EPS - Datasheet

Series EPS/MCTSR

Source - Sink - Battery Charger/Tester/Simulator - Inverter - up to 1300kW/kVA from EPS Stromversorgung

The coordinated test systems EPS/MCTSR from EPS Stromversorgung are suitable for tests during development, such as simulation of the on-board grid, simulation of energy storage devices (e.g. LiIon battery simulation), tests of electrical drives as well as fuel cells and their corresponding components such as inverters, batteries (charging and discharging) and switch suitable. The outputs go up to 650kW in a voltage range from 5 to 1200V and an adjustable current range from +-200A up to +-4800A.

The special feature of these systems is that the electrical energy absorbed in generator operation is fed back into the power supply grid with high efficiency. External loads (resistors) are thus superfluous and electrical energy that would otherwise be "burned" can be profitably recycled. This regenerative capability is a decisive factor in most test applications, as they work with unusually high powers.
To increase performance, either parallel connection (up to 9600A) or a multi-channel system (up to 4x 2400A) is possible. In contrast to conventional DC sources, the multi-channel system has two or four independently usable output channels and can work both as a source and as a sink (EPS/MCDCR 2x or 4x).

All systems have an isolated output and a TFT touch panel for entering or displaying values and alarms.

They can also be controlled via CAN, MOD-Bus TCP (Ethernet), VNC and optionally via HighSpeed /Analog, HighSpeed CAN, Profibus, Profinet and Ethercat. Programming languages are optional: LabView, MatlabSimulink and SCPI.

The test system can be freely programmed and has specific algorithms that enable a wide variety of tests such as testing solar systems (inverter option), super capacitors and reactive power compensation.

Comprehensive protective measures, such as an event memory integrated as standard and a safety controller (level "d") completes the concept.

The system can be "upgraded" customer-specifically, e.g. with insulation monitoring, an additional discharge unit in the event of a power failure (simulator operating mode), a power distribution unit, impedance measurement (tester operating mode) or water cooling (IP54).
The systems are CE certified and can optionally be adapted according to UL.
Further options on request.

Energy efficiency: New technology, high efficiency, regenerative power supply

Scope of delivery:
MC Test System
Calibration protocol
Operation manual

Series EPS/MCTSR

EPS/MCTSR 1600300
Bidirectional Basic system Power feedback

EPS/MC Multichannel 2

General data

Behavior	Bidirectional
Technology	Switching
Operation modes	CV. CC+-. CP. CR
Mains	380/400/440/480/500V AC 3ph.N,PE +-10%
Input frequency	50/60Hz +-6%
Power factor	>0.99
Power feed back	Standard
Display	TFT Touch Display
Voltage resolution	16 Bit
Voltage accuracy	0,1% fs
Voltage Stability Load	<3% fs (0-100%)
Current Resolution	16 Bit
Current Accuracy	0,1% fs
Rise time Current	<1,0ms (10-90%)
Overheat protection	Standard
Isolation In-/Output	3,75kV
Isolation Output/Enclosure	2,2kV
Protection class	IP20
Cooling	Fan
Operation temperature	0-40°C
Humidity	85% rel.nc
Attitude	1000m NN
Design	Cabinet
Standards	EN13849-1,EN62040,EN61000-2-4/6-2/6-4

Series EPS/MCTSR

Interfaces

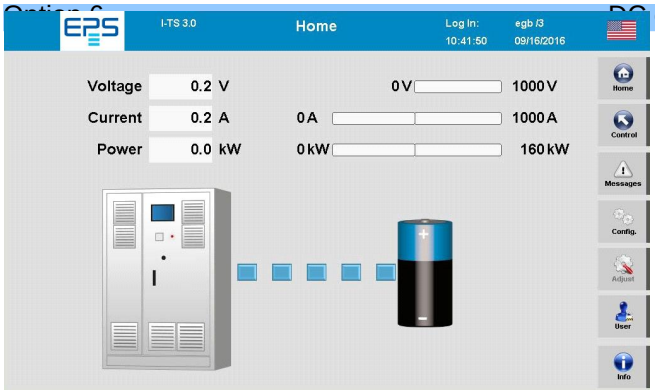
Analog Programming	Opt. EPS/TSDCR-HSANA
Analog Isolation	Option EPS/TSDCR-ANA10
Input Signal	Option (M)TSDCR-E-Stop
CAN Interface	Standard, Option: HSCAN
Profibus	Option EPS/TSDCR-PB
Ethernet Interface	Standard
Ethercat Interface	Option EPS/TSDCR-EC

Technical data

Output Voltage	5-300 VDC
Output Current	4x +-200A
Output Power	160000 W
Input Power	179 kVA
Input Current	258A Un
Efficiency	93,8/90,0%
Ripple U	<=0,1% fs eff
Ripple I	<=0,1% fs eff
Remote Sensing	Option EPS/TSDCR-S/m
Dimensions in mm (WxHxD)	2600 x 2000 x 800
Weight	2020 kg
Order code	200603

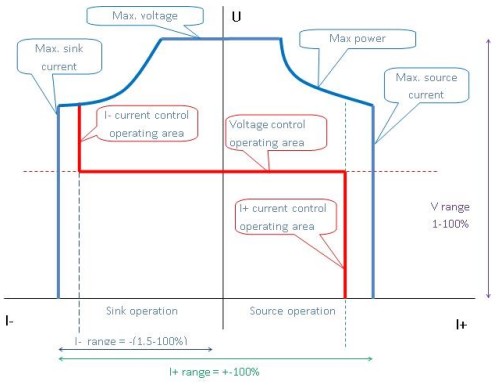
Options

Option 1	Earth contact supervision DC-output EPS/TSDCR-ISO
Option 2	Operation mode Simulator EPS/TSDCR-SIM
Option 3	Switching Simulator/Tester EPS/TSDCR-SW
Option 5	Protective Diode EPS/TSDCR-DIODE
Option 6	DC contactors separation under load EPS/TSDCR-CONT

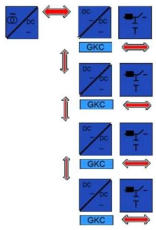


EPS/(M)TSDCR TFT Touchpanel

Series EPS/MCTSR



(M)TSDCR Ausgang/Output characteristic



EPS/(M)TSDCR Multi-Channel-System

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