MC-Highpower-Series

Precision Power Supplies for Threephase Connection

Voltage, current and over-voltage protection (OVP) continuously adjustable from 0 to full output via

- Front panel controls (ten turn)
- Remote programming
- Resistance programming (not OVP)
- IEEE-488/RS232-Interface (optional)

Features

- **Precision series-pass regulation with Thyristor preregulation**
- For normal laboratory use as well as complex system applications
- Constant Voltage Mode / Constant Current Mode with automatic crossover and mode indicator
- Fast regulation, low ripple and high precision
- Short circuit protection, output floating
- Remote sensing
- No turn-on/turn-off transients
- Softstart (at M8C as an option)
- Series or parallel operation, Master-Slave operation
- Compact 19“ rack, (M8C: 5U, M14C: 9 U)

Call for a customer requested solution

M8C

Voltage (V_{DC})	0-8	0-15	0-40	0-60
Current (A_{DC})	0-180	0-120	0-65	0-45

M14C

Voltage (V_{DC})	0-8	0-15	0-30	0-40	0-60
Current (A_{DC})	0-300	0-250	0-200	0-150	0-100

Specifications

- **Constant Voltage Mode**

Voltage output range ≤100mV to full output voltage 10 turn potentiometer
Line regulation: 0,01% or 5mV* (±10% line change)
Load regulation: 0,02% or 10mV* (100% load change)
Regulation time: 100µs (load change from 50% to 100%) within 50mV
Ripple: ≤ 10mV$_{rms}$, spikes 0,5% typ.
Stability: 0,05% or 20mV* within 8 hours at const. line, const. temperature and const. load
Temperature coefficient: 0,02%V_{Max} / °C (0-40°C)
Short circuit protection: Automatic current limitation, adjustable from ≤ 500mA to C_{Max}
Remote sensing: Max. line drop 0,5V / output line

- **Constant Current Mode**

Current output range: ≤ 500mA to full output current 10 turn potentiometer
Line regulation: 0,1% + 10mA (± 10% line change)
Load regulation: 0,2% +10mA (100% load change)
Ripple: 0,2% or 50mA*
Stability: 0,1% C_{Max} within 8 hours at const. line, const. temperature and const. load
Temperature coefficient: 0,05% C_{Max} / °C (0-40°C)

Output: Insulating, floating up to 300V_{DC}

Input voltage: 400V_{AC} ± 10%, 47..65Hz, three phase – star connection (5 wire)
Input current: approx. 12A (M8C), approx. 16A (M14C) per phase at 400V input
(the higher value is valid)*

Other details

Storage temperature: -20 ..+70°C
Operation temperature: 0 ..+40°C,
(up to 60°C with max. 80% C_{Max})
Cooling: Forced ventilation, intake area frontthird, air escapes through the rear wall
Metering: Analog meters for voltage and current, meters accuracy ±1,5%

Dimensions front panel: HxW for M8C 222 x 483 mm
for M14C 399 x 483 mm
Dimensions mounting:
M8C DxW: 450x443 mm, with connectors: 510x443 mm
M14C DxW: 550x443 mm, with connectors 625x443 mm
Wight: approx. 65kg (M8C), approx. 100kg (M14C).

Options

Opt. 02	External voltage programming (V_{Out} : V_{Prog} = 1 : 1)
Opt. 03	External current programming with voltage (V_{Prog}= 0-5V or 0-10V, C_{Out} = 0..C_{Max})
Opt. 08	Delayed current limitation(150% C_{Max}, max.0,5s)
Opt. 9x	Transient-absorber (recommended when supplying inductive loads)
Opt. 24	External voltage and current programming with voltage (V_{Prog}=0-5V or 0-10V for V_{Out}=0-V_{Max} and C_{Out}=0-C_{Max})
Opt. 37	IEEE488/RS232-Interface with 1U casing
Opt. 12	Softstart (M8C)

TET Electronics powered by **IndustrieAlpine GmbH & Co. KG**
D-94513 Schönberg
IndustrieAlpine Allee 1
fon +49 (0) 85 54 / 96 09 - 0
fax +49 (0) 85 54 / 96 09 - 20
Internet: www.tetelectronics.de
Email: sales@tetelectronics.de
Issue 02/13