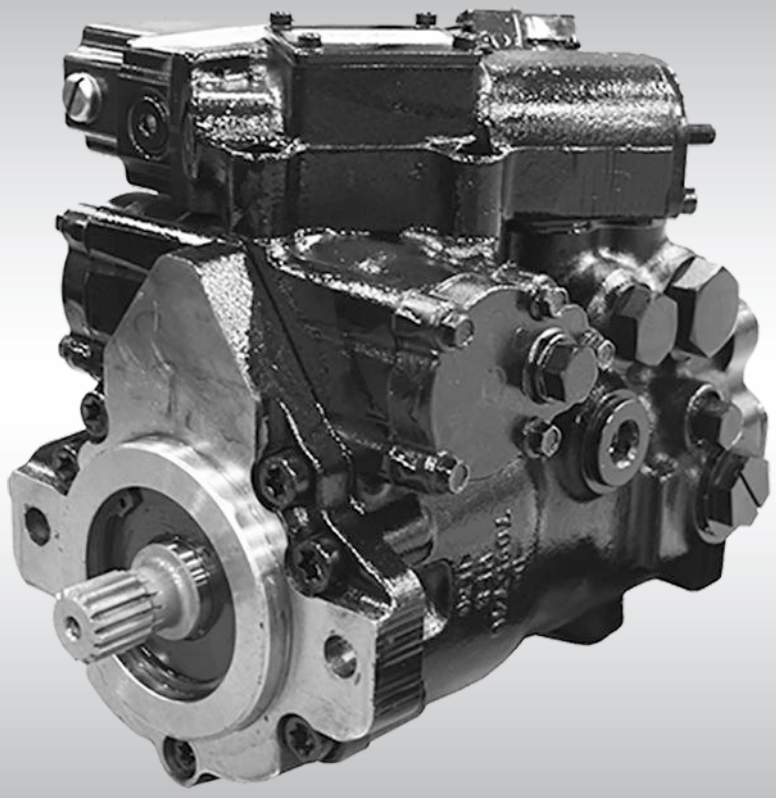
MAKING MODERN LIVING POSSIBLE

Danfoss

Electrical Installation

M46 Pumps

HC EDC



Revision history

Table of revisions

Date	Changed	Rev
September 2015	Minor layout revision	AB
June 2014	First edition	AA

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Literature references

Literature references

References

Literature ID number	Title	Description
L1001029	*Series 40 M46 Pumps Technical Information*	Complete product electrical and mechanical specifications

Latest version of technical literature

Danfoss product literature is online at: *http://powersolutions.danfoss.com/literature/*

Product overview

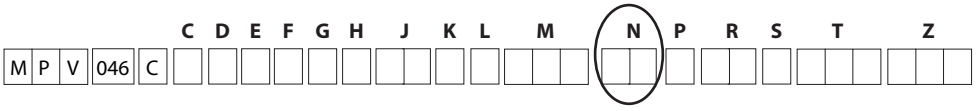
Image

M46 Pump



Control options model code

M46 model code



P200148

N—control options

Code	Description
HA	EDC, high current, 12 volt, Deutsch® connector, 2-pin
HB	EDC, high current, 24 volt, Deutsch® connector, 2-pin

M46 Pumps

M46 pumps are designed for medium power applications with maximum loads of 345 bar [5000 psi]. These pumps can be combined with other products in a system to transfer and control hydraulic power.

M46 pumps provide an infinitely variable speed range between zero and maximum in both forward and reverse modes of operation.

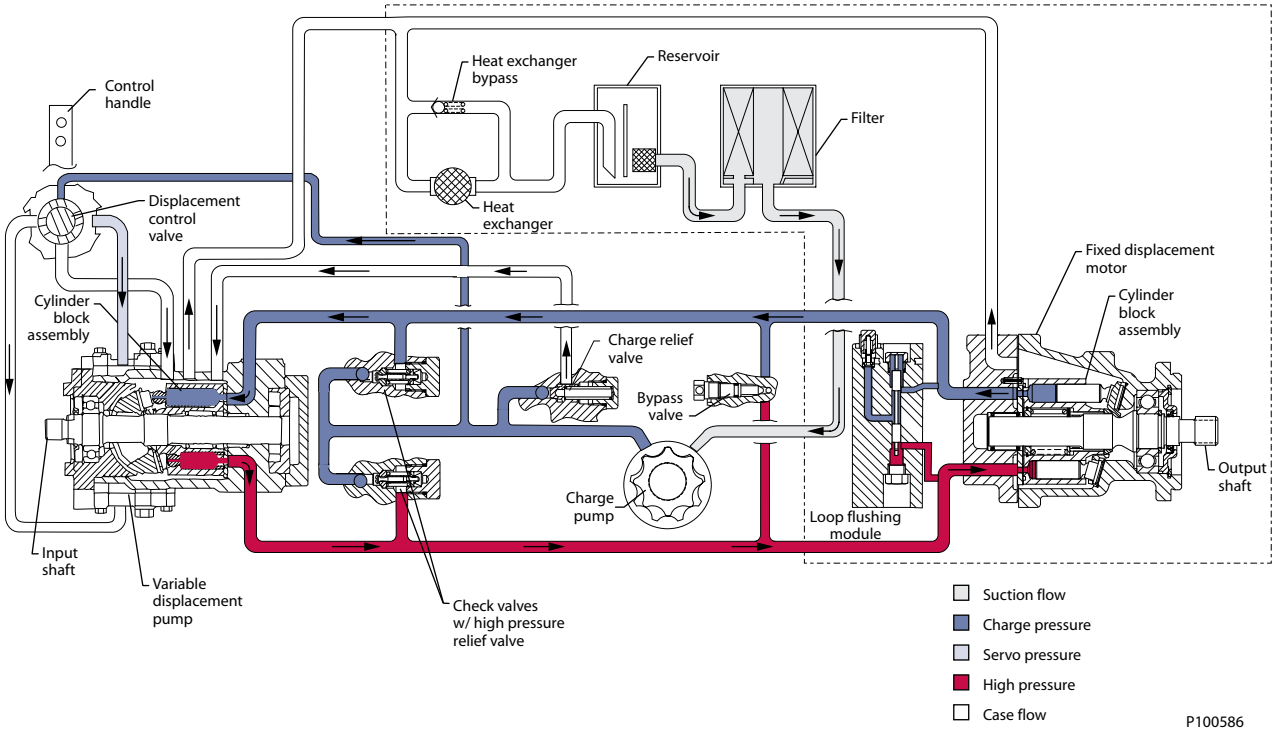
M46 pumps are compact, high power density units. All models use the parallel axial piston / slipper concept in conjunction with a tiltable swashplate to vary the pump's displacement. Reversing the angle of the swashplate reverses the flow of fluid from the pump, reversing the direction of rotation of the motor output.

M46 pumps may include an integral charge pump to provide system replenishing and cooling fluid flow, as well as servo control fluid flow. M46 pumps feature a range of auxiliary mounting pads to accept auxiliary hydraulic pumps for use in complementary hydraulic systems.

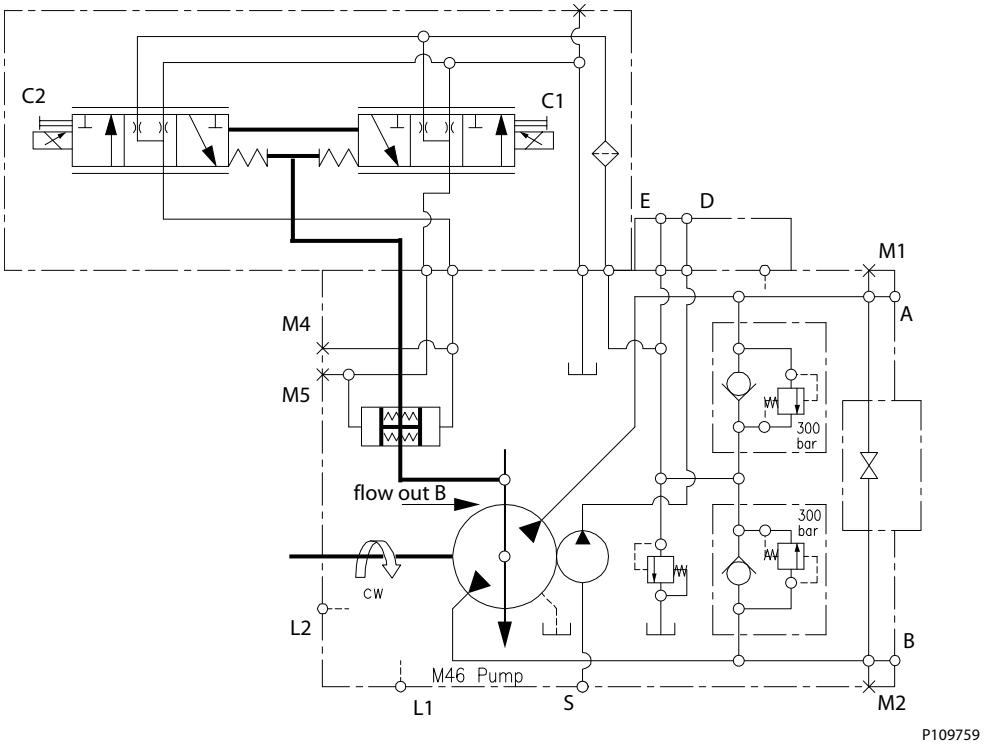
M46 pumps offer proportional controls with either manual, hydraulic, or electronic actuation. An electric three-position control is also available.

Product overview

System Circuit Diagram



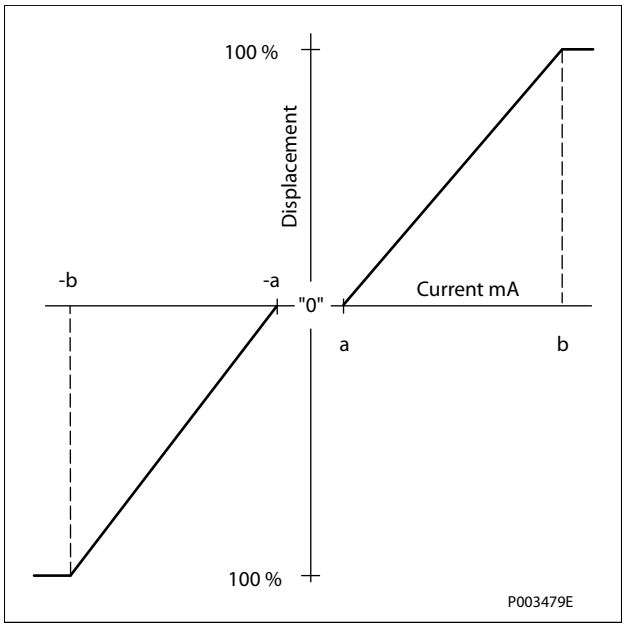
Schematic diagram



Product overview

Electrical specifications

Pump displacement vs. control current



Solenoid electrical specifications

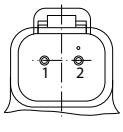
Voltage	12V	24V
Maximum current	1800 mA	920 mA
Coil resistance @ 20 °C [70 °F]	3.66 Ω	14.20 Ω
Coil resistance @ 80 °C [176 °F]	4.52 Ω	17.52 Ω
PWM Range	70-200 Hz	
PWM Frequency (preferred)*	100 Hz	
Inductance	33 mH	140 mH

* PWM signal required for optimum control performance.

Electrical installation

Pinout

Pin location



Pinout

Pin	Description
1	PWM signal/voltage input
2	Ground

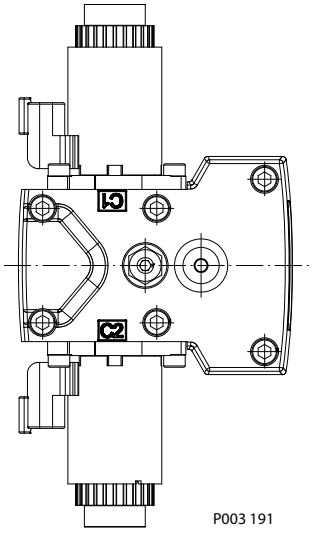
Pin compatibility

PLUS+1® module pin type

Pin	Function
1, 2	PWMOUT/DOUT/PVG Power supply
1, 2	PWMOUT/DOUT/PVGOUT
1, 2	Power ground -

Input/output matrix

EDC/C1 and C2 location



Electrical installation

Pump output flow direction versus control signal

Shaft rotation	CW		CCW	
Coil energized*	**C2**	**C1**	**C2**	**C1**
Port A	in	out	out	in
Port B	out	in	in	out
Servo port pressurized	M5	M4	M5	M4

* For coil location see installation drawings in the Series 40 M46 Pumps Technical Information, L1001029..

Mating connector

Parts list

Description	Quantity	Ordering number
Mating connector	1	Deutsch® DT06-2S
Wedge lock	1	Deutsch® W2S
Socket contact (16 and 18 AWG)	2	Deutsch® 0462-201-16141
Danfoss mating connector kit	1	K29657

Comatrol
www.comatrol.com

Schwarzmüller-Inverter
www.schwarzmueller-inverter.com

Turolla
www.turollaocg.com

Hydro-Gear
www.hydro-gear.com

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