Danfoss

Electrical Installation

Axial Piston Open Circuit

Reverse Displacement Motor (RDM)



Revision history

Table of revisions

Date	Changed	Rev
September 2015	Minor layout revision	BC
January 2015	Fixed back page	BB
December 2014	Added 24 V specifications	BA
May 2014	First edition; Danfoss layout-DITA CMS	AA

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Literature references

Literature references

References

Literature ID number	Title	Description
L1424445	Reverse Displacement Motor (RDM) Technical Information	Complete product electrical and mechanical specifications

Latest version of technical literature

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

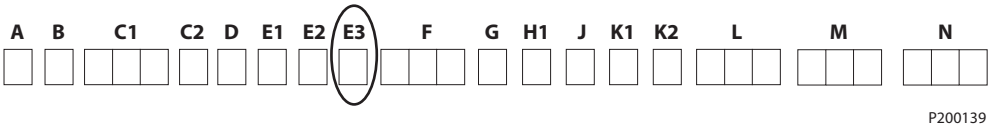
Product overview

Product image



Control options model code

RDM model code



E3 Optional Features

Code	Description
1	12 V Integrated Shift Valve
2	24 V Integrated Shift Valve

Description/theory of operation

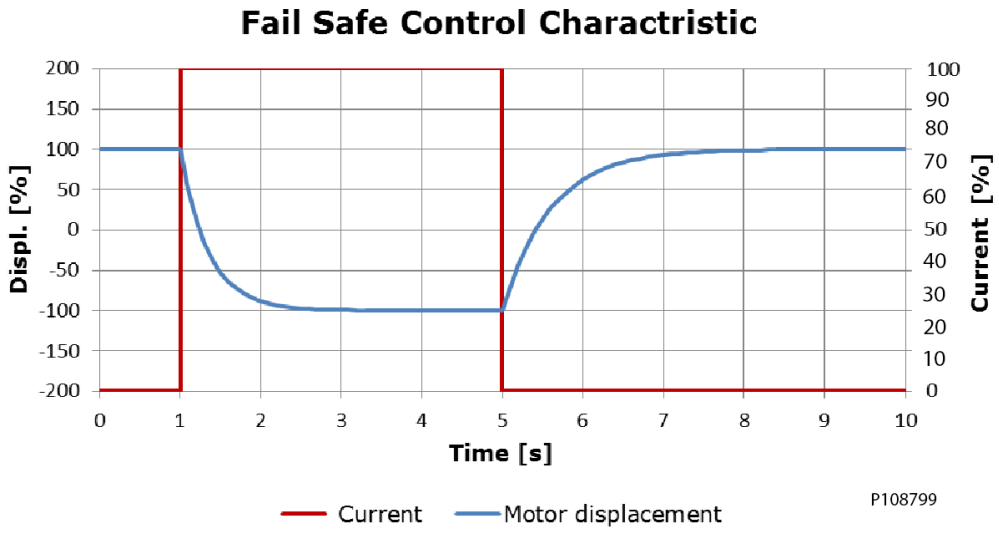
Reverse Displacement Motors are designed to operate in two positions: maximum forward and maximum reverse displacement. The motors are spring biased to maximum forward displacement and hydraulically shifted to reverse.

Reverse Displacement Motors have an integrated shifting valve to go from forward to reverse rotation.

The shifting valve is a proportional pressure reducing valve using system pressure to pilot the servo piston.

The RDM control has a fail safe design. It has an internal orifice to damp the shifting between maximum forward to maximum reverse and back. This feature protects the system components against fatal damage in case the control signal changes without ramping or ir it gets lost immediately while reversing.

Product overview

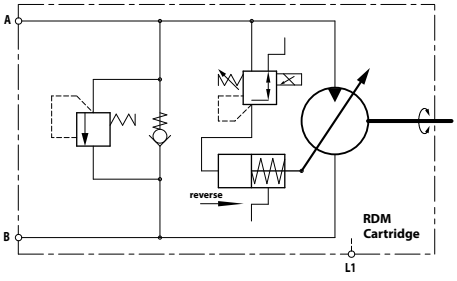


Control current

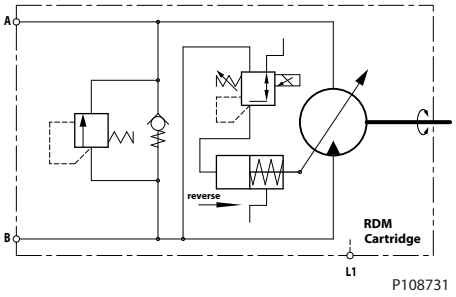
Supply Voltage (Vdc)	Current Range 0-100% [mA]
12	0-1500
24	0-750

Schematic Diagrams

Pressure port A (CW rotation)



Pressure port B (CCW rotation)



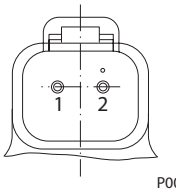
Electrical specifications

Description	Voltage	
	12Vdc	24Vdc
Maximum current	1500mA	750mA
Nominal coil resistance	5.3 Ohms	21.2 Ohms
PWM range	70-200 Hz or straight 12Vdc	
PWM frequency recommended	100 Hz	
Connector	Deutsch connector DT04-2P	
IP rating	IP 65	
Ambient temperature limit	80° C (175° F)	

Electrical installation

Pinout

Pin location



P003 480

Pinout

Pin	Description
1	PWM signal
2	Ground

Alternative pinout

Pin	Description
1	Ground
2	PWM signal

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 -

Mating connector

Parts list

Description	Quantity	Ordering number
Connector	1	Deutsch® DT06-2S
Secondary wedge lock	1	W2S
Socket terminal	2	046220116141
Mating connector kit	1	Danfoss: K29657

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