**Series 1190**

- **Good performance in Cold Store**
- **Maintenance Free**
- **Fast Intermediate Charging**
- **Fast Full Charge**
- **Li-ION technology**
- **Polyurethane drive wheel & cushion rubber load wheels**
  - Pack \#2
- **Removable storage compartment/locker under the scoop seat**
- **3 position tow hook 290/345/400 mm**
- **Manually operated hook with pull cable (300 mm)**

**Optional Equipment**

- **Fixed front clipboard**
- **Removable storage compartment/bin under scoop seat**
- **Dedicated work station (with storage compartments)**
- **Electromagnetic emergency brake**
- **Automatic electric braking**
- **3 kW AC motor (maintenance free)**
- **Positive steering (drive wheel) feedback**
- **Power assisted steering with variable steering resistance**
- **Shaped platform linking: scoop seat, platform and console**
- **Safe, comfortable operator compartment with unique “U” platform, guard and the front steel bumper ensure excellent safety for both operator and machine.**

**Standard Equipment**

- **Safe, comfortable operator compartment with unique “U” shaped-platform, looking, scoop seat, platform and console.**
- **Positive steering (drive wheel) feedback**
- **Automatic and adjustable speed reduction when cornersing**
- **3 kW AC motor (maintenance free)**
- **Electronic braking**
- **Electronic emergency brake**
- **Electronic steering brake**
- **Li-ION technology**
- **Fan Cooling**
- **Opportunity Charging**
- **Remote temperature setting**
- **Maintenance free**
- **Long lifetime**
- **Good performance in Cold Store**
- **Web grip driven wheel & cushion load wheels**
- **Partially pneumatic drive wheel & cushion load wheels**
- **Non-marring cushion driven rubber drive wheels**
- **Li-ION batteries**
  - In 3 PzS compartment (PSD C 150, P50 C 150)
  - With CAN-bus (2x155A)
- **Li-ION charger**
  - approx. 3 hrs 25 min.
- **Signage**
  - Wall mountable signage
- **Console and Linde twin grip steering control**
  - Linde Material Handling GmbH
  - Power steering
  - Proportional self-centering steering
  - Adaptable steering resistance and twin grip steering feedback ensures the truck is always aligned.
- **Automatic speed reduction when cornering**
- **Shaped platform linking: scoop seat, platform and console**
- **Safe, comfortable operator compartment with unique “U” shape platform. This links the 3 main point of contact between operator and machine.**

**Electric Tow Tractor with Platform Capacity 3000 kg and 5000 kg**

- **P 30 C, P 50 C**
- **Series 1190**
- **Li-ION battery with 9,0 kWh (410Ah)**
- **AC Motor**
  - Powerful, smooth 3 kW at 100% performance
  - Proportional and direct-proof steering
  - No slip and self-centering
  - Disc brakes in 14 mm, whether the truck is laden or unloaded (for/forward)

**Reliability**

- **For the reliability of the steering control, the strong towing mounting and the high quality steel chassis ensure reliable operation over long periods of time.**
- **Highly durable electronic components also contribute to increased truck life. Extensive testing in the heaviest applications confirms the trucks’ reliability.**

**Service**

- **Efficient in operation and highly cost effective. CAN bus connections enable all truck data to be accessed for service inspection. Service intervals of 1,000 operating hours ensure high uptime. Easy accessibility to all components and the use of maintenance free AC motors contribute to fast service times.**

**Standards**

- **Condition and Linde line two grip steering control**
  - Linde Material Handling GmbH
  - **Can vary by application of electric motors and control systems**
  - **Automatic speed reduction when cornering**
  - **Diagnostic, temperature CAN bus plug and Linde Digital Information Display (Conventional, battery discharge indication, warning and information display)**
  - **Adjustable in height, the console provides controls and information displays**

**Linde Material Handling GmbH**

- **Printed in Germany 104.e.2.0716.IndC.Ki**

- **All dimensions subject to usual tolerances.**

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**Features**

- **Bearing system**
  - The unique “U” shaped-platform, looking, scoop seat, platform and console.
  - **Scooter – platform – scoop seat**
  - **Fully integrated**
  - **Adjustable scooping wheel, steering wheel and platform**
  - **Electronic, robust chassis with conventional and proportional steel wheels**
  - **Wide platform access**
  - **Low stepping height**

- **Safety**
  - **The design of the tractors ensures that the operator remains well within the truck container while driving.**
  - The ergonomic twin grip steering incorporates a wrap-around hand grip and the front steel bumper ensure excellent safety for both operator and machine.

- **Performance**
  - The P 30 C & P 50 C are compact tow tractors particularly suited for towing applications in narrow aisles. Due to their compact nature the operator has direct access to the towing attachment located at the rear. They drive common components and are both powered by a 3 kW AC motor. The P 30 C and P 50 C can tow 3,000 kg and 5,000 kg respectively.

- **Reliability**
  - For the reliability of the steering control, the strong towing mounting and the high quality steel chassis ensure reliable operation over long periods of time. Highly durable electronic components also contribute to increased truck life.

- **Service**
  - Efficient in operation and highly cost effective. CAN bus connections enable all truck data to be accessed for service inspection. Service intervals of 1,000 operating hours ensure high uptime. Easy accessibility to all components and the use of maintenance free AC motors contribute to fast service times.

- **Linde Material Handling GmbH**
  - **Printed in Germany 104.e.2.0716.IndC.Ki**

- **All dimensions subject to usual tolerances.**
### Technical Data according to VDI 2198

#### Characteristics

1. **Manufacturer**
   - LINDE

2. **Model designation**
   - P30C / [P30C ION]
   - P50C / [P50C ION]

3. **Series**
   - 1190-00

4. **Power unit**
   - Battery

5. **Operation**
   - Stand on

6. **Load capacity/Load Q (t)**
   - 3.0

7. **Rated tractive force F (N)**
   - 1800

8. **Wheelbase y (mm)**
   - 1050

#### Weights

9. **Service weight (kg)**
   - 1020 / 1157

10. **Axle load without load, front/rear (kg)**
    - 584 / 436 / 662 / 495

#### Wheels/Tyres

11. **Tyre size, front**
    - Ø 254 x 102

12. **Tyre size, rear**
    - 2x Ø 250 x 80

13. **Auxiliary wheels (dimensions)**
    - 2x Ø 100 x 40

14. **Wheels, number front/rear (x = driven)**
    - 1x + 2 / 2

15. **Track width, front b10 (mm)**
    - 544

16. **Track width, rear b11 (mm)**
    - 675

#### Dimensions

17. **Height of seat/stand on platform h7 (mm)**
    - 710 / 910

18. **Height of tiller arm in operating position, min/max h14 (mm)**
    - 1020 / 1120

19. **Towing coupling height h10 (mm)**
    - 300 / 290 / 345 / 400

20. **Overall length l1 (mm)**
    - 1500 +10mm with hook

21. **Overall width b1/b2 (mm)**
    - 790 / 790

22. **Ground clearance, centre of wheelbase m2 (mm)**
    - 40

23. **Turning radius Wa (mm)**
    - 1230 ± 0 mm = 3 PzS lateral; ± 100 mm = 3 PzS vertical and 4PzS lateral; ± 150 mm = 4 PzS vertical; ± 225 mm = 4 PzS vertical

#### Performance

24. **Travel speed, with/without load (km/h)**
    - 10 / 10

25. **Tractive force, with/without load (N)**
    - 1800

26. **Maximum tractive force, with/without load (N)**
    - 4000

27. **Climbing ability, with/without load (%)**
    - 5.0 / 24.0 < 3.0 / 24.0

28. **Maximum climbing ability, with/without load (%)**
    - 8.0 / 24.0

29. **Acceleration time, with/without load (s)**
    - 6.7 / 4.6

#### Drive

30. **Drive motor, 60 minute rating (kW)**
    - 3

31. **Battery according to DIN 43531/35/36 A,B,C, no 43535/B [Li-ION]**

32. **Battery voltage/rated capacity (5h) (V/Ah)**
    - 24 / 345 / 375 / 24 / 410

33. **Battery weight (± 5%) (kg)**
    - 287 / 151

34. **Power consumption according to VDI cycle (kWh/h)**
    - 0.95 ± 5% with hook

#### Others

35. **Type of drive control**
    - LAC

36. **Sound pressure level at the driver’s seat (dB(A))**
    - < 70

37. **Towing coupling, design/type, DIN 15 170**
    - --

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*The example shows illustrates:
A tractor towing 2 t load, operating on a ramp of 4%.
Max. travelling speed reachable = 4.3 km/h, length of the ramp = 4.9 km

8) (± 5%)