MEIDEN
Quality connecting the next

MEIDACS II

Data acquisition and control system
For dynamometer systems

A new standard in innovation and functionality

A flexible, user-focused approach to model based development

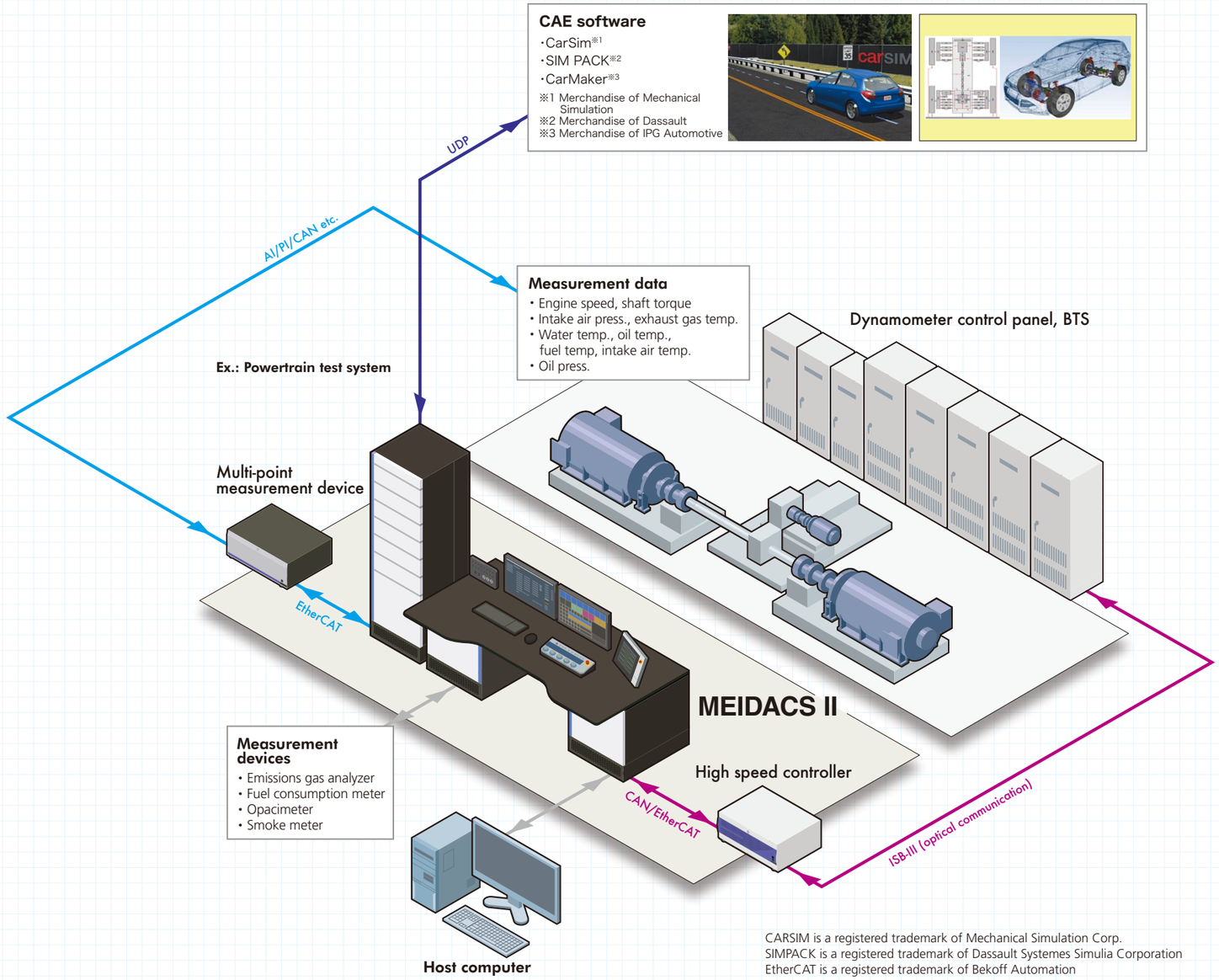
DYNAMOMETER SYSTEM

MEIDACS II

reddot award 2018
winner

GOOD DESIGN AWARD winner

The MEIDACS II operation, control and
data acquisition system (DAC system) was designed to
guarantee the user a spacious and ergonomic work environment.
With a user-focused design at heart,
MEIDACS II achieves broad advances in functionality and usability.



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Seamless support for model based development

Flexibly integrates 1D-3D models, improving development efficiency

Supports testing under WLTP standards

Compliance with WLTP standards

Docking window screen format

Increased user friendliness with connectable and detachable utility screens

Design with users at heart

Designed with a focus on all people using the system,
from test engineers to maintenance personnel

Maintenance ergonomics

Removal of wasted space with front access maintenance feature

All 3-types of panel allows "Front access maintenance"

Warmup monitor window

Operation monitor window

User-oriented monitoring screen

Auto-run schedule settings screen

Measurement value monitor + trend display screen

Auto-run monitor screen

Applications

- Engine test benches
- EV dynamometer systems
- Chassis dynamometers
- Transient test systems
- Powertrain test systems

Basic specifications

Basics	Docking windows	Connectable and detachable utility windows
	All-purpose control panel	Fault-based stop functions, historical data displays, wide range of optional functions
	Layout editing	Save and recall up to 25 customized window layouts
	Work at a glance	Record and store work flow layouts and functions, manage work flows as files
Actions	Bundled test condition settings	Configure control units by registering each parameter file in one bundle of test conditions
	Equipment configuration change	Change system equipment configuration (example - transmission type selection) Maximum number of equipment configurations: 50
	Vehicle characteristics data	Set vehicle specifications data (including running resistance settings and solenoid valve settings)
	Specimen characteristics data	Set specimen specifications data (including CAN communication settings of specimen)
	Test condition and data recording	Save test conditions and measurement data as test records.Start new recording, stop recording, re-start recording, file format conversion (CSV, MEID, MAT, ATFX, MDF4), delete files Maximum number of lines: 10,000
Display	Information display	Equipment configuration, auxiliary devices, dynamometers, alarm exceptions, setting parameter file names display
	Monitor display	General-purpose monitor parts : Analog meters, digital meters, bar graphs, indicator lamps, labels Independent monitor : Numbers-at-a-glance display, Trend graph, Road load monitor Monitoring window maximum number : General-purpose monitors: 10 Numbers-at-a-glance displays: 3 Trend graphs: 3 Road load monitor: 1
Measurement	Simple continuous measurement function	Measure items by simple operation Sampling cycle: 1 ms~10s Maximum number of items: 200 (depends on sampling cycle) Measurement results output format: CSV file
	Continuous measurement function	Sampling cycle: 1ms ~ 10s Maximum number of items: 200 (depending on sampling cycle) Measurement value trigger function, measurement time trigger function, pre trigger measurement function, post trigger measurement function Measurement results output format: CSV, MEID, MAT, ATFX, MDF4
	Time period Measurement	Average value, maximum value, incremental difference, of the period Sampling cycle: 100ms, maximum number of items: 250 Measurement time: 1s-1000s, maximum number of repetitions: 5 Repetition function, trigger monitoring function, trend graph, values at a glance
	Measurement during faults	Pre-measurement and post measurement function of fault occurred moment Pre-trigger measurement function, post trigger measurement function Sampling cycle: 1 ms-10s Maximum number of items: 200 (depends on sampling cycle)
Operatio	Scheduler setting	PATTERN, test cycle, editing A MODE consists from STEPs, max.200,000 of STEPs. A PATTERN consists from MODEs and STEPs, max. 2 billion of total STEPs. MODE combination can be built with ( ) and x commands (multiple nests available) Start-MODE, Exception-MODE, Retry-MODE can be built at will Command output with slope (motoring, absorbing, absorbing differential, others) STEP forward conditions, STEP forwarding prohibitive conditions STEP monitoring, continuous measurement conditions, time period measurement conditions Error check, foul judgments (for motoring AVR control)
	Scheduler operation	Start, pause, stop, and start from desired position Wide area map, pattern graph monitor, numerical monitor Information monitor, Time period measurement monitor Simultaneous graphing of measurement data on test PATTERN graph; expand/shrink PATTERN graph Foul judgment monitor, foul time, running distance display (foul criteria shall be set)
Monitoring	Upper and lower limit monitoring	Up to 100 items (including calculated items) Alarm output: Up to 7 types (standard: braking stop, free-run stop, warning) Alarm exemptions (ABC), AND monitoring, delay timer monitoring cycle: 10ms
	Equipment breakdown monitoring	Equipment breakdown monitoring – up to 255 items Equipment breakdown message instant display, guidance display in log display
	Correlation monitoring	Set monitoring levels for measurement data on X- and, Y-axle Maximum: 10 points Monitoring range: Above/below X axle, above below Y axle, alarm output: up to 7 types
	Malfunction messages	Instant malfunction notification Upper/lower limit display, breakdown message displays
	History display	Upper/lower limit excess, equipment breakdown, correlation monitoring fault, operation/data communication log management Display content: date and time of occurrence, breakdown type, abnormal value, breakdown message, area of occurrence, check points
System maintenance and security	Security settings	Security level-based function limitations
	Process data settings	Add additional measurement items, add filters (running average, LPF) Object items: System defined measurement items, devices (AD, DA, PI, DeviceNet etc.), calculation items
	Measurement symbol changes	Measurement item names, ratings, and units can be changed
	Measurement item DA output	Output measurement items value to DA board channels
	DA output filter	PF processing for DA output items
Others	Remote measurement	Remote measurement unit (MDPII) (EtherCAT connection)
	Connection to external devices	Emission gas analyzers, smoke meters, power meters, fuel consumption meters, etc.

Accessories

5-Ch Setting module
MDOP-2100

Encoder type setting dial: 5 channels
Switches, basic functions
Emergency stop button, illuminated type
"iF DESIGN AWARD 2017" winner

Operation Box
MDOP-2101

Touch panel: 12.1 inch
Key switch to lock out from operation
Emergency stop button, illuminated type

BNC BOX
MDOP-2102

BNC connectors: 16 channels
AC outlet for measurement device power source AC100V, 3A
USB Connects of MEIDACS II PC

MEIDEN

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Specifications in this catalog are subject to change without notice.

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