Brandt

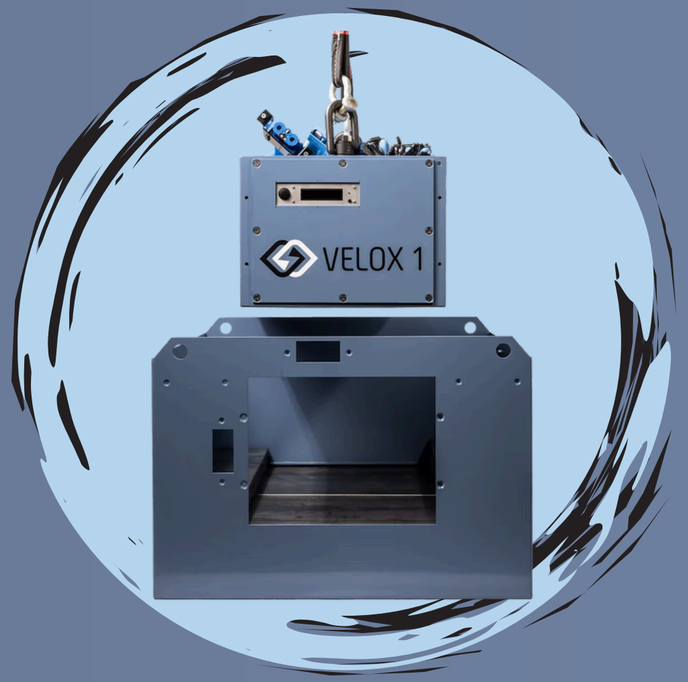
Scope: Brandt
Doosan B20T-2

VELOX

VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

Modular



Cloud

Omni Station

VELOX EBOX SERIES

VELOXFlex

12h/Day
Motor hours

300A
5-95% under 72 minutes

4000 Cycles
80% DoD, 25C°

2X
Price of lead acid

eBox System
Interchangeable

VeloxPower Cloud
Connectivity

VELOXPlus

20h/Day
Motor hours

400A
5-95% under 60 minutes

6000 Cycles
80% DoD, 25C°

4X
Price of lead acid

eBox System
Interchangeable

VeloxPower Cloud
Connectivity

VELOXMax

22h/Day
Motor hours

1200A
5-95% under 30 minutes

5000 Cycles
80% DoD, 25C°

6X
Price of lead acid

eBox System
Interchangeable

VeloxPower Cloud
Connectivity

Interactive interface

- Real time data
- Track usage and error codes
- SOC, Temps, work and idle time

VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

veloxpower.cloud

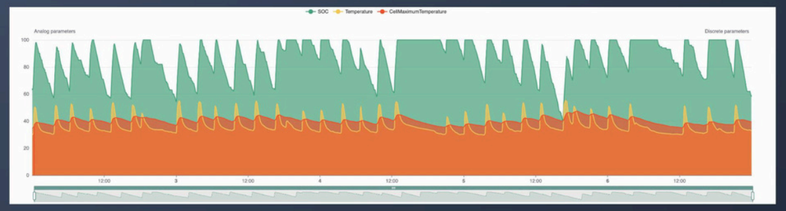
VELOX POWER CLOUD

TAKE CONTROL OF YOUR FORKLIFT POWER

MONITOR FLEETS Create fleets	**SoH OVERVIEW** State of Health
MAX POWER kWh monitoring	**SoC OVERVIEW** State of Charge
OTA UPDATES VeloxPlus updates via OTA	**CYCLES OVERVIEW** Rugged steel design

GENERAL OVERVIEW

ADVANCED PLOTS

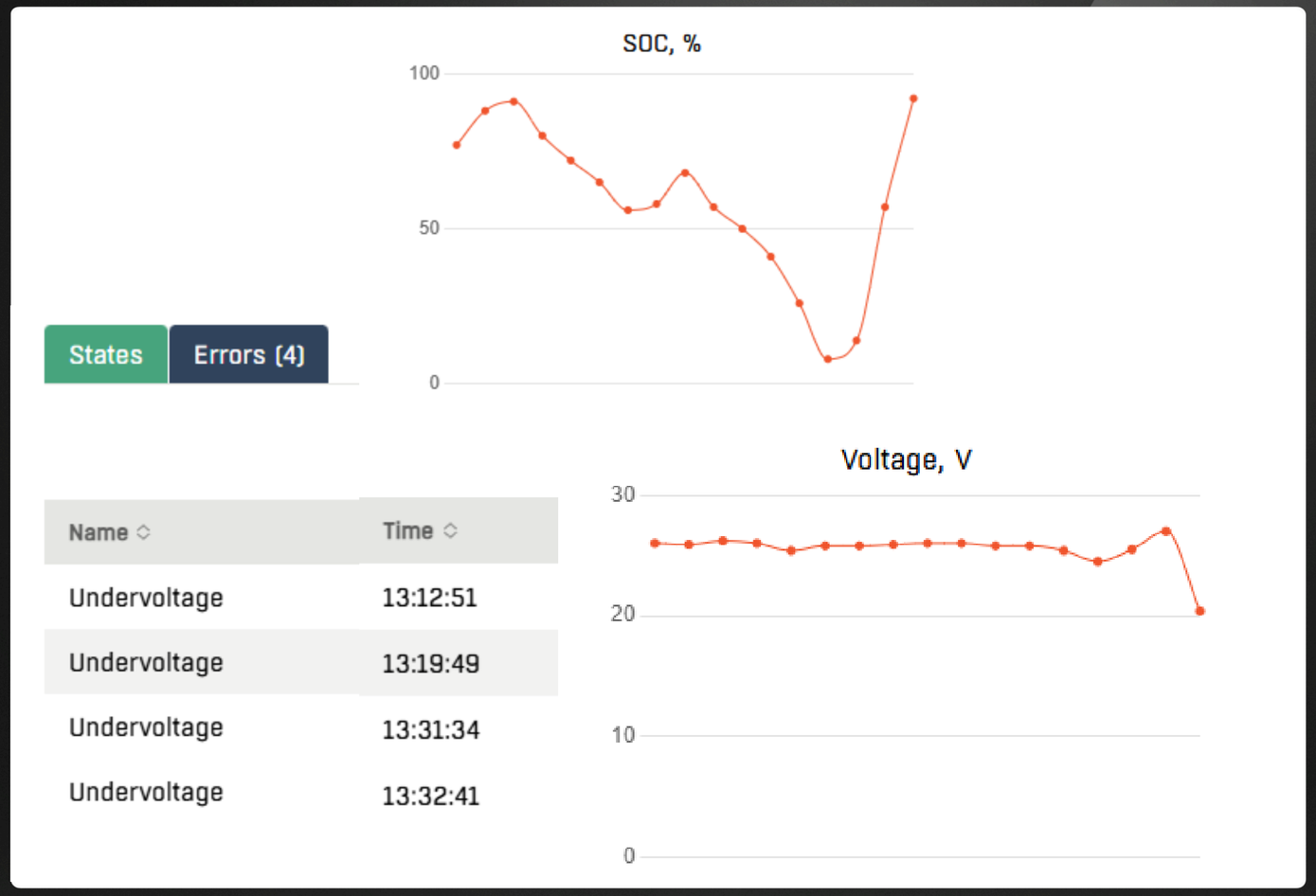


Errors in real time

Undervoltage

VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM



This example reflects a real-world case where the user overlooked charging the battery during a scheduled break.

In the event of an error, a record is automatically done on the VeloxCloud, allowing us to accurately identify both the time and root cause.

VELOX ECOSYSTEM

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VeloxCompact

Multi-Voltage OUT

24/48Vdc

Voltage IN

3×600

500A Connector

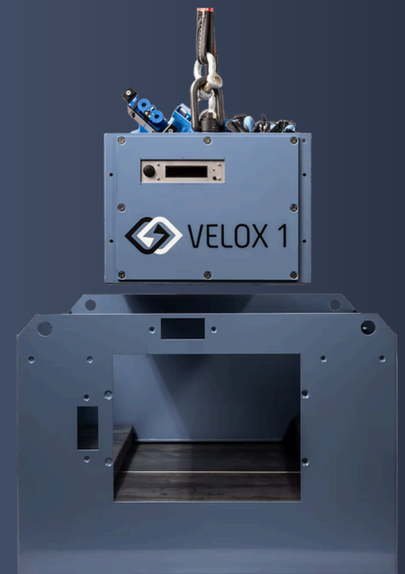
Anti-Arcing included

4-Year Warranty

Included

Wall mount

Included



VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

Omni Station

Multi-Voltage OUT

24/80Vdc

Mulyi-Voltage IN

3×600/480

500A Connector

Anti-Arcing included

10-Year Warranty

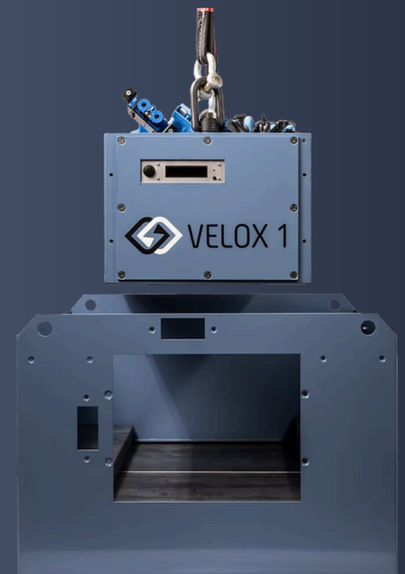
Included

Floor Stand

Included

Cable Retractor

Included



VELOX ECOSYSTEM

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Applied energy

Charge time 20% - 80%

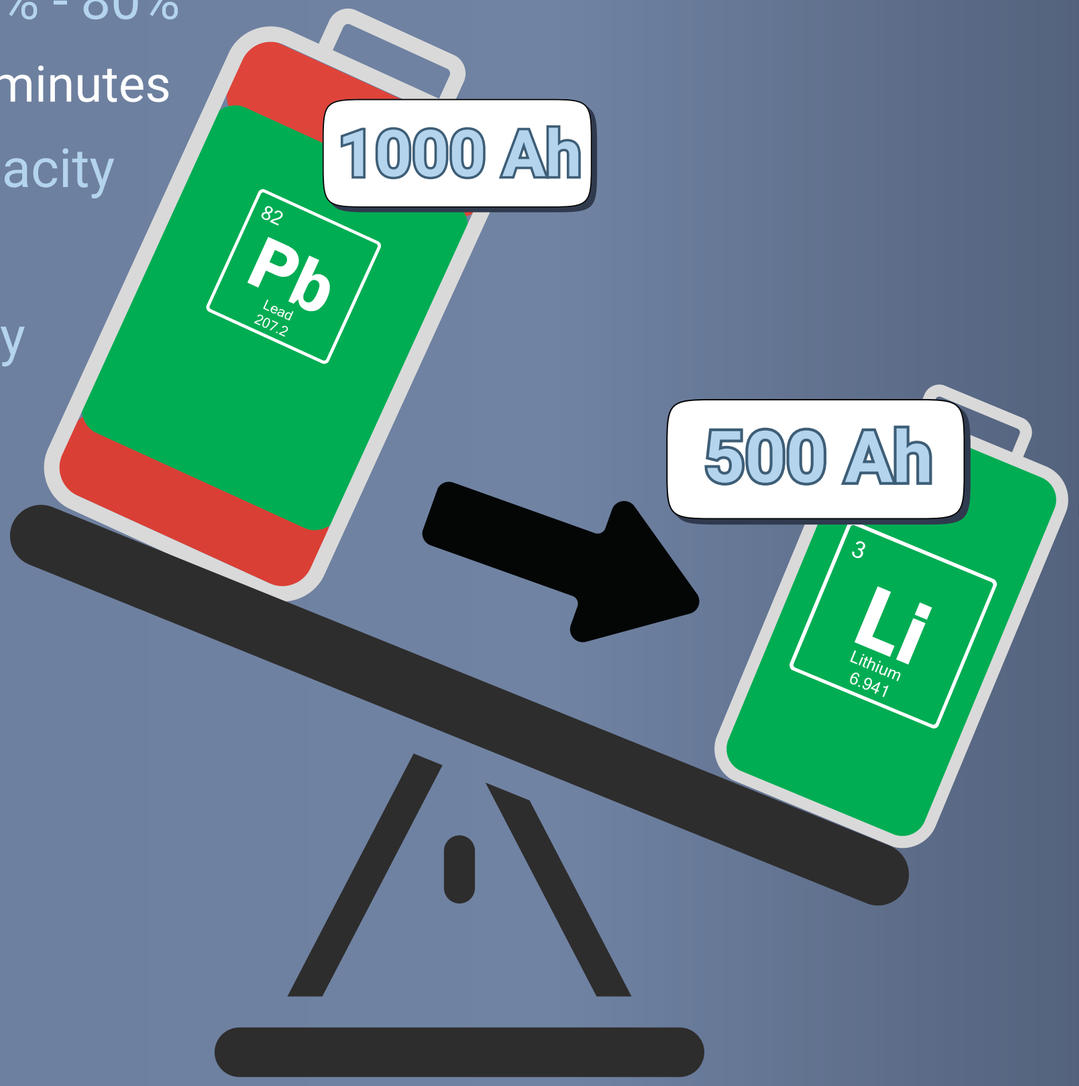
2 hours and 30 minutes

Useable Capacity

600 Ah

Efficiency

60%



Charge time 5% - 95%

60 minutes

Useable Capacity

500 Ah

Efficiency

95%

VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

Simulation 1

Work simulation

3 shifts, 60 minutes charge/shift, Doosan B20T-2

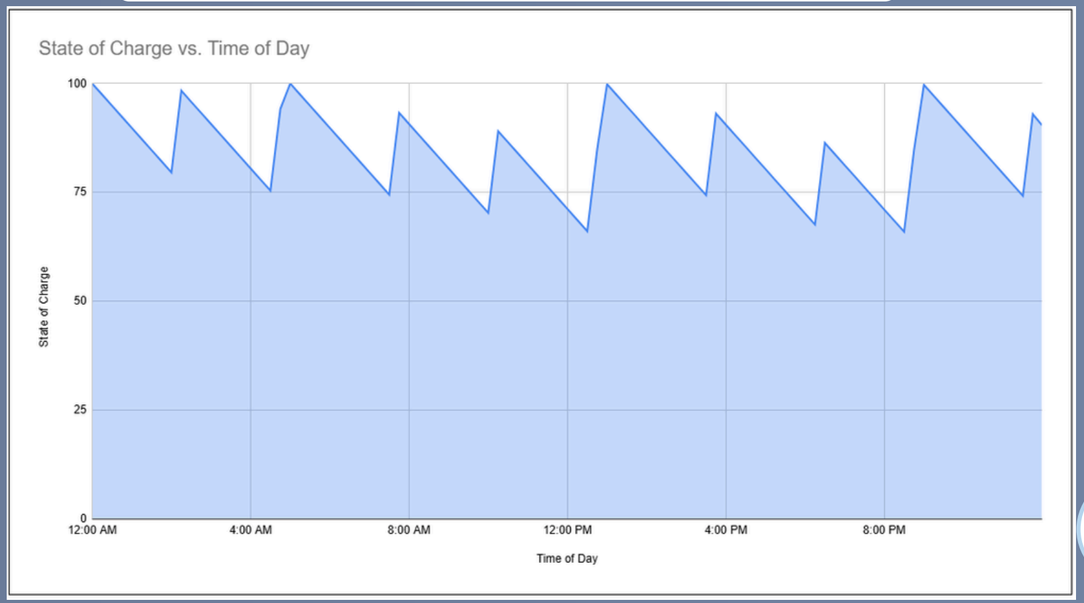
5h45 motor per shift = 400Ah + 300A charger = VeloxFlex

CHARGING EVENTS	EVENT START	EVENT END
1st Charge	2:00 AM	2:15 AM
2nd Charge	4:30 AM	5:00 AM
3rd Charge	7:30 AM	7:45 AM
4th Charge	10:00 AM	10:15 AM
5th Charge	12:30 PM	1:00 PM
6th Charge	3:30 PM	3:45 PM
7th Charge	6:15 PM	6:30 PM
8th Charge	8:30 PM	9:00 PM
9th Charge	11:30 PM	11:45 PM
10th Charge		

Charging window/shift

BATTERY & CHARGER INFO	
Battery Capacity (AH)	400
Truck Load (A/hm)	48
Truck Efficiency (%)	85%
Charger Current (A)	300
Charging Efficiency (%)	80%
Start SOC (%)	100%
Day Start Time	12:00 AM

Battery/charger/load



Energy consumption

Charge time

CHARGING EVENTS	EVENT LENGTH
1st Charge	0:15
2nd Charge	0:30
3rd Charge	0:15
4th Charge	0:15
5th Charge	0:30
6th Charge	0:15
7th Charge	0:15
8th Charge	0:30
9th Charge	0:15
10th Charge	0:00
	3:00

VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

Simulation 1

Conclusion

This simulation is based on a 3 shifts work day. Charges are made during breaks (15 minutes) and lunch/diner time (30 minutes). Total of 60 minutes of charge per shift.
This set up allows the lift truck to work 5 h 45 minutes per shift.
This is equal to roughly 4,485 motor hours a year. This number is based on a 5 days work week schedule.

- ✓ Doosan B20T-2
- ✓ Battery VeloxPlus 400Ah
- ✓ Charger Compact 300A

⚠ This simulation works only with this specific charging set up.
A charger with an output **lower** than 300A will not be able to charge the battery correctly. ⚠

VELOX ECOSYSTEM

Simulation 2

Work simulation

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

3 shifts, 60 minutes charge/shift, Doosan B20T-2

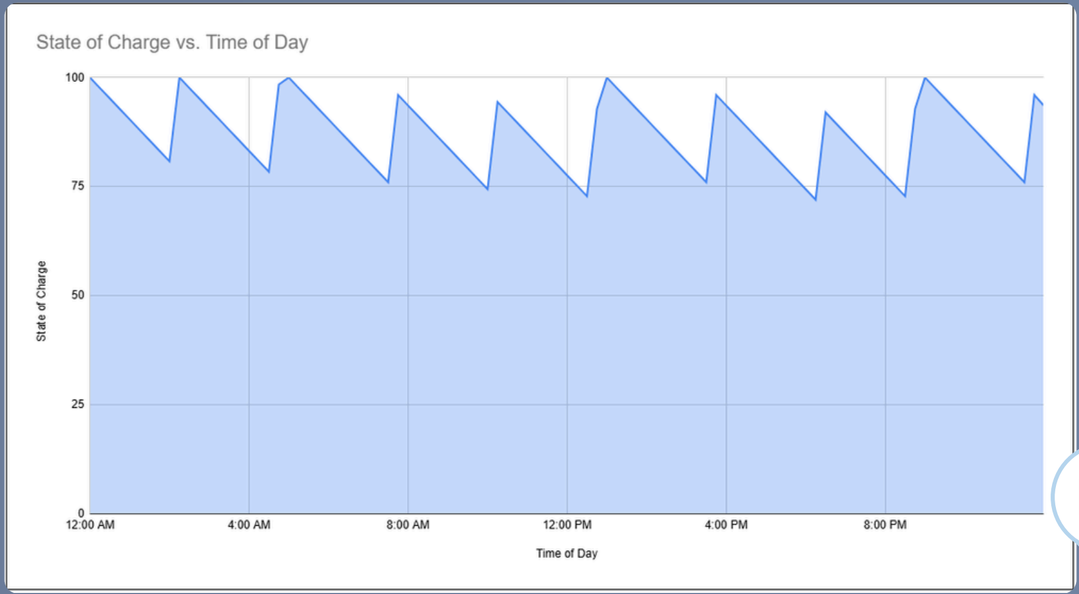
7h00 motor per shift = 500Ah + 400A charger = VeloxPlus

CHARGING EVENTS	EVENT START	EVENT END
1st Charge	2:00 AM	2:15 AM
2nd Charge	4:30 AM	5:00 AM
3rd Charge	7:30 AM	7:45 AM
4th Charge	10:00 AM	10:15 AM
5th Charge	12:30 PM	1:00 PM
6th Charge	3:30 PM	3:45 PM
7th Charge	6:15 PM	6:30 PM
8th Charge	8:30 PM	9:00 PM
9th Charge	11:30 PM	11:45 PM
10th Charge		

Charging window/shift

BATTERY & CHARGER INFO	
Battery Capacity (AH)	500
Truck Load (A/hm)	48
Truck Efficiency (%)	100%
Charger Current (A)	400
Charging Efficiency (%)	80%
Start SOC (%)	100%
Day Start Time	12:00 AM

Battery/charger/load



Energy consumption

CHARGING EVENTS	EVENT LENGTH
1st Charge	0:15
2nd Charge	0:30
3rd Charge	0:15
4th Charge	0:15
5th Charge	0:30
6th Charge	0:15
7th Charge	0:15
8th Charge	0:30
9th Charge	0:15
10th Charge	0:00
	3:00

Charge time

VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

Simulation 2

Conclusion

This simulation is based on a 3 shifts work day. Charges are made during breaks (15 minutes) and lunch/diner time (30 minutes). Total of 60 minutes of charge per shift.
This set up allows the lift truck to work 7 hours per shift.
This is equal to roughly 5,460 motor hours a year. This number is based on a 5 days work week schedule.

- ✓ Doosan B20T-2
- ✓ Battery VeloxPlus 500Ah
- ✓ Charger Omni 400A

⚠ This simulation works only with this specific charging set up.
A charger with an output **lower** than 400A will not be able to charge the battery correctly. ⚠

VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

Simulation 3

Work simulation

3 shifts, 45 minutes charge/shift, Doosan B20T-2

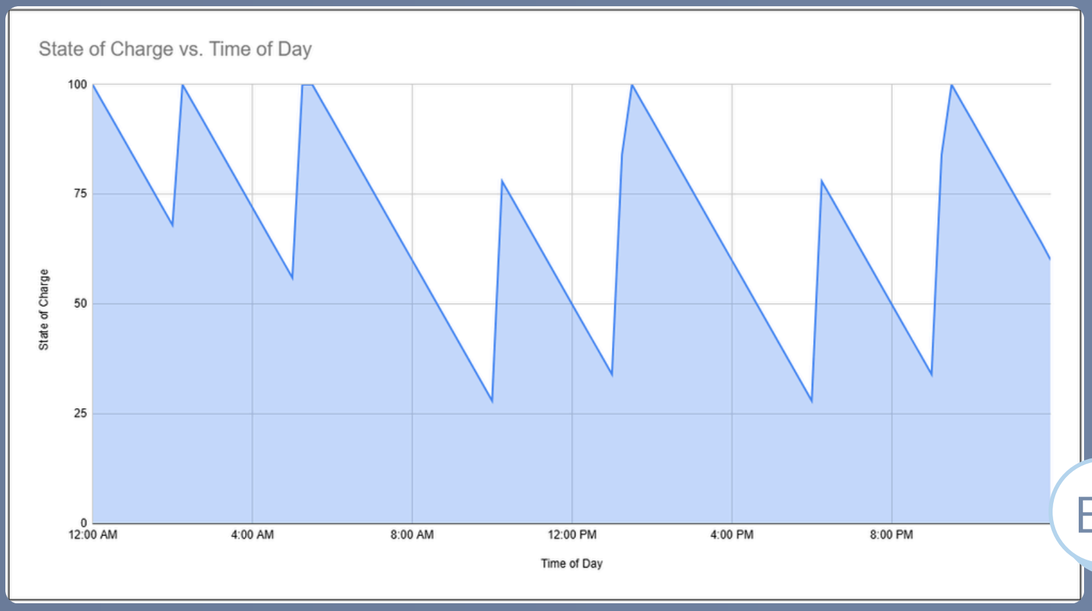
7h15 motor per shift = 300Ah + 600A charger = VeloxMax

CHARGING EVENTS	EVENT START	EVENT END
1st Charge	2:00 AM	2:15 AM
2nd Charge	5:00 AM	5:30 AM
3rd Charge	10:00 AM	10:15 AM
4th Charge	1:00 PM	1:30 PM
5th Charge	6:00 PM	6:15 PM
6th Charge	9:00 PM	9:30 PM
7th Charge		
8th Charge		
9th Charge		
10th Charge		

Charging window/shift

BATTERY & CHARGER INFO	
Battery Capacity (AH)	300
Truck Load (A/hm)	48
Truck Efficiency (%)	100%
Charger Current (A)	600
Charging Efficiency (%)	80%
Start SOC (%)	100%
Day Start Time	12:00 AM

Battery/charger/load



Energy consumption

Charge time

CHARGING EVENTS	EVENT LENGTH
1st Charge	0:15
2nd Charge	0:30
3rd Charge	0:15
4th Charge	0:30
5th Charge	0:15
6th Charge	0:30
7th Charge	0:00
8th Charge	0:00
9th Charge	0:00
10th Charge	0:00
	2:15

VELOX ECOSYSTEM

YOUR FUTURE-READY FORKLIFT ENERGY ECOSYSTEM

Simulation 3

Conclusion

This simulation is based on a 3 shifts work day. Charges are made during breaks (15 minutes) and lunch/diner time (30 minutes). Total of 45 minutes of charge per shift.
This set up allows the lift truck to work 7 hours per shift.
This is equal to roughly 5,655 motor hours a year. This number is based on a 5 days work week schedule.

- ✓ Doosan B20T-2
- ✓ Battery VeloxMax 300Ah
- ✓ Charger Omni 600A

⚠ This simulation works only with this specific charging set up.
A charger with an output **lower** than 600A will not be able to charge the battery correctly. ⚠