



COMPONENT

▶ **CONTROL SECTION**

This Section Constitutes the Control & Monitoring System of the Constant Current Regulator Using a Micro Processor. All Settings and Controls are Made Through a Key Pad and the Actual Values of the CCR are Presented on a HMI and Through LED Indicators.

The Main Components of the Control Section are as Follows :

- Interface Card
- CPU Card
- Power Supply Card
- Earth Fault Power Supply Card
- DO Card
- DI Card

▶ **HIGH VOLTAGE SECTION**

The High Voltage Section Supplies Current to the Series Circuit and its Main Components are as Follows :

- Output Transformer
- Current Transformer
- Lighting Arrester
- Output Terminal
- Coupling Choke

▶ **LOW VOLTAGE SECTION**

The Low Voltage Section Receives the Input From the Control Section and Executes the phase Control Through the Thyristor. It Supplies Power to the Output Transformer.

The Main Components of the Low Voltage Part are as Follows :

- Circuit Breaker
- Power Relay
- Magnet Contact
- Thyristor Module
- Input Choke
- Thyristor Drive Board

▶ **COMPLIANCES**

ICAO Aerodrome Design Manual Part 5

FAA 61822

IEC AC 150/5345-10, L-829

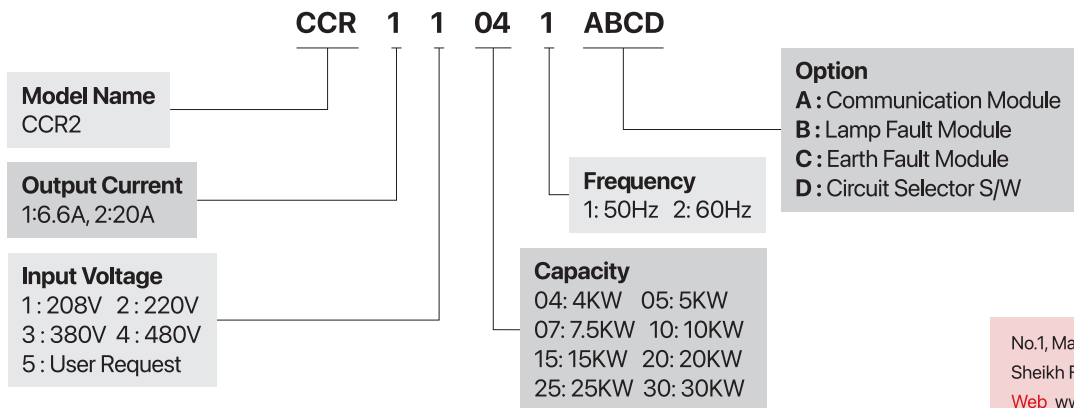
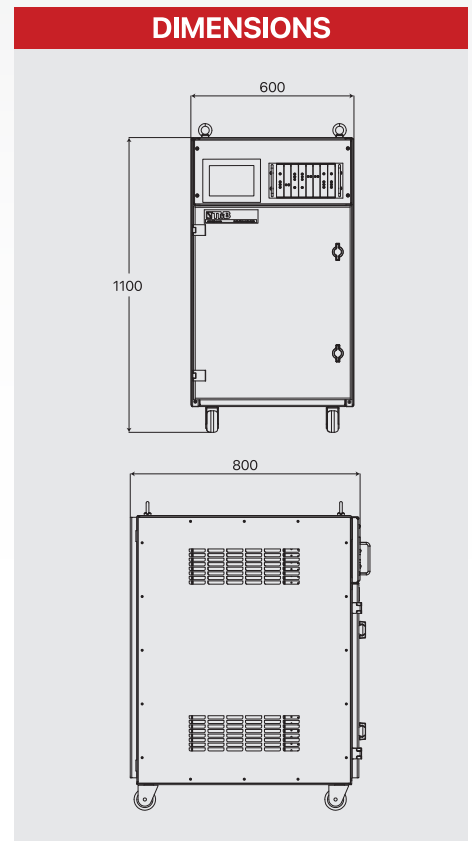
- Power Factor : Not Less than 90%
- Over Current Protection
- Regulation Error Monitoring
- Lamp Fault Monitoring
- V1, I1, V2, I2, VA2 Monitoring

▶ **FEATURES**

- Free Standing Unit
- Housing Divided into Three Areas :
Electronic Control, Low Voltage & High Voltage
- Natural Air Cooled
- Operating Temperature Range -40 to +55°C
- Output Current : 6.6 or 20 Amps (1 ,3 ,5 or 7 Steps) Option : Non Illumination Step
- Rating From 2.5 to 30 KW
- Output Current Regulation $\pm 1.0\%$
- Efficiency : Not Less Than 90%
- Open Circuit Protection
- Input Power Loss Monitoring
- Elapsed Time Monitoring
- Local Control
- Parallel Remote Control

SPECIFICATION	
Type	Thyristor Phase Control
Ratings	2.5, 4, 5, 7.5, 10, 15, 20, 25, 30 KW
Input Voltage	Single Phase 220V 50 / 60 Hz (other voltage upon request)
Output Current	6.6 A max (20 Amp upon request)
Brightness Step	7 Adjustable steps (1, 3, 5 or 7 steps) Option : Non illumination step 1.8A
Accuracy	All steps : within $\pm 1\%$
Power Factor	>90% at nominal input and full load
Efficiency Control	>90% at nominal input and full load
Remote Control	Parallel : 24 VDC to 60 VDC Serial : RS-485 Dual line
Protection	Over Current Protection 12 = 6.85A < 4 sec / 12 = 6.93A < 2 sec 12 = 7.10A < 1 sec / 12 = 8.30A < 0.3 sec Open circuit protection $I_2 = 1.50A < 1 \text{ sec}$
Monitoring	Over current monitoring Open circuit monitoring Fuse fault monitoring Current regulation error monitoring Input power loss monitoring Output V-A Drop monitoring Lamp fault monitoring Earth fault monitoring V1, I1, V2, I2, VA2 monitoring Elapsed time monitoring
Ventilation	Natural air cooled
Temperature	0 to +55°C operation range
Humidity	10 ~ 95 % operation range
Altitude	0 to 2000 m. above sea level

OUTPUT CURRENT				
6.6A				20A
1 Step	3 Step	5 Step	7 Step	5 Step
1:6.6A	3:6.6A	5:6.6A	7:6.6A	5:20A
	2:5.5A	4:5.2A	6:6.4A	4:15.8A
	1:4.8A	3:4.1A	5:5.2A	3:12.4A
		2:3.4A	4:4.1A	2:10.3A
		1:2.8A	3:3.4A	1:8.5A
			2:2.8A	
			1:2.2A	
Non illumination step : 1.8A (option)				



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