

**DEIF A/S****Type certificate**

4124030042D

Type:	PPU - Generator Paralleling and Protection Unit PPU-3 - - Generator Paralleling and Protection Unit Multi-line 2
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Technical specifications

* Operating temperature:	-25...70°C
* Measuring Voltage:	100/110V AC to 690V AC +-20% Consumption max. 0,2VA / phase
* Measuring Current:	-/1 or -/5A AC Consumption max. 0,3VA / phase
* Measuring frequency:	30...70Hz
* Auxiliary supply PPU	Terminal 1-2 12/24V DC -25/+30% max. 11W consumption
PPU-3	Terminal 1-2 12/24V DC -25/+50% max. 11W consumption Terminal 98-99 12/24V DC -25/+50% max. 5W consumption
* Binary input:	Optocoupler, bi-directional Impedance: 4.7kΩ
PPU	Input voltage 8...32V DC
PPU-3	Input voltage 8...36V DC
* Relay outputs:	250V AC / 30V DC, 5A (Unit status output: 1A)
* Open collector outputs: PPU	Supply 12...32V DC, max. 10mA
PPU-3	Supply 8...36V DC, max. 10mA
* Analogue inputs:	PPU -10...0...+10V DC, Impedance min. 90 kΩ Not galvanically separated
PPU-3	0...20mA, ±1%, Impedance: 50Ω PT100/1000: -40...250°C, ±1% to IEC/EN 60751 VDO: 0...1700Ω, ±2% 0...40V DC, ±1% Not galvanically separated
* Galvanic separation:	Between AC voltage, AC current and other I/O's: 3250 V AC, 50Hz, 1 minute Between analogue outputs and other I/O's: 500V DC, 1 minute Between binary input groups and other I/O's: 500V DC, 1 minute
Current overload:	4 x I _n continuously 20 x I _n , 10 sec. (max 75A) 80 x I _n , 1 sec. (max 300A)

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Type test specifications	Tested according to:	
Temperature:	-25...70°C (operating) -40...70°C(storage)	IEC 60068-2-1 IEC 60068-2-2
Accuracy:	Class 1.0 Class 0.5 (option dependent in PPU-3)	IEC 60688
Climate:	97% RH	IEC 60068-2-30, test Db
Vibration:	3...13.2Hz: 2mm _{pp} 13.2...100Hz: 0.7g 10...60Hz: 0.15mm _{pp} 60...150Hz: 1g 10...150Hz: 2g 3...8.15Hz: 15mm _{pp} 8.15...35Hz: 2g	IEC 60068-2-6 & IACS UR E10 IEC 60255-21-1 Response (Class2) IEC 60255-21-1 Endurance (Class2) IEC 60255-21-3 Seismic (Class2)
Shock:	Base mounted 10g, 11msec. half sine 30g, 11msec. half sine 50g, 11msec. half sine Tested with 3 impacts in each direction in all 3 axes. Total 18 impacts per test.	IEC 60255-21-2 Response (Class 2) IEC 60255-21-2 Endurance (Class 2) IEC 60068-2-27, test Ea
Bump	20g, 16msec. half sine Tested with 1000 impacts in each direction in all 3 axes.	IEC 60255-21-2 (Class 2)
Safety:	Installation Cat.III 600V Pollution degree 2	EN 61010-1 tested at 50Hz, 1 min Each galvanic group tested to other Galvanic groups and to protection Eath.
EMC:		EN 61000-6-1/2/3/4 IEC 60255-26 IEC 60533 power distr. zone IACS UR E10 power distr. zone
Materials:	All plastic parts are self-extinguishing to UL94 (V0)	
Protection:	Unit: IP20 Front: IP40 (IP54 with gasket – option L)	IEC/EN 60529

*) Tested on all units according to specifications. Remaining specifications are tested regularly by test sampling

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