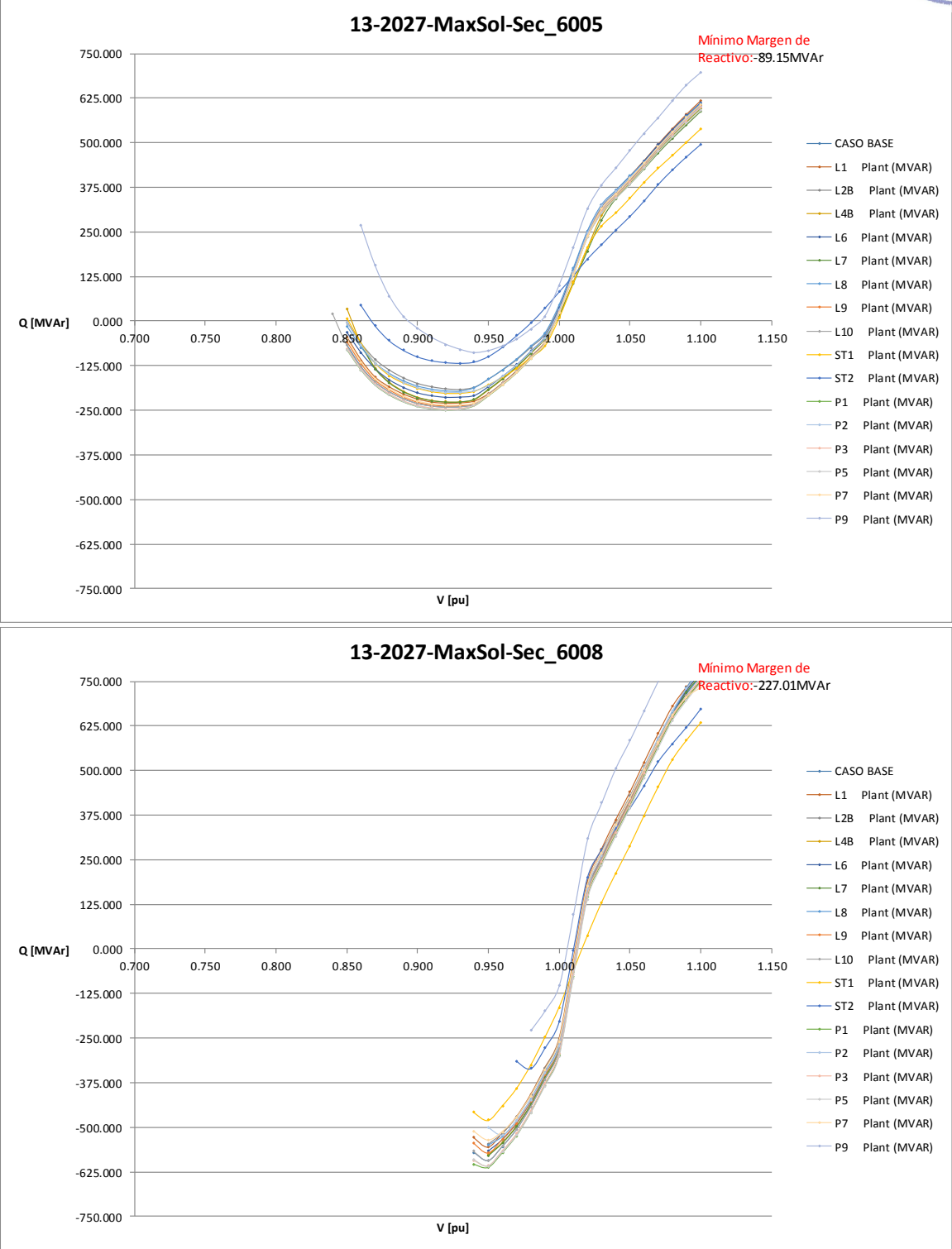
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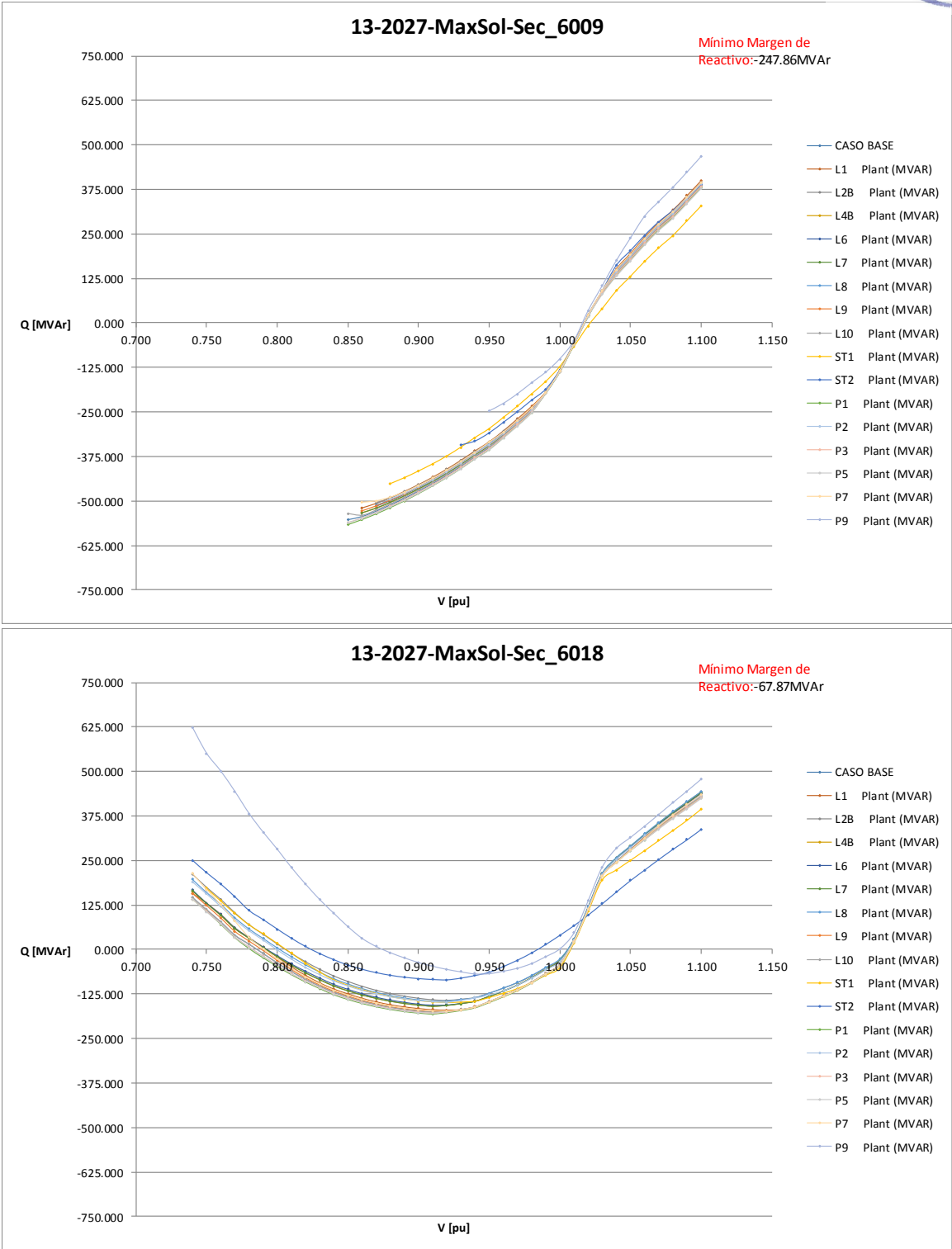
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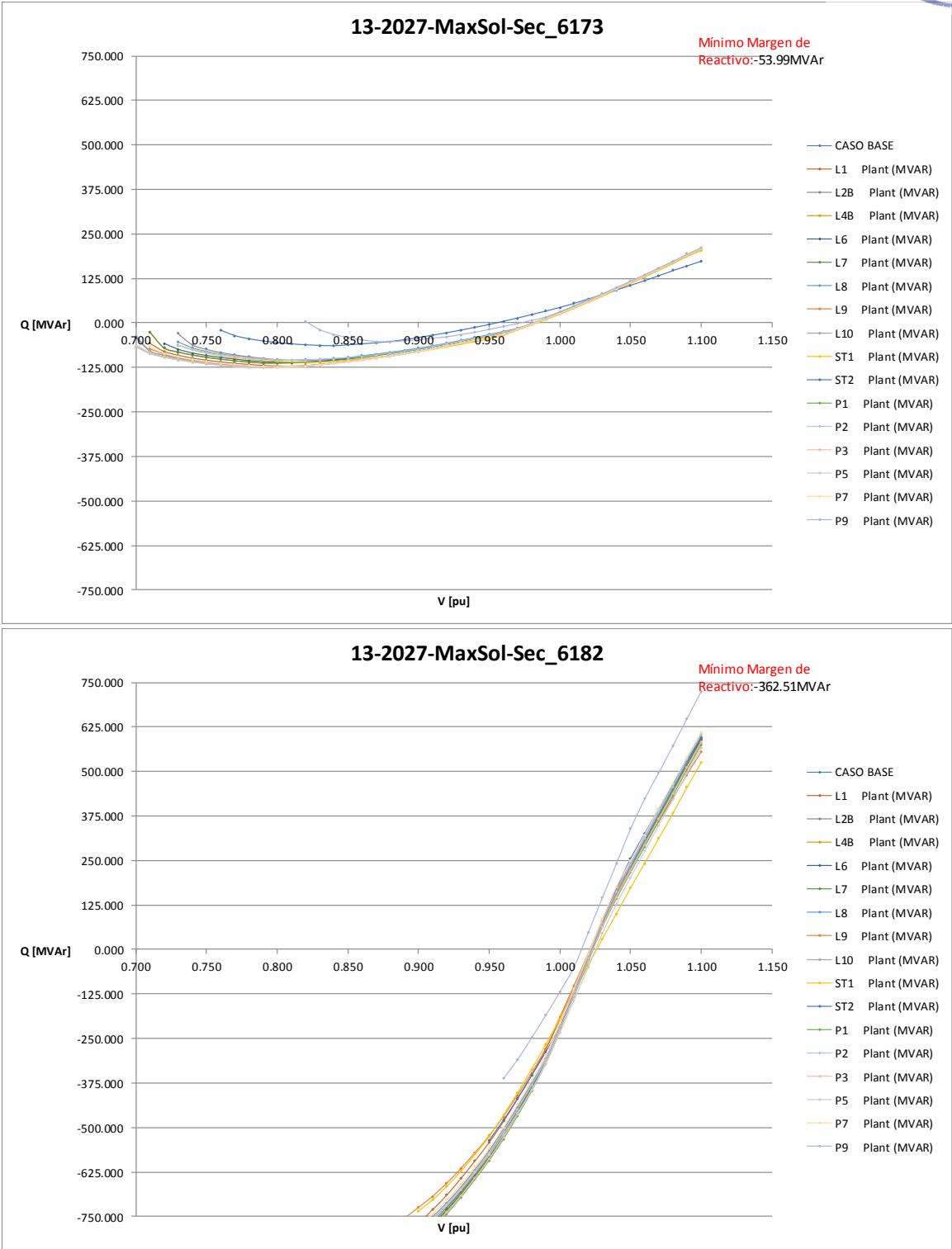
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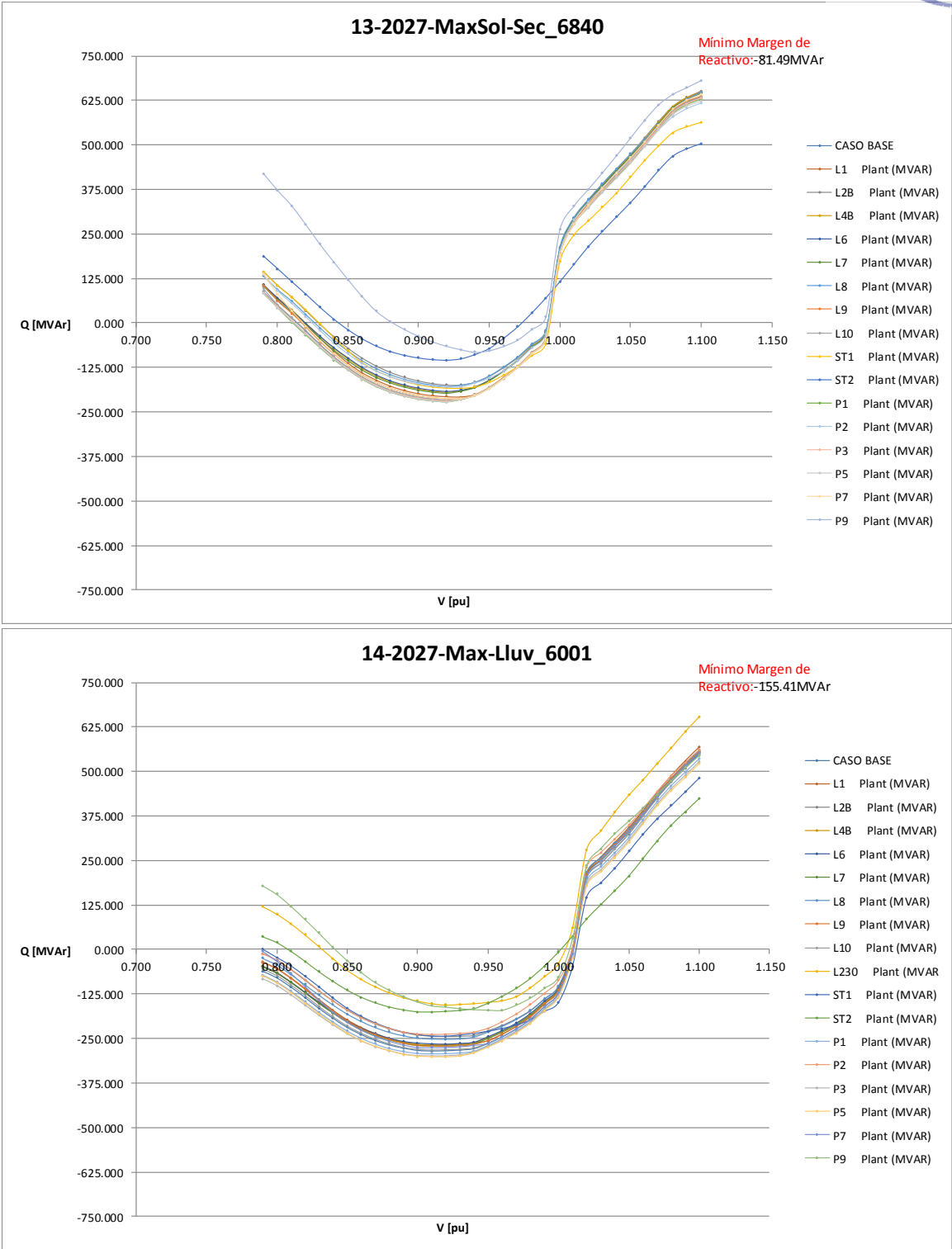


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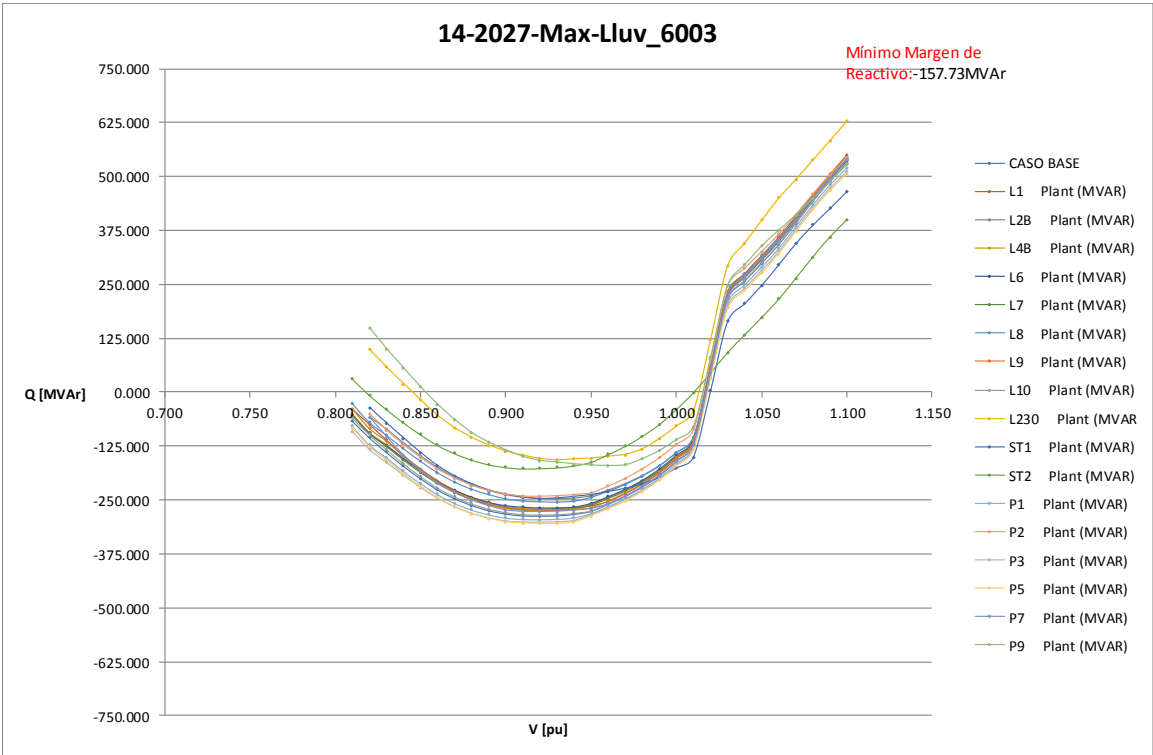
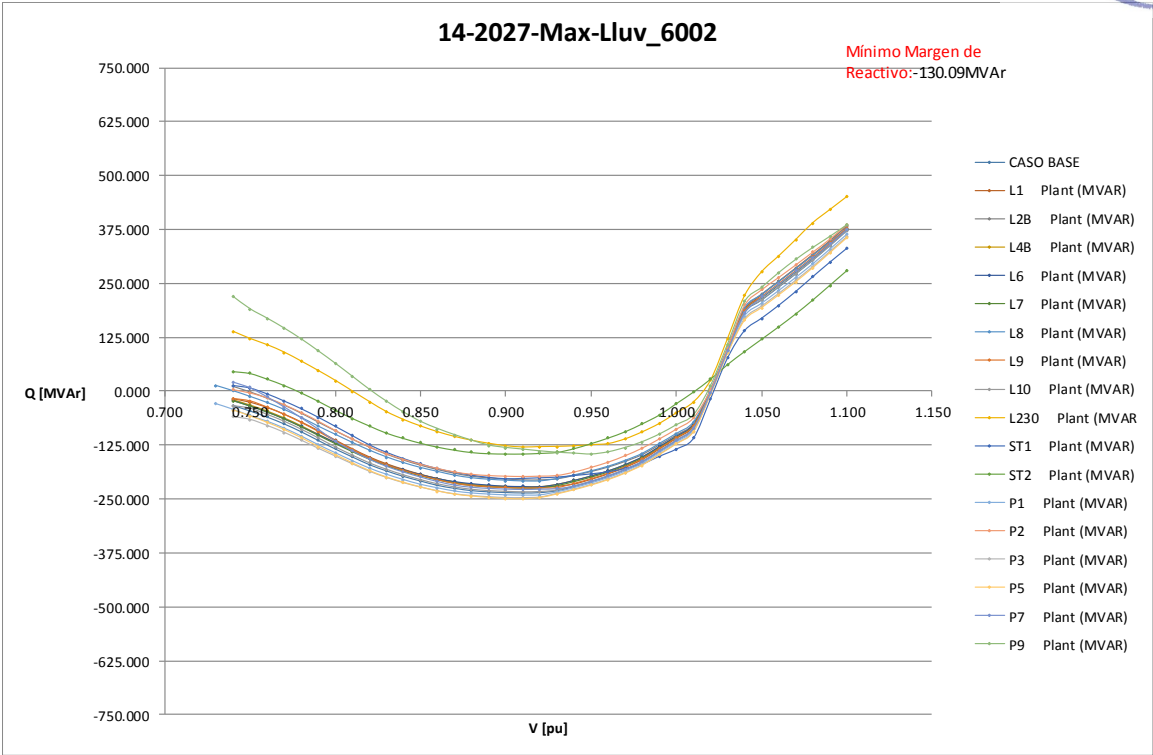


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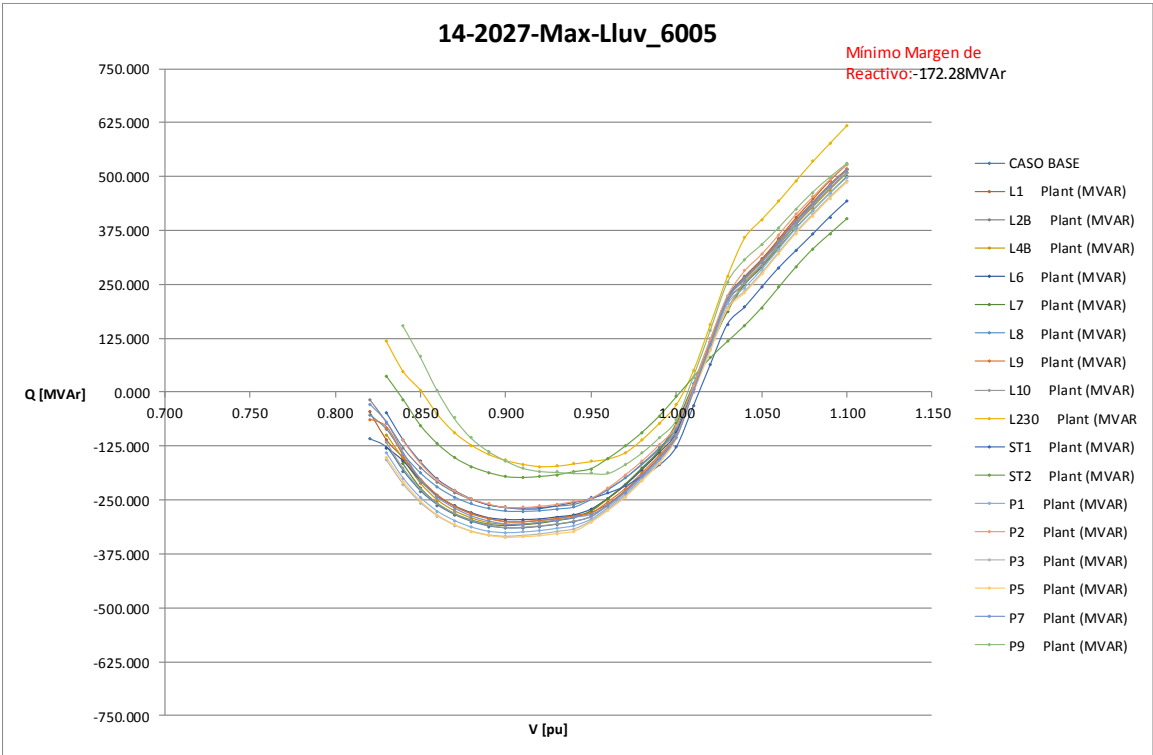
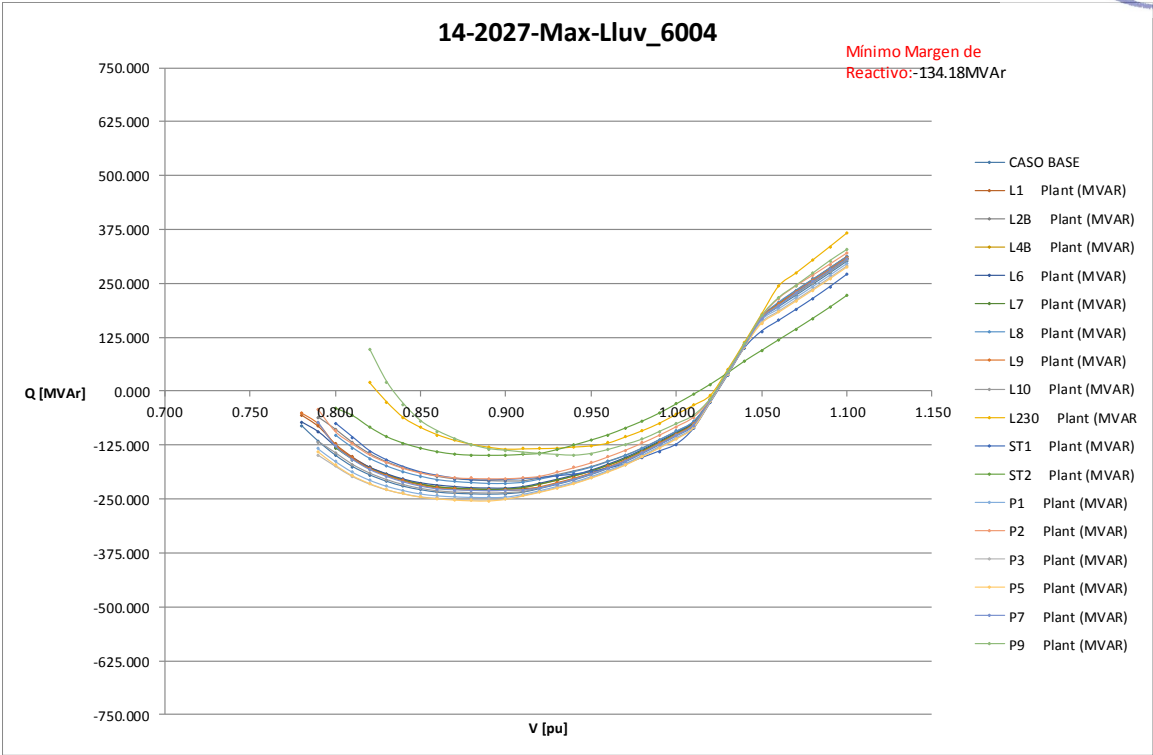




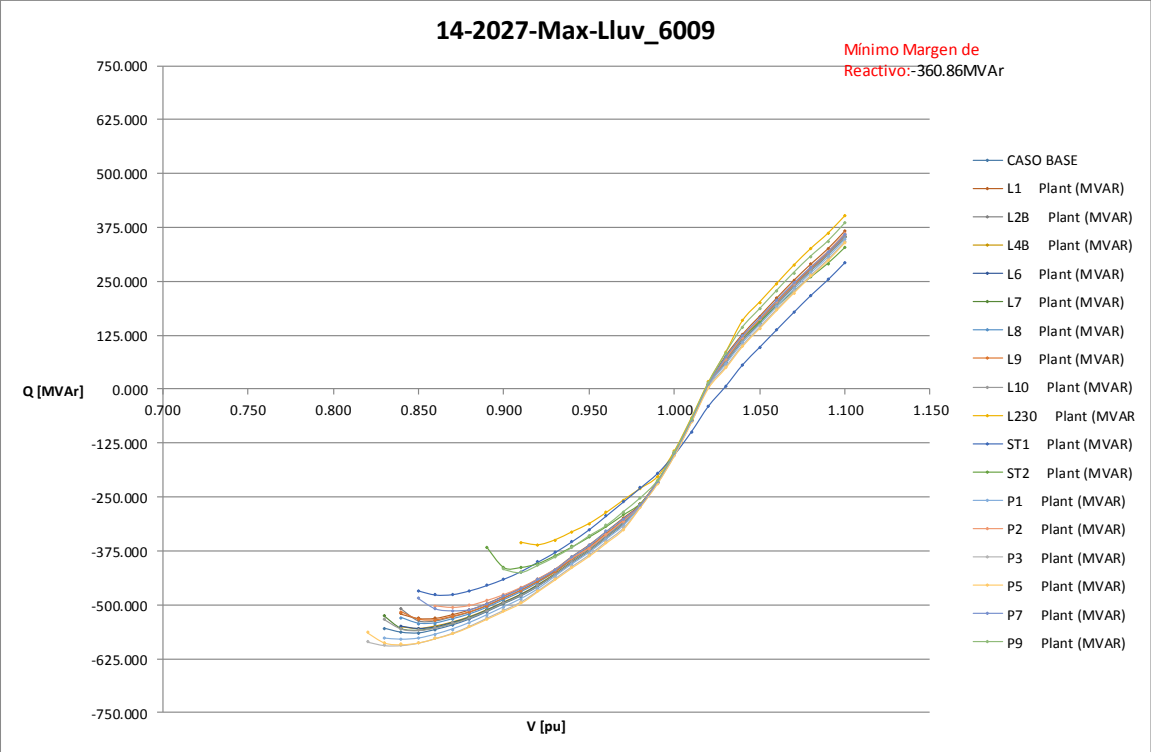
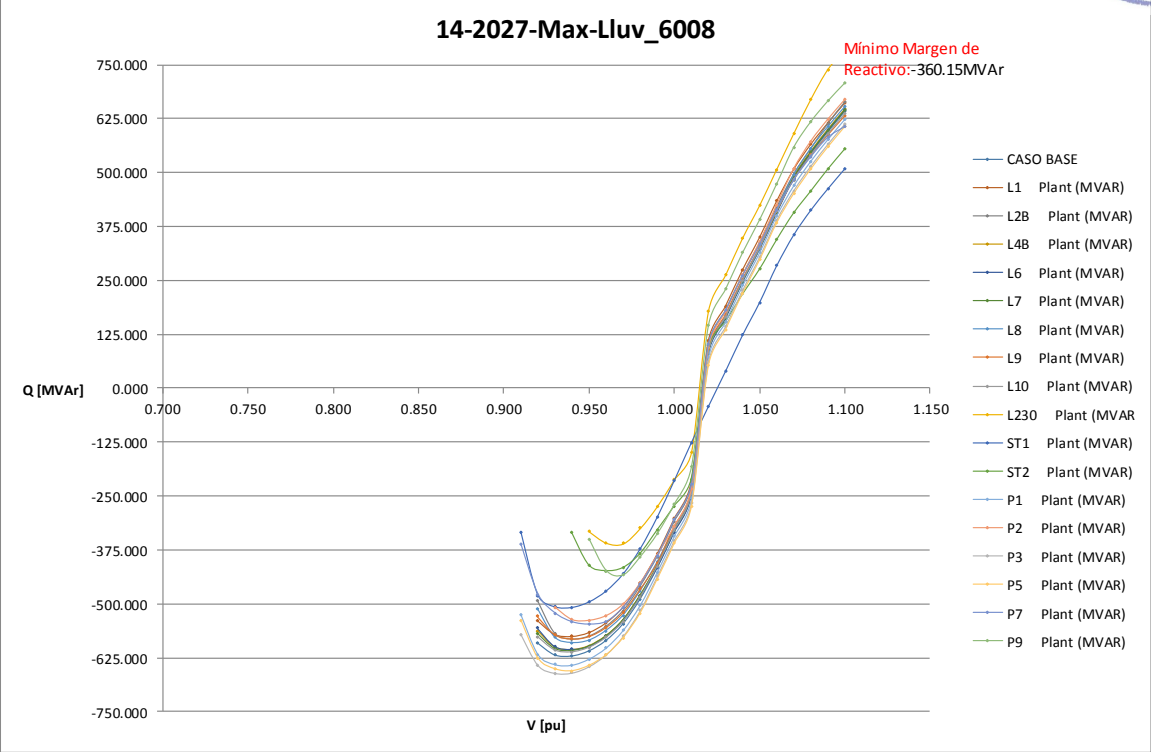
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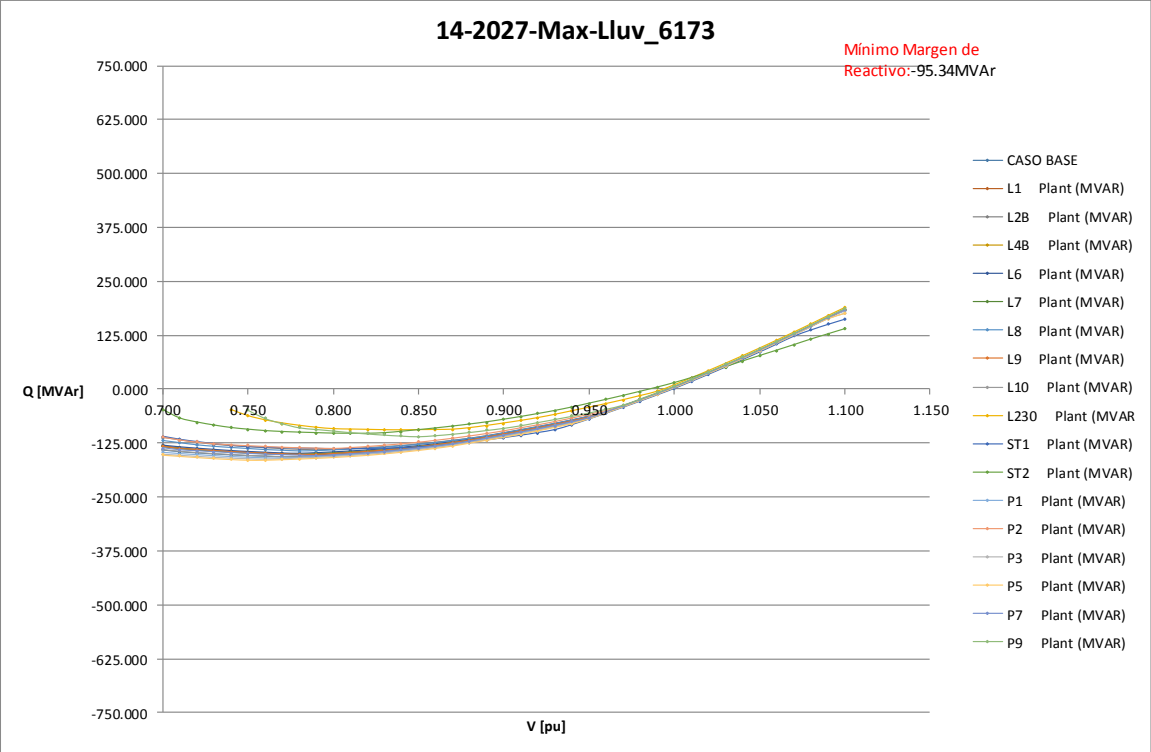
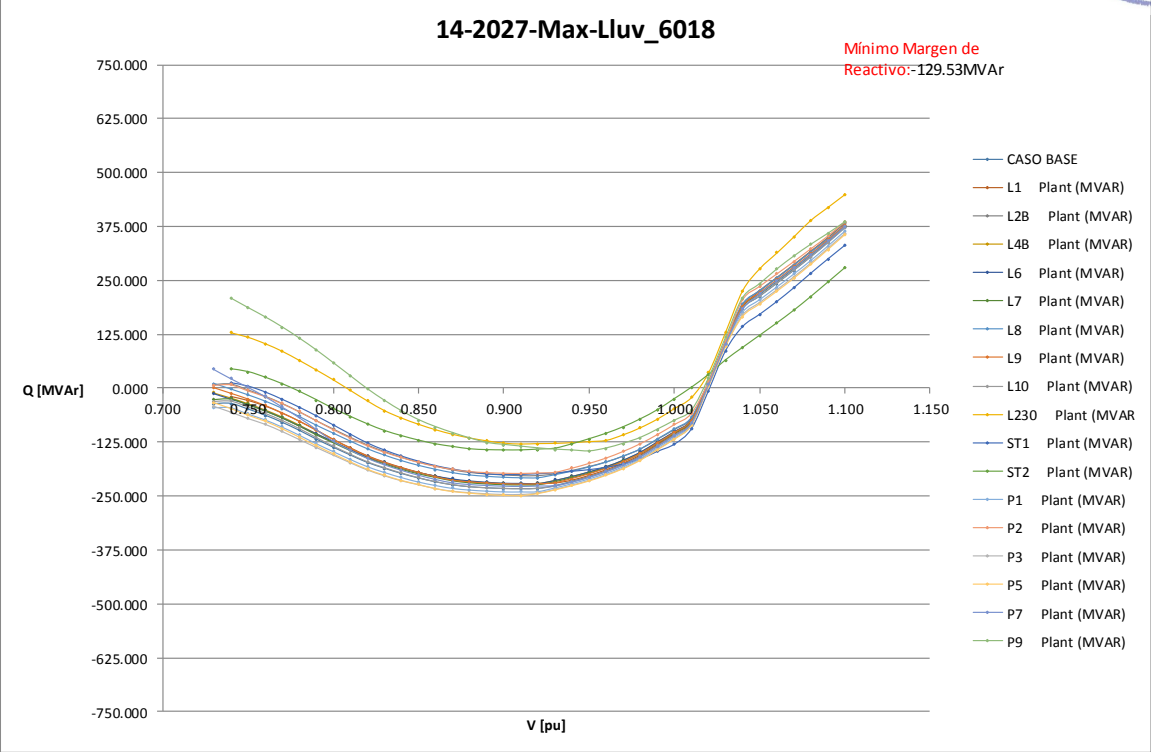
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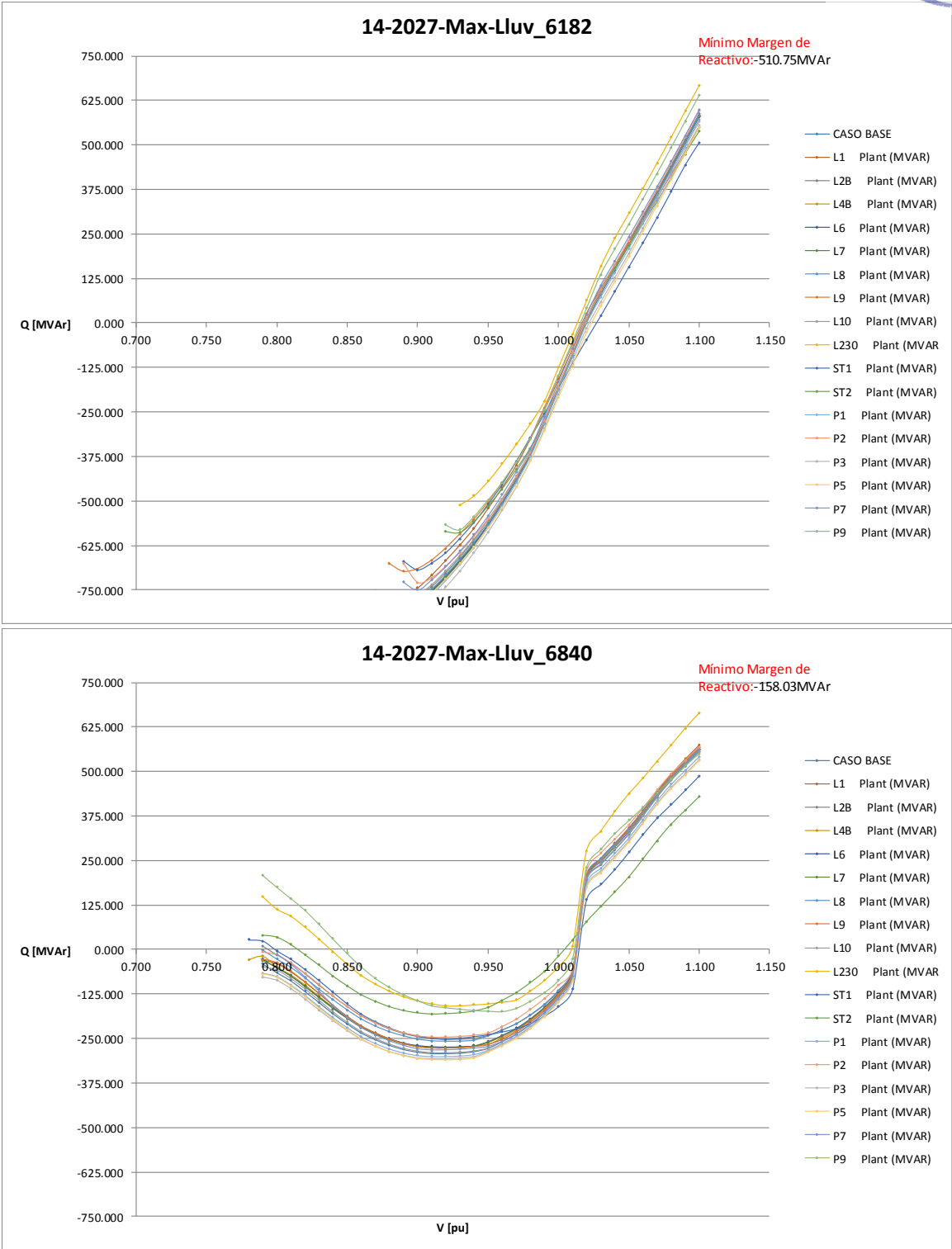
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Handwritten signature or mark.



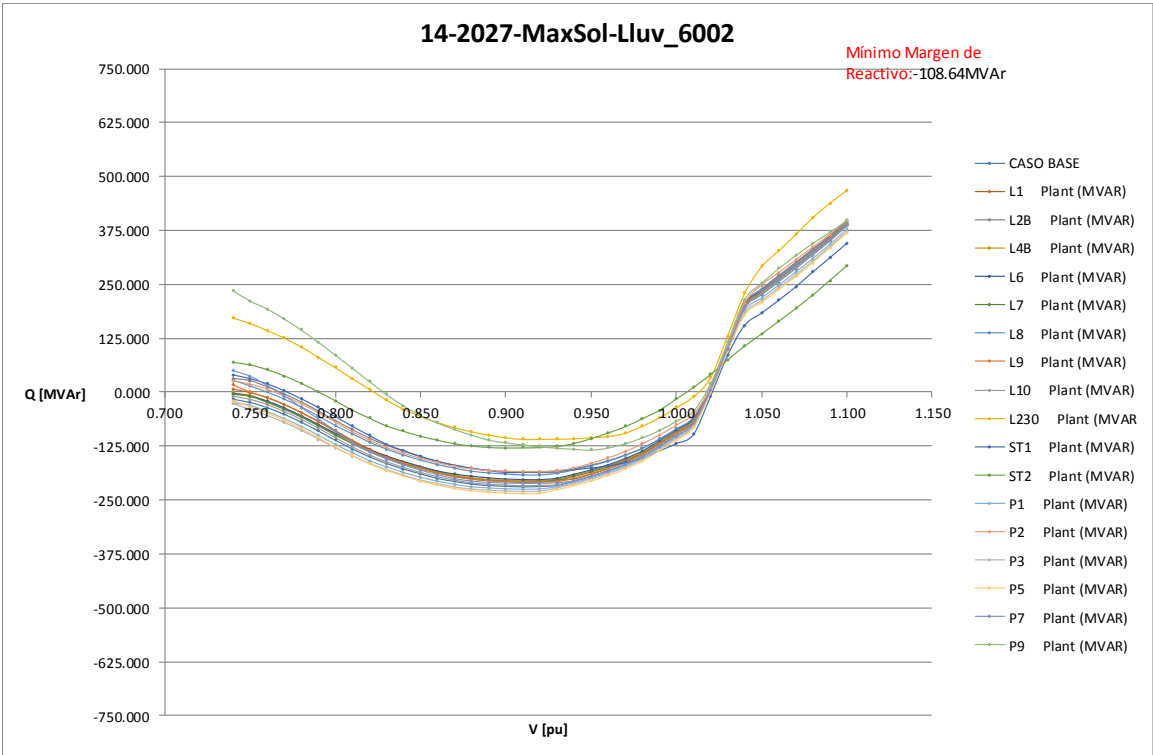
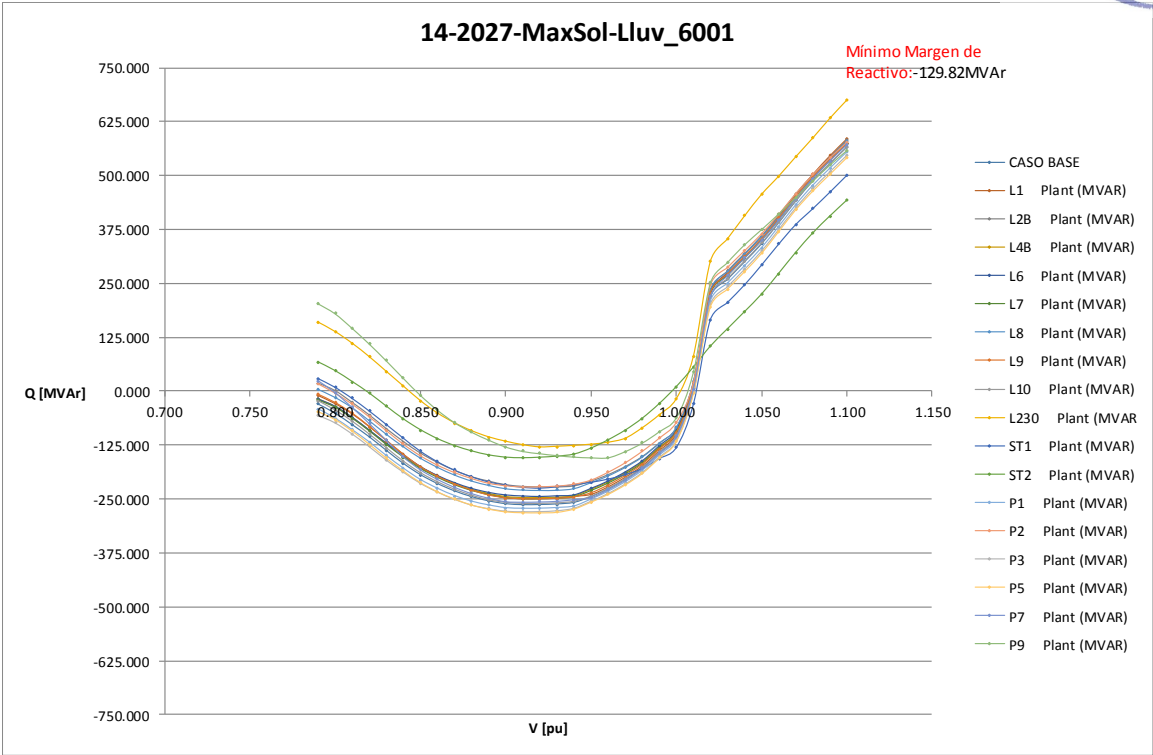
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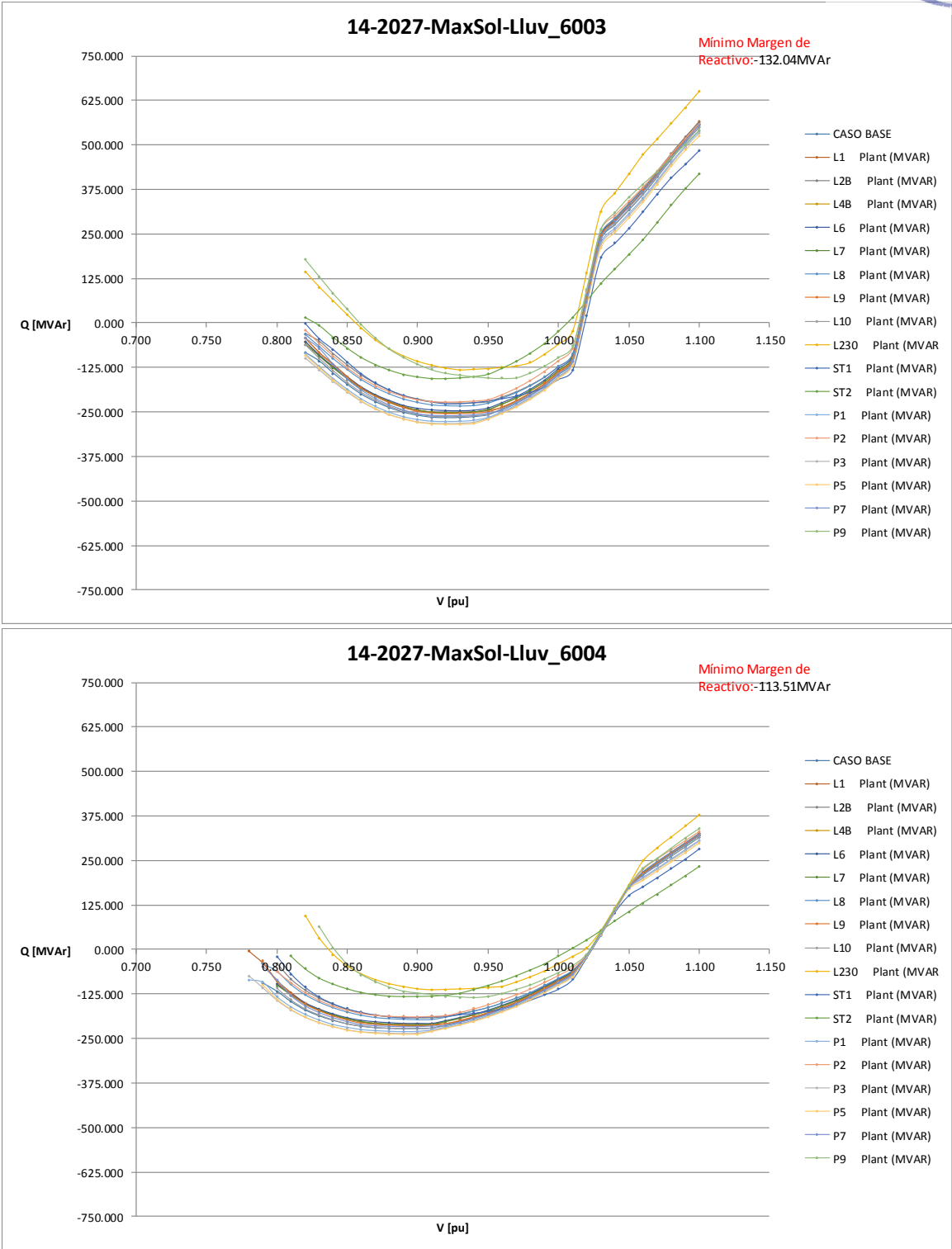
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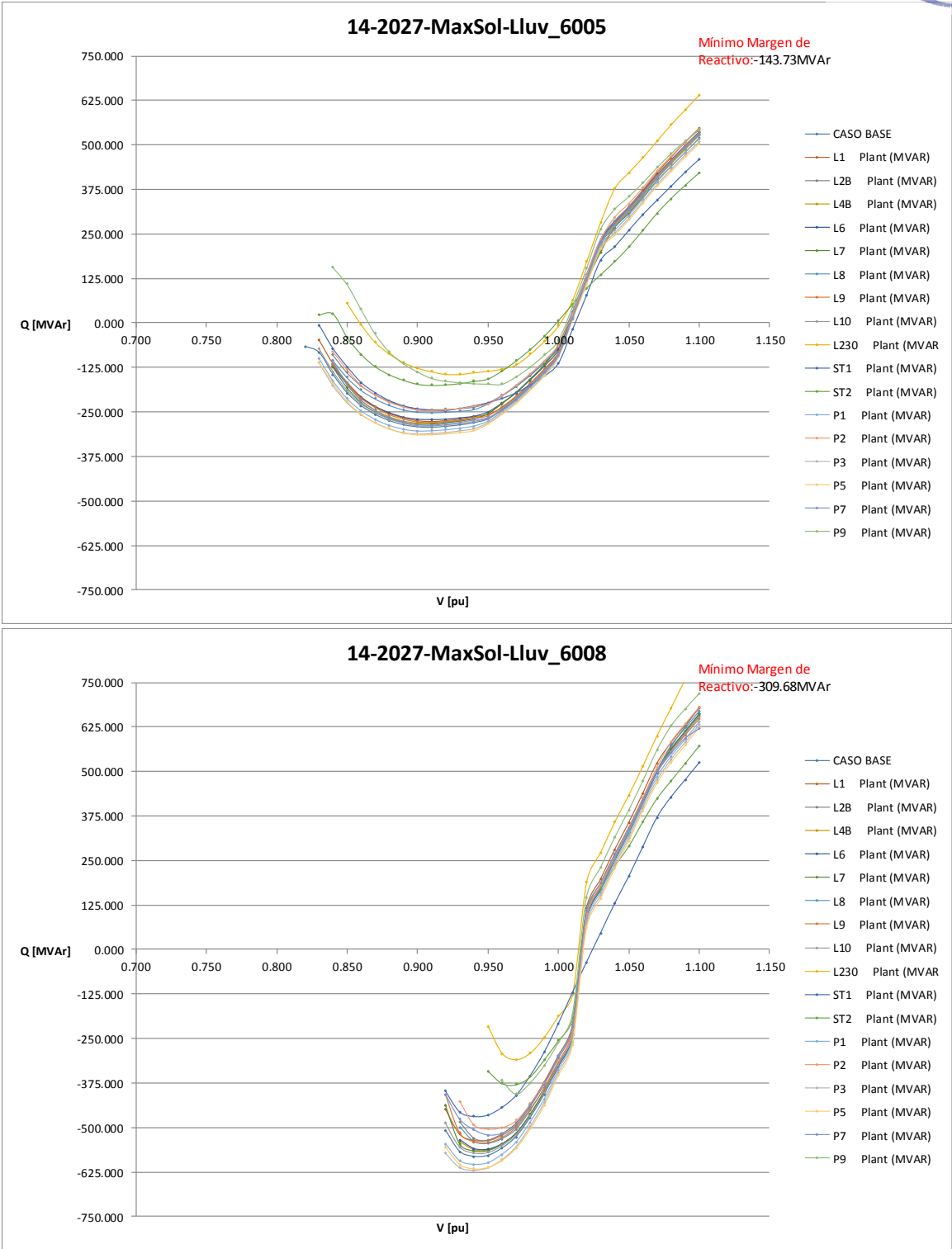
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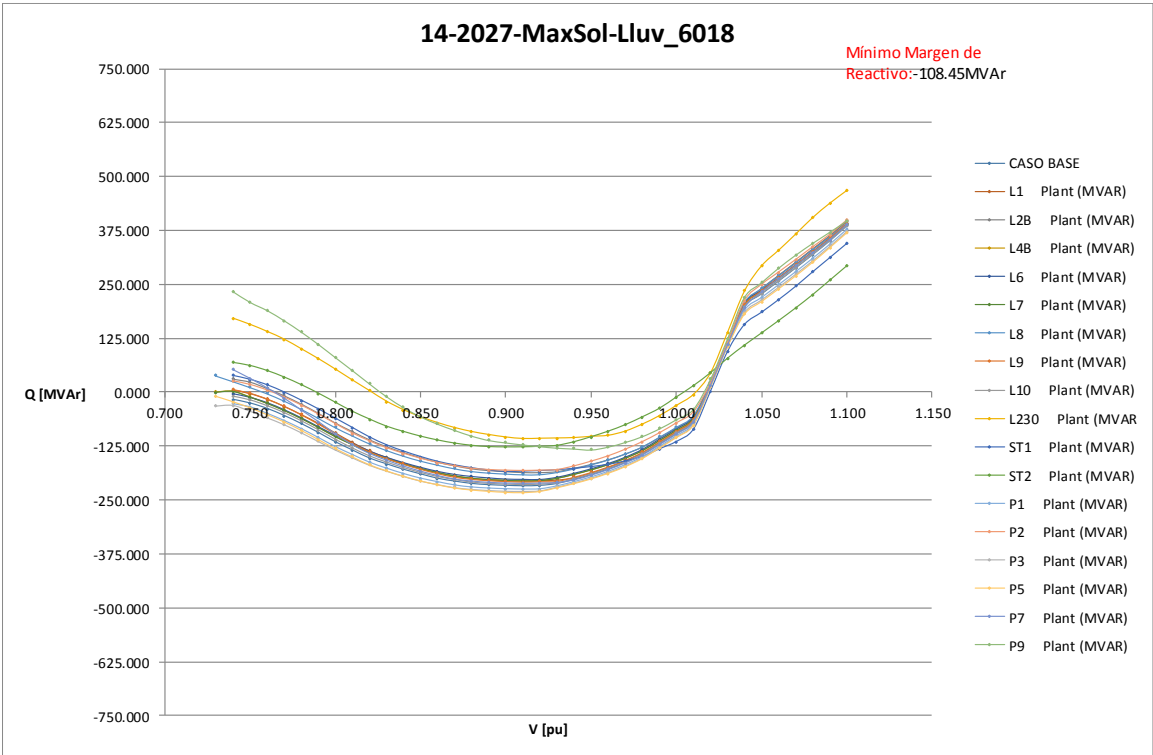
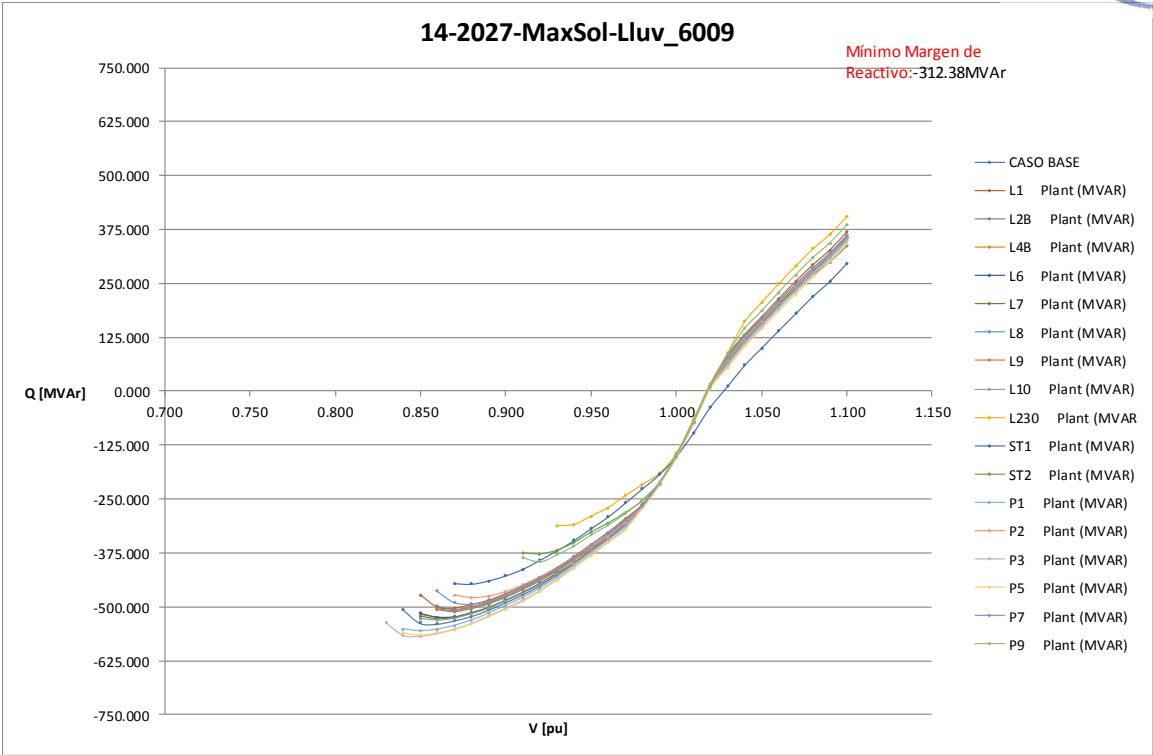


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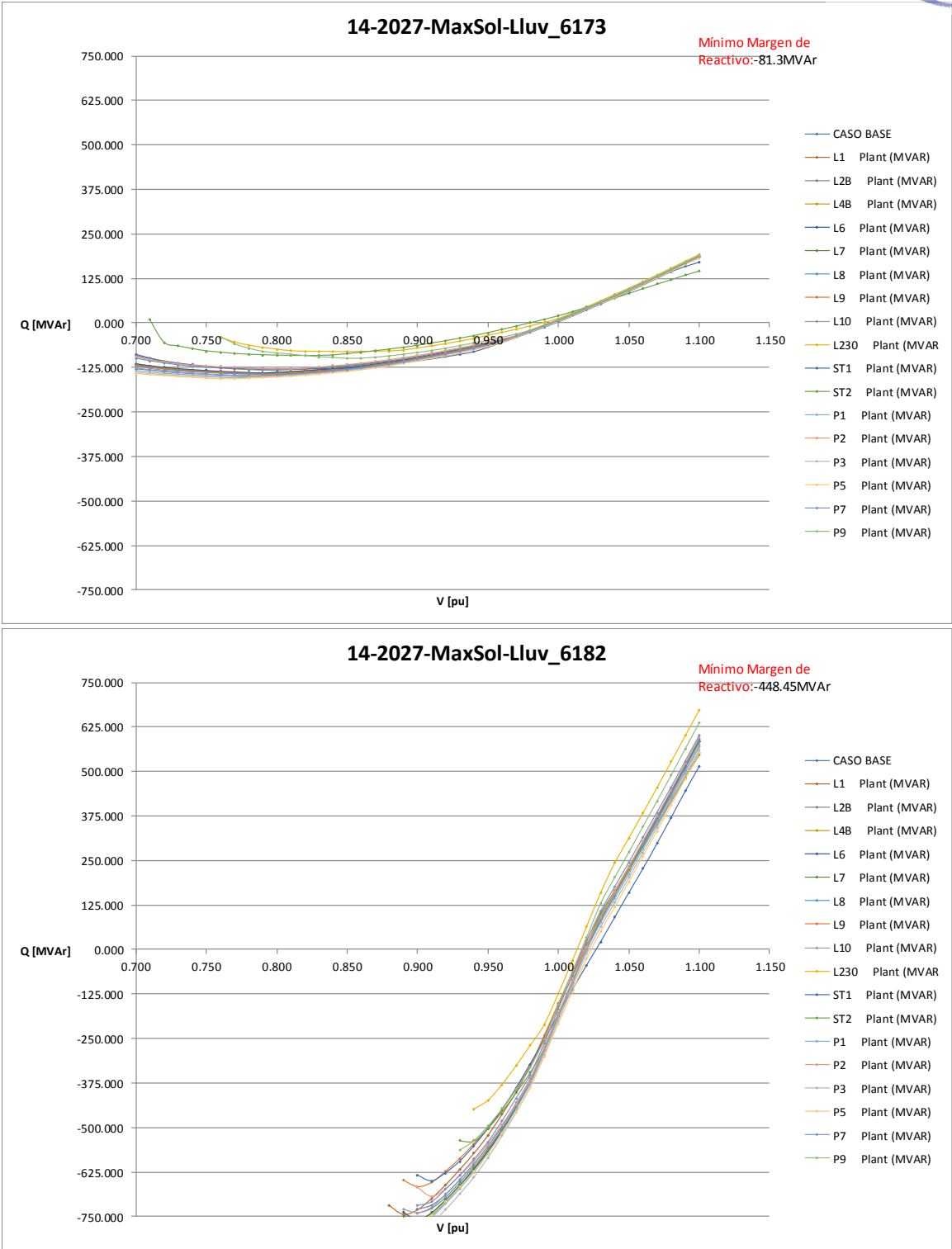




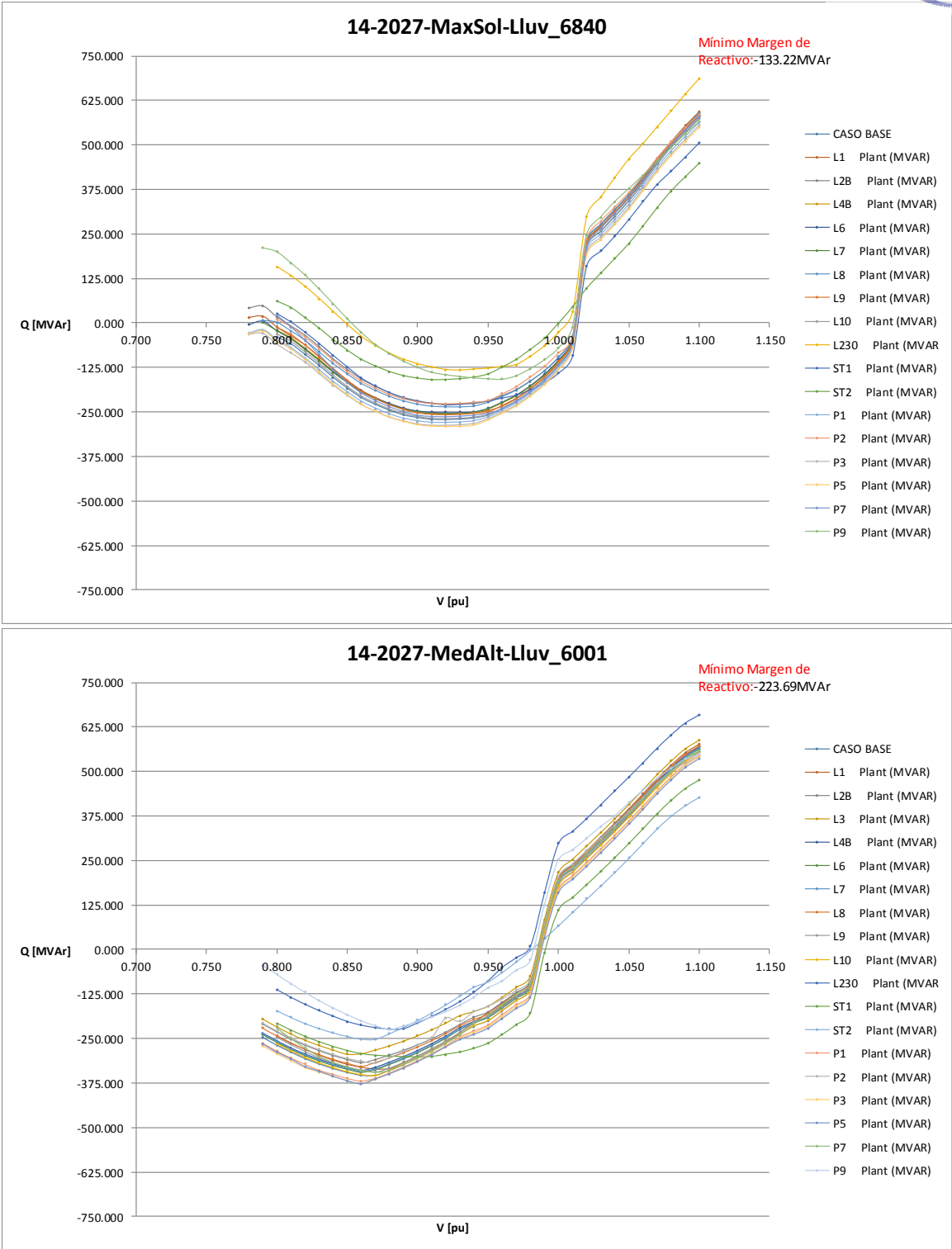
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