

# PHQ

## INTEGRATED HIGH VOLTAGE POWER SUPPLIES FOR PHOTOMULTIPLIER TUBES



MMP

VLN

AIO

CUSTOM

DC/DC

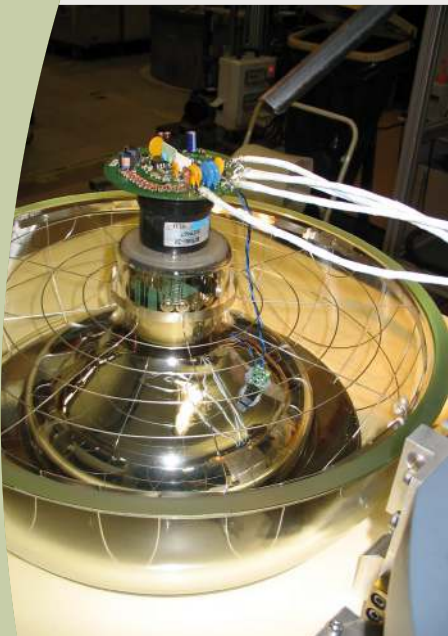
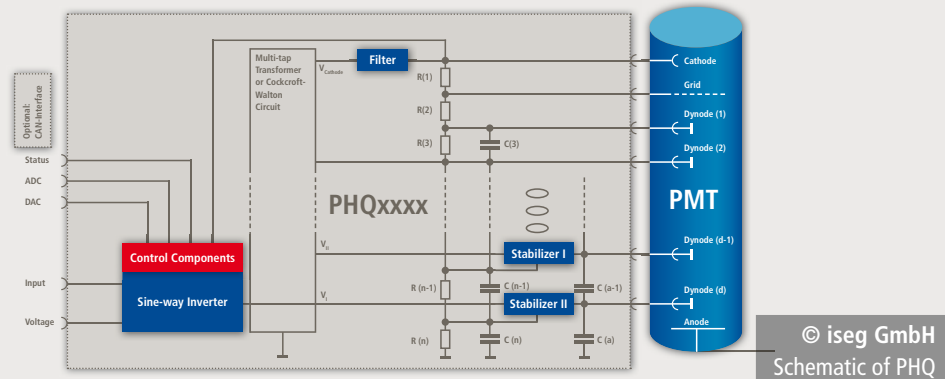
- ▶ DC/DC HV supply compactly integrated in PMT socket
- ▶ low ripple and noise, low EMI
- ▶ low power consumption
- ▶ high linearity even at high pulse load and rates by stabilized dynode voltages
- ▶ control- and monitor capabilities
- ▶ safe anode current limitation for PMT protection
- ▶ custom design for all kinds of PMTs
- ▶ multichannel capable in MMP system



iseg PHQ modules are developed as direct HV supply of modern photo multiplier tubes (PMT) with the high voltage power supply integrated in the PMT socket.

Advantages of PMT-integrated power supplies are:

- ▶ no HV cabling or connectors necessary
- ▶ no separate HV supply needed
- ▶ small form factor
- ▶ increase of reliability
- ▶ power dissipation reduced by factor 10 and more
- ▶ high temperature stability and thermal balance



### SPECIFICATIONS / SPEZIFIKATION

Ripple and noise [f > 10 Hz]	< 10 mV
Stability [ $\Delta V_{out}$ ]	< $1 \cdot 10^{-4} \cdot V_{nom}$
Temperatur coefficient	< $5 \cdot 10^{-5} / K$

### TYPES / TYPEN

MODEL	PMT-TYPE	V <sub>nom</sub>	POWER DISSIPATION	DYNODES
<b>ET ENTERPRISES</b>				
<b>NEW</b> PHQ 9352	9352	2.5 kV	0.3 W	6
PHQ 9266	9266	1.3 kV	0.3 W	10
PHQ 9823	9823	2.5 kV	0.3 W	14
<b>PHOTONIS</b>				
PHQ 2960	XP2960	1.6 kV	0.4 W	8
PHQ 9266	XP3230 / 40	1.3 kV	0.3 W	10
PHQ 3112	XP3112	1.4 kV	0.1 W	10
PHQ 2020 *	XP2020	3 kV	1 W	14
<b>HAMAMATSU</b>				
PHQ 7081-10	R7081	2 kV	0.15 W	10
<b>NEW</b> PHQ 2059	R2059	3 kV	0.8 W	12
PHQ 329-02	R329-02	2.4 kV	0.5 W	12
<b>NEW</b> PHQ 580	R580	1.8 kV	0.3 W	10
<b>NEW</b> PHQ 6231	R6231	1.5 kV	0.15 W	8
<b>NEW</b> PHQ 1306	R1306	1.5 kV	0.15 W	8
<b>NEW</b> PHQ 7x8619 **	R8619	1.6 kV	1.5 W	8

DEVELOPMENT AND PRODUCTION FOR ANY OTHER PMT TYPE IN SHORT ORDER POSSIBLE. PLEASE CONTACT US!

\* the voltage divider and terminal meet the specifications of Photonis S563, PHQ 2020 is also suitable for XP2233, XP2237, XP2254, XP2262, XP4222, XP4228 and many others

\*\* array with 7 PMTs R8619 and digital interface



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iseg is a manufacturer of very precise and stable High Voltage Power Supplies with focus on physics and industrial applications. The product portfolio includes AC/DC, DC/DC and modular High Voltage systems. The company was founded in 1995. Continuous growth and innovation strengthened the company's market position. iseg is well known for the development of outstanding custom specific solutions for various special applications.