

# Tender specification

## INT69® PYF Diagnose – Pump protection relay

The diagnose protection relay for universal protection of 3 x temperature, 1 x leakage, 1 x switching input, 1 x 4-20 mA signal and 1 x phase monitoring with phase sequence, phase failure, overvoltage, undervoltage and phase asymmetry. To use the entire range of functions, the current transformer INT 185 is required. This enables the monitoring of current and  $\cos\phi$ . The converted active, reactive and apparent power is determined in the protection relay as well as active and reactive energy. Additionally, switching frequency and operating hours can be monitored. An alarm relay and a warning relay ensure the safe switch-off and the advance warning.

Parameterization and diagnose are possible via the INTspecter App and the USB-Gateway (INT600 DU Gateway) or the Bluetooth-Gateway (INT600 DB Gateway). All inputs and outputs are configurable. The data can be transmitted to external systems via the integrated Modbus RTU interface (RS485) or alternatively via the Diagnose Port (DP) and the Modbus Gateway (INT600 DM Gateway).

### Technical data

<b>Dimensions (HxWxD):</b>	127 mm x 45 mm x 117 mm
<b>Connection type:</b>	Removeable push-in terminals or screw terminals
<b>Mounting:</b>	Switching cabinet installation; DIN rail 35 mm
<b>Ambient temperature:</b>	$-30\text{ °C} \leq T_a \leq +70\text{ °C}$
<b>Interface:</b>	Modbus RTU (RS485); Diagnose Port (DP)
<b>Display:</b>	LED for function control via blink code
<b>Phase monitoring:</b>	3 phases; 100–690 V $\pm 10\%$ ; 20-100 Hz $\sim \pm 10\%$
<b>Motor temperature:</b>	PTC; Pt100; Pt1000; bimetal; external relay contact
<b>Temperature 1 &amp; 2:</b>	PTC; Pt100; Pt1000
<b>Leakage:</b>	10 k $\Omega$ –1 M $\Omega$
<b>Switching input:</b>	Floating switch; external reset
<b>Analog input:</b>	0-20 mA/4-20 mA
<b>Current monitoring:</b>	Current transformer INT185
<b>Power measurement:</b>	Active, reactive and apparent power; $\cos\phi$
<b>Relay:</b>	Alarm relay and warning relay; 2 x 240 V $\sim$ ; 2.5 A
<b>Certification:</b>	UL File No. E473026 cURus

<b>Manufacturer:</b>	KRIWAN Industrie-Elektronik GmbH
<b>Type:</b>	INT69 PYF Diagnose
<b>Part number:</b>	20A721P081 (24 V $\sim$ /= 50/60 Hz) 22A721P081 (100–240 V $\sim$ 50/60 Hz)

<b>Accessories:</b>	INT185 current transformer; PN 02D187; 20-100 Hz $\sim$ 5-100 A (required for measuring current and determining power and $\cos\phi$ , as well as for the energy meters)
	INT185 current transformer; PN 02D188; 20-100 Hz $\sim$ 5-250 A (required for measuring current and determining power and $\cos\phi$ , as well as for the energy meters)

INT600 DU Gateway; PN 02S365S21

(USB-Gateway; direct connection between INT69 PYF Diagnose and PC, smartphone or tablet)

INT600 DB Gateway; PN 02S377S021

(Bluetooth-Gateway; direct connection between INT69 PYF Diagnose and PC, smartphone or tablet)

INT600 DM Gateway; PN 22S371

(Modbus-Gateway; for integration of the INT69 PYF Diagnose in the system control)

DP-cable; PN FK02098077

(Plug angled-angled; length 1.00 m;  
for the connection of the INT69 PYF Diagnose to the  
INT600 DM Gateway)