

TECHNICAL SPECIFICATIONS

Supply - 230V ac $\pm 10\%$, single phase or three phase, 400V ac $\pm 10\%$, 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 ; $\pm 10V$ diff.)

2- Analogue outputs ($\pm 10V$), free assignment

4- Opto -isolated digital inputs

3- Opto -isolated digital outputs

Resolver input

Incremental encoder emulation output ; SSI ; SinCos

230V ac or 400V ac auxiliary input

Characteristics

Please refer to page 32

**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.

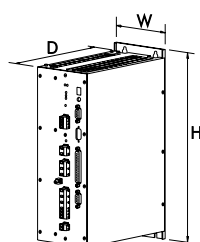
STANDARDS

CE Marked

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)
DSD			
Rating			
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
DMD			
Rack			
DRA3165 - 3 axes	303	315	270
DRA3168 - 6 axes	303	483	270
DRA3128 - 13 axes	597	483	271
DPD			
Rating			
50 A	438	202	244
100 and 150 A	474	483	343
200 A and 300 A	878	540	343

Range			
Type	Output current	Structure	Control
DSD	2 to 60A	single -axis	Speed
DMD	2 to 32A	multi-axes	Speed
DPD	50 to 300A	single -axis	Speed



Singlaxis DSD / DSM

Type	Output current continuous (A)	Output current peak (A)	Mechanical power (W)
230V single phase 50/60 Hz			
DSD13M02 / DSM13M02	2	4	375
DSD13M04 / DSM13M04	4	8	750
DSD13M07 / DSM13M07	7.5	15	1500
230V three phase 50/60 Hz			
DSD13004 / DSM13004	4	8	750
DSD13007 / DSM13007	7.5	15	1500
DSD13015 / DSM13015	15	30	3000
DSD13030 / DSM13030	30	60	6000
DSD13060 / DSM13060	60	100	12000
400V three phase 50/60 Hz			
DSD16002 / DSM16002	2	4	750
DSD16004 / DSM16004	4	8	1500
DSD16008 / DSM16008	8	16	3000
DSD16016 / DSM16016	16	32	6000
DSD16032 / DSM16032	32	64	12000


**Multi-ax DMD / DMM
400V three phase 50/60 Hz**

Type	Output current continuous (A)	Output current peak (A)	Width (E*)
DMD06002 / DMM06002	2	4	Simple 11E
DMD06004 / DMM06004	4	8	Simple 11E
DMD06008 / DMM06008	8	16	Simple 11E
DMD06016 / DMM06016	16	32	Double 22E
DMD06032 / DMM06032	32	64	Triple 33E
Power supply			
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
400V three phase 50/60 Hz**

Type	Output current continuous (A)	Output current peak (A)	Mechanical power (kW)
DPD27050 / DPM27050	50	80	20
DPD17100 / DPM17100	100	120	40
DPD17150 / DPM17150	150	150	60
DPD17200 / DPM17200	200	200	80
DPD17300 / DPM17300	300	300	120



A ccessories (cables, options...)	p 33
EMC Filter	p 33 and 135
Inductances	p. 136
Brake resistor	p 33
P rogramming software	p 33 and 146

Accessories

DIGIVEX Drive and DIGIVEX Motion accessories

CABLES

High strength power cables with connectors*

Power cable with Molex motor connector for NX1, NX2	CD1UP1F9R00xx
Power cable with motor connector for NX and $I_0 \leq 22A$	CD1UP1F1R00xx*
Power cable with motor connector for NX and $I_0 \leq 32A$	CD1UP2F1R00xx*
Resolver cable with Molex motor connector and Sub-D for NX1, NX2	CD1UA1F9R00xx
Resolver cable with motor connector and Sub-D for NX	CD1UA1F1R00xx

Input/Output cables and communication cables

Encoder emulation encoder (except D μ 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 μ D 1 Sub-D and 1 RJ9	CB 90002
CANopen cable for DIGIVEX Motion 2 Sub-D	DIG05982R1xx
120 ohms CAN terminator plug	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 μ 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 μ 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

CANopen OPERATOR TERMINAL AND CABLES

2x16 Characters terminal	DTP002
4x20 Characters terminal (VT150)	DVT150C
5.7" graphic touch screen terminal (VT505)	DVT505C
VT Programming software, accessories and documentation	DVTWINTKIT
CANopen connecting cable 1Sub-D 9pts	DIG06755R1xx

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





DESCRIPTION

For all kind of servo applications, DIGIVEX servo drives offer the perfect control of NX or EX brushless servo motors and allow servo system to reach optimum performances. (F or NX and EX description, please refer to page 35 and 45).

NX and EX - DIGIVEX / 230V

Motor	M ₀ (N.m)	I ₀ (A)	M _n (N.m)	I _n (A)	N _{MAX} (rpm)	M _{MAX} (N.m)	I _{MAX} (A)	DIGIVEX rating
NX SERVO MOTORS								
NX110EAP	0.45	1.4	0.33	1	6000	1.15	3.5	2/4
NX205EAV	0.45	1.37	0.37	1.19	5000	1.2	4	2/4
NX205EAS	0.45	1.89	0.29	1.34	7500	0.94	4	2/4
NX210EAT	1	1.89	0.8	1.5	4000	2.1	4	2/4
NX210EAP	1	2.81	0.61	1.8	6000	2.7	8	4/8
NX310EAP	2	1.97	1.9	1.9	2300	3.9	4	2/4
NX310EAK	2	3.44	1.7	2.9	4000	4.3	8	4/8
NX420EAP	4	3.83	3.8	3.8	2300	7.7	8	4/8
NX420EAJ	4	6.63	3.4	5.8	4000	8.2	15	7.5/15
NX430EAJ	5.5	7.41	4.7	6.3	3200	10.7	15	7.5/15
NX430EAF	5.5	9.39	4.3	7.4	4000	15.9	30	15/30
NX620EAR	8	7.5	7.4	7	2200	15.9	15	7.5/15
NX620EAJ	8	14	6.1	10.8	4000	16.9	30	15/30
NX630EAR	12	7.42	11.5	7.8	1450	22.6	15	7.5/15
NX630EAK	12	13.9	10.2	12.9	2800	23.9	30	15/30
NX630EAG	12	19.7	8.3	15.1	4000	33.5	60	30/60
NX820EAL	16	24.8	13.2	20.9	3600	35	60	30/60
NX840EAJ	28	26.7	22.9	22.2	2200	60	60	30/60
NX860EAD	41	46.2	27.4	32.1	2600	84.8	100	60/100
NX860VAG	64	51.2	54.4	47.1	2000	107	100	60/100

EX SERVOMOTORS FOR EXPLOSIVE ATMOSPHERE

EX310EAP	1.75	1.75	1.7	1.7	2300	3.9	4	2/4
EX310EAK	1.75	3.06	1.6	2.8	4000	3.5	8	4/8
EX420EAP	3.5	3.48	3.2	3.2	2300	7.8	8	4/8
EX420EAJ	3.5	6.03	2.7	4.7	4000	8.3	15	7.5/15
EX430EAJ	4.8	6.47	3.7	5.1	3200	10.8	15	7.5/15
EX430EAF	4.8	8.19	3.3	5.7	4000	11.6	20.5	15/30
EX620EAO	6.6	7.38	5.5	6.3	2500	13.9	15	7.5/15
EX630EAI	10.4	14.2	7.2	10.3	3000	22.5	30	15/30
EX820EAR	14	13.1	11.1	10.6	2200	30	30	15/30
EX820EAL	14	21	7.5	11.7	3600	35	60	30/60
EX840EAJ	24.5	22.7	14.2	13.5	2200	60	60	30/60
EX860EAD	35	38.6	8.5	10.3	2500	86	100	60/100

NX and EX - DIGIVEX / 400V

Motor	M ₀ (N.m)	I ₀ (A)	M _n (N.m)	I _n (A)	N _{MAX} (rpm)	M _{MAX} (N.m)	I _{MAX} (A)	DIGIVEX rating
NX SERVO MOTORS								
NX205EAV	0.45	1.37	0.29	0.96	7500	1.2	4	2/4
NX210EAT	1	1.89	0.61	1.2	6000	2.1	4	2/4
NX310EAP	2	1.97	1.7	1.7	4000	3.9	4	2/4
NX420EAV	4	1.92	3.8	1.9	2000	7.7	4	2/4
NX420EAP	4	3.83	3.4	3.4	4000	7.7	8	4/8
NX430EAV	5.5	1.99	5.4	2	1000	10.6	4	2/4
NX430EAP	5.5	3.99	4.8	3.5	3000	10.6	8	4/8
NX430EAL	5.5	5.35	4.3	4.2	4000	15	16	8/16
NX620EAV	8	4	7.5	3.8	2000	16	8	4/8
NX620EAR	8	7.5	6.2	5.9	3900	16.9	16	8/16
NX620EAJ	8	14	5.6	7.2	4500	17.9	32	16/32
NX630EAV	12	3.71	11.6	2.7	1350	24.1	8	4/8
NX630EAR	12	7.42	10.3	7	2700	23.9	16	8/16
NX630EAN	12	11.2	8.3	8.6	4000	32	32	16/32
NX820EAX	16	7.3	14.7	6.8	1900	32.7	16	8/16
NX820EAR	16	15.5	12.9	12.8	3900	31	32	16/32
NX840EAQ	28	14.3	23.2	12	2100	58	32	16/32
NX840EAK	28	23.8	18.5	16.3	3500	69	64	32/64
NX860EAJ	41	26	27.4	18.1	2600	94	64	32/64
NX860VAJ	64	38.4	50.5	32.8	2600	113	80	50/80

EX SERVOMOTORS FOR EXPLOSIVE ATMOSPHERE

EX310EAP	1.75	1.75	1.5	1.6	4000	3.9	4	2/4
EX420EAV	3.5	1.75	3.2	1.6	2000	7.7	4	2/4
EX420EAP	3.5	3.48	2.7	2.7	4000	7.8	8	4/8
EX430EAP	4.8	3.48	3.9	2.8	3000	10.7	8	4/8
EX430EAL	4.8	4.67	3.3	3.3	4000	11.6	11.7	8/16
EX620EAO	7	7.79	3.1	3.9	4300	14.7	16	8/16
EX630EAY	10.4	7.83	7.4	5.8	2900	21.8	16	8/16
EX630EAN	10.4	10.6	5.2	5.8	4000	26	26.5	16/32
EX820EAW	14	7.64	11.1	6.2	2200	28	16	8/16
EX820EAR	14	13.1	7.5	7.33	3600	32	32	16/32
EX840EAQ	24.5	12.1	15	7.6	2100	58	32	16/32
EX840EAM	24.5	15.8	11.5	7.7	2500	49	32	16/32
EX840EAK	24.5	20.2	2.85	2.92	3300	69	64	32/64
EX860EAJ	35	21.7	8.5	5.8	2500	94	64	32/64

