

COSAL

Compact Regulator



Specification

The ADB SAFEGATE Control System for Airfield Lighting – COSAL is used for supplying, controlling, and monitoring series circuits.

Within this product family, the compact controller constitutes an affordable variant for airport lighting systems comprising only a few series circuits.

Requirements

VDE, IEC 61822, ICAO, FAA and STANAG

Construction

A housing with compact dimensions, which does not require any additional cooling or ventilation, accommodates both the control and the power assemblies. The electronic components of this compact controller are identical to those of the 19" units when it comes to construction.

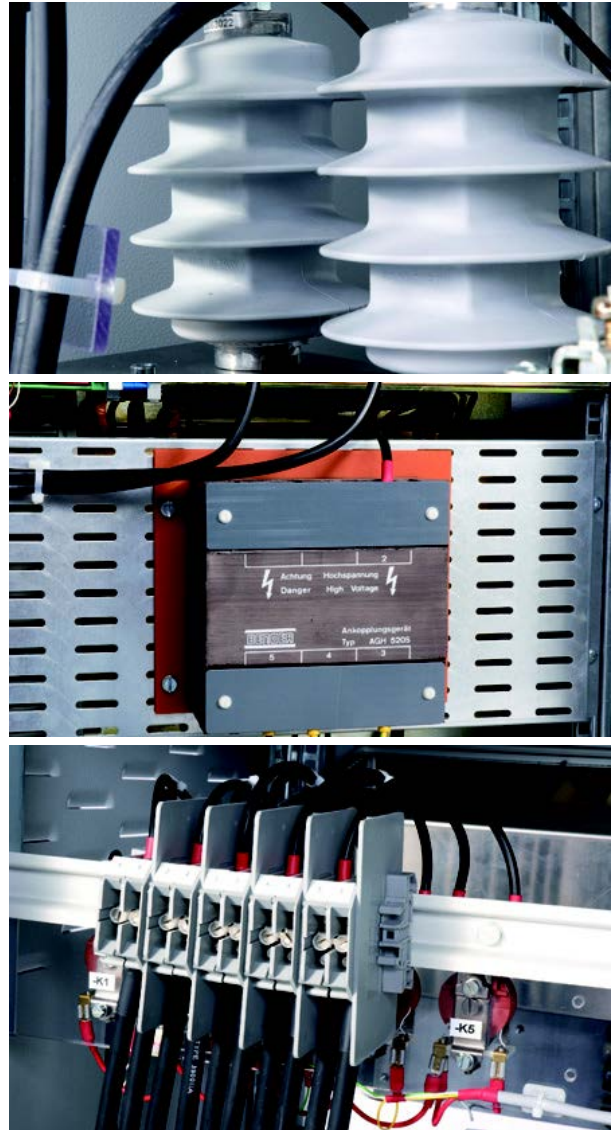
There is an option for integrating circuit selector switches in the cubicle housing, with which up to five sub-circuits can be switched, and the insulation monitor.

Technical Features

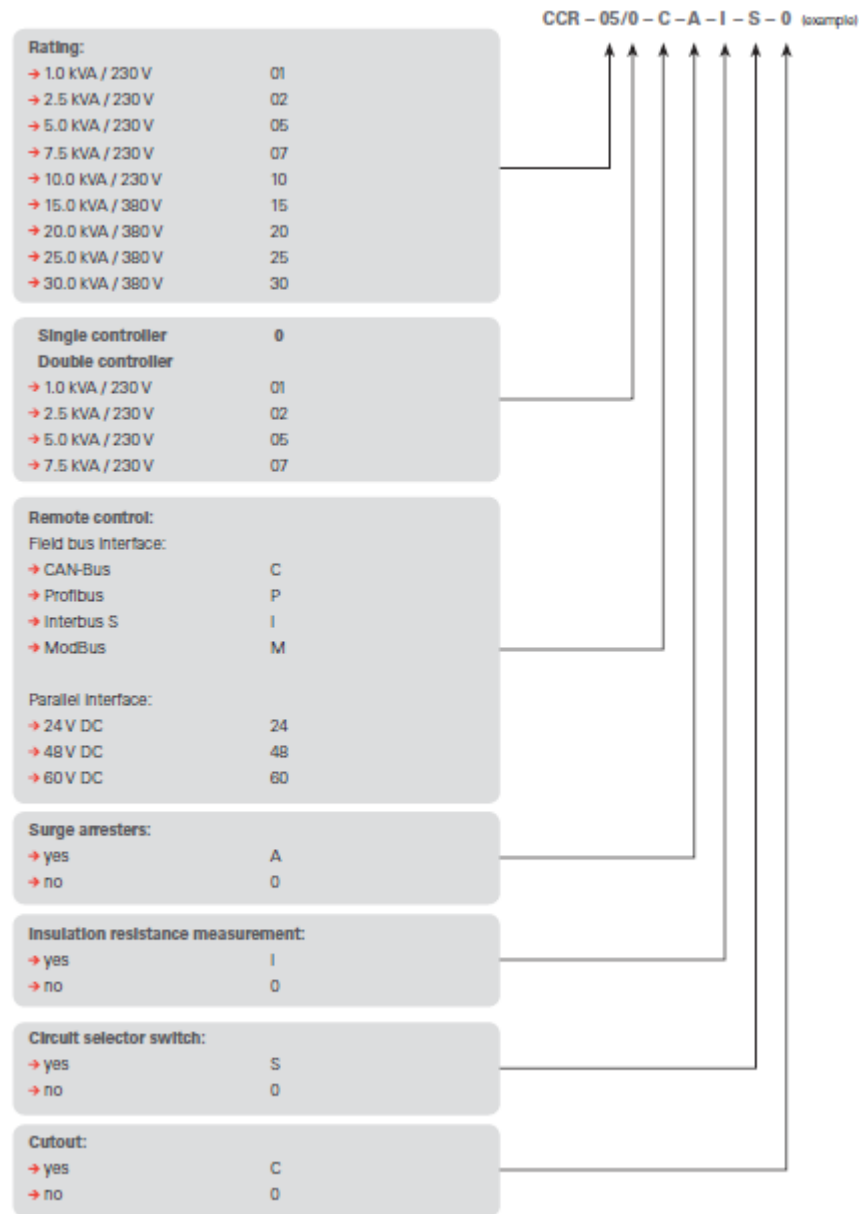
- Shared housing for constant-current regulator and supply transformer
- Power ratings in accordance with IEC from 1 kVA to 30 kVA (customized levels on request)
- Space-saving compact-size construction No additional ventilation or cooling required
- The same housing dimensions for all power ratings Microprocessor-controlled, fully digitized
- Eight brightness levels between 0% and 100% Compatible with the CCRE regulator drawer
- Soft start to increase lamp lifetimes at series circuit power-up Lamp failure measurements feature integrated as standard in the regulator software
- Field bus interfacing for CAN-Bus, ProfiBus, Interbus S, Modbus
- Alternative interfacing possible via parallel interface (24 V, 48 V, 60 V)
- 4-line backlit LC display
- Continual display of the controller's following operational data:
 - circuit designation
 - setpoint values of the series circuit's category and the power (optional)
 - actual values of the series circuit's category and the power (optional)
- Continual display of the following data from the series circuit:
 - insulation resistance value (optional)
 - lamp failure (percentage / numerical)
- Modification of all operating parameters using simple menu prompting and an integrated membrane keyboard
- Parameterization alternatively via field bus or a serial interface on the front panel
- All operating parameters stored on a replaceable SIM card

Options

- Circuit selector switch for 2 circuits integrated directly in the housing
- Double controller for supplying 2 series circuits (up to 7.5 kVA circuit power each)
- Insulation resistance measuring feature integrated directly in the controller
- Surge arresters at the output terminals
- Cutout



Ordering Code



Further options on request.

Technical Data

	CCR-01...10/0	CCR-01...07/01...07	CCR-15...25/0	CCR-30/0
Input voltage	1 x 230 V AC +/-10 %	2 x 230 V AC +/-10 %	1 x 400 V AC +/-10 %	1 x 400 V AC +/-10 %
Input current	max. 1 x 50 A	max. 2 x 50 A	max. 1 x 80 A	max. 1 x 100 A
Line frequency	50 Hz +/- 7.5 %	50 Hz +/- 7.5 %	50 Hz +/- 7.5 %	50 Hz +/- 7.5 %
Efficiency	> 92 %	> 92 %	> 92 %	> 92 %
Output current	max. 6.6 A	max. 6.6 A	max. 6.6 A	max. 6.6 A
Power ratings and weights	1 x 1.0 kVA / 125 kg 1x 2.5 kVA / 144 kg 1x 5.0 kVA / 167 kg 1x 7.5 kVA / 183 kg 1x 10.0 kVA / 207 kg	2 x 1.0 kVA / 145 kg 2 x 2.5 kVA / 182 kg 2 x 5.0 kVA / 228 kg 2 x 7.5 kVA / 260 kg	1 x 15.0 kVA / 223 kg x 20.0 kVA / 276 kg 1 x 25.0 kVA / 295 kg	1 x 30.0 kVA / 305 kg
Brightness levels	8, user-configurable	8, user-configurable	8, user-configurable	8, user-configurable
Remote control voltage optional	1x 24 V DC / 10 W 1x 60 V DC / 10 W	2 x 24 V DC / 10 W 2 x 60 V DC / 10 W	1 x 24 V DC / 10 W 1 x 60 V DC / 10 W	1 x 24 V DC / 10 W 1 x 60 V DC / 10 W
Parallel interface: Input/output: optional	24 V DC / 24 V DC 48 V DC / 48 V DC 60 V DC / 60 V DC	24 V DC / 24 V DC 48 V DC / 48 V DC 60 V DC / 60 V DC	24 V DC / 24 V DC 48 V DC / 48 V DC 60 V DC / 60 V DC	24 V DC / 24 V DC 48 V DC / 48 V DC 60 V DC / 60 V DC
Serial interface:	2x RS 232	2x RS 232	2x RS 232	2x RS 232
Field bus	CAN, Profibus Mod-Bus, Interbus S	CAN, Profibus Mod-Bus, Interbus S	CAN, Profibus Mod-Bus, Interbus S	CAN, Profibus Mod-Bus, Interbus S
Control rate	30 A/s	30 A/s	30 A/s	30 A/s
Control precision	1 %	1 %	1 %	1 %
Response time and shut-down behavior	as per IEC 61822	as per IEC 61822	as per IEC 61822	as per IEC 61822
Humidity (non-condensing)	max. 95 % rel.	max. 95 % rel.	max. 95 % rel.	max. 95 % rel.
Installation site / Air pressure	< 2000 m above sea level	< 2000 m above sea level	< 2000 m above sea level	< 2000 m above sea level
Working temperature range	-5° C – +50° C	-5° C – +50° C	-5° C – +50° C	-5° C – +50° C
Storage / Transport	-25° – +55° C	-25° – +55° C	-25° – +55° C	-25° – +55° C
Protection Class	IP20	IP20	IP20	IP20
Dimensions (W x H x D)	605 x 1305 x 650 mm	605 x 1305 x 650 mm	605 x 1305 x 650 mm	605 x 1305 x 650 mm
Housing color	light-gray, RAL 7035	light-gray, RAL 7035	light-gray, RAL 7035	light-gray, RAL 7035