

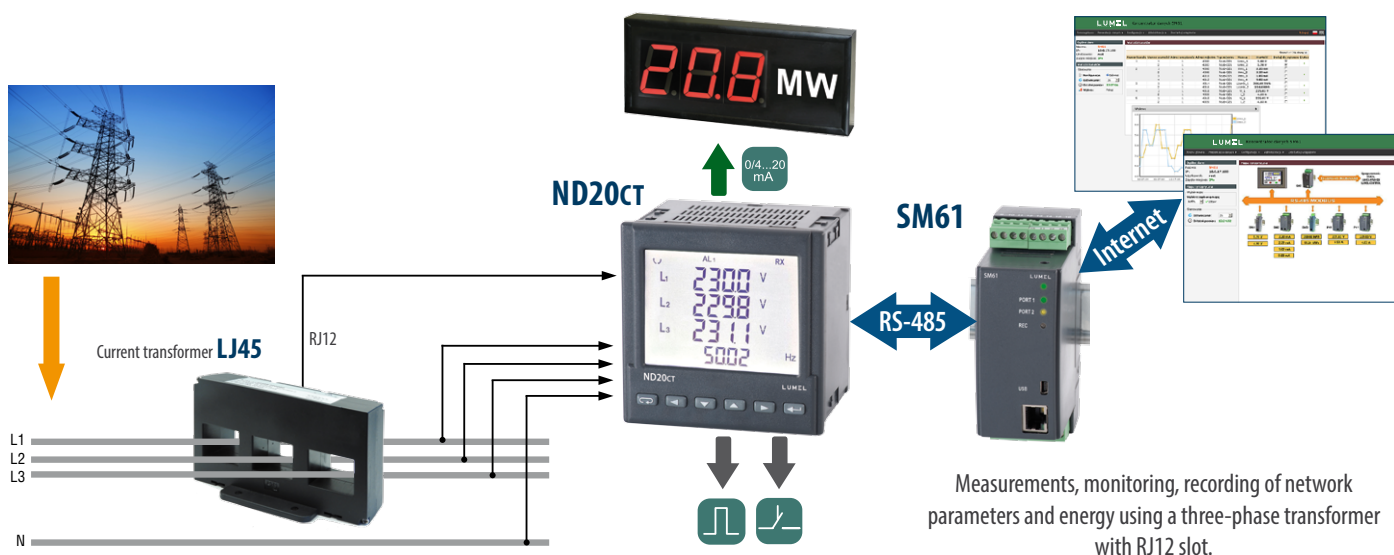
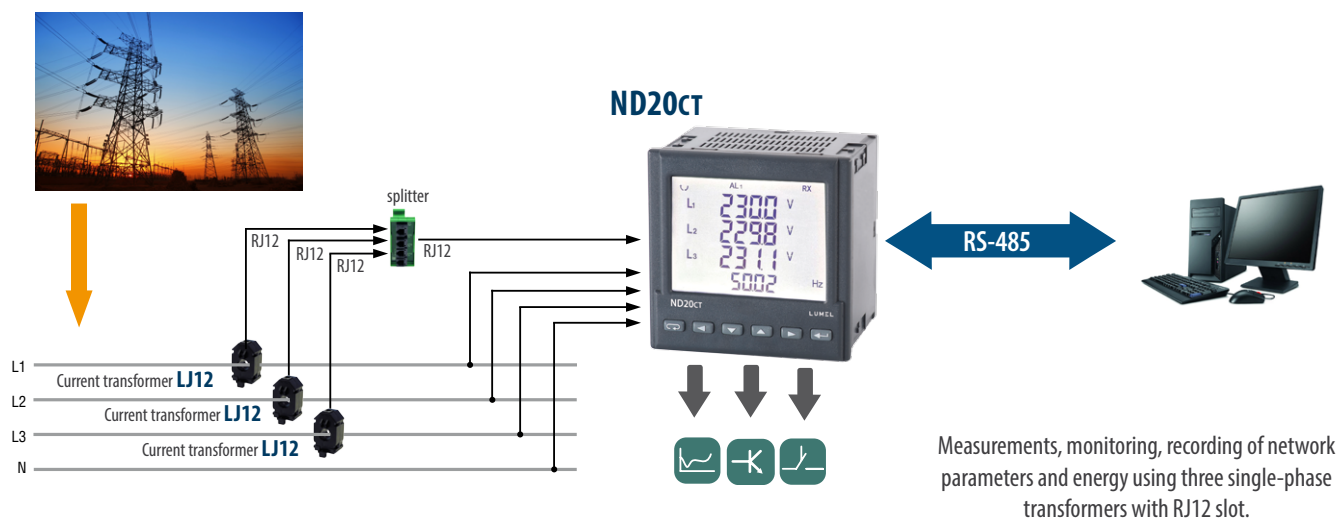
ND20ct - METER OF NETWORK PARAMETERS



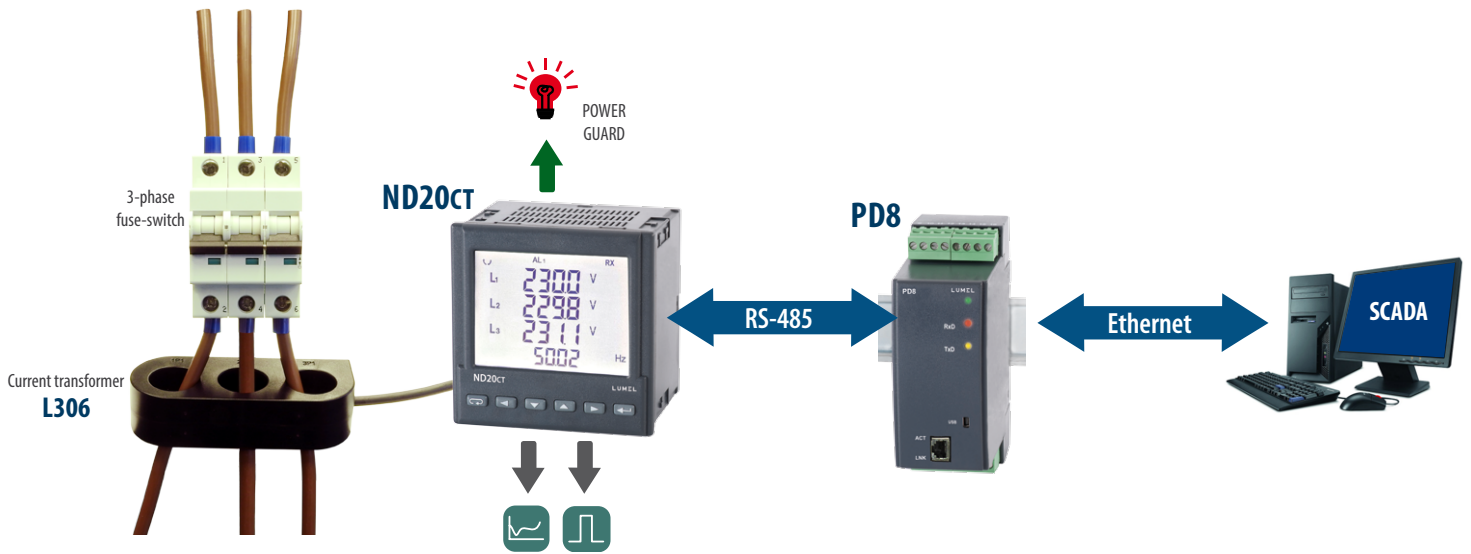
It enables quick, easy and convenient installation of dedicated 1- and 3-phase current transformers and additionally eliminates the risk of a faulty connection of a meter with the transformers.

- Measurement of power network parameters in 1-phase and 3-phase (3 or 4-wire) systems.
- Current inputs 0.1 A and 0.25 A (for dedicated transformers).
- Quick and convenient ways to connect current transformers via RJ12 connector or screw terminals.
- THD factor measurement.
- Backlighted LCD 3.5".
- Protection grade from the frontal side: IP65.
- Digital transmission to the master system through the RS-485 interface (MODBUS).
- Programmable outputs: analog (option), alarm and pulse (energy).
- Seeting up of displayed pages.

EXAMPLE OF APPLICATION



EXAMPLE OF APPLICATION



Measurements, monitoring, recording of network parameters and energy using a three-phase transformer with screw terminals.

FEATURES	INPUTS	OUTPUTS	GALVANIC ISOLATION
<ul style="list-style-type: none"> eCon software MOD BUS Password protection IP65 THD P, Q C/L L/C PAord 	<ul style="list-style-type: none"> AC 	<ul style="list-style-type: none"> RS 485 0/4...20 mA 	<ul style="list-style-type: none"> Supply RS 485

TECHNICAL DATA

MEASURED QUANTITIES AND MEASURING RANGES

Measured value	Indication range*	Measuring range	L1	L2	L3	Σ	Basic error
Current In 0,1 A 0,25 A	0.00 .. 999.9 A 0.00 .. 999.9 A	0.0002..0.1200 A 0.0005..0.3000 A	•	•	•		±0.2% r
Voltage L-N 57,7V 230 V	0.0 .. 280 kV 0.0 .. 1.104 MV	2.8 .. 70.0 V~ 11.5 .. 276 V~	•	•	•		±0.2% r
Voltage L-L 100 V 400 V	0.0 .. 480 kV 0.0 .. 1.92 MV	5 .. 120 V~ 20 .. 480 V~	•	•	•		±0.5% r
Frequency	47.0 .. 63.0 Hz	47.0 ... 63.0 Hz	•	•	•		±0.2% mv
Active power	-9999 MW .. 0.00 W .. 9999 MW	-1.65 kW...1.4 W...1.65 kW	•	•	•	•	±0.5% r
Reactive power	-9999 Mvar ... 0.00 var ... 9999 Mvar	-1.65 kvar...1.4 var...1.65 kvar	•	•	•	•	±0.5% r
Apparent power	0.00 VA ... 9999 MVA	1.4 VA ... 1.65 kVA	•	•	•	•	±0.5% r
Power factor PF	-1 ... 0 ... 1	-1 ... 0 ... 1	•	•	•	•	±1% r
Tangent φ	-1.2 ... 0 ... 1.2	-1.2 ... 0 ... 1.2	•	•	•	•	±1% r
Cosinus φ	-1... 1	-1 ... 1	•	•	•	•	±1% r
φ	-180 ... 180	-180 ... 180	•	•	•		±0.5% r
Imported active energy	0 ... 99 999 999.9 kWh					•	±0.5% r
Exported active energy	0 ... 99 999 999.9 kWh					•	±0.5% r
Reactive inductive energy	0 ... 99 999 999.9 kvarh					•	±0.5% r
Reactive capacitive energy	0 ... 99 999 999.9 kvarh					•	±0.5% r
Apparent energy	0 ..99 999 999.9 kVAh					•	±0.5% r
THD	0 ... 100%	0 ... 100%	•	•	•		±5% r

* Depending on the set tr_U ratio (ratio of the voltage transformer: 0.1...4000.0) and tr_I ratio (ratio of the current transformer: 1...10000)

r - of the range
mv - of the measured value

OUTPUTS

Output type	Properties
Relay output	programmable relay output, normally open voltageless contacts, load capacity 250 V~/0.5 A~
Analogue output (option)	1 programmable current output 0/4...20 mA
Pulse output of active or reactive energy	1 OC type, passive

DIGITAL INTERFACE

Interface type	Transmission protocol	Baud rate
RS-485	Modbus RTU 8N2, 8E1, 8O1, 8N1	4.8, 9.6, 19.2, 38.4 kbit/s

EXTERNAL FEATURES

Readout field	LCD 3,5" screen, specialized, monochromatic with backlight	
Overall dimensions	96 x 96 x 77 mm	panel cut-out: 92 ^{+0,6} × 92 ^{+0,6} mm
Weight	0.3 kg	
Protection grade (acc. to EN 60529)	from frontal side: IP65	from terminal side: IP20

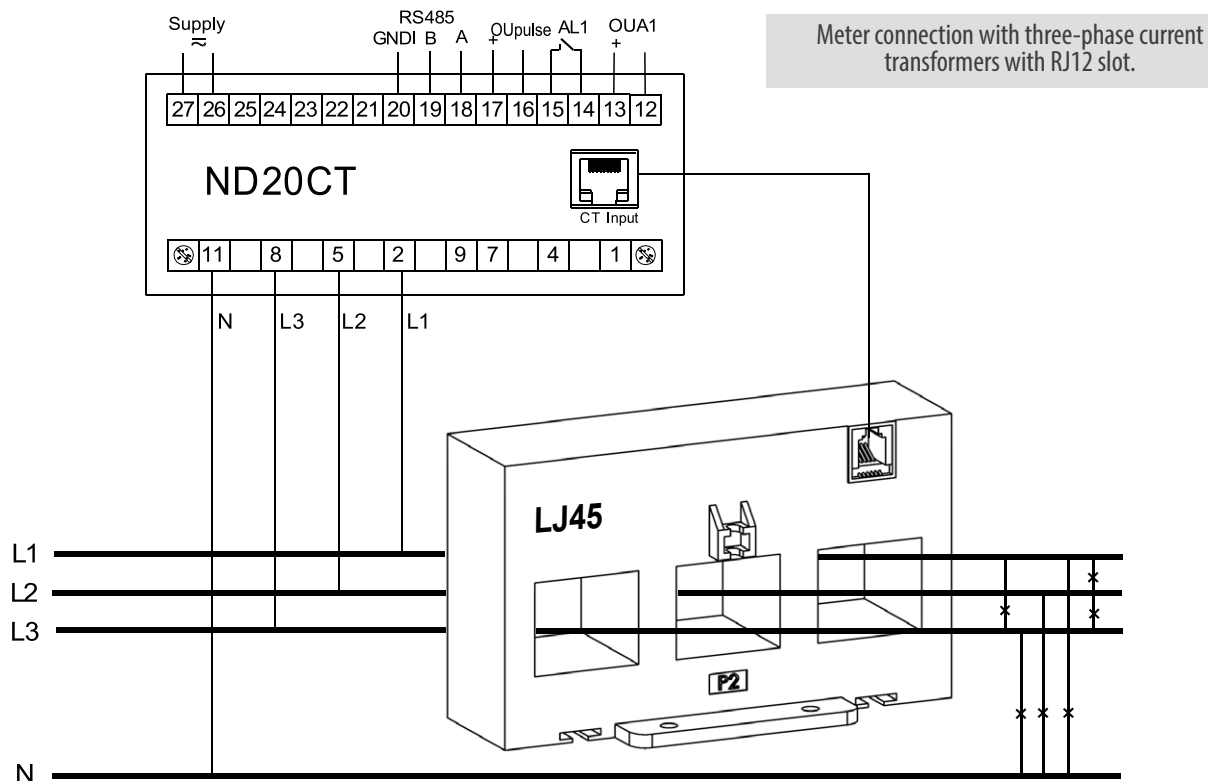
RATED OPERATING CONDITIONS

Supply voltage	85...253 V a.c., 90...300 V d.c. or 20...40 V a.c., 20...60 V d.c.	
Temperature	ambient: -25...23...55°C	storage: -30...70°C
Relative humidity	25...95%	inadmissible condensation
Operating position	any	
External magnetic field	0...400 A/m	
Short duration overload (5 s)	voltage input: 2 Un (max. 1000 V)	current input: 5 In
Power consumption	- in supply circuit ≤ 6 VA - in voltage circuit ≤ 0.05 VA - in current circuit ≤ 0.05 VA	

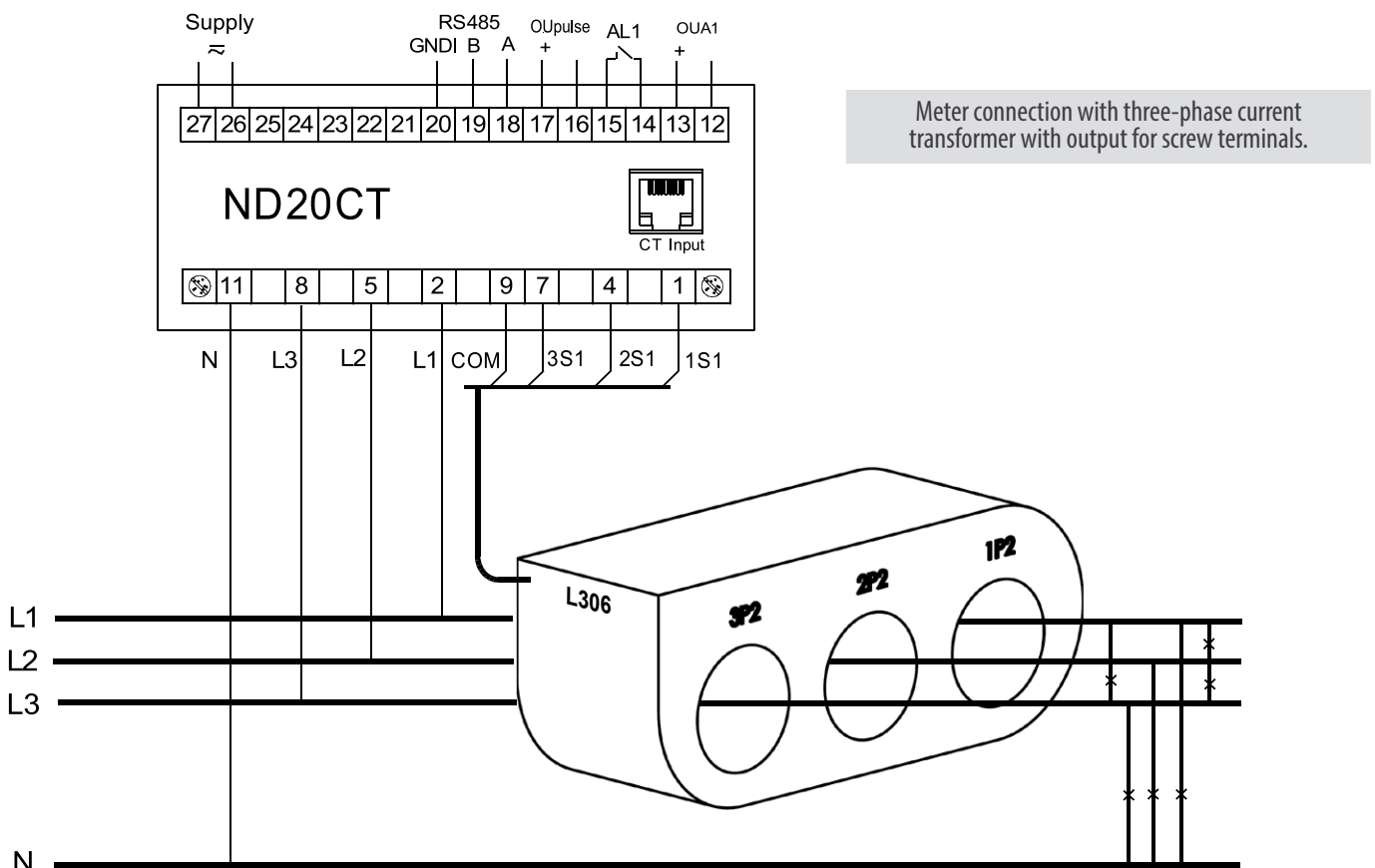
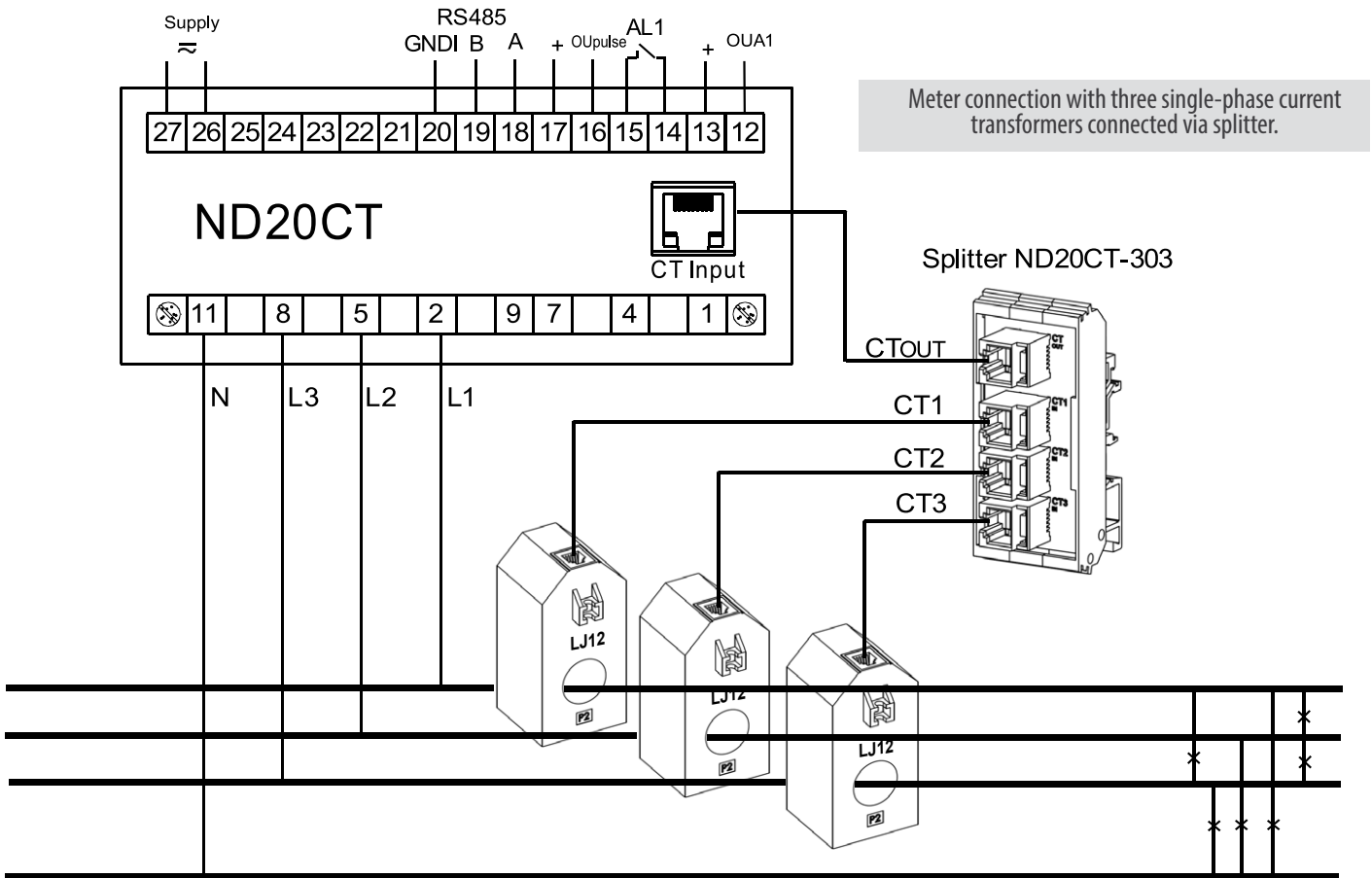
SAFETY AND COMPATIBILITY REQUIREMENTS

Electromagnetic compatibility	noise immunity	acc. to EN 61000-6-2
	noise emissions	acc. to EN 61000-6-4
Isolation ensuring by the housing	single	acc. to EN 61010-1
Isolation between circuits	basic	acc. to EN 61010-1
Pollution level	2	acc. to EN 61010-1
Installation category	III	acc. to EN 61010-1
Maximal phase-to-earth voltage	<ul style="list-style-type: none"> for supply and measuring circuits: 300 V for other circuits: 50 V 	acc. to EN 61010-1
Altitude a.s.l.	< 2000 m	

ELECTRICAL CONNECTIONS



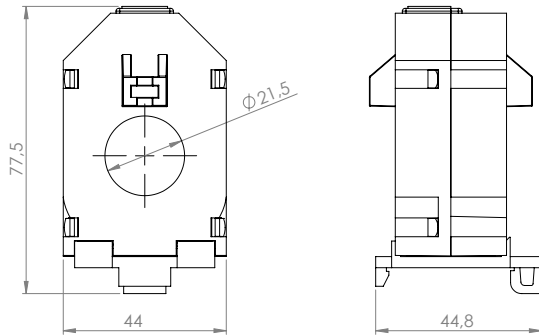
ELECTRICAL CONNECTIONS



ORDERING

TRANSFORMERS TO COOPERATION WITH ND20CT

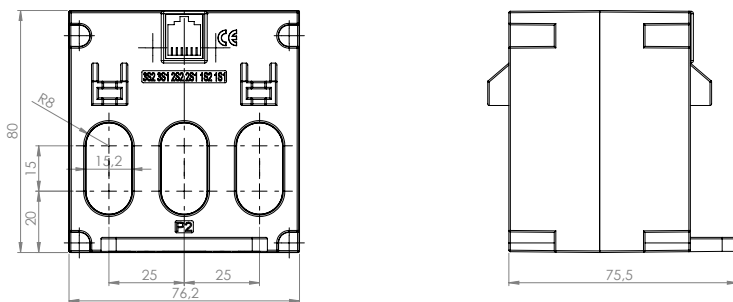
Single-phase transformer RJ12 - hole diameter 21 mm



Code	Current ratio	Power/class
LJ12-132235S 000000 *	50A/100mA	0.25VA/1
LJ12-142235S 000000	60A/100mA	0.25VA/1
LJ12-182235S 000000	100A/100mA	0.25VA/0.5; 0.35VA/1
LJ12-202235S 000000	125A/100mA	0.25VA/0.5; 0.35VA/1
LJ12-222235S 000000	150A/100mA	0.25VA/0.5; 0.35VA/1
LJ12-232235S 000000	160A/100mA	0.25VA/0.5; 0.35VA/1
LJ12-242235S 000000	200A/100mA	0.25VA/0.5; 0.5VA/1
LJ12-272235S 000000	250A/100mA	0.25VA/0.5; 0.5VA/1

* - item available from our stock

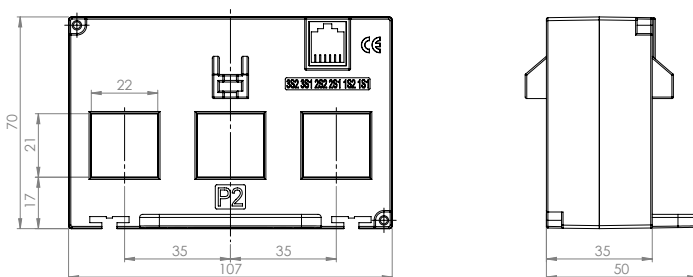
Three-phase transformer RJ12 - busbar 15 x 15 mm



Code	Current ratio	Power/class
LJ25-142231S 000000	60A/100mA	0.25VA/1
LJ25-182235S 000000 *	100A/100mA	0.25VA/0.5; 0.35VA/1
LJ25-202235S 000000	125A/100mA	0.25VA/0.5; 0.35VA/1
LJ25-222235S 000000	150A/100mA	0.25VA/0.5; 0.35VA/1
LJ25-232235S 000000	160A/100mA	0.25VA/0.5; 0.35VA/1
LJ25-242235S 000000	200A/100mA	0.25VA/0.5; 0.35VA/1

* - item available from our stock

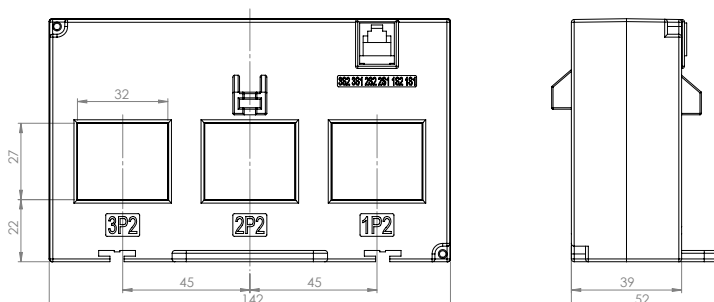
Three-phase transformer RJ12 - busbar 22 x 21 mm



Code	Current ratio	Power/class
LJ35-142231S 000000	60A/100mA	0.25VA/1
LJ35-182235S 000000 *	100A/100mA	0.25VA/0.5; 0.35VA/1
LJ35-202235S 000000	125A/100mA	0.25VA/0.5; 0.35VA/1
LJ35-222235S 000000 *	150A/100mA	0.25VA/0.5; 0.5VA/1
LJ35-232235S 000000	160A/100mA	0.25VA/0.5; 0.5VA/1
LJ35-242235S 000000 *	200A/100mA	0.25VA/0.5; 0.5VA/1
LJ35-272235S 000000	250A/100mA	0.25VA/0.5; 0.5VA/1

* - item available from our stock

Three-phase transformer RJ12 - busbar 32 x 27 mm

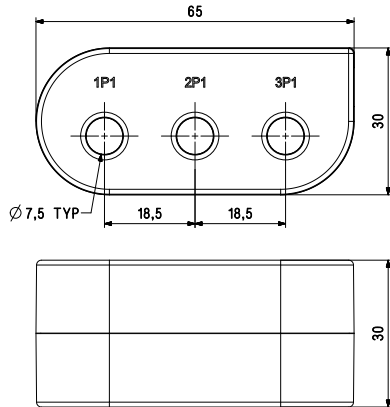


Code	Current ratio	Power/class
LJ45-272235S 000000 *	250A/100mA	0.25VA/0.5; 0.5VA/1
LJ45-312235S 000000	400A/100mA	0.25VA/0.5; 0.5VA/1
LJ45-332235S 000000	600A/100mA	0.25VA/0.5; 0.5VA/1

* - item available from our stock

ORDERING

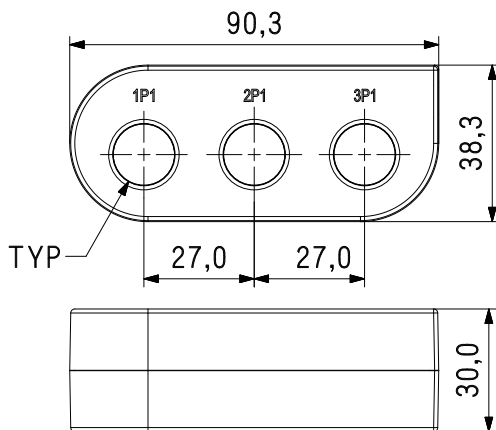
Three-phase transformer with screw terminal cable - hole diameter 8 mm, cable length 1550 mm



Code	Current ratio	Power/class
L308 0632511BL0000 *	63A/250mA	0.1VA/0,5

* - item available from our stock

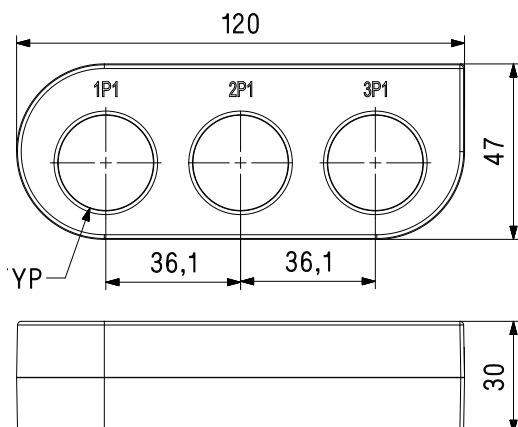
Three-phase transformer with screw terminal cable - hole diameter 15 mm, cable length 1550 mm



Code	Current ratio	Power/class
L306 1252511BL0000 *	125A/250mA	0.1VA/0,5

* - item available from our stock

Three-phase transformer with screw terminal cable - hole diameter 26 mm, cable length 1550 mm

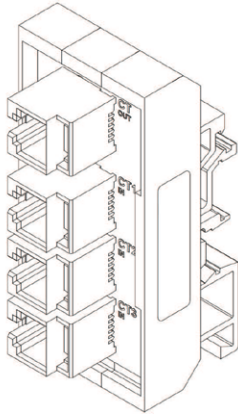


Code	Current ratio	Power/class
L307 2502511BL0000 *	250A/250mA	0.1VA/0,5

* - item available from our stock

ORDERING

SPLITTER



Code	Remarks
ND20CT-303	Splitter is recommended when connecting LJ single-phase current transformers with ND20CT meter.

Code	Description
ND20CT 20100M0*	3-phase Power Network Meter ND20CT Current input 0.1A (X/0,1A) or 0.25A (X/0.25A), Voltage input 3x230/400V, RS-485 interface, supply 85-253V a.c. or 90-300V d.c., documentation and descriptions in Polish and English version, test certificate
ND20CT 20200M0*	3-phase Power Network Meter ND20CT Current input 0.1A (X/0,1A) or 0.25A (X/0.25A), Voltage input 3x230/400V, RS-485 interface, supply 20-40V a.c. or 20-60V d.c., documentation and descriptions in Polish and English version, test certificate

* Upon agreement, an option to order a calibration certificate for the product is available against payment. Then, in the execution code, in the place of the last character, enter the digit **2**, e.g. **ND20CT 20200M2**. The customer will then receive a standard test certificate and a calibration certificate (against payment).

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ND20CT-19A_R1_en

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