

**ME320LN<sup>new</sup> Series**

**Closed loop AC elevator drive**




# For gearless & geared applications

## Application Features

- Smooth ride performance
- Integrated brake control
- Easy setup with default factory setting for rapid commissioning
- 5 independent S-Ramps
- Short-floor function
- Direct approach function
- Light load direction sensing
- 60 Vdc rescue function
- 220 Vac UPS (sine & quasi square type)

Enhanced reliability with conformal coating, protects against humidity and dust pollution

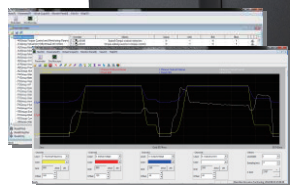
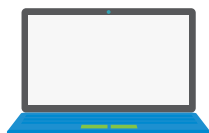
Operation in high ambient temperatures  45°C<sub>avg</sub>

Optional: hot pluggable remote keypad

Cooling fan removable for easy maintenance

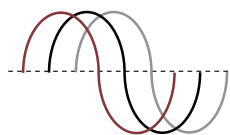


\*1 PC-Tools software offers simplified start up & backup



3.7 kW~15 kW

Wide operating voltage range 323 to 528 Vac



18.5 kW~30 kW



\*2 Multilingual keypad with memory  
Languages include:  
English, Turkish, Italian & Russian



Optional memory

## Drive Key Features

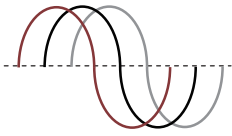
- Non-rotational encoder phase offset tuning
- Flexible programmable I/O's
- Onboard Modbus-RTU
- Comprehensive trip diagnostics
- Built-in dynamic braking unit
- Anti-rollback function for PMSM gearless machines
- Pre-torque function  
(Analog signal from load cell for geared machines)

\*1 compatible with Windows 7  
\*2 available soon

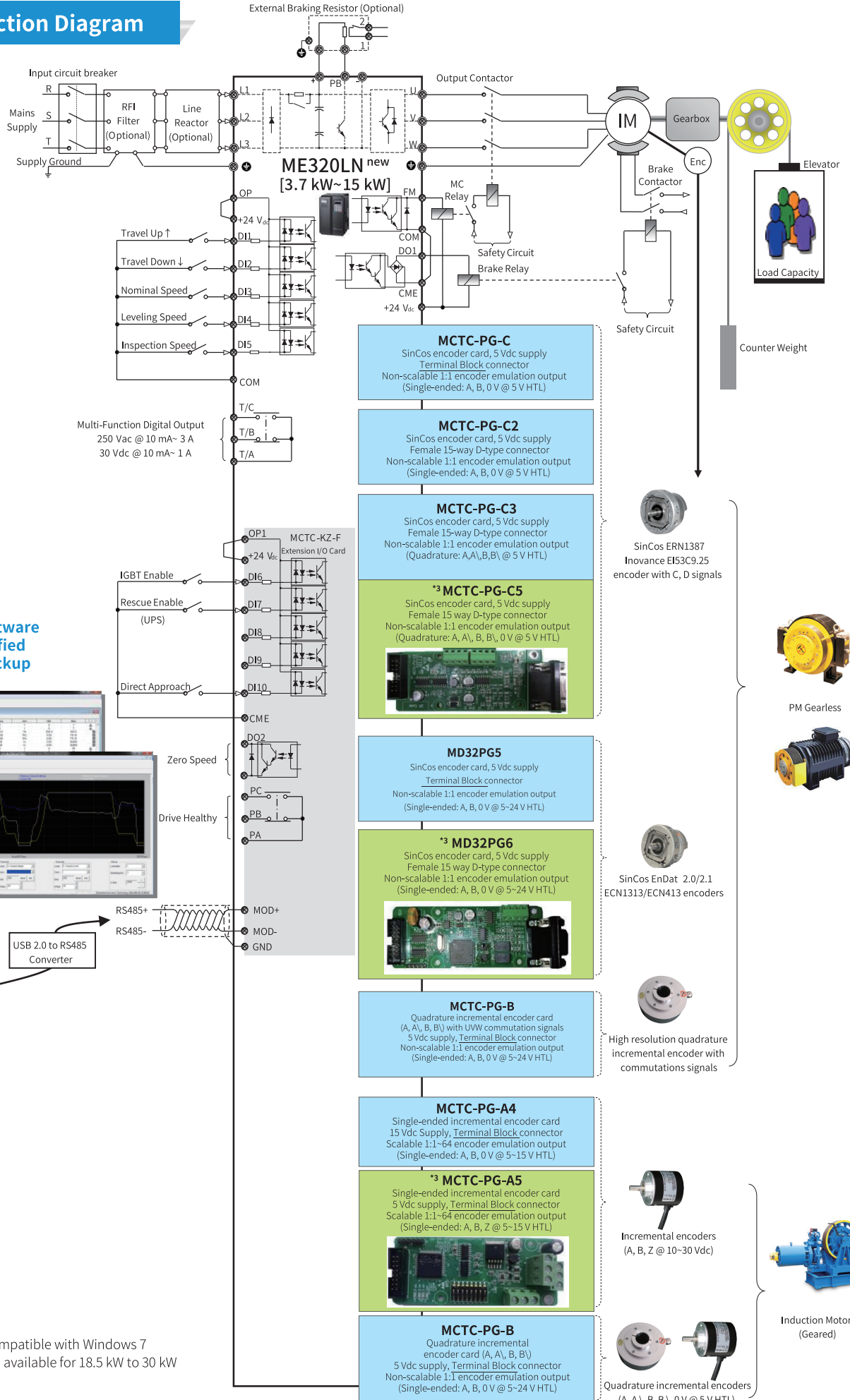




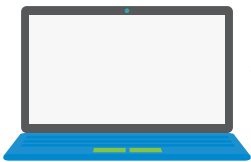
**General Connection Diagram**



Wide operating voltage range  
323 to 528 Vac



\*1 PC-Tools software offers simplified start up & backup



USB 2.0 to RS485 Converter

\*1 compatible with Windows 7  
\*3 PG available for 18.5 kW to 30 kW

**MCTC-PG-C**  
SinCos encoder card, 5 Vdc supply  
Terminal Block connector  
Non-scalable 1:1 encoder emulation output (Single-ended: A, B, 0V @ 5V HTL)

**MCTC-PG-C2**  
SinCos encoder card, 5 Vdc supply  
Female 15-way D-type connector  
Non-scalable 1:1 encoder emulation output (Single-ended: A, B, 0V @ 5V HTL)

**MCTC-PG-C3**  
SinCos encoder card, 5 Vdc supply  
Female 15-way D-type connector  
Non-scalable 1:1 encoder emulation output (Quadrature: A, A', B, B' @ 5V HTL)

**\*3 MCTC-PG-C5**  
SinCos encoder card, 5 Vdc supply  
Female 15 way D-type connector  
Non-scalable 1:1 encoder emulation output (Quadrature: A, A', B, B', 0V @ 5V HTL)

**MD32PG5**  
SinCos encoder card, 5 Vdc supply  
Terminal Block connector  
Non-scalable 1:1 encoder emulation output (Single-ended: A, B, 0V @ 5-24V HTL)

**\*3 MD32PG6**  
SinCos encoder card, 5 Vdc supply  
Female 15 way D-type connector  
Non-scalable 1:1 encoder emulation output (Single-ended: A, B, 0V @ 5-24V HTL)

**MCTC-PG-B**  
Quadrature incremental encoder card (A, A', B, B') with UVW commutation signals  
5 Vdc supply, Terminal Block connector  
Non-scalable 1:1 encoder emulation output (Single-ended: A, B, 0V @ 5-24V HTL)

**MCTC-PG-A4**  
Single-ended incremental encoder card  
15 Vdc Supply, Terminal Block connector  
Scalable 1:1-64 encoder emulation output (Single-ended: A, B, 0V @ 5-15V HTL)

**\*3 MCTC-PG-A5**  
Single-ended incremental encoder card  
5 Vdc supply, Terminal Block connector  
Scalable 1:1-64 encoder emulation output (Single-ended: A, B, Z @ 5-15V HTL)

**MCTC-PG-B**  
Quadrature incremental encoder card (A, A', B, B')  
5 Vdc supply, Terminal Block connector  
Non-scalable 1:1 encoder emulation output (Single-ended: A, B, 0V @ 5-24V HTL)



Counter Weight



PM Gearless



Induction Motor (Geared)

# Closed loop AC elevator drive

## General Specifications

380 to 480 Vac, -15% to 10% (323 to 528 Vac)

Model	Frame Size	Input Current [A]	Output Current [A] *4	Applicable Motor [kW]	Dimension [mm]			Dynamic Braking Resistor		
					Height [H]	Width [W]	Depth [D]	Min [Ω]	Max [Ω]	Min Recommended Power [W]
ME320LN-4003-SA	D	10.5	9	3.7	248	160	183	130	170	1,100
ME320LN-4005-SA		14.6	13	5.5				90	115	1,600
ME320LN-4007-SA	E	20.5	18	7.5	322	208	190	65	85	2,500
ME320LN-4011-SA		29	27	11				43	55	3,500
ME320LN-4015-SA		36	33	15				32	43	4,500
ME320LN-4018-SA	F	41	39	18.5	350	335	192	25	34	5,500
ME320LN-4022-SA		49.5	48	22				22	24	6,500
ME320LN-4030-SA	G	57	60	30	400	380	230	16	20	9,000

\*4 Carrier switching frequency 6 kHz at rated output current @ 150% overload for 60 sec & 180% for 3 sec

Please note: all units have IP20 rated enclosures and are fan cooled

## RFI Filter & AC Line Reactor Specifications

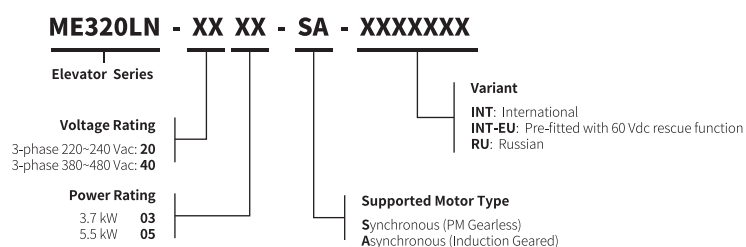
380 to 480 Vac, -15% to 10% (323 to 528 Vac)

Model	Frame Size	Input Current [A]	Power Capacity [kVA]	Optional External RFI Filter		Optional AC Input Reactor Model (Inovance)
				RFI Filter Model (Changzhou Jianli)	RFI Filter Model (Schaffner)	
ME320LN-4003-SA	D	10.5	5.9	DL-16EBK5	FN3258-16-44	MD-ACL-10-4T-372-2%
ME320LN-4005-SA		14.6	8.9			MD-ACL-15-4T-552-2%
ME320LN-4007-SA	E	20.5	11	DL-25EBK5	FN3258-30-33	MD-ACL-30-4T-113-2%
ME320LN-4011-SA		29	17	DL-35EBK5		
ME320LN-4015-SA		36	21	DL-50EBK5		
ME320LN-4018-SA	F	41	24	DL-50EBK5	FN3258-42-33	MD-ACL-50-4T-183-2%
ME320LN-4022-SA		49.5	30		FN3258-55-34	
ME320LN-4030-SA	G	57	40	DL-65EBK5	FN3258-75-34	MD-ACL-80-4T-303-2%

Please note:

- In CE countries, recommended RFI filter must be fitted together with screened cables to ensure EMC compliance
- All units have IP20 rated enclosures and are fan cooled

## Product Code





## PM Gearless



3.7 kW~15 kW

## Optional: hot pluggable LCD/LED remote keypad



**MDKE9**

Multilingual keypad with memory. Languages include: English, Turkish, Italian and Russian



**MDKE**

Without memory



**MDKE6**

With memory for parameters upload/download

## Induction Geared



## Encoder Types



**MCTC-PG-C**

SinCos encoder card, 5 Vdc supply  
Terminal Block connector  
Non-scalable 1:1 encoder emulation output  
(Single-ended: A, B, 0 V @ 5 V HTL)



**MCTC-PG-C2**

SinCos encoder card, 5 Vdc supply  
Female 15-way D-type connector  
Non-scalable 1:1 encoder emulation output  
(Single-ended: A, B, 0 V @ 5 V HTL)



SinCos ERN1387  
Inovance EI53C9.25  
encoder with C, D signals



**MCTC-PG-C3**

SinCos encoder card, 5 Vdc supply  
Female 15-way D-type connector  
Non-scalable 1:1 encoder emulation output  
(Quadrature: A,A',B,B') @ 5 V HTL)



**MD32PG5**

SinCos encoder card, 5 Vdc supply  
Terminal Block connector  
Non-scalable 1:1 encoder emulation output  
(Single-ended: A, B, 0 V @ 5~24 V HTL)



SinCos EnDat 2.0/2.1  
ECN1313/413 encoders



**MCTC-PG-B**

Quadrature incremental encoder card  
(A, A', B, B') with UVW commutation signals  
5 Vdc supply, Terminal Block connector  
Non-scalable 1:1 encoder emulation output  
(Single-ended: A, B, 0 V @ 5~24 V HTL)



High resolution quadrature  
incremental encoder with  
commutation signals

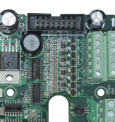


**MCTC-PG-A4**

Single-ended incremental encoder card  
15 Vdc Supply, Terminal Block connector  
Scalable 1:1-64 encoder emulation output  
(Single-ended: A, B, 0 V @ 5-15 V HTL)



Incremental encoders  
(A, B, Z @ 10~30 Vdc)



**MCTC-PG-B**

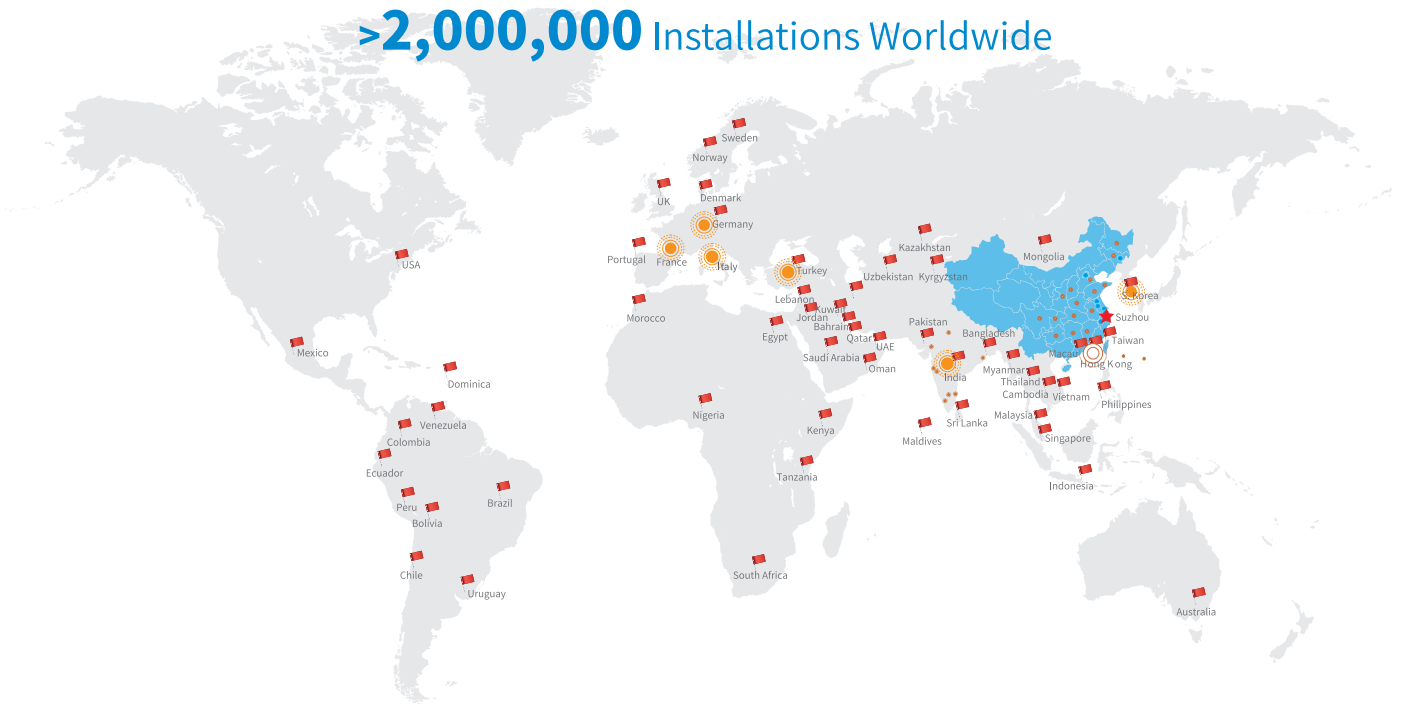
Quadrature incremental encoder card (A, A', B, B')  
5 Vdc supply, Terminal Block connector  
Non-scalable 1:1 encoder emulation output  
(Single-ended: A, B, 0 V @ 5-24 V HTL)



Quadrature  
incremental encoders  
(A, A', B, B', 0 V @ 5 V HTL)

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