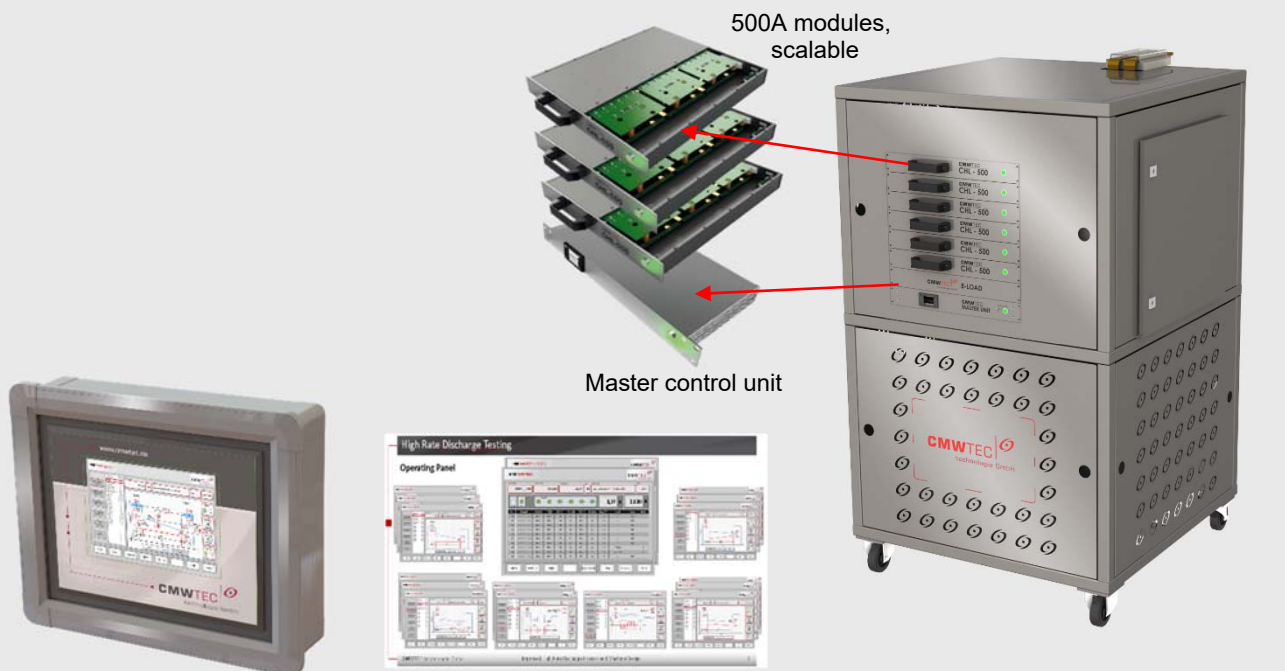


CMWTEC HIGH RATE E-LOAD STAND-ALONE SYSTEM

Technology
 [made in Germany]

Designed for high current load tests in a production line for testing of automotive batteries. The system consists of a movable frame that houses the water cooling unit, the control unit and several power stage modules up to 6 modules in one Rack.



15" Touch panel to be mounted at the machine for test program set up and profile editor

End of Line Control Software. More flexibility to create customized profiles. Ability to run multiple profiles in a sequence

Application shows 6 x CHL-500 E-load modules each 500A, housing in a steel rack Installed on movable frame together with water cooling unit

The Advantage:

- Robust steel rack mounted on a moveable frame
- E-Load performance scalable by adding additional modules at any time
- Fail safe operation to eliminate production downtime
- Free access to relevant components
- Water cooled, suited to operate in heavy duty environment

High Current E-load

The high current E-load CHL 500 provides four characteristics: constant current; constant voltage; constant power and constant resistance. Each of the tests can have different profile settings and can be combined with DC resistance [DCR] and AC impedance [ACR] profiles (option). At the end of the test, a comparison of the different test criteria within one test sequence is made on a basis of statistically determined comparison data and test results. These results are rated either ACCEPTED or FAILED. The average value and the standard deviation for the open circuit voltage and the high current voltage are calculated on a basis of test results of all batteries with the result ACCEPTED. These calculated statistical values allow a better evaluation of the whole batch. The CMWTEC High current E-load will be controlled by the EOL Control Software[®] which is an integrated part of the PLC.

Technology power stage module

- Linear close-loop current control avoiding high frequency noise or ripple currents
- Water cooled power resistor and power electronics
- Power electronic based on MOSFET-technology
- Current control organized in multiple transistor layers per power stage of 500A.
- Integrated polarity switch with low voltage drop

Technical specifications per power stage module | Slave

Discharge current range.	:	5 A – 500A
Nominal discharge voltage* range	:	± 3 – 12 VDC (full rate current)
Discharge voltage* min.	:	±2 V (< 3V with 50% of rated current)
Discharge voltage* max.	:	± 15 V (>12V with 50% of rated current after 0.5Sec)
Duty Cycle	:	60% (6 Sec ON / 4 Sec OFF)
rated power max.	:	3000 W (5000 W x 60%)
Short time power	:	6000 W max. time 500 mSec.
Resolution of current reading	:	10 mA
Accuracy of current reading/setting	:	0.1% of full scale

* Measured on power module terminal

Technical specifications control unit external interface

Control	:	Ethernet
DC-voltage taps	:	twisted wire
Display	:	4'

Technical specifications rack supplies

Main Electrical	:	400V, 50/60Hz AC, 24V DC
Electrical E-load	:	24V DC
Water cooling	:	1 inch for water hoses (to built-in cooler)
Water cooling inlet temperature	:	10°C to 35°C (50°F to 95°F)
DC-current	:	M12 bolts

Technical specifications dimensions

Overall dimensions (LxWxH)	:	960 x 960 x 1700 mm [3.14 x 3.14 x 5,57 ft]
Weight	:	depending on amount of power stages
Overall Weight	:	max. 450 kg

Technical specifications environment

Ambient temperature	:	10°C to 40°C (50°F to 104°F)
Protection	:	IP20