

# R/V Thomas G. Thompson Voltage Notching Issue Update



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# Timeline

- Dec 2017 – Mid-life refit & repowering complete
- Feb 2018 – transit to Auckland, NZ
- Mar 2018 –
  - First cruise, JASON onboard – electrical problems with JASON systems
  - Onload deck generator to provide dedicated power to JASON
  - Ockerman rep onboard for assessing power quality
- Apr 2018 – Vigor summary of issues
  - Recommend installation of 15 tuned line filters (“lineators”)
- June 2018 – Ockerman Power Quality Report
- Aug 2018 – installed 5 lineators during Kaohsiung port call Nov 2018
  - had to use a portable generator on deck again for Sikes cruise
  - Dynacon winch couldn’t work with lineator L-13 - too much voltage drop
- **March-April 2019**
  - **Having third party assess power quality issue**
- June 2019 – install remaining lineators

# Lineator List

- **12A, 480V, 3PH, 60HZ – L6, L7 – Engine Room**
- **34A, 480V, 3PH, 60HZ – L4 - Bow Thruster Space**
- **57A, 480V, 3PH, 60HZ – L1A, L1B - Science Hold**
- **69A, 480V, 3PH, 60HZ – L2, L3 - Aft Bos'n Locker & Trawl Winch Space**
- **85A, 480V, 3PH, 60HZ – L14 - Trawl Winch Space**
- **169A, 480V, 3PH, 60HZ – L13 - Trawl Winch space**
- **281A, 480V, 3PH, 60HZ – L9 - Science Hold**
- **337A, 480V, 3PH, 60HZ – L12 - Trawl Winch Space**

**Green – Install Summer 2019**  
**Red – Installed & Operating**

# Lineator Details

Lineator No.	Priority	Circuit	Load Description	Breaker Trip Rating	FLA	Voltage	Freq	Lineator Input A Rating	Weight	Dimensions	Suggestion
L1-A	Med	P413-1	Staging Bay Receptacle	60A	48A	480V	60HZ	57A	186 LBS	29.5"H x 13.25"W x 12.75"D	Science Hold, Location 7
L1-B	Med	P413-11	Main Deck-Port Receptacle / Jason Van	60A	48A	480V	60HZ	57A	186 LBS	29.5"H x 13.25"W x 12.75"D	Science Hold, Location 7
L2	High	P414	Port Portable Deck Crane Receptacle	80A	64A	480V	60HZ	69A	218 LBS	34"H x 20.25"W x 16"D	SCR Rm, Location 1
L3	Very High	P415	Stbd Portable Deck Crane Receptacle	80A	64A	480V	60HZ	69A	218 LBS	34"H x 20.25"W x 16"D	SCR Rm, Location 1
L4	High	P419-7	Bow Thruster Rm Power Panel	40A	32A	480V	60HZ	34A	142 LBS	29.5"H x 13.25"W x 12.75"D	Bow Thruster Rm. Location 3
L5		P423-9	HVAC Panel P423	15A	12A	480V	60HZ	12A	78 LBS	23.5"H x 11.25"W x 11.25"D	Upper Engine Rm. Aft, Location 4
L6	High	P423-11		15A	12A	480V		12A	78 LBS	23.5"H x 11.25"W x 11.25"D	Upper Engine Rm. Aft, Location 4
L7	High	P423-12		15A	12A	480V		12A	78 LBS	23.5"H x 11.25"W x 11.25"D	Upper Engine Rm. Aft, Location 4
L8		P426	Workshop Power Panel	150A	120A	480V	60HZ	141A	345 LBS	34"H x 20.25"W x 16"D	Science Hold, Location 5
L9	Med	P430	Clean Power Stbd Bus Tie	320A	240A	480V	60HZ	281A	578 LBS	45"H x 26"W x 25"D	Science Hold, Location 5
L10	Low	P418-5	Pauluhn Plug	25A	20A	480V	60HZ	23A	118 LBS	29.5"H x 13.25"W x 12.75"D	Location 6, Galley Plenum
L11	Low	P420a	120V transformer	113A	90A	480V	60HZ	113A	323 LBS	34"H x 20.25"W x 16"D	
L12	Very High	T3-CB1**	Aft Deck Science Power	400A	320A	480V	60HZ	337A	585 LBS	45"H x 26"W x 25"D	Winch Room Stbd, Location 2
L13	Very High	T4-CB1*	Aft Deck Science Power	200A	160A	480V	60HZ	169A	365 LBS	40"H x 22"W x 23"D	Winch Room Stbd, Location 2
L14	Very High	T4-CB2*	Aft Deck Science Power	100A	80A	480V	60HZ	85A	304 LBS	34"H x 20.25"W x 16"D	Winch Room Stbd, Location 2