



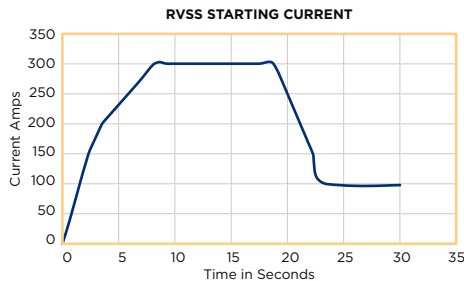
# MITCHELL'S GENUINE CONTROLS

## MECA-600

## EXCEPTIONAL SOFT START PERFORMANCE FOR FIXED-SPEED APPLICATIONS

Mitchell's Enhanced Control for Agriculture, MECA 600, combines the latest in advanced controls and protections with an enhanced level of intelligence for superior performance in fixed-speed applications.

Industry leading features come standard in this model and include a 65 kAIC rating, service entrance disconnect, full metal handle with locking tab, hand off auto with run light, and smart software features specific to pumping applications.



The Soft Starter provides ramp up and ramp down of a motor to reduce mechanical stress on the system by adjusting the voltage during starting and stopping.

The MECA 600 is Powered by the Danfoss VLT® Soft Starter MCD 600. This performance soft starter offers an integrated bypass for high efficiency and harmonic-free operation at full speed, reducing peak to peak demand charges and required cooling capacity.

A wide variety of Ethernet and serial-based communication option cards available, application-dedicated smart cards and support for eight languages make this drive easy to install. Ease of use is also greatly increased with new capabilities such as the pump-clean function, PowerThrough operation, and calendar or run time-based scheduling.



**65KAIC  
SCCR RATING**

**SERVICE  
ENTRANCE RATING**  
FIRST DISCONNECT FROM  
UTILITY TRANSFORMER

### COMMUNICATION CARD OPTIONS

- MODBUS RTU
- DEVICENET
- PROFIBUS
- PROFINET
- MODBUS TCP
- ETHERNET IP



# POWERED BY THE DANFOSS MCD 600

## KEY FEATURES

### PRELUBE FUNCTION

Use with an oiler system, safely open a solenoid valve to put oil or water on the shaft prior to startup.

### TIME CLOCK

User friendly watering schedule based on day of the week.

### STARTS PER HOUR

Program feature to protect assets.

### TEMPERATURE SCALE

Adjust temperature in Fahrenheit or Celsius.

### POWER THRU OPTION

If a SCR (silicon-controlled rectifier) fails, the power thru goes into 2 phase control for emergency run mode to keep the system running.

### MULTI-PUMP FEATURE

Adjusts the ramp profile for multiple pump systems.

### PUMP CLEAN FUNCTION

Runs pump in reverse to unblocking sand lock and de-ragging in lift stations.

### PUMP MACROS

Use pre-programmed setting values designed specifically for pump applications. Recommended settings control current Limits and ramp times for enhanced equipment protection.

### INTEGRATED USB PORT

Load and save parameters and store event logs into a csv format: extract alarms, currents, time and date stamps.

### PUMP SMART CARD (OPTIONAL, NOT STANDARD)

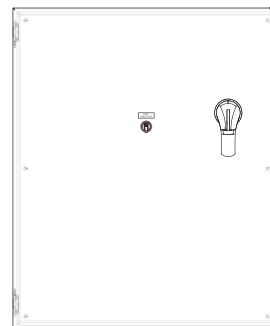
Adds analog signal to monitor pressure, flow, level to be used to control the unit start/stop and alarms "for control and alarm functions".

## SPECIFICATIONS

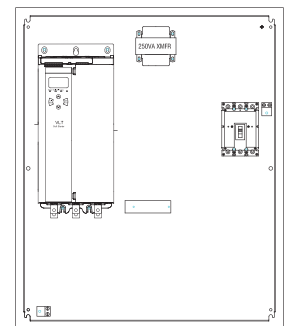
| MAINS VOLTAGE (L1, L2, L3)                                          |                                                       |
|---------------------------------------------------------------------|-------------------------------------------------------|
| MCD6-xxxxB-T5                                                       | 200-525 VAC (3 10%)                                   |
| CONTROL VOLTAGE (TERMINALS A4, A5, A6)                              |                                                       |
| CV2 (A8, A9)                                                        | 110-120 VAC (+ 10% / -15%), 600 mA                    |
| CV2 (A8, A9)                                                        | 220-240 VAC (+ 10% / -15%), 600 mA                    |
| Mains frequency                                                     | 50/60 Hz (3 5%)                                       |
| Rated insulation voltage to earth                                   | 690 VAC                                               |
| Rated impulse withstand voltage                                     | 6 kV                                                  |
| ELECTROMAGNETIC CAPABILITY (compliant with EU Directive 2014/35/EU) |                                                       |
| EMC Immunity                                                        | IEC 60947-4-2                                         |
| EMC Emissions                                                       | IEC 60947-4-2 Class B                                 |
| INPUTS                                                              |                                                       |
| Input rating                                                        | Active 24 VDC, 8 mA (approximately)                   |
| Motor thermistor (TER-05, TER-06)                                   | Trip > 3.6 kff, reset > 1.6 kff                       |
| OUTPUTS                                                             |                                                       |
| Relay outputs                                                       | 10 A @ 250 VAC resistive<br>5 A @ 250 VAC AC15 pf 0.3 |
| Main Contactor (13, 14)                                             | Normally open                                         |
| Relay output A (21, 22, 23)                                         | Changeover                                            |
| Relay output B (33, 34)                                             | Normally open                                         |
| Analog Output (AO-07, AO-08)                                        | 0-20 mA or 4-20 mA (selectable)                       |
| Maximum load                                                        | 600 ff (12 VDC @ 20 mA) (accuracy 3 5%)               |
| ENVIRONMENTAL                                                       |                                                       |
| Protection MCD6-0020B - MCD6-0129B                                  | IP20                                                  |
| Protection MCD6-0144B - MCD6-0579C                                  | IP00                                                  |
| Operating temperature                                               | -10° C to 60° C, above 40° C with derating            |
| Storage temperature                                                 | -25° C to + 60° C                                     |
| Operating altitude                                                  | 0-1000 m, above 1000 m with derating                  |
| Humidity                                                            | 5% to 95% relative humidity                           |
| Pollution degree                                                    | Pollution Degree 3                                    |
| Vibration                                                           | IEC 60068-2-6                                         |
| HEAT DISSIPATION                                                    |                                                       |
| During start                                                        | 4.5 watts per ampere                                  |
| During run                                                          |                                                       |
| MCD6-0020B-MCD6-0042B                                               | ≤ 35 W approximately                                  |
| MCD6-0063B-MCD6-0129B                                               | ≤ 50 W approximately                                  |
| MCD6-0144B-MCD6-0244B                                               | ≤ 120 W approximately                                 |
| MCD6-0287B-MCD6-0579B                                               | ≤ 140 W approximately                                 |

## NEMA 4 CABINET SIZES

| Size         | HP Range     | Dimensions         |
|--------------|--------------|--------------------|
| 230V 3 phase | 5 - 75 hp    | 36"h x 30"w x 12"d |
|              |              |                    |
| 480V 3 phase | 10 - 150 hp  | 36"h x 30"w x 12"d |
|              | 200 - 450 hp | 48"h x 36"w x 12"d |
|              | 500 - 600 hp | 84"h x 36"w x 16"d |



FRONT DOOR



INSIDE