DAFTAR PUSTAKA

[1] Chakrabarti, S.K. 2005. *Handbook of Offshore Engineering Volume I*. Plainfield. Illionis, USA : Offshore Structure Analysis, Inc

[2] Liu. H.. Wang. C. & Zhao. Y.. 2013. *Analytical study of the failure mode and pullout capacity of. Ocean Systems Engineering*. Volume 3. pp. 079-095.

[3] Ma. K.-T.. Lou. Y.. Kwan. T. & Wu. Y.. 2019. *Mooring System Engineering for Offshore Structures. Chennai*. India: Brian Romer.

[4] Larsen K, 2014. *Lecture Note on Mooring and Station Keeping of Floating Structures (TMR4500 specialization project)*. NTNU. Trondheim.

[5] Stendal, L. C., 2015. *Analysis Methods for Mooring Systems with focus on Accidental Limit State*. Trondheim: Norwegian University of Science and Technology.

[6] Rahayuningsih, S. 2020. *Analisis Teknis Perbandingan Drag Embedded Anchor Dengan Suction Pile Untuk FPU Madura Strait.* Surabaya : ITS Press.

[7] Faltinsen, O.M.. 1990. *Sea Loads On Ships And Offshore Structures*. United Kingdom: Cambridge University Press.

[8] Arifin. 2012. *Prediksi Numerik Ketidakstabilan FPSO Tertambat pada Multi Buoy Akibat Kegagalan pada Mooring Line*. Surabaya: Laboratorium Hidrodinamika Indonesia- BPPT.

[9] Vryhof Anchors BV. 2010. *Anchor Manual 2010 The Guide to Anchoring*. Netherlands: Capelle a/d Yssel.

[10] Assidiq, F, M,. 2017. *Analisa Kelelahan Catenary Mooring System Pada Floating Production Unit Gendalo-Gehem PT. Chevrom Indonesia Company*. Makassar: Departemen Teknik Kelautan Universitas Hasanuddin.

[11] API RP 2 SK. 2005. *Recommended Practice for Design and Analysis of Station Keeping System for Floating Structures*. USA: America Petroleum Institute.

[12] Indiyono, P. 2004 , *Hidrodinamika Bangunan Lepas Pantai*. Surabaya: SIC.

[13] Baeda, A, Y.2005, *Panduam Pengerjaan Tugas Rekayasa Kelautan Perencanaan Bangunan Lepas Pantai Tipe Fixed Jacket Platform*. Makassar: Universitas Hasanuddin.

[14] Hewgley, Charles W & Yakimenko, Oleg A , *Precision Guided Airdrop for Vertical Replenishment of Naval Vessels*. Seattle: Naval Postgradute School, Monterey.

[15] Bhattacharyya, R. 1978. Dynamic of Marine Vehicles. New York: John Wiley & Sons Inc.

[16] Paroka D, Asri, S., Muhammad, A.H. 2016. *Prediction of Ship Turning Maneuvering In Constant Wind and Regular Waves*. International Journal of Technology. Universitas Indonesia.

[17] Djatmiko, E.B. 2012. *Perilaku dan Operabilitas Bangunan Laut Di Atas Gelombang Acak*. Surabaya: ITS Press.

[18] Sun, J, W., Wang, S. Q, 2010. Study on *Motion Performance of Deepwater Spar Platform under Different Mooring Methods*. Period of Ocean University of China.

[19] DNV-OS-E301. 2004. *Positioning Mooring*. Norway: Det Norske Veritas.

[20] Ramialis A, F .2016. *Analisa Kekuatan Anchor Chain Pada Single Point Mooring FSO Arco Ardjuna.* Surabaya: ITS Press.

[21] Chakrabarti, S.K . 1987. *Hydrodynamics of Offshore Structures.* USA: Computational Mechanics Publications Southampton.

[22] Rusmiati. 2020 . *Rekonstruksi Gelombang Acak dengan Spektrum JONSWAP Menggunakan WAFO.* Makassar : Departemen Geofisika Universitas Hasanuddin.

[23] DNV RP C205. 2010. "*Environmental Conditions and Environmental Loads*", Det Norske Veritas, Norway.

[24] ABS. 2004. "*Guide for Building and Classing Floating Production Installations",* USA: American Bureau of Shipping. Shipping ABS Plaza.

[25] Anonimus. 2015. "*Anchor Chain and Cables, Type of Modifications* http://www.redanchor.ru/site.aspx?IID=3595704&SECTIONID=3595702, diakses pada 13 Juni 2021.

[26] ABS. 2001 . "*Safehull-Dynamic Loading Approach' for Floating Production, Storage and Offloading (FPSO) Installations* " , USA: American Bureau of Shipping. ABS Plaza**.**

[27] DNV OS-E302. 2008. "*Offshore Mooring Chain".* Det Norske Veritas: Norway.

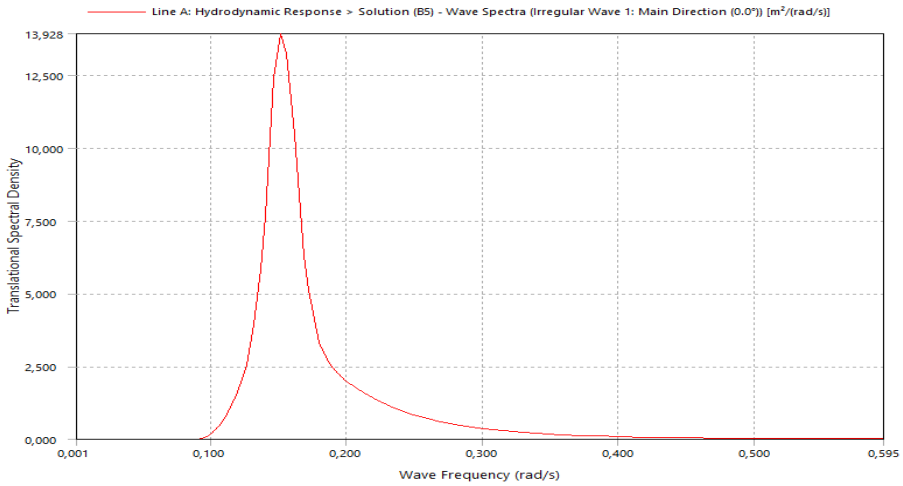
[28] Çapar, Yasin. 2020. "*Engineering Stress Strain vs True Stress Strain*", https://yasincapar.com/engineering-stress-strain-vs-true-stress-strain/, diakses pada 15 September 2021.

[29] Journée, J,M,J & Massie, W, W. 2001 . "Offshore Hydromechanics". Delft University: Netherland.

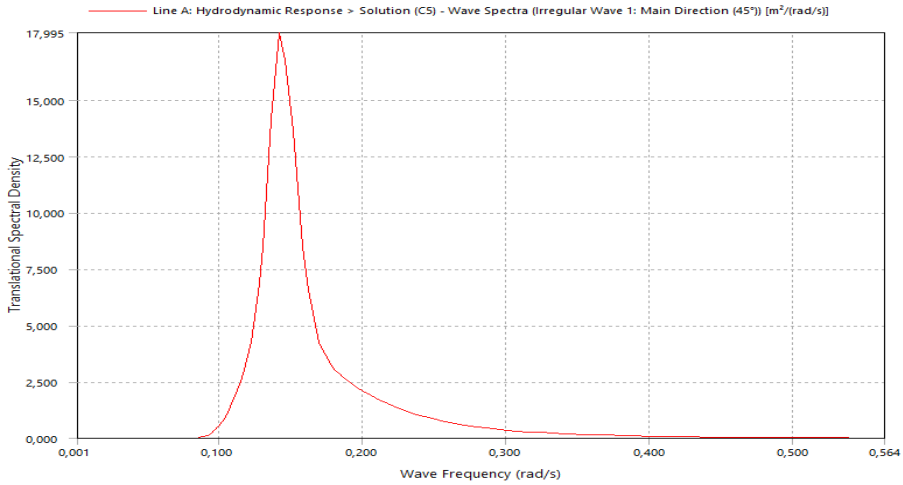
LAMPIRAN

Lampiran 1 Spektrum dan Grafik *Tension* Variasi *Mooring Line* Sudut 5°

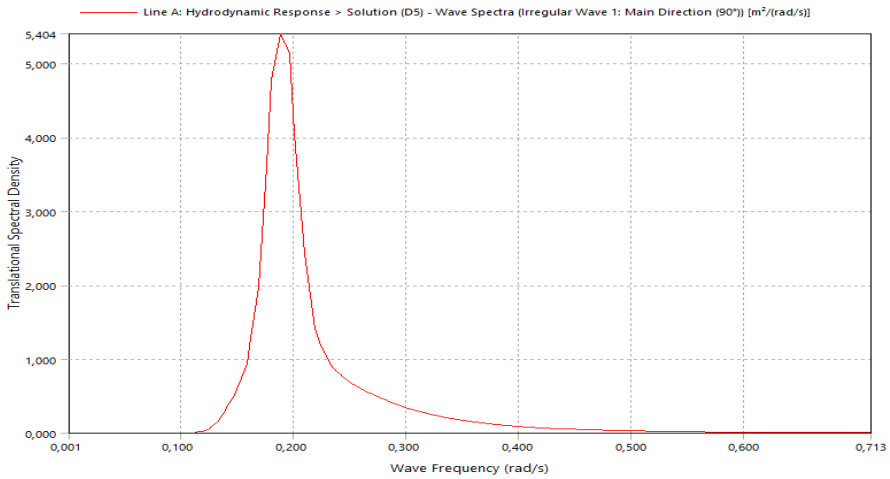
- *Spectral Density Wave Heading 0°*



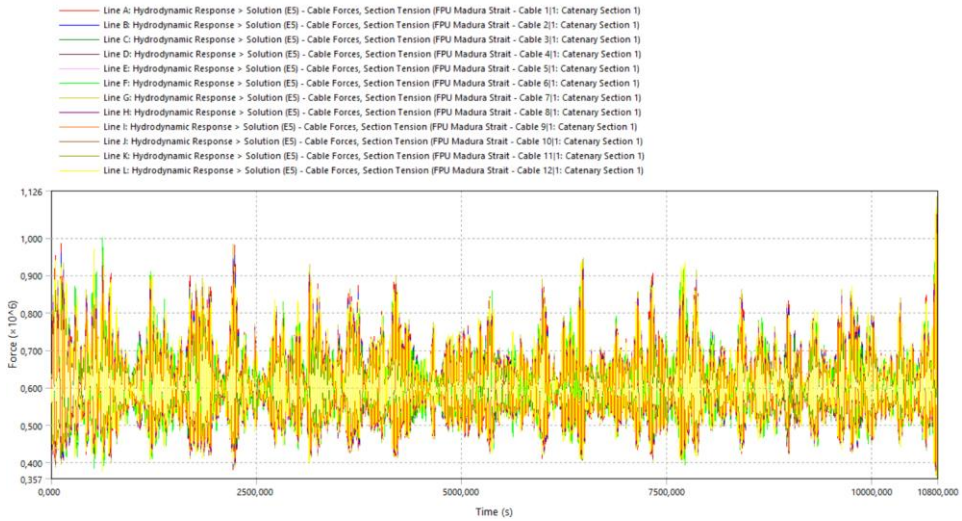
- *Spectral Density Wave Heading 45°*



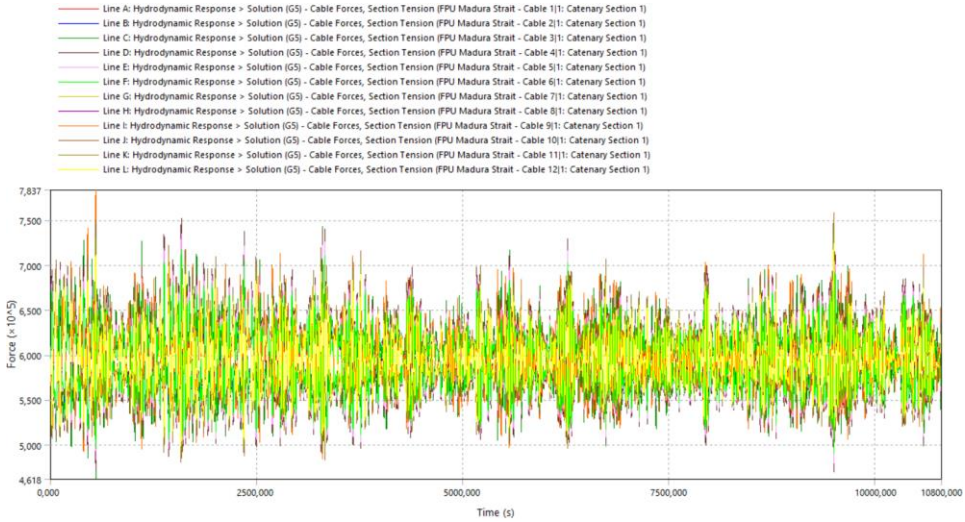
- *Spectral Density Wave Heading 90°*



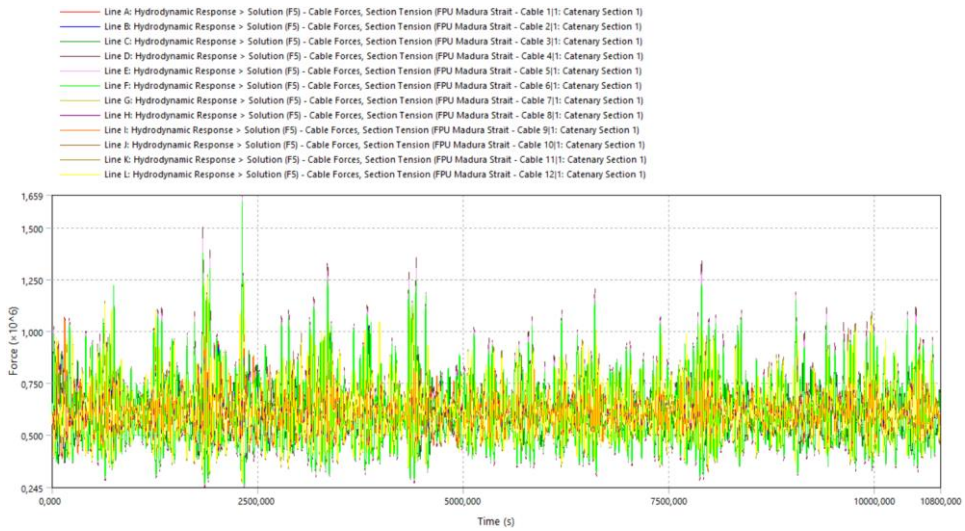
- *Tension Graph with ULS Condition and Wave Heading 0°*



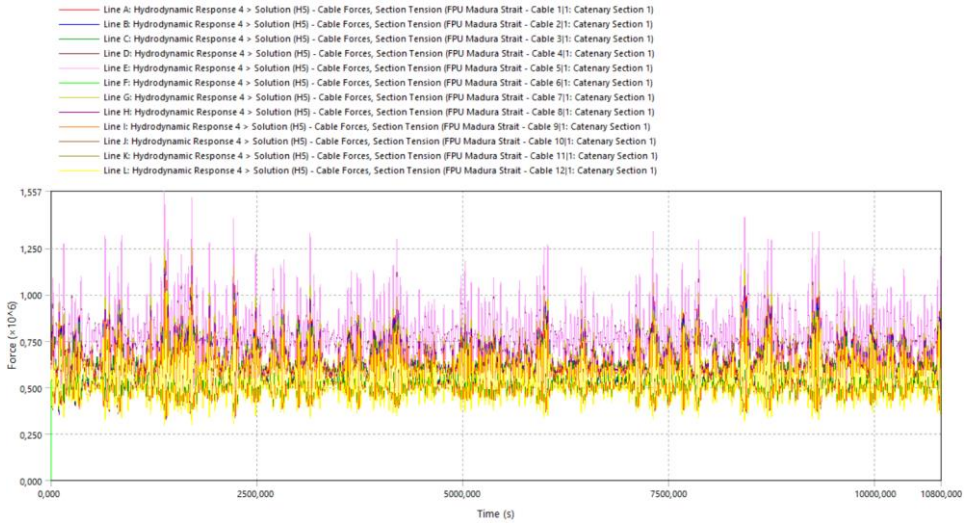
- *Tension Graph with ULS Condition and Wave Heading 45°*



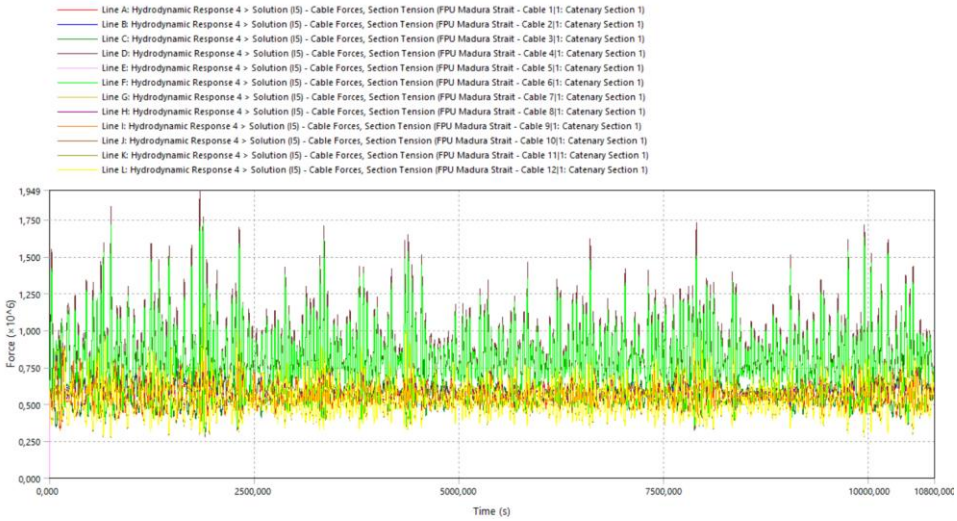
- *Tension Graph with ULS Condition and Wave Heading 90°*



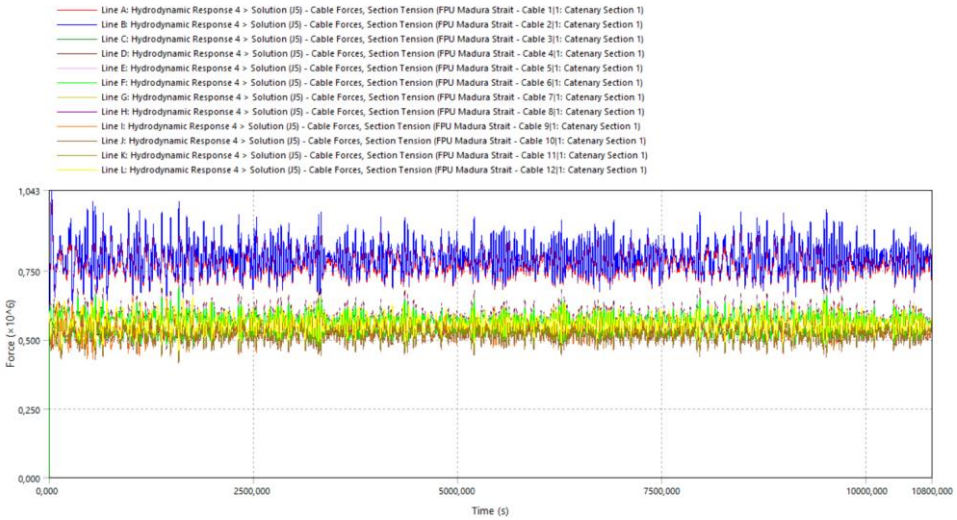
- *Tension Graph with ALS Condition and Wave Heading 0°*



- *Tension Graph with ALS Condition and Wave Heading 45°*

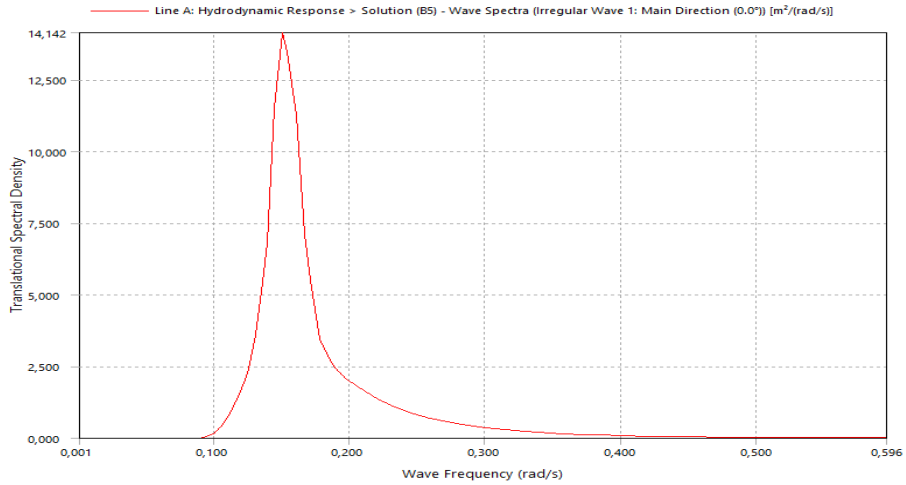


- *Tension Graph with ALS Condition and Wave Heading 90°*

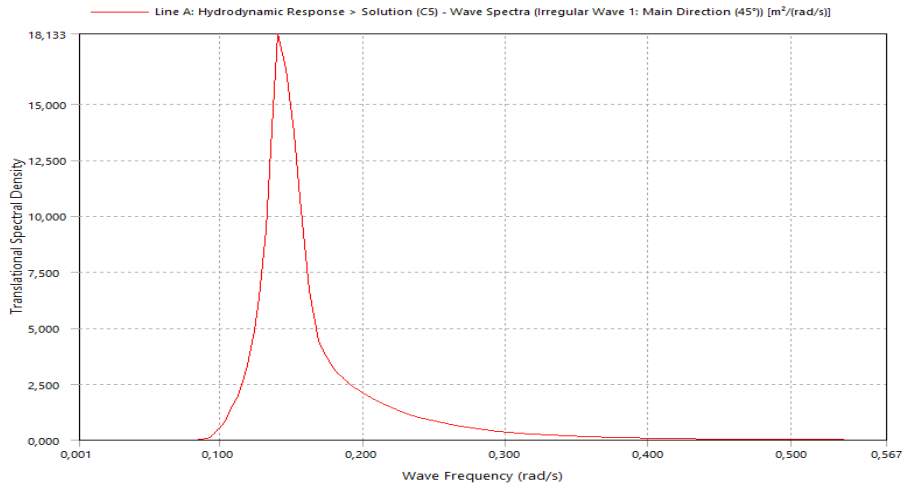


Lampiran 2 Spektrum dan Grafik *Tension* Variasi *Mooring Line* Sudut 10°

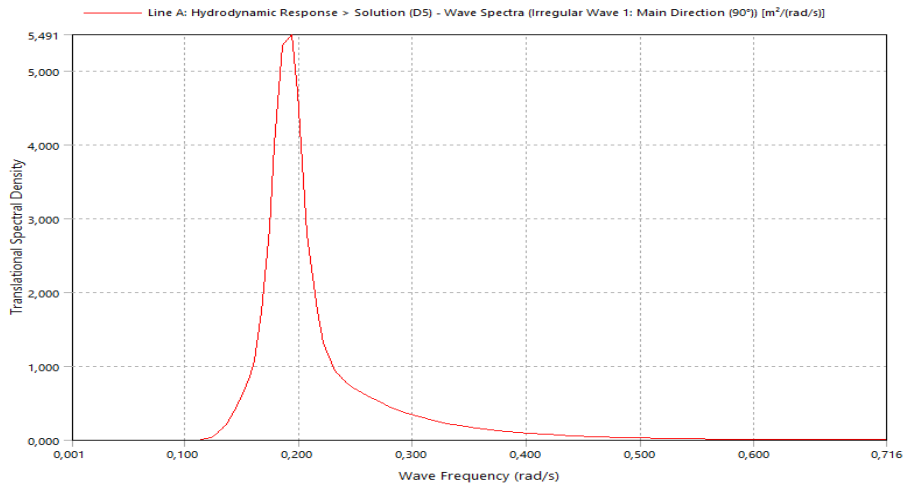
- *Spectral Density Wave Heading 0°*



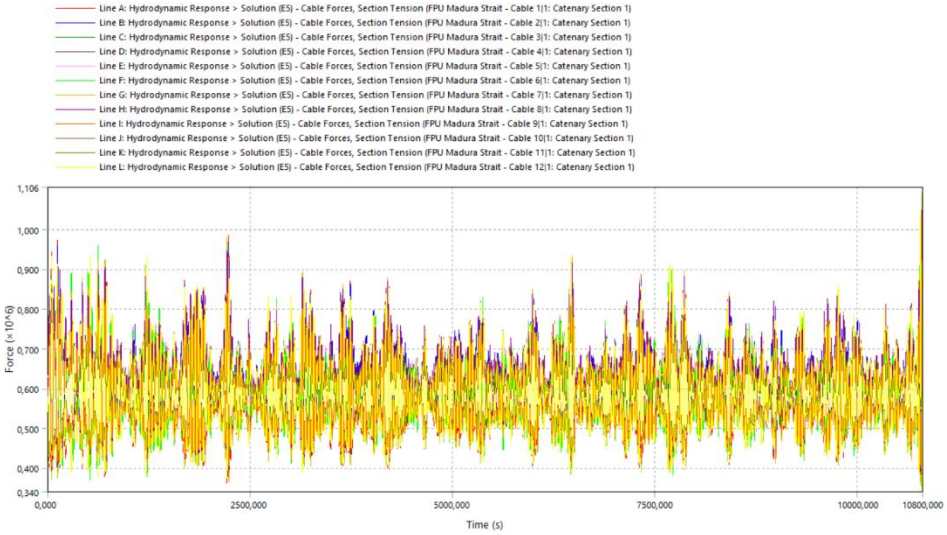
- *Spectral Density Wave Heading 45°*



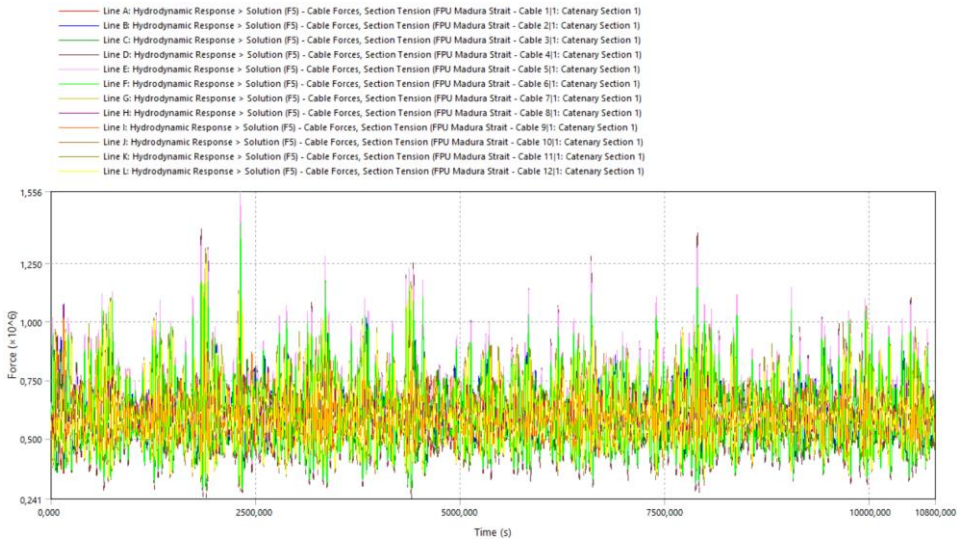
- *Spectral Density Wave Heading 90°*



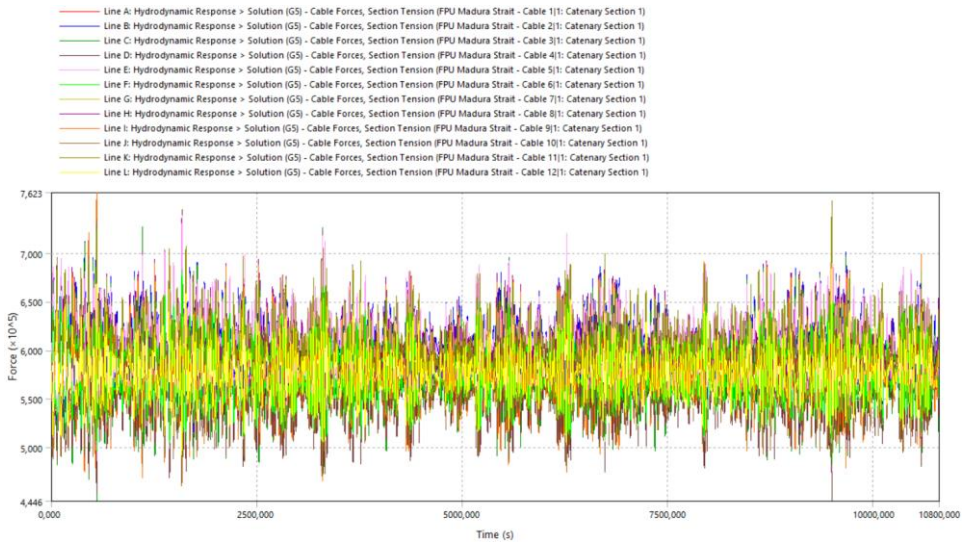
- *Tension Graph with ULS Condition and Wave Heading 0°*



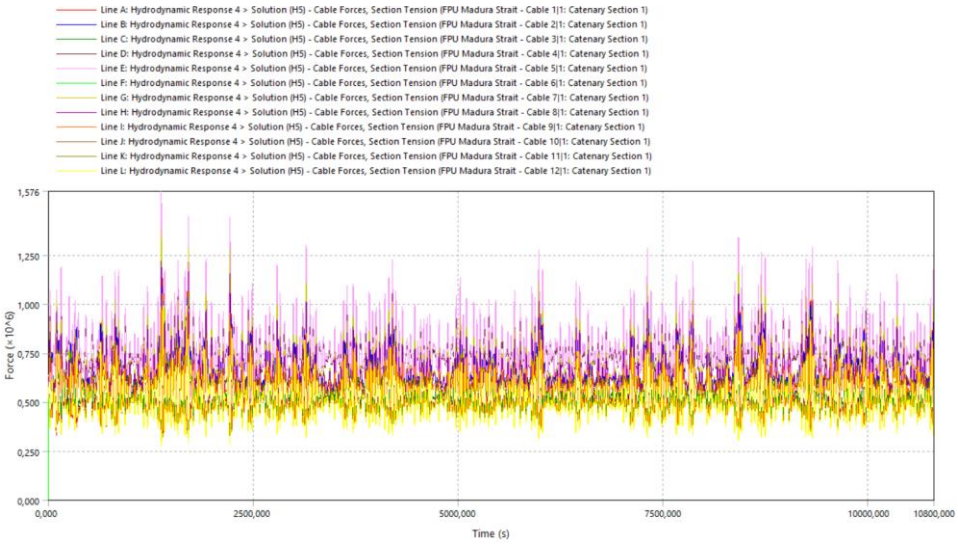
- *Tension Graph with ULS Condition and Wave Heading 45°*



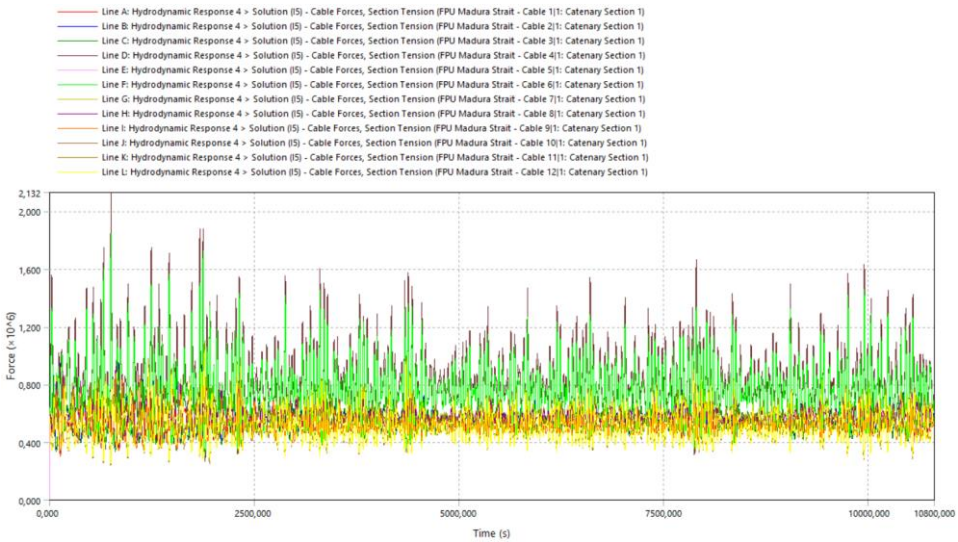
- *Tension Graph with ULS Condition and Wave Heading 90°*



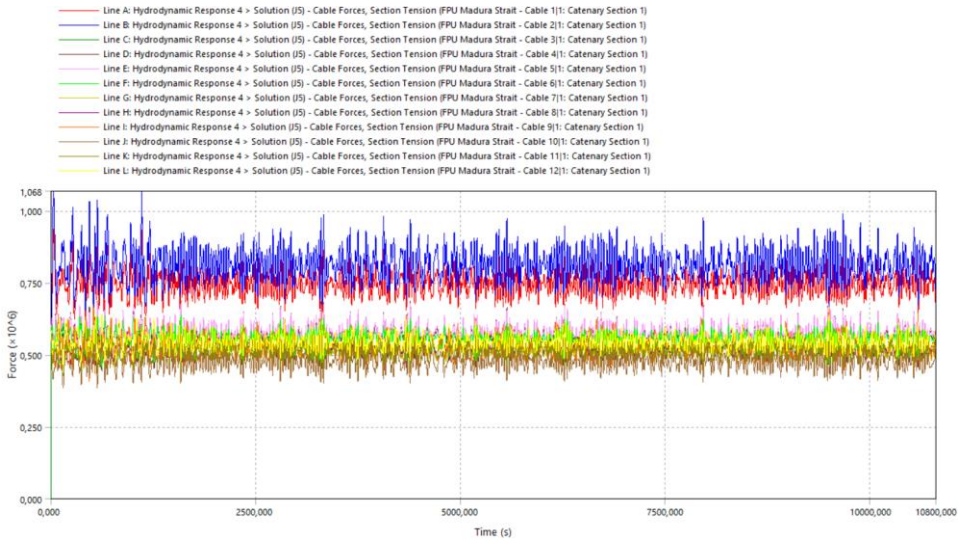
- *Tension Graph with ALS Condition and Wave Heading 0°*



- *Tension Graph with ALS Condition and Wave Heading 45°*

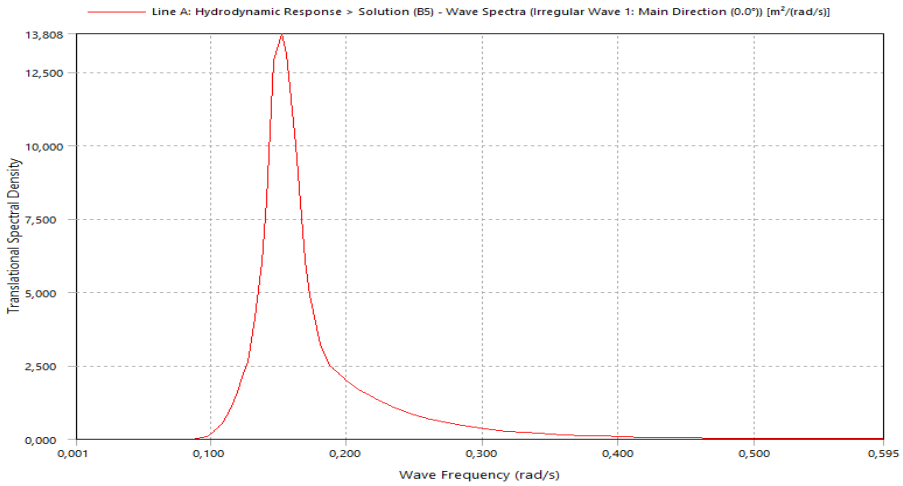


- *Tension Graph with ALS Condition and Wave Heading 90°*

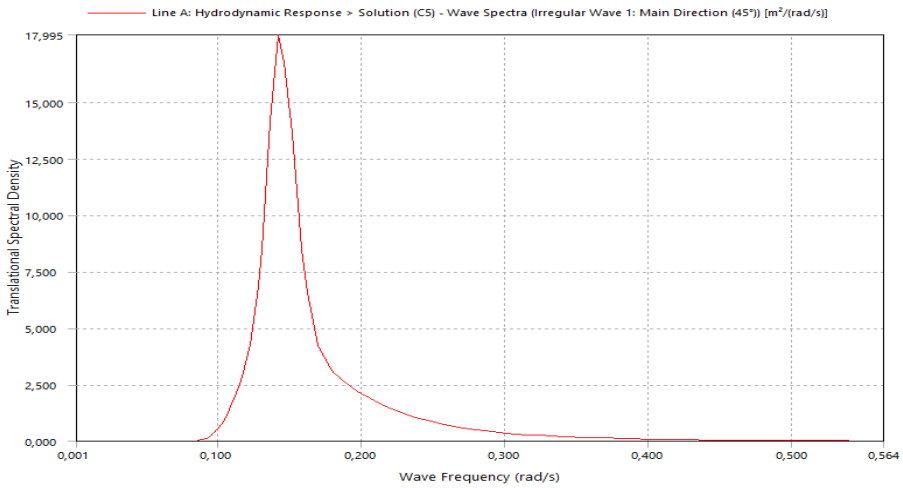


Lampiran 3 Spektrum dan Grafik *Tension* Variasi *Mooring Line* Sudut 15°

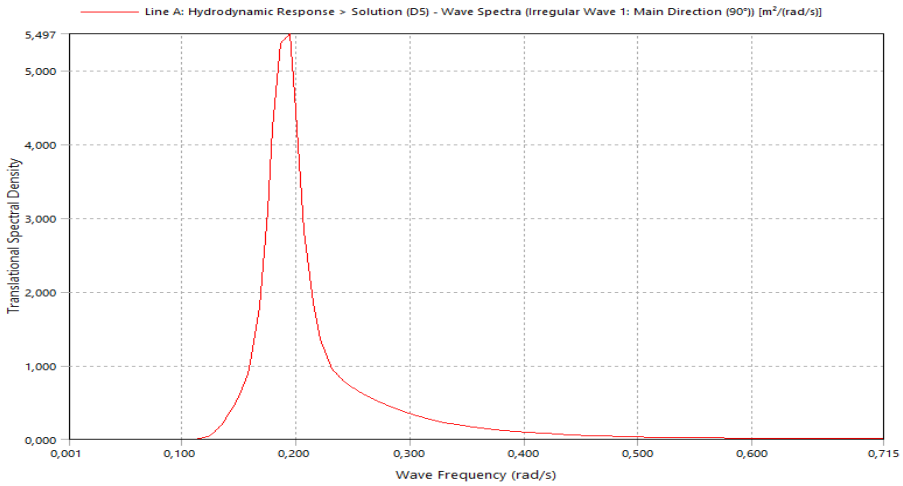
- *Spectral Density Wave Heading 0°*



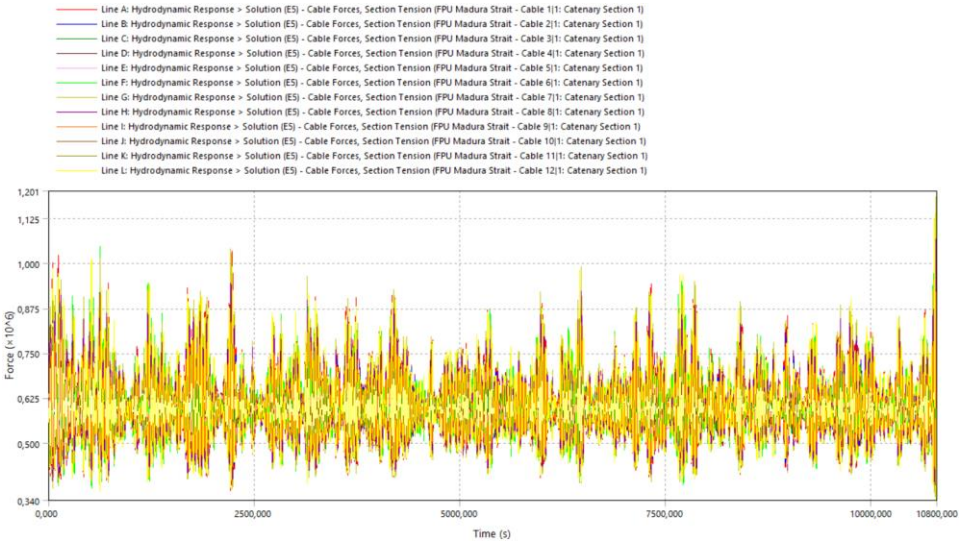
- *Spectral Density Wave Heading 45°*



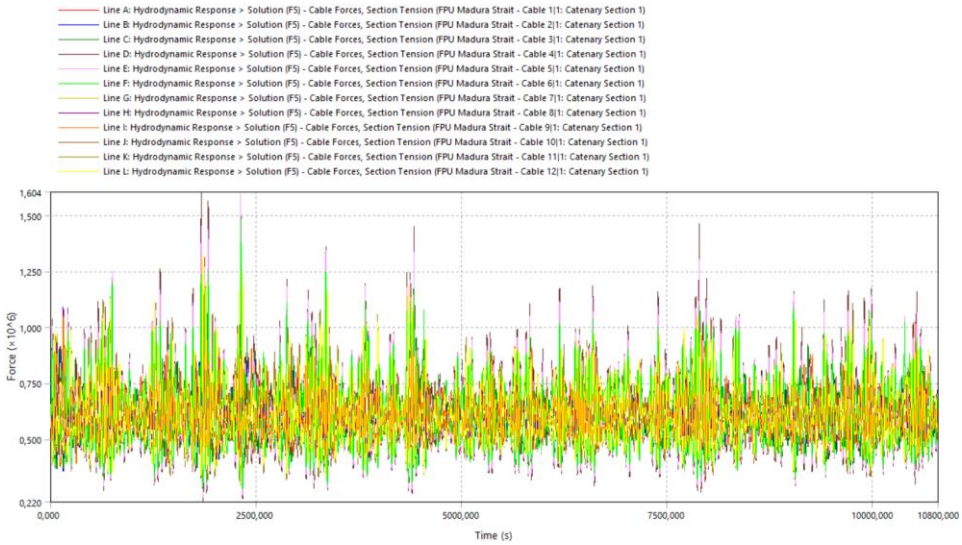
- *Spectral Density Wave Heading 90°*



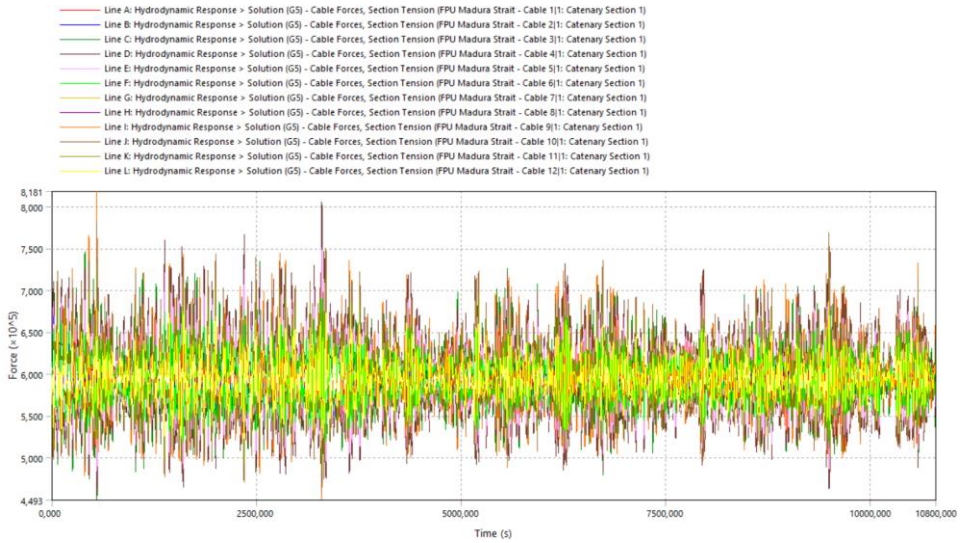
- *Tension Graph with ULS Condition and Wave Heading 0°*



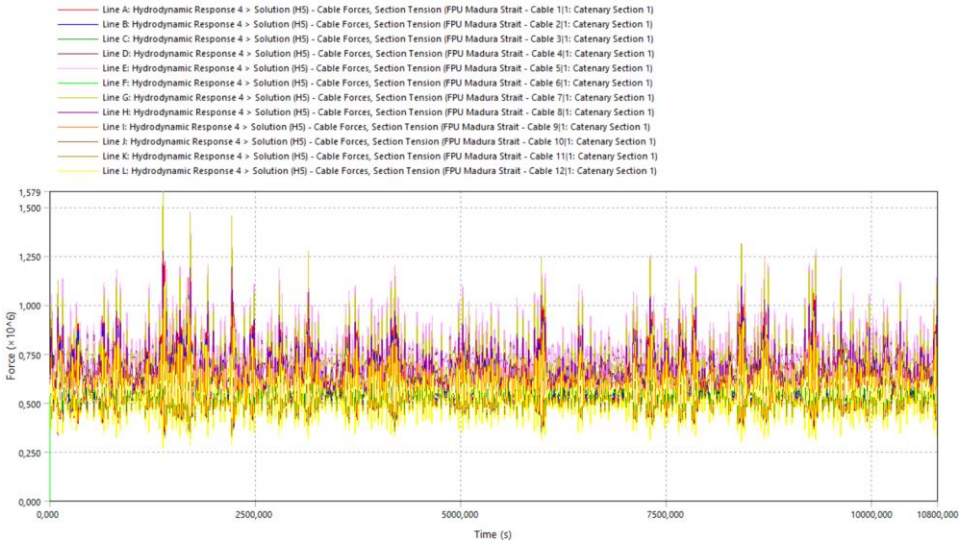
- *Tension Graph with ULS Condition and Wave Heading 45°*



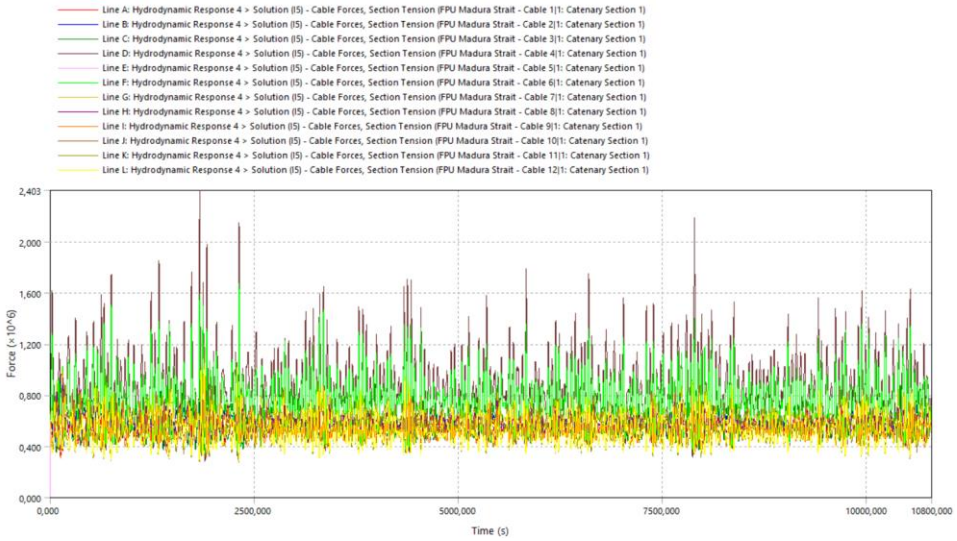
- *Tension Graph with ULS Condition and Wave Heading 90°*



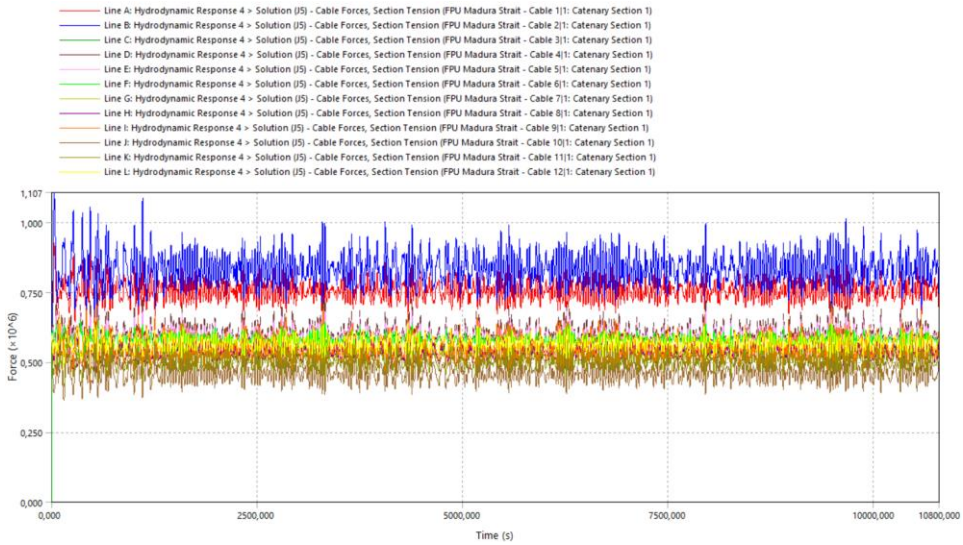
- *Tension Graph with ALS Condition and Wave Heading 0°*



- *Tension Graph with ALS Condition and Wave Heading 45°*

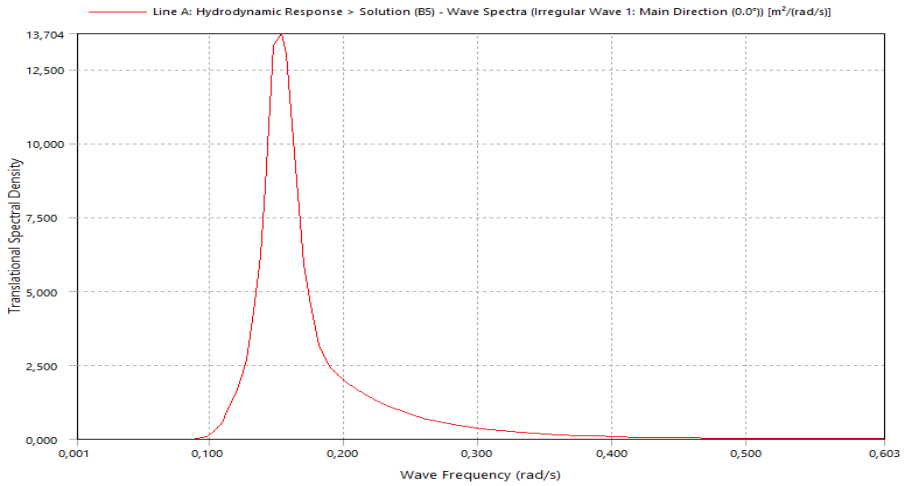


- *Tension Graph with ALS Condition and Wave Heading 90°*

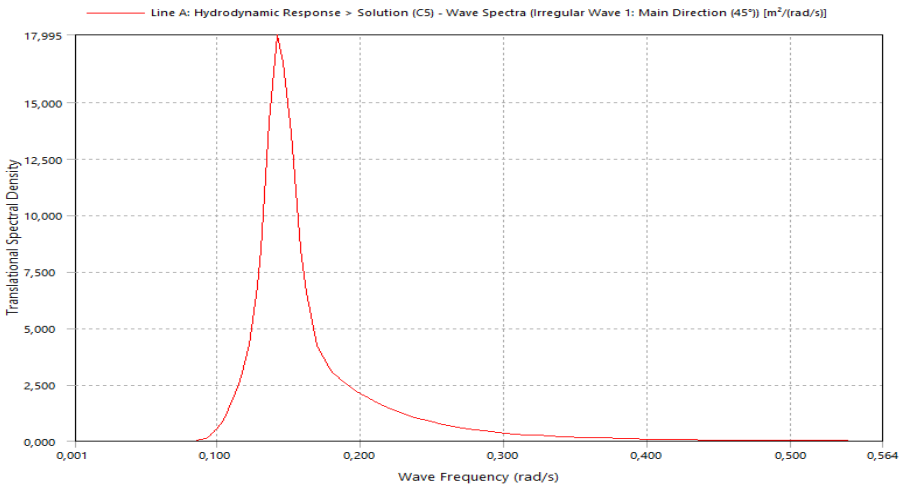


Lampiran 4 Spektrum dan Grafik *Tension* Variasi *Mooring Line* Sudut 20°

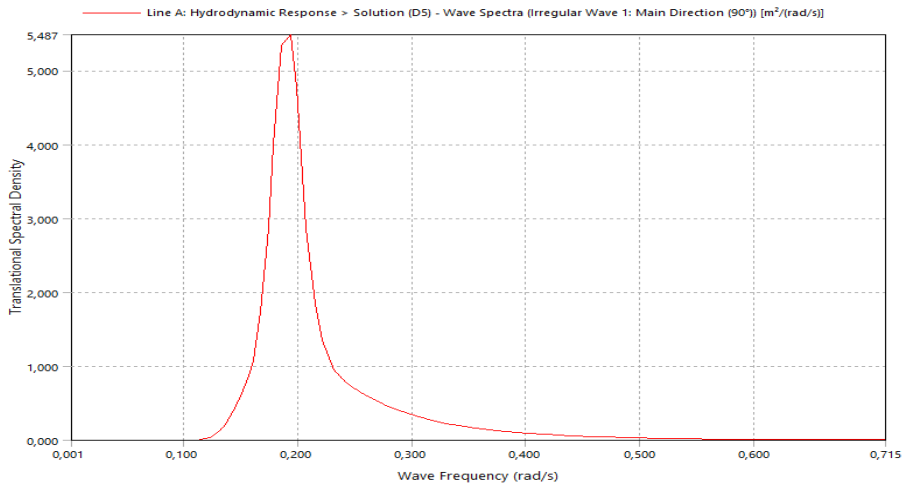
- *Spectral Density Wave Heading 0°*



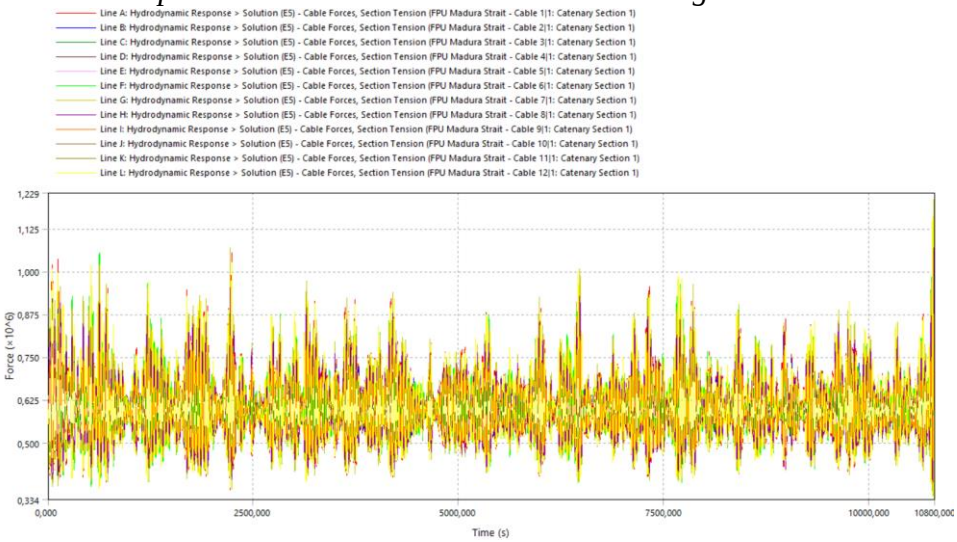
- *Spectral Density Wave Heading 45°*



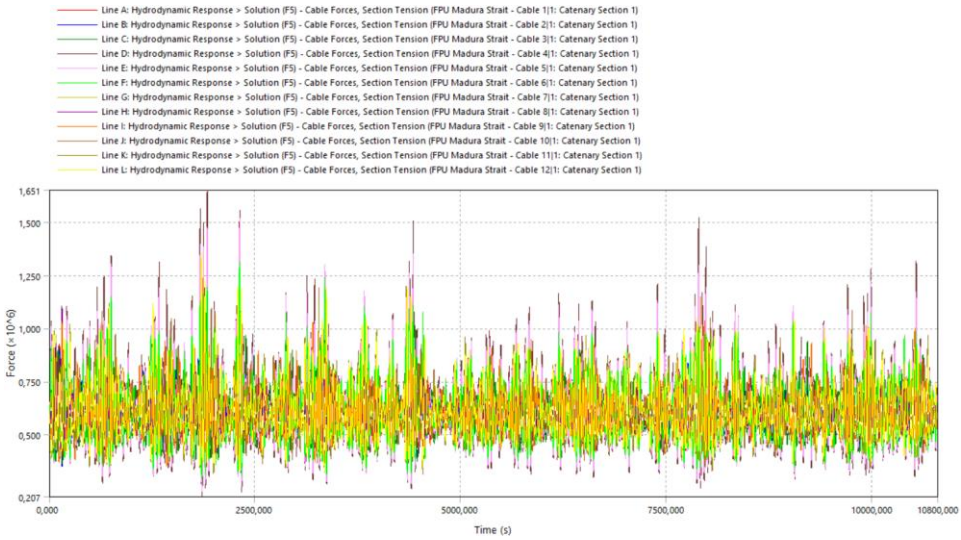
- *Spectral Density Wave Heading 90°*



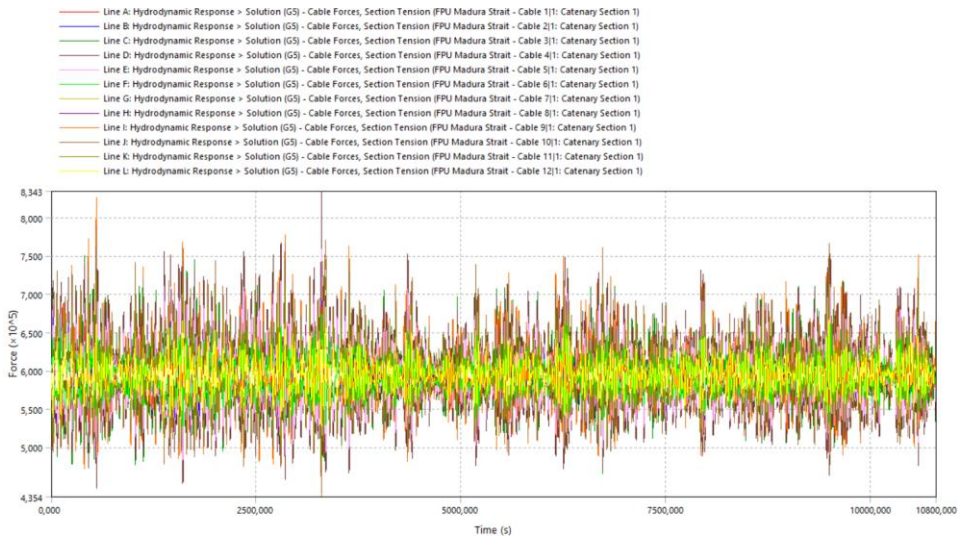
- *Tension Graph with ULS Condition and Wave Heading 0°*



- *Tension Graph with ULS Condition and Wave Heading 45°*

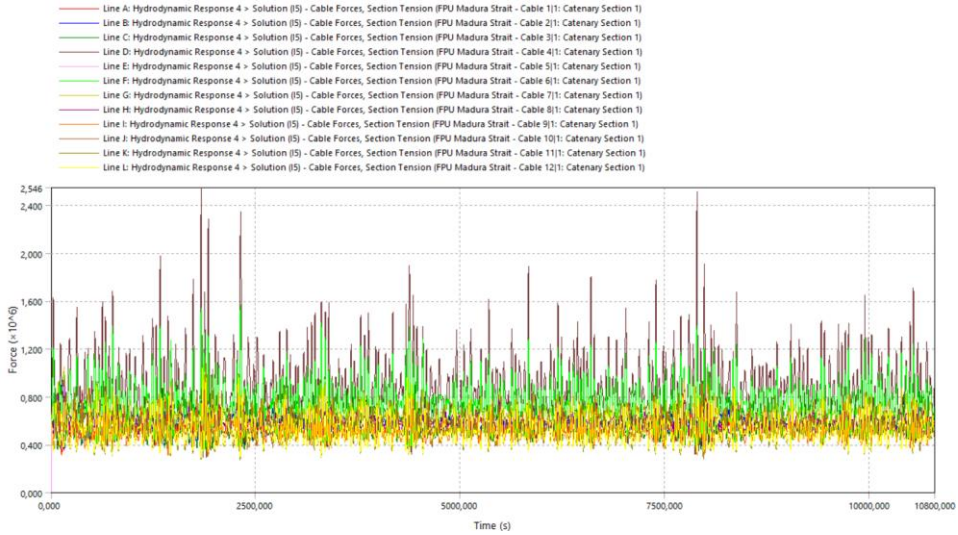


- *Tension Graph with ULS Condition and Wave Heading 90°*

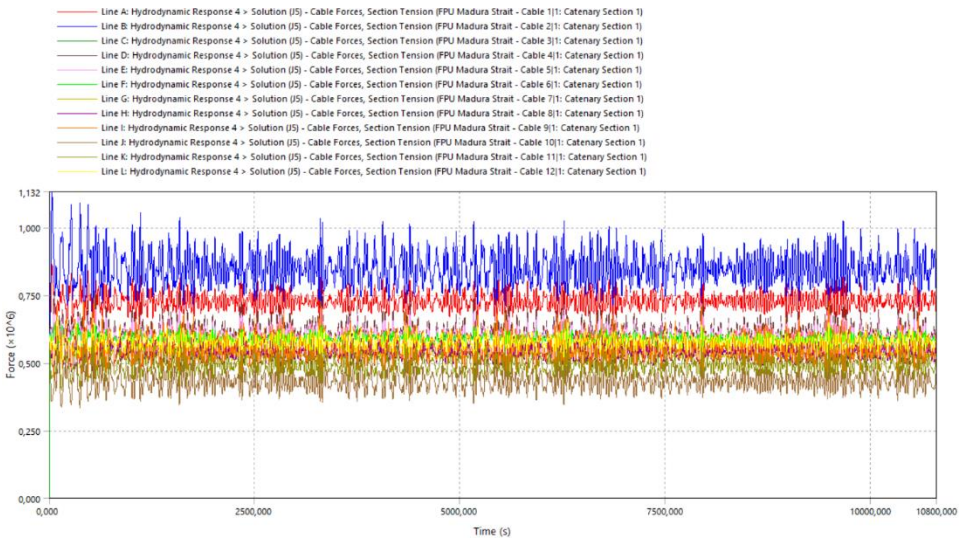


- *Tension Graph with ALS Condition and Wave Heading 0°*

- *Tension Graph with ALS Condition and Wave Heading 45°*

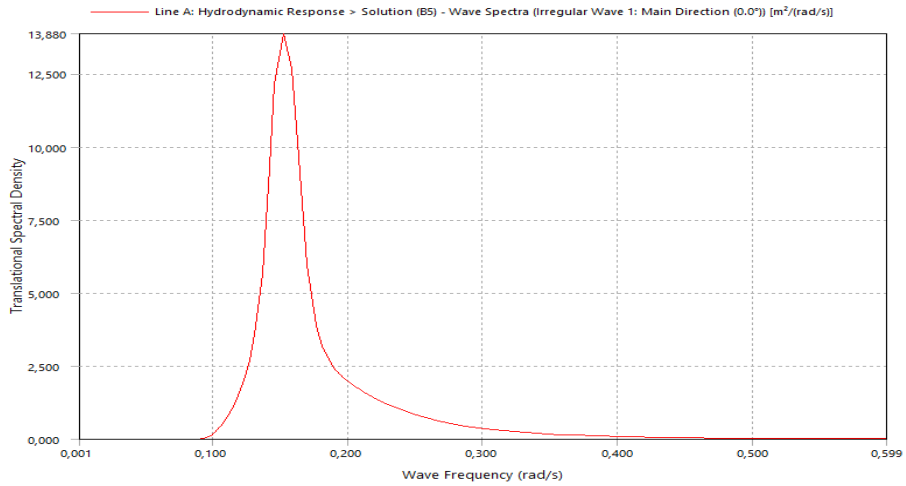


- *Tension Graph with ALS Condition and Wave Heading 90°*

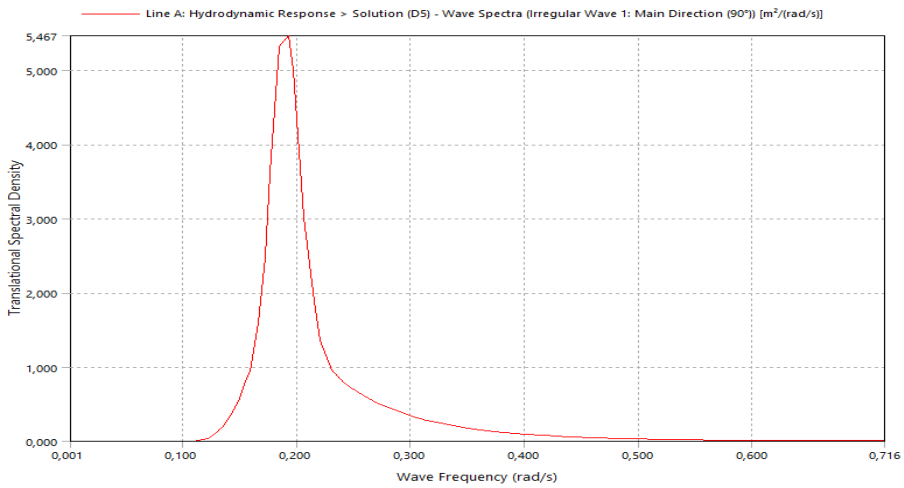


Lampiran 5 Spektrum dan Grafik *Tension* Variasi *Mooring Line* Sudut 25°

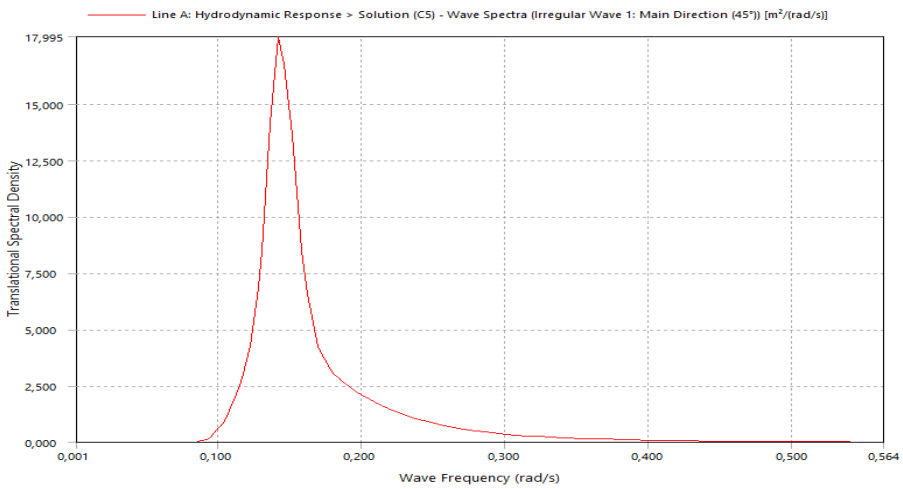
- *Spectral Density Wave Heading 0°*



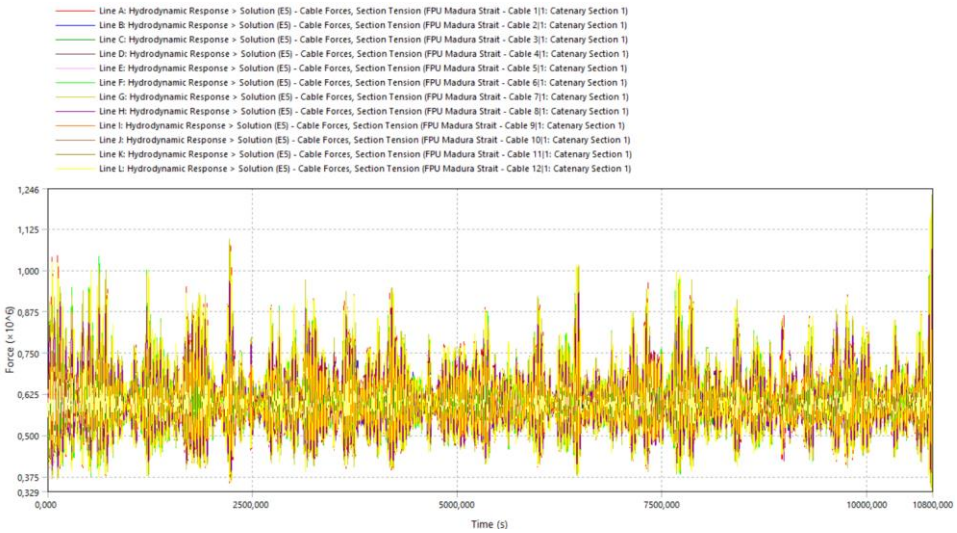
- *Spectral Density Wave Heading 45°*



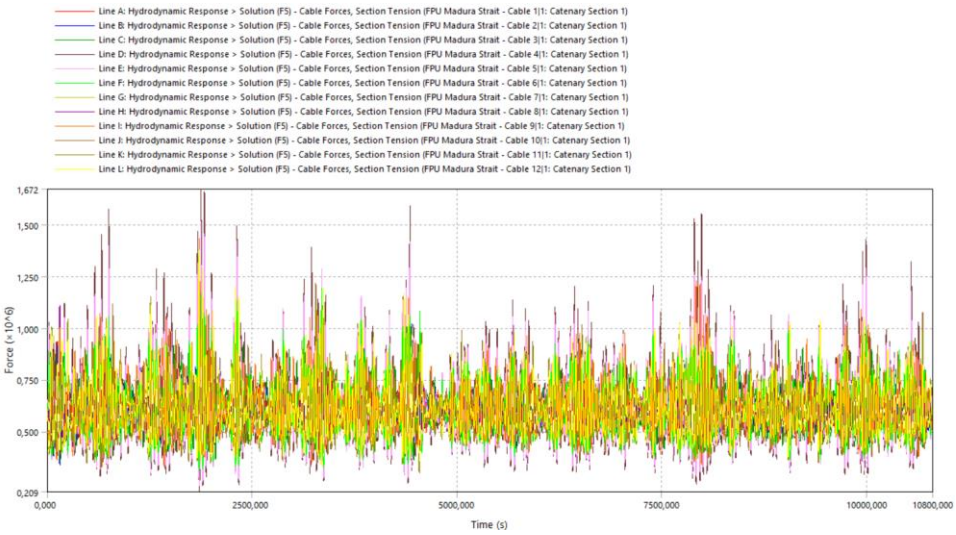
- *Spectral Density Wave Heading 90°*



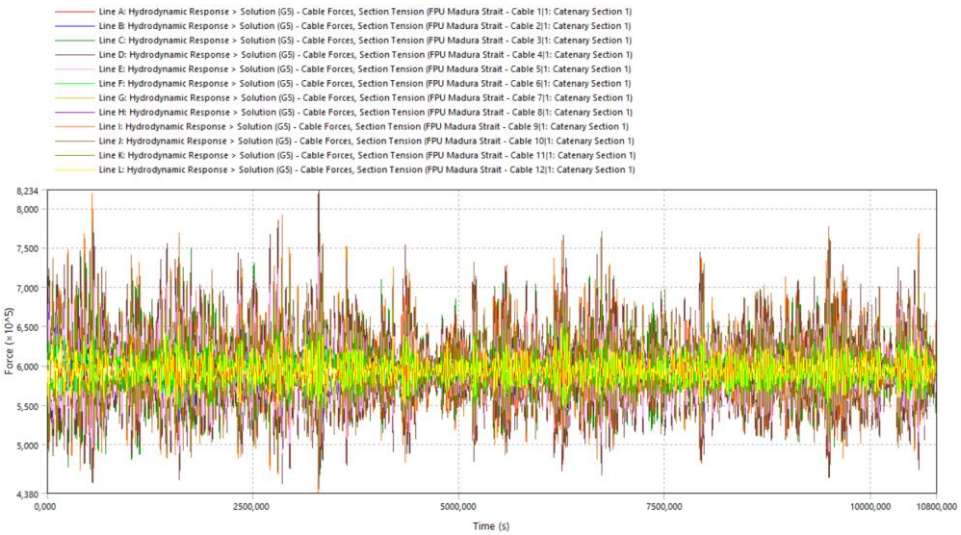
- *Tension Graph with ULS Condition and Wave Heading 0°*



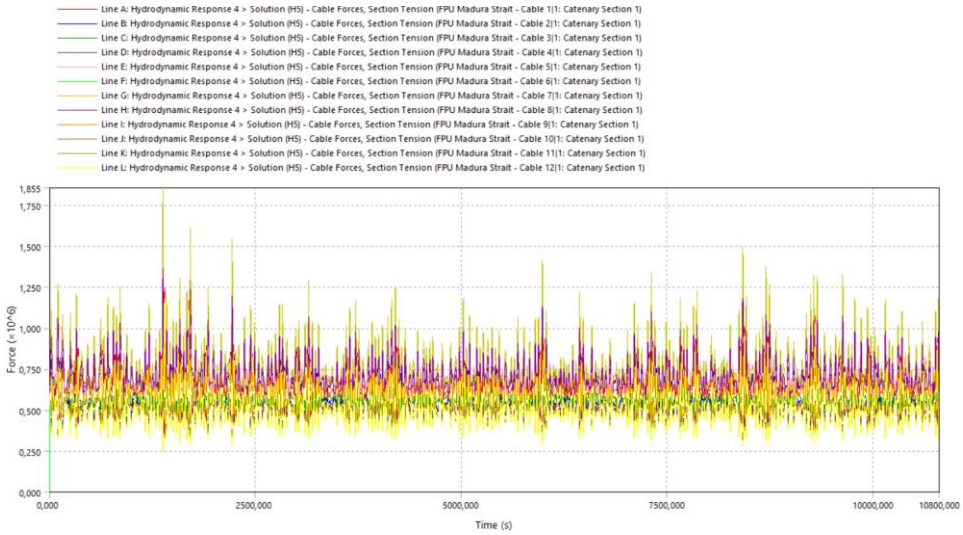
- *Tension Graph with ULS Condition and Wave Heading 45°*



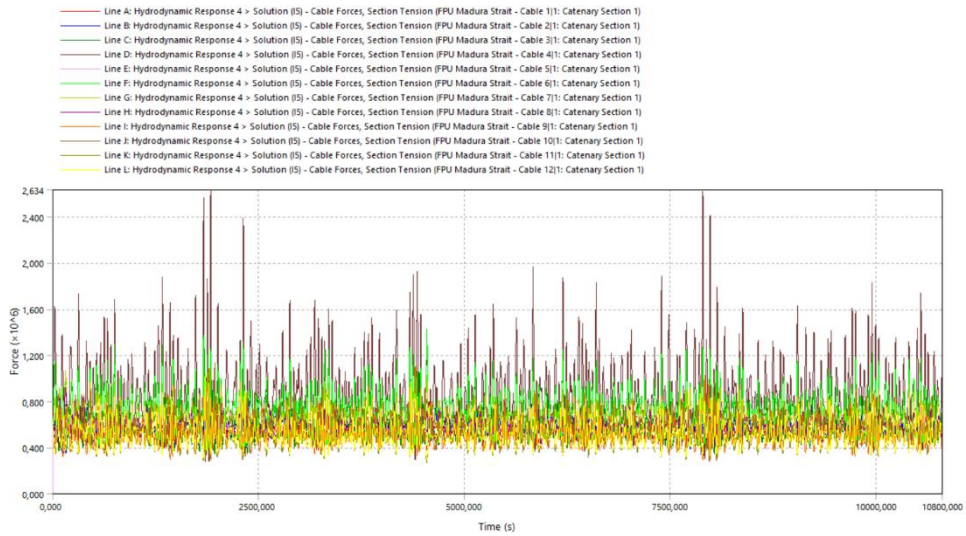
- *Tension Graph with ULS Condition and Wave Heading 90°*



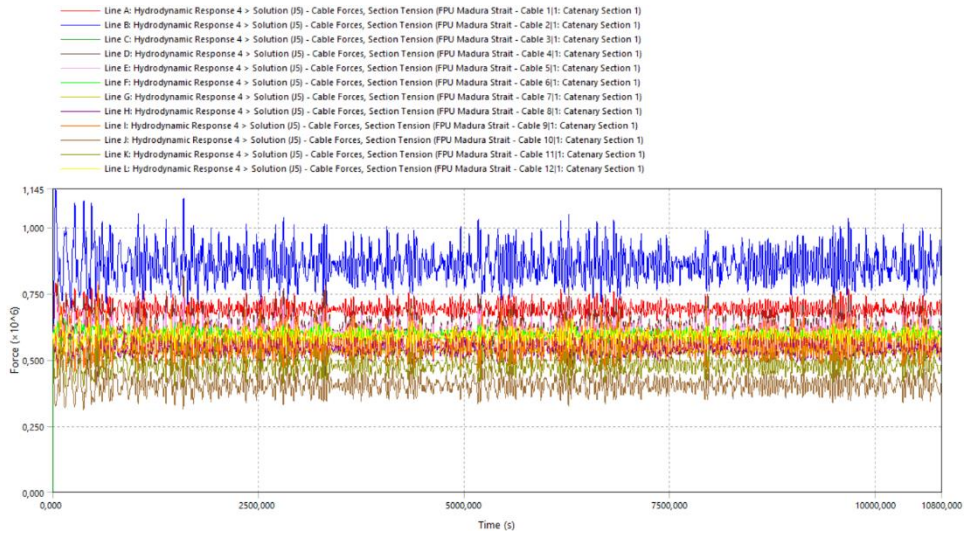
- *Tension Graph with ALS Condition and Wave Heading 0°*



- *Tension Graph with ALS Condition and Wave Heading 45°*

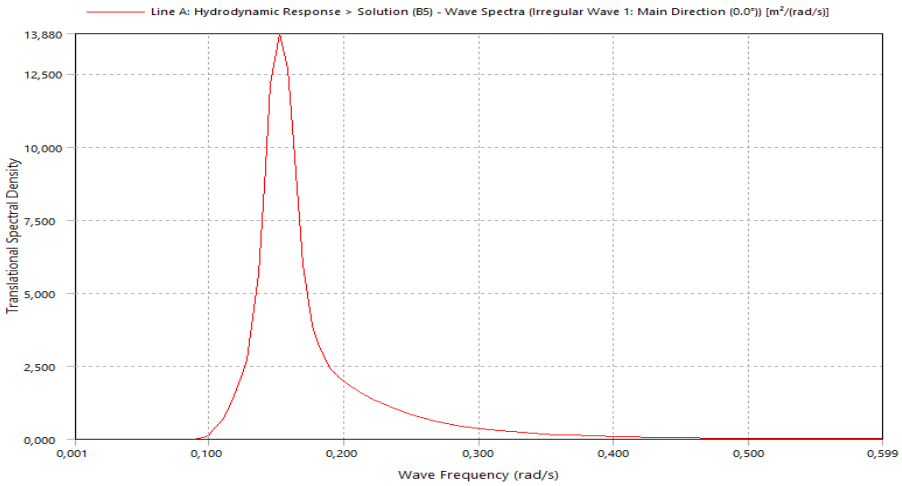


- *Tension Graph with ALS Condition and Wave Heading 90°*

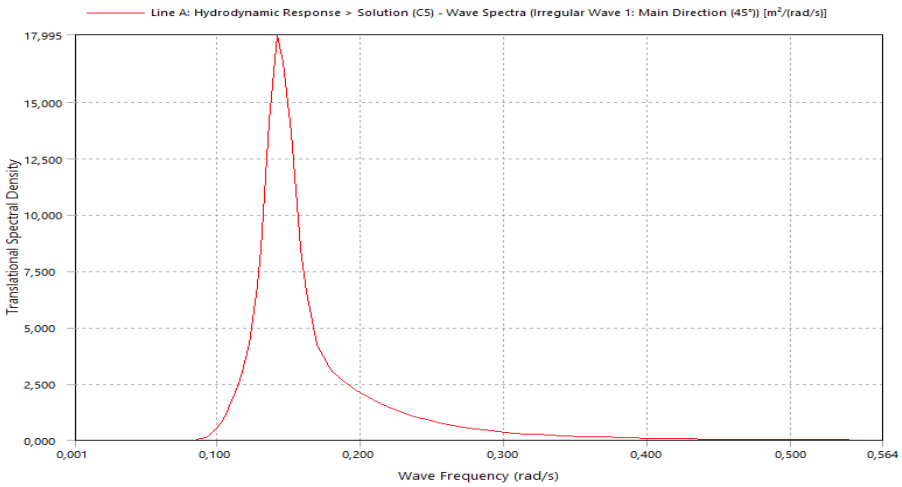


Lampiran 6 Spektrum dan Grafik *Tension* Variasi *Mooring Line* Sudut 30°

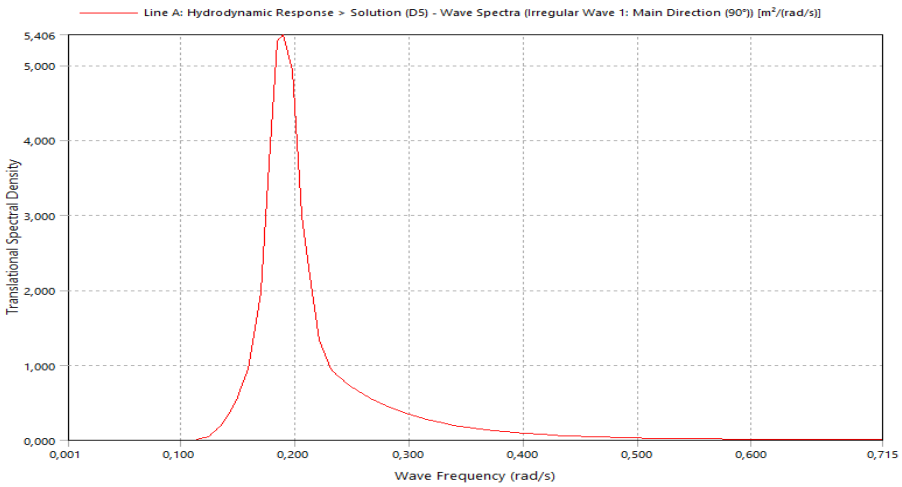
- *Spectral Density Wave Heading 0°*



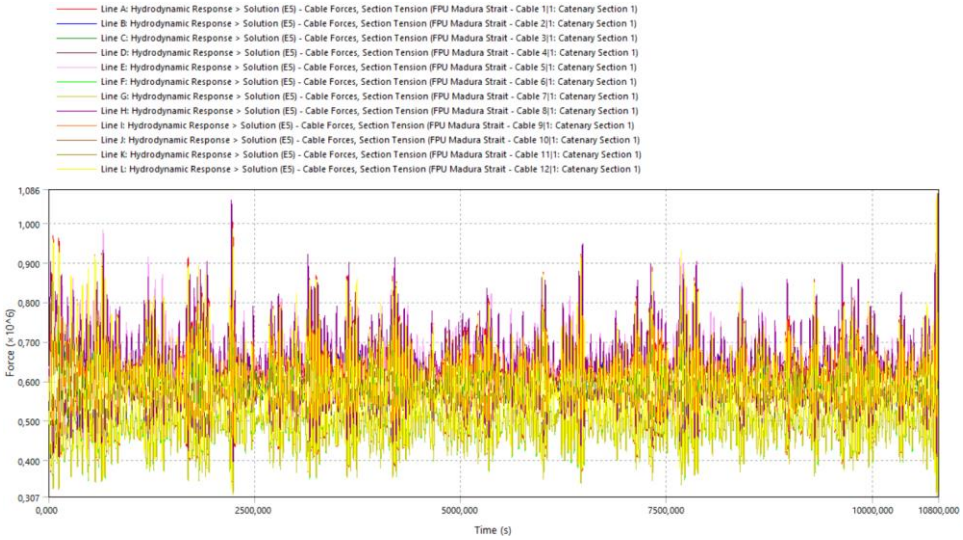
- *Spectral Density Wave Heading 45°*



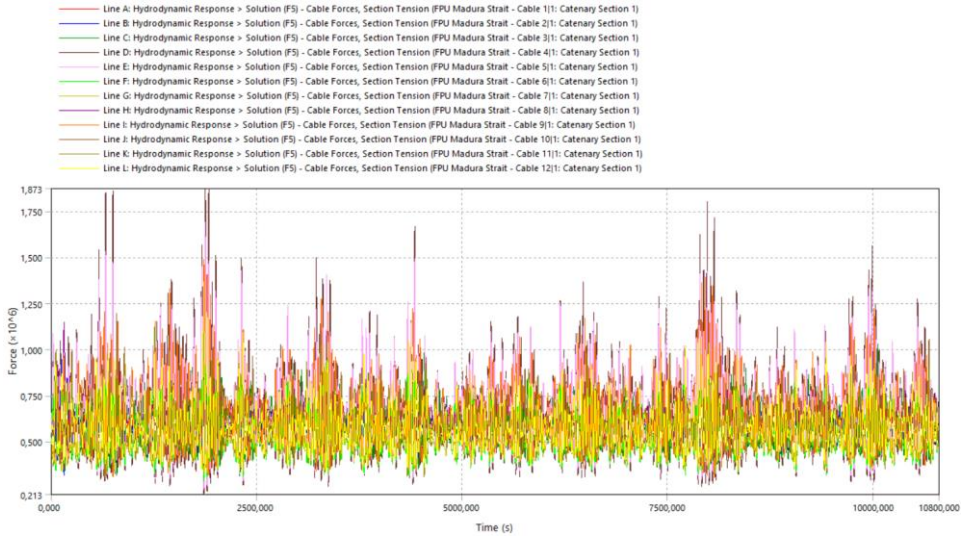
- *Spectral Density Wave Heading 90°*



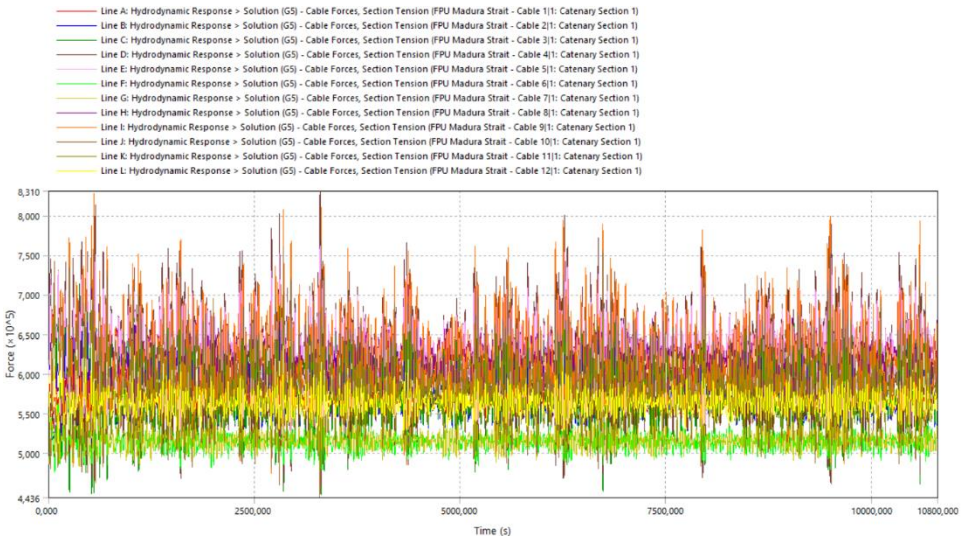
- *Tension Graph with ULS Condition and Wave Heading 0°*



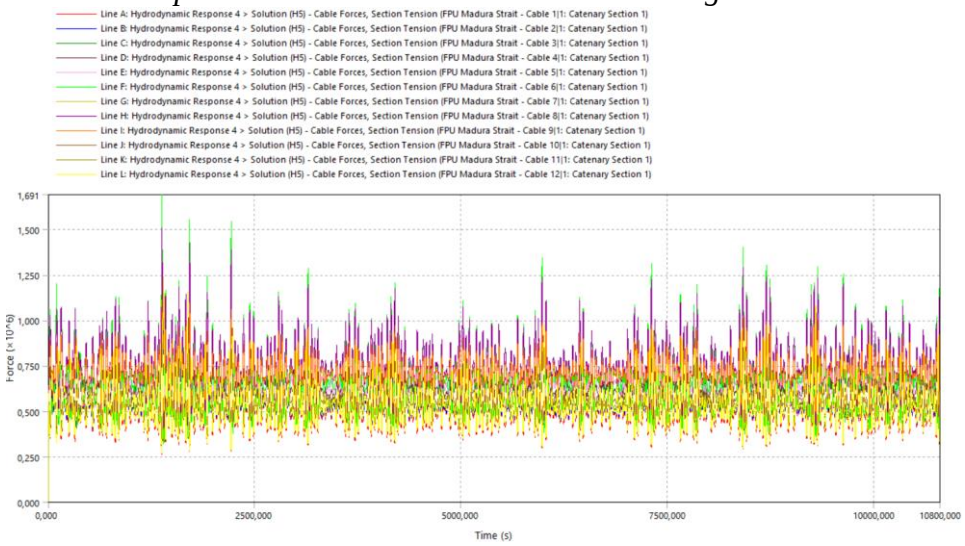
- *Tension Graph with ULS Condition and Wave Heading 45°*



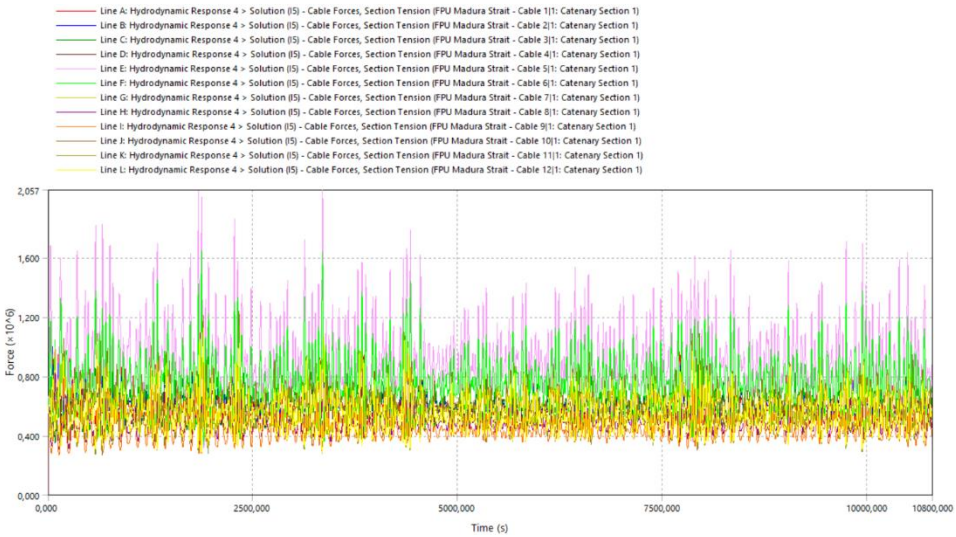
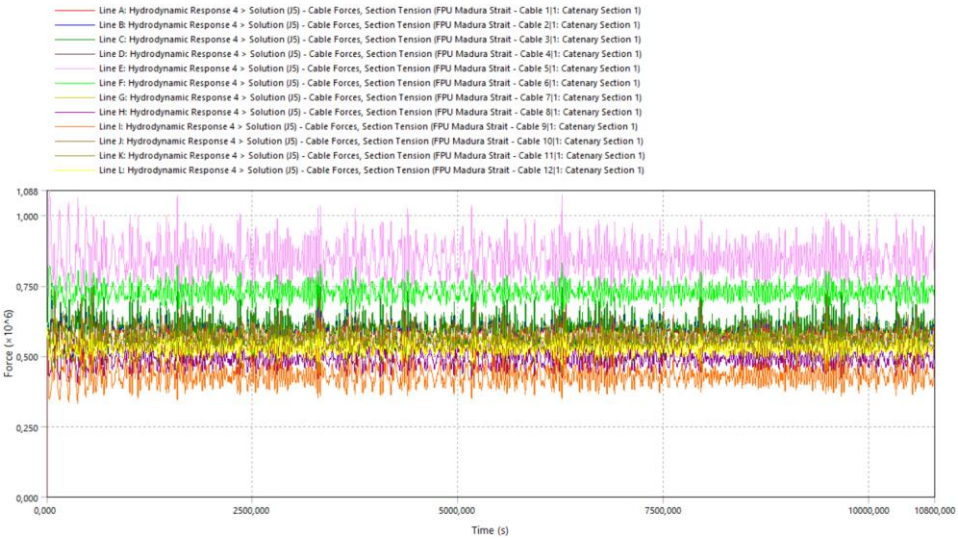
- *Tension Graph with ULS Condition and Wave Heading 90°*



- *Tension Graph with ALS Condition and Wave Heading 0°*



- *Tension Graph with ALS Condition and Wave Heading 45°*



- *Tension Graph with ALS Condition and Wave Heading 90°*