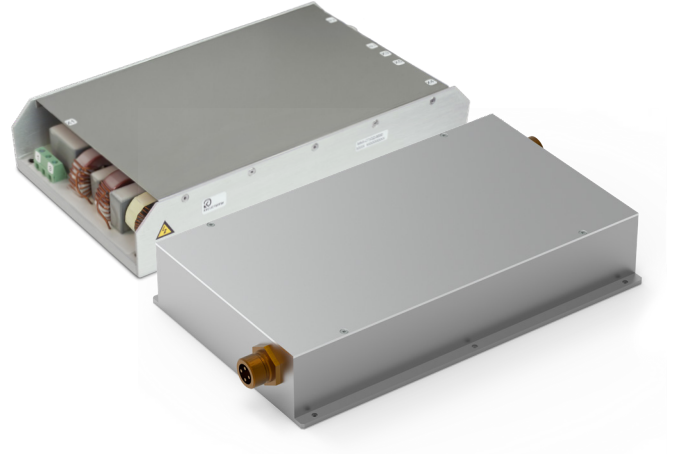


# AC/DC power supplies

## KWant Family KWant3000 3 phase NEW, 3000 W



### Basic specifications

Power .....	3000 W
.....	12000 W (peak)
Output current .....	up to 125 A
Input voltage .....	~380 (307...453) VAC 3ph
Output voltage .....	=28 VDC, =60 VDC
Efficiency.....	93%
Case operating temperature .....	-40...+85 °C; -50...+85 °C
Dimensions .....	284×174×54 mm
Warranty .....	2 years

### Advantages

- ◀ MIL-STD-461E without external components
- ◀ MIL-STD-810G
- ◀ Parallel and series operation
- ◀ Stand-by power supply
- ◀ 3 ph active PFC
- ◀ RS-485– digital control and monitor interface
- ◀ Current source mode



Description of KWant3000 3 ph on the manufacturer's website:  
[eng.kwsystems.ru/catalog/acdc/models/83](http://eng.kwsystems.ru/catalog/acdc/models/83)

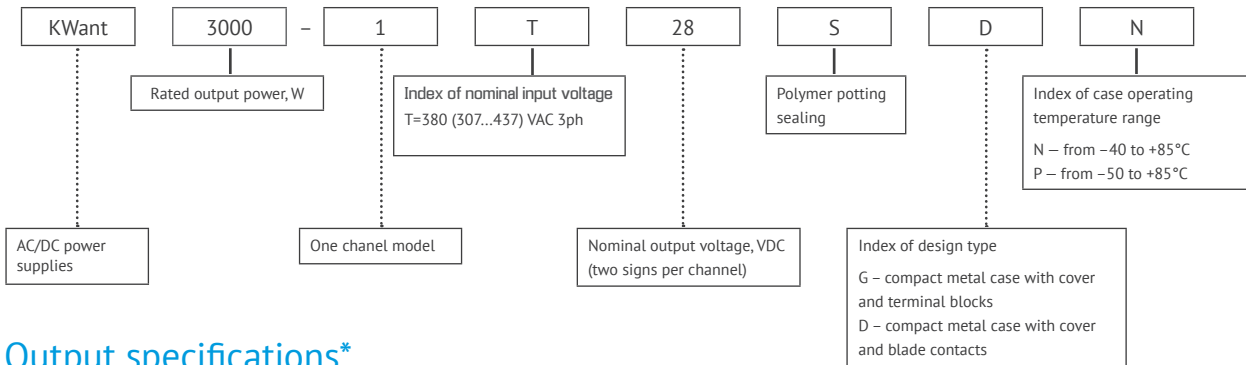
#### Order registration

+7 473 200 87 80, Global Operations Team

#### Technical support

Yuri Kazaryan, [techsupport@kwsystems.ru](mailto:techsupport@kwsystems.ru)

### Ordering information



### Output specifications\*

Parameter	Value	
Model	KWant3000-1T28-SXX	KWant3000-1T60-SXX
Nominal output voltage, VDC	28	60
Rated output power, W	3000	3000 (12 000)
Output voltage adjustment range, MBCB	by built-in trim resistor	24...30 VDC
	TRIM pin	±10%
	RS485	-50...+10%
Efficiency, %	91	92
Rated output current, A	107	50
Ripple and noise (peak-to-peak)	<2% Uout nom	
Line and load regulation	max 2%	
Start-up time, ms	2000	
Parallel operation	up to 20, redundancy, and boost of power	
Series operation	yes, up to 400 V (using ext. diodes)	
Remote on/off	Off at 5...15 VDC (15...30 mA) output «REMOTE OFF»	
Maximum load capacity	not limited	
External synchronization	480...515 kHz, pulse duration >250 ns, 4...6 V	

### Input specifications\*

Parameter	Value
Input voltage range, VAC*	380 (307...453) VAC 3ph
Transient deviation range, VAC	~304...456
Transient time	10 ms
Mains frequency range, Hz	47-53
Consumed current, A	7.5 A
Power factor corrector	+, active
Power factor	0.98
Inrush current	20 A 10 ms

\* All specifications are valid for normal climatic conditions (ambient temp. +15...+35°C; relative humidity 45...80%; air pressure 8.6\*10<sup>4</sup>...10.6\*10<sup>4</sup> Pa), Uin. nom., Iout. nom., unless otherwise noted.

### Protections

Type of protection	Value
Short-circuit protection*	auto recovery
Overload protection	$P_{max} < 1.8 P_{nom}$
Overvoltage protection level*	$< 125\% U_{out nom.}$
Overheat protection	triggers at case temperature $> 85^{\circ}C$

### Basic specifications\*\*

Parameter	Value	
Type of connection	standart case	screw terminals or blade contacts
	milled metal case	Amphenol
Derating	60 W/°C at case $t^{\circ} > 60^{\circ}C$	
Protection level	IP20	
Case temperature, operating	«N»	$-40...+85^{\circ}C$
	«P»	$-50...+85^{\circ}C$
Case temperature, storage	$-60...+70^{\circ}C$	
Humidity	98% / $35^{\circ}C$	
Isolation voltage	in /case	$\sim 1500 VAC$
	in /out	$\sim 1500 VAC$
	out /case	$\sim 500 VAC$
Isolation resistance @ 500 VDC	$\geq 20 M\Omega min$	
Cooling	conductive, forced air	
Environmental influence standards	MIL-STD-461E	
Typical MTTF	3 000 000 Hrs	
Case material	metal	
Dimensions, mm	standart case	284×174×54
	milled metal case	325×205×61
Weight, kg	standart case	$< 3.4$
	milled metal case	$< 4.5$
Warranty	2 years	

### Digital interface

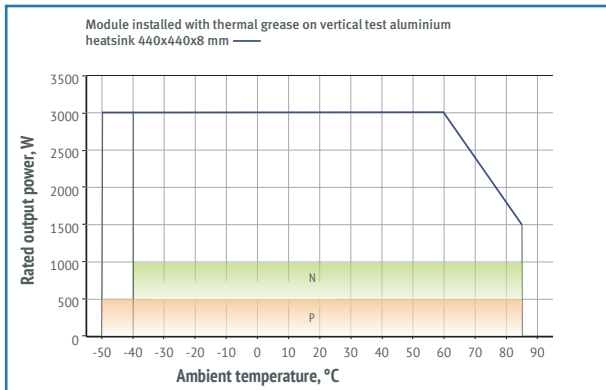
Control interface	RS-485
Serial communications protocol	MODBUS RTU
Number of units, connected to RS-485	up to 32 pcs
Control device	PC with WIN XP, 7, 8, 10

\* Parameters are stated for the information purposes and could not be used at long term work, exceeding maximum output current, operating outside of a working temperatures range or when output voltage is over the range of adjustment.

\*\* All specifications are valid for normal climatic conditions,  $U_{in nom.}$ ,  $U_{out nom.}$ , unless otherwise noted.

## Derating

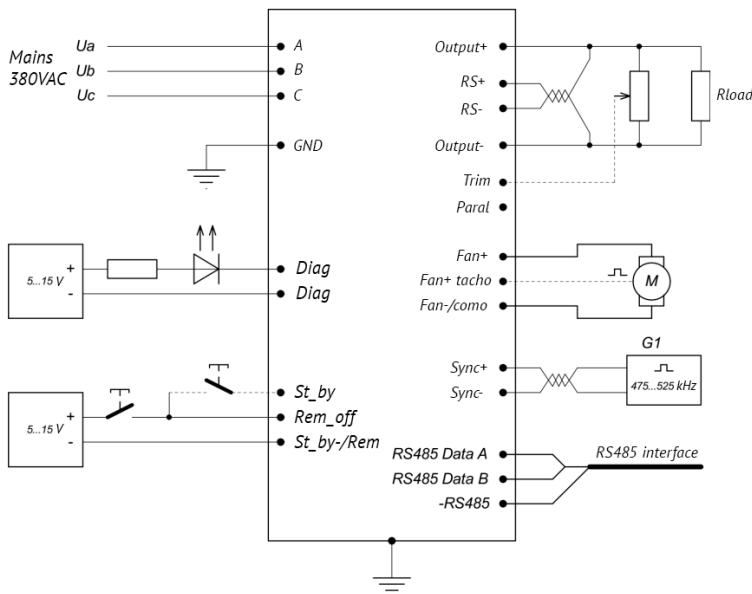
### vs Temperature



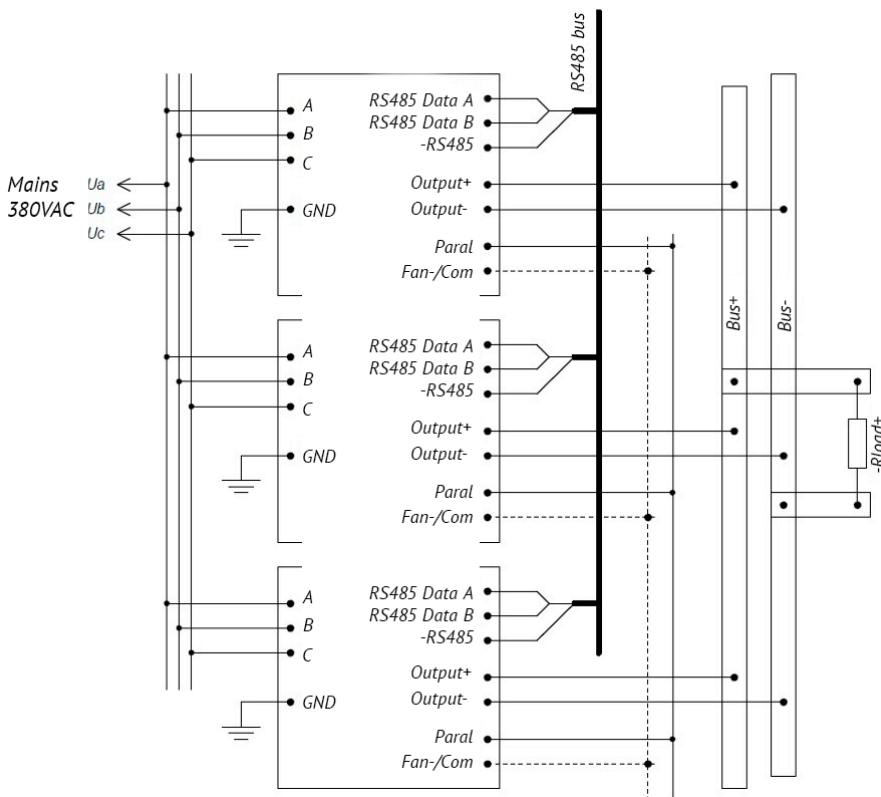
Decreasing parts of the dashed and dash-dotted curves correspond to the maximum case temperature ( +85°C for models with index "N" and "P"). Output power must not exceed the values limited by curve for a given ambient temperature.

Modules can be used without the heatsink only on condition of installation with thermal grease on heat-distribution baseplate with length and width not less than case's and with thickness not less than 8 mm.

## Typical connection

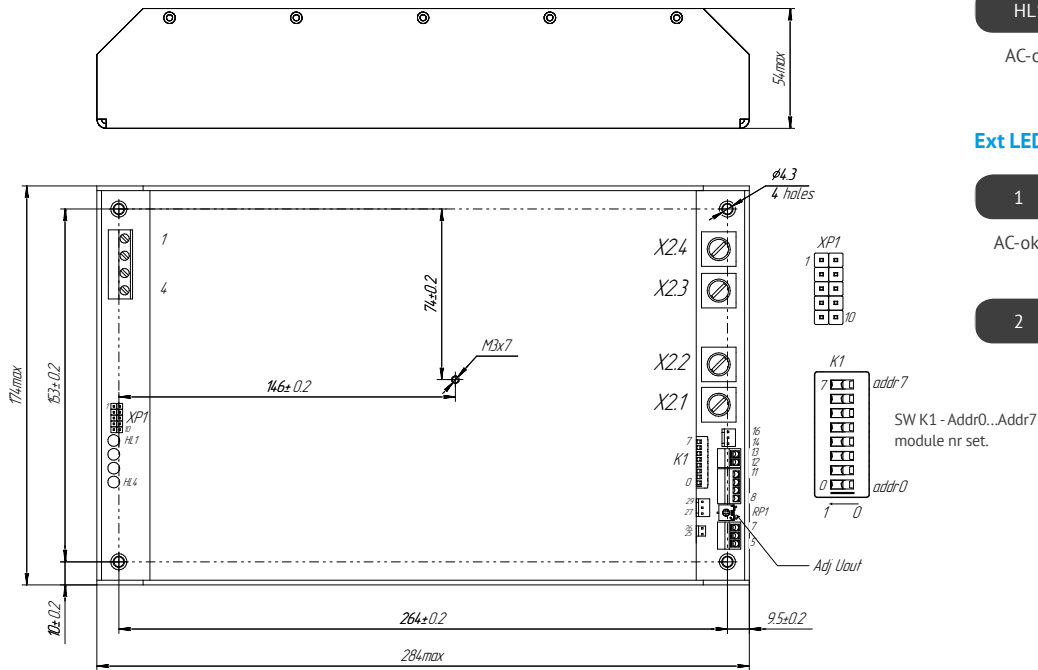


## Parallel operation



## Dimensions

Single-channel design with terminal blocks



### LEDs assignment

HL1	HL2	HL3	HL4
AC-ok	Voltage src mode	Current src mode	Alarm

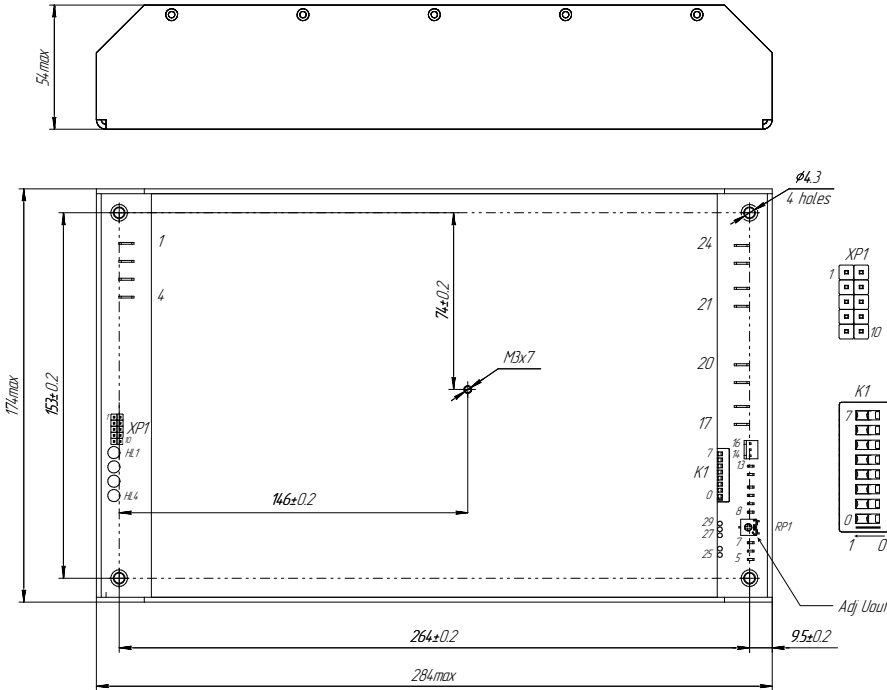
### Ext LEDs

1	3	5	7	9
AC-ok	Voltage src mode	Current src mode	Alarm	n/a
2	4	6	8	10
		LEDs+		n/a

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	B	C	GND	St_by-/Rem	Rem off	ST-by	+RS	-RS	Paral	TRIM (analog)	DC-ok+	DC-ok-	Fan+	Fan-/COM
16	X2.1	X2.2	X2.3	X2.4	25	26	27	28	29					
Fan tach	Output+		Output-		Synchro-	Synchro+	RS485_com	RS485 Data-B	RS485 Data-A					

## Dimensions

Single-channel design with blade contacts



### LEDs assignment

HL1	HL2	HL3	HL4
AC-ok	Voltage src mode	Current src mode	Alarm

### Ext LEDs

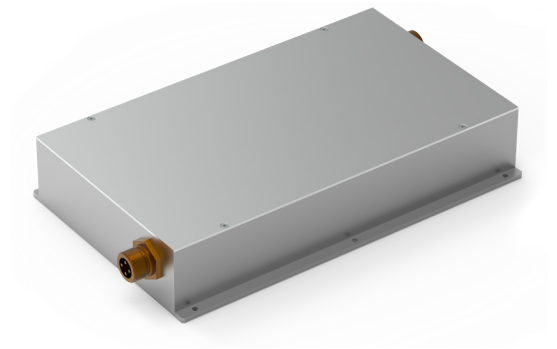
1	3	5	7	9
AC-ok	Voltage src mode	Current src mode	Alarm	n/a
2	4	6	8	10
LEDs+				n/a

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
A	B	C	GND	St_by-/ Rem	Rem off	ST-by	+RS	-RS	Paral	TRIM (analog)	DC-ok+	DC-ok-	Fan+	Fan-/COM
16	17-20	21-24	25	26	27	28	29							
Fan tach	Output+	Output-	Synchro-	Synchro+	RS485_com	RS485 Data-B	RS485 Data-A							

## Milled metal case

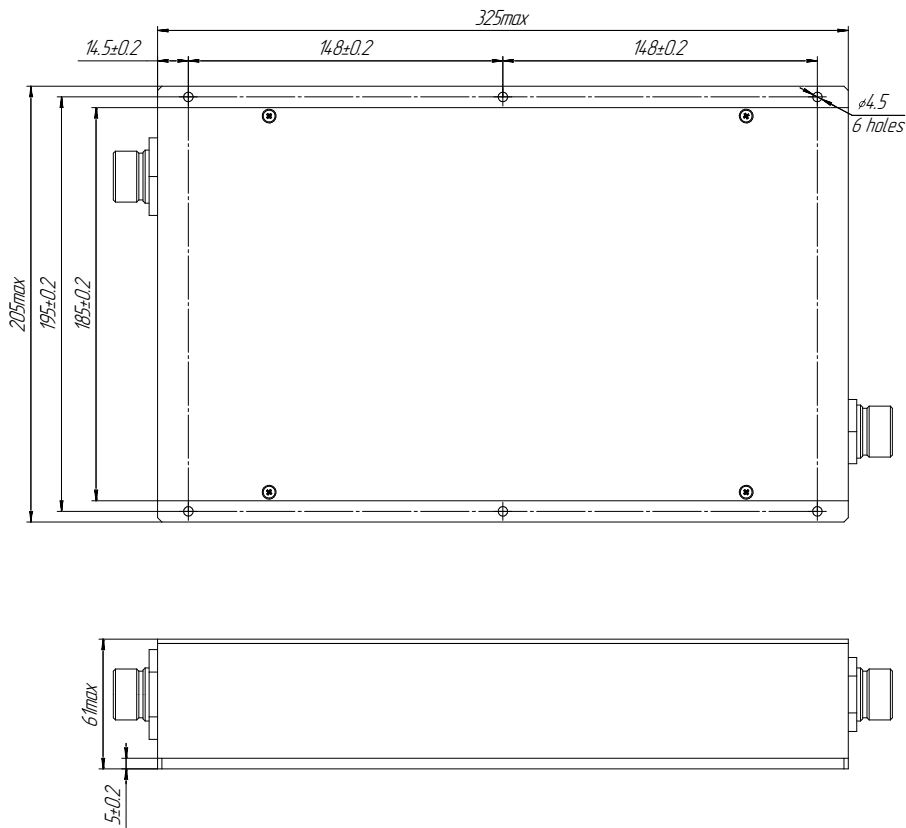
### Advantages

- ◀ High EMI resistance
- ◀ Low radiated emission
- ◀ Harsh environment applications
- ◀ IP rating: 50
- ◀ Connector: Amphenol



### Dimensions

#### Milled metal case with Amphenol connector







[www.kwsystems.ru](http://www.kwsystems.ru) info@kwsystems.ru

KW Systems, LLC is the leading Russian developer and manufacturer of AC/DC converters and power supply systems for mission critical applications.

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