

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, phase asymmetry, overvoltage and undervoltage. To use the entire range of functions, the current transformer INT185 is required. This enables the monitoring of current, overload, underload 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. Two parameterizable relays ensure the safe switch-off and the advance warning.

Parameterization and diagnostics are possible via the INTspector 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 Diagnostic Port (DP) and the Modbus Gateway (INT600 DM Gateway).

Technical data

Dimensions (HxWxD):	127 mm x 45 mm x 117 mm
Connection type:	Removeable push-in terminals or screw terminals
Mounting:	Switching cabinet installation; DIN rail 35 mm
Ambient temperature:	$-30\text{ °C} \leq T_a \leq +70\text{ °C}$
Interface:	Modbus RTU (RS485); Diagnostic Port (DP)
Display:	LED for function control via blink code
Phase monitoring:	3 phases; 20-100 Hz ~ 60–690 V ~ $\pm 10\%$
Motor temperature:	PTC; Pt100; Pt1000; bimetal; external relay contact
Temperature 1 & 2:	PTC; Pt100; Pt1000
Leakage:	5 k Ω –1.5 M Ω
Switching input:	Float switch; external reset
Analog input:	0-20 mA/4-20 mA
Current monitoring:	Current transformer INT185
Power monitoring:	Underload; overload, $\cos\phi$
Power measurement:	Active, reactive and apparent power; active energy; reactive energy
Relay 1 & 2:	Contact min. 24 V \sim/\neq 20 mA; Rating data (UL/CSA) max. 240 V ~ 2.5 A C300; Nominal load (ohmic) 250 V ~ 10 A
Certification:	UL File No. E473026 cURus; UL File No. E75899 cURus
Manufacturer:	KRIWAN Industrie-Elektronik GmbH
Type:	INT69 PYF Diagnose
Part number:	20A721P081 (24 V \sim/\neq 50/60 Hz) 22A721P081 (100–240 V ~ 50/60 Hz)
Accessories:	INT185 current transformer; PN 02D187; 20-100 Hz ~ 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 ~ 12.5-250 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)