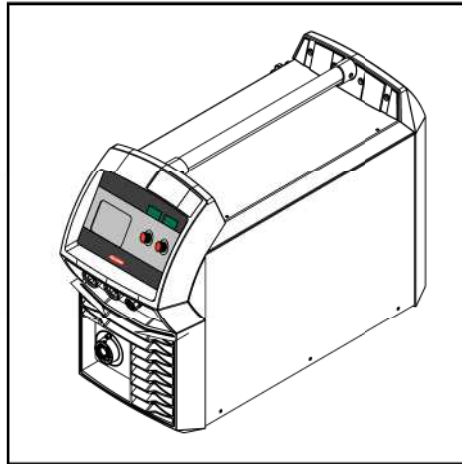


## Device concept



The TransSteel (TSt) 2500c, 2700c and 3500c power sources are completely digitised, microprocessor-controlled inverter power sources.

The modular design and potential for system add-ons ensure a high degree of flexibility. The devices are designed for the welding of steel.

All devices are suitable for:

- MIG/MAG welding
- MMA welding

## Functional principle

The central control and regulation unit of the power sources is coupled with a digital signal processor. The central control and regulation unit and signal processor control the entire welding process.

During the welding process, the actual data is measured continuously and the device responds immediately to any changes. Control algorithms ensure that the desired target state is maintained.

The device has a "Power limitation" safety feature. This means that the power source can be operated at the power limit without compromising process safety.

This results in:

- a precise welding process
- a high degree of reproducibility of all results
- excellent weld properties.

## Application areas

The devices are used in workshops and industry for manual applications with classical steel and galvanised sheets.

The TSt 2500c and TSt 2700c power sources are primarily used in light-gauge steel sheet (light steelwork) applications. Repair, maintenance, and assembly work in shipyards, automotive suppliers, workshops or the furniture construction industry are among the typical application areas. The TSt 2500c et TSt 2700c power sources thus position themselves in their power category between the trade/workshop sector and the industry sector.

The TSt 3500c power sources are designed for:

- Machine and equipment construction
- Steelwork
- Plant and container construction
- Metal and gantry construction
- Rail vehicle construction

## TSt 2700c MV

|                                                                      |                       |                   |          |               |
|----------------------------------------------------------------------|-----------------------|-------------------|----------|---------------|
| Mains voltage ( $U_1$ )                                              | 3 x                   | 200 V             | 230 V    |               |
| Max. effective primary current ( $I_{1\text{eff}}$ )                 |                       | 13.3 A            | 11.6 A   |               |
| Max. primary current ( $I_{1\text{max}}$ )                           |                       | 25.7 A            | 22.41 A  |               |
| Mains fuse protection (slow-blow)                                    |                       |                   | 25 A     |               |
|                                                                      |                       |                   |          |               |
| Mains voltage ( $U_1$ )                                              | 3 x                   | 380 V             | 400 V    | 460 V         |
| Max. effective primary current ( $I_{1\text{eff}}$ )                 |                       | 7 A               | 6.6 A    | 5.8 A         |
| Max. primary current ( $I_{1\text{max}}$ )                           |                       | 13.1 A            | 12.5 A   | 10.8 A        |
| Mains fuse protection (slow-blow)                                    |                       |                   |          | 15 A          |
| Apparent power at 400 V AC                                           |                       |                   |          | 8,66 kVA      |
|                                                                      |                       |                   |          |               |
| Mains voltage ( $U_1$ )                                              | 1 x                   | 230 V             | 240 V    | 240 V         |
| Max. effective primary current ( $I_{1\text{eff}}$ )                 |                       | 16.0 A            | 15.0 A   | 18.1 A        |
| Max. primary current ( $I_{1\text{max}}$ )                           |                       | 22.3 A            | 23.9 A   | 28.1 A        |
| Mains fuse protection (slow-blow)                                    |                       | 16 A              | 15 A     | 20 A          |
| Apparent power                                                       |                       | 5.13 kVA          | 5.74 kVA | 5.98 kVA      |
|                                                                      |                       |                   |          |               |
| Mains voltage tolerance                                              |                       |                   |          | -10 / +15 %   |
| Mains frequency                                                      |                       |                   |          | 50 / 60 Hz    |
| Max. permitted mains impedance $Z_{\text{max}}$ on PCC <sup>1)</sup> |                       |                   |          | 142 mOhm      |
|                                                                      |                       |                   |          |               |
| Welding current range ( $I_2$ )                                      |                       |                   |          |               |
| MIG / MAG                                                            |                       |                   |          | 10 - 270 A    |
| Rod electrode                                                        |                       |                   |          | 10 - 270 A    |
| Welding current range ( $I_2$ ) in single-phase operation            |                       |                   |          |               |
| MIG / MAG                                                            |                       |                   |          | 10 - 220 A    |
| Rod electrode                                                        |                       |                   |          | 10 - 180 A    |
| Welding current at                                                   | 10 min / 40°C (104°F) | 30%               | 60%      | 100%          |
| $U_1 = 200 - 230 \text{ V}$ :                                        |                       | 270 A             | 200 A    | 170 A         |
| $U_1 = 380 - 460 \text{ V}$ :                                        |                       | 270 A             | 200 A    | 170 A         |
| Welding current in single-phase operation at                         | 10 min / 40°C (104°F) | 15% <sup>2)</sup> |          | 100%          |
| $U_1 = 230 \text{ V}$ :                                              | Fuse 16 A             | 180 A             |          | 145 A         |
| Welding current in single-phase operation at                         | 10 min / 40°C (104°F) | 8% <sup>2)</sup>  |          | 100%          |
| $U_1 = 240 \text{ V}$ :                                              | Fuse 15 A             | 180 A             |          | 145 A         |
| Welding current in single-phase operation at                         | 10 min / 40°C (104°F) | 11% <sup>2)</sup> |          | 100%          |
| $U_1 = 240 \text{ V}$ :                                              | Fuse 20 A             | 200 A             |          | 160 A         |
| Welding current in single-phase operation at                         | 10 min / 40°C (104°F) | 40% <sup>2)</sup> |          | 100%          |
| $U_1 = 240 \text{ V}$ :                                              | Fuse 30 A             | 220 A             |          | 160 A         |
| Output voltage range according to standard characteristic ( $U_2$ )  |                       |                   |          |               |
| MIG / MAG                                                            |                       |                   |          | 14.5 - 34.3 V |
| Rod electrode                                                        |                       |                   |          | 20.4 - 34.3 V |

|                                                                                               |                                                                                                                                                                   |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output voltage range according to standard characteristic ( $U_2$ ) in single-phase operation |                                                                                                                                                                   |
| MIG / MAG                                                                                     | 14.5- 24 V                                                                                                                                                        |
| Rod electrode                                                                                 | 20.4 - 27.2 V                                                                                                                                                     |
| Open circuit voltage ( $U_0$ peak / $U_0$ r.m.s)                                              | 42 V                                                                                                                                                              |
|                                                                                               |                                                                                                                                                                   |
| Protection class                                                                              | IP 23                                                                                                                                                             |
| Insulation class                                                                              | B                                                                                                                                                                 |
| Overvoltage category                                                                          | III                                                                                                                                                               |
| Pollution level according to IEC60664                                                         | 3                                                                                                                                                                 |
| Safety symbols                                                                                | S, CE, CSA                                                                                                                                                        |
| Efficiency at 220 A and 25.0 V                                                                | 87%                                                                                                                                                               |
| Dimensions l x w x h                                                                          | 687 x 276 x 445 mm<br>27.1 x 10.9 x 17.5 in.                                                                                                                      |
| Weight                                                                                        | 30 kg<br>66.1 lb.                                                                                                                                                 |
|                                                                                               |                                                                                                                                                                   |
| Max. shielding gas pressure                                                                   | 7 bar<br>101.49 psi                                                                                                                                               |
|                                                                                               |                                                                                                                                                                   |
| Wire feed speed                                                                               | 1 - 25 m/min<br>40 - 980 ipm.                                                                                                                                     |
| Wire drive                                                                                    | 4-roller drive                                                                                                                                                    |
| Wire diameter                                                                                 | 0.8 - 1.6 mm<br>0.03 - 0.06 in.                                                                                                                                   |
| Wirespool diameter                                                                            | max. 300 mm<br>max. 11.81 in.                                                                                                                                     |
| Wirespool weight                                                                              | max. 20.0 kg<br>max. 44.1 lb.                                                                                                                                     |
|                                                                                               |                                                                                                                                                                   |
| 1)                                                                                            | Interface to a 230 / 400 V, 50 Hz public grid                                                                                                                     |
| 2)                                                                                            | Detailed information concerning the duty cycle in single-phase operation is located in chapter „Installation and commissioning“, section „single-phase operation“ |