



Digitized Automation for a Changing World

## Delta Basic Compact Drive ME300 Series



[www.deltaww.com](http://www.deltaww.com)

<https://www.fnengineering.com>

HOTLINE : 081-1743345

 **DELTA**  
Smarter. Greener. Together.

LINE@ : @fnonline , @fntools

# Compact and Intelligent

## The new standard for micro drives

The automation industry today is facing challenges such as increasing competition and rising costs. In addition to improving productivity and reducing direct labor, the driving force for automation is to achieve higher efficiency, optimal quality, and most importantly, flexibility and compatibility for a wide range of applications.

Delta's ME300 series is the new generation compact vector control drive that inherits Delta's superior drive technology with 60% volume reduction. Various essential functions are built-in as standard, including: user-defined parameter groups, single and multi-pump functions, built-in brake chopper and EMC filter (C2 Class). It reduces the need for additional expense and provides more installation space in the control cabinet. The ME300 also supports both induction and interior/surface permanent motors, providing more efficiency and flexibility. The STO function ensures smooth operation while protecting facilities from damage, and the new screw-less wiring design of terminal blocks offers a simplified wiring process for quick installation.

User-friendly operation, ultra-compact size, quick installation, and flexible, durable design provide the user with a highly efficient and stable system. The ME300 is your key to increased market competitiveness that leads to your success.





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## Models Overview

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Hardware Design  
Side-by-side Installation  
Standard Models



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## Outstanding Drive Performance

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Supports IM and PM Motors  
High Starting Torque  
Deceleration Energy Backup (DEB)  
Enhanced Braking Capability



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## Strong System Support

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Pump Control  
Multi-pump Control  
Pulse Input  
Built-in Modbus Communication  
Built-in Braking Chopper  
High Overload Capability  
Common DC Bus



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## Stable, Safe and Reliable

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PCB Coating  
NEMA1 Kit (Optional)  
Built-in EMC Filter



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Application Groups (Macro)  
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## Wide Range of Applications

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Single / Multi-pumps  
Conveyors  
Fans  
Woodworking Machines  
Packaging Machines  
Textile Machines



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## Specifications

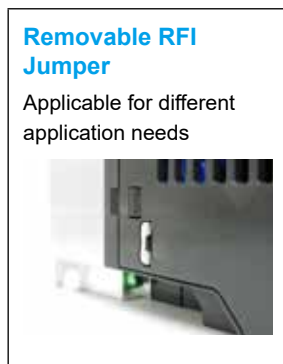
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## Models Overview

### Hardware Design

Compact design and user-friendly interface



#### User-friendly Control and Display

4 digit LED display, frequency setting potentiometer, direction function keys



#### Removable Fan

Easy to replace and maintain for a longer lifetime



#### Screwless Front Case

Press on both side tabs to remove the case



\*Up to 60% size reduction compared with corresponding ratings of Delta's VFD-EL Series

### Side-by-Side Installation

Flexible and efficient installation supports side-by-side installation with operating temperature of -20°C ~ 40°C

\*standalone installation: 50°C without load dropping.  
Max. ambient temperature is 60°C.

**Substantial space savings!**



## Standard Models

### 115V single-phase

|                              |       |      |     |      |
|------------------------------|-------|------|-----|------|
| Applicable Motor Output (kW) | 0.1   | 0.2  | 0.4 | 0.75 |
| Applicable Motor Output (HP) | 0.125 | 0.25 | 0.5 | 1    |
| Frame Size                   | A     |      | C   |      |

### 230V single-phase

|                              |       |      |     |      |     |     |
|------------------------------|-------|------|-----|------|-----|-----|
| Applicable Motor Output (kW) | 0.1   | 0.2  | 0.4 | 0.75 | 1.5 | 2.2 |
| Applicable Motor Output (HP) | 0.125 | 0.25 | 0.5 | 1    | 2   | 3   |
| Frame Size                   | A     |      |     | B    | C   |     |

### 230V single-phase (Built-in EMC filter)

|                              |       |      |     |      |     |     |
|------------------------------|-------|------|-----|------|-----|-----|
| Applicable Motor Output (kW) | 0.1   | 0.2  | 0.4 | 0.75 | 1.5 | 2.2 |
| Applicable Motor Output (HP) | 0.125 | 0.25 | 0.5 | 1    | 2   | 3   |
| Frame Size                   | B     |      |     |      | C   |     |

### 230V 3-phase

|                              |       |      |     |      |     |     |         |     |
|------------------------------|-------|------|-----|------|-----|-----|---------|-----|
| Applicable Motor Output (kW) | 0.1   | 0.2  | 0.4 | 0.75 | 1.5 | 2.2 | 3.7 / 4 | 5.5 |
| Applicable Motor Output (HP) | 0.125 | 0.25 | 0.5 | 1    | 2   | 3   | 5       | 7.5 |
| Frame Size                   | A     |      |     |      | B   | C   |         | D   |

### 460V 3-phase

|                              |     |      |     |     |   |         |     |     |
|------------------------------|-----|------|-----|-----|---|---------|-----|-----|
| Applicable Motor Output (kW) | 0.4 | 0.75 | 1.5 | 2.2 | 3 | 3.7 / 4 | 5.5 | 7.5 |
| Applicable Motor Output (HP) | 0.5 | 1    | 2   | 3   | 4 | 5       | 7.5 | 10  |
| Frame Size                   | A   |      | B   | C   |   |         | D   |     |

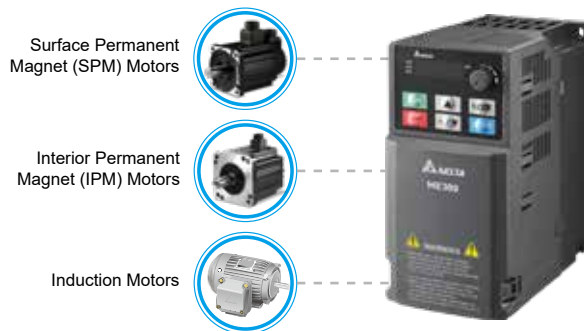
### 460V 3-phase (Built-in EMC filter)

|                              |     |      |     |     |   |         |     |     |
|------------------------------|-----|------|-----|-----|---|---------|-----|-----|
| Applicable Motor Output (kW) | 0.4 | 0.75 | 1.5 | 2.2 | 3 | 3.7 / 4 | 5.5 | 7.5 |
| Applicable Motor Output (HP) | 0.5 | 1    | 2   | 3   | 4 | 5       | 7.5 | 10  |
| Frame Size                   | B   |      |     | C   |   |         | D   |     |

## Outstanding Drive Performance

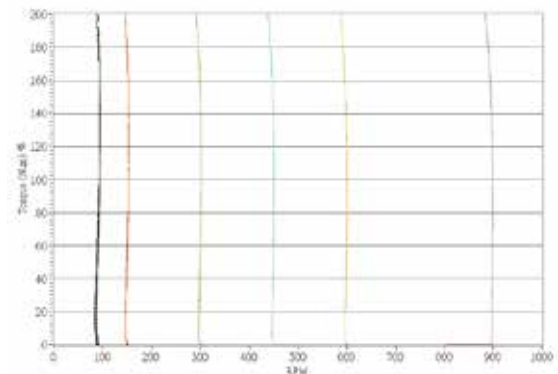
### Supports IM and PM Motors

Supports 2 independent induction motor control parameter sets



### High Starting Torque

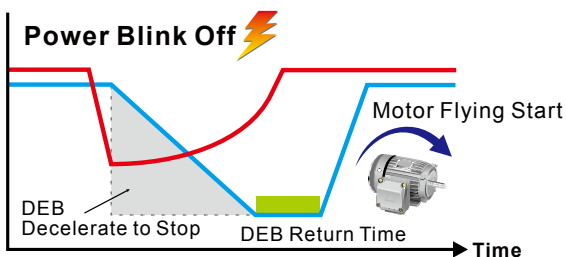
Delivers 200% high starting torque with a low speed control of 3Hz. This feature provides outstanding machine stability and is suitable for dynamic loading applications



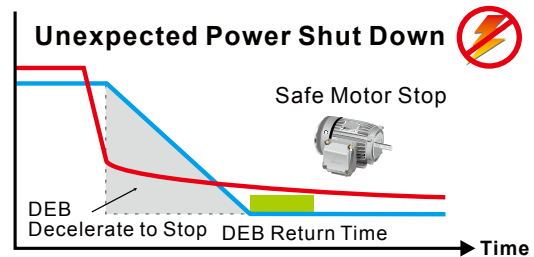
### Deceleration Energy Backup (DEB)

Controls the motor deceleration to a stop when an unexpected power shut-down occurs to prevent mechanical damage. When power resumes, the motor will accelerate to its previous speed

— Input Voltage  
— Motor Speed

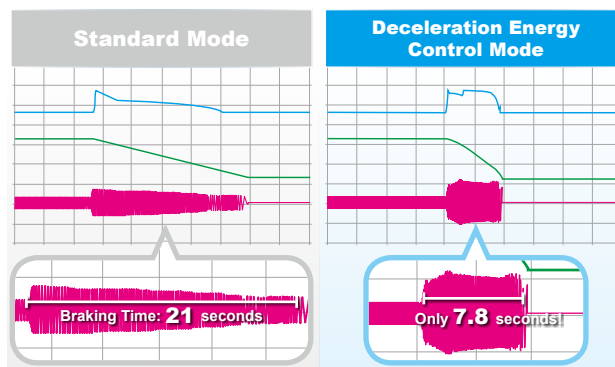


— Input Voltage  
— Motor Speed



### Enhanced Braking Capability

The Deceleration Energy Control Mode shortens braking time by adjusting the motor speed and current, and replaces the need for braking resistors



\* Actual deceleration performance varies upon different system loads

## Strong System Support

### Pump Control

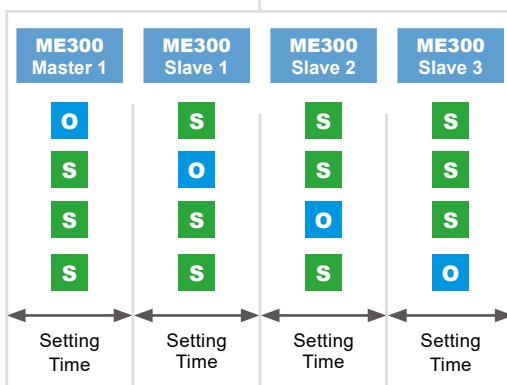
- Sleep Mode & Leakage Detection: When the system is at constant pressure, the ME300 will enter / stay in sleep mode to prevent frequent starting and stopping (Proper parameter settings required)
- Dry-run Detection: When the water supply is off, the ME300 will decelerate to stop to protect pump from dry-runs

### Multi-pump Control

- Alternate Operation: Alternates pump operation in cycles. Cycle can be set by hours, days or weeks
- Constant Pressure Mode: Provides consistent energy-efficient water supply by adjusting operating pump quantities based on real-time demands

ME300 Status o Operating s Standby

#### Alternate Operation

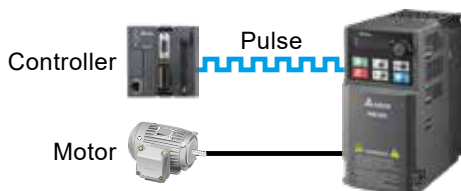


#### Constant Pressure Mode



### Pulse Input

Supports single pulse and PWM input (10 kHz) from controller as frequency command



### High Overload Capability

- Normal duty: rated current 120% for 60 seconds; 150% for 3 seconds
- Heavy duty: rated current 150% for 60 seconds; 200% for 3 seconds

### Built-in Modbus Communication

Built-in RS-485 (Modbus) communication

### Built-in Braking Chopper

Larger braking torque capability with an additional braking resistor

### Common DC Bus

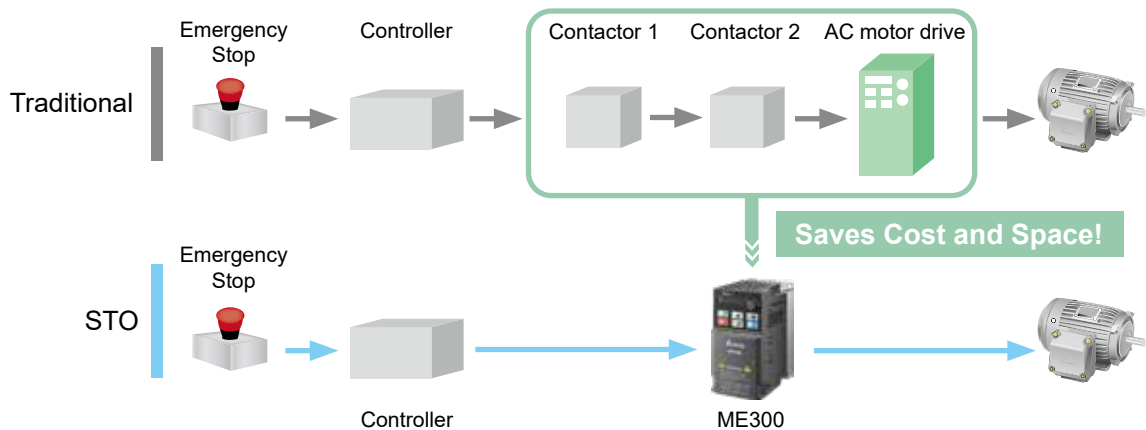
DC  $\pm$  terminals for common DC bus wiring; the drives share the regeneration power during deceleration to save energy and the braking resistor

## Stable, Safe and Reliable

### Safe Torque Off

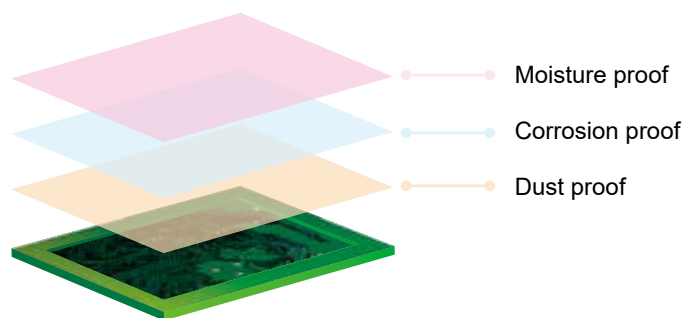
Compliant with:

- ▶ ISO 13849-1:2015 Category 3 PL d
- ▶ EN 61508 SIL2
- ▶ EN 60204-1 Category 0
- ▶ EN 62061 SIL CL 2



### PCB Coating

100% PCB coating (IEC 60721-3-3 class 3C2 standard) ensures drive operation stability and safety in critical environments



### NEMA 1 Kit (Optional)

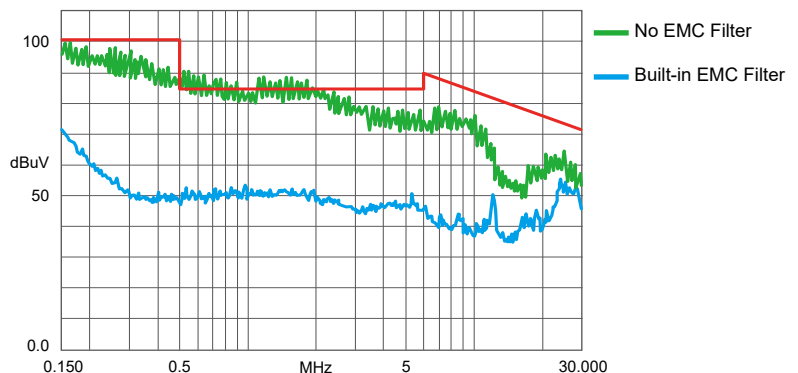
Provides NEMA 1 kit to prevent dust and other particles from entering the drive and avoids risk from electric shock. It is suitable for applications under critical conditions



### Built-in EMC Filter

Built-in Class A (C2)\* standard EMC filter saves additional procurement cost and wiring time, and provides more cabinet space for other devices to use

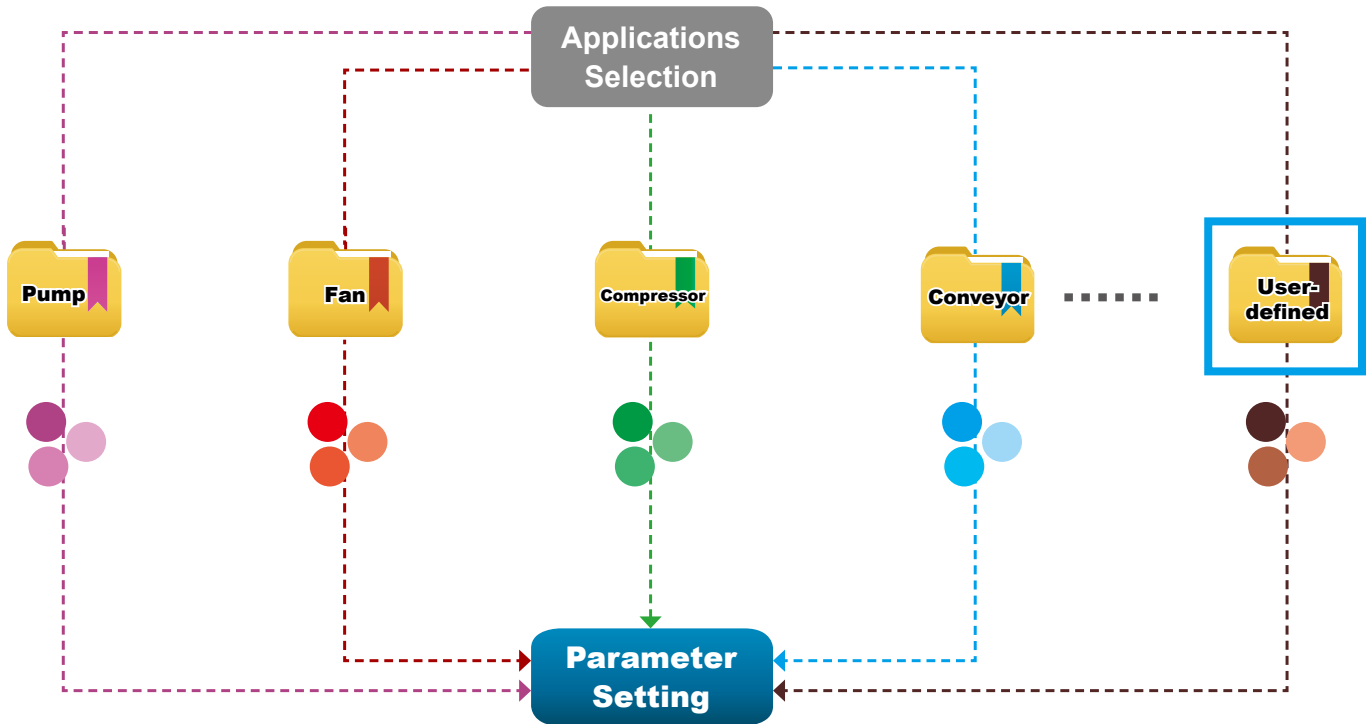
\*Class A (C3) for 400V models



## Easy Set Up

### Application Groups (Macro)

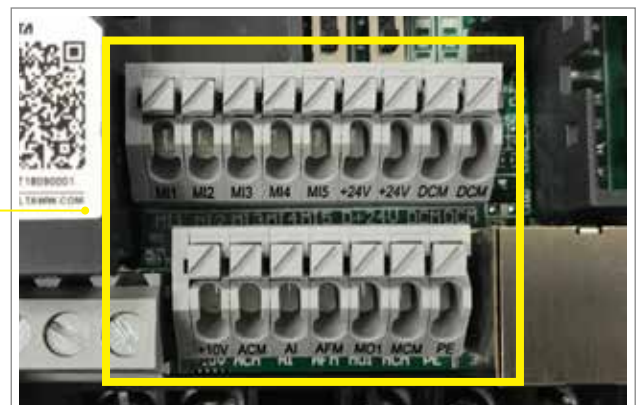
- Simplifies the parameter setting process by grouping the parameters for different applications to use
- Users can establish own parameter group for different customers or equipment
- User-defined parameter values can be retained when resetting to default



### Screwless Wiring of Control Terminal

Spring clamp terminal blocks provide fast and easy wiring

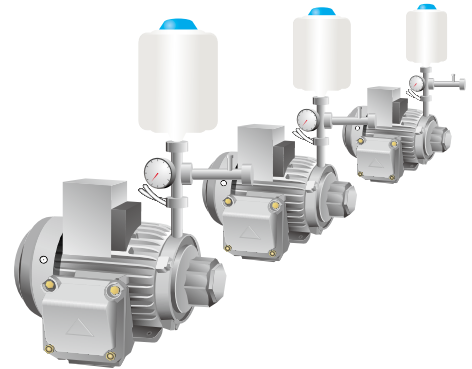
Saves wiring time



## Wide Range of Applications

### Single / Multi-pumps

- Built-in PID feedback control, no additional PID controller required
- Supports multi-pumps (constant pressure) and alternate operation
- Equipped with liquid leakage detection function and sleep mode
- Displays actual and target value at the same time for easy operation
- Pump or self-defined parameter groups for easy setting
- Wide range voltage input for various types of pumps and areas



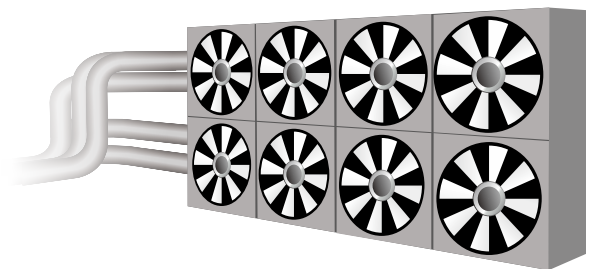
### Conveyors

- Built-in potentiometer for easy adjustment
- High starting torque: up to 200% at 0.5 Hz
- Outstanding acceleration / deceleration performance improves production efficiency
- Built-in braking chopper saves space and purchasing costs
- 2 sets of motor parameters for more flexibility
- Compact design for space savings
- STO function enhances system safety



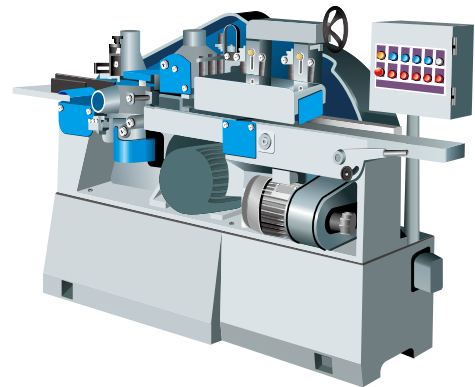
### Fans

- Supports both induction motor and permanent motor (IPM/SPM)
- Supports multi-pole motors for low speed operation
- Built-in potentiometer for easy adjustment
- Speed search function allows motor start without stopping
- Optimized hardware layout and anti-pollution design resist dust and fiber
- Compact design for space savings



## Woodworking Machines

- Outstanding acceleration / deceleration performance improves production efficiency
- STO function enhances system safety
- Built-in EMC filter effectively reduces electromagnetic interference
- Compact in size and weight, easy to install and maintain



## Packaging Machines

- Compact design provides more cabinet space
- STO function enhances system safety
- Built-in braking chopper saves system construction cost
- Built-in RS-485 (Modbus)
- Supports high speed pulse and PWM input as frequency command to improve control precision



## Textile Machines

- Optional NEMA1 kit provides excellent protection in environment with dust, fiber and moisture
- Improved heatsink design prevents fiber clogging the air way; modular design of fan is easy to clean and provides longer lifetime
- Improved braking capability shortens the deceleration to stop time, suitable for sudden stop requirements
- Deceleration to stop function protects the equipment from damage when sudden power failure occurs
- STO function enhances system safety
- Supports both induction motors and permanent motors (IPM/SPM)



# Specifications

## Product Specifications

Single-phase  
115V

### Models without built-in EMC filter

| Frame                        |             |                          | A                                                    |     |     | C           |
|------------------------------|-------------|--------------------------|------------------------------------------------------|-----|-----|-------------|
| Model VFD□□□ME11             |             |                          | 0A8                                                  | 1A6 | 2A5 | 4A8         |
| Applicable Motor Output (kW) |             |                          | 0.1                                                  | 0.2 | 0.4 | 0.75        |
| Applicable Motor Output (HP) |             |                          | 1/8                                                  | 1/4 | 1/2 | 1           |
| Inverter Output              | Heavy Duty  | Rated Output Current (A) | 0.8                                                  | 1.6 | 2.5 | 4.8         |
|                              | Normal Duty | Rated Output Current (A) | 1.0                                                  | 1.8 | 2.7 | 5.5         |
| Input Voltage / Frequency    |             |                          | Single-phase AC, 100V~120V (-15% ~ + 10%), 50 / 60Hz |     |     |             |
| Carrier Frequency (kHz)      |             |                          | 2 ~ 15 (Default 4)                                   |     |     |             |
| Brake Chopper                |             |                          | Built-in                                             |     |     |             |
| Cooling Method               |             |                          | Natural air cooling                                  |     |     | Fan cooling |
| Size: W × H (mm)             |             |                          | 68 × 128                                             |     |     | 87 × 157    |
| Size: D (mm)                 |             |                          | 78                                                   | 107 | 136 |             |
| Net Weight (kg)              |             |                          | 0.4                                                  | 0.5 | 1   |             |

Single-phase  
230V

### Models with built-in EMC filter

| Frame                              |             |                          | B                                                    |     |             |             | C        |
|------------------------------------|-------------|--------------------------|------------------------------------------------------|-----|-------------|-------------|----------|
| Model VFD□□□ME21                   |             |                          | 0A8                                                  | 1A6 | 2A8         | 4A8         | 7A5 11A  |
| Applicable Motor Output (kW)       |             |                          | 0.1                                                  | 0.2 | 0.4         | 0.75        | 1.5 2.2  |
| Applicable Motor Output (HP)       |             |                          | 1/8                                                  | 1/4 | 1/2         | 1           | 2 3      |
| Inverter Output                    | Heavy Duty  | Rated Output Current (A) | 0.8                                                  | 1.6 | 2.8         | 4.8         | 7.5 11   |
|                                    | Normal Duty | Rated Output Current (A) | 1.0                                                  | 1.8 | 3.2         | 5           | 8.5 12.5 |
| Input Voltage / Frequency          |             |                          | Single-phase AC, 200V~240V (-15% ~ + 10%), 50 / 60Hz |     |             |             |          |
| Carrier Frequency (kHz)            |             |                          | 2 ~ 15 (Default 4)                                   |     |             |             |          |
| Brake Chopper                      |             |                          | Built-in                                             |     |             |             |          |
| Cooling Method                     |             |                          | Natural air cooling                                  |     | Fan cooling |             |          |
| Size: W x H (mm)                   |             |                          | 72 x 142                                             |     |             |             | 87 x 157 |
| Size: D (mm)                       |             |                          | 143                                                  |     |             |             | 163      |
| Net Weight (kg)                    |             |                          | 0.4                                                  | 0.5 | 0.8         | 1           |          |
| Models without built-in EMC filter |             |                          |                                                      |     |             |             |          |
| Frame                              |             |                          | A                                                    |     | B           | C           |          |
| Cooling Method                     |             |                          | Natural air cooling                                  |     |             | Fan cooling |          |
| Size: W × H (mm)                   |             |                          | 68 × 128                                             |     | 72 × 142    | 87 × 157    |          |
| Size: D (mm)                       |             |                          | 78                                                   | 107 | 127         | 136         |          |
| Net Weight (kg)                    |             |                          | 0.9                                                  |     |             | 1.5         |          |

**Three-phase  
230 V**

| Models without built-in EMC filter |             |                          |                                                     |     |     |      |             |          |       |
|------------------------------------|-------------|--------------------------|-----------------------------------------------------|-----|-----|------|-------------|----------|-------|
| Frame                              |             |                          | A                                                   |     |     |      | B           | C        |       |
| Model VFD□□□23                     |             |                          | 0A8                                                 | 1A6 | 2A8 | 4A8  | 7A5         | 11A      | 17A   |
| Applicable Motor Output (kW)       |             |                          | 0.1                                                 | 0.2 | 0.4 | 0.75 | 1.5         | 2.2      | 3.7/4 |
| Applicable Motor Output (HP)       |             |                          | 1/8                                                 | 1/4 | 1/2 | 1    | 2           | 3        | 5     |
| Inverter Output                    | Heavy Duty  | Rated Output Current (A) | 0.8                                                 | 1.6 | 2.8 | 4.8  | 7.5         | 11       | 17    |
|                                    | Normal Duty | Rated Output Current (A) | 1.0                                                 | 1.8 | 3.2 | 5.0  | 8.0         | 12.5     | 19.5  |
| Input Voltage / Frequency          |             |                          | Three-phase AC, 200V~240V (-15% ~ + 10%), 50 / 60Hz |     |     |      |             |          |       |
| Carrier Frequency (kHz)            |             |                          | 2 ~ 15 (Default 4)                                  |     |     |      |             |          |       |
| Brake Chopper                      |             |                          | Built-in                                            |     |     |      |             |          |       |
| Cooling Method                     |             |                          | Natural air cooling                                 |     |     |      | Fan cooling |          |       |
| Size: W × H (mm)                   |             |                          | 68 × 128                                            |     |     |      | 72 × 142    | 87 × 157 |       |
| Size: D (mm)                       |             |                          | 78                                                  | 92  | 125 | 127  | 136         | 138      |       |
| Net Weight (kg)                    |             |                          | 0.4                                                 | 0.5 | 0.6 | 0.8  | 1           | 2        |       |

**Three-phase  
460 V**

160 V

| Models with built-in EMC filter    |             |                          |                                                     |      |          |             |     |       |           |      |
|------------------------------------|-------------|--------------------------|-----------------------------------------------------|------|----------|-------------|-----|-------|-----------|------|
| Frame                              |             |                          | B                                                   |      |          | C           |     |       | D         |      |
| Model VFD□□□ME43                   |             |                          | 1A5                                                 | 2A7  | 4A2      | 5A5         | 7A3 | 9A0   | 13A       | 17A  |
| Applicable Motor Output (kW)       |             |                          | 0.4                                                 | 0.75 | 1.5      | 2.2         | 3   | 3.7/4 | 5.5       | 7.5  |
| Applicable Motor Output (HP)       |             |                          | 1/2                                                 | 1    | 2        | 3           | 4   | 5     | 7.5       | 10   |
| Inverter Output                    | Heavy Duty  | Rated Output Current (A) | 1.5                                                 | 2.7  | 4.2      | 5.5         | 7.3 | 9     | 13        | 17   |
|                                    | Normal Duty | Rated Output Current (A) | 1.8                                                 | 3    | 4.6      | 6.5         | 8   | 10.5  | 15.7      | 20.5 |
| Input Voltage / Frequency          |             |                          | Three-phase AC, 380V~480V (-15% ~ + 10%), 50 / 60Hz |      |          |             |     |       |           |      |
| Carrier Frequency (kHz)            |             |                          | 2 ~ 15 (Default 4)                                  |      |          |             |     |       |           |      |
| Brake Chopper                      |             |                          | Built-in                                            |      |          |             |     |       |           |      |
| Cooling Method                     |             |                          | Fan cooling                                         |      |          |             |     |       |           |      |
| Size: W × H (mm)                   |             |                          | 72 × 142                                            |      |          | 87 × 157    |     |       | 109 × 207 |      |
| Size: D (mm)                       |             |                          | 143                                                 |      |          | 163         |     |       | 171       |      |
| Net Weight (kg)                    |             |                          | 0.6                                                 | 0.7  | 0.8      | 1           |     |       | 2         |      |
| Models without built-in EMC filter |             |                          |                                                     |      |          |             |     |       |           |      |
| Frame                              |             |                          | A                                                   |      | B        | C           |     |       | D         |      |
| Cooling Method                     |             |                          | Natural air cooling                                 |      |          | Fan cooling |     |       |           |      |
| Size: W×H (mm)                     |             |                          | 68 × 128                                            |      | 72 × 142 | 87 × 157    |     |       | 109 × 207 |      |
| Size: D (mm)                       |             |                          | 113                                                 | 127  | 127      | 136         |     |       | 138       |      |
| Net Weight (kg)                    |             |                          | 0.9                                                 |      |          | 1.5         |     |       | 2.7       |      |

# Specifications

## General Specifications and Accessories

|                             |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Control Functions</b>    | Control Methods          | V/F, SVC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                             | Applicant Motors         | Induction motor (IM), interior permanent magnet (IPM) motor, surface permanent magnet (SPM) motor                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                             | Max. Output Frequency    | 0.00 ~ 599.00 Hz ( $\pm 0.1\%$ )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                             | Starting Torque*         | 150%/3 Hz ( V/f, SVC control for IM, heavy duty )<br>100%/(1/20 of motor rated frequency) ( SVC control for PM, heavy duty )                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                             | Speed Control Range*     | 1 : 50 ( V/f, SVC control for IM, heavy duty )<br>1 : 20 ( SVC control for PM, heavy duty )                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                             | Overload Tolerance       | Normal Duty (ND): 120% of rated output current for 60 seconds; 150% of rated output current for 3 seconds<br>Heavy Duty (HD): 150% of rated output current for 60 seconds; 200% of rated output current for 3 seconds                                                                                                                                                                                                                                                                                                                          |
|                             | Frequency Setting Signal | 0 ~ 10V / 4(0) 20mA, 1pulse input (10kHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                             | Main Control Functions   | Multiple motor switches (2 independent motor parameter settings), fast run, deceleration energy back (DEB) function, fast deceleration function, selectable master and auxiliary frequency source, momentary power loss ride through, speed search, over-torque detection, 16-step speed (max.), accel. / decel. time switch, S-curve accel/decel, 3-wire sequence, JOG frequency, upper/lower limits for frequency reference, DC injection braking at start and stop, PID control, simple positioning function, Modbus integrated as standard |
| <b>Protection Functions</b> | Motor Protection         | Overcurrent protection, overvoltage protection, overload protection, over-temperature protection, phase failure protection                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                             | Stall Prevention         | During acceleration, deceleration and running independently                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Certifications</b>       |                          | UL, CE, RoHS, RCM, TUV, REACH, KC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

\*Control accuracy may vary depending on the environment, application conditions, or motor types. For details, please contact our company or your local distributor

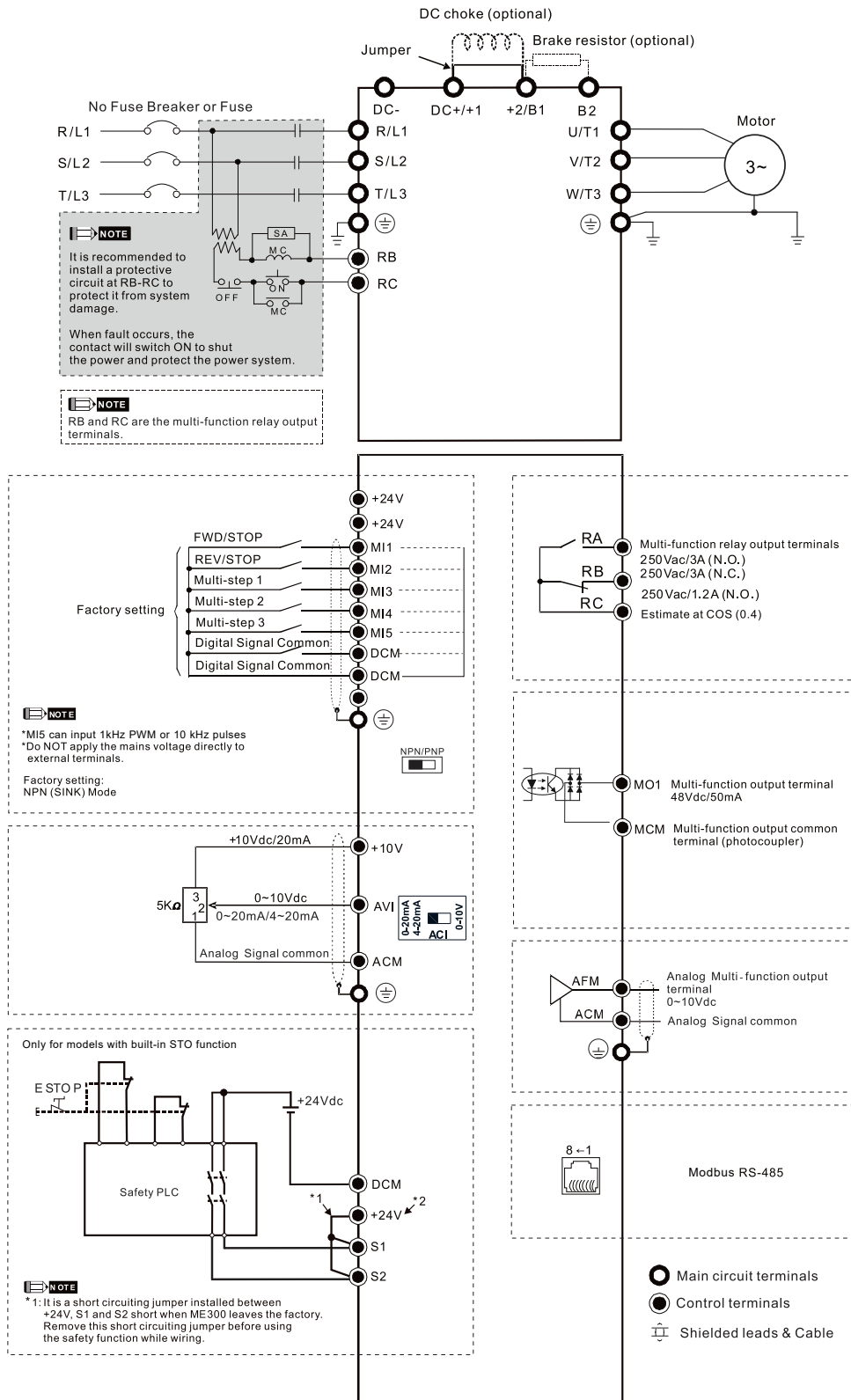
## Operating Environment

|                              |                       |                                                                                                                       |                                                           |                                                |
|------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------|
| <b>Operating Environment</b> | Installation Location |                                                                                                                       | IEC60364-1/IEC60664-1 Pollution degree 2, Indoor use only |                                                |
|                              | Ambient Temperature   | Operation                                                                                                             | IP20/UL Open Type                                         | -20 ~ 50 °C<br>-20 ~ 60 °C (derating required) |
|                              |                       |                                                                                                                       | NEMA 1/UL Type 1                                          | -20 ~ 40 °C                                    |
|                              |                       |                                                                                                                       | Zero stacking installation                                | -20 ~ 50 °C (derating required)                |
|                              |                       | Storage                                                                                                               |                                                           | -40 ~ 85 °C                                    |
|                              |                       | Transportation                                                                                                        |                                                           | -20 ~ 70 °C                                    |
|                              | Rated Humidity        | Operation                                                                                                             |                                                           | Max. 90%                                       |
|                              |                       | Storage/Transportation                                                                                                |                                                           | Max. 95%                                       |
|                              | Air Pressure          | Operation                                                                                                             |                                                           | 86 ~ 106 kPa                                   |
|                              |                       | Storage/Transportation                                                                                                |                                                           | 70 ~ 106 kPa                                   |
|                              | Pollution Level       | Compliant to IEC60721-3-3, 3C2                                                                                        |                                                           |                                                |
|                              | Altitude              | An altitude of 0 ~ 1000 m for normal operation<br>(derating is required for installation at an altitude above 1000 m) |                                                           |                                                |
| <b>Vibration</b>             |                       | Compliant to IEC 60068-2-6                                                                                            |                                                           |                                                |
| <b>Shock</b>                 |                       | Compliant to IEC/EN 60068-2-27                                                                                        |                                                           |                                                |

\* Please refer to ME300 user manual for more details

## Wiring

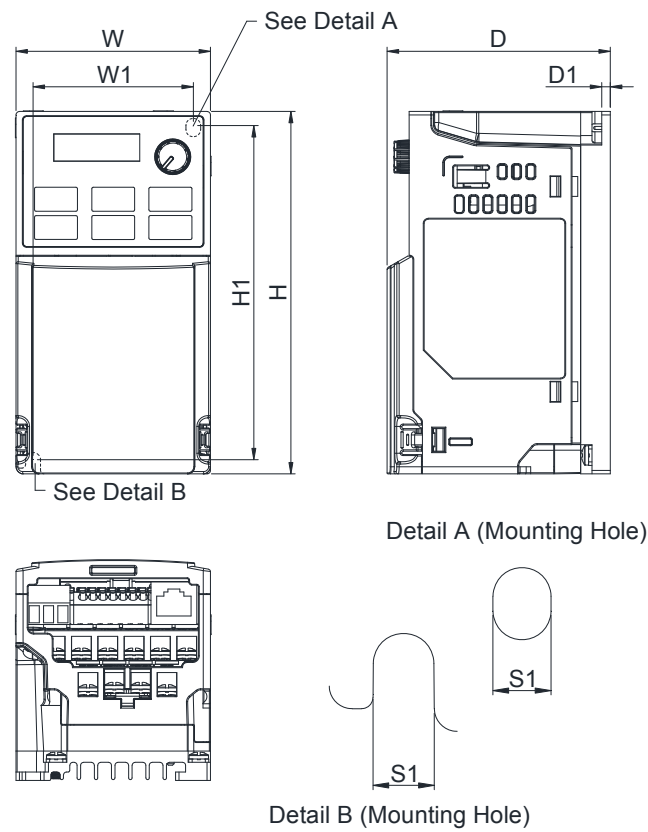
### Input: Single-phase / 3-phase power



Specifications

Dimensions

Frame A

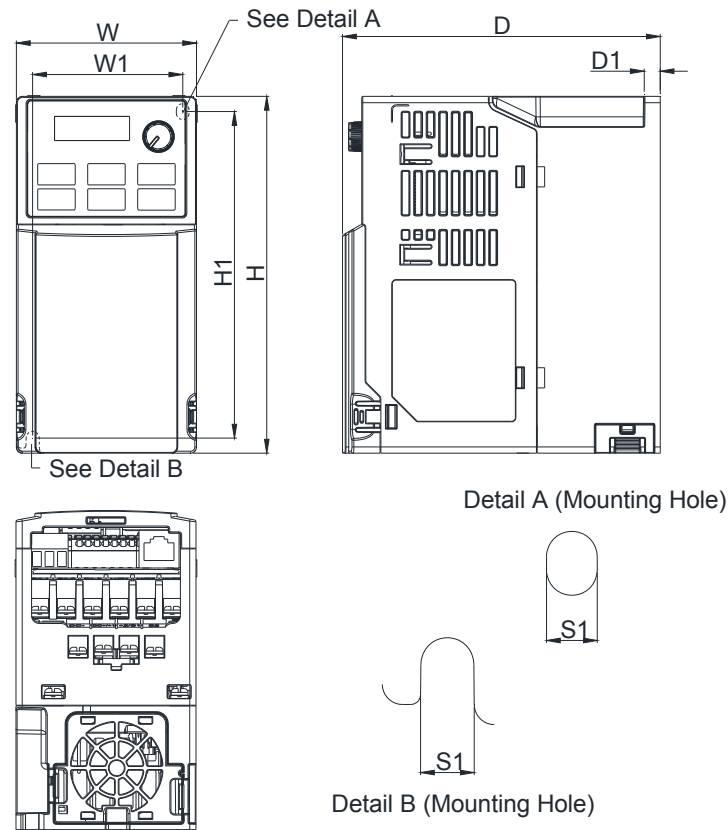


| Model           | Frame A1        | Frame A2        | Frame A3        | Frame A4        | Frame A5        | Frame A6 |
|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------|
| VFD0A8ME11ANNAA | VFD2A8ME23ANNAA | VFD2A5ME11ANNAA | VFD1A5ME43ANNAA | VFD4A8ME23ANNAA | VFD2A7ME43ANNAA |          |
| VFD0A8ME11ANSAA | VFD2A8ME23ANSAA | VFD2A5ME11ANSAA | VFD1A5ME43ANSAA | VFD4A8ME23ANSAA | VFD2A7ME43ANSAA |          |
| VFD0A8ME21ANNAA |                 | VFD2A8ME21ANNAA |                 |                 |                 |          |
| VFD0A8ME21ANSAA |                 | VFD2A8ME21ANSAA |                 |                 |                 |          |
| VFD0A8ME23ANNAA |                 |                 |                 |                 |                 |          |
| VFD0A8ME23ANSAA |                 |                 |                 |                 |                 |          |
| VFD1A6ME11ANNAA |                 |                 |                 |                 |                 |          |
| VFD1A6ME11ANSAA |                 |                 |                 |                 |                 |          |
| VFD1A6ME21ANNAA |                 |                 |                 |                 |                 |          |
| VFD1A6ME21ANSAA |                 |                 |                 |                 |                 |          |
| VFD1A6ME23ANNAA |                 |                 |                 |                 |                 |          |
| VFD1A6ME23ANSAA |                 |                 |                 |                 |                 |          |

| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
|-------|------|------|-------|-------|------|-------|------|------|
| A1    | mm   | 68.0 | 128.0 | 78.0  | 56.0 | 118.0 | 3.0  | 5.2  |
|       | inch | 2.68 | 5.04  | 3.07  | 2.20 | 4.65  | 0.12 | 0.20 |
| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
| A2    | mm   | 68.0 | 128.0 | 92.0  | 56.0 | 118.0 | 3.0  | 5.2  |
|       | inch | 2.68 | 5.04  | 3.62  | 2.20 | 4.65  | 0.12 | 0.20 |
| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
| A3    | mm   | 68.0 | 128.0 | 107.0 | 56.0 | 118.0 | 3.0  | 5.2  |
|       | inch | 2.68 | 5.04  | 4.21  | 2.20 | 4.65  | 0.12 | 0.20 |

| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
|-------|------|------|-------|-------|------|-------|------|------|
| A4    | mm   | 68.0 | 128.0 | 113.0 | 56.0 | 118.0 | 3.0  | 5.2  |
|       | inch | 2.68 | 5.04  | 4.45  | 2.20 | 4.65  | 0.12 | 0.20 |
| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
| A5    | mm   | 68.0 | 128.0 | 125.0 | 56.0 | 118.0 | 3.0  | 5.2  |
|       | inch | 2.68 | 5.04  | 4.92  | 2.20 | 4.65  | 0.12 | 0.20 |
| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
| A6    | mm   | 68.0 | 128.0 | 127.0 | 56.0 | 118.0 | 3.0  | 5.2  |
|       | inch | 2.68 | 5.04  | 5.00  | 2.20 | 4.65  | 0.12 | 0.20 |

Frame B



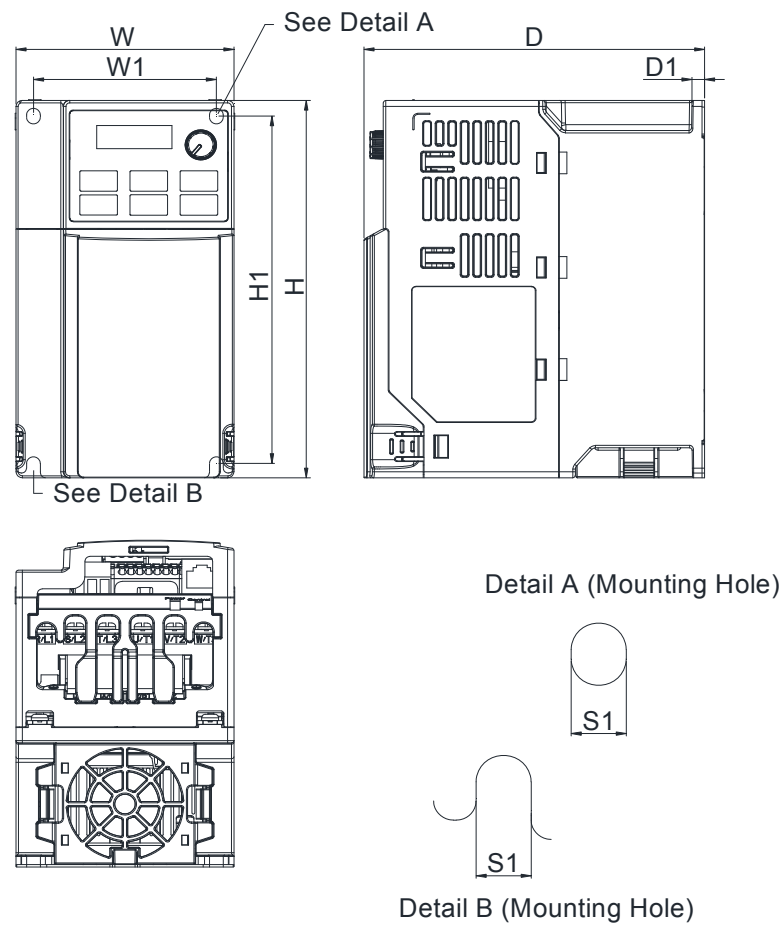
| Model           | Frame B1        | Frame B2        | Frame B3        |  |
|-----------------|-----------------|-----------------|-----------------|--|
| VFD7A5ME23ANNAA | VFD4A8ME21ANNAA | VFD0A8ME21AFNAA | VFD4A2ME43AFNAA |  |
| VFD7A5ME23ANSAA | VFD4A8ME21ANSAA | VFD0A8ME21AFSAA | VFD4A2ME43AFSAA |  |
| VFD4A2ME43ANNAA |                 | VFD1A6ME21AFNAA |                 |  |
| VFD4A2ME43ANSAA |                 | VFD1A6ME21AFSAA |                 |  |
|                 |                 | VFD2A8ME21AFNAA |                 |  |
|                 |                 | VFD2A8ME21AFSAA |                 |  |
|                 |                 | VFD4A8ME21AFNAA |                 |  |
|                 |                 | VFD4A8ME21AFSAA |                 |  |
|                 |                 | VFD1A5ME43AFNAA |                 |  |
|                 |                 | VFD1A5ME43AFSAA |                 |  |
|                 |                 | VFD2A7ME43AFNAA |                 |  |
|                 |                 | VFD2A7ME43AFSAA |                 |  |

| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
|-------|------|------|-------|-------|------|-------|------|------|
| B1    | mm   | 72.0 | 142.0 | 127.0 | 60.0 | 130.0 | 6.4  | 5.2  |
|       | inch | 2.83 | 5.59  | 5.00  | 2.36 | 5.12  | 0.25 | 0.20 |
| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
| B2    | mm   | 72.0 | 142.0 | 127.0 | 60.0 | 130.0 | 3.0  | 5.2  |
|       | inch | 2.83 | 5.59  | 5.00  | 2.36 | 5.12  | 0.12 | 0.20 |
| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
| B3    | mm   | 72.0 | 142.0 | 143.0 | 60.0 | 130.0 | 4.3  | 5.2  |
|       | inch | 2.83 | 5.59  | 5.63  | 2.36 | 5.12  | 0.17 | 0.20 |

Specifications

Dimensions

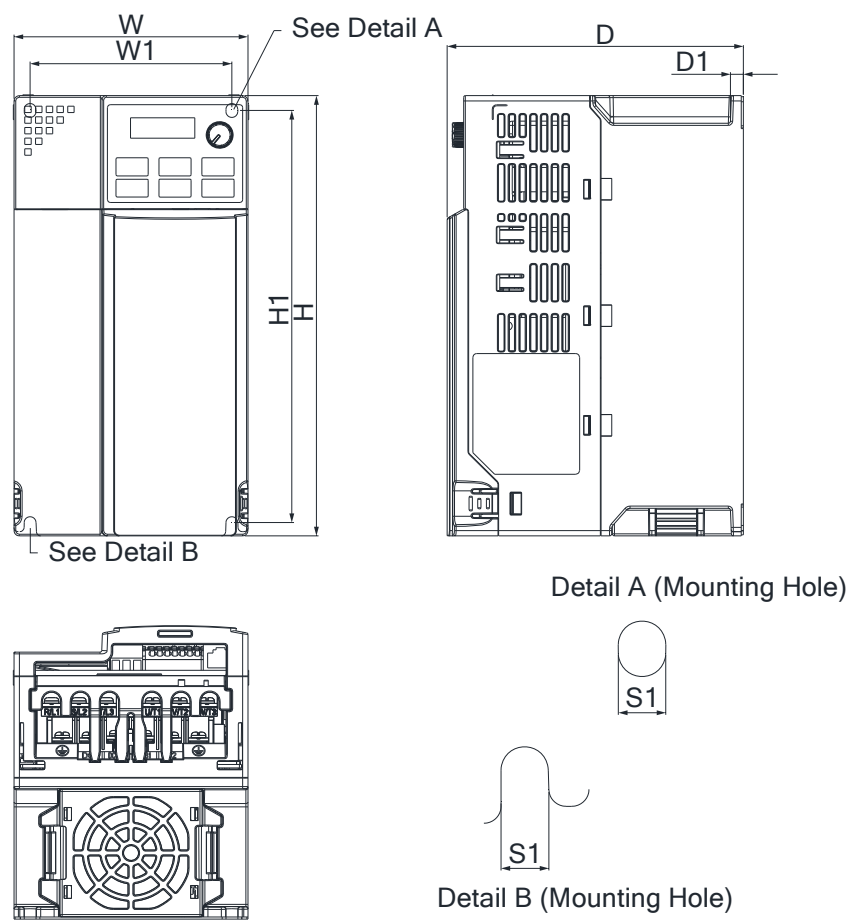
Frame C



| Model           |                 |                 | Frame C2 |  |  |
|-----------------|-----------------|-----------------|----------|--|--|
| Frame C1        |                 |                 |          |  |  |
| VFD4A8ME11ANNAA | VFD9A0ME43ANNAA | VFD7A5ME21AFNAA |          |  |  |
| VFD4A8ME11ANSAA | VFD9A0ME43ANSAA | VFD7A5ME21AFSAA |          |  |  |
| VFD7A5ME21ANNAA |                 | VFD11AME21AFNAA |          |  |  |
| VFD7A5ME21ANSAA |                 | VFD11AME21AFSAA |          |  |  |
| VFD11AME21ANNAA |                 | VFD5A5ME43AFNAA |          |  |  |
| VFD11AME21ANSAA |                 | VFD5A5ME43AFSAA |          |  |  |
| VFD11AME23ANNAA |                 | VFD7A3ME43AFNAA |          |  |  |
| VFD11AME23ANSAA |                 | VFD7A3ME43AFSAA |          |  |  |
| VFD17AME23ANNAA |                 | VFD9A0ME43AFNAA |          |  |  |
| VFD17AME23ANSAA |                 | VFD9A0ME43AFSAA |          |  |  |
| VFD5A5ME43ANNAA |                 |                 |          |  |  |
| VFD5A5ME43ANSAA |                 |                 |          |  |  |
| VFD7A3ME43ANNAA |                 |                 |          |  |  |
| VFD7A3ME43ANSAA |                 |                 |          |  |  |

| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
|-------|------|------|-------|-------|------|-------|------|------|
| C1    | mm   | 87.0 | 157.0 | 136.0 | 73.0 | 144.5 | 5.0  | 5.5  |
|       | inch | 3.43 | 6.18  | 5.35  | 2.87 | 5.69  | 0.20 | 0.22 |
| Frame |      | W    | H     | D     | W1   | H1    | D1   | S1   |
| C2    | mm   | 87.0 | 157.0 | 163.0 | 73.0 | 144.5 | 5.0  | 5.5  |
|       | inch | 3.43 | 6.18  | 6.42  | 2.87 | 5.69  | 0.20 | 0.22 |

Frame D



| Model |  | Frame D1        | Frame D2        |
|-------|--|-----------------|-----------------|
|       |  | VFD25AME23ANNAA | VFD13AME43AFNAA |
|       |  | VFD25AME23ANSAA | VFD13AME43AFSAA |
|       |  | VFD13AME43ANNAA | VFD17AME43AFNAA |
|       |  | VFD13AME43ANSAA | VFD17AME43AFSAA |
|       |  | VFD17AME43ANNAA |                 |
|       |  | VFD17AME43ANSAA |                 |

| Frame |      | W     | H     | D     | W1   | H1    | D1   | S1   |
|-------|------|-------|-------|-------|------|-------|------|------|
| D1    | mm   | 109.0 | 207.0 | 138.0 | 94.0 | 193.8 | 6.0  | 5.5  |
|       | inch | 4.29  | 8.15  | 5.43  | 3.70 | 7.63  | 0.24 | 0.22 |
| Frame |      | W     | H     | D     | W1   | H1    | D1   | S1   |
| D2    | mm   | 109.0 | 207.0 | 171.0 | 94.0 | 193.8 | 6.0  | 5.5  |
|       | inch | 4.29  | 8.15  | 6.73  | 3.70 | 7.63  | 0.24 | 0.22 |

# Specifications

## Accessories

### RJ45 Extension Cable for Digital Keypad



| Title | Part No.      | L     |       |
|-------|---------------|-------|-------|
|       |               | mm    | inch  |
| 1     | UC-CMC003-01A | 300   | 11.8  |
| 2     | UC-CMC005-01A | 500   | 19.6  |
| 3     | UC-CMC010-01A | 1000  | 39    |
| 4     | UC-CMC015-01A | 1500  | 59    |
| 5     | UC-CMC020-01A | 2000  | 78.7  |
| 6     | UC-CMC030-01A | 3000  | 118.1 |
| 7     | UC-CMC050-01A | 5000  | 196.8 |
| 8     | UC-CMC100-01A | 10000 | 393.7 |
| 9     | UC-CMC200-01A | 20000 | 787.4 |

### Accessory for Multi-pump Applications

#### MKCB-HUB01

- RJ45 sockets x3



### Digital Keypads



#### KPC-CC01

- Highly illuminated LCD display
- Displays multiple information simultaneously



#### KPC-CE01

- RJ45 Port
- 5-digit LED display
- Large key press for easy on-site setup



#### PU-08

- RJ45 Port
- 4-digit LED display
- Compact design for easy installation

## Model Name

**VFD 1A5 ME 43 A N N A A**

**Variable Frequency Drive**

**Rated Output Current**

Under Heavy Duty Mode (150% 60 seconds)

**Series Name**

ME : Basic Compact Drive ME300

**Input Voltage**

11 : 115V single-phase    23 : 230V three-phase  
21 : 230V single-phase    43 : 460V three-phase

**IP Level**

A : IP20

**Version**

**Model Type**

A : Standard model

**Safe Torque Off (STO)**

N : None  
S : STO Model

**EMC Filter**

N : None  
F : Built-in EMC Filter

## Ordering Information

| Power Range                    |      |                            | Frame Size | Model Name      | Standard Models (0 ~ 599 Hz) |              |
|--------------------------------|------|----------------------------|------------|-----------------|------------------------------|--------------|
| Max. Applicable Motor Capacity |      | Drive Rated Output Current |            |                 | Built-in EMC Filter          | Built-in STO |
| [HP]                           | [kW] | [A]                        |            |                 |                              |              |
| 115V/single-phase              |      |                            |            |                 |                              |              |
| 1/8                            | 0.1  | 0.8                        | A          | VFD0A8ME11ANNAA |                              |              |
| 1/8                            | 0.1  | 0.8                        | A          | VFD0A8ME11ANSAA |                              | V            |
| 1/4                            | 0.2  | 1.6                        | A          | VFD1A6ME11ANNAA |                              |              |
| 1/4                            | 0.2  | 1.6                        | A          | VFD1A6ME11ANSAA |                              | V            |
| 1/2                            | 0.4  | 2.5                        | A          | VFD2A5ME11ANNAA |                              |              |
| 1/2                            | 0.4  | 2.5                        | A          | VFD2A5ME11ANSAA |                              | V            |
| 1                              | 0.75 | 4.8                        | C          | VFD4A8ME11ANNAA |                              |              |
| 1                              | 0.75 | 4.8                        | C          | VFD4A8ME11ANSAA |                              | V            |
| 230V/single-phase              |      |                            |            |                 |                              |              |
| 1/8                            | 0.1  | 0.8                        | A          | VFD0A8ME21ANNAA |                              |              |
| 1/8                            | 0.1  | 0.8                        | A          | VFD0A8ME21ANSAA |                              | V            |
| 1/8                            | 0.1  | 0.8                        | B          | VFD0A8ME21AFNAA | V                            |              |
| 1/8                            | 0.1  | 0.8                        | B          | VFD0A8ME21AFSAA | V                            | V            |
| 1/4                            | 0.2  | 1.6                        | A          | VFD1A6ME21ANNAA |                              |              |
| 1/4                            | 0.2  | 1.6                        | A          | VFD1A6ME21ANSAA |                              | V            |
| 1/4                            | 0.2  | 1.6                        | B          | VFD1A6ME21AFNAA | V                            |              |
| 1/4                            | 0.2  | 1.6                        | B          | VFD1A6ME21AFSAA | V                            | V            |
| 1/2                            | 0.4  | 2.8                        | A          | VFD2A8ME21ANNAA |                              |              |
| 1/2                            | 0.4  | 2.8                        | A          | VFD2A8ME21ANSAA |                              | V            |
| 1/2                            | 0.4  | 2.8                        | B          | VFD2A8ME21AFNAA | V                            |              |
| 1/2                            | 0.4  | 2.8                        | B          | VFD2A8ME21AFSAA | V                            | V            |
| 1                              | 0.75 | 4.8                        | B          | VFD4A8ME21ANNAA |                              |              |
| 1                              | 0.75 | 4.8                        | B          | VFD4A8ME21ANSAA |                              | V            |
| 1                              | 0.75 | 4.8                        | B          | VFD4A8ME21AFNAA | V                            |              |
| 1                              | 0.75 | 4.8                        | B          | VFD4A8ME21AFSAA | V                            | V            |
| 2                              | 1.5  | 7.5                        | C          | VFD7A5ME21ANNAA |                              |              |
| 2                              | 1.5  | 7.5                        | C          | VFD7A5ME21ANSAA |                              | V            |
| 2                              | 1.5  | 7.5                        | C          | VFD7A5ME21AFNAA | V                            |              |
| 2                              | 1.5  | 7.5                        | C          | VFD7A5ME21AFSAA | V                            | V            |
| 3                              | 2.2  | 11.0                       | C          | VFD11AME21ANNAA |                              |              |
| 3                              | 2.2  | 11.0                       | C          | VFD11AME21ANSAA |                              | V            |
| 3                              | 2.2  | 11.0                       | C          | VFD11AME21AFNAA | V                            |              |
| 3                              | 2.2  | 11.0                       | C          | VFD11AME21AFSAA | V                            | V            |
| 230V/three-phase               |      |                            |            |                 |                              |              |
| 1/8                            | 0.1  | 0.8                        | A          | VFD0A8ME23ANNAA |                              |              |
| 1/8                            | 0.1  | 0.8                        | A          | VFD0A8ME23ANSAA |                              | V            |
| 1/4                            | 0.2  | 1.6                        | A          | VFD1A6ME23ANNAA |                              |              |
| 1/4                            | 0.2  | 1.6                        | A          | VFD1A6ME23ANSAA |                              | V            |
| 1/2                            | 0.4  | 2.8                        | A          | VFD2A8ME23ANNAA |                              |              |
| 1/2                            | 0.4  | 2.8                        | A          | VFD2A8ME23ANSAA |                              | V            |
| 1                              | 0.75 | 4.8                        | A          | VFD4A8ME23ANNAA |                              |              |

# Specifications

## Ordering Information

| Power Range                    |       |                            | Frame Size | Model Name      | Standard Models (0 ~ 599 Hz) |              |
|--------------------------------|-------|----------------------------|------------|-----------------|------------------------------|--------------|
| Max. Applicable Motor Capacity |       | Drive Rated Output Current |            |                 | Built-in EMC Filter          | Built-in STO |
| [HP]                           | [kW]  | [A]                        |            |                 |                              |              |
| 230 V / three-phase            |       |                            |            |                 |                              |              |
| 1                              | 0.75  | 4.8                        | A          | VFD4A8ME23ANSAA |                              | V            |
| 2                              | 1.5   | 7.5                        | B          | VFD7A5ME23ANNAA |                              |              |
| 2                              | 1.5   | 7.5                        | B          | VFD7A5ME23ANSAA |                              | V            |
| 3                              | 2.2   | 11.0                       | C          | VFD11AME23ANNAA |                              |              |
| 3                              | 2.2   | 11.0                       | C          | VFD11AME23ANSAA |                              | V            |
| 5                              | 3.7/4 | 17.0                       | C          | VFD17AME23ANNAA |                              |              |
| 5                              | 3.7/4 | 17.0                       | C          | VFD17AME23ANSAA |                              | V            |
| 7.5                            | 5.5   | 25.0                       | D          | VFD25AME23ANNAA |                              |              |
| 7.5                            | 5.5   | 25.0                       | D          | VFD25AME23ANSAA |                              | V            |
| 460 V / three-phase            |       |                            |            |                 |                              |              |
| 1/2                            | 0.4   | 1.5                        | A          | VFD1A5ME43ANNAA |                              |              |
| 1/2                            | 0.4   | 1.5                        | A          | VFD1A5ME43ANSAA |                              | V            |
| 1/2                            | 0.4   | 1.5                        | B          | VFD1A5ME43AFNAA | V                            |              |
| 1/2                            | 0.4   | 1.5                        | B          | VFD1A5ME43AFSAA | V                            | V            |
| 1                              | 0.75  | 2.7                        | A          | VFD2A7ME43ANNAA |                              |              |
| 1                              | 0.75  | 2.7                        | A          | VFD2A7ME43ANSAA |                              | V            |
| 1                              | 0.75  | 2.7                        | B          | VFD2A7ME43AFNAA | V                            |              |
| 1                              | 0.75  | 2.7                        | B          | VFD2A7ME43AFSAA | V                            | V            |
| 2                              | 1.5   | 4.2                        | B          | VFD4A2ME43ANNAA |                              |              |
| 2                              | 1.5   | 4.2                        | B          | VFD4A2ME43ANSAA |                              | V            |
| 2                              | 1.5   | 4.2                        | B          | VFD4A2ME43AFNAA | V                            |              |
| 2                              | 1.5   | 4.2                        | B          | VFD4A2ME43AFSAA | V                            | V            |
| 3                              | 2.2   | 5.5                        | C          | VFD5A5ME43ANNAA |                              |              |
| 3                              | 2.2   | 5.5                        | C          | VFD5A5ME43ANSAA |                              | V            |
| 3                              | 2.2   | 5.5                        | C          | VFD5A5ME43AFNAA | V                            |              |
| 3                              | 2.2   | 5.5                        | C          | VFD5A5ME43AFSAA | V                            | V            |
| 4                              | 3     | 7.3                        | C          | VFD7A3ME43ANNAA |                              |              |
| 4                              | 3     | 7.3                        | C          | VFD7A3ME43ANSAA |                              | V            |
| 4                              | 3     | 7.3                        | C          | VFD7A3ME43AFNAA | V                            |              |
| 4                              | 3     | 7.3                        | C          | VFD7A3ME43AFSAA | V                            | V            |
| 5                              | 3.7/4 | 9.0                        | C          | VFD9A0ME43ANNAA |                              |              |
| 5                              | 3.7/4 | 9.0                        | C          | VFD9A0ME43ANSAA |                              | V            |
| 5                              | 3.7/4 | 9.0                        | C          | VFD9A0ME43AFNAA | V                            |              |
| 5                              | 3.7/4 | 9.0                        | C          | VFD9A0ME43AFSAA | V                            | V            |
| 7.5                            | 5.5   | 13.0                       | D          | VFD13AME43ANNAA |                              |              |
| 7.5                            | 5.5   | 13.0                       | D          | VFD13AME43ANSAA |                              | V            |
| 7.5                            | 5.5   | 13.0                       | D          | VFD13AME43AFNAA | V                            |              |
| 7.5                            | 5.5   | 13.0                       | D          | VFD13AME43AFSAA | V                            | V            |
| 10                             | 7.5   | 17.0                       | D          | VFD17AME43ANNAA |                              |              |
| 10                             | 7.5   | 17.0                       | D          | VFD17AME43ANSAA |                              | V            |
| 10                             | 7.5   | 17.0                       | D          | VFD17AME43AFNAA | V                            |              |
| 10                             | 7.5   | 17.0                       | D          | VFD17AME43AFSAA | V                            | V            |

