# **Electrum AV**

11.00

Drivers of IGBT and MOSFETs

www.electrum-av.com

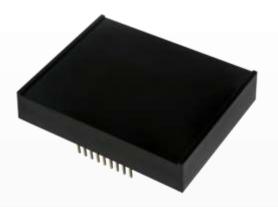


DRIVERS MODULES	3
DRIVERS FOR MOUNTING ON PCB	18
DRIVERS FOR REMOTE MOUNTING	31
DRIVERS FOR MOUNTING ON POWER MODULE	42
CONTACT DETAILS	53

### In the parameters tables:

h/b – dependent control by half-bridge (blocking of simultaneous switching on); i – independent control (allowed opening of both transistors) u – universal control (mode is chosen by consumer)

# **DRIVERS MODULES**











DM150A(B,C)

# Series «DM» Features Full-featured Dual-channel compact drivers

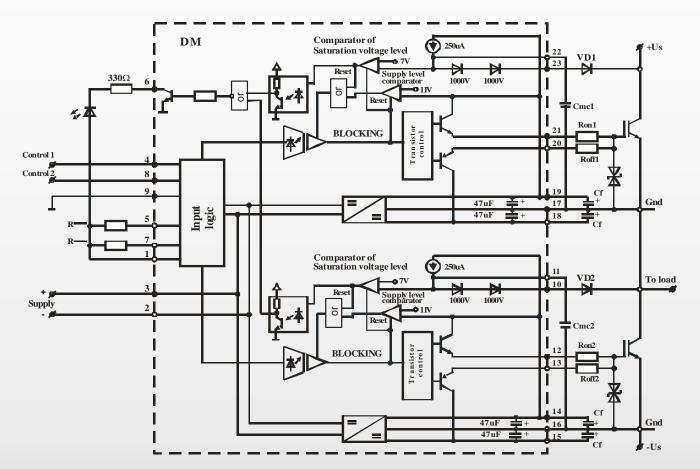
### **Application**

Dual-channel drivers of MOSFET and IGBTs are intended for galvanically-separated control by power transistors with field control with maximum permissible values of currents and voltages 600V/2000A, 1200V/1200A. The drivers have a built-in DC/DC-converter and are forming amplifiers of signals for control by transistors gates with frequency up to 100 kHz.

- Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation mode;
- Protective turn-off threshold regulation of saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" situation (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency";
- Emergency alarm;
- Blocking of simultaneous switching on of upper and lower arm for drivers with dependent control or absence of blocking for drivers with independent control;
- Delay for switching of upper and lower arm;
- Delay regulation for switching of upper and lower arm;
- Control of driver supply voltages on output DC-DC converter.

# Series «DM»

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DM180P-B	1	15	5(15)	4000	8	4	50	1700	+16/-6	
DM280P-B	2 h/b	15	5(15)	4000	8	2x4	50	1700	+16/-6	
2DM180P-B	2 i	15	5(15)	4000	8	2x4	50	1700	+16/-6	
DM2180P-B	2 h/b	15	5	4000	18	2x3	100	1700	+15/-10	
2DM1180P-B	2 i	15	5	4000	18	2x3	100	1700	+15/-10	



# DM2160P-B

### Features

Dual-channel compact driver with «open» logic and saturation protection overvoltage

### Application

Dual-channel driver of MOSFET and IGBTs is intended for galvanically-separated control by power transistor with field control with maximum permissible values of currents and voltages 600V/2000A, 1200V/1200A. The driver has a built-in DC/DC-converter and is forming amplifier of signals for control by transistor gate with frequency up to 50 kHz.

DELECTRUM AV

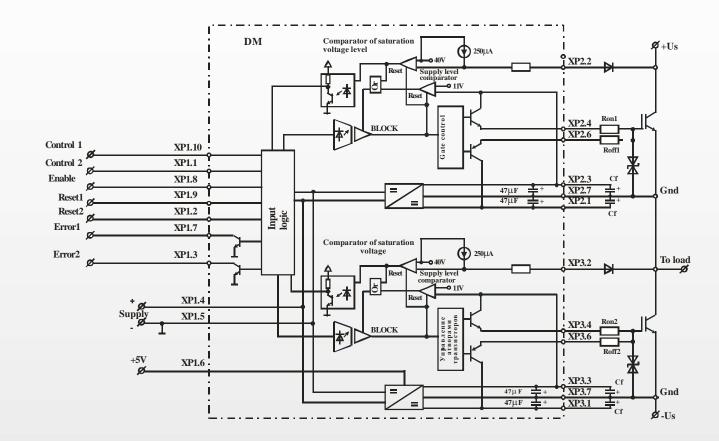
Ucont = 15

mm

- Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation mode;
- Protective trip threshold regulation on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an «emergency»;
- Emergency alarm;
- Voltages control of driver supply on output of DC-DC-converter.

# DM2160P-B

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DM2160P-B	2 u	15	5	4000	16	2x4	50	1700	+16/-6	U <sub>DES</sub> = 30 V



# DM1480P-B

### Features

Power single-channel compact driver

### **Application**

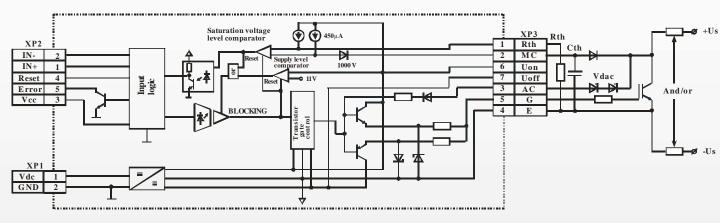
Single-channel driver of MOSFET and IGBTs is intended for galvanically-separated control by power transistor with field control with maximum permissible values of currents and voltages 1700 V / 3000 A. The driver has a built-in DC/DC-converter and is a forming amplifier of control signals of transistor gate with frequency up to 50 kHz.

mm

- -Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation mode;
- Protective trip threshold regulation on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an «emergency»;
- Emergency alarm;
- Voltages control of driver supply on output of DC-DC-converter.

# DM1480P-B

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DM1480P-B	1	15	5	4000	48	10	50	1700	+16/-6	



# DM130P-B

### Features

Single-channel compact driver of high voltage transistors, with saturation protection overvoltage

### **Application**

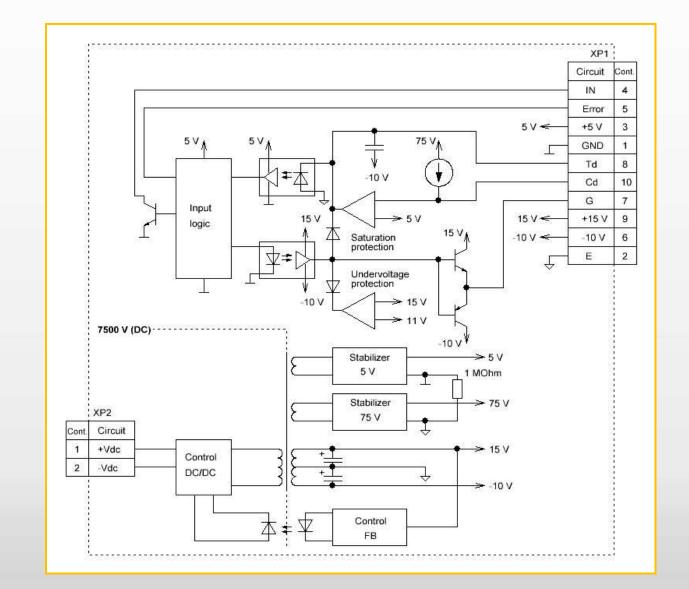
Single-channel driver of MOSFET and IGBTs is intended galvanically-separated control by power transistor with field control with maximum permissible voltage up to 3300V. The driver has a built-in DC/DC-converter and is a forming amplifier of control signals of transistor gate with frequency up to 50 kHz.

mm

- Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation mode;
- Protective trip threshold regulation on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an «emergency»;
- Emergency alarm;
- Voltages control of driver supply on output of DC-DC-converter.

# DM130P-B

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DM130P-B	1	15	5	7500	3	6	50	3300	+15/-10	U <sub>DES</sub> = 75 V



# DM280P-B3

### **Features**

Dual-channel compact driver based on microcontroller

### **Application**

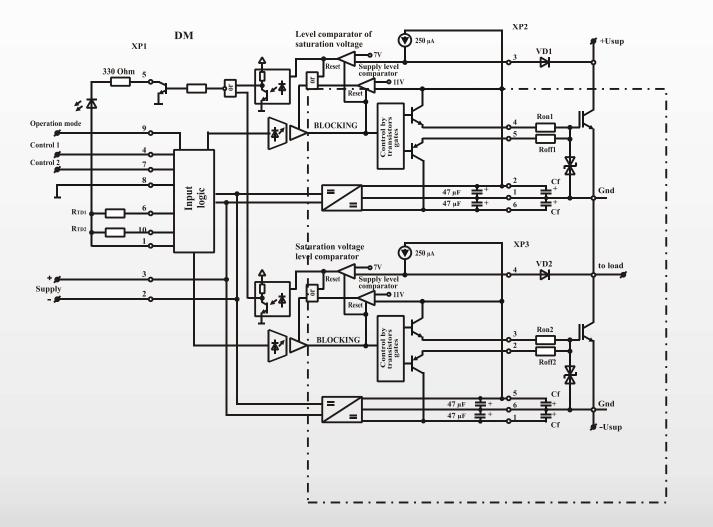
Dual-channel driver MOSFET and IGBTs with dependent control is intended for galvanicallyseparated control by two power transistors with field control with maximum permissible values of currents and voltages 600V/600A, 1200V/400A. The driver has a built-in DC/DC-converter and is a forming amplifier of control signals of transistors gates with frequency up to 50 kHz.

anne.

- Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation mode;
- Protective trip threshold regulation on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an «emergency»;
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Delay regulation for switching of upper and lower arm;
- Voltages control of driver supply on output of DC-DC-converter.

# DM280P-B3

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DM280P-B3	2 h/b	15	5	4000	8	2x4	50	1700	+16/-6	



# DM150A

### Features

Single-channel compact driver without built-in DC/DC-converter. **Analogue of driver M57962** 

### Application

Single-channel drivers of MOSFET and IGBTs of series DM150 are intended for galvanicallyseparated control by power transistor with field control with maximum permissible values currents and voltages 600V/400A, 1200V/200A, 1700V/200A. The driver is a forming amplifier of control signals of transistor gate with frequency up to 25 kHz.

The drivers are available in the following versions:

DM150A: analogue of microchip of driver M57962L.

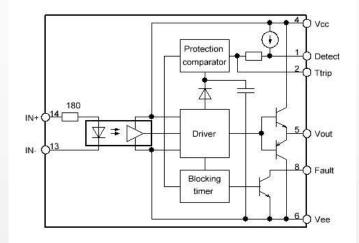
DM150B: analogue of microchip of driver M57962AL.

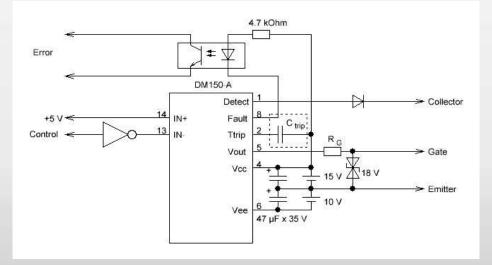
DM150C: analogue of microchip of driver **M57962K-01R**.

- Transistor control with voltage corresponding to agreed supply voltages;
- -Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation state;
- -Smooth driver junction from active state to inactive one when an "emergency" (output of controlled transistor from saturation mode);
- Control blocking at an "emergency";
- Emergency alarm;

# DM150A

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DM150-A -B -C	1	15/- 10	5 mA	4000	5	-	25	1700	-	Analogue M57962L M57962AL M57962K-01R







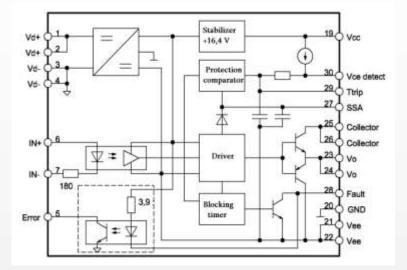
### **Application**

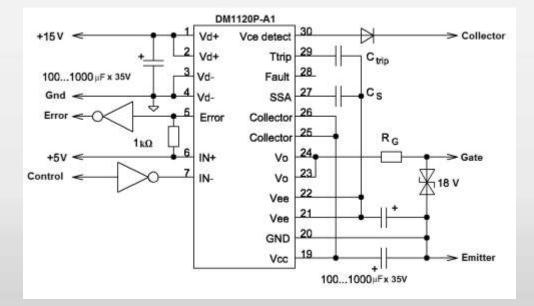
Single-channel driver of MOSFET and IGBTs is intended for galvanically separated control by power transistor with field control with maximum permissible values of currents and voltages 600V/600 A, 1200V/400A, 1700V/400A. The driver has a built-in DC/DC-converter and is a forming amplifier of signals for transistor gate control with frequency up to 25 kHz. The driver is an analogue of driver microchip **VLA500-01** by Mitsubishi.

- Transistor control according to control signals;
- Voltage saturation control on collector of controlled transistor, its protection trip when leaving saturation mode;
- Providing of smooth driver transition from active state to inactive one at an «emergency» situation (leaving saturation mode by controlled transistor);
- Control blocking in an «emergency»;
- Adjustment of non-saturation protection operation delay;
- Adjustment of duration of smooth emergency shutdown of controlled transistor;
- Emergency alarm;

# DM1120P-A(1)

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DM1120P-A	1	15	5 mA	4000	12	3	25	1700	-	Analogue of VLA500-01





# DRIVERS FOR MOUNTING ON PCB



### DR2180P-B1

DR2180P-B2

DR1480P-B1

DR280P-B3

DR280P-B4

DR6120P-A DR7120P-A





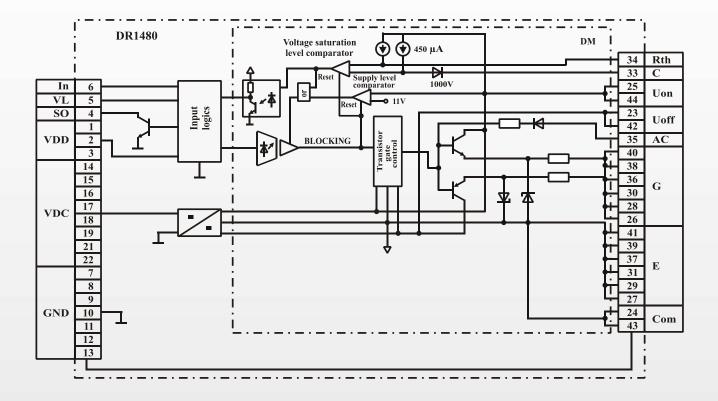
### Application

Single-channel driver of MOSFET and IGBTs is intended for galvanic separated control by power transistors with field control with maximum permissible voltage up to 1700 V. The driver has a built-in DC/DC-converter and is an forming amplifier of control signals of transistors gates with frequency up to 50 kHz.

- Saturation voltage control on controlled transistor collector, its protective shutdown when leaving saturation mode;
- Threshold regulation of protective trip on saturation voltage;
- Smooth driver transition from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Emergency alarm;
- Voltages control of driver supply on DC/DC-converter.

# DR1480P-B1

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DR1480P-B1	1	15	15	4000	48	10	50	1700	+16/-6	analogue of 1SD1548AI





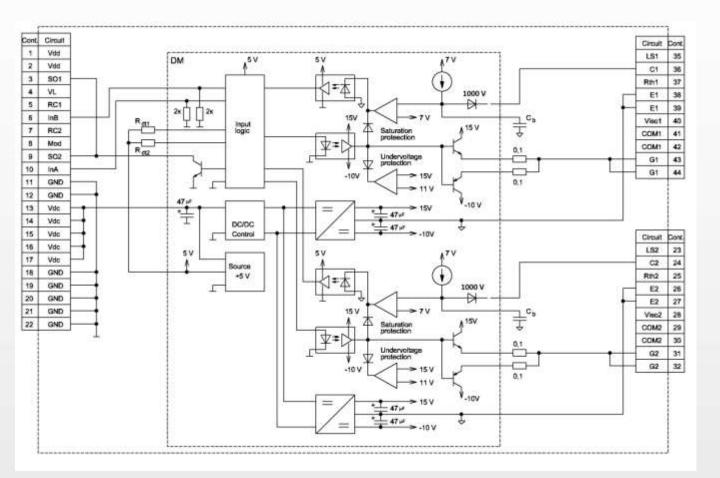
### Application

Dual-channel driver of MOSFET and IGBTs with dependent control is intended for galvanically separated control by two power transistors with field control with maximum permissible values of currents and voltages 600V/2000 A, 1200V/1200A. The driver has a built-in DC/DC-converter and is an forming amplifier of control signals of transistors gates with frequency up to 100 kHz.

- Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation state;
- Threshold regulation of protective shutdown on saturation voltage;
- Smooth driver transition from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at "Emergency";
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Delay for switching of upper and lower arm;
- Delay regulation for switching of upper and lower arm;
- Driver supply voltages control on DC/DC-converter output.

# DR2180P-B1

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DR2180P-B1	2 h/b	15	5	4000	18	2x3	100	1700	+15/-10	analogue of 1SD315AI





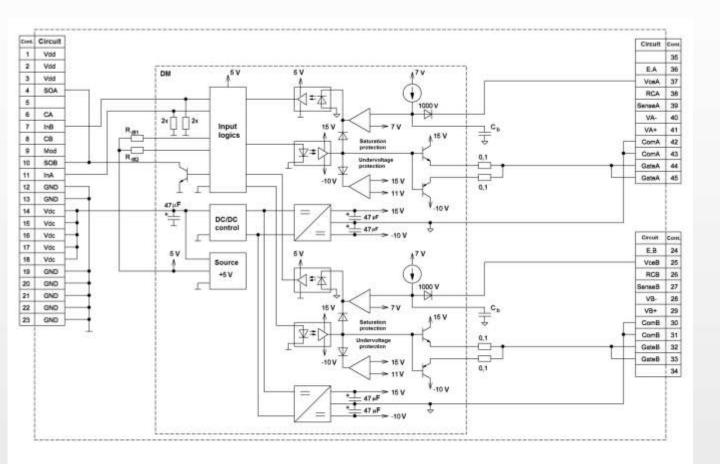
### Application

Dual-channel driver of MOSFET and IGBTs with dependent control is intended for dependent galvanically separated control by two power transistors with field control with maximum permissible values of currents and voltages 600V/2000A, 1700V/1000A. The driver has a built-in DC/DC-converter and is an forming amplifier of control signals of transistors gates with frequency up to 100 kHz.

- -Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation state;
- Threshold regulation of protective shutdown on saturation voltage;
- -Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "Emergency";
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Delay for switching of upper and lower arm;
- Delay regulation for switching of upper and lower arm;
- Driver supply voltages control on DC/DC-converter output.

# DR2180P-B2

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DR2180P-B2	2 h/b	15	5	7500	18	2x3	100	1700	+15/-10	analogue of 1SD300C





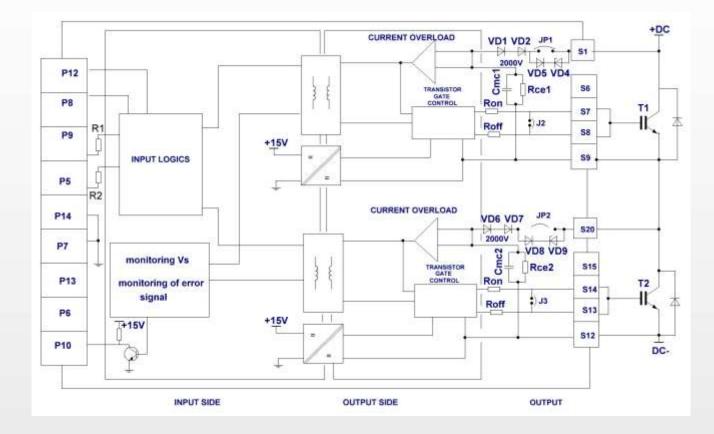
### Application

Dual-channel driver of MOSFET and IGBTs with dependent control is intended for galvanically separated control by two powerful transistors with field control with maximum permissible values of currents and voltages 600V/600A, 1200V/400A. The driver had a built-in DC/DC-converter and is an forming amplifier of control signals of transistors gates with frequency up to 50 kHz.

- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Threshold regulation of protective trip on saturation voltage;
- Smooth driver transition from active state to inactive one when an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency"
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Switching delay of upper and lower arm;
- Regulation of delay for switching of upper and lower arm;
- Driver supply voltages control on DC-DC converter output.

# DR280P-B3

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DR280P-B3	2 h/b	15	15	4000	8	2x4	50	1700	+16/-6	analogue of SKHI22A





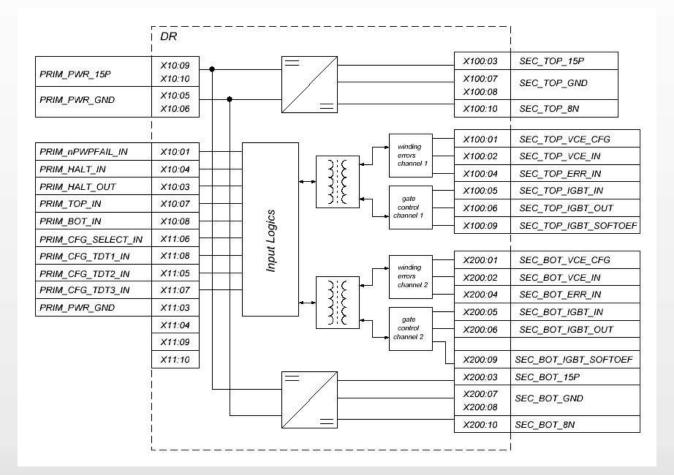
### Application

Dual-channel driver of MOSFET and IGBTs with universal (dependent or independent) control is intended for galvanically-separated control by two powerful transistors with field control with maximum permissible values of currents and voltages 600V/600A, 1200V/400A. The driver has a built-in DC/DC-converter and is a forming amplifier of control signals of transistors gates with frequency up to 50 kHz.

- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Regulation of protective trip threshold on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency"
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arms in «dependent» mode;
- Delay for switching of upper and lower arms;
- Regulation of delay for switching of upper and lower arms;
- Driver supply voltages control on DC-DC converter output.

## DR280P-B4

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DR280P-B4	2 u	15	15	4000	8	2x4	50	1700	+16/-6	analogue of Skyper32Pro



# <section-header><section-header><section-header><section-header>

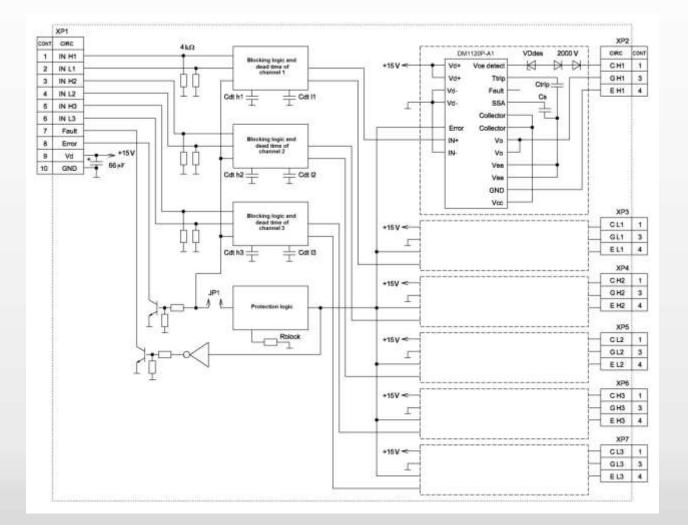
### Application

Six(seven)-channel driver of IGBT and MOSFETs with dependent control is intended for galvanically isolated control by six power transistors (three-phase inverter) with field control with maximum permissible values of currents and voltages 600V/600A, 1200V/400A. The driver has an inbuilt DC/DC-converters and is a forming amplifier of control signals of transistors gates with frequency up to 25 kHz.

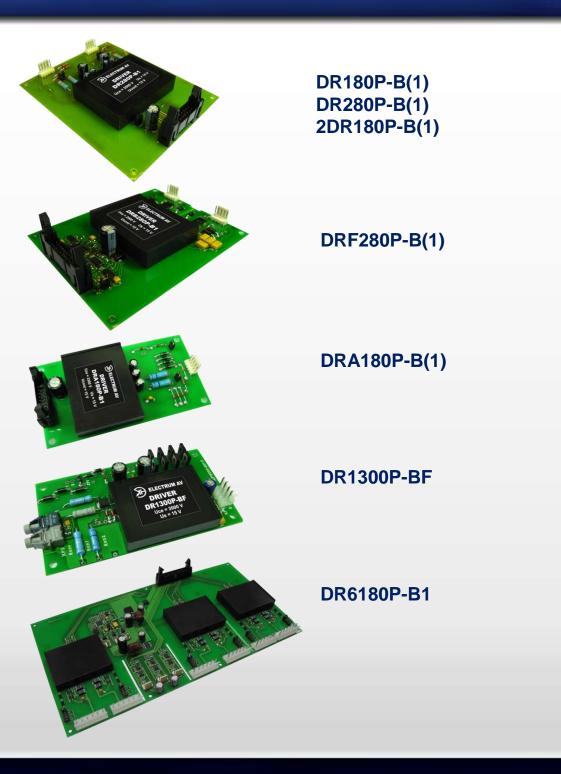
- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Regulation of protective trip threshold on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency";
- Adjustment of blocking duration at an "emergency";
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arms;
- Delay for switching of upper and lower arms;
- Regulation of delay for switching of upper and lower arms;
- Driver supply voltages control on DC-DC converter output.

# DR6120P-A DR7120P-A

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>out</sub> V	Notes
DR6120P-A	6 (3 h/b)	15	5	4000	12	6x3	25	1700	+15/-10	
DR7120P-A	7 (3 h/b)	15	5	4000	12	7x3	25	1700	+15/-10	



# **DRIVERS FOR REMOTE MOUNTING**



# DR280P-B(1) DR180P-B(1) 2DR180P-B(1)

### **Features**

Series of Dual-channel and single-channel drivers



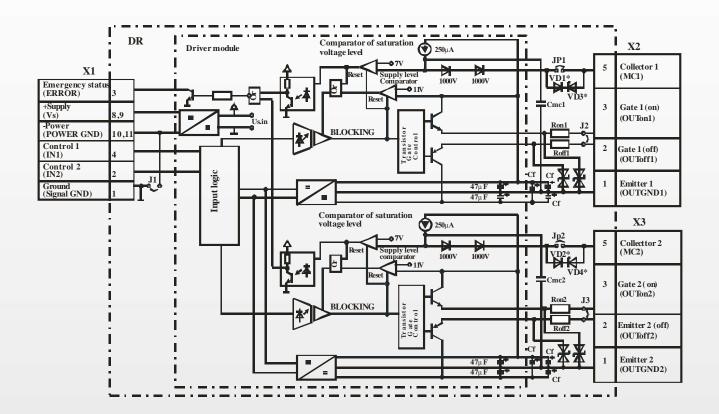
### **Application**

Dual-channel driver of MOSFET and IGBTs with dependent control is intended for galvanicallyisolated control by two powerful transistors with field control with maximum permissible values of currents and voltages 600V/600A, 1200V/400A. The driver has a built-in DC/DC-converter and is an forming amplifier of control signals of transistors gates with frequency up to 50 kHz.

- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Regulation of protective trip threshold on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency";
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arms;
- Delay for switching of upper and lower arms;
- Regulation of delay for switching of upper and lower arms;
- Driver supply voltages control on DC-DC converter output.

# DR280P-B(1) DR180P-B(1) 2DR180P-B(1)

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DR280P-B(1)	2 h/b	15	5(15)	4000	8	2x4	50	1700	-	
2DR180P-B(1)	2 i	15	5(15)	4000	8	2x4	50	1700	-	
DR180P-B(1)	1	15	5(15)	4000	8	4	50	1700	-	





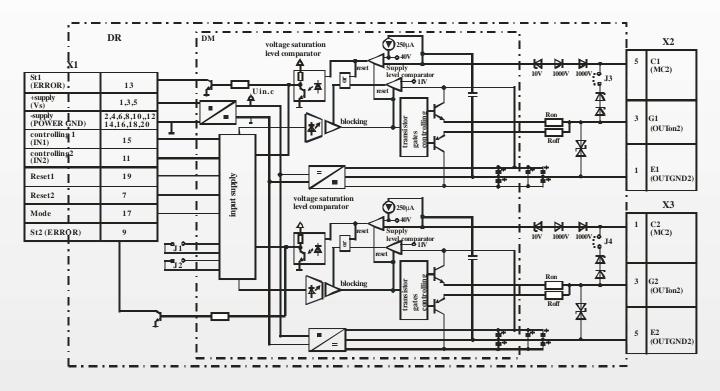
### Application

Dual-channel driver of MOSFET and IGBTs with dependent or independent control is intended for galvanically-isolated control by two powerful transistors with field control with maximum permissible values currents and voltage 600V/600A, 1200V/400A. The driver has a built-in DC/DC-converter and is an forming amplifier of control signal of transistors gates with frequency up to 200 kHz.

- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Regulation of protective trip threshold on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency";
- Emergency alarm;
- Mode selection: dependent control or independent one;
- Blocking of simultaneous switching of upper and lower arms (for dependent mode);
- Delay for switching of upper and lower arms;
- Regulation of delay for switching of upper and lower arms;
- Driver supply voltages control on DC-DC converter output.

# DRF280P-B(1)

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DRF280P-B(1)	2 u	15	5(15)	4000	8	2x4	200	1700	≤1200	



# DRA180P-B(1)

### Features

Single-channel driver of high voltage transistors (up to 3300 V) with active protection function



### **Application**

Single-channel driver of MOSFET and IGBTs is intended for galvanically-separated control by powerful transistors with field control with maximum permissible voltage up to 3300 V. The driver has a built-in DC/DC-converter and is an forming amplifier of control signals of transistors gates with frequency up to 50 kHz.

### **Functions**

- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;

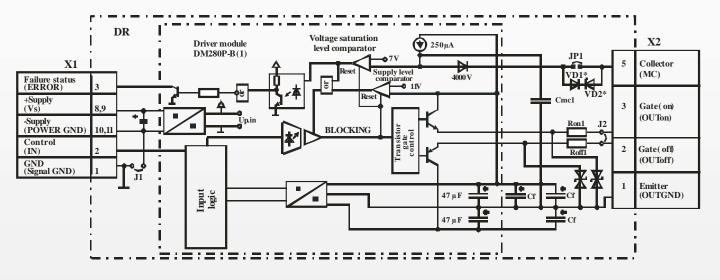
- Regulation of protective trip threshold on saturation voltage;

- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);

- Control blocking at an "emergency";
- Emergency alarm;
- Driver supply voltages control on DC/DC-converter output.

# DRA180P-B(1)

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DRA180P-B(1)	1	15	5(15)	7500	8	4	50	3300	≤3200	



# DR1300P-BF

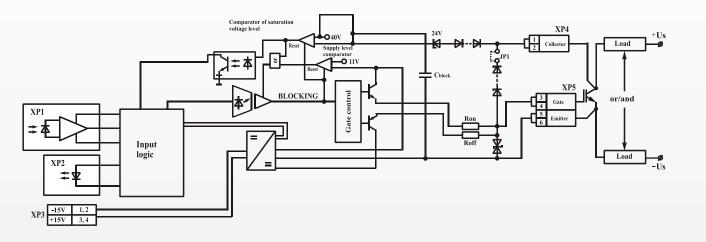
#### Application

Single-channel driver of MOSFET and IGBTs is intended for galvanically-separated control by powerful transistors with field control with maximum permissible values of currents and voltages 1700 V/2400A. The driver has a built-in DC/DC-converter and is a forming amplifier of control signals of transistors gates with frequency up to 50 kHz.

- Saturation voltage control on collector of controlled transistor, its protective disconnection when leaving saturation state;
- Regulation of protective shutdown threshold on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency";
- Emergency alarm;
- Driver supply voltages control on output of DC/DC-converter.

# **DR1300P-BF**

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DR1300P-BF	1	15	FOCL	7500	30	10	50	1700	≤1200	



# DR6180P-B1

#### **Features**

Six-channel driver, by functions it is similar to unit driver **SkiiP 3** 



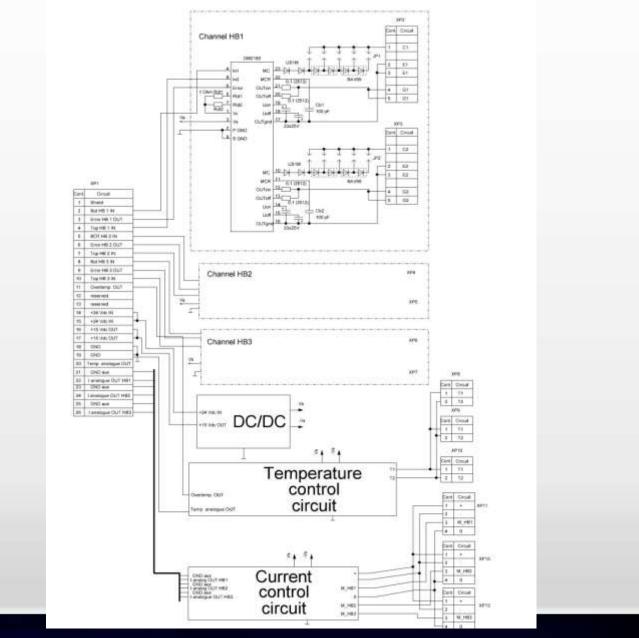
#### Application

Six-channel driver of MOSFET and IGBTs with dependent control is intended for galvanically-isolated control by two power transistors (three-phase inverter) with field control with maximum permissible values of currents and voltages 600V/2000A, 1700V/1000A. The driver has a built-in DC/DC-converter and is a forming amplifier of transistor gates control signals with frequency up to 50 kHz.

- Voltage saturation control on collector of controlled transistor, its protection shutdown when leaving saturation state;
- Regulation of threshold protection shutdown on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by control transistor);
- Control blocking at an «emergency»
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Delay regulation for switching of upper and lower arm;
- Regulation of delay for upper and lower arm switching;
- Voltage control of driver supply on output of DC-DC converter;
- Temperature control of controlled power modules;
- Control by an external channel.

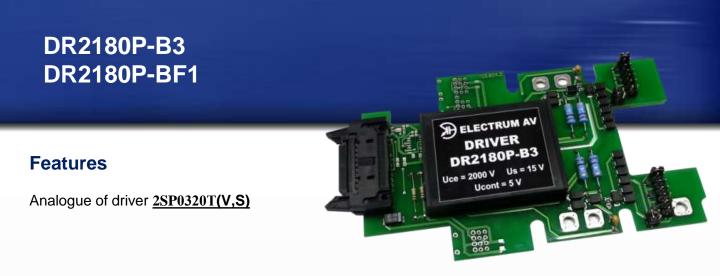
# DR6180P-B1

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DR6180P-B1	6 (3 h/b)	153 0	15	7500	18	6x3	50	1700	-	



# DRIVERS FOR MOUNTING ON POWER MODULE





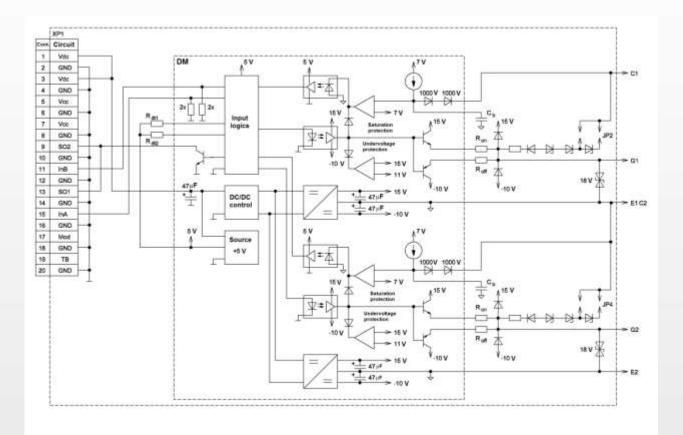
#### Application

Dual-channel driver of MOSFET or IGBTs with dependent control is intended for galvanically-isolated control by two power transistors with field control with maximum permissible values of currents and voltages 600V/2000A, 1200V/1200A. The driver has a built-in DC/DC-converter and is an forming amplifier of transistors gates control signals with frequency up to 100 kHz.

- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Regulation of protective shutdown threshold on saturation voltage;
- Smooth driver junction from active state to inactive one when an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "Emergency";
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Switching delay of upper and lower arm;
- Delay regulation of upper and lower arm;
- Driver supply voltages control on DC/DC converter output.

# DR2180P-B3 DR2180P-BF1

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DR2180P-B3	2 h/b	15	5	4000	18	2x3	100	1700	≤1200	Analogue of 2SP0320T
DR2180P-BF1	2 h/b	15	FOCL	4000	18	2x3	100	1700	≤1200	Analogue of 2SP0320V(S)



## DR2180P-B4



#### **Features**

Analogue of driver 2SP0115

#### Application

Dual-channel driver of MOSFET and IGBTs with dependent control is intended galvanically-isolated control by two power transistors with field control with maximum permissible values of currents and voltages 600V/2000A, 1200V/1200A. The driver has a built-in DC/DC-converter and is an forming amplifier of transistors gates control signals with frequency up to 100 kHz.

#### **Functions**

- Control of saturation voltage on collector of controlled transistor, its protective shutdown when leaving saturation state;

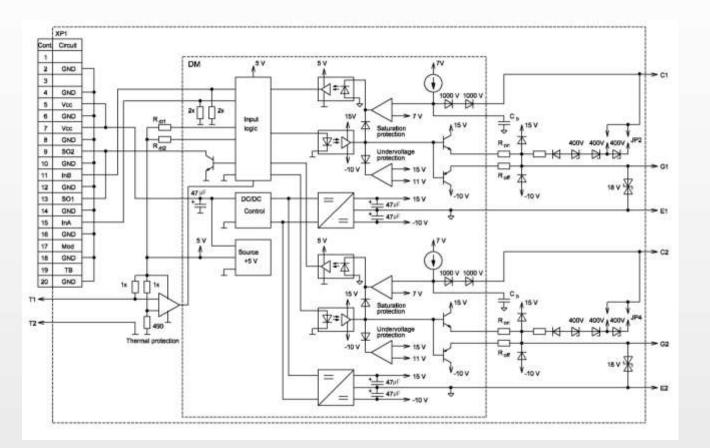
- Regulation of protective trip threshold on saturation voltage;

- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);

- Control blocking at an "emergency";
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Switching delay of upper and lower arm;
- Delay regulation for switching of upper and lower arm;
- Driver supply voltages control on DC/DC converter output;
- Thermal protection of controlled module.

# DR2180P-B4

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DR2180P-B4	2 h/b	15	5	4000	18	2x3	100	1700	≤1200	Analogue of 2SP0115





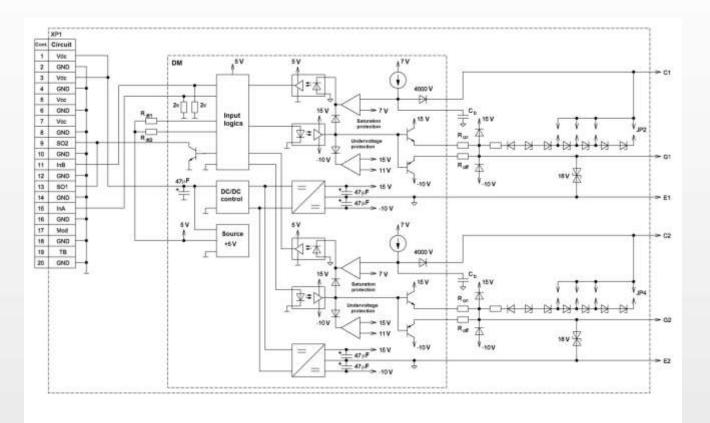
#### Application

Dual-channel driver of MOSFET and IGBTs with dependent control is intended for galvanicallyisolated control by two power transistors with field control with maximum permissible voltage up to 3300 V. The driver has a built-in DC/DC-converter and is an forming amplifier of transistors gates control signals with frequency up to 100 kHz.

- Control of saturation voltage on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Regulation of protective trip threshold on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "Emergency";
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Switching delay of upper and lower arm;
- Regulation of switching delay of upper and lower arm;
- Driver supply voltages control on DC/DC converter output.

# DR2180P-B5 DR2180P-BF

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DR2180P-B5	2 h/b	15	5	4000	18	2x3	100	3300	≤2400	Analogue of 2SB315A
DR2180P-BF	2 h/b	15	FOCL	4000	18	2x3	100	3300	≤2400	Analogue of 2SB315B



## DR1280P-BF

#### **Features**

Driver of high voltage transistors; analogue of driver <u>1SP0635</u>



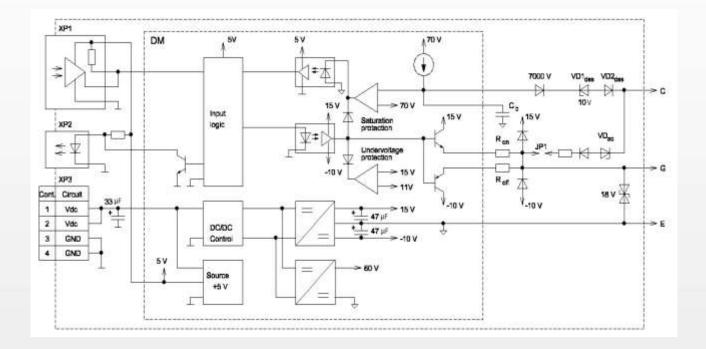
#### Application

Single-channel driver of MOSFET and IGBTs is intended for galvanically-separated control by two power transistors with field control with maximum permissible voltage up to 6500 V. The driver has a built-in DC/DC-converter and is a forming amplifier of transistors gates control signals with frequency up to 50 kHz.

- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Regulation of protective trip threshold on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency";
- Emergency alarm;
- Driver supply voltage control on output of DC-DC-converter;
- Control of saturation voltage up to 60 V.

# DR1280P-BF

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DR1280P-BF	1	15	FOCL	15000	28	6	50	6500	≤4400	Analogue of 1SP0635





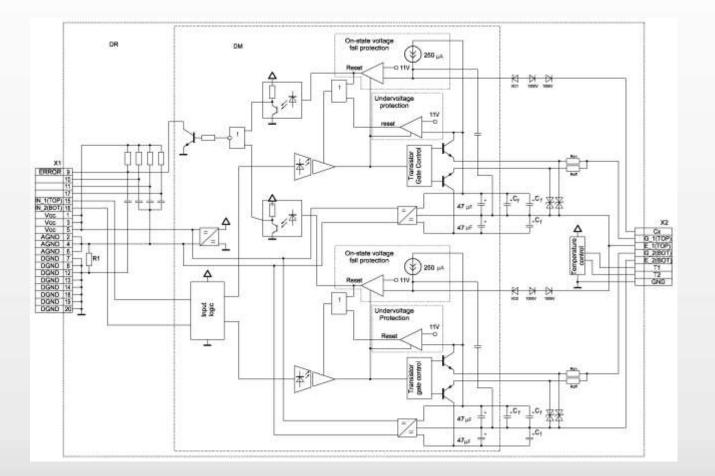
#### **Application**

Dual-channel driver of MOSFET and IGBTs with dependent control is intended for galvanicallyseparated control by two power transistors with field control with maximum permissible values of currents and voltages 600V/2000A, 1200V/1200A. The driver has a built-in DC/DC-converter and is a forming amplifier of transistors gates control signals with frequency up to 50 kHz.

- Saturation voltage control on collector of controlled transistor, its protective shutdown when leaving saturation state;
- Regulation of protective trip threshold on saturation voltage;
- Smooth driver junction from active state to inactive one at an "emergency" (leaving saturation mode by controlled transistor);
- Control blocking at an "emergency";
- Emergency alarm;
- Blocking of simultaneous switching of upper and lower arm;
- Delay for switching of upper and lower arm;
- Regulation of delay for switching of upper and lower arm;
- Driver supply voltage control on DC-DC-converter output;
- Thermal protection of controlled module.

# DR2160P-B1

Device type	Channels quantity	U <sub>s</sub> V	U <sub>ctrl</sub> V	U <sub>is</sub> V	I <sub>out pul</sub> A	P <sub>out</sub> W	f <sub>com</sub> kHz	U <sub>ce max</sub> V	U <sub>AC</sub> V	Notes
DR2160P-B1	2 h/b	15	15	4000	16	2x4	50	1700	-	Analogue of Board 35 Skyper 32 pro



# **CONTACT DETAILS**

Registered address:

5, Naugorskoe shosse, Orel town, 302020, Russia

## **Phones**:

CEO: +7(4862) 44-03-46 Marketing: +7 (4862) 44-25-29 Design Dept.: +7 (4862) 44-03-91 Electronics Dept.: +7 (4862) 44-03-94 Fax +7(4862) 47-02-12, 44-03-44

E-mail: electrum@orel.ru