

Data Sheet

MC018-130 High Current PLUS+1[®] Controllers



Mobile machine management

Danfoss PLUS+1[®] controllers are elements of the flexible, powerful, expandable, and affordable family of mobile machine management products. These devices are general-purpose controllers that are equally suited for use as a member of a distributed machine control system, with intelligence in every node, or as a stand-alone controller.

Product highlights

The PLUS+1[®] High Current controller employs a 32 bit Cortex-M3 Processor, providing the controller with extremely fast single cycle processing speed and 512K internal flash. It features high current capabilities for your machine control.

Application development

Users develop MC018-130 applications with PLUS+1[®] GUIDE. This Microsoft Windows based development environment features a user-friendly, field proven, icon-based graphical programming tool, application downloader, and service/diagnostic tool.

Features

- User-programmable with PLUS+1[®] GUIDE (Graphical User Integrated Development Environment)
- 18 pins: (2) DEUTSCH connectors (DT and DTP), (2) 6 mm studs
- 12 bit analog-to-digital converter

Comprehensive technical literature online
at powersolutions.danfoss.com



4 inputs

- (2) Universal (DIN/AIN/FreqIN/Rheo)
Digital: Pull up (5 VDC), pull down (0 VDC) or pull to center (2.5 VDC)
Analog: 0 to 0.375 VDC, 0 to 5.25 VDC, or 0 to 36 VDC
Frequency (timing): 1 Hz to 10 kHz
Resistance: 0 to 10,000 ohm
- (1) Digital/Analog (DIN/AIN) that is user-defined as either:
Digital: Pull up (5 VDC), pull down (0 VDC) or pull to center (2.5 VDC)
Analog: 0 to 5.25 VDC or 0 to 36 VDC
- (1) Digital/Analog/CAN shield (DIN/AIN/CAN shield) that is user-defined as either:
Digital: Pull up (5 VDC), pull down (0 VDC) or pull to center (2.5 VDC)
Analog: 0 to 5.25 VDC or 0 to 36 VDC
CAN shield

8 outputs

- (4) Universal (PWMOUT/DOUT/PVGOUT) that are user-defined as either:
Digital: 15 A, configurable as source or sink
PWM: 15 A (33 to 4000 Hz or 20 kHz), configurable as open or closed loop with current control
- (4) Universal (PWMOUT/DOUT/PVGOUT) that are user-defined as either:
Digital: 25 A, configurable as source or sink
PWM: 25 A (33 to 4000 Hz or 20 kHz), configurable as open or closed loop with current control

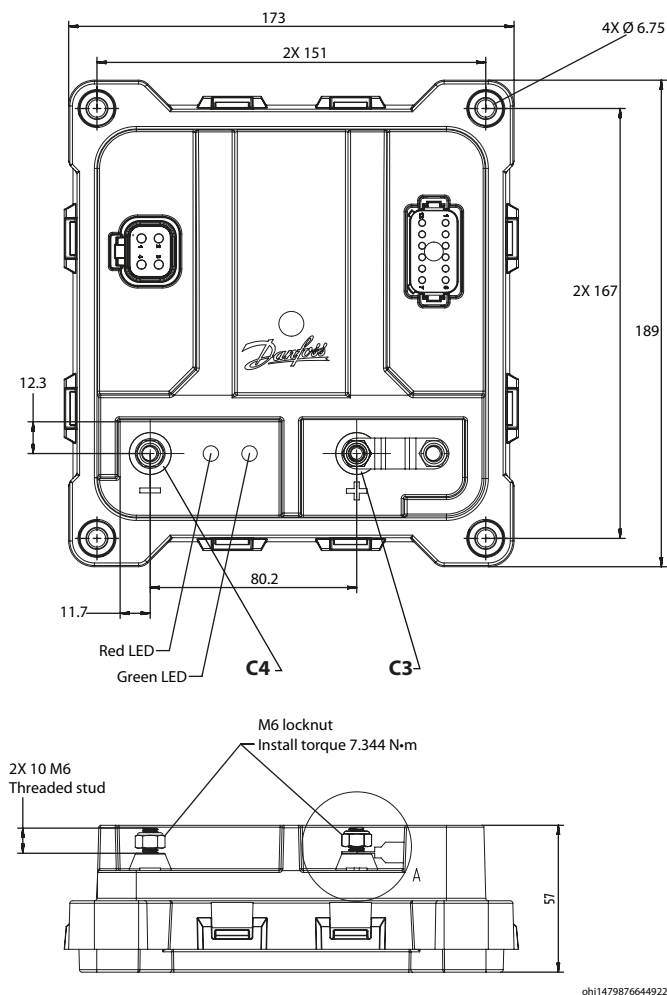
Characteristics

Supply voltage	9 to 36 VDC
Operating temperature (ambient)	- 40°C to 70°C [- 40°F to 158°F]
Storage temperature	- 40°C to 85°C [- 40°F to 185°F]
Programming temperature	- 40°C to 70°C [- 40°F to 158°F]
IP rating (with mating connector attached)	IP 67
EMI/RFI rating	100 V/M
Weight	1.29 kg [2.85 lb]
Vibration	IEC 60068-2-64
Shock	IEC 60068-2-27 test Ea
Maximum current, sourcing	120 A
Maximum current, sinking	120 A

Data Sheet
MC018-130 Controller

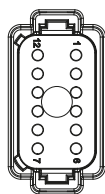
Dimensions and pin assignments

Dimensions in millimeters



C1

DEUTSCH DT Series 12 pin

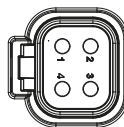


nmp1479876497075

Pin	Controller function	Pin	Controller function
1	Logic ground	7	DIN/AIN/FreqIN/Rheo
2	Logic power	8	DIN/AIN/FreqIN/Rheo
3	CAN_HI	9	15A PWM
4	CAN_LO	10	15A PWM
5	DIN/AIN1/CAN shield	11	15A PWM
6	DIN/AIN2	12	15A PWM

C2

DEUTSCH DTP Series 4 pin



cv11479876589499

Pin	Controller function
1	25A PWM
2	25A PWM
3	25A PWM
4	25A PWM

C3, C4

Pin	Controller function	Description
C3-P1	Battery power	120A battery connection (externally fused)
C4-P1	Battery ground	120A battery connection

Device must be mounted on a flat metal surface that is less than 70° C (158° F) for full output capability.

If the metal surface is greater than 70° C (158° F), built in thermal protection will limit the maximum output current allowed for all PWM's.

Use care when wiring mating connector. Pinouts listed are for device pins.

**Ordering information***Product part number*

MC018-130	11187841
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Related products part numbers

CG150-2 CAN/USB Gateway	11153051
PLUS+1[®] GUIDE Professional	11179523

Danfoss mating connectors bag assemblies and fuse part numbers

4 pin DEUTSCH mating connector bag assembly (10 to 14 AWG)	11188220
12 pin DEUTSCH mating connector bag assembly (14 to 20 AWG)	11188221
4 and 12 pin DEUTSCH mating connector bag assembly	11188232
125 Amp fuse	11188233