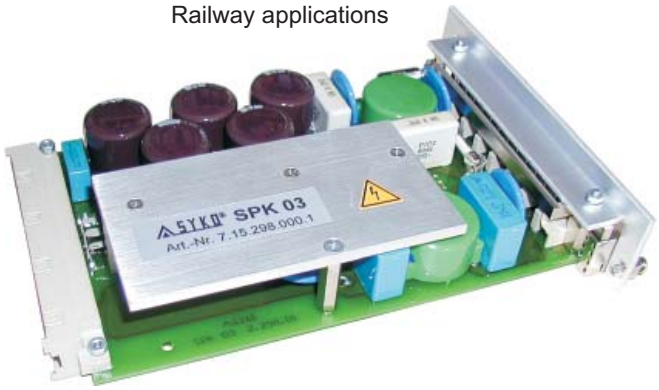
- **External storage unit for 10ms hold-up time**
- **Frontend input**
- **Frontend output**
- **With C-L²-C pre-filter**
- **Disturbance proof EN61000-4-4/5**
- **Low input capacity**
- **Active accesess to intermediate circuit**
- **19“-cassette style / 6TE**

Railway applications



Series SPK 03

Hold-up time for series HL30/HC30

Main points

Input:

- Input fuse
- Input capacity <4µF
- Burst/Surge EN61000-4-4/5 1,8kV/5Ω
- Radio suppression EN55022.B
- Input reverse pol. protection and energy re-flow protection
- Front sided H15-connector

General:

- Hold-up time 10ms for max. 240W f=constant (TU/ΔC/aging)
- Storage element 3 x electrolytic
- Limited charging end voltage ±5V
- Charging time/repeat time : <3s / >10s
- formula of hold-up time: $C=((2*P_{in}) / \eta*T_{SP}) / (U^2_{Cext} – U^2_{Imin})$
- Storage C:
  - not at access of Uin
- - for access of converter‘s Uzk
- Ambient temperature -25°C / +70°C
- Option H: -40°C / +85°C
- Isolation test voltage: Input-housing: 1,5kV AC 1min
- Shock/vibration EN50155
- Output H15-connector
- Dimension100 x 160 mm³ 6TE

Unom V	Storage C µF / V	Charging end voltage V	Model number
24	3 x 1800 / 50V	36	SPK03.24.150.010
60	3 x 390 / 100	75	SPK03.60.240.010
72	3 x 390 / 120	100	SPK03.72.240.010
110	3 x 330 / 160	140	SPK03.10.240.010
Version H		-40°C up to +85°C	additional charge
Modification costs for possible changes above values:			on request

According to the functional principle circuit, an additionally filtering for high frequent disturbances is included. With this filter the distance to the EN55022.B limit is extended. The transient protection limits surge disturbances according to EN61000-4-5 level 3 / 2Ω or EN50155 (1,8kV / 5Ω) standards tosystem suitable values to the output. In the case of a network interruption or input sided short circuit, the energy re-flow out of the converter into the source is prevented with a reverse polarity protection. Storage elements CS (electrolytic capacitors) are charged with a pre-stabilised, to the source voltage adapted charging voltage, which uses the extreme high CU²-energy factor. After an network interruption the storage elements need a re-charging time of approx. 3 s and the repeat time should be > 10 s.

Principle circuit