

MARINE HYDROGEN FUEL CELL TECHNOLOGY



SEP 2024

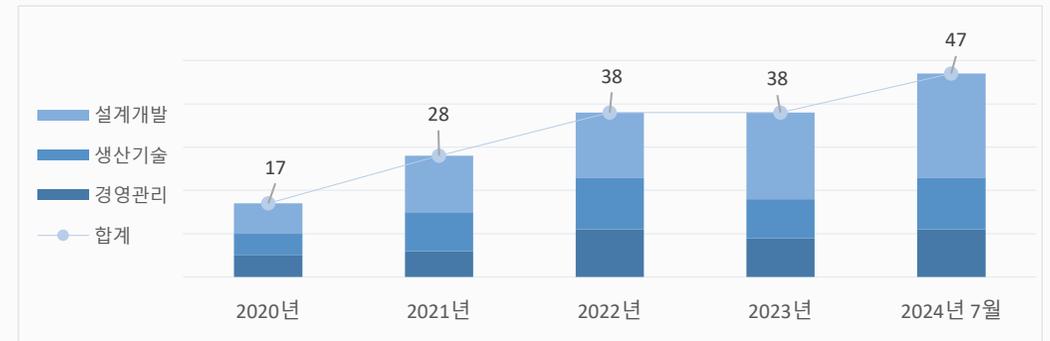
01 | 회사소개

회사 현황



기업명	주식회사 빈센
대표자명	이철환
설립일	2017. 10. 15
사업자등록번호	338-86-00781
홈페이지	www.vinssen.com
소재지	(본사) 전남 영암군 삼호읍 대불주거1로 158
	(지사) 부산, 울산, 강원
	(해외법인) 싱가포르, 미국
업종	제조업(기타선박건조업, 에너지 저장장치 제조업 등)
생산품목	전기배터리 및 수소연료전지 추진 시스템 및 선박
종업원수	47명 (24년 7월 기준)

인원 현황



구분	2020년	2021년	2022년	2023년	2024년 7월
경영관리	5	6	11	9	11
생산기술	5	9	12	9	12
설계개발	7	13	15	20	24
합계	17	28	38	38	47
전년대비 증감	-	(+) 11	(+) 10	-	(+) 11

01 | 회사소개

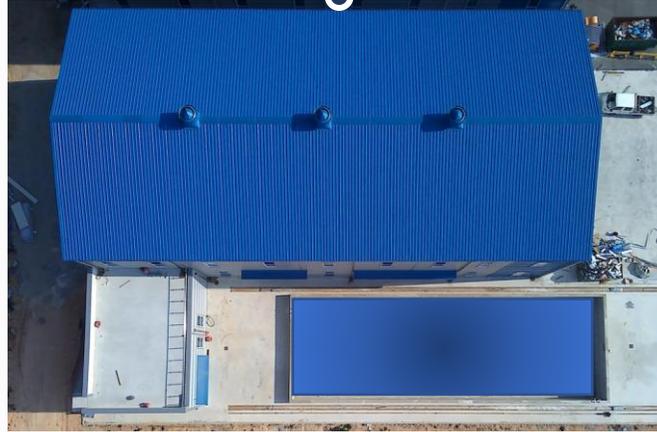


01 | 회사소개

공장(제 1, 2공장)



테스트 예인 수조



갠트리 크레인



수소저장시설



생산시설



수소연료전지 테스트 베드



02 | 제품소개

1 Fuel Cell Module - 100kW



100kW 선박용 연료전지파워팩
AIP(Approval in Principle) 인증
획득. (한국선급)

100kW

2 Fuel Cell Module - 250kW



250kW



250kW 선박용 연료전지파워팩
AIP(Approval in Principle) 인증
획득. (한국선급)

Specifications

	FC 100kW	FC 250kW
Target Application	Boat	Vessel
Installation Type	Horizontal	Vertical
H ₂ Inlet Pressure(barg)	12	5
System Rated Power Output(kW)	100	250
Ambient Temperature(°C)	-10 ~ 45	-10 ~ 45
Ambient Humidity(%)	0 ~ 95	0 ~ 95
Cooling Type	Water-Cooled	Water-Cooled
Ingress Protection	IP54	IP54
System Size(mm, WxDxH)	1,900 x 700 x 1,000	1,200 x 800 x 2,000



Specification (150kW)

Number of Cells	450 ea
Minimum Power	14 kW
Voltage Range	250 – 380 V
Current Range	40 – 920 A
Fuel Cell Efficiency	53 %
Bipolar Plate	Titanium

02 | 제품소개

3 Mega FC 2.0



Specification	
Type	PEM Fuel Cell
Size(WxDxH, M)	6.0 x 2.5 x 2.5 (20ft Cnt)
Ambient Temp.(°C)	0 ~ 45
Rated Power(MW)	2.0 (Total)
Weight(Estimate, kg)	14,000
Fuel Consumption[100%]	75 g/kWh

4 Battery Systems

*Li-Ion



92kWh

*Li-FePO4



100kWh

Specifications	92kWh	100kWh
Battery Type	Li-Ion	Li-FePO4
Nominal Voltage(VDC)	480	672
Charge Voltage(V)	540	760
Discharge Voltage(V)	396	567
Ingress Protection	IP44	IP44
Weight(kg)	750	1,300
Size(mm, WxDxH)	1,450 x 850 x 625	1,200 x 800 x 1,950
Communication	CAN 2.0A	CAN 2.0A

03 | 프로젝트

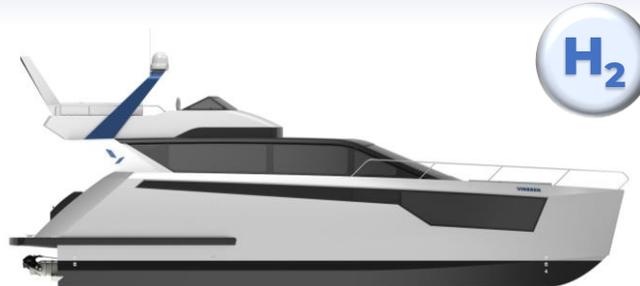


8.5M Electric Propulsion Boat
Leisure Boat

Description

Max. Speed	15.0 knots
Operating Time (Cruising Speed)	2 Hours

Length Overall	8.5 m	Passenger Capacity	6.0 P
Beam Overall	2.5 m	Gross Weight	3.2 ton
Depth	1.0 m	Material of Hull	Aluminum
Draft	0.5 m	Hull Type	Mono Hull
Number of Motor	1 Set	Number of Battery	2 Sets
Propulsion Drive	Water Jet	Battery Weight	1.5 ton
Type of Propulsion	Battery Propulsion		



17M H₂ Electric Propulsion Boat
Leisure Boat

Description

Max. Speed	20.0 knots
Operating Time (Cruising Speed)	6 Hours

Length Overall	17.4 m	Passenger Capacity	10.0 P
Beam Overall	4.93m	Gross Weight	24.0 ton
Depth	1.9 m	Material of Hull	Aluminum
Draft	0.7 m	Hull Type	Mono Hull
Number of Motor	2 Sets	Number of Battery	4 Sets
Propulsion Drive	Water-Jet	Fuel Cell Module	100kW, 2 Sets
Type of Propulsion	Fuel Cell	Hydrogen Tank	185L*4, Type 4



5.6M Electric Propulsion Boat
Leisure Boat

Description

Max. Speed	17.0 knots
Operating Time (Cruising Speed)	2 Hours

Length Overall	5.6 m	Passenger Capacity	4.0 P
Beam Overall	2.05 m	Gross Weight	2.7 ton
Depth	0.8 m	Material of Hull	Aluminum
Draft	0.5 m	Hull Type	Mono Hull
Number of Motor	1 Set	Number of Battery	1 Set
Propulsion Drive	Stern Drive	Battery Weight	0.8ton
Type of Propulsion	Battery Propulsion		

03 | 프로젝트 8.5M Electric Propulsion Boat

Leisure Boat

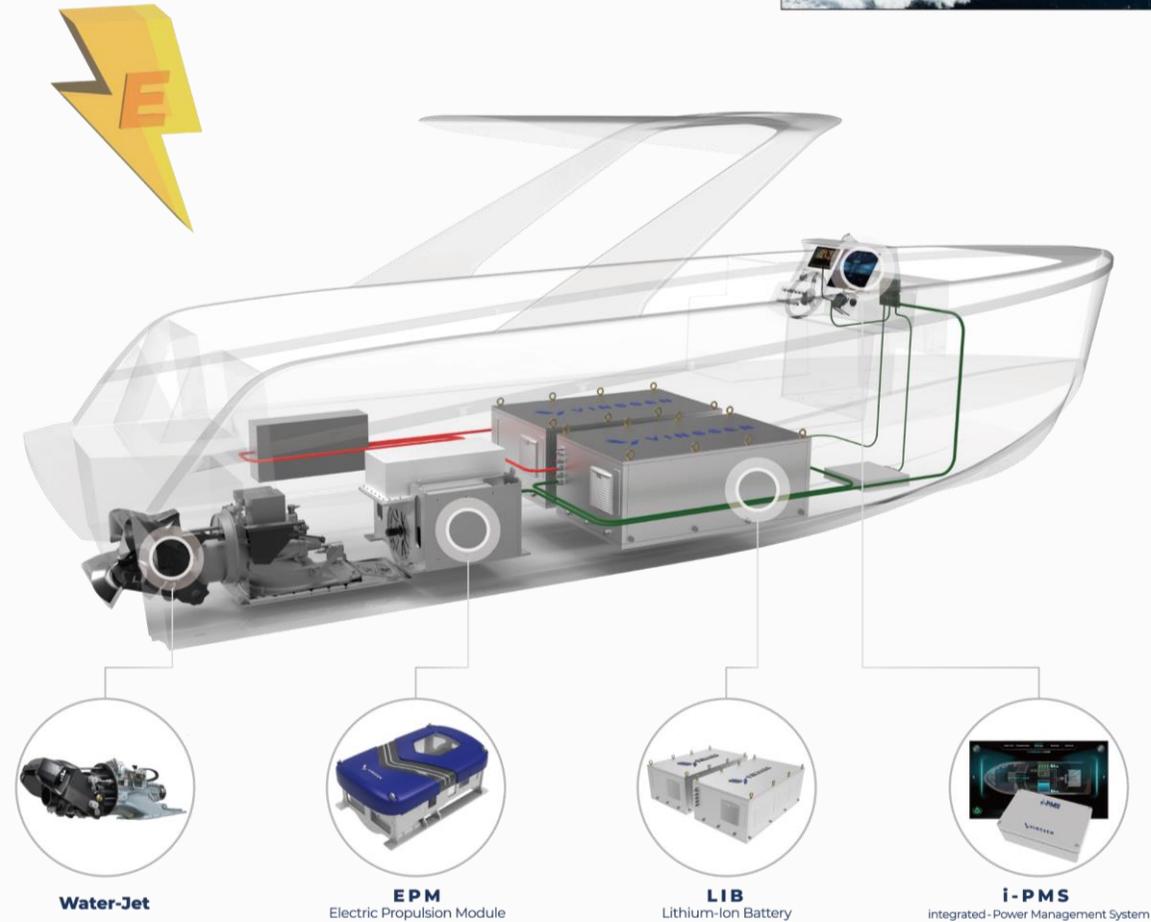


8.5M Electric Propulsion Boat
Leisure Boat

Description

Max. Speed	15.0 knots
Operating Time (Cruising Speed)	2 Hours

Length Overall	8.5 m	Passenger Capacity	6.0 P
Beam Overall	2.5 m	Gross Weight	3.2 ton
Depth	1.0 m	Material of Hull	Aluminum
Draft	0.5 m	Hull Type	Mono Hull
Number of Motor	1 Set	Number of Battery	2 Sets
Propulsion Drive	Water Jet	Battery Weight	1.5 ton
Type of Propulsion	Battery Propulsion		



Water-Jet

EPM
Electric Propulsion Module

LIB
Lithium-Ion Battery

i-PMS
Integrated - Power Management System

03 | 프로젝트 17M H₂ Electric Propulsion Boat Leisure Boat

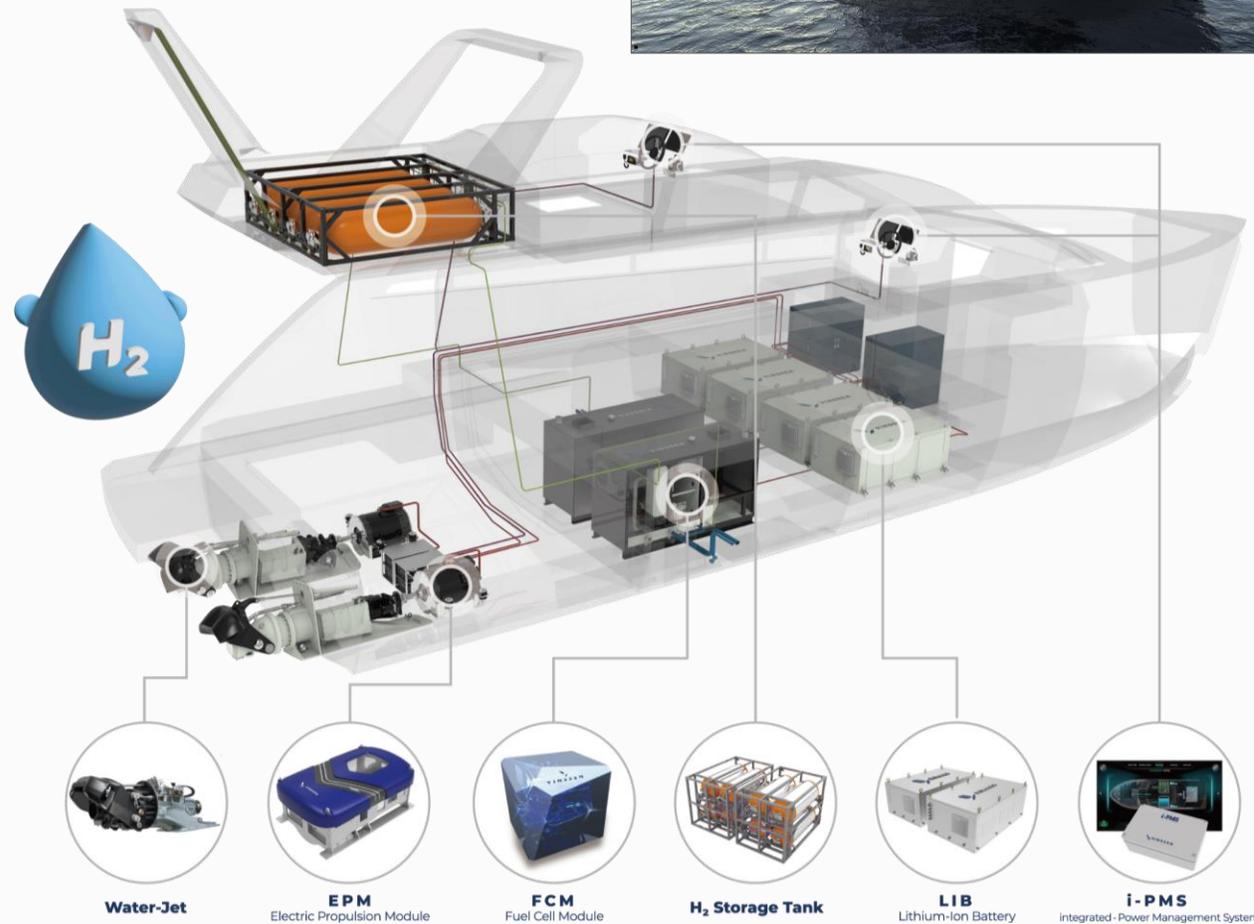


17M H₂ Electric Propulsion Boat
Leisure Boat

Description

Max. Speed	20.0 knots
Operating Time (Cruising Speed)	6 Hours

Length Overall	17.4 m	Passenger Capacity	10.0 P
Beam Overall	4.93 m	Gross Weight	24.0 ton
Depth	1.9 m	Material of Hull	Aluminum
Draft	0.7 m	Hull Type	Mono Hull
Number of Motor	2 Sets	Number of Battery	4 Sets
Propulsion Drive	Water-Jet	Fuel Cell Module	100kW, 2 Sets
Type of Propulsion	Fuel Cell	Hydrogen Tank	185L*4, Type 4



Water-Jet

EPM
Electric Propulsion Module

FCM
Fuel Cell Module

H₂ Storage Tank

LIB
Lithium-Ion Battery

i-PMS
Integrated Power Management System

04 | 지식재산권 및 수상인증 현황



특허현황

지역	특허현황	
	등록특허	특허출원
국내	등록특허	7
	특허출원	13
	디자인	13
	상표	3
해외	PCT	3
	특허출원	10
	디자인	1
	상표	4

수상&인증

2018	기업부설연구소 설립	
2019	올해의 보트상	부산광역시장
	표창장	해양수산부장관
2020	혁신기업 국가대표 1000 선정	해양수산부
	지식재산 경영인증서	특허청
2021	표창패	울산광역시장
	올해의 보트상 (최우수상)	부산광역시장
	대상	중소벤처기업부장관
	H2 Innovation Award 2021 우수상	수소모빌리티+쇼 조직위원장
	금상	한국환경산업기술원장
	표창장	산업통상자원부장관
	표창장	중소벤처기업부장관
2022	경영혁신형 중소기업(Main-Biz)	중소벤처기업부
	성과공유기업 확인서	
2023	전라남도 일자리 우수 기업	전라남도
2024	글로벌 강소기업 1,000+ [유망기업]	중소벤처기업부



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