

# DIGIVEX drives

DLD series

2 to 7.5A



## Description

DLD is specifically developed for low power applications where optimum quality of control and very compact design are needed.

Combined with NX servo motors, they offer a powerful and economical servo system solution.

**Direct 230 Vac power supply**

**Integrated EMC filter**

**Integrated braking resistor**

**High compacity**

**7-seg LCD display**

**Easy parameter setting with Parvex Motion Explorer**

## Standards

CE marked

UL and cUL (DLD)

Technical specifications	
Power supply	230Vac ±10%, single or three phase ; 50/60Hz
Temperature	0-40°C (derate by 20% per 10°C to 60°C max).
Altitude	1000m (derate by 1% per 100m to 4000m max.)
Braking	Integrated resistor, connection of DC bus voltage in multi DLD applications for higher braking capacity.

Electrical specifications			
Type	Output current continuous (A)	Output current peak (A)	Mechanical power (W)
<b>DLD - 230 V single phase 50/60 Hz</b>			
DLD13M02R	2	4	375
DLD13M04R	4	8	750
<b>DLD - 230 V three phase 50/60 Hz</b>			
DLD13002R	2	4	375
DLD13004R	4	8	750
DLD13007R	7.5	15	1500

## DLD

Inputs/Outputs

2- Analogue inputs (14 bits and 10 bits ; ±10V diff.)

2- Analogue outputs (±10V), free assignment

5- Opto-isolated digital inputs

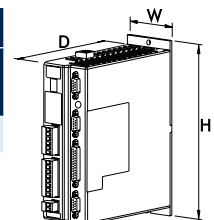
3- Opto-isolated digital outputs

Resolver input

230Vac auxiliary input

Incremental encoder emulation output

Dimensions				
Type	H (mm)	W (mm)	D (mm)	Weight (kg)
D L D	195	60	161	1.3



# DIGIVEX drives

DSD / DMD / DPD series

2 to 300 A



## Technical specifications

Power supply	230Vac ±10%, single phase or three phase, 400Vac ±10%, three phase ; 50/60Hz
Ambient	0-40°C (derate by 20% per 10°C to 60°C max.)
Altitude	1000m (derate by 1% per 100m to 4000m max.)
Braking	DSD : Integrated or external resistor DMD : Integrated or external resistor or regenerative DPD : Regenerative
Inputs/outputs	2- Analogue inputs (16 bits and 10 bits ; ±10V diff.) 2- Analogue outputs (±10V), free assignment 4- Opto-isolated digital inputs 3- Opto-isolated digital outputs Resolver input Incremental encoder emulation output ; SSI ; SinCos 230Vac or 400Vac auxiliary input

## Description

DIGIVEX drives are available for power range from 0.37kW to 120kW and for 230V and 400V power supply.

Dedicated to the torque or speed control of axis or spindle brushless motors, DIGIVEX drive can be delivered in single-axis or multi-axis format.

**Direct 230Vac and 400Vac power supply**

**Single-axis or multi-axes version**

**Integrated resistor or regenerative braking**

**High resolution analogue input**

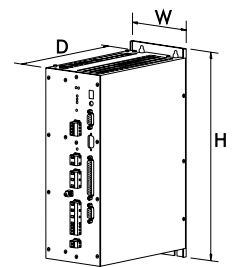
**Integrated filters and feed forward**

**Complete integrated monitoring**

**with Parvex Motion Explorer**

## Dimensions

Type	H (mm)	W (mm)	D (mm)
<b>DSD rating</b>			
2,4 and 7,5 A	328	78	222
8 and 15 A	328	109.5	222
16 A	328	133	222
30 A	328	133	226
32 A	328	168	226
60 A	328	168	235
<b>DMD rack</b>			
DRA3165 - 3 axes	303	315	270
DRA3168 - 6 axes	303	483	270
DRA3128 - 13 axes	597	483	271
<b>DPD rating</b>			
50 A	438	202	244
100 and 150 A	474	483	343
200 A and 300 A	878	540	343



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## Range

Type	Output current	Structure	Control
DSD	2 to 60A	Single-axis	Speed
DMD	2 to 32A	Mutli-axis	Speed
DPD	50 to 300A	Single-axis	Speed

## Standards

CE Marked



# DIGIVEX motion drives

DSM / DMM / DPM series

2 to 300 A



## Description

The DIGIVEX motion servo drives integrate in one compact unit the functions of speed controller, motion controller and PLC as well as powerful CANopen or PROFIBUS network possibilities.

The DIGIVEX motion have the same electrical characteristics as the DIGIVEX Drive and are available in single or multi axes version.

### Complete positioning drive

Integrated PLC and motion program

Real time multi-tasking structure

Direct 230Vac and 400Vac power supply

Single and multi-axes version

Integrated or regenerative braking

Posivex® absolute encoder compatible

CANopen and PROFIBUS fieldbus

Range			
Type	Output current	Structure	Control
DSx*	2 to 60 A	Single-axis	Position
DMx*	2 to 32 A	Multi-axes	Position
DPx*	50 to 300 A	Single-axis	Position

\* x=D for Digivex Drive serie  
x=M for Digivex Motion serie

## Standards

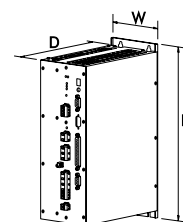
CE marked

## Technical specifications

Power supply	230Vac ±10%, single phase or three phase, 400Vac ±10%, three phase ; 50/60Hz
Ambient	0-40°C (derate by 20% per 10°C to 60°C max).
Altitude	1000m (derate by 1% per 100m to 4000m max.)
Braking	DSM : Integrated or external resistor DMM : Integrated or external resistor or regenerative DPM : Regenerative
Inputs/Outputs	1- Analogue input (14 bits ; ±10V diff.) 1- Analogue output (±10V), free assignment 16- Opto-isolated digital inputs (from which 4 interruptive inputs), free assignment 8- Opto-isolated digital inputs, free assignment Resolver input Posivex® Absolute encoder input Incremental encoder input ; SinCos Incremental encoder emulation output 230Vac or 400Vac auxiliary supply
Fieldbus	CANopen (DS 301 and DSP 402) PROFIBUS (DP-V0 and DP-V1; PROFdrive V2.0 and PROFdrive V3.0 Class 3 and 4)

## Dimensions

Type	H (mm)	W (mm)	D (mm)
<b>DSM rating</b>			
2.4 and 7.5 A	328	78	222
8 and 15 A	328	109.5	222
16 A	328	133	222
30 A	328	133	226
32 A	328	168	226
60 A	328	168	235
<b>DMM rack</b>			
DRA3165	303	315	270
DRA3168 - 6 axes	303	483	270
DRA3128 - 13 axes	597	483	271
<b>DPM rating</b>			
50 A	438	202	244
100 and 150 A	474	483	343
200 A and 300 A	878	540	343



# DIGIVEX drives / motion

## Characteristics



### Single-axis DSD / DSM

Series			Permanent current (Arms)	Peak current (Arms)	Mechanical power (W)
Drive	Motion				
<b>230VAC three phase - 50/60 Hz</b>					
DSD13004	DSM13004	■ M	2.8	5.7	750
DSD13007	DSM13007	■ M	5.3	10.6	1500
DSD13015	DSM13015	■ M	10.6	21.2	3000
DSD13030	DSM13030	■ M	21.2	42.4	6000
<b>400VAC three phase - 50/60 Hz</b>					
DSD16002	DSM16002	■ M	1.4	2.8	750
DSD16004	DSM16004	■ M	2.8	5.7	1500
DSD16008	DSM16008	■ M	5.7	11.3	3000
DSD16016	DSM16016	■ M	11.3	22.6	6000
DSD16032	DSM16032	■ M	22.6	45.3	12000

#### Communication (Motion Series only)

C CanOpen  
P Profibus



### Multi-axis DMD / DMM - 400 VAC three phase - 50 / 60 Hz

Series			Permanent current (Arms)	Peak current (Arms)	Width (E*)
Drive	Motion				
DXD06002	DMM06002	■ M	1.4	2.8	Simple 11E
DXD06004	DMM06004	■ M	2.8	5.7	Simple 11E
DXD06008	DMM06008	■ M	5.7	11.3	Simple 11E
DXD06016	DMM06016	■ M	11.3	22.6	Double 22E
DXD06032	DMM06032	■ M	22.6	45.3	Triple 33E

#### Communication (Motion Series only)

C CanOpen  
P Profibus

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Power supply	Power (kW)	Braking	Width (E*)
DPS0612	12	Internal	18E
DPS0625	25	Internal/External	18E
DPS0615	15	Regenerative	18E

\*1E=5.08mm - example : 1x13 axes (DRA 3128) will integrate 1 power supply and 13 simple modules.



### Power single-axis (regenerative) DPD / DPM - 400 VAC three phase - 50 / 60 Hz

Series			Permanent current (Arms)	Peak current (Arms)	Mechanical power (W)
Drive	Motion				
DPD27050	DPM27050	■ M	35	71	20
DPD17100	DPM17100	■ M	71	141	40
DPD17150	DPM17150	■ M	106	212	60
DPD17200L	DPM17200	■ ML	141	283	80
DPD17300L	DPM17300	■ ML	212	424	120

#### Communication (motion series only)

C CanOpen  
P Profibus

# Accessories

DIGIVEX drives / motion



## DIGIVEX drive and DIGIVEX motion accessories

### INPUT/OUTPUT CABLES AND COMMUNICATION CABLES

Encoder emulation encoder (except D $\mu$ D) 1 Sub-D	DIG04546R2xx
Input/Output cable 1 Sub-D	DIG04544R2xx
RS232C equipped cable for DLD, DSD, DMD and DPD 2 Sub-D	CB 90001
RS232C equipped cable for D $\mu$ D 1 Sub-D and 1 RJ9	CB 90002
CANopen cable for DIGIVEX Motion 2 Sub-D 120 ohms CAN terminator plug	DIG05982R1xx DIG05984R100
PROFIBUS cable for DIGIVEX Motion	CB 08320
PROFIBUS 90° plug	AC 62001
PROFIBUS 180° plug	AC 62002
USB cable for PC - USBPRO interface connection	CB 90003

\*xx = cable length in mm ; standard xx = 01, 02, 05, 10 m

### EMC FILTER FOR DIGIVEX (except D $\mu$ D and DLD)

EMC Filter 1Ph xx A (xx = 06 or 16)	FR 010xx
EMC Filter 3Ph xx A (xx = 16, 36 or 64)	FR 030xx
EMC Filter 3Ph book-sized xxA (xx = 08, 16 or 36)	FR 036xx
EMC Filter 3Ph xxx A (xxx = 100 or 200)	FR 03xxx

### EXTERNAL BRAKING RESISTOR FOR DIGIVEX

2kW 27ohms external resistor	RE 91001
4.5kW 12ohms external resistor	RE 91002

### BOARD AND ACCESSORIES FOR DIGIVEX Drive (except D $\mu$ D and DLD)

Encoder emulation board	SC 6631
SSI Encoder board	SC 6637
Indexing board	SH 6601
Indexing board+SinCos Encoder emulation board	SC 6643
7-seg display	SS 6611
Dialog terminal	DTP001

### BOARD AND COMMUNICATION INTERFACE FOR DIGIVEX Motion

Encoder input board	SC 6638
Encoder emulation board	SC 6639
SinCos input board	SC 6645
RS232C - CAN interface	CRS232B
RS232C - CAN interface (DIN mounting)	CIM03B
RS232-CAN adaptor	RS232CAN
USB - PROFIBUS interface	USBPRO
PCI board for PC PCI - PROFIBUS interface	PCIPRO
PCMCIA board for PC PCMCIA - PROFIBUS interface	PCMCIAPRO
RS232-PROFIBUS Adaptor	RS232PRO

### SOFTWARE

Parvex Motion Explorer software	PMEMCD
CAM function license	DMLCAM
Position control with interpolation license	DMLPI

\* Nota : Possibility to use a cable with 2 pairs for accessories  
(example : brake, thermic)

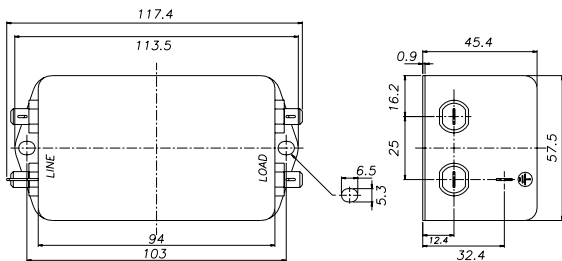
# Accessories

DIGIVEX series

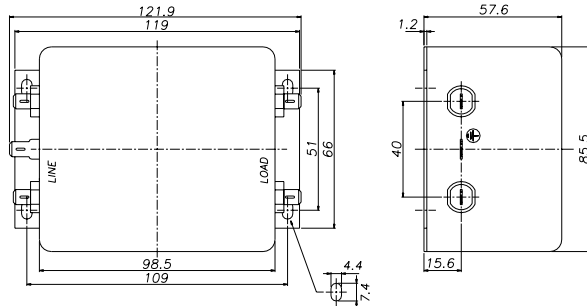
## EMC filters and inductances

### Single phase filter

#### FR 01006



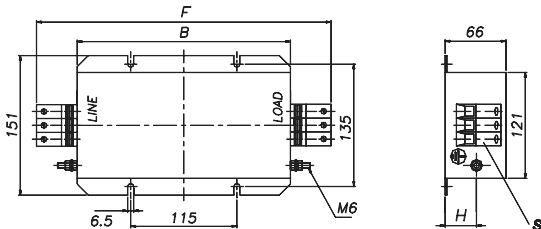
#### FR 01016



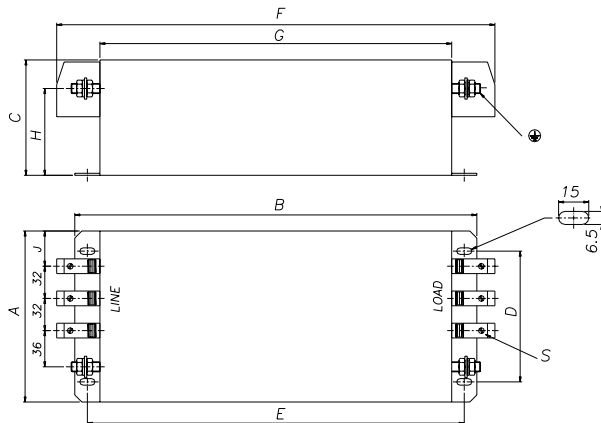
Characteristics			
Type	Current (A)	Max leakage current (mA)	Weight (kg)
FR 01006	6	3	0.42
FR 01016	16	3	1

### Three phase filter

#### FR 030xx



#### FR 03x00



Characteristics and dimensions													
Type	Current (A)	Max leakage current (mA)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	J (mm)	S max (mm <sup>2</sup> )	Weight (kg)
FR 03016	16	10	-	201	-	-	-	241	-	17	-	4	3
FR 03036	36	3	-	201	-	-	-	251	-	17	-	10	3
FR 03064	64	3	-	231	-	-	-	308	-	34	-	25	4
FR 03100	100	3	170	400	65	130	375	436	350	40	35	50	8.3
FR 03200	200	3	220	550	153	180	500	549	450	70	60	95	26.5

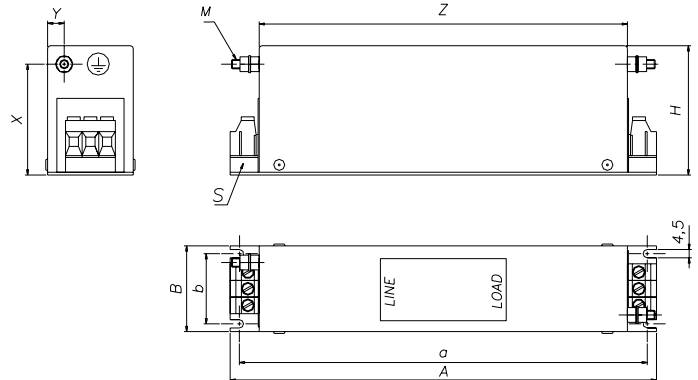
# Accessories

DIGIVEX series

## EMC filters and inductances

### Three phase filter “book-sized”

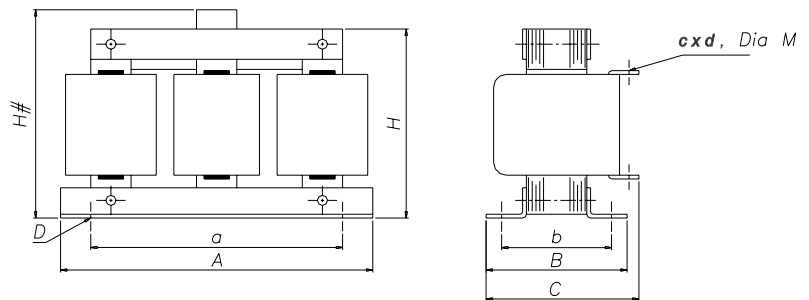
FR 036xx



Characteristics and dimensions												
Type	Current (A)	Leakage current (mA)	A (mm)	B (mm)	H (mm)	axb (mm)	X (mm)	Y (mm)	Z (mm)	M (mm)	S max (mm <sup>2</sup> )	Weight (kg)
FR 03608	8	13	165	51.4	63	155x38	50	8	133.7	M4 x11	4	0.58
FR 03616	16	15	231	46.4	70	221x38	60	9	199.5	M5 x15	4	0.90
FR 03636	36	15	265	58	90	255x35	70	8	200	M6 x24	10	1.75

### Three phase inductances

SF 020xx



Characteristics and dimensions												
Type	Current (A)	Inductance (μH)	A (mm)	B (mm)	C (mm)	H (mm)	H# (mm)	axb (mm)	D (mm)	Connection mm <sup>2</sup> or cxd (mm)	M (mm)	Weight (kg)
SF 02025	26	850	150	95	110	-	135	112x80	6	# 6mm <sup>2</sup>	-	4.5
SF 02026	65	340	175	95	95	165	180	53x68	6.5	* 16x16	6.5	9
SF 02027	118	190	290	116	135	210	-	230x100	8	* 20x20	9	13
SF 02028	17	1300	160	95	-	-	115	112x71	6	# 6mm <sup>2</sup>	-	4.2
SF 02029	91	245	220	135	160	160	-	166x114	6	* 20x20	9	15
SF 02030	170	130	235	120	165	240	-	185x100	9	* 25x28	11	19
SF 02032	7.5	400	132	75	85	-	103	94x55	6x10	# 4mm <sup>2</sup>	-	1.9

# Terminal connection

\* Output on bar cxd section, M diameter

# Accessories and options

Parvex Motion Explorer

Powerful Windows based software

## Description

Parvex Motion Explorer is a powerful Windows based software for the DIGIVEX range.

This software provides a convenient and straightforward working environment due to its graphic display of functions and an easy choice of different headings, in the form of thumbnails and menus.

**Program editor, compilation with error localisation**

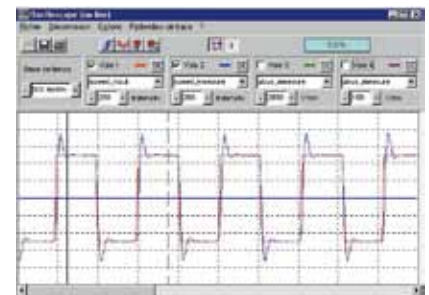
**Stimuli generator**

**Program development debugger**

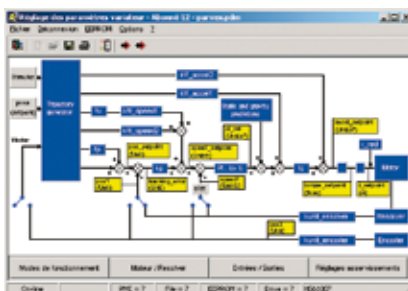
**Cam editor**



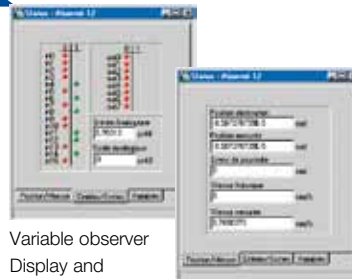
CANopen or PROFIBUS network management  
Simple click access to all subscribers on network.



4 channel oscilloscope  
Adjustable time base; adjustable trigger; RMS, peak-to-peak, average, min, max measures...



Parameter adjustment  
Axis, motor, sensor, input/output configuration; tuning assistant...



Variable observer  
Display and software forcing



Diagnostic help  
event history; troubleshooting assistant; firmware update...



# Accessories and options

Parvex Motion Explorer

A complete multi-axes servo application on CANOpen



## Parvex Motion Explorer

Use :

- Parameter definition
- Oscilloscope
- Control

## DIGIVEX Motion

Operating mode :

- Master slave synchronisation
- PDO messages, interpolation
- Multi-axis supervision

## Applications

Examples :

- Palletising
- Packaging
- Bending

One unique machine plug using CANopen bus gives opportunity to develop all the tasks for the realisation of an advanced application : Parameter Definition, Adjustment, Control.