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**MOTOR
POWER**
COMPANY

MTR - GEARLESS MOTORROLLER

INNOVATION IN INTRALOGISTIC SMART SOLUTION





MTR - GEARLESS MOTOROLLER

*INTRODUCING THE FUTURE
IN SORTING AND MATERIAL
HANDLING TECHNOLOGY*

Motor Power Company
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info@motorpowerco.it

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SEE IT BEFORE IT HAPPENS

**MOTOR
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*COMPLETE TECHNOLOGICAL
INNOVATION IN MOVEMENT*

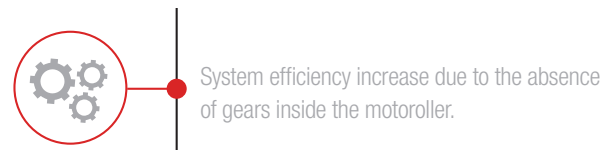
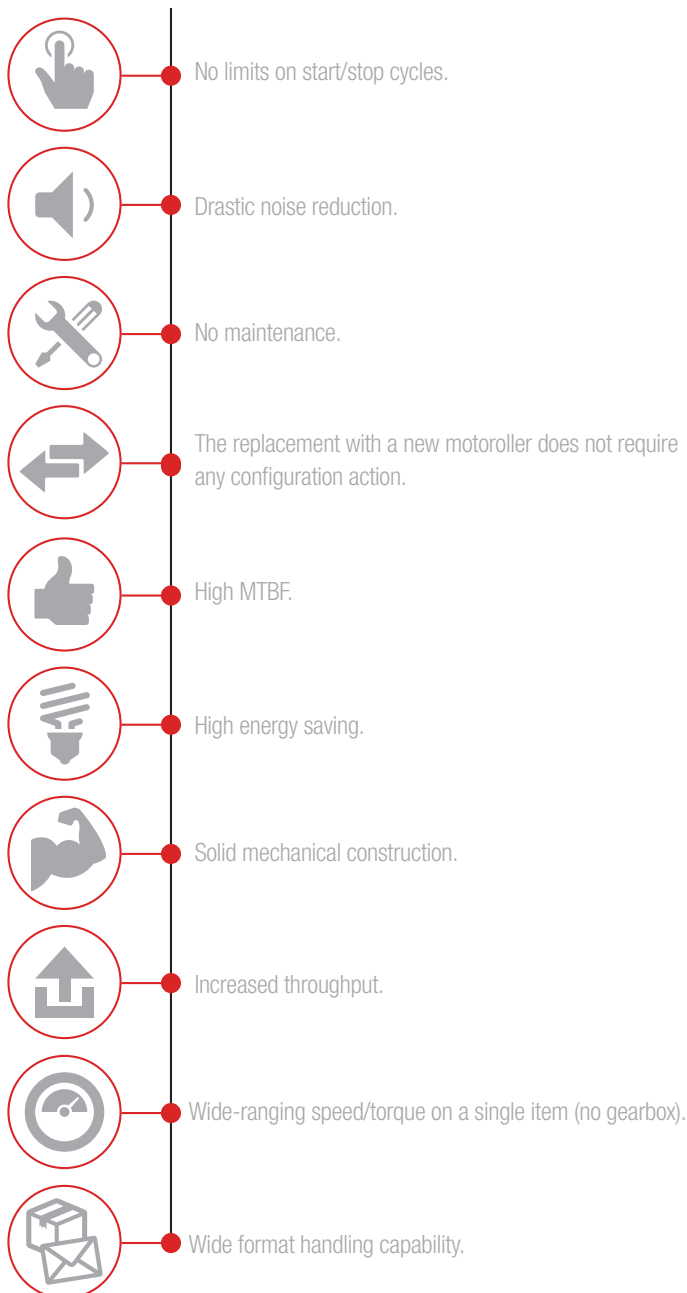


Motor Power Company keeps developing new concepts in sorting and material handling. Our goal is sharing with the market our domain expertise in intralogistics; innovative solutions through our gearless and geared technology products. We propose motion control bundles composed by gearless motorollers and smart drives. All our solutions are in-house developed and are particularly oriented for control, movement, storage and protection of materials and products throughout manufacturing, sorting, warehousing, distribution, consumption and disposal. Motor Power Company specialises in the design, development and manufacturing of high performance industrial motion solutions. We have acquired consolidated expertise and technical know-how from 30 years experience with all kinds of applications and through our continuous commitment to research and development. This allows us to partner leading international companies in the supply of products and solutions for automation and motion control.

Gearless motorollers and drives.

Increased efficiency and limitless performances

Motor Power Company introduces these perfect matched bundles constituted by gearless motorollers and smart drives. Everything has been conceived as a specific product for conveyor, crossbelt or any roller transfer systems. Two versions are proposed; **frameless cartridges** without tube, to be inserted into the roller to be moved, and **power pack** version, a ready to use motoroller embedded in its own tube. The technology on which the motor is based comes from the direct drive torque motors. Consequently, the motion is transmitted directly from the motoroller to the load, without any gears.

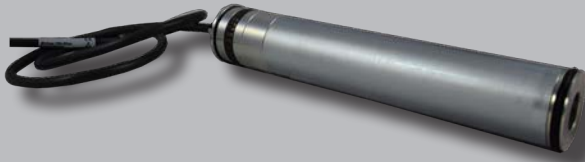


Motoroller without gears ensures:

- > **High MTBF**, as the motoroller needs less components than the standard kinematic chain
- > **System efficiency increase** due to the absence of gears inside the motoroller
- > **Accuracy**, due to the feedback reliability
- > **High dynamic** thanks to the direct drive technology
- > **Easy replacement**, with the autotuning system of DMR Drives, the substitution with a new motoroller does not require any configuration action
- > **Easy commissioning**, due to a unique part number, there are no different gearbox ratios to handle according to different speed needs.
- > **Wide speed availability**, one motoller for all speed range

The gearless motoroller series at a glance

Gearless motoroller 46 - cartridge version ***800rpm@24-48 Vdc***

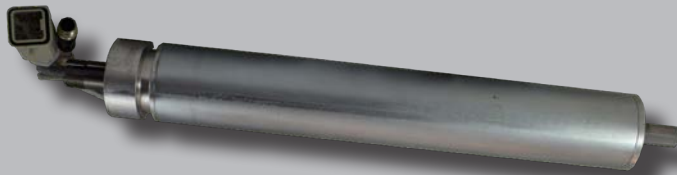


Frameless gearless cartridge motoroller for general conveyor applications. Suitable for 50mm roller tube integration, roller tube range available on request

Features

- » Two models
- » Rated power 50 Watt and 115 Watt
- » Rated torque 0,6 Nm and 1,35 Nm
- » Hall sensors and encoder feedback for higher precision
- » Cartridge diameter 46 mm suitable for all 50 mm diameter tube
- » 24 and 48Vdc power supply
- » Full speed control
- » Wide roller customization

Gearless power pack motoroller 60 ***800rpm@60 Vdc***



Tube equipped gearless motoroller for cross belt driving and controlling.

Features

- » Ready to use motoroller 60mm diameter
- » Rated power 235 Watt
- » Rated torque 2,8 Nm
- » 60Vdc power supply
- » Full speed control

Gearless motoroller 76 ***Cartridge version*** ***800rpm@48-65 Vdc***



Gearless cartridge motoroller for cross belt driving and controlling. Suitable for 80mm roller tube integration, roller tube range available on request

Features

- » Rated power 260 Watt
- » Rated torque 3,1 Nm
- » Encoder feedback for higher precision
- » Cartridge diameter 76 mm suitable for all 80 mm diameter tube
- » 48 and 65 Vdc for power supply
- » Full speed control
- » Wide roller customization

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The drive series at a glance

DMR 50-5/50 dual axes drive



The perfect matched drive for enhancing motoroller 46 features

Features

- » Dual axes operation
- » 24 and 48 Vdc operating supply voltage
- » Encoder and Hall Sensor feedback
- » CanOpen Fieldbus
- » RS485 programming interface
- » I/O programmability for speed, start and stop control

Lite Pro drive



Lite Pro drive is ideal for controlling motoroller 60

Features

- » 24 and 48 Vdc operating supply voltage
- » Encoder and Hall Sensor feedback
- » CanOpen Fieldbus
- » I/O programmability for speed, start and stop control

DMR 76-10/65



Motoroller 76 matches drive DMR 76-10/65 for the perfect bundle

Features

- » 24 and 65 Vdc operating supply voltage
- » Encoder and Hall Sensor feedback
- » Profibus Fieldbus
- » I/O programmability for speed, start and stop control
- » I/O proxy dual loop

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PALLET CONVEYOR MOTOROLLER

Pallet Conveyor allows efficient transport, accumulation, lifting and sorting of heavy loads as an alternative to forklifts handling.

In warehouse automation operations a pallet conveyor is generally utilized to move loads of several hundreds kilograms while ensuring continuous feed of work and cutting edge efficiency.

The high-performance synchronous brushless servomotor, coupled with planetary gearbox, ensures performance with loads up to 1500 kg per zone.



- > ROBUST MECHANICAL DESIGN**
- > HIGH DYNAMICS**
- > EASY CONVEYOR DESIGN**
- > THE REPLACEMENT WITH A NEW MOTOROLLER DOES NOT REQUIRE ANY CONFIGURATION ACTION**
- > HIGH MTBF**
- > HIGH ENERGY SAVING**

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Pallet conveyor MOTOROLLER

Power pack motoroller 89



MOTOROLLER geared solution for driving
pallet conveyor application

Features

- » Ready to use pallet conveyor motoroller
- » Rated power 400 Watt
- » Planetary gear box ratio 1:45
- » Tube diameter 89mm
- » Conveyor velocity 22,4 m/min
(0,37 m/sec)
- » Load up to 1500 Kg
- » Supply voltage available: 48 Vdc, 230
Vac, 400 Vac

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MOTOROLLER Frameless - gearless cartridge only

MTR FL 46 140 13 H1 D0 XXX

Model

Size

Winding

Feedback

Connection

Optional

1

2

3

4

5

6

1

Model

MTR FL 46

MTR FL 76



2

Size

MTR FL 46

75 - 140

MTR FL 76

100

3

Winding

MTR FL 46

06 (*) - 13

(*) winding 06 for MTR FL 46.75 only

MTR FL 76

14

4

Feedback

H1 Hall Sensor

E1 Incremental encoder ABZ - 3584 cpr

5

Connection

D0 - cable output with connectors

MOTORROLLER Power Pack - gearless motoroller with tube

MTR PP 76 100 14 H1 D0 01 - 80 - XXX

Model

Size

Winding

Feedback

Connection

Fixed shaft

Tube type

Tube length

Indle shaft

Optional

1

2

3

4

5

6

7

8

9

10

1

Model

MTR PP 46

MTR PP 60

MTR PP 76

2

Size

MTR PP 46

75 - 140

MTR PP 60

150

MTR PP 76

100

3

Winding

MTR PP 46

06 (*) - 13

(*) winding 06 for MTR PP 46.75 only

MTR PP 60

21

MTR PP 76

14

4

Feedback

H1 Hall Sensor

E1 Incremental encoder ABZ - 3584 cpr

5

Connection

D0 - cable output with connectors

6

Fixed shaft

01 - Male tread

7

Tube type(*)

01 - Standard tube

02 - Double grooved tube

03 - Conveyor belt tube

04 - Poly-V pulley tube (**)

05 - Double grooved pulley tube

06 - Tapered sleeves tube

07 - Double grooved and tapered sleeves tube

08 - Poly-V and tapered sleeves tube (**)

09 - Double grooved pulley and tapered sleeves tube

(*) for MTR PP 46 only

(**) This version is not available for sale in Germany

8

Tube lenght(*)

Lenght in mm

(*) For MTR PP 60 lenght is fixed

9

Indle shaft(*)

AA: hex spring loaded

AB: female thread

AC: poly-V hex spring loaded

AD: poly-V thread

(*) for MTR PP 46 only



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PALLET CONVEYOR MOTOROLLER Power Pack

MTR PP 89 045 04 H1 D0 01 01 800 AA XXX

Model

Size

Winding

Feedback

Connection

Fixed shaft

Tube type

Tube
length

Indle shaft

Optional

1

2

3

4

5

6

7

8

9

10

1

Model

MTR PP 89

2

Size

MTR PP 89

045

3

Winding

MTR PP 89

04 - 15

4

Feedback

H1 Hall Sensor

5

Connection

D0 - cable output with connectors

6

Fixed shaft

01 - Male tread

7

Tube type

01 - Standard tube

8

Tube length

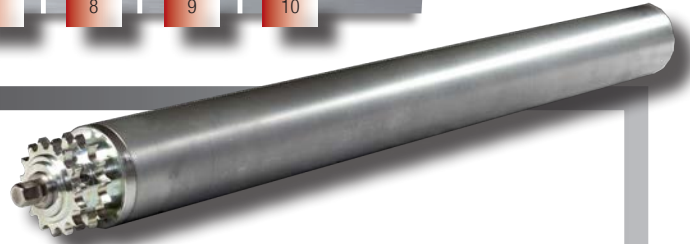
Length in mm

9

Indle shaft

AA: hex spring loaded

AB: female thread



DMR 50-5/50 DRIVE TYPE



DMR	50-5/50	E	C	0
Drive Name	Model	Feedback	Fieldbus	Input logic
	1	2	3	4

1	Drive model	50-5/50
2	Feedback	H = Hall sensor E = Incremental encoder
3	Fieldbus	C = CANopen
4	Input Logic	0 = PNP input 1 = NPN input

DMR 76-10/65 DRIVE TYPE



DMR	76-10/65	E	P
Drive Name	Model	Feedback	Fieldbus
	1	2	3

1	Drive model	76-10/65
2	Feedback	H = Hall sensor E = Incremental encoder
3	Fieldbus	P = Profibus

LITE PRO DRIVE TYPE



LPRO	E	40	C
Drive Name	Feedback	Model	Fieldbus
	1	2	3

1	Feedback	E = Hall sensor and encoder
2	Model (output current) Arms	40 = 8/24
3	Fieldbus	C = CANopen

MOTOROLLER 46 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
ENCLOSURE
THERMAL PROTECTION
CE certified

Continuous
F
Totally enclosed. Self-cooled
NTC

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
POLES
INSULATION SYSTEM UL /CSA

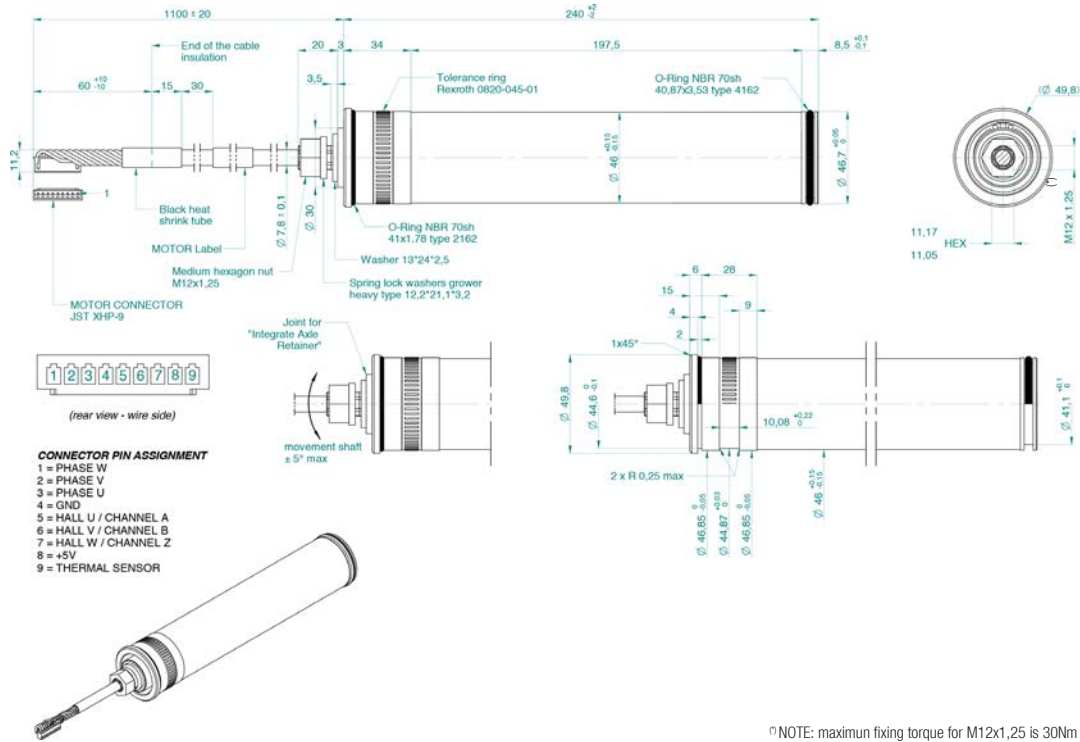
0 to 40 °C
5 to 85% (non-condensing)
28
cURus , DV155J File nr.:E216686

Motoroller 46 75 06 Motoroller 46 75 13 Motoroller 46 140 13

Stall torque	Cn0	Nm	0,74	0,74	1,5
Peak torque	Cpk	Nm	2,2	2,2	4,5
Rated torque	Cn	Nm	0,6	0,6	1,35
Rated working speed	nM	rpm	800	800	800
Rated voltage	Un	Vdc	24	48	48
Maximum working speed @ 24Vdc	nmax	rpm	1000	500	500
Maximum working speed @ 48Vdc	nmax	rpm	1150	1150	1000
Rated output power	Pn	W	50	50	115
Stall current	In0	Arms	3,3	1,63	3,3
Peak current	l _{pk}	Arms	11	5,71	10,61
Rated current	In	Arms	2,7	1,33	3
Torque constant ±10%	Kt	Nm/Arms	0,22	0,45	0,45
Voltage constant ±10%	Ke	Vrsm/Krpm	13,6	27,6	27,6
Phase/phase resistance ±10% @25°C	Rff	Ohm	0,77	2,64	1,23
Phase/phase resistance ±10% @25°C	Lff	mH	1,35	5,4	2,81
Electrical time constant	Te	ms	1,75	2	2,3
Rotor inertia	Jm	Kg cm ²	5	5	6,1
Motor weight	m	Kg	1,96	1,96	2,73
Axial shaft load @800 rpm	Fa	N		110	
Radial shaft load @800 rpm	Fr	N		220 (applied on the rotor's centering)	

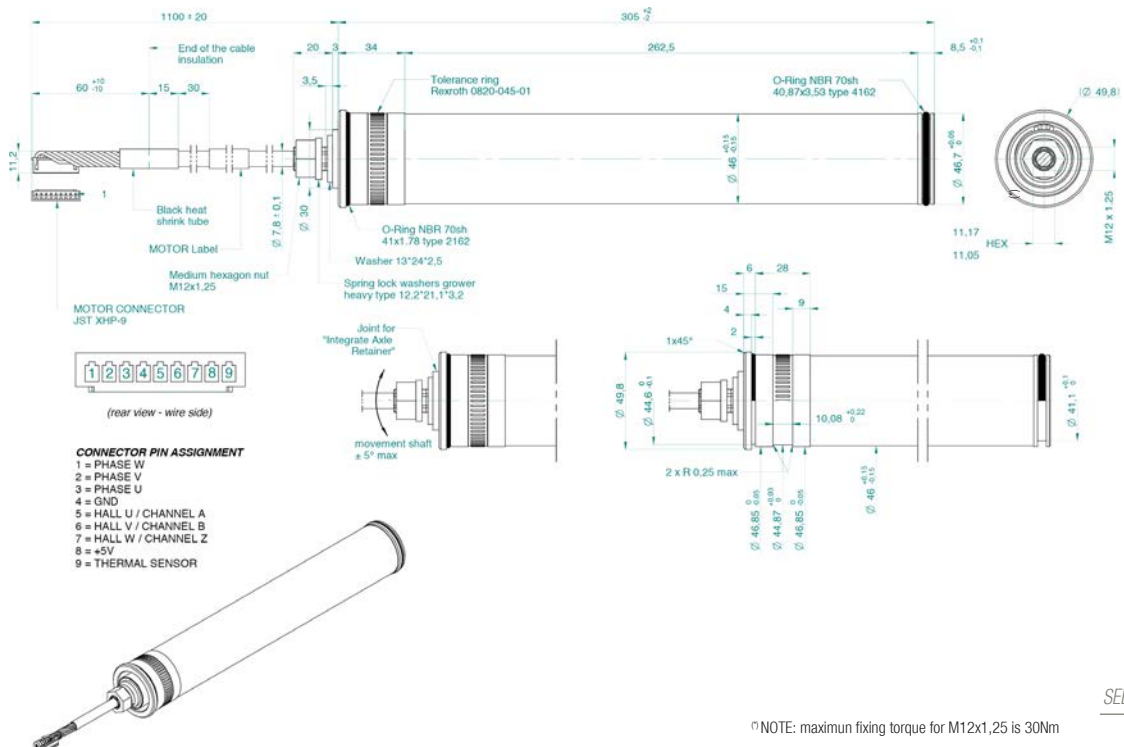
MOTOROLLER 46 FRAMELESS DIMENSIONS

Motoroller 46 75



Dimensions in mm

Motoroller 46 140



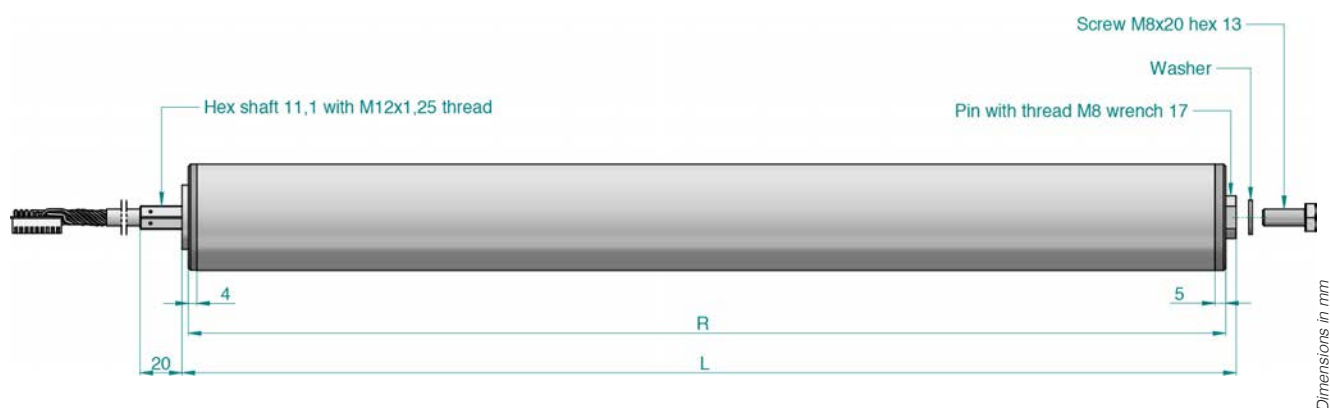
Dimensions in mm

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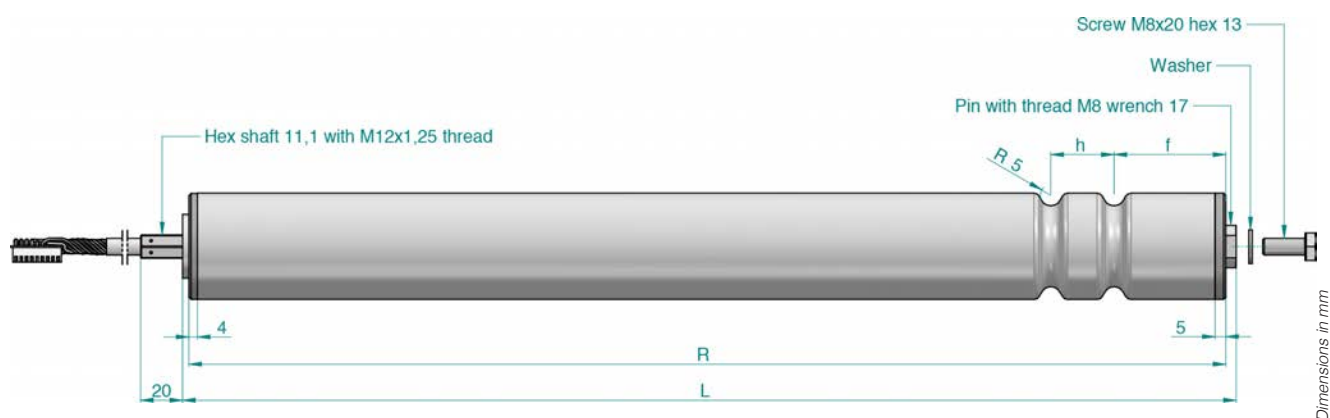
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MOTOROLLER 46 POWER PACK TUBE TYPE

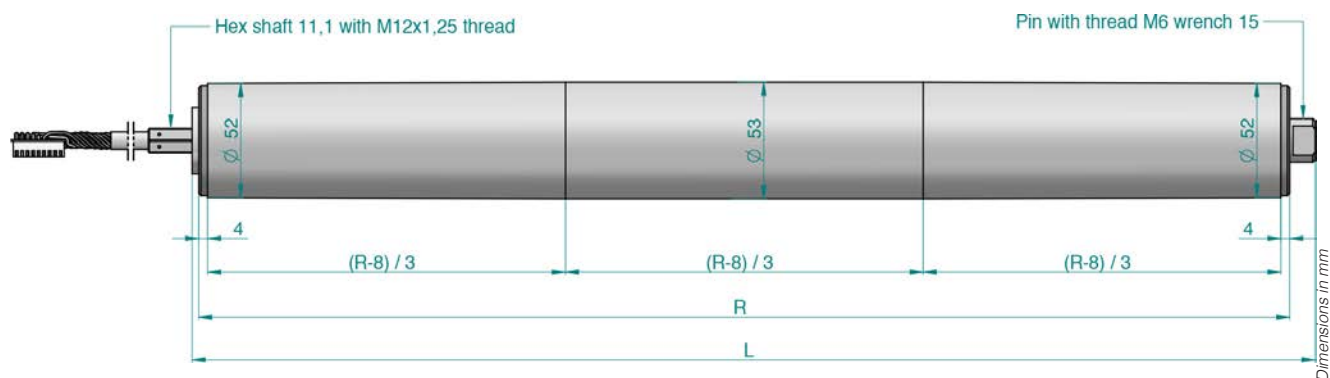
Motoroller 46 standard tube 01

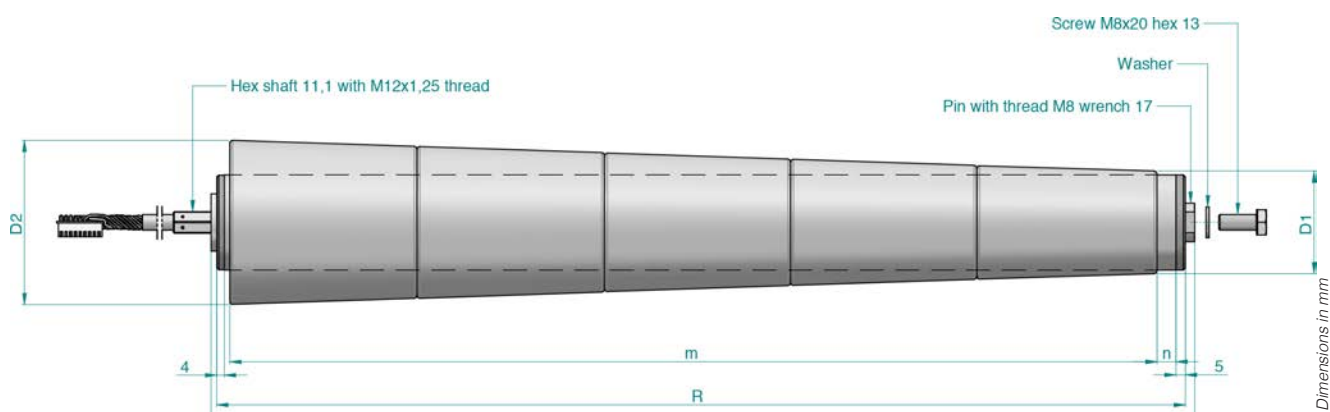


Motoroller 46 double grooved tube 02



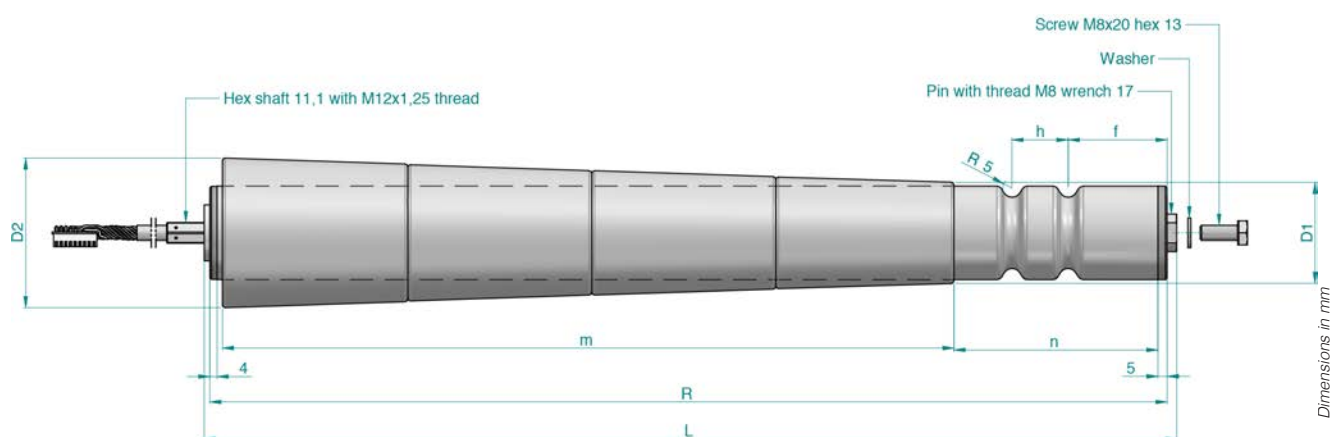
Motoroller 46 conveyor belt tube 03



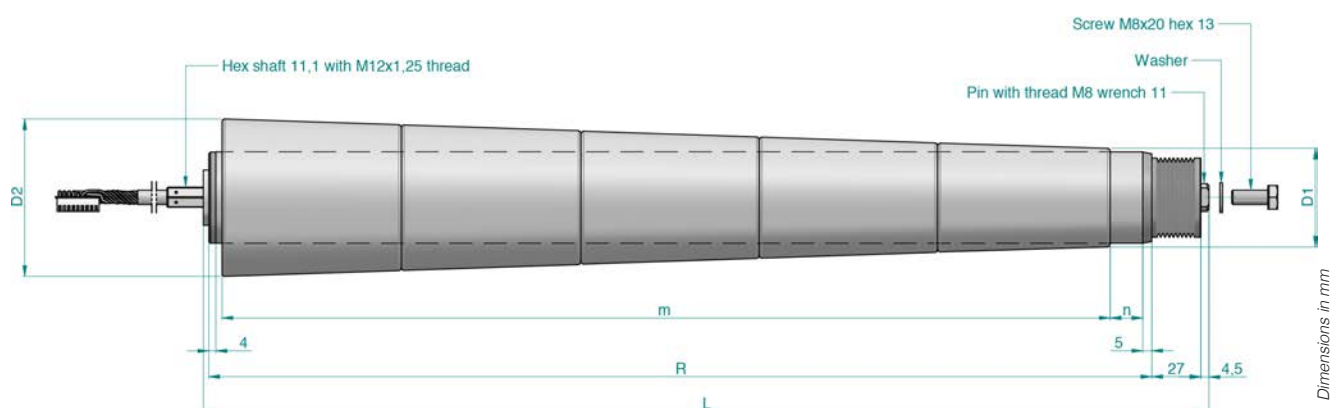


MOTOROLLER 46 POWER PACK TUBE VERSIONS

Motoroller 46 double grooved and tapered sleeves tube 07

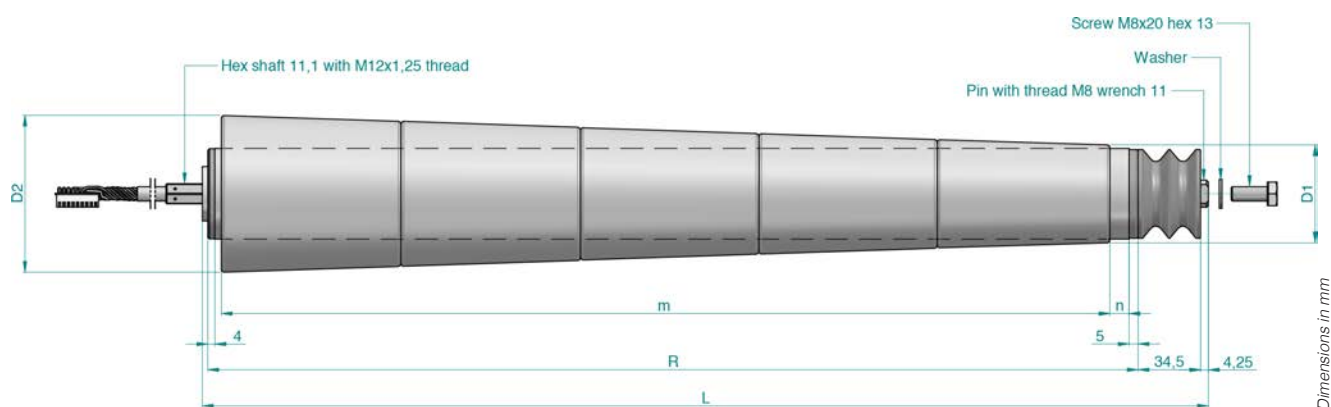


Motoroller 46 poly-V pulley and tapered sleeves tube 08 ^(**)



^(**) This version is not available for sale in Germany

Motoroller 46 double grooved pulley and tapered sleeves tube 09

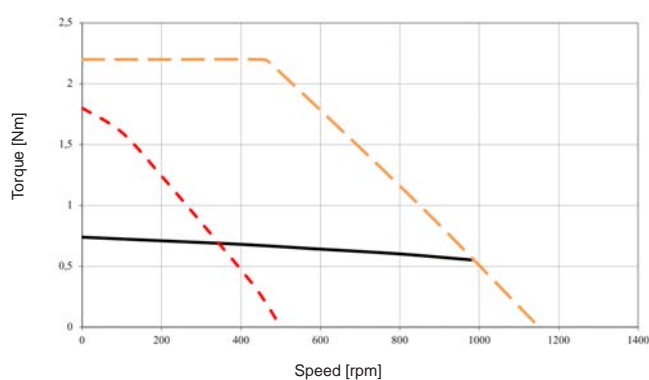
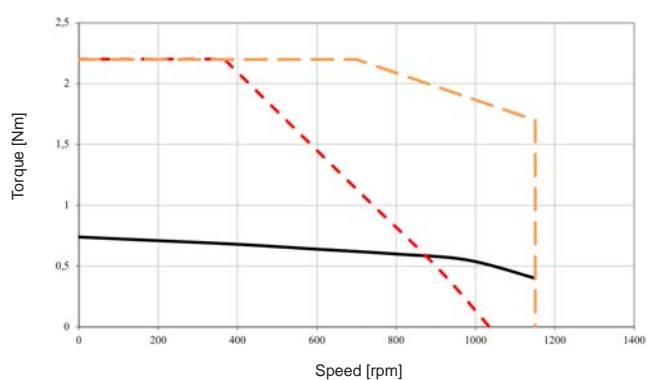


MOTORROLLER 46 TORQUE /SPEED CHARTS

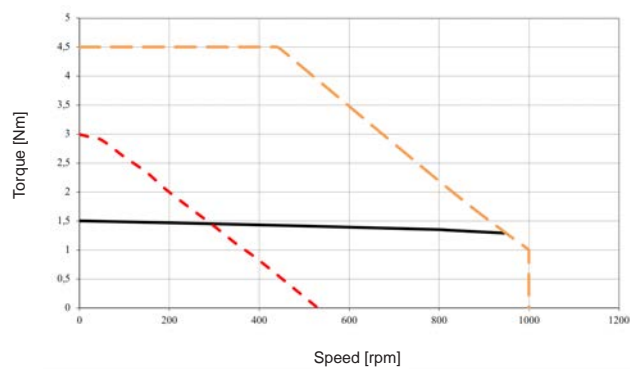


MOTORROLLER 46 75 06

MOTORROLLER 46 75 13



MOTORROLLER 46 140 13



— Continuous duty @ rated voltage
 - - - 24 Vdc
 - - - 48 Vdc
 - - - 60 Vdc
 - - - 65 Vdc

MOTOROLLER 60 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
ENCLOSURE
THERMAL PROTECTION
CE certified

Continuous
F
Totally enclosed. Self-cooled
NTC

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
POLES
INSULATION SYSTEM UL /CSA

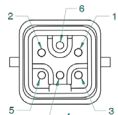
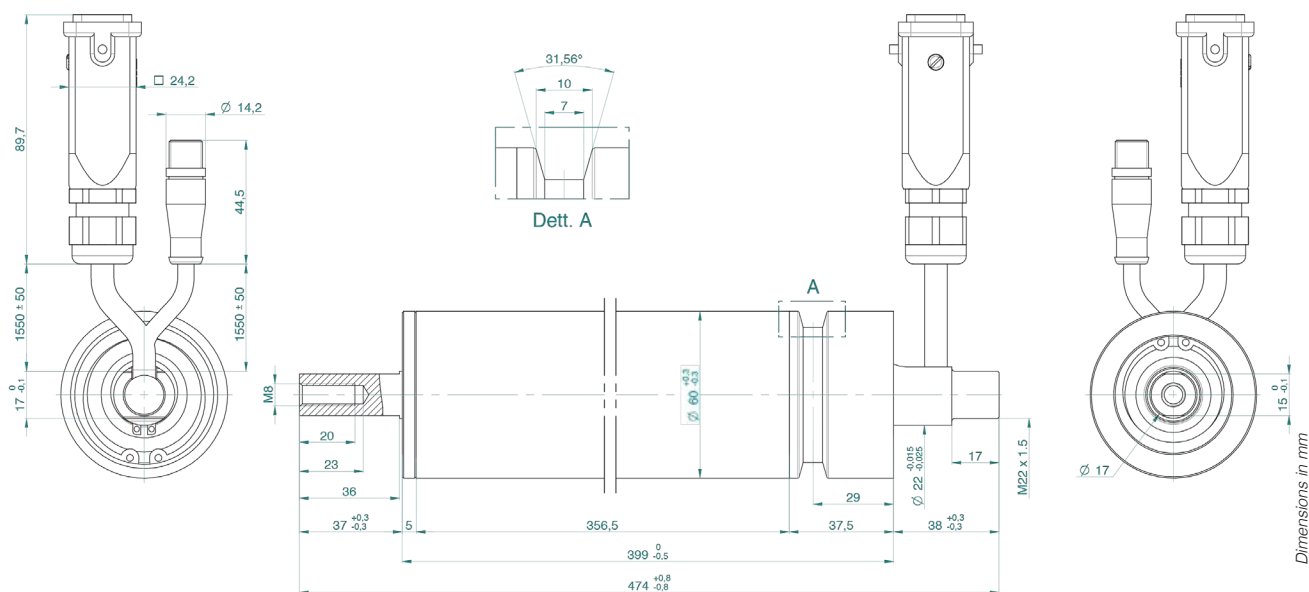
0 to 40 °C
5 to 85% (non-condensing)
28
cURus , DV155J File nr.:E216686

Motoroller 60 150 21

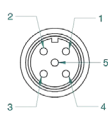
Stall torque	Cn0	Nm	3,2
Peak torque	Cpk	Nm	10
Rated torque	Cn	Nm	2,8
Rated working speed	nM	rpm	800
Rated voltage	Un	Vdc	60
Maximum working speed @ 60Vdc	nmax	rpm	1200
Rated output power	Pn	W	235
Stall current	In0	Arms	6,1
Peak current	l _{pk}	Arms	23
Rated current	In	Arms	5,2
Torque constant ±10%	Kt	Nm/Arms	0,53
Voltage constant ±10%	Ke	Vrsm/Krpm	31,8
Phase/phase resistance ±10% @25°C	Rff	Ohm	0,5
Phase/phase resistance ±10% @25°C	Lff	mH	1,8
Electrical time constant	Te	ms	3,6
Rotor inertia	Jm	Kg cm ²	16,8
Motor weight	m	Kg	5,3
Axial shaft load @800 rpm	Fa	N	140
Radial shaft load @800 rpm	Fr	N	600 (applied on the rotor's centering)

MOTOROLLER 60 POWER PACK DIMENSIONS

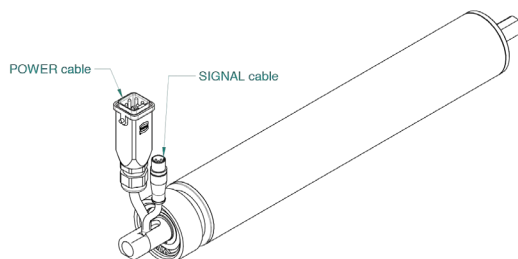
Motoroller 60 150



POWER CONNECTOR
HAN Q/0-M-C 6p MS
1 = PHASE U
2 = PHASE V
3 = PHASE W
4 = -
5 = -
6 = PE



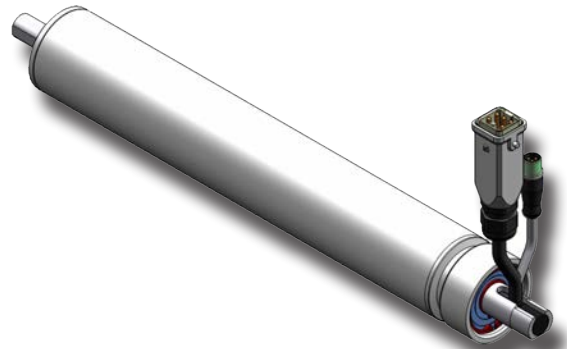
SIGNAL CONNECTOR
M12 5p MS
1 = HALL U
2 = HALL V
3 = HALL W
4 = 5/12 VDC
5 = GND



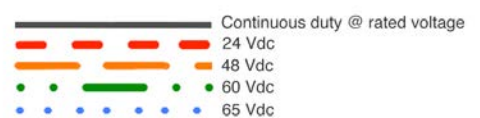
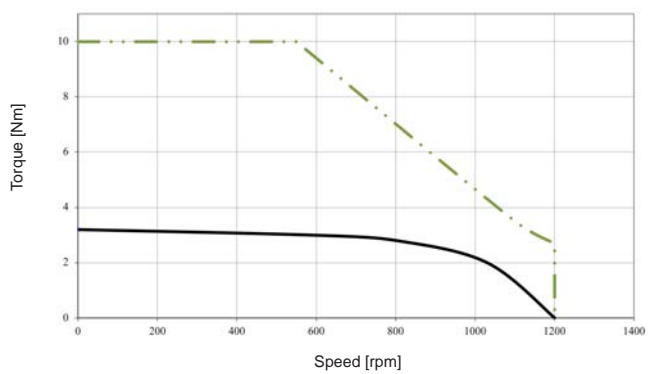
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MOTOROLLER 60 TORQUE /SPEED CHARTS



MOTOROLLER 60 150 21



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MOTOROLLER 76 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
ENCLOSURE
THERMAL PROTECTION
CE certified

Continuous
F
Totally enclosed. Self-cooled
NTC

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
POLES
INSULATION SYSTEM UL /CSA

0 to 40 °C
5 to 85% (non-condensing)
28
cURus , DV155J File nr.:E216686

Motoroller 76 100 14

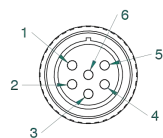
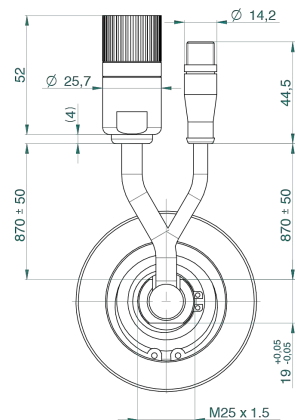
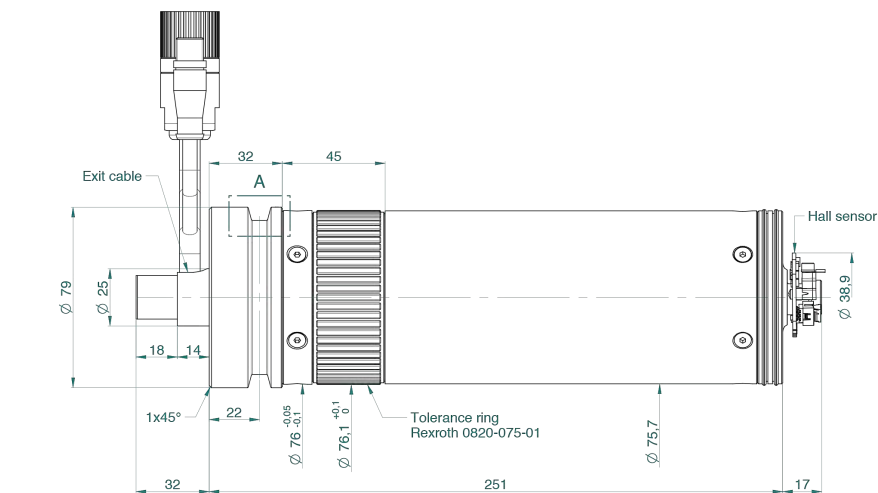
Stall torque	Cn0	Nm	3,6
Peak torque	Cpk	Nm	22
Rated torque	Cn	Nm	3,1
Rated working speed	nM	rpm	800
Rated voltage	Un	Vdc	60
Maximum working speed @ 48Vdc	nmax	rpm	800
Maximum working speed @ 65Vdc	nmax	rpm	1000
Rated output power	Pn	W	260
Stall current	In0	Arms	6,1
Peak current	l _{pk}	Arms	41
Rated current	In	Arms	5,2
Torque constant ±10%	Kt	Nm/Arms	0,59
Voltage constant ±10%	Ke	Vrsm/Krpm	36
Phase/phase resistance ±10% @25°C	Rff	Ohm	0,51
Phase/phase resistance ±10% @25°C	Lff	mH	0,7
Electrical time constant	Te	ms	1,37
Rotor inertia	Jm	Kg cm ²	23,2
Motor weight	m	Kg	5,1
Axial shaft load @800 rpm	Fa	N	220
Radial shaft load @800 rpm	Fr	N	500 (applied on the rotor's centering)

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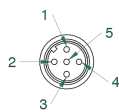
MOTORROLLER 76 FRAMELESS DIMENSIONS

Motoroller 76 100



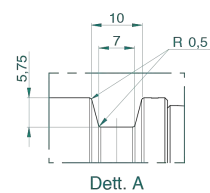
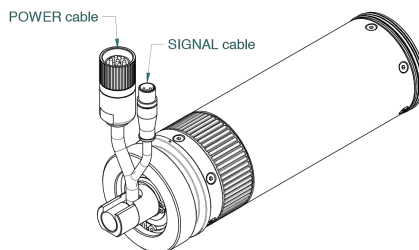
POWER CONNECTOR Hypertac 6p MS

- 1 = -
- 2 = PHASE U
- 3 = PHASE V
- 4 = PHASE W
- 5 = -
- 6 = PE



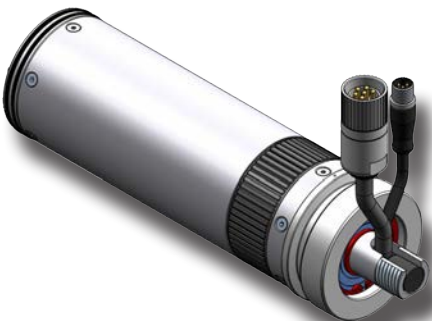
SIGNAL CONNECTOR M12 5p MS

- 1 = HALL U
- 2 = HALL V
- 3 = HALL W
- 4 = 5V
- 5 = GND

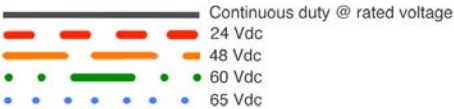
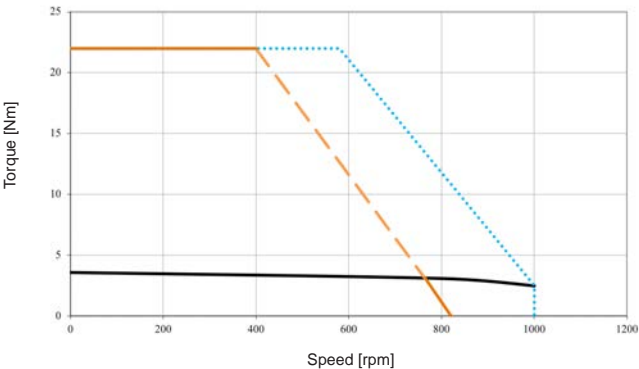


Dimensions in mm

MOTOROLLER 76 TORQUE /SPEED CHARTS



MOTOROLLER 76 100 14



MOTOROLLER 89 RATINGS AND SPECIFICATIONS

TIME RATING
INSULATION CLASS
ENCLOSURE
THERMAL PROTECTION
CE certified

S3 1'1/2' (Ton = 1' / Toff = 2')
F
Totally enclosed. Self-cooled
PT1000

AMBIENT TEMPERATURE
AMBIENT HUMIDITY
POLES
INSULATION SYSTEM UL /CSA

0 to 40 °C
5 to 85% (non-condensing)
8
cURus , DV155J File nr.:E216686

Motoroller 89 045 04

Motoroller 89 045 15

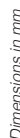
Stall torque*	Cn0	Nm	73	73
Peak torque**	Cpk	Nm	120	120
Rated torque *	Cn	Nm	43	43
Rated working speed		m/s	0,27	0,31
Rated output power	Pn	W	335	355
Rated voltage	Un		48 Vdc	230 Vac
Stall current*	In0	Arms	9,8	2
Peak current	l _{pk}	Arms	16,9	3,5
Rated current*	In	Arms	6,4	1,32
Torque constant ±10%	Kt	Nm/Arms	0,187	0,91
Voltage constant ±10%	Ke	Vrsm/Krpm	11,3	55
Phase/phase resistance ±10% @25°C	Rff	Ohm	0,67	13,3
Phase/phase resistance ±10% @25°C	Lff	mH	2,1	38,5
Electrical time constant	Te	ms	3,1	2,9
Rotor inertia	Jm	Kg cm ²	0,526	0,526
Axial load @80 rpm	Fa	N	240 (applied on the rotor's middle)	240 (applied on the rotor's middle)
Radial shaft load @80 rpm	Fr	N	3800 (applied on the rotor's middle)	3800 (applied on the rotor's middle)

* Rating performances@ 20°C ** Peak torque max duration : 2s

MTR 89 045 - TYPE 01

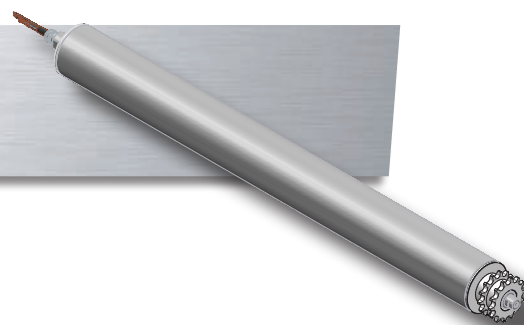
*different length available on request

Motoroller 89 045 power back reference drawing 01



POWER CABLE	
WIRE COLOR	FUNCTION
White	Phase U
Black	Phase V
Red	Phase W

MOTOROLLER 89 DIMENSIONS - type 02

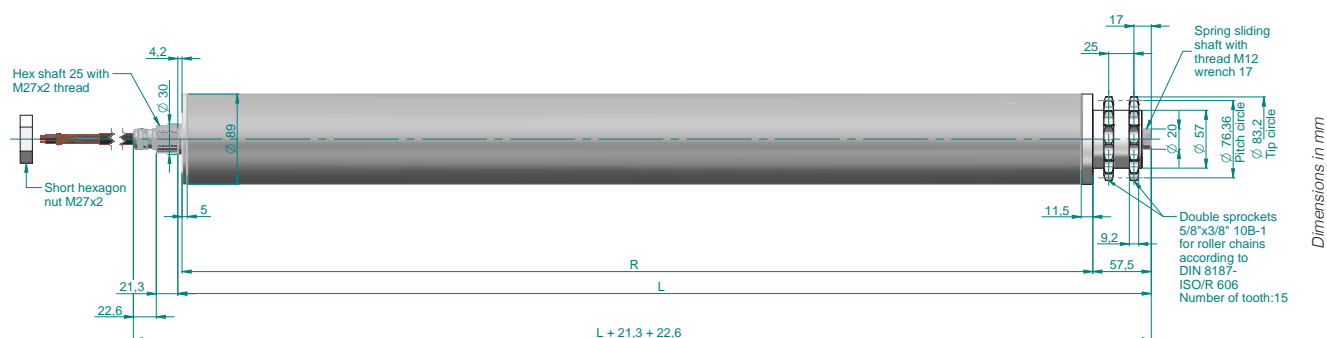


MTR 089 45 - TYPE 02

R	898 mm
L*	960 mm
Weight	22,4 Kg

*different length available on request

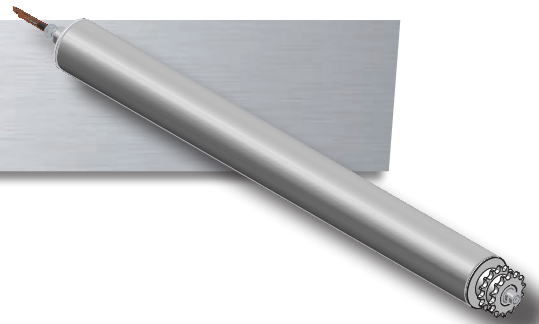
Motoroller 89 045 power back reference drawing 02



SIGNAL CABLE	
WIRE COLOR	FUNCTION
Green	Hall U
Yellow	Hall U/
Gray	Hall V
Pink	Hall V/
White	Hall W
Brown	Hall W/
Red	+5VCC
Blue	GND
Drain Wire	shield

POWER CABLE	
WIRE COLOR	FUNCTION
White	Phase U
Black	Phase V
Red	Phase W

MOTOROLLER 89 DIMENSIONS - type 03

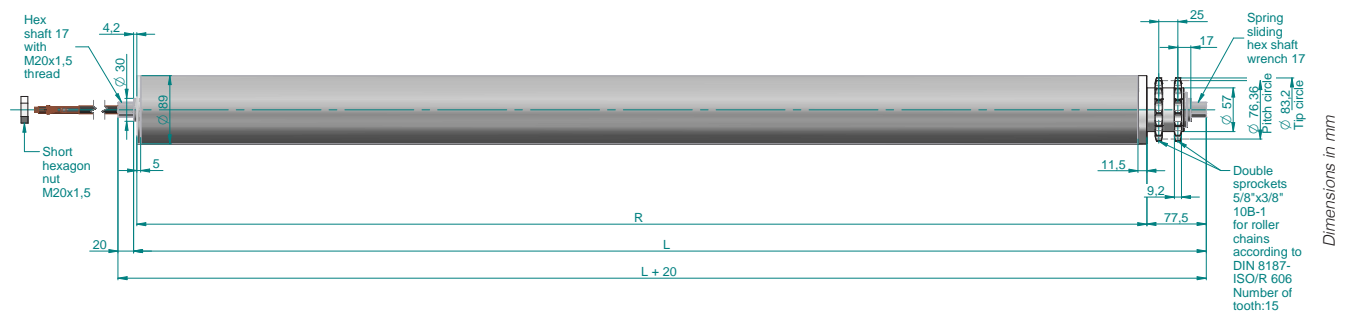


MTR 89 045 - TYPE 03

R	1320 mm
L*	1400 mm
Weight	27 Kg

*different length available on request

Motoroller 89 045 power back reference drawing 03



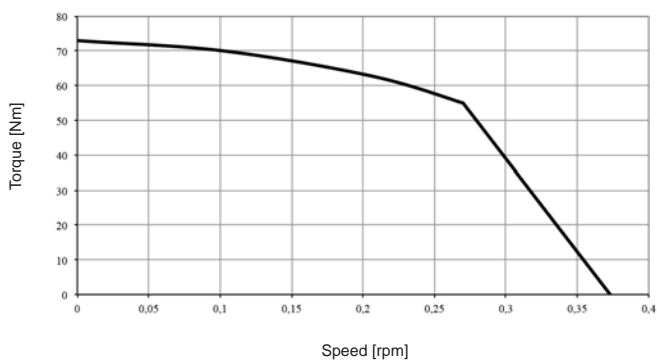
SIGNAL CABLE	
WIRE COLOR	FUNCTION
Green	Hall U
Yellow	Hall U/
Gray	Hall V
Pink	Hall V/
White	Hall W
Brown	Hall W/
Red	+5VCC
Blue	GND
Drain Wire	shield

POWER CABLE	
WIRE COLOR	FUNCTION
White	Phase U
Black	Phase V
Red	Phase W

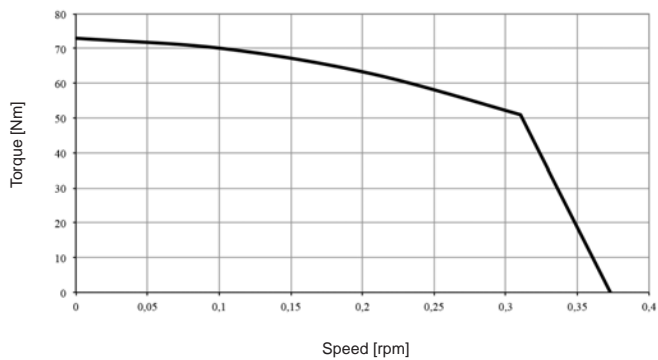
MOTORROLLER 89 045 TORQUE /SPEED CHARTS



MOTORROLLER 89 045 04



MOTORROLLER 89 045 15



FEEDBACK FEATURES

H1 HALL SENSOR

Motor size		Motoroller 46 -60- 76
Nominal Voltage	V	5-9 $\pm 5\%$
Nominal current	mA	100
Electronic type		OPEN COLLECTOR
N° of pulses revolution	ppr	84

E1 INCREMENTAL ENCODER

Motor size		Motoroller 46 -60- 76
Nominal Voltage	Vdc	5-9 $\pm 5\%$
Nominal current	mA	100
Electronic type		OPEN COLLECTOR
Zero impulse		ONE AT A LAP
N° of pulses revolution	ppr	896
Resolution	cpr	3584

DMR SERVO DRIVES

The DMR series is a series of customized drives dedicated to logistic automation market.

The series features two models: DMR 50-5/50 and DMR76-10/65, designed and manufactured for driving gearless motorrollers, exploiting its technological advantages based on direct drive without any gear for motion transmission.

DMR 50-5/50 FEATURES

- > **DUAL AXES OPERATION CAPABILITY**
- > **PERFECT MATCH WITH GEARLESS MOTORROLLER MTR46**
- > **I/O PROGRAMMABILITY**
- > **FUSE PROTECTION**
- > **CROSSBELT FUNCTIONALITY**
- > **CONVEYOR FUNCTIONALITY**
- > **SPEED AND ACCELERATION PROGRAMMABILITY**
- > **HALL SENSOR AND ENCODER FEEDBACK**
- > **DMR BROWSER SOFTWARE INTERFACE**
- > **RS 485 PROGRAMMING INTERFACE**
- > **CAN OPEN FIELDBUS**
- > **PHOTO EYE SUPPORT**
- > **2 INPUT, 2 OUTPUT RELAY EACH AXIS**

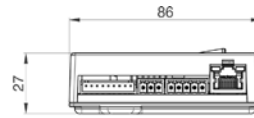
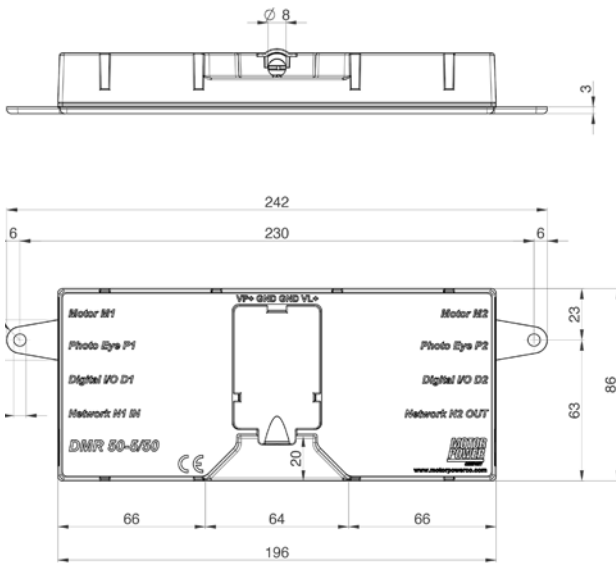


DMR 50-5/50 PRODUCT DATA

FEATURE	UNITS	DMR 50-5/50
Rated output power	W	180 each axis
Efficiency at rated power	%	>95
Operating supply voltage	Vdc	12-60
Typical supply voltage	Vdc	48
Maximum operating voltage	Vdc	80
Auxiliary supply voltage		24 V (8-30)
Rated output current	Arms	5
Peak output current	Arms	15
Peak time	s	3
PWM switching frequency	kHz	16 kHz
Maximum output frequency	Hz	<600
Commutation		Sinusoidal and space vector
Dimensions	WxDxH mm	196x70x27
Working temperature	°C	-20 ÷ +55
Storage temperature	°C	-40 ÷ +75
Humidity	%	85% not condensing
Altitude without derating	m	1000
IP protection	IP	20

SEE IT BEFORE IT HAPPENS

DMR 50-5/50 PRODUCT DIMENSIONS



Dimensions in mm

DMR 50-5/50 PRODUCT DATA

MOTOR CONNECTION

PIN	NAME
1	Phase U
2	Phase V
3	Phase W
4	Thermal sensor
5	Power supply 5V
6	0V
7	Hall U/Inc A
8	Hall V/Inc B
9	Hall W/Inc Z

PHOTO EYE INPUT

PIN	NAME
1	24V
2	GND
3	Photo eye input

POWER CONNECTION

PIN	NAME
1	24V logic
2	0 V
3	48 V power

I/O DEFINITION

PIN	DIRECTION	FUNCTION
1	Input	Enable
2	Input	Dir
3	Input	Analog Input
4	Output	Fault
5	Output	Configurable

SEE IT BEFORE IT HAPPENS

**MOTOR
POWER**
COMPANY

DMR SERVO DRIVES

DMR 76-10/65 HP is a digital drive for motorollers in cross belt applications. Main features of this drive are current digital control achieved with the technique of vector space and updated with a 10 kHz frequency. Speed digital loop with proportional-integral compensator updated with 10 kHz frequency. Position digital loop with proportional compensator and handling of dead zone updated with 10 kHz frequency. Digital Profibus interface for connecting to supervisor PLC. Motor feedback interface via Hall sensors.

DMR 76-10/65 FEATURES

- > THE PERFECT MATCHED DRIVE FOR GEARLESS MOTOROLLER
- > DMR BROWSER SOFTWARE INTERFACE
- > FUSE PROTECTION
- > CROSSBELT FUNCTIONALITY
- > SPEED AND ACCELERATION PROGRAMMABILITY
- > HALL SENSOR AND ENCODER FEEDBACK
- > 2 INPUT, 2 OUTPUT RELAY
- > USB PROGRAMMING INTERFACE
- > PROFIBUS FIELBUS DP V1
- > I/O PROGRAMMABILITY
- > I/O PROXY DUAL LOOP



DMR 76-10/65 PRODUCT DATA

FEATURE	UNITS	DMR 76-10/65
Rated output power	W	650
Efficiency at rated power	%	>95
Operating supply voltage	Vdc	24-80
Typical supply voltage	Vdc	48-65
Maximum operating voltage	Vdc	85
Auxiliary supply voltage		-
Rated output current	Arms	10
Peak output current	Arms	50
Peak time	s	0,75 on 20s
PWM switching frequency	kHz	16 kHz
Maximum output frequency	Hz	<600
Commutation		Sinusoidal and space vector
Dimensions	WxDxH mm	250x150x45
Working temperature	°C	-20 ÷ +55
Storage temperature	°C	-40 ÷ +75
Humidity	%	85% not condensing
Altitude without derating	m	1000
IP protection	IP	54 on drive front 40 on the whole drive

SEE IT BEFORE IT HAPPENS

DMR 76-10/65

DMR 76-10/65 PRODUCT DATA

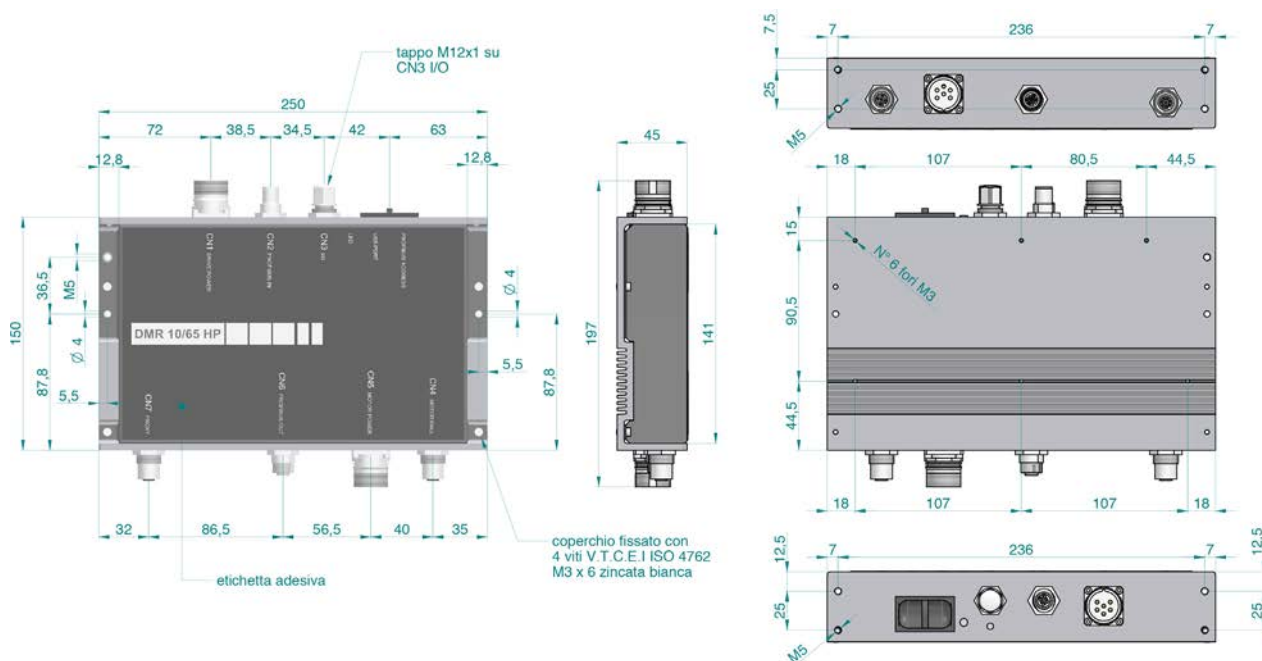
HARDWARE AND FIRMWARE CHARACTERISTICS

- > **ONE ELECTRONIC BOARD FOR CONTROL LOGIC AND POWER**
- > **ONE SUPPLY FOR ELECTRONIC CONTROL AND MOTOR OUTPUT STAGE**
- > **PROFIBUS SLAVE COMMAND INTERFACE WITH DIP SWITCH NODE ADDRESS SELECTION**
- > **USB DEVICE INTERFACE FOR CONFIGURATION AND MAINTENANCE**
- > **CONTROL THROUGH SINUSOISAL ALGORITHM AND HALL SENSOR FEEDBACK**
- > **GENERIC I/O PROGRAMMABILITY**
- > **I/O PROXI PROGRAMMABILITY**

INTERFACE

- > THIS DRIVE IS EQUIPPED WITH SOFTWARE USER INTERFACE "DMR BROWSER" FOR OPERATING, MONITORING AND SUPERVISION OF THE APPLICATION. REFER TO THE APPROPRIATE MANUAL FOR INSTALLATION INSTRUCTIONS AND USE.**

PRODUCT DIMENSIONS



SEE IT BEFORE IT HAPPENS

**MOTOR
POWER**
COMPANY

DMR 76-10/65

CONNECTION

DRIVE POWER

PIN	NAME
1	V+
2	-
3	-
4	-
5	V-
6	-

PROFIBUS IN

PIN	NAME
1	-
2	DATA-/A-LINE
3	-
4	-
5	DATA+/B-LINE

PROFIBUS OUT

PIN	NAME
1	V+
2	DATA-/A-LINE
3	V _{REF}
4	DATA+/B-LINE
5	-

DIGITAL I/O

PIN	NAME
1	OUT1 COM
2	INRET 123
3	+24V _{DC}
4	OUT1 NC
5	IN1
6	IN2
7	IN3
8	GND (+24 V _{DC})

CONNECTION

MOTOR OUTPUT

PIN	NAME
1	-
2	U
3	V
4	W
5	-
6	PE

FEEDBACK

PIN	NAME
1	U/A
2	V/B
3	W/Z
4	5V _{DC}
5	GND

PROXY DUAL LOOP

PIN	NAME
1	+24V _{DC} PROXY
2	INRET 123 PROXY
3	GND (+24V _{DC})
4	OUT2 NO
5	OUT2 NO
6	IN7 PROXY
7	+24 V _{DC}
8	OUT2 COM

The LITE PRO series is represented by the extremely compact 4-quadrants drives perfect matched to control motoroller 60. This series features as standard CanOpen interface and a complete programmable version with integral Motion Process Unit, that allows stand alone and network architecture operation.

FEATURES

- > **STANDARD FEEDBACK TTL ENCODER AND HALL SENSOR**
- > **DIGITAL I/O: UP TO 8 DIGITAL INPUTS AND 1 OR 2 DIGITAL OUTPUTS CUSTOMIZABLE WITH SEVERAL BUILT-IN FUNCTIONS**
- > **CONTROL: STANDARD PI CONTROL LOOP**
- > **SERVO MODES: TORQUE, VELOCITY AND POSITION WITH S-CURVE PROFILE**
- > **INTERNAL SCRIPT**
- > **EXTREME COMPACT DESIGN**
- > **USB PROGRAMMING KEY**

INTERFACE

- > **ANALOG VELOCITY AND TORQUE COMMAND $\pm 10V$**
- > **CANopen**



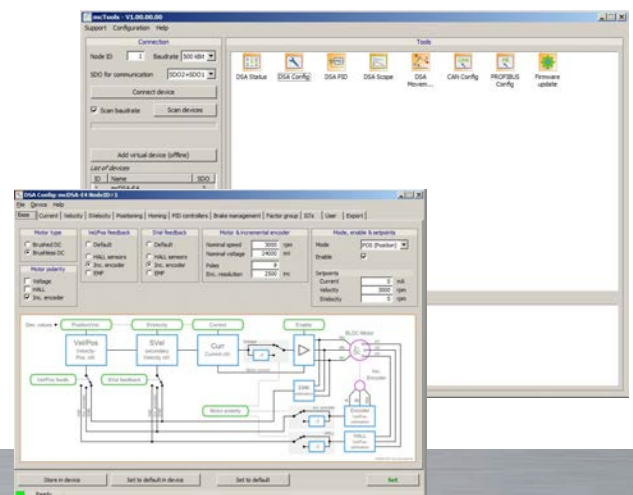
COMPACT AND PROFITABLE

PRODUCT DATA

FEATURE	UNITS	LPRO E40
Input voltage	VDC	48
Efficiency at rated power	%	>95
Auxiliary supply voltage	VDC	9 ... 30
Continuous current	Arms	8
Peak current	Arms	24
Ambient operating temperature	°C	0 to + 40°
Maximum humidity	%	5÷85% not condensing
Mounting method		Wall mounting DIN Rail
Dimensions	LxWxH mm	110x22,5x77
Weight	gr	110
Digital IN		4
Digital OUT		1

LITE PRO USER INTERFACE

- > EASY AND INTUITIVE PC SOFTWARE ALLOWS A FAST
PARAMETERIZATION OF THE LITE PRO
- > SIMPLE SCOPE
- > SCRIPT EDITING



MOTORS

MOTION CONTROL

MECHATRONICS



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