



LINDE ELECTRIC DRIVE AND PUMP MOTORS

ELECTRIC DRIVES

Safety

Linde electric motors are time-tested and practice-proven serially produced components. Sensors monitor temperature and speed for safe operation. These completely emission-free motors meet the EN 1175-1 operating standard and are certified in accordance with the IP54 protection category.

Performance

The resilient asynchronous motors used in Linde vehicles have a high efficiency rating. They are therefore suitable for energy-saving everyday load-handling operations. Each electric motor has optimized inverter tuning to ensure effective, protected operation.

Comfort

These motors stand out because of their long service life. What is more, as maintenance-free components, they are very economical to run. Voltages from 24 VDC to 110 VDC are possible. As serially

produced components, Linde motors have short delivery times for series production and are also available for prototype development.

Reliability

Robust and simultaneously low-cost electric motors in Linde quality have proved themselves in numerous applications. Enduring reliable operation is ensured, for example, by permanent temperature and speed monitoring.

Productivity

Linde electric motors guarantee productive and efficient operation. Their high efficiency rating makes them very economical. Vehicles are immediately ready to go and do not need warming up. Energy is only consumed when vehicles are active. Furthermore, the motors have an energy recovery capability that enables them to recover braking energy for storage in the battery.

TECHNICAL DATA

ELECTRIC MOTORS FOR ELECTRIC DRIVES

Name	Linde Part Number	Battery Voltage	Nominal Voltage	Nominal Capacity	Nominal Speed	Nominal Mode of Operation
EDM 90 LL 70	2880 350 05 06	48 VDC	D 3 × 24 VAC	2.6 kW	2480 rpm	S2 - 20 min
EDM 90 LL 90	2880 350 06 00	24 VDC	D 3 × 14 VAC	1.2 kW	2720 rpm	S2 - 60 min
EDM 112 LL1 50	2880 350 06 10	24 VDC 48 VDC	D 3 × 14 VAC D 3 × 28 VAC	5 kW 10 kW	2200 rpm 2600 rpm	S2 - 45 min
EDM 112 LL 150	2880 350 06 09	48 VDC	D 3 × 28 VAC	8.5 kW	2150 rpm	S2 - 45 min
EDM 132 LL 150	000 976 10 26 000 976 10 34	80 VDC	Y 3 × 45 VAC	16.3 kW	2600 rpm	S2 - 45 min
EDM 132 LL 150	2880 350 05 04	80 VDC	D 3 × 48 VAC	17 kW	3190 rpm	S2 - 45 min
EDM 160 LL 180	2880 350 05 05	80 VDC	D 3 × 48 VAC	25 kW	2660 rpm	S2 - 45 min

Name	Max. speed	Max. Torque	Dimensions (l x w x h) in mm	Weight	IP Protection Class	Insulation class	Temperature Sensor
EDM 90 LL 70	6000 rpm	35 Nm	191 x 160 x 179	8 kg	IP00/IP44	F	KTY 84-130
EDM 90 LL 90	6500 rpm	35 Nm	296 x 185 x 185	18 kg	IP00/IP54	H	KTY
EDM 112 LL1 50	6000 rpm	55 Nm	347 x 204 x 211	34.1 kg	IP00/IP44	H	PT1000
EDM 112 LL 150	6000 rpm	60 Nm	325 × 204 × 211	34 kg	IP00/IP44	F	PT1000
EDM 132 LL 150	6000 rpm	150 Nm	397 × 300 × 322 349 × 300 × 322	55 kg 56 kg	IP00/IP54	H	KTY 84-130
EDM 132 LL 150	5700 rpm	160 Nm	365 × 246 × 251	48.5 kg	IP00/IP54	F	PT1000
EDM 160 LL 180	6000 rpm	230 Nm	420 × 294 × 292	80.5 kg	IP00/IP54	F	PT1000

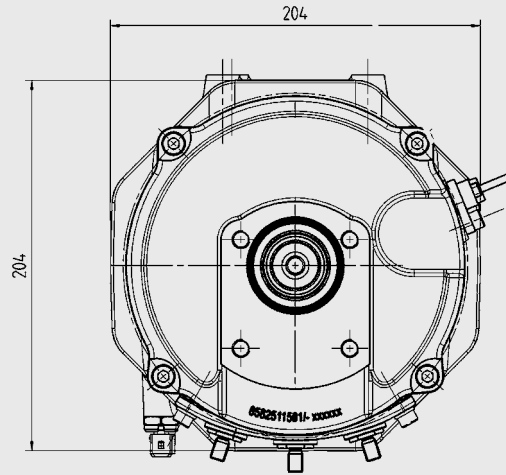
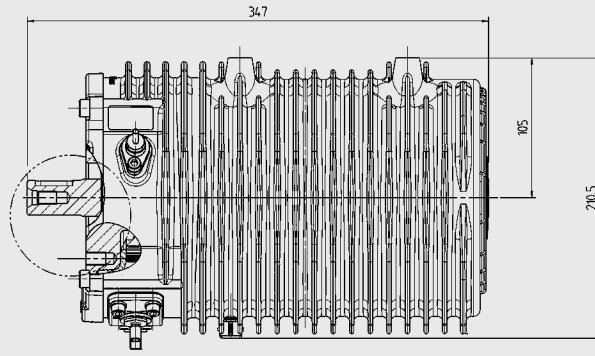
ELECTRIC MOTORS FOR PUMP OPERATION

Name	Linde Part Number	Battery Voltage	Nominal Voltage	Nominal Capacity	Nominal Speed	Nominal Mode of Operation
EPM 112 LL 150	858 350 06 01	48 VDC	D 3 × 28 VAC	8.5 kW	2950 rpm	S3 - 15 %
EPM 132 LL 150	2880 350 06 07	80 VDC	Y 3 × 45 VAC	17 kW	3190 rpm	S3 - 15 %
EPM 160 LL 180	2880 350 06 04	80 VDC	D 3 × 48 VAC	25 kW	2660 rpm	S3 - 20 %

Name	Max. speed	Max. Torque	Dimensions (l x w x h) in mm	Weight	IP Protection Class	Insulation class	Temperature Sensor
EPM 112 LL 150	6000 rpm	60 Nm	308 × 204 × 219	34 kg	IP00/IP54	F	PT1000
EPM 132 LL 150	6000 rpm	160 Nm	319 × 262 × 278	47 kg	IP00/IP54	F	PT1000
EPM 160 LL 180	6000 rpm	230 Nm	371 × 294 × 315	85.5 kg	IP00/IP54	H	PT1000

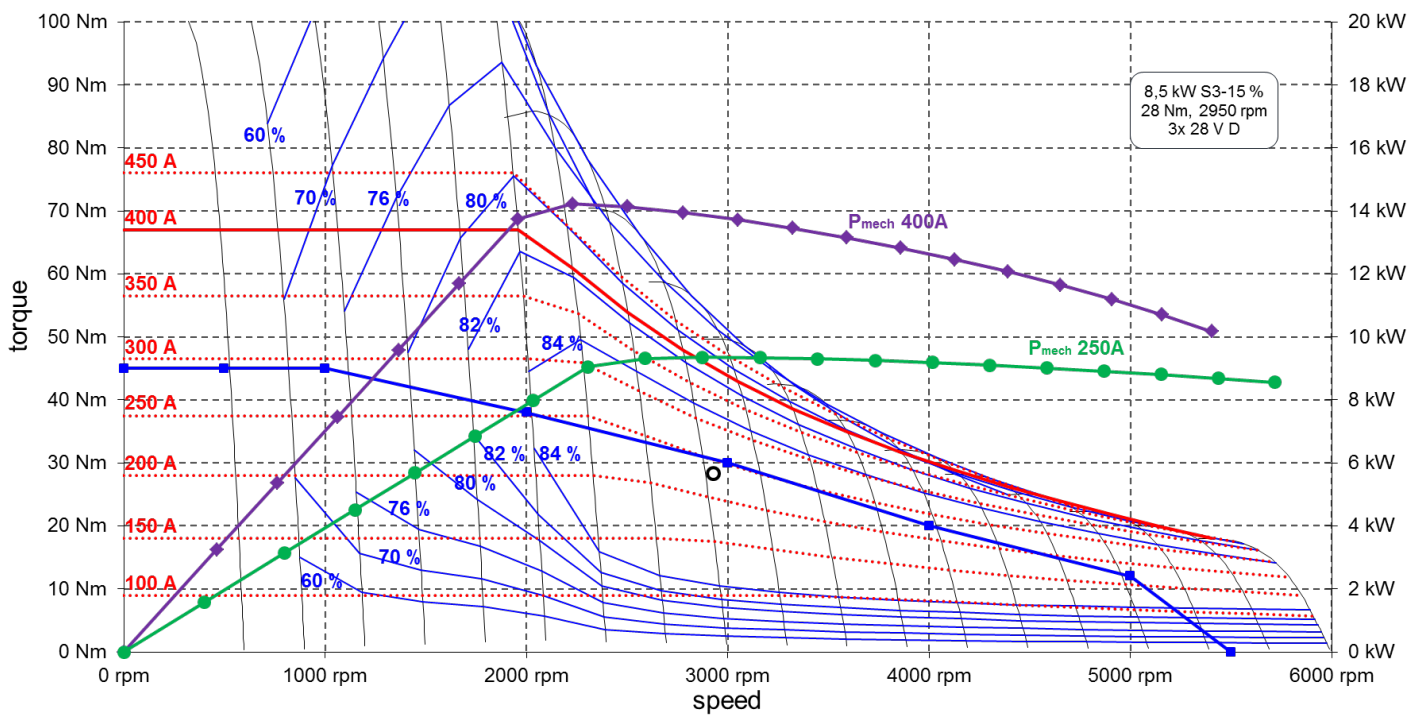
Technical Drawing

Exemplary for EPM 112 LL 150



Set of characteristic curves

Exemplary for EDM 11 2LL 150



EXAMPLES OF APPLICATIONS



Rotrac E2 und E4, Zwiehoff

- Speed: 6 km/h
- Weight: 3.8 t
- Batterie: 48 V 620 Ah or 80 V 930 Ah (lead acid)
- Range: ~ 8 h
- Drive train: 36 kW (Boost: 106 kW) or 50 kW (Boost: 150 kW) + 17 kW

Components

- 2 × AE18 bzw. 2 × AE50 + EPM 132 LL 150
- 2 × PM AC T50 bzw. 5 × PM AC S50
- LINC2
- Central electric
- Hydraulic system
- HMI



Cargo Master, Laweco

- Speed: 12 - 15 km/h
- Weight: 15 - 21 t
- Battery: 80 V 930 Ah (lead acid)
- Range: ~ 8 h (12 planes)
- Drive train: 50 kW

Components

- 2 × EPM 160 LL 180
- 2 × PM AC S50
- LINC1
- Central electric
- HMI



eHoftrac, Weidemann

- Speed: 16 km/h
- Weight: 2.2 t
- Batterie: 48 V 240 Ah (lead acid)
- Range: ~ 4 h
- Drive train: 7 kW + 8.5 kW

Components

- EDM 112 LL 150
- EPM 132 LL 150
- PM AC T50
- LINC2
- Central Electric



E-Kart, C.R.G. - eDrenaline

- Speed: 80 km/h
- Weight: 200 kg
- Batterie: 48 V 104 Ah (lithium polymer)
- Range: ~ 1 h
- Drive train: 5.2 kW (Boost: 12 kW)

Components

- 2 × EDM 90 LL 70
- PM AC T50
- LINC2
- Central electric
- HMI



Small electric Truck, Power Plaza Peace

- Speed: 105 km/h
- Weight: 740 kg
- Batterie: 80 V 222 Ah (lithium)
- Range: ~ 150 km
- Drive train: 16.3 kW (Boost: 28 kW)

Components

- EDM 132 LL 150
- PM AC S50
- LINC1
- Central electric
- HMI



Sweeper, Val'Air

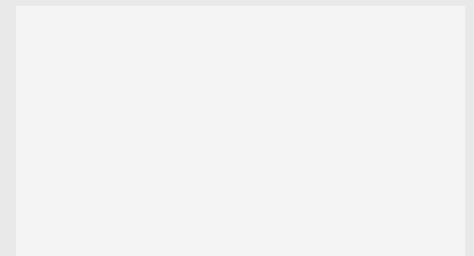
- Speed: max. 30 km/h (Working: 10 km/h)
- Weight: 1.86 t
- Batterie: 110 V (lithium)
- Range: ~ 8 h
- Drive train: 32.6 kW (Boost: 56 kW)

Components

- 2 × EDM 132 LL 150
- 2 × PM AC S50
- LINC1
- Central electric
- HMI

Subject to modification in the interest of progress. Illustrations and technical details could include options and not binding for actual constructions. All dimensions subject to usual tolerances.

Presented by:



Linde Material Handling GmbH
 Carl-von-Linde-Platz | 63743 Aschaffenburg | Germany
 Phone + 49 6021 99 0 | Fax + 49 6021 99 15 70
 www.linde-mh.com | info@linde-mh.com

Printed in Germany 077.e.1.0619.IndA.KI