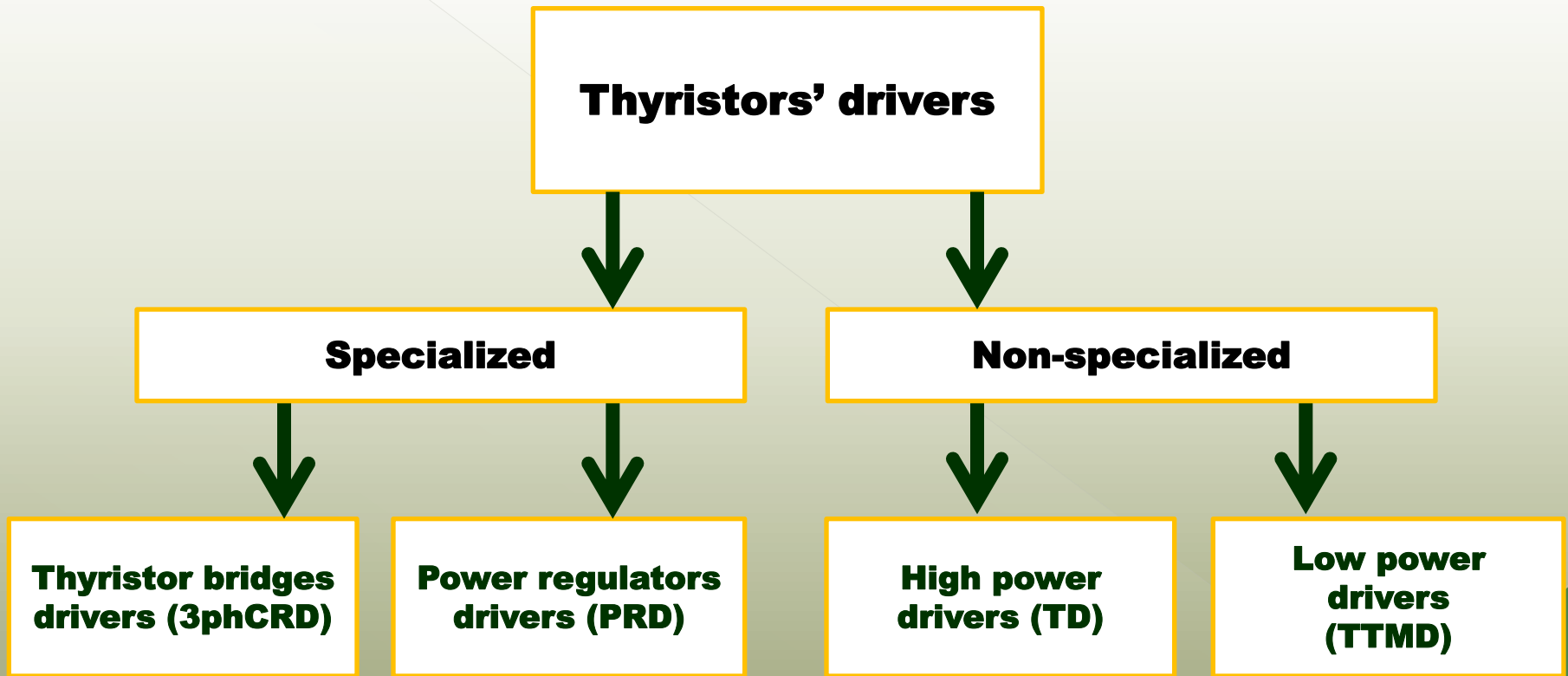


ELECTRUM



thyristors' drivers

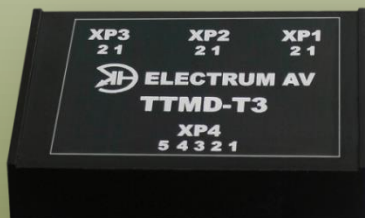




TD



TD6



TTMD-T3

NON-SPECIALIZED DRIVERS

ARE INTENDED TO CONVERT INPUT LOGIC SIGNAL INTO THYRISTOR CONTROL SIGNAL

TD – SINGLE-CHANNEL DRIVER

OUTPUT CURRENT – 1 A

THYRISTOR VOLTAGE – UP TO 6500 V

TTMD-T3 – THREE-CHANNEL DRIVER

OUTPUT CURRENT – 0.2 A

THYRISTOR VOLTAGE – UP TO 1700 V

TD6 – SIX-CHANNEL DRIVER

OUTPUT CURRENT – 0.2 A

THYRISTOR VOLTAGE – UP TO 1200 V

Thyristor driver selection algorithm

Control frequency, Hz	Quantity of controlled thyristors	Thyristor current, A		
		<160	<1000	<5000
<400 (250 for TD)	1	1 x TD-A	1 x TD-A	1 x TD-A
	2	1 x TTMD-T3	2 x TD-A	2 x TD-A
	3	1 x TTMD-T3	3 x TD-A	3 x TD-A
	6	1 x TTMD	1 x TD6	6 x TD-A
400...20000	1		1 x TD-C	
	2		2 x TD-C	
	3		3 x TD-C	
	6		6 x TD-C	

Control type selection algorithm

Wire control	FOCL control
TD-A, TD-C	TD-F
TD6-H	TD6-O
TTMD	-
TTMD-T3	-

Specialized drivers selection algorithm

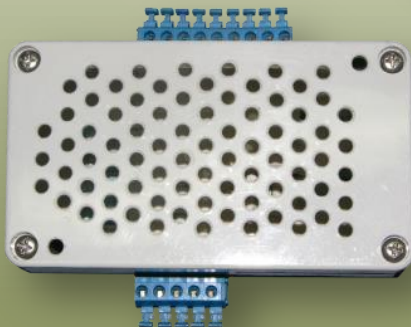
Assembly	Driver	Application	Features	Current protection
Controlled three-phase rectifier bridge	3phCRD	The drivers are intended to control three-phase thyristor-diode bridge, and together with it allows you to construct a three-phase controlled rectifier	Control by three thyristors in thyristor-diode bridge	No
	3phCRD-A		Direct thyristor control	No
	3phCRD-6-Din		Forming of logic control signals over wire line	Yes
	3phCRD-6.1-Din		Forming of logic control signals over FOCL	Yes
	3phCRD-6.2-Din			
Single-phase power regulator	PRD-FB	The driver is intended to operate as apart power regulator of active load and active-inductive one in AC circuits 220 V and 380 V with frequency 50 Hz.	There is feedback	Yes
Three-phase power regulator	3phPRD	The driver is intended to control three pairs of anti-parallel connected thyristors with opto-decoupling and together with them provides creation a three-phase power regulator		Yes



3phCRD



3phCRD-6-DIN



3phPRD, PRD-FB

SPECIALIZED DRIVERS

ARE INTENDED TO CONTROL TYPICAL THYRISTORS UNITS

3phCRD – DRIVER OF THREE THYRISTORS 3-ph RECTIFIER BRIDGE

3phCRD-6 – DRIVER OF FULL THYRISTOR 3-ph RECTIFIER BRIDGE

3phPRD – DRIVER OF THREE-PHASE THYRISTOR POWER REGULATOR

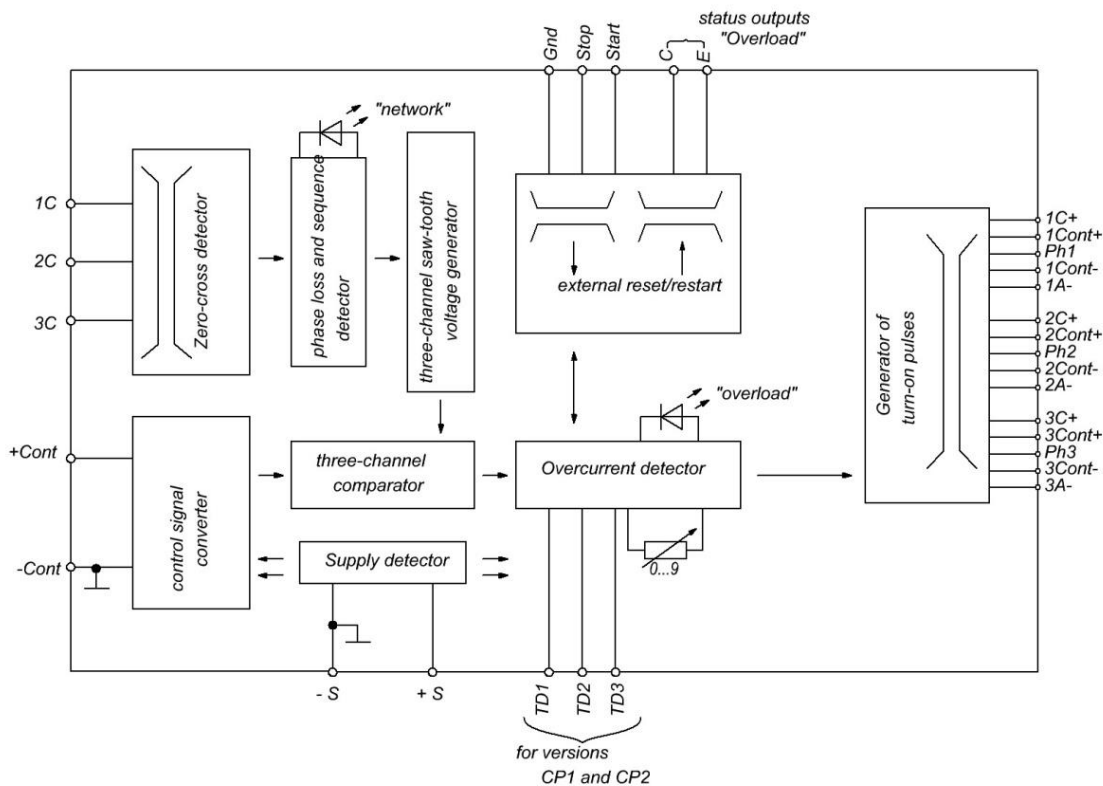
PRD-FB – DRIVER OF SINGLE-PHASE POWER REGULATOR WITH FEEDBACK

Control types of specialized drivers

Parameter	Unit	Control type									
		A1	A2	A3	A4	A5	C1	C2	C3	C4	C5
Control signal value corresponding to minimum value	V	5±0.5	10±1	-	-	-	0÷0.5	0÷1	-	-	-
	mA	-	-	20±2	5±0.5	20±2	-	-	4±0.4	0÷0.5	0÷2
Control signal value corresponding to maximum value	V	0÷0.5	0÷1	-	-	-	5±0.5	10±1	-	-	-
	mA	-	-	4±0.4	0÷0.5	0÷2	-	-	20±2	5±0.5	20±2

Basic functions of specialized drivers

- drivers can control thyristors with breakdown voltage up to 1600 V and current up to 250 A (except 3phCRD-6-Din – up to 1000 A);
- drivers have galvanic insulation of control circuits from power circuits with strength not less than 4000 V (DC) or 2500 V (AC);
- drivers provide regulated value change of phase method;
- drivers with current overload protection provide protection operation indication and possibility to regulate protection operation current;
- External or automatic reset of current overload mode.



The driver provides the following functions:

- control by power thyristors;
- change of power by phase method;
- smooth start at supplying power;
- protection against current overload;
- indication of current protection operation;
- external reset or automatic one of current overload mode.

The driver of three-phase thyristor rectifier 3phCRD-6-DIN is intended to control power thyristors or thyristors' drivers and allows you create three-phase regulated six-pulse rectifier for operation in three-phase AC circuits with frequency 50 Hz.

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