

Alco Controls

CSS-25U / CSS-32U Compressor Soft Starter

Technical Bulletin

The first VDE certified **Compressor Soft Starter** for safety of household. It is used for switching, protection and starting current limitation of single phase compressors in heat pumps, refrigeration and air conditioning applications.

Features

- For motors with maximum operating current up to 25A / 32A
- Limitation of starting current to less than 30A / 45A
- Self adjusting for use in 50 Hz or 60 Hz supply
- Self adjusting to motor current - no manual adjustment or calibration necessary
- Alarm relay output
- Start capacitor for improved motor acceleration is switched off after start
- Motor protection functions:
 - Low voltage shutdown
 - Locked rotor recognition and shutdown
 - Delay function to limit number of motor starts per hour
 - Thyristor protected contactor for long life
 - No extra motor contactor needed
 - Self diagnostics
- Mounting clip for easy installation allows DIN rail mounting in two directions
- Easy wiring by cage type screw terminals



CSS-32U Soft Starter

Selection table

Type	Part No.	Description	Nom. Current
------	----------	-------------	--------------

Versions with VDE approval per EN 60 355-2-40

CSS-32U	805 204	Soft Starter incl. mounting clip and operating manual; VDE released version	32A max
CSS-32U	805 204M	Box with 20 pieces CSS-32U with VDE, mounting clips and one operating manual	32A max
CSS-25U	805 205	Soft Starter incl. mounting clip and operating manual; VDE released version	25A max
CSS-25U	805 205M	Box with 20 pieces CSS-25U with VDE, mounting clips and one operating manual	25A max

Non approved versions

CSS-32U	805 200	Soft Starter incl. mounting clip and operating manual	32A max
CSS-32U	805 200M	Box with 20 pieces CSS-32U , mounting clips and one operating manual	32A max
CSS-25U	805 201	Soft Starter incl. mounting clip and operating manual	25A max
CSS-25U	805 201M	Box with 20 pieces CSS-25U , mounting clips and one operating manual	25A max

Accessory

K00-003	807 663	3-pol Screw connector to alarm output for wires up to 2.5mm ² ; bag with 50 pieces
---------	---------	---

CSS-25U / CSS-32U Compressor Soft Starter

Technical Data

Operating voltage	230V 50 / 60 Hz nominal
Maximum compressor operating current	CSS-32U : 32A CSS-25U : 25A
Compressor starting current	CSS-32U: max. 45A CSS-25U: max. 30A
Operating temperature	-20 to +55°C non condensing
Storage temperature	-20 to +65°C non condensing
Start capacitor	200 to 240 uF
Time delay after stop	0,5 to 5 Min

Alarm relay, AgNi (SPDT)	
Resistive (AC1) max.	250V~ / 3A 30V= / 3A
Flexible cable cross section (power lines)	0.25 ... 4 mm ²
Flexible cable cross section (alarm outp.)	0.25 ... 2.5 mm ²
Max. vibration	4 g (at 10 to 1000 Hz)
Weight	430g
Protection acc. IEC 529	IP20

Standards

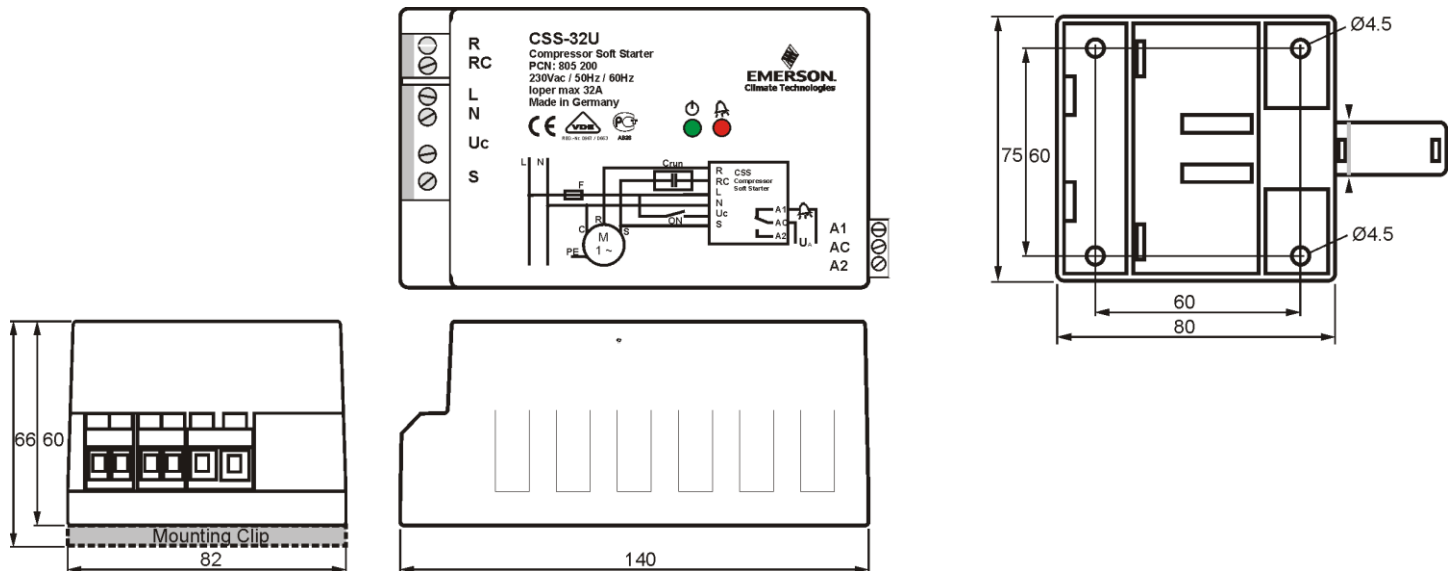
EN 60947-1	Low voltage switchgear and controlgear Contactors and motor-starters - AC semiconductor motor controllers and starters
EN 60947-4-2	
EMC 2004/108/EC	Electromagnetic Compatibility (EMC) Directive
LVD 2006/95/EC	Low Voltage Directive

EN 60335-1	Safety of household and similar electrical appliances - Part 2-40 Particular requirements for electrical heat pumps, air conditioners and dehumidifiers
EN 60335-2-40	
ROHS 2002/95/EC	Restriction of Hazardous Substances Directive

Dimensions (mm)

Compressor Soft Starter

DIN-Rail Mounting Clip



15.11.2012 - CSS-25U / CSS-32U Compressor Soft Starter

Emerson Climate Technologies GmbH shall not be liable for errors in the stated capacities, dimensions, etc., as well as typographic errors. Products, specifications, designs and technical data contained in this document are subject to modification by us without prior notice. Illustrations are not binding. The Emerson Climate Technologies logo is a trademark and service mark of Emerson Electric Co. Emerson Climate Technologies Inc. is a subsidiary of Emerson Electric Co.