ULTRA-HIGH EFFICIENT DRIVE SOLUTIONS FOR STS AND RTG CRANES

ECO-FRIENDLY | ULTRA HIGH -EFFICIENCY | FUTURE -READY

CONTENT

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ABOUT ME

SPEAKER

- Florian Schuster
- 42 years young, living in Singapore
- Started career as Service / commissioning engineer
- Moved to VEM in 2012 as Sales / Project Manager
- Since 2017 in SG as Director of Sales APAC
- Penetrating Asia´s Industries with electrical Solutions

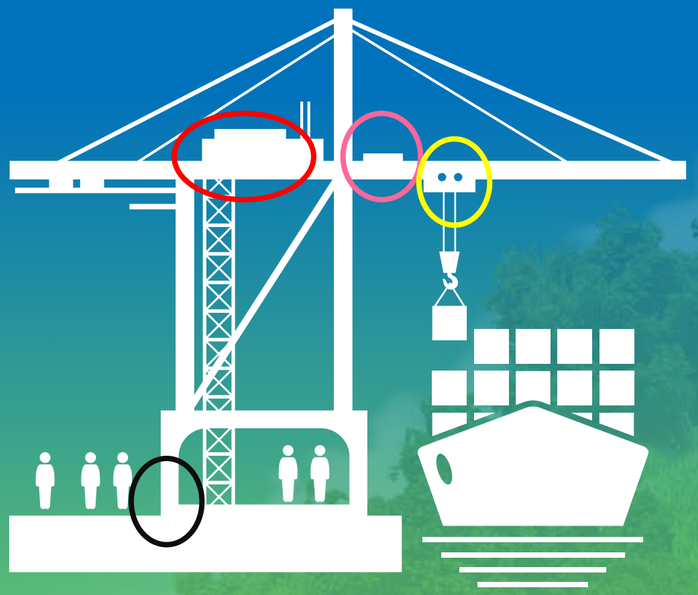
ABOUT VEM

PROGRESS WITH TRADITION

- Founded in 1886, pioneering the electric industry, originated from East Germany.
- VEM built electrical machines ranging 0,06KW up to 60MW.
- Progressing with technology, keeping and improving quality standards, providing custom-made solutions & products to various industries.

APPLICATION

SHIP TO SHORE & RUBBER TIRE GANTRY - CRANES

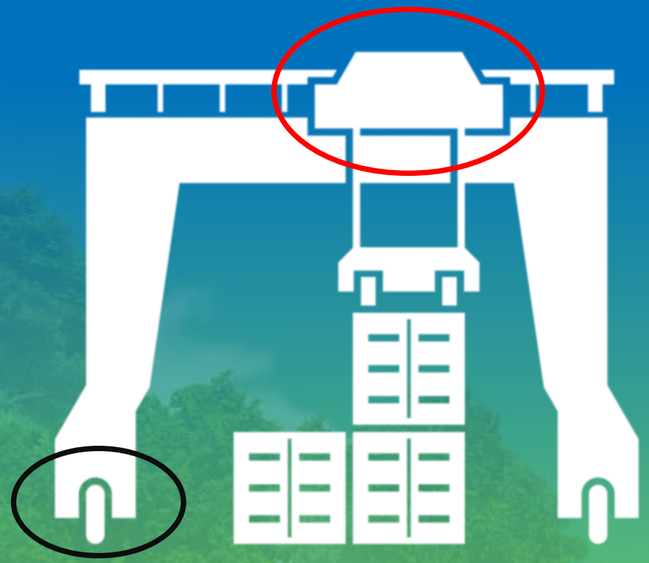


Main Hoist

Boom

Gantry

Trolley



WHY

EFFICIENCY

AC MOTORS

VEM ULTRA-EFFICIENT MOTORS

- **Hoist motors** up to 98% efficiency as Asynchronous Motor
- IC01/06 cooling
- Welded steel housing
- With IM 1002 / double shaft extension
- Interchangeably with other makes

- **Trolley and Gantry** motors - tailor-made as Asynchronous Motor
- 0,16 - 90kW, S2 and S3 design
- Non ventilated
- With brake and encoder

AC DRIVES

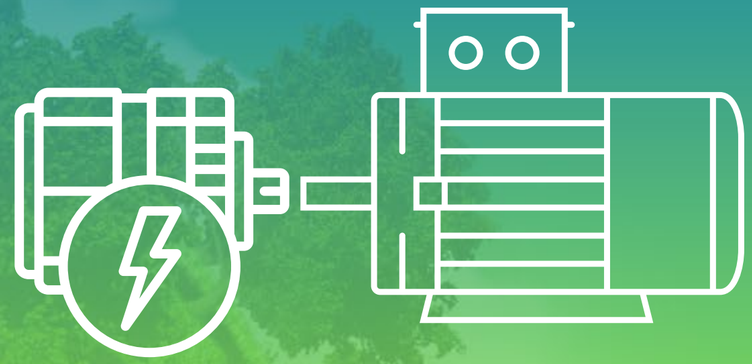
VEM VCS 880 SERIES

- Variable speed drives up to 690V, 3000kW
- Air cooled
- DTC (direct torque control)
- IP 20- IP54
- Wall-mounted or panel design
- Modbus/TCP, Profibus DP
- Digital in- and Outputs
- Encoder and PT100 inputs
- Interchangeably with other makes

SYSTEM

EFFICIENCY WITH MOTOR AND VFD

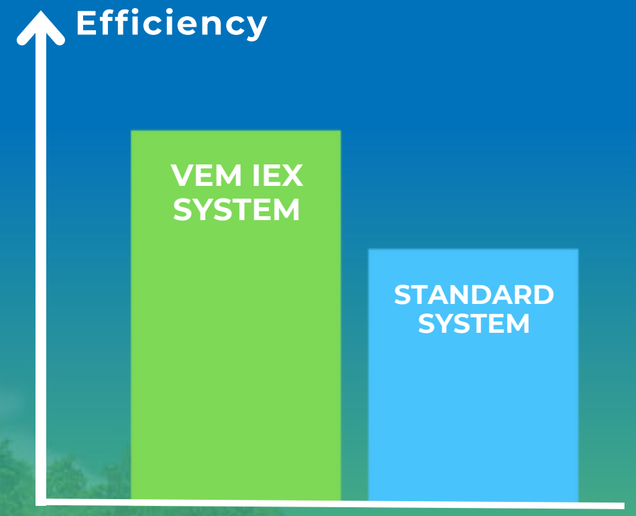
- System efficiency **98,5%**
- Low harmonics, reduced losses on switching frequency
- Reduced friction losses due to improved bearing design
- Increased motor power factor up to **0.99** (PMSM)
- Enhanced magnetic flux control, due to rotor design



SAVINGS

USING VEM SYSTEM

- Enhanced system “future ready”, low maintenance
- Replacing old maintenance intensive systems with low efficiency
- Savings for kW/h up to 32% due to low power consumption and reduced looses. increased power factors for PMSM
- Reducing equipment breakdown time of -50%
- Reduced carbon footprint and keep sustainable value



THANK YOU

LET'S CREATE THE FUTURE TOGETHER

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Scan here to learn more about VEM