

Overview

The Rapid DECS Delivery Program consists of standard pre-engineered designs for the DECS-250, DECS-250E, DECS-250N and DECS-450 excitation systems. The result is an industry-best lead time for the delivery of excitation systems.



Benefits

- Pre-Engineered Designs - The designs for the excitation systems are already completed and this allows for faster system delivery
- Pre-Packaged Hardware - Fast delivery time reduces generator system downtime as well as lost revenue due to excitation system issues
- No Drawing Approvals Required - Eliminates the need for you to analyze and approve excitation system designs
- Basler's Experience - 77 years of knowledge with generator application and design
- Large Product Offering - From 4-amp voltage regulation systems to 1000-amp exciter systems with dual control channels
- Inventory of Components and Subassemblies - Basler maintains a stock of the components needed to support the expedited delivery program
- Proven Product Reliability
- Redundant Controller Active LED Indication (dual controller systems)
- Controller Transfer Switch (dual controller systems)
- Overexcitation Protection LED Indication (DECS-250E and DECS-450 systems)
- Cubicle Accessories:
 - Lockable doors
 - Interior lighting
 - Convenience outlet
 - Strip Heater with thermostat control
 - Grounding bus bar
 - Terminal blocks that accept fork or ring tongue lugs with 20% extra terminals

Application

These systems are perfectly featured for all types of synchronous generator applications. From prime power at IOU's to industrial applications that require ultra high reliability, these systems have been preconfigured for what is needed. They include the latest advancements in excitation design and come to you from the true experts in the world of generator control.

Standard Features and Functions

There are four basic system designs with multiple current outputs and options for each:

- SGC-250 Synchronous Generator Controller using our DECS-250 Digital Excitation Controller
- SGC-250N Synchronous Generator Controller using our DECS-250N Digital Excitation Controller
- DECS-250E Digital Excitation Control System
- DECS-450 Digital Excitation Control System

Standard Features:

- Power System Stabilizer Enabled (DECS-250N and DECS-450 systems)
- Installed wired and tested in a NEMA 1 Enclosure by Basler Electric
- 125 Vdc or 120 Vac Control Power
- Mounted and wired Ethernet Switch
- ES-74 Overexcitation Protection
- Field Flashing
- Shaft Voltage Suppressor (DECS-250E and DECS-450 systems)
- Cubicle Door mounted:
 - IDP-1201 HMI

DECS-450 Systems

In addition to the above standard features, DECS-450-based systems also include:

- Door mounted:
 - LED Indicators for Common Alarm and Excitation Fault
 - Alarm reset switch
 - PT and CT Test Switches
 - BE1-64F Field Ground Detection
- IFM-150 Firing Modules
- DECS-450 Field Isolation Transducer (two FIT units for dual DECS-450 systems)
- Extra Shunt for remote metering (DECS-450 and DECS-250E systems)
- Exciter Bridge 270 Adc (single bridge only)
 - 125, 250 maximum continuous output voltage ratings
 - Available in two nominal output current ranges:
 - 75 to 150 Adc, 151 to 270 Adc
- Exciter Bridge 1000 Adc (single bridge only)
 - 125, 250, 375 Vdc maximum continuous output voltage ratings
 - Available in two nominal output current ranges:
 - 300 to 600 Adc, 601 to 1000 Adc
- 50/60 Hz Shunt or Station Powered Applications

Documentation

No drawing approval cycle is required. These are standard off the shelf devices. To support this, standard drawing packages are available for all systems noted in this bulletin. The drawing package will include Interconnection Diagrams, Outline drawings, Instruction Manuals, and BESTCOMSP^{Plus}® Software.

Table 1. System Part Numbers

Model Description	System Part Number	Nominal Output Voltage	Nominal Continuous Output Current	Single / Dual Control Channel	PSS Enabled	Cabinet Assembly
DECS-250 4A	9596000101	x	4A	Single	No	36"x36"x90"
DECS-250 8A	9596000102	x	8A	Single	No	36"x36"x90"
DECS-250 15A	9596000103	x	15A	Single	No	36"x36"x90"
DECS-250 4A	9596000104	x	4A	Dual	No	36"x36"x90"
DECS-250 8A	9596000105	x	8A	Dual	No	36"x36"x90"
DECS-250 15A	9596000106	x	15A	Dual	No	36"x36"x90"
DECS-250N 4A	9596200101	x	4A	Single	x	36"x36"x90"
DECS-250N 8A	9596200102	x	8A	Single	x	36"x36"x90"
DECS-250N 20A	9596200103	x	20A	Single	x	36"x36"x90"
DECS-250N 4A	9596200104	x	4A	Dual	x	36"x36"x90"
DECS-250N 8A	9596200105	x	8A	Dual	x	36"x36"x90"
DECS-250N 20A	9596200106	x	20A	Dual	x	36"x36"x90"
DECS-250E 50A	9596100101	x	50A	Single	None	36"x36"x90"
DECS-250E 100A	9596100102	x	100A	Single	None	36"x36"x90"
DECS-250E 200A	9596100103	x	200A	Single	None	36"x36"x90"
DECS-450-150A	9610400101	125	150A	Single	x	36"x36"x90"
DECS-450-270A	9610400102	125	270A	Single	x	36"x36"x90"
DECS-450-150A	9610400103	250	150A	Single	x	36"x36"x90"
DECS-450-270A	9610400104	250	270A	Single	x	36"x36"x90"
DECS-450-150A	9610400105	125	150A	Dual	x	36"x36"x90"
DECS-450-270A	9610400106	125	270A	Dual	x	36"x36"x90"
DECS-450-150A	9610400107	250	150A	Dual	x	36"x36"x90"
DECS-450-270A	9610400108	250	270A	Dual	x	36"x36"x90"
DECS-450-600A	9610500101	125	600A	Single	x	72"x36"x90"
DECS-450-1000A	9610500102	125	1000A	Single	x	72"x36"x90"
DECS-450-600A	9610500103	250	600A	Single	x	72"x36"x90"
DECS-450-1000A	9610500104	250	1000A	Single	x	72"x36"x90"
DECS-450-600A	9610500105	375	600A	Single	x	72"x36"x90"
DECS-450-1000A	9610500106	375	1000A	Single	x	72"x36"x90"
DECS-450-600A	9610500107	125	600A	Dual	x	72"x36"x90"
DECS-450-1000A	9610500108	125	1000A	Dual	x	72"x36"x90"
DECS-450-600A	9610500109	250	600A	Dual	x	72"x36"x90"
DECS-450-1000A	9610500110	250	1000A	Dual	x	72"x36"x90"
DECS-450-600A	9610500111	375	600A	Dual	x	72"x36"x90"
DECS-450-1000A	9610500112	375	1000A	Dual	x	72"x36"x90"

Notes:

1. The items highlighted in green above are available with 10-week lead times. The other systems noted above are available in 12 weeks. Contact Basler for special delivery needs.
2. Lead times are based on the standard part numbers and configurations as noted above. Any alterations to the system design will impact lead time.
3. Lead times are dependent on the availability of materials and factory load at the time of order. While lead times noted above are typical, large quantity orders can affect lead times. Please contact Basler to confirm lead times.
4. DECS-250, DECS-250N and DECS-250E nominal output voltages are not specified and are available in multiple ranges from 32 to 250 Vdc based on the power input voltage level.

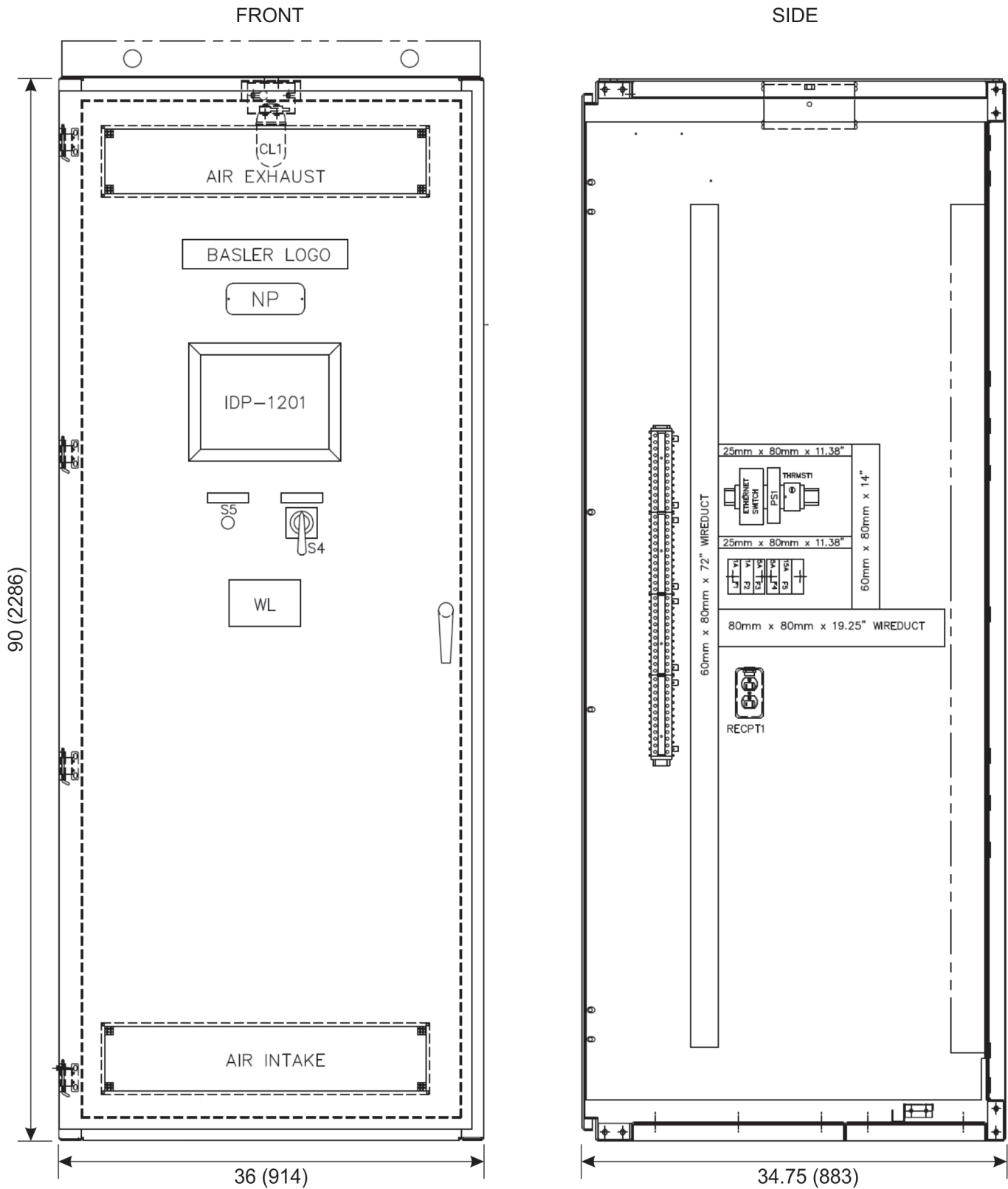


Figure 1. Outline diagram for DECS-250, DECS-250N, DECS-250E and DECS-450 (150 A or 270 A) systems (Dimensions shown in inches with millimeters in parentheses.)

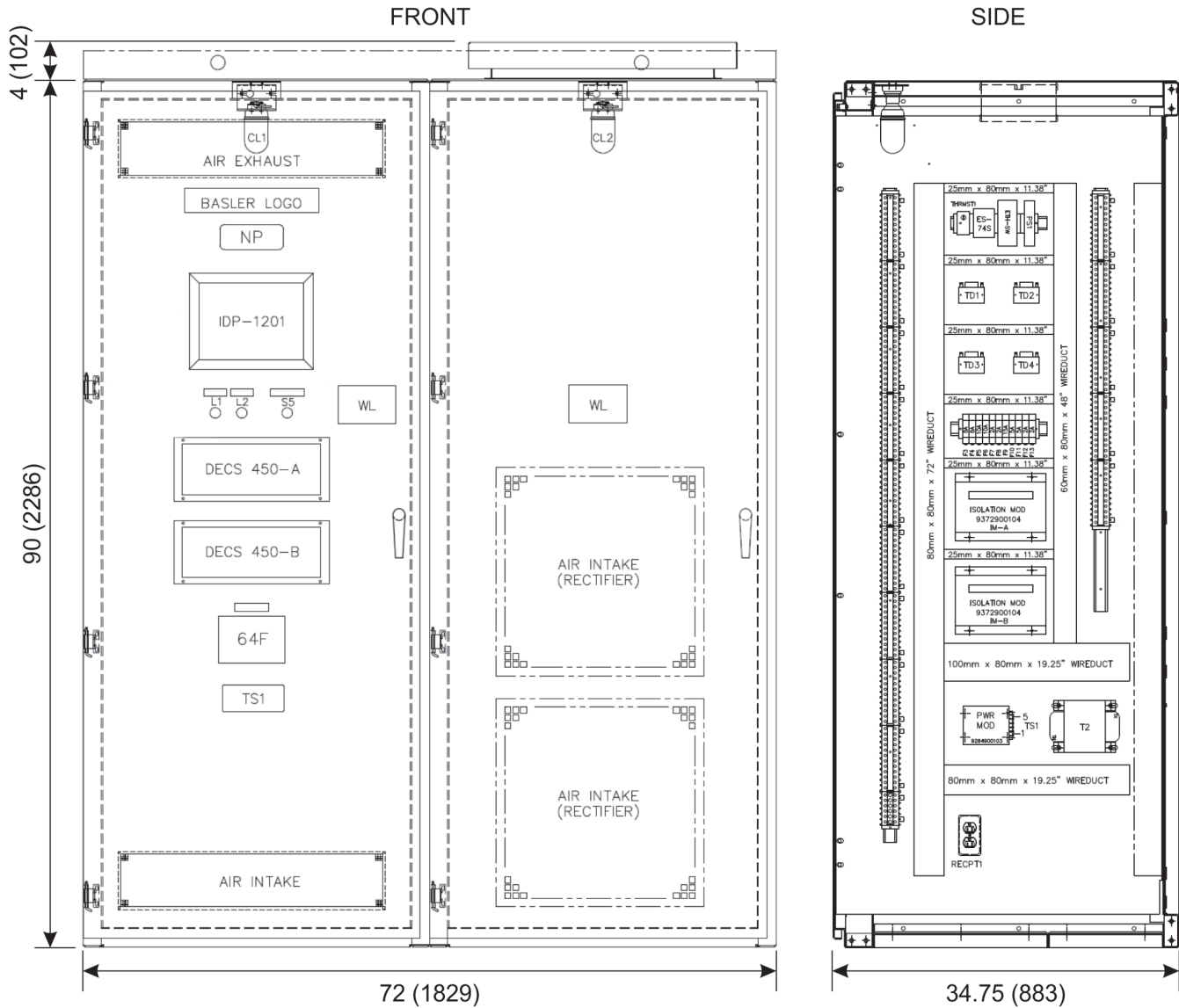


Figure 2. Outline diagram for DECS-450 (600 A or 1000 A) systems (Dimensions shown in inches with millimeters in parentheses).