

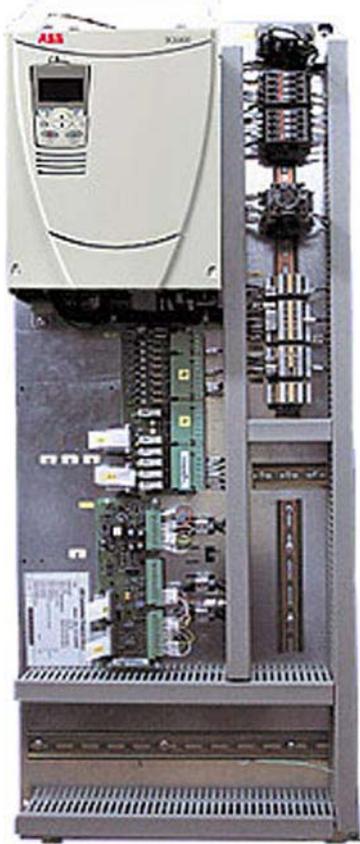
ABB DC Drives

TYRAK8 Rebuild Kit

Cost effective Revamp Solution
for ASEA TYRAK8 Drives 650...3000A
based on DCS800-R



ABB



What you get:

The ABB TYRAK8 Rebuild Kit is an optimized solution for revamping old ASEA TYRAK8 DC-Drive from 650...3000 A.

It is based on the generic DCS800-R Rebuild Kit, which incorporates ABB's state-of-the-art DCS800 digital control technology.

The ABB TYRAK8 Rebuild Kit is a pre-mounted panel solution, which includes all necessary components.

The Panel is designed to be easily mounted onto TYRAK8 cabinet door, using the existing mounting clamps.

How it works:

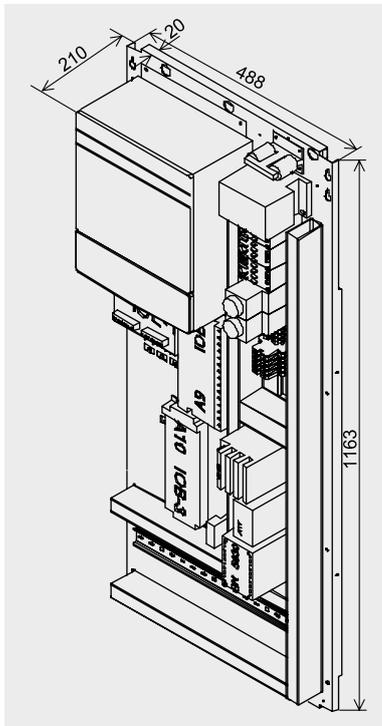
The cabinets, cabling and most power installations, like thyristors, main contactor, etc. are kept while the old analogue electronic and control circuits are replaced by a digital control unit.

User benefits

- Cost-Saving by reusing long-life components, like thyristors, contactors and other power parts.
- Digital technology with up-to-date communication interfaces and control performance offers increased process availability, quality and productivity.
- System shut down time can be squeezed to a minimum.
- Pre-engineered standard solution requires only a minimum of engineering time.
- Pre-mounted components with ready-to-connect 4m long cables offer reduced installation time.

Reliability and Competence

ABB's authorized rebuilding staff (e.g. ABB service or drives partner) will ensure that the implemented DCS800 software functionality will fit your application even if your TYRAK8 was equipped with additional control PCB's and/or a special On/Off Sequence.



The TYRAK8 Revamp Approach

The TYRAK8 Series covers the power range from 40...3000 Amps in cabinets with an AC supply voltage from 380 up to 660 V. From 40A...400A there have been also modules. In this Current range the cabinets contain modules, from 650...3000A the power stacks consists of discrete thyristors.

The TYRAK8 Rebuild Kit is only suitable for TYRAK8 from 650...3000A. For smaller currents the TYRAK8 module should be replaced by a DCS800 converter module (depending on the application).

TYRAK 8 Type		Rated AC Voltage V	Rated Armature Current Amps	Cabinet Width mm	Revamp Approach	
Module 2Q / 4Q	Cabinet 2Q / 4Q				Replace TYRAK8 Module by new DCS module	TYRAK8 Rebuild Kit Tailor Made
YGMK / YHMK	YGML / YHML	220-500	40	600		
YGMK / YHMK	YGML / YHML	220-500	90	600		
YGMK / YHMK	YGML / YHML	220-500	140	600		
YGMK / YHMK	YGML / YHML	220-500	230	600		
n.a.	YGML / YHML	575-660	650	720+720	}	
n.a.	YGML / YHML	380-500	800	720+720		
n.a.	YGML / YHML	575-660	1250	720+720		
n.a.	YGML / YHML	380-500	1400	720+720		
n.a.	YGML / YHML	575-660	1600	720+1496 *)		
n.a.	YGML / YHML	380-500	1800	720+1496 *)		
n.a.	YGML / YHML	575-660	2500	720+1496 *)		
n.a.	YGML / YHML	380-500	3000	720+1496 *)		

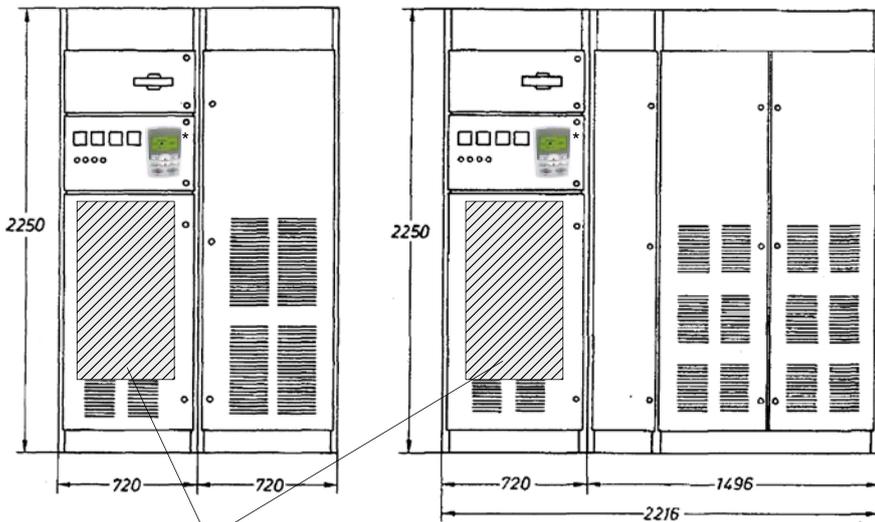
*) for Circuit Braker ALG 2000A an additional 720 mm cabinet is used

How to mount the TYRAK8 Rebuild Kit

The TYRAK8 consists of two cabinets (650...1400A) or three cabinets* (1600...3000A). They all have the same incoming unit in common with the same type of cabinet door.

The TYRAK8 Rebuild Kit is mounted onto the inner side of the door. The cabinet does not have to be empty, the Kit is very flat. Depth is only approx. 210 mm!

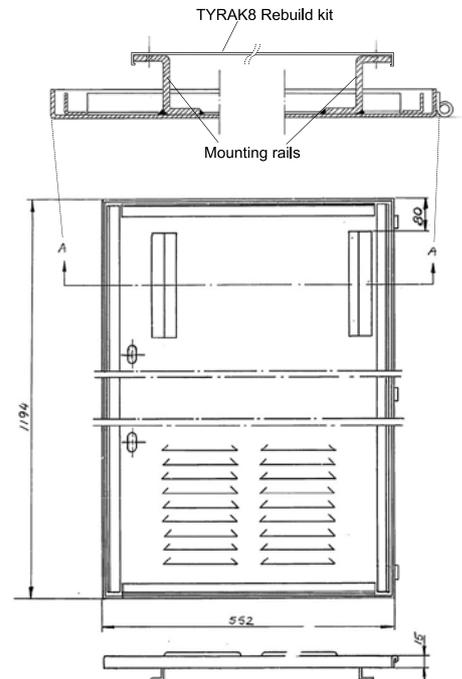
The TYRAK8 cabinet door is as a standard equipped with a pair of mounting clamps for fixing option boards etc. After removing these options -if any- the TYRAK8 is mounted on these mounting rails. As their dimensions are standard, the TYRAK8 Rebuild Kit is pre-configured with all necessary fixing devices.



Position of TYRAK8 Rebuild kit mounted onto the door inside the cabinet

* optional Door Mounting Kit facilitates easy installation on the TYRAK8 door

Position of TYRAK8 Rebuild Kit



TYRAK8 cabinet door with mounting rails

Scope of delivery

There are two different types:

1. DCS800-R0x 9601 Standard
2. DCS800-R0x 9602 (Pulp & Paper Version with Safety Relay)

All essential components are in the standard scope of delivery. Besides, every TYRAK8 Rebuild Kit may be ordered with a various range of options:



Typical scope of delivery

DCS800-R0x 9601 (Std)
DCS800-R0x 9602 (P&P)

Standard Scope of Delivery

	Remarks		
Baseplate	for TYRAK8 door	X	X
DCS800-R Rebuild module		X	X
DCS800 control panel DCS800 CP		X	X
Digital I/O-board IOB-23		X	X
Fan contactor K8		X	X
EStop Time Relay K15		X	X
Safety Relais A04			X
Aux. Transformer T2 incl. 3 pc. MCB (H19.12 + H19.13-14)	loose delivery T2: 1400VA, HxWxD (mm): 150x125x228(incl Terminals) H19.12+13-14: HxWxD (mm):85x70x70. Mounted on a 100mm Mounting Rail	X	X
Firing Pulse board PIN-48 (1 for 2Q, 2 for 4Q)	loose delivery	X	X
Measuring board PIN-51	loose delivery	X	X
2 pc cable W0205 + W0206, each 7x1mm ² , 4m	loose delivery, free of use	X	X
Coated boards	as standard	X	X
Single Wires are tinned	as standard	X	X
Cable Marking "A2 plus"	as standard	X	X

Options (price see pricelist)

	Remarks		
Local I/O Control Latching function	incl. K11+K12	•	•
I/O-Board IOB3 coated (isolated encoder interface)	incl. AI1 and AO1+2 Cable (W0200)	•	•
AI2-4 Cable (W0203)	only if IOB3 is selected	•	•
RDIO (3xDI + 2xDO) extension	incl. DI9-12 Cable (W0203)	•	•
DI13-15 + AI5-6 Cable (W0204)	only if RDIO or RAIQ is selected	•	•
RAIQ (2xAI + 2xAO) extension	incl. DI9-12 Cable (W0203)	•	•
SDCS-COM-8 DDCS optical serial communication board		•	•
Field Exciter Board 16A SDCS-FEX4 (single-phase)	incl. K3 + L3 (mounted on baseplate) FEX4 is mounted inside DCR-module	•	•
Field Exciter 50A DCF503B, 1-Q DCF504B, 4-Q	incl. K3 (loose delivery) (HxWxD: 90*54*110mm) incl. L3 (inside DCF-Module) DCF-Module is delivered loose (HxWxD: 370x350x125mm)	•	•
Electrical Disconnect	incl. K16	•	•
Encoder Cable (W0202)		•	•
Tacho Cable (W0240) incl. PS5311	max. 300V	•	•
Loose Cable 4m, 9wire		•	•
Fieldbusadapter R-type		•	•
Control Panel CDP312	only together with SDCS-COM-8	•	•
Door Mounting Kit for Panel CDP312	loose delivery	•	•
Door Mounting Kit DCS800 CP	loose delivery	•	•

Environmental conditions see DCR800-R Manual doc no. 3ADW000197

X Standard
• Option



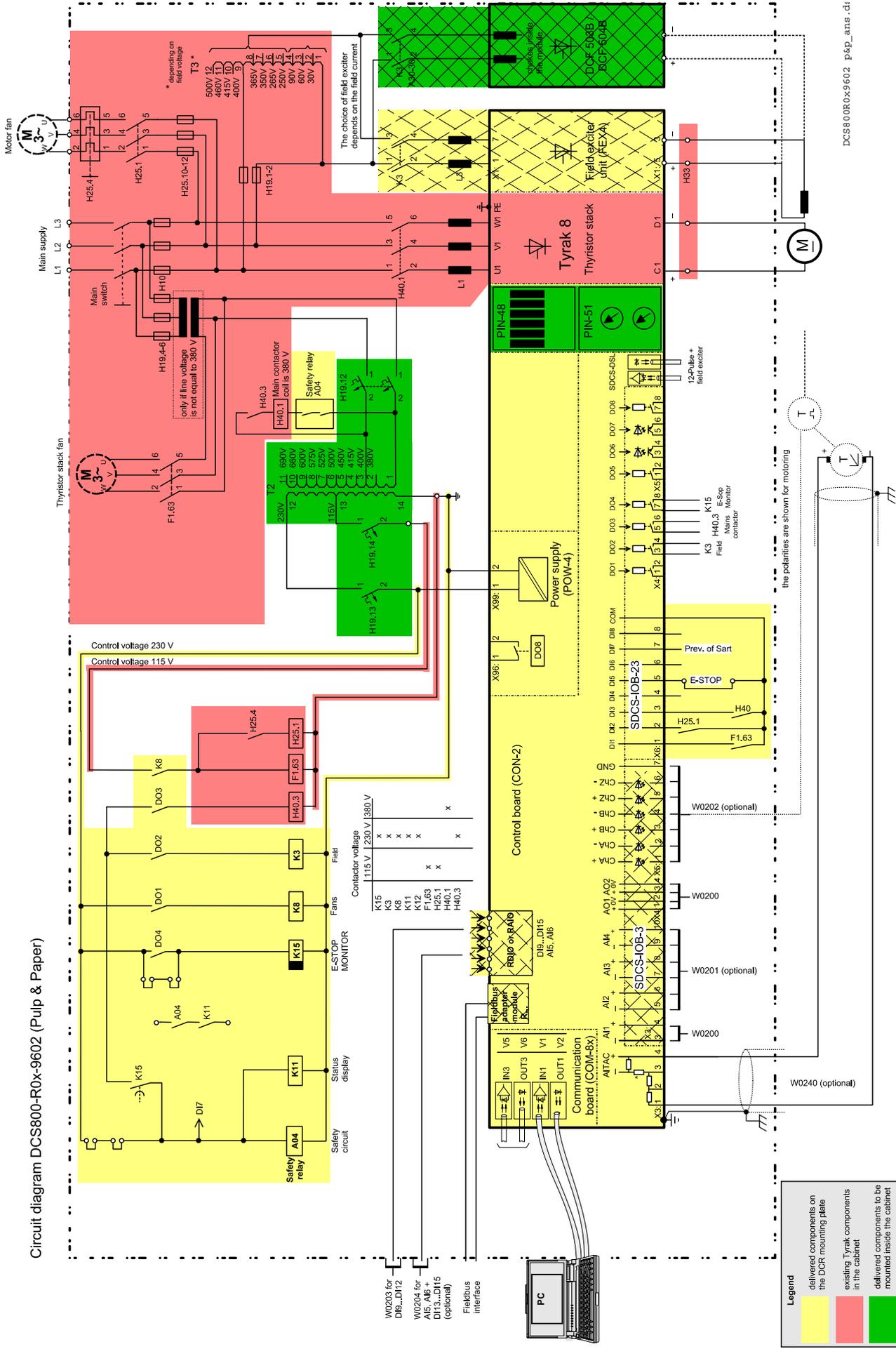
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Circuit diagram DCS800-R0x-9602 (Pulp & Paper)



DCS800R0x9602_p&p_ans.d1

Legend

- delivered components on the DCR mounting plate
- existing Tyrak components in the cabinet
- delivered components to be mounted inside the cabinet
- options
- cable W02xx

W0205 7x1mm² loose cables (length=4m) - free of use
W0206 7x1mm²

the palanities are shown for motoring

