# E3METER<sup>™</sup> Data Concentrator RN1401 Datasheet





## **General Description**

The E3METER<sup>®</sup> Data Concentrator stands at the center of our innovative monitoring system. It aggregates data from up to 400 E3METER<sup>®</sup> intelligent power strips (IPS), implements logging functionality and makes data available on its Fast Ethernet interface via HTTPS and SNMP.

Data transfers between E3METER<sup>®</sup> IPS and the E3METER<sup>®</sup> concentrator use reliable narrowband powerline communication (PLC) technology which avoids the need for extra cabling.

The E3METER<sup>®</sup> concentrator's small form factor facilitates installation in any 19" Rack (standard model) or power distribution panel (optional, on request).

Industrial grade components and the fact that there are no moving parts guarantee minimal maintenance effort.

E3METER<sup>®</sup> - A true plug-and-play metering solution, out of the box. Power management, reporting, billing, alarming and provisioning has never been easier for the Datacenter operator, technician and customer.

### Features

- Control and monitor up to 400 E3METER<sup>®</sup> Intelligent Power Strips / Intelligent CEE Boxes on 2 x 3 phases
- Built-in data logging and visualization
- Pre-loaded with E3METER<sup>®</sup> Monitoring Software
- Free upgrades (no subscription, no recurring fees)
- Extended Features with simple, perpetual licensing model
- SNMP interface for 3<sup>rd</sup>-party monitoring systems
- Reliable Powerline Communication (Cenelec B, FCC or ARIB)
- 10/100 Mbps Fast Ethernet
- 19" Rack mountable, 1U (ultra-small panelboard version optional)
- Low power consumption (< 3 W)
- No moving parts (no fan, industrial grade flash storage)
- Serial port for maintenance
- OLED Display





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<b>ЕЗМЕТЕ</b> В. сом	Analyzer -			03.02.2016 15:00 - 16:00	2016	6.02.06 12:45 Settings admin
Groups -	Active Power 01 Feb	2016 - 06 Feb 2016 (Last) 🇮 / 1 h	our	Phase 3 145.075 kW Phase 1 45.075 kW Total 43.6728 kW	Last 24 Hours Last 7 Da	ys Last 30 Days 🚯 0 🖡
	33.7% 33.1%	400				
Feed A 4	8	300 - 250 -				
Feed B 4	8 33.1%	200 -				
	33.1%	100 - 50 -				
RACKS	Phase 3 138.401 kW	0	Feb 03	Feb 04	Feb 05	Feb 00
Rack 01 8	Phase 1 136.072 kW					B
Rack 02 8						
Rack 03 E	15:00 - 16:00	× Z Export			Gr	ouped by [Ungrouped]
Rack 04 8						
Rack 05 8		Active Power Juct Number Average	Current (Amperes) Phase 1	Phase 2	Phase 3	Status
Rack 06 8	E3METER 001679	139 W	4%	0%	0%	
Rack 07 8	B S/N 001679 RN1		L1: 0.646 A	L2: 0.000 A	L3: 0.000 A	· ·
Rack 08 8	E3METER 001686 S/N 001686 RN1	2'464 W 231 average	19% L1: 3.036 A	L2: 4.528 A	L3: 3.813 A	
Rack 09 E	E3METER 004349	5'837 W 255 average	53%	L2: 8.367 A	L3: 8:251 A	<b>/</b>
Rack 11 E	B C E3METER 004350 S/N 004350 RN1	3'897 W 255 average	20% L1: 4.652 A	49% L2: 7.895 A	) 20% L3: 4.162 A	
Rack 12 8	B E3METER 004351 S/N 004351 RN1	566 W 255 average	9% L1: 1.449 A	4% L2: 0.685 A	□ <b>3%</b> L3: 0.531 A	
FLAGGED METERS	C E3METER 004352 S/N 004352 RN1	3'808 W 255 average	23% L1: 4.702 A	46%	) 30% L3: 4.737 A	<b>~</b>
Show flagged only 0	E3METER 004353	6'065 W 255 average	50%	48% L2: 7.712 A	L3: 9.050 A	
	C E3METER 004354 S/N 004354 RN1	1'223 W 255 average	11% L1: 1.705 A	12% L2: 1.920 A	14% L3: 2.199 A	
	C E3METER 004355 S/N 004355 RN1	946 W 255 average	6% L1: 1.243 A	10% L2: 1.555 A	L3: 1.626 A	
	C E3METER 004356 S/N 004356 RN1	4*238 W 255 average	45%	25% L2: 3.926 A	L3: 7.128 A	
	E3METER 004357 S/N 004357 RN1	<b>3'915 W</b> 255 average	44% L1: 6.997 A	19% L2: 2.965 A	43% L3: 6.868 A	<b>~</b>

#### Logging / Alarms

The following measurements from all connected E3METER<sup>®</sup> intelligent power strips and sensors are logged in a local database and at the same time made available through HTTPS and SNMP:

Р	[W]		Real power
Q	[VAR]		Reactive power
S	[VA]		Apparent power
Ep	[kWh]		Real energy
Eq	[kVARh]		Reactive energy
Es	[kVAh]		Apparent energy
Urms	[V]		Line voltage
Irms	[A]	Alarm	Output current
Upk	[V]	Alarm	Peak line voltage
f	[Hz]	Alarm	Line frequency
PF	N/A		Power factor
Ti, T1, T2	[°C]	Alarm	Internal temperature and values from external temperature sensors
H1, H2	[%]		Humidity values from external sensors

#### Physical (19" Version)

	-
Width	483 mm
Depth	232 mm
Height	1U (44.5 mm)
Weight	2000 g
Mounting	19", 1U

### AC Supply (redundant)

Nominal Input Voltage	230 / 400 Vrms, 2x 3-phase	
Input Socket Type	2x Wieland "GST18I5F"	
Input Plug (included)	2x Wieland (92.953.4053.1)	
Power Consumption	< 3 W (only on phase 1)	

#### Communication

Powerline	Reliable narrowband Powerline Communication
	(Cenelec B, FCC or ARIB)
Ethernet	10/100 Mbps Fast Ethernet
Ethemet	RJ-45 connector
Serial	Console, 115'200 bps, 8n1

