

INOVANCE

MD810 AC 드라이브 Compact AC Multi-Sectional Drive

- 에너지 절약
- 간편한 유지보수
- 빠르고 간편한 설치 및 시운전
- 높은 내구성



MD810 - Compact AC MultiDrive

For Multi-Sectional Drives Applications



에너지 절약

- 재생 에너지 공유를 위한 공통 DC버스 구성
- 제품 에너지 재사용을 위한 중앙 집중식 제품 설계

빠르고 간편한 설치 및 시운전

- 간단한 플러그 앤 플레이 모듈 설치
- InoDriverShop을 통한 원 클릭 네트워크 연결
- 더 적은 외부 요소: 내장된 미니버스 바 및 공통 DC버스 구성 PROFINET, PROFIBUS DP 및 CANopen과 같은
- 개방형 커뮤니케이션 필드 버스와 간편하게 호환 가능

간단한 유지보수

- 소프트웨어는 시운전, 진단 및 유지보수를 위한 모든 단계를 통합
- PLC/HMI/드라이브 소프트웨어를 동일한 네트워크를 통해 구성하여 단순한 유지보수 및 낮은 유지보수 비용을 제공
- DC 소프트 차지 모듈을 사용하여 드라이브의 전원을 독립적으로 키거나 끄기 가능
- 내장된 이중화: 하나의 정류기에 장애가 발생할 경우 시스템은 감소된 용량 (속도 또는 부하)으로 계속 동작 가능

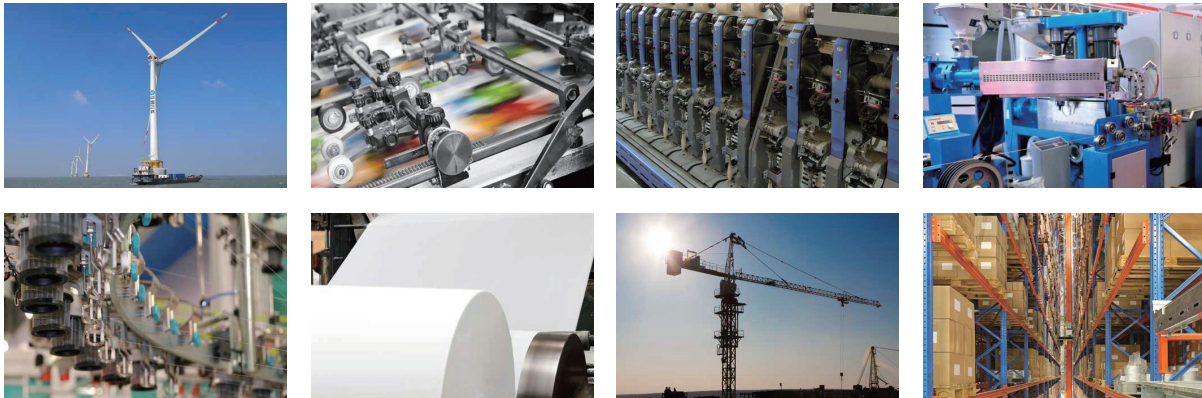
높은 내구성

- 방열판을 위한 별도의 냉각 채널은 내부 PCB의 먼지 오염을 방지
- 높은 레벨의 컨포멀 코팅 (3C3 & 3S2)
- 적용 가능한 주변 온도 범위:
 - 동작: -10~50
 - 보관: -25~70
- 습도 범위 5%~95% (부식가스의 경우 60%)
- 전류 흐름을 원활하게 하고 고조파 왜곡을 줄이기 위한 DC리액터 내장
- 내장된 C3필터, 외부 C2필터(옵션)로 EUCN 61800-3 표준 요구 사항을 충족








INDUSTRY APPLICATIONS

INOVANCE

지속적인 자동화가 필요한 금속 제품, 인쇄 및 포장, 섬유 인쇄 및 염색, 화학 섬유 및 플라스틱, 제지, 크레인, 풍력 발전, 물류 및 창고 보관 등의 산업 또는 멀티 포인트 드라이브가 필요한 단일 장비 애플리케이션에 적합합니다



MD810 SERIES PRODUCT LIST

MD810 Series	AC Drive						
Appearance							
	Dual-axis	Dual-axis	Single-axis	Single-axis	Single-axis	Single-axis	Single-axis
Power rating	537 to 679 VDC D1.5 to D5.5 kW	537 to 679 VDC D7.5 to D18.5 kW	537 to 679 VDC 1.5 to 7.5 kW	537 to 679 VDC 11 to 37 kW	537 to 679 VDC 45 to 75 kW	537 to 679 VDC 90 to 160 kW	537 to 679 VDC 200 to 355 kW
Dimension (WxDxH) mm	50x305x350	100x305x350	50x305x350	100x305x350	200x305x350	300x305x350	230x633x1395

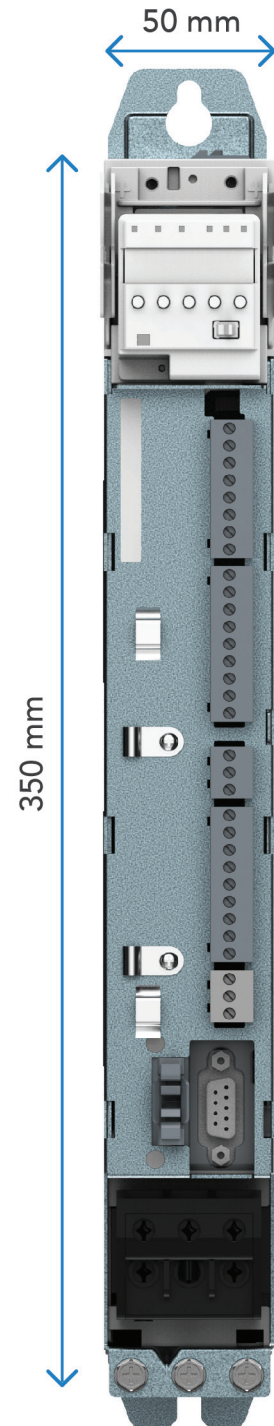
MD810 Series	AC Drive				
Appearance					
	Rectifier				
Power rating	380 to 415 V 22 kW	380 to 415 V 45 kW	380 to 415 V 110 kW	380 to 415 V 160 kW	380 to 415 V 355 kW
Dimension (WxDxH) mm	50x305x350	50x305x350	200x305x350	300x305x35	180x445x800

FEATURES AND FUNCTIONS

MD810 is a multidrive system for induction and PMS motors.

- **제어 모드:**
 - V/f 제어 (오픈루프 유도모터)
 - SVC 제어 (오픈루프 PMS모터)
 - FVC 제어 (클로즈드루프 유도모터) FVC 제어 (클로즈드루프 PMS모터)
- **용량 범위:** 1.5~160 kW
(듀얼 드라이브의 경우: 1.5~18.5)
- **입력 전원:** 3상 380~480 VAC
- **전원 사양:** T/N and T/T 전원
- **24V 보조 전원**
- **최대 출력 주파수:** 500 Hz
- **IP20 (355 kW 파워모듈: IP00)**
- **제동 유닛 내장 (파워모듈: 22,45kW)**
- **정지형 및 회전형 오토 튜닝 지원**
- **외부 장치에 대한 2nd PID 제어 가능**
- **LED 키패드 내장**
 - 옵션 리모트 키패드 (8GB SD card 지원)
 - 한 대의 키패드로 다수 인버터 제어
 - 파라미터 복사 기능 지원

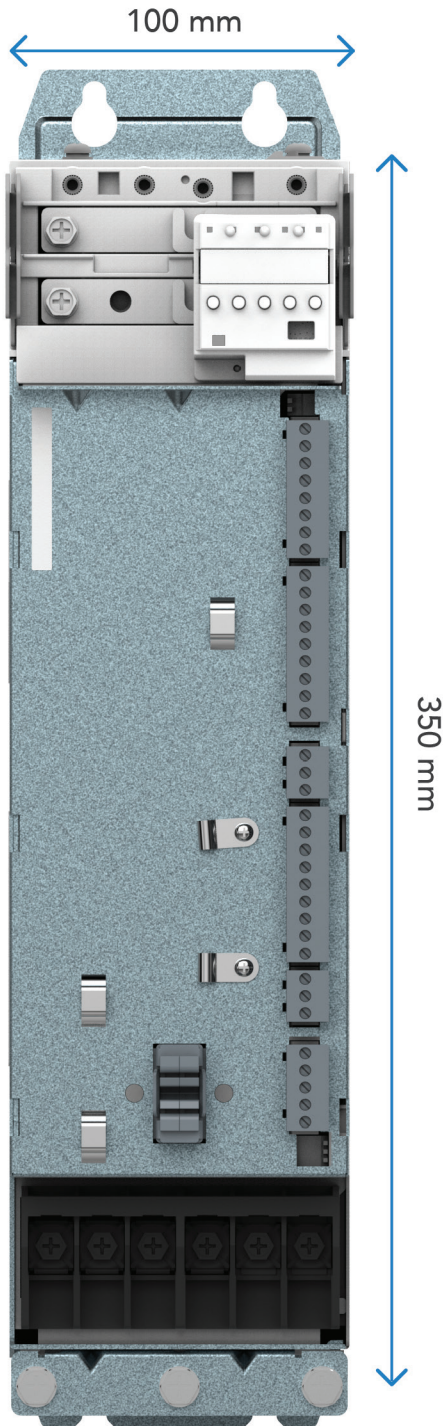
Size 1 dual drive module
- front covers removed



Size 1
dual ratings available:
1.5, 2.2, 3.7 & 5.5 kW

Size 2 dual drive module

- front covers removed



Size 2
dual ratings available:
 7.5, 11, 15 & 18.5 kW

- **다양한 운전 모드:**
 - Speed/position control
 - Load distribution control
 - Droop control
 - Tension control
- **Winder/Unwinder 기능**
- **Textile wobble 기능**
- **지원 가능한 통신 프로토콜**
 - Modbus – RTU
 - CANopen
 - CANlink
 - PROFIBUS DP
 - PROFIBUS DP – to – CANopen
 - PROFINET – to – CANopen
- **파워 모듈: 22 to 355 kW**
- **최대 12 kHz의 캐리어 주파수**
- **Safe Torque Off (STO) SIL3 (EN 61800-5-2)**
- **지원 가능한 속도 피드백 장비**
 - Resolver
 - ABZ incremental encoders
 - 23 bit serial encoder – unique proprietary Inovance product



TECHNICAL DATA

Product ordering Code

MD810 - 20M 4T 45 G 1 0 0

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① AC drive series
- ② **Module type:**
20M: rectifier
50M: drive
- ③ **Voltage supply:**
4T: 380–480 V
- ④ **Rectifier (rated power):**
22: 22 kW
45: 45 kW
110: 110 kW
160: 160 kW
355: 355 kW
Drive (motor power)
Single-drive ID:
7.5: 7.5 kW
37: 37 kW
Double-drive ID:
D1.5: 1.5 kW
D5.5: 5.5 kW
- ⑤ **Model**
G: general model
- ⑥ **Optional functional component**
Rectifier:
0: without built-in brake
1: with built-in brake (22 & 45 kW only)
Drive:
2: built-in differential PG card
3: built-in 23 bit absolute PG card
4: built-in resolver + frequency division card
- ⑦ **Optional communication component**
Rectifier:
0: built-in RS485 (Modbus-RTU), CANopen and CANlink communications
1: built-in CANopen, CANlink, PROFIBUS-DP and PROFIBUS DP gateway to CANopen communications
2: built-in RS485 (Modbus-RTU), CANopen, CANlink and PROFINET gateway to CANopen communications
Drive:
0: built-in RS485 (Modbus-RTU), CANopen and CANlink communications
1: built-in CANopen, CANlink and PROFIBUS-DP communications
- ⑧ **Optional features**
Drive:
0: no optional features
1: built-in STO
Rectifier:
0: no optional features available

SPECIFICATIONS

Single Drives

Drive Unit Model	Rated Power (kW)	Input DC current (A)	Output AC current (A)
537–679 VDC (working range: 350–800 VDC) Output voltage: 0–480 VAC			
MD810-50M4T1.5GXXX	1.5	4.9	3.8
MD810-50M4T2.2GXXX	2.2	7	5.1
MD810-50M4T3.7GXXX	3.7	12	9
MD810-50M4T5.5GXXX	5.5	17	13
MD810-50M4T7.5GXXX	7.5	22	17
MD810-50M4T11GXXX	11	31	25
MD810-50M4T15GXXX	15	40	32
MD810-50M4T18.5GXXX	18.5	46	37
MD810-50M4T22GXXX	22	55	45
MD810-50M4T30GXXX	30	73	60
MD810-50M4T37GXXX	37	90	75
MD810-50M4T45GXXX	45	105	91
MD810-50M4T55GXXX	55	129	112
MD810-50M4T75GXXX	75	172	150
MD810-50M4T90GXXX	90	294	184
MD810-50M4T110GXXX	110	358	224
MD810-50M4T132GXXX	132	420	262
MD810-50M4T160GXXX	160	474	296

Dual Drives

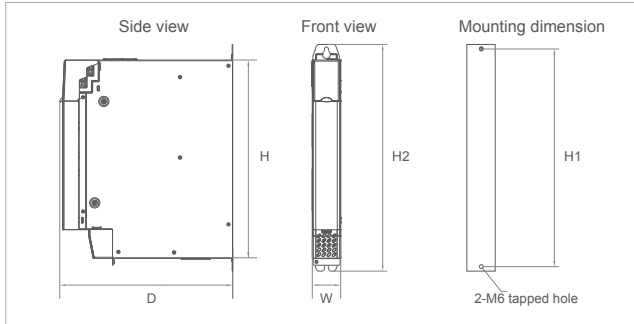
Drive Unit Model	Rated Power (kW)	Input DC current (A)	Output AC current (A)
537–679 VDC (working range: 350–800 VDC) Output voltage: 0–480 VAC			
MD810-50M4TD1.5GXXX	1.5	10	3.8
MD810-50M4TD2.2GXXX	2.2	14	5.1
MD810-50M4TD3.7GXXX	3.7	24	9
MD810-50M4TD5.5GXXX	5.5	34	13
MD810-50M4TD7.5GXXX	7.5	44	17
MD810-50M4TD11GXXX	11	62	25
MD810-50M4TD15GXXX	15	80	32
MD810-50M4TD18.5GXXX	18.5	92	37

Rectifiers

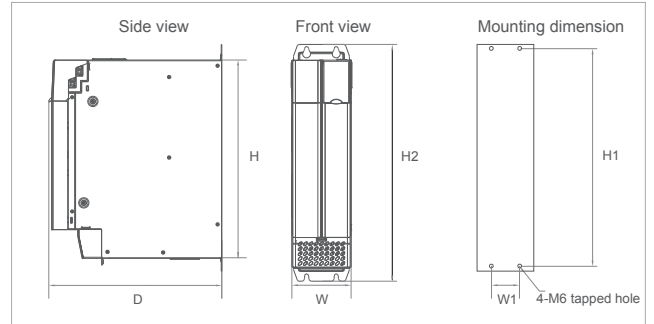
Rectifier Unit Model	Rated Power (kW)	Input AC current (A)	Output DC current (A)	Braking Unit
380–480 VAC (working range: 323–528 VAC) Output voltage: 537–679 VDC				
MD810-20M4T22GXXX	22	59	56	Built-in
MD810-20M4T45GXXX	45	112	110	Built-in
MD810-20M4T110GXXX	110	196	240	MDBUN-60-(5)T*2
MD810-20M4T160GXXX	160	292	358	MDBUN-90-(5)T*2
MD810-20M4T355GXXX	355	619	759	MDBUN-200-C/B*3

DIMENSIONS

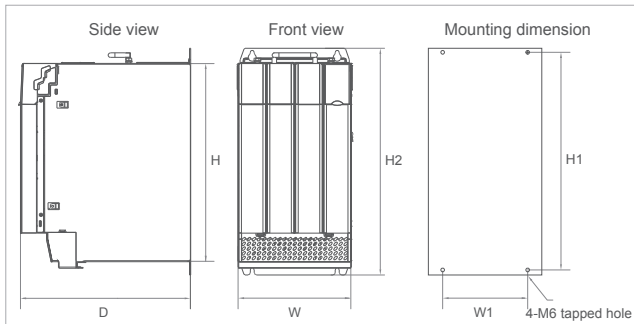
Dimensions of single drive units



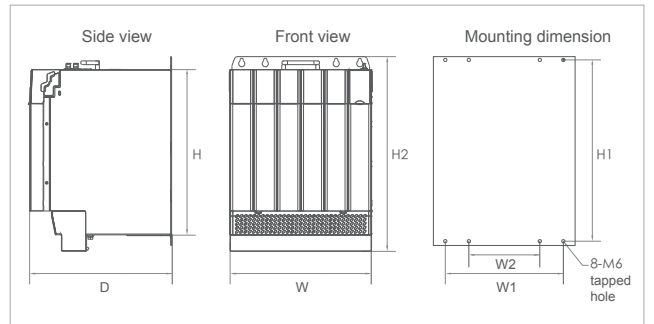
Drive Unit Model (S1)	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-50M4T1.5GXXX	400	350	50	305	-	-	384	Φ7	3.8
MD810-50M4T2.2GXXX	400	350	50	305	-	-	384	Φ7	3.8
MD810-50M4T3.7GXXX	400	350	50	305	-	-	384	Φ7	3.8
MD810-50M4T5.5GXXX	400	350	50	305	-	-	384	Φ7	4
MD810-50M4T7.5GXXX	400	350	50	305	-	-	384	Φ7	4



Drive Unit Model (S2)	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-50M4T11GXXX	400	350	100	305	50	-	384	Φ7	7.5
MD810-50M4T15GXXX	400	350	100	305	50	-	384	Φ7	7.5
MD810-50M4T18.5GXXX	400	350	100	305	50	-	384	Φ7	8
MD810-50M4T22GXXX	400	350	100	305	50	-	384	Φ7	8.5
MD810-50M4T30GXXX	400	350	100	305	50	-	384	Φ7	9.4
MD810-50M4T37GXXX	400	350	100	305	50	-	384	Φ7	9.4

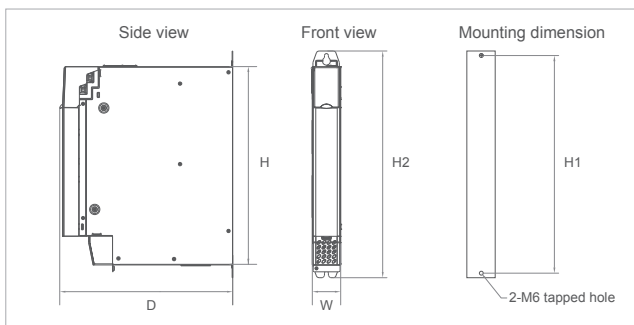


Drive Unit Model (S3)	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-50M4T45GXXX	400	350	200	305	150	-	384	Φ7	18.4
MD810-50M4T55GXXX	400	350	200	305	150	-	384	Φ7	18.4
MD810-50M4T75GXXX	400	350	200	305	150	-	384	Φ7	19.5

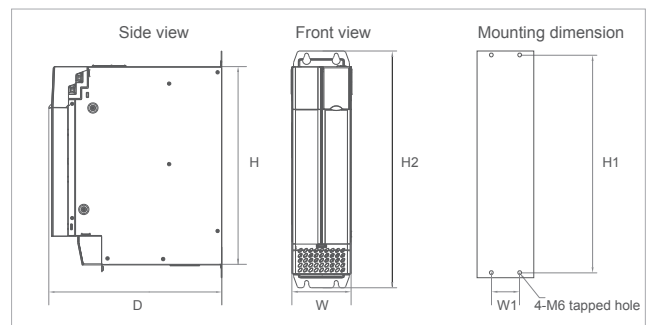


Drive Unit Model (S4)	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-50M4T90GXXX	400	350	300	305	250	150	384	Φ7	38
MD810-50M4T110GXXX									
MD810-50M4T132GXXX									
MD810-50M4T160GXXX									

Dimensions of dual drive units

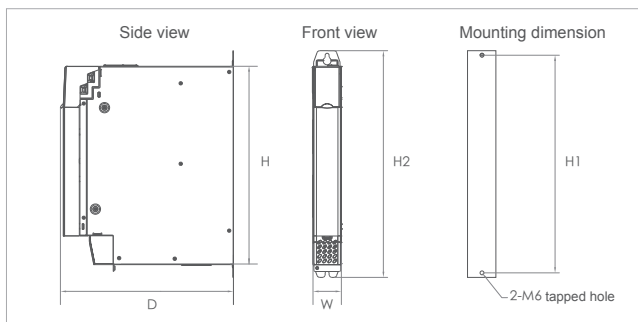


Drive Unit Model (S1)	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-50M4TD1.5GXXX	400	350	50	305	-	-	384	Φ7	4.5
MD810-50M4TD2.2GXXX	400	350	50	305	-	-	384	Φ7	4.5
MD810-50M4TD3.7GXXX	400	350	50	305	-	-	384	Φ7	4.5
MD810-50M4TD5.5GXXX	400	350	50	305	-	-	384	Φ7	4.5

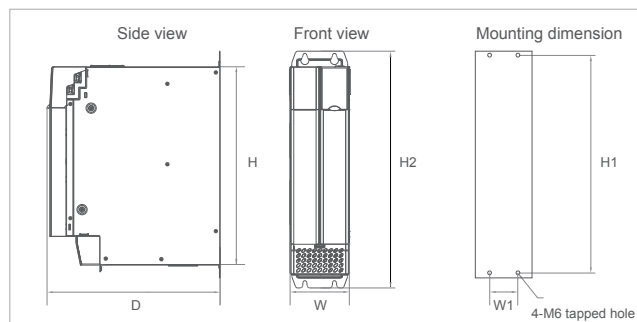


Drive Unit Model (S2)	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-50M4TD7.5GXXX	400	350	100	305	50	-	384	Φ7	9.5
MD810-50M4TD11GXXX	400	350	100	305	50	-	384	Φ7	9.5
MD810-50M4TD15GXXX	400	350	100	305	50	-	384	Φ7	9.5
MD810-50M4TD18.5GXXX	400	350	100	305	50	-	384	Φ7	9.5

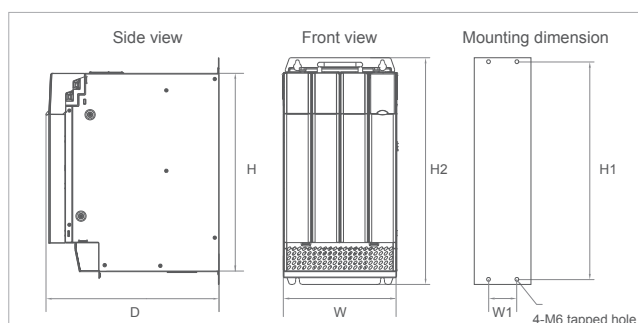
Dimensions of rectifier drive units



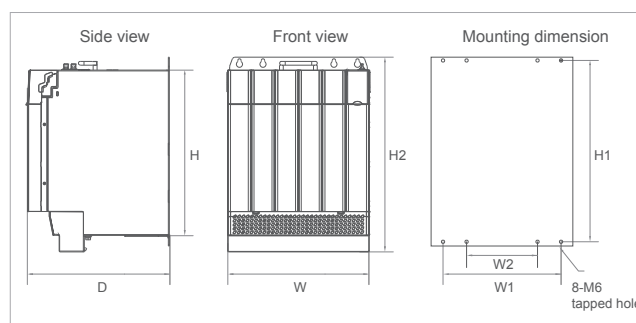
Rectifier Unit Model	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-20M4T22GXXX	400	350	50	305	-	-	384	Φ7	3.8



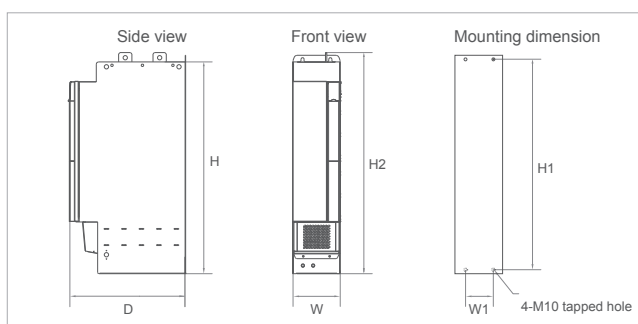
Rectifier Unit Model	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-20M4T45GXXX	400	350	100	305	50	-	384	Φ7	8



Rectifier Unit Model	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-20M4T110GXXX	400	350	200	305	150	-	384	Φ7	18.4



Rectifier Unit Model	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-20M4T160GXXX	400	350	300	305	250	150	384	Φ7	-38

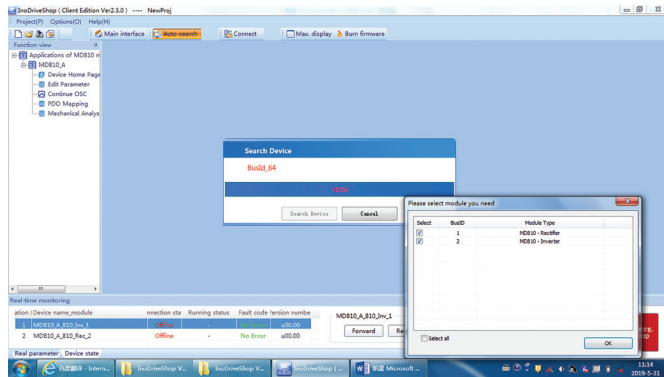


Rectifier Unit Model	Physical Dimensions (mm)				Mounting Hole (mm)			Mounting Hole Diameter (mm)	Weight (kg)
	(H2)	(H)	(W)	(D)	(W1)	(W2)	(H1)		
MD810-20M4T355GXXX	835	800	180	445	105	-	795	Φ12	65

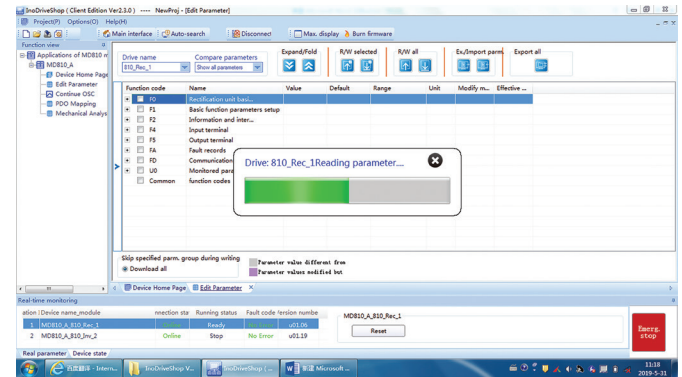
Option	Applicable model
External LCD keypad	All drives
External power terminals	Single drives: from MD810-50M4T1.5GXXX to MD810-50M4T160GXXX
	Dual drives: from MD810-50M4TD1.5GXXX to MD810-50M4TD18.5GXXX
	Rectifiers: from MD810-20M4T22GXXX to MD810-20M4T355GXXX
Network cables	Dual drives: from MD810-50M4TD1.5GXXX to MD810-50M4TD18.5GXXX
	Rectifiers: from MD810-20M4T22GXXX to MD810-20M4T355GXXX
External keypad cable (3 m)	All drives
Central mounting brackets	Single drives: from MD810-50M4T1.5GXXX to MD810-50M4T75GXXX
	Dual drives: from MD810-50M4TD1.5GXXX to MD810-50M4TD18.5GXXX
	Rectifiers: from MD810-20M4T22GXXX to MD810-20M4T160GXXX
Air deflector plates	Single drives: from MD810-50M4T1.5GXXX to MD810-50M4T75GXXX
	Dual drives: from MD810-50M4TD1.5GXXX to MD810-50M4TD18.5GXXX
	Rectifiers: MD810-20M4T22GXXX - MD810-20M4T160GXXX
UVW shielding bracket	Single drives: from MD810-50M4T1.5GXXX to MD810-50M4T75GXXX
	Dual drives: from MD810-50M4TD1.5GXXX to MD810-50M4TD18.5GXXX
	Rectifiers: from MD810-20M4T22GXXX to MD810-20M4T110GXXX
LCD keypad mounting base (SOP-20-MP-IP20)	All drives

InoDriveShop

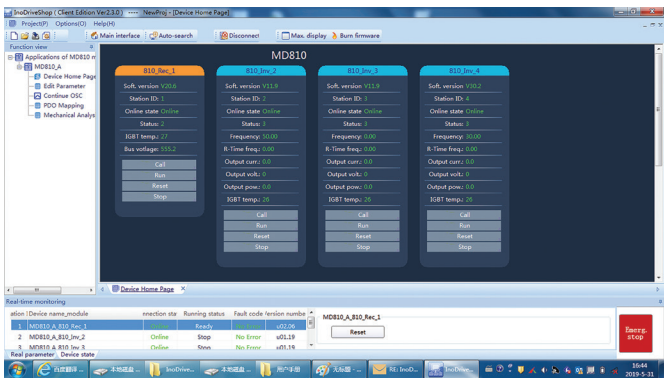
InoDriveShop은 PC 기반 소프트웨어입니다. Windows™ 인터페이스를 기반으로 하며 드라이브의 파라미터를 업로드 및 다운로드 할 수 있고 실시간 오실로스코프와 같은 다양한 다른 기능을 제공합니다.



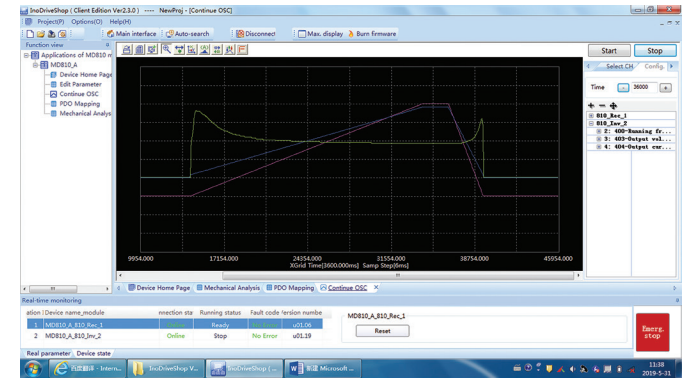
One key module scanning



Parameter uploading/downloading in batches



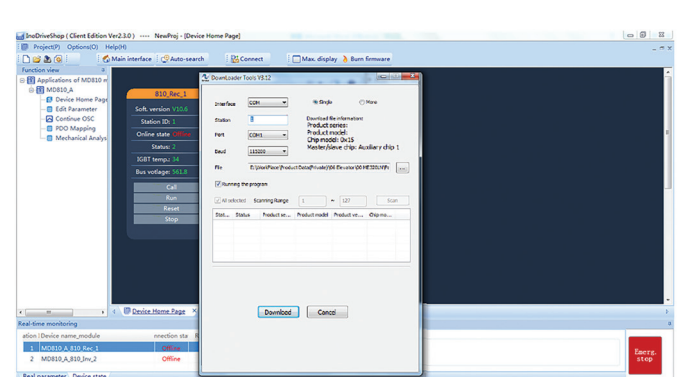
Visualisation of modules' status



Multi-drive, multi channel oscilloscope

1	2	3	
1			
2	Commissioned by:	Tester	
3	Contact info.:	www.inovance.com.cn	
4	Customer name:	User	
5	Remarks:	First testing	
6			
7	Device info.:	MD810 Testing Platform	
8	Module info.:	MD810_A_810_Inv_1 MD810_A_810_Rec_2	
9			
10	Time:	Record type	Module device
11	2019-5-31 11:41	Initial record	Information

Commissioning record



Online software upgrade

✓ PROFIBUS DP의 설정도 가능합니다.

ACCESSORIES

Applicable model	MD810 accessory	
	Type code	Description
Size 1 (W: 50 mm)	MD810-AZJ50M-W1	Through-hole mounting brackets for PSU and Drives
Size 2 (W: 100 mm)	MD810-AZJ50M-W2	
Size 3 (W: 200 mm)	MD810-AZJ50M-W3	
Size 4 (W: 300 mm)	MD810-AZJ50M-W4	
Size 1 (W: 50 mm)	MD810-PBJ50M-W1	Cable support bracket for PSU and Drives
Size 2 (W: 100 mm)	MD810-PBJ50M-W2	
Size 3 (W: 200 mm)	MD810-PBJ50M-W3	
Size 4 (W: 300 mm)	MD810-PBJ50M-W4	
Size 1 (W: 50 mm)	MD810-DLB-W1	Air guide plate for PSU and Drives
Size 2 (W: 100 mm)	MD810-DLB-W2	
Size 3 (W: 200 mm)	MD810-DLB-W3	
Size 4 (W: 300 mm)	MD810-DLB-W4	
PSU (sizes 1-2). Drives (size 1)	MD810-CON1	Additional DC bus terminals for PSU and Drives
PSU (sizes 3-4). Drives (sizes 2-4)	MD810-CON2	
Size 1 (W: 50 mm)	C45590-GNCN-C2500024	Communication (Modbus-RTU, CANopen) cable (RJ45 connectors) between modules
Size 2 (W: 100 mm)	C45590-GNCN-C2500025	
Size 3 (W: 200 mm)	C45590-GNCN-C2500035	
Size 4 (W: 300 mm)	C45590-GNCN-C2500055	
Size 5 (355 kW PSU)	C45590-GNCN-C2500080	
Single: 1.5-7.5 kW. Dual: 1.5-5.5 kW	INOV-SU-30	Soft-charging unit for drive modules (single: 1.5-7.5 kW; dual: 1.5-5.5 kW).
Single: 11-22 kW. Dual: 7.5-11 kW	INOV-SU-60	
Single: 30-37 kW. Dual: 15-18.5 kW	INOV-SU-100	
Single: 45-75 kW	INOV-SU-170	
Single: 90-160 kW	-	Soft-charging unit is not available.
All	SOP-20-810	Remote LCD keypad (including 3 m cable)
All	C45590-GNCN-C25003	Remote LCD keypad spare cable (3 m)
All	SOP-20-MP-IP20	LCD keypad mounting base for installation on cabinet door

INOVANCE



2003
founded



IPO:2010
Shenzhen, China



20,256
employees



\$3,405 million
revenues in 2022



No.5
for servo drives
globally in 2022*



No.8
for LV AC drives
globally in 2022*



3.36 million
servo drives and
motors shipped in 2022



2,248,000
EV powertrains
shipped in 2022



17,000+
industrial robots
delivered by end of 2022



13,598
MV drives delivered
by end of 2022



4.3 million
AC drives
shipped in 2022



100+
Inovance's products are in
use in 100+ countries

*According to leading market research company Interact Analysis

For more information, please contact our local offices.

이노밴스 테크놀로지 코리아 주식회사
Inovance Technology Korea Co.,Ltd.

www.inovance.co.kr

서울특별시 영등포구 선유로130 에이스하이테크 3차 1003호

고객 센터 : 02-3489-8850

이메일 : INOVANCEKR@inovance.eu



Kakao Channel



Linked page



Website