

ST

Technical Data Sheet

Elite Series 72



Sifam Tinsley Elite Series 72XX 1Phase, Universal Input Range 90-280 VAC, 127-396 VDC, High efficiency $\geq 86\%$ & extremely compact (w-h-d) 55X110X105mm & DIN Rail Mountable with protections

Special Features

- Switch Mode Technology
- Automatic 3 Stage Charge Profile
- Boost Charge Function
- Reverse Polarity Protection with Fuse
- LED indicator for Power ON, Charging, Boost Mode, Float Mode, Battery Reverse/ Fuse Blown Connection
- Cooling by free air convection
- DIN Rail Mounting
- Compact size, 3 Year warranty

Input

- Universal single-phase Input
- Efficiency up to 86%

Protections

- Short circuit, Overload, Over voltage, Reverse Polarity Connection, Over Temperature.

Technical Specifications

| Input Data | |
|--|-------------------------------|
| Nominal Input Voltage | 115/230 Vac |
| Input Voltage range | 90 – 280 Vac 127 – 396 Vdc |
| Inrush Current (Vn and In Load) Ft | ≤ 40 A ≤ 5 msec. |
| Frequency | 45 – 65 Hz ±6% |
| Input Current (115 – 230 Vac) | 2.8 – 1.5 A |
| AC Input Fuse | 4 A |
| Recommended DC Output Fuse | See Table |
| Output | |
| Absorption Voltage (VA) | See Table |
| Boost Voltage (VA) | See Table |
| Float Voltage (VB) | See Table |
| Max. Charging Current (IA) at < 40°C | See Table (In) |
| Max. Charging Current (IA) at 50°C | 80% of In (permanent) |
| Max. Charging Current (IA) at 60°C | 60% of In (permanent) |
| End of charging current (IB) | In X 0.32A ±20 % |
| Turn-On delay after applying mains voltage | 2.5 sec. (max) |
| Line regulation | < ±0.5 % |
| Residual Ripple | ≤ 120 mV _{pp} |
| Efficiency | ≥ 86 % |
| Short-circuit Protection | Constant Current |
| Short-circuit current | Max 1.2 X In ±10% |
| Dissipation power load max (W) | 20.5 W |
| Over Load protection | Constant Current |
| Over Voltage Output protection | Yes |
| Over Temperature Protection | Yes |
| Parallel connection | No |
| Recommended Battery Capacity Range (Ah) | See Table |
| Charge Fail Contact rating (EN60947-4-1) | Resistive load |
| | Max. 30 VDC 1A |
| | Max. 120 VAC 1A |
| Min.1mA at 5 VDC | Min permissive load |

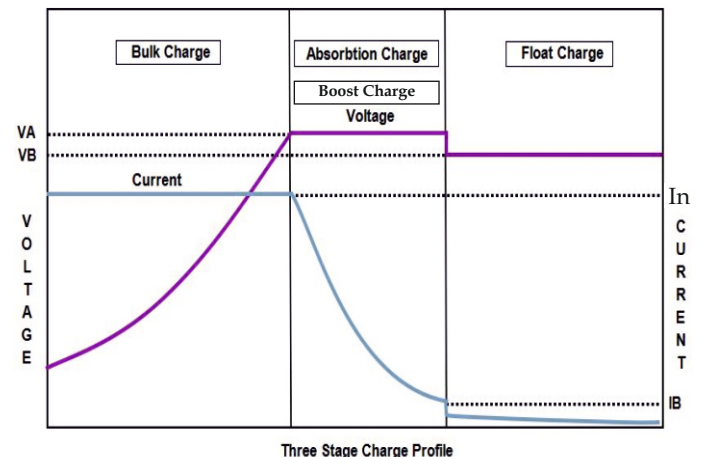
Climatic Data

| | |
|------------------------------------|---|
| Ambient Temperature operation | -20°C to +70 °C (>60°C Derating 2.5%/°C) |
| Ambient Temperature Storage | -40°C up to +85 °C |
| Humidity at 25 °C, no condensation | 95 % |
| Cooling | Convection |

General Data

| | |
|---------------------------------------|--|
| Isolation Voltage (In / Out) | 3000 Vac |
| Isolation Voltage (In / PE) | 1605 Vac |
| Isolation Voltage (Out / PE) | 500 Vac |
| Protection Class (EN/IEC 60529) | IP 20 |
| Reliability: MTBF IEC 61709 | > 5,00,000 h |
| Pollution Degree Environment | 2 |
| Connection Terminal Blocks Screw Type | 2.5 mm ² (24 – 14 AWG) |
| Vibration (operation) | 10 to 500Hz, 2G, 20min/sweep, period - 1Hr, Each along X,Y,Z axes. |
| Shock | 30g in all direction in acc. with IEC 60068-2-27. |
| Protection class | 1 with PE connected |

Charging Characteristics



Technical Specifications

Applicable Standards

Norms and certifications

The CE mark in According to EMC 2004/108/EC and Low voltage directive 2006/95/EC.

Electrical Safety

According to IEC/EN 60950 (VDE 0805) EN 50178 (VDE 0160) for assembling device. The unit must be installed according to IEC/EN 60950. Input / Output separation: SELV EN60950-1 and PELV EN 60204-1. Double or reinforced insulation.

EMC Immunity

EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN61000-6-2

EMC Emission

EN61000-6-4, EN 61000-3-2

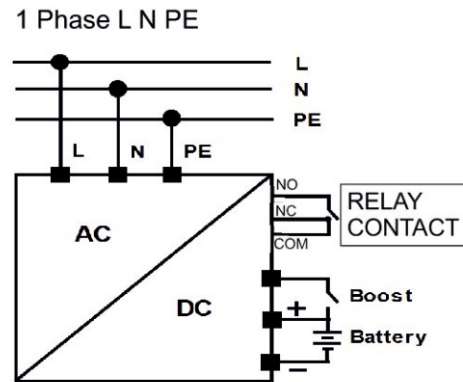
Standards Conformity

EN 60204-1 Safety of Electrical Equipment Machines.

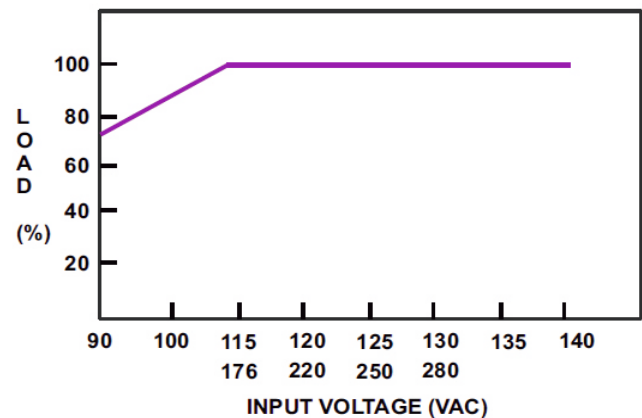
Note :

*Refer Battery manufacturers data sheet for their suggestions on acceptance of higher charge rates since charging Battery beyond recommended capacity will increase the charging time and below specified capacity will increase charge rate causing dehydration and grid corrosion on the positive plate which will result in loss of battery capacity.

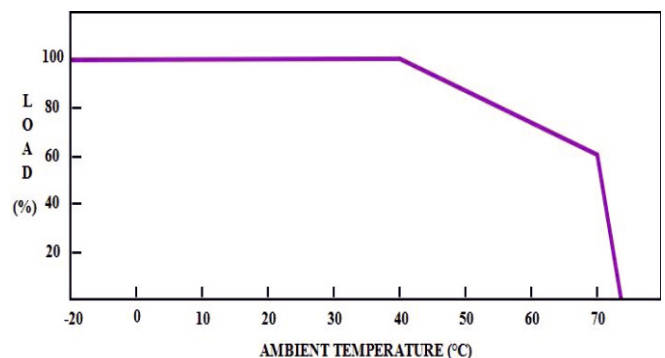
Electrical Connection



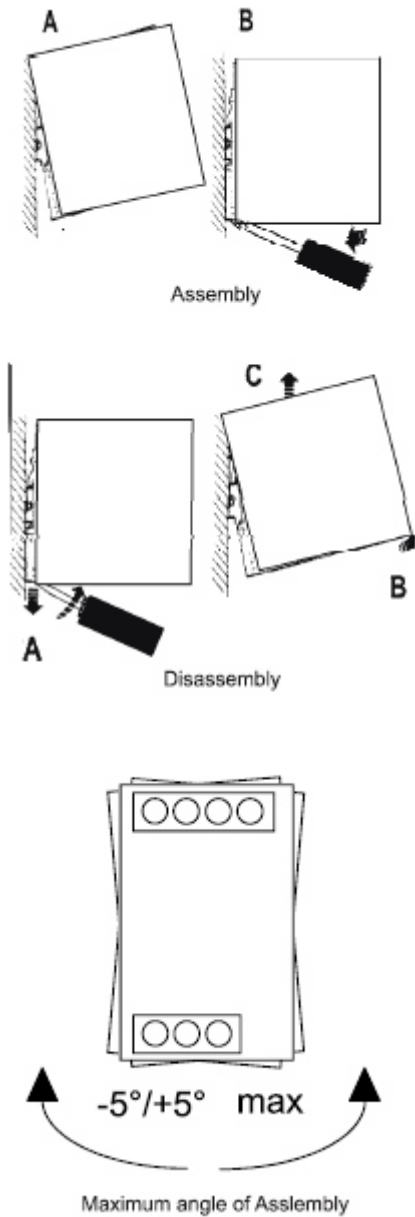
Static Characteristics



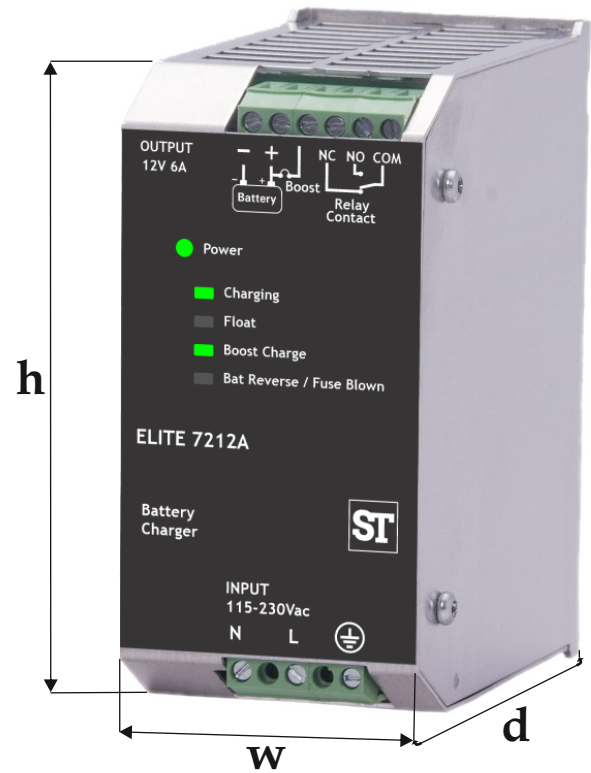
Derating Curve



Installation



Dimensions Details



w x h x d

55 x 110 x 105

All Dimensions are in mm

| Model | Constant Current | V Boost (TYP) | V Absorption (TYP) | V Float (TYP) | Nominal O/p Current (In) | Recommended Battery Capacity Range (Ah)* |
|------------|------------------|---------------|--------------------|---------------|--------------------------|--|
| Elite 7212 | 5.9 A | 14.4 V | 14.2 V | 13.5 V | 5.2 A | 30 - 60 Ah |
| Elite 7224 | 2.9 A | 28.8 V | 28.4 V | 27 V | 2.6 A | 15 - 30 Ah |

Ordering information

| | | | | | | | | | | | | | |
|-------------------------------|---|---|----------------------------|---|---|---|---|---|---|---|---|---|-----|
| Product Code | Bc03- | X | X | X | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0ST |
| System type of Bc03 | 1P | 1 | | | | | | | | | | | |
| Battery Charger model of Bc03 | 12012A (120W,12V) 12024A (120W, 24V) 3612A (36W, 12V) 12030A (120W, 30V) 7212A (72W, 12V) 7224A (72W, 24V) | | A B D E F G | | | | | | | | | | |
| Relay Output for Bc03 | With Relay | | | 0 | | | | | | | | | |
| Reserved | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0ST |



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