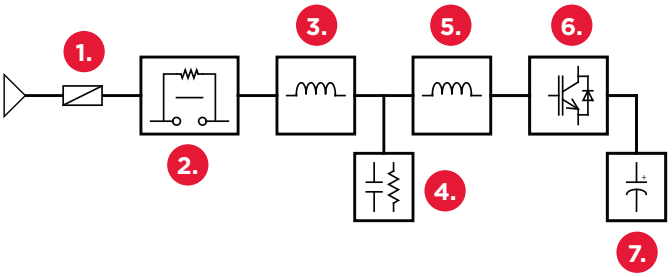
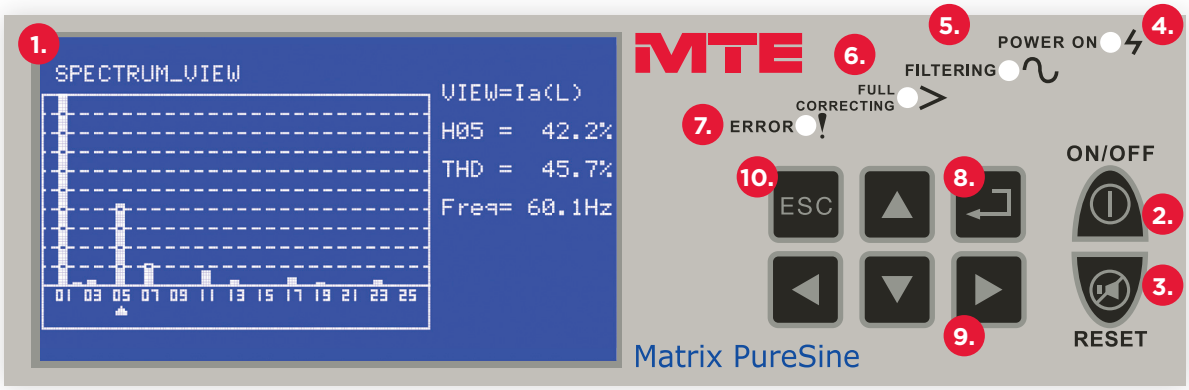
CONFIGURATION



1. Main Fuse
2. Soft-start Electromagnetic Contactor Module
3. Link Inductor
4. Ripple Current Filter Module
5. High Frequency Inductor
6. IGBT Power Converter Module
7. DC Capacitor Module

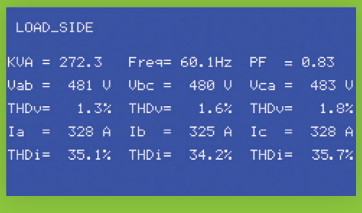
USER INTERFACE



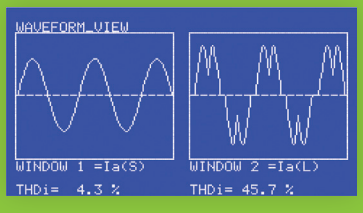
1. Display Screen
2. ON/OFF Keypad
3. Reset (& Alarm Silence) Keypad
4. Power On Indicator
5. Filtering Indicator
6. Full Correcting Indicator
7. Error Indicator
8. Confirmation/Enter Key
9. Directional Scrolling Key
10. Escape/Cancel Key

FEATURES

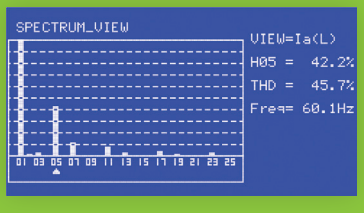
- Event Log (300 records)
- Languages:
  Spanish and English
- Meter



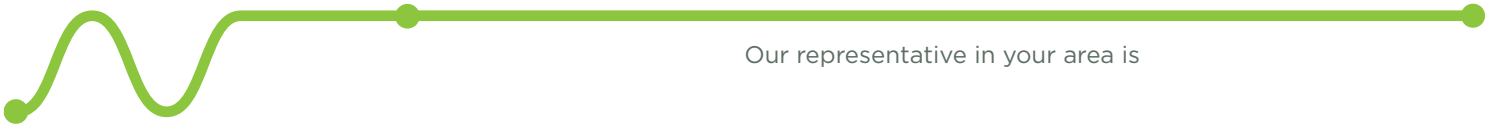
PARAMETERS DISPLAY



WAVEFORM DISPLAY



SPECTRUM DISPLAY



Our representative in your area is

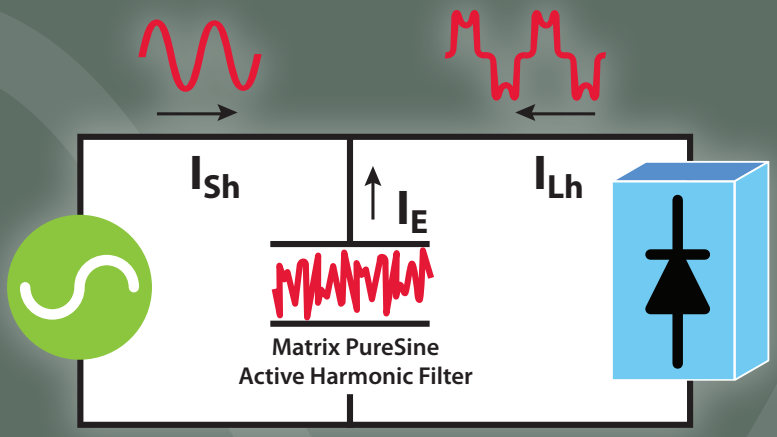
MTE
AN SL INDUSTRIES COMPANY
N83 W13330 Leon Road,
Menomonee Falls, WI 53051
P: 800.455.4MTE (4683) F: 262.253.8222

Form MPS-PSL-E June 2012
Supersedes Form MPS-PSL-E June 2011

Matrix PureSine®

IMPROVE YOUR POWER QUALITY & ENERGY EFFICIENCY

MATRIX PURESINE® ACTIVE HARMONIC FILTERS FROM MTE ARE POWERFUL FILTERING SOLUTIONS FOR COORDINATED VARIABLE LOAD POWER FACTOR CORRECTION (PFC) AND HARMONIC MITIGATION.



WORKING PRINCIPLES.

Measure the harmonics current generated from the non-linear load.

Generate opposite phase shifted harmonics current of the same amplitude.

Cancel the loads harmonic current and then obtain a sinusoidal current in the facility.

FEATURES & BENEFITS.

- Less than 5% Total Demand Distortion (TDD)
- Eliminate Harmful Harmonics
- Compensation up to 51st harmonic
- Manage up to 12 harmonic signatures simultaneously
- Reduce Voltage Waveform Distortion
- Correction of Leading or Lagging Power Factor
- Reduce Voltage Drops on Transformers & Cables
- Reduce Temperature Rise on Transformers & Cables

SITE SURVEY SOFTWARE

A site survey is an important first step in sizing and selecting a Matrix PureSine Harmonic Filter. Site survey software is available from most drive manufacturers. The software will provide information about the total amperage the filter must be able to handle.

SIZING SOFTWARE

Once the site survey is completed, the data collected are entered into MTE's sizing software to help determine the size and system configuration that will be required to effectively filter current for the selected site or application.

MODULAR SYSTEM CONFIGURATION

The system is modular and allows a user to "right" size a system for current need, while still having the option to increase capability as current loads increase.

Each Control Module can manage a DC Equalizer Module and four Power Modules.

Capacity is 480V 35A, 60A, 90A, 120A.

Up to eight Control Modules can work in parallel resulting in a Maximum 480V 960A Rating.

MTE AN SL INDUSTRIES COMPANY

Matrix PureSine

Matrix PureSine
Capacity Calculation & Selection Tool V1.2

Load & System Data

System Voltage	480.0 V
Load Current	120.0 A
THDi,F%	35.00 %
PF	0.810 Lagging

Target Level

PFC Function	Enabled
DPF	0.950 Lagging
THDi,F%	5.00 %

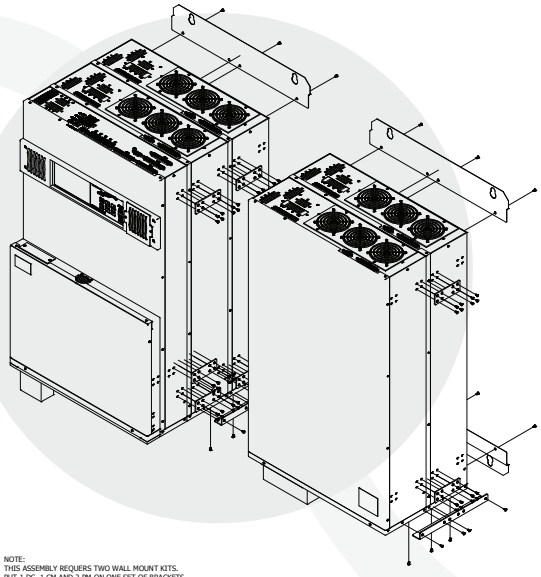
Compensation Required @480V

Harmonic Current	39 A	
Reactive Current	26 A	Leading
Total Current	47 A	

Recommended Capacity

Voltage Rating	480 V
Current Rating	60 A

Configuration:60A x 1



NOTE:
THIS ASSEMBLY REQUERS TWO WALL MOUNT KITS.
PUT 1 DC, 1 CM AND 2 PM ON ONE SET OF BRACKETS.
PUT 2 PM ON OTHER SET OF BRACKETS.
PLACE THEM SIDE BY SIDE.

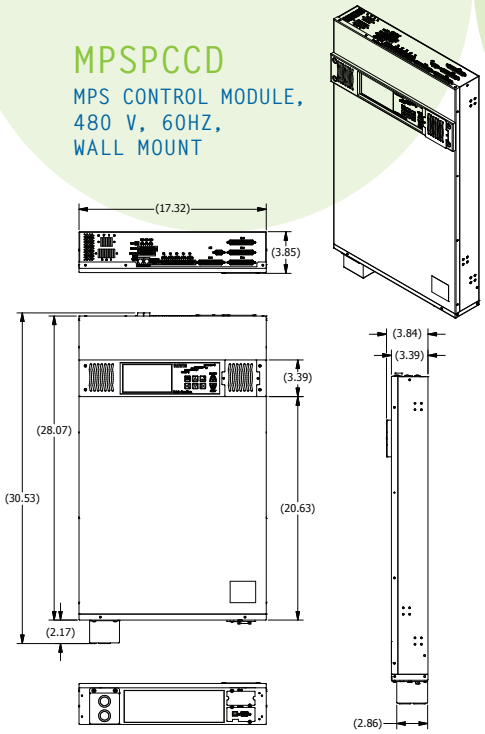
MPS ASSY, 4 POWER MODULE,
480 V, 60HZ, WALL MOUNT

SPECIFICATIONS

Operating Temperature	0 to 40°C
Input Voltage	480VAC
Input Frequency	60Hz
Phases/Wires	3 phase/3 wire
Harmonic Correction	2nd to 51st order
Power Factor Correction	0.7 lagging to 0.7 leading
CTs	3 required per system

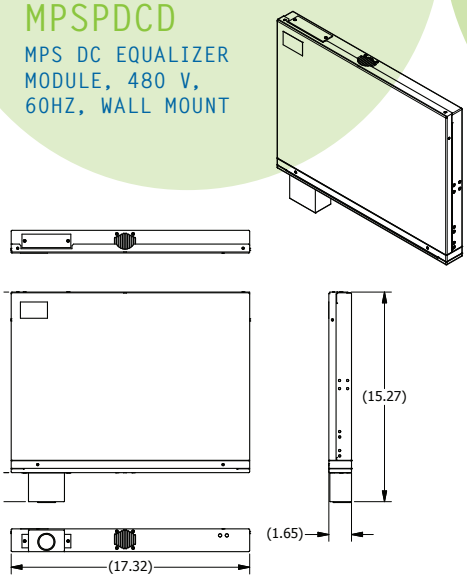
MPSPCCD

MPS CONTROL MODULE, 480 V, 60HZ, WALL MOUNT



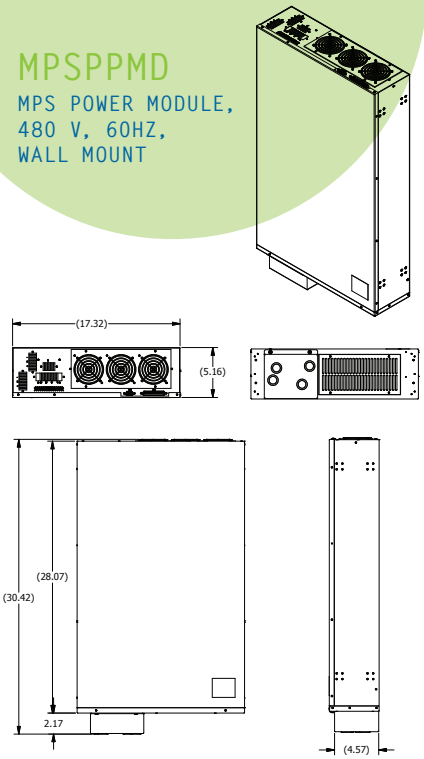
MPSPDCD

MPS DC EQUALIZER MODULE, 480 V, 60HZ, WALL MOUNT



MPSPPMD

MPS POWER MODULE, 480 V, 60HZ, WALL MOUNT

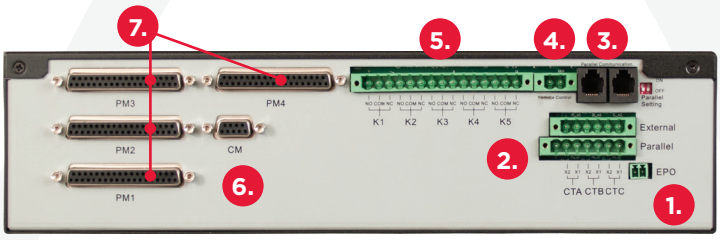


DIMENSIONAL DRAWINGS

SELECTION TABLE

Part Number	Description
MPSPCCD	PureSine Control Module LCD, 480V, Wall Mount
MPSPPMD	PureSine Power Module 35A/480VAC, Wall Mount
MPSPDCD	PureSine DC Bus Equalizer, 480V, Wall Mount
MPSCT500	PureSine CT 500/1A, Closed, 5VA
MPSCT1000	PureSine CT 1000/1A, Closed, 10VA
MPSCT2000	PureSine CT 2000/1A, Closed, 20VA

Part Number	Description
MPSCTBD	PureSine 5A/1A Auxiliary CT Board
MPSCOMM2	PureSine Comm. Interface-2, RS485+RS422 Port
MPSCOMM3	PureSine Comm. Interface-3, Ethernet (RJ45) Port
MPSSOFT	PureSine SineSync Monitoring Software
MPSWMK	PureSine Wall Mount Kit



PHYSICAL CONNECTIONS

1. Emergency Power Off (EPO)
2. CT Connectors
3. Parallel Communication Ports
4. Input Dry Contact
5. Output Dry Contacts
6. Control Signal Cable 1 Connector
7. Control Signal Cable 2 Connectors

Response Time	<20 msec
Power Modules per Control Module	4
Control Modules per System	8
Correcting Current 480VAC	35 to 960A
User Interface	LCD
Dry Contacts	5 out, 1 in, 1 EPO
Standard Communication	RS232/USB

Optional Communication	RS485/RS422 or Ethernet
Programmable	User Interface or Communication Software
Max Heat - per Power Module	650W
Max Heat - per Control Module	50W
Form Factor	Wall mount
Agency	EN60146, UL 508, cUL