

Task	See chapter/section
<p><u>Drive modules with optional cabling panels (+H381)</u></p> <ul style="list-style-type: none"> • Install the cabling panels into the enclosure. • Install the additional components into the enclosure: for example, main disconnect, main contactor, main AC, fuses, etc. • If the main disconnect is installed into the enclosure, connect the input power cabling to it • Connect the input power cables and motor cables to the cabling panel terminals. • Connect the brake resistor and DC connection cables (if any) to the cabling panel terminals. • Install the drive module into the enclosure • Attach the cabling panel busbars to the drive module busbars. • Connect the cables from the drive module to the control unit and install the control unit into the enclosure 	<p>Installing the mechanical accessories into a enclosure (Page 137)</p> <p>Connecting the power cables (Page 139)</p> <p>Installing the drive module into the enclosure (Page 142)</p> <p>Connecting the external control unit to the drive module (Page 100)</p> <p>Attaching the external control unit (Page 102)</p> <p>Manuals for any optional equipment</p>
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<p><u>Drive modules without full-size output cable connection terminals (option +0H371) and IP20 shrouds (option +0B051)</u></p> <ul style="list-style-type: none"> • Install the additional components into the cabinet: for example, main PE busbar, main disconnect, main contactor, main AC, fuses, etc. • Install the drive module into the cabinet. • Connect the power cabling between the drive module and the rest of the main circuit components in the cabinet (if any) • Connect the input power cables and motor cables to the drive cabinet. • Connect the brake resistor and DC connection cables (if any) to the drive cabinet. • Connect the cables from the drive module to the control unit and install the control unit into the cabinet. 	<p>Mechanical installation (Page 57)</p> <p>Electrical installation (Page 93)</p> <p>Manuals for any optional equipment</p>
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<p>Connect the control cables to the drive control unit.</p>	<p>Connecting the external control unit to the drive module (Page 100)</p>
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<p>Examine the installation.</p>	<p>Installation checklist (Page 147)</p>
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<p>Commission the drive.</p>	<p>Start-up (Page 149)</p>
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<p>Operate the drive: start, stop, speed control etc.</p>	<p>Appropriate firmware manual</p>

Terms and abbreviations

Term	Description
BGDR	Gate driver board
CMF	Common mode filtering
DDCS	Distributed drives communication system protocol
Drive	Frequency converter for controlling AC motors
DTC	Direct torque control, a motor control method
EMC	Electromagnetic compatibility
FAIO-01	Analog I/O extension module

Term	Description
FCAN	Optional CANopen® adapter module
FCNA-01	Optional ControlNet™ adapter module
FDCO-01	DDCS communication module with two pairs of 10 Mbit/s DDCS channels
FDCO-02	DDCS communication module with one pair of 10 Mbit/s and one pair of 5 Mbit/s DDCS channels
FDIO-01	Optional digital I/O extension module
FDNA-01	Optional DeviceNet™ adapter module
FEA-03	Optional I/O extension adapter
FECA-01	Optional EtherCAT® adapter module
FEIP-21	Optional Ethernet adapter module for EtherNet/IP™
FEN-01	Optional TTL incremental encoder interface module
FEN-11	Optional TTL absolute encoder interface module
FEN-21	Optional resolver interface module
FEN-31	Optional HTL incremental encoder interface module
FENA-21	Optional Ethernet adapter module for EtherNet/IP™, Modbus TCP and PROFINET IO protocols, 2-port
FEPL-02	Optional Ethernet POWERLINK adapter module
FIO-01	Optional digital I/O extension module
FIO-11	Optional analog I/O extension module
FMBT-21	Optional Ethernet adapter module for Modbus TCP protocol
FPBA-01	Optional PROFIBUS DP® adapter module
FPNO-21	Optional PROFINET IO adapter module
FPTC-01	Optional thermistor protection module
FPTC-02	Optional ATEX-certified thermistor protection module for potentially explosive atmospheres
Frame, frame size	Physical size of the drive or power module
FSCA-01	Optional RS-485 (Modbus/RTU) adapter
FSE-31	Optional pulse encoder interface module for safety encoder
FSO-12, FSO-21	Optional functional safety modules
FSPS-21	Optional functional safety module
HTL	High-threshold logic
IGBT	Insulated gate bipolar transistor
IT system	Type of supply network that has no (low-impedance) connection to ground. See IEC 60364-5.
Line-side converter	Converts alternating current and voltage to direct current and voltage for the intermediate DC link of the drive. The line-side converter can transfer energy from the electrical power system to the DC link and vice versa.
Motor-side converter	Converts intermediate DC link current to AC current for the motor
PLC	Programmable logic controller
QOIA	Optical interface adapter board
RFI	Radio-frequency interference
STO	Safe torque off (IEC/EN 61800-5-2)
TN system	Type of supply network that provides a direct connection to ground
TTL	Transistor-transistor logic
ZBIB	Adapter board connected to the control board in the control unit (ZCU)
ZCU	Type of control unit