EL-tjeneste as

Norwegian quality and innovation

UNI SMARTGRID CABINET
230/400/1000V

August 2024

SMARTGRID CABINET

USAGE
We deliver custom equipped or non-equipped outdoor cabinets for energy management systems. Based on customers   requirements, they can be equipped with metering systems (smart meters) and/or various sensors and sensorhubs to help improve service reliability and power restoration. Wireless two-way communication connects the cabinet to the grid network for real-time monitoring.

CABINETS
Cabinets are made for outdoor use and consists of seawater-resistant aluminum and weather resistant plastic roof and bottom. The cabinets are anodized brown, both for aesthetic reason and to improve corrosion resistance.
The color is UV resistant and blends in with the environment.
Cabinets are made to provide a good climate for electronic components. To prevent condensation, cabinets are equipped with ventilation and heater, as well as insulated roof and drainage in the bottom.
A vandal-proof antenna in the roof provides radio and GSM transmission.

MOUNTING
The smartgrid cabinets can be mounted on pole, wall or on cable distribution cabinets.
Cable guards are designed to ensure a non-climbing zone when pole mounted.
In addition to DIN rails, single- or double layer mounting plate can be delivered. Pre-drilled with holes for specific equipment.
See our webpage www.el-tjeneste.no for more accessories.

TRANSFORMER STATION INDOOR MODULE
For mounting inside substations, where cabinet is not needed, EL-tjeneste AS can provide a pre wired component plate for this purpose.

USE IN CORROSIVE ENVIROMENT
Special considerations must be taken when used in corrosive environment. Grease can prevent moisture between materials in connection points. See www.el-tjeneste.no for more information.
INSTRUCTIONS AND DATASHEET
Mounting instructions and datasheet can be found on our webpage www.el-tjeneste.no.
Each product has a label with a QR-code, this will lead to the product on the webpage.

ALUMINIUM PRODUCTS USED IN POWER TRANSMISSION AND DISTRIBUTION
EL-tjeneste AS has delivered aluminum products since 1996, they a have well proven durability.

| El-no	Name	Description	Unit	Picture
2836351	Antenna adapter AOJ	Antenna adapter from MCX-female (straight) to SMA-male (straight). L=175mm.	PCS	
2836322	Antenna adapter AOK	Antenna adapter from SMA-female (straight) to MCX-male (angle). L=220mm.	PCS	
2836375	Antenna pole AFN	Antenna pole 2m for wall mounting (Ø50mm), included mounting brakets for wall.	PCS	
2836369	Antenna pole extension AFNF	Antenna pole extension Included splice and 1,4m pole.	PCS	
2851774	Antenna support bracket angle AS-N-AV	Antenna support bracket for cable duct KAN42.	PCS	
2836399	Antenna support bracket angle AV	Support bracket angle for antenna pole AFN (Ø50mm).	PCS	
2836350	Antenna support bracket AR-F	Support bracket for antenna pole (Ø50mm).	PCS	
2836378	Antenna support bracket AR-KA	Support bracket for antenna pole AFN (Ø50mm). Suitable for Kamstrup/Aidon-antenna.	PCS	
2836376	Antenna support bracket AR-N	Support bracket for antenna pole AFN (Ø50mm). Suitable for Nuri-antenna.	PCS	
2836379	Antenna support bracket ARS2-N	Support bracket for antenna pole AFN (Ø50mm). Suitable for 2xNURI-antenna.	PCS	
2836380	Antenna support bracket ASK2-N	Support bracket with cable bracket KB. Suitable for 2xNURI-antenna.	PCS	
2836377	Antenna support bracket AS-N	Support bracket for cable duct KAN42. Suitable for NURI-antenna.	PCS	
2836345	Bracket UNI-FORV	For reinforcement of thin walls, up to 75mm thickness. Used together with article number 2836327 (wall mount for UNI cabinets), behind the upper part.	PCS	
2836356	Bracket UNI-FST	Mounting bracket for 3 or 2 pcs of outdoor current transformers. For mounting onto transformer lid.	PCS	
2836383	Bracket UNI-SKF	Kit for mounting Smartgrid cabinet onto the side of a cable cabinet. Uses mouting point for snow marker. Wiring not included.	PCS	
2836382	Bracket UNI-STF-60	Kit for mounting Smartgrid cabinet to wooden pole. For cabinet length 600mm. Adapted to cable guard KAN42 (must be ordered seperatly). Wiring not included.	PCS	
2836373	Bracket UNI-STF-75	Kit for mounting Smartgrid cabinet to wooden pole. For cabinet length 750mm. Adapted to cable guard KAN42 (must be ordered seperatly). Wiring not included.	PCS	

El-no	Name	Description	Unit	Picture
2836327	Bracket UNI-VF	Kit for mounting Smartgrid cabinet to wall. Use article 2836345 if reinforcement of wall is necessary.	SET	
2837434	CT Mounting bracket UNI-FST-FL	Mounting bracket for 3 or 2 outdoor current transformers. Mounting onto the flange of transformer lid to avoid disassembly of the lids bolts.	PCS	
2836352	Disconnection clamp UNI-SK2	Disconnection clamp for 2 current transformers. To be used in Smartgrid cabinet.	PCS	
2836339	Disconnection clamp UNI-SK2-E	Disconnection clamp for 2 current transformers. To be used in Circuit beaker cabinet.	PCS	
2836353	Disconnection clamp UNI-SK3	Disconnection clamp for 3 current transformers. To be used in Smartgrid cabinet.	PCS	
2836305	Earthing clamp JKV50	Earthing clamp for circuit breaker cabinet 50mm2. For umbrakospanner 5.	PCS	
2836326	Feeder cable UNI-KS9	Feeder cable for UNI Smartgrid cabinet. 9x2.5mm² in flexible steel hose with cable gland at both ends. Used as a connection between UNI Smartgrid cabinets and cable cabinets.	SET	
2836360	Feeder cable UNI-LED-4-85	Feeder cable for UNI Smartgrid cabinet. 8,5m long 4x2.5mm² double insulated cable in 7.5m plastic flexible conduit. Can be used up to and including 1000V.	PCS	
2836325	Feeder cable UNI-LED-65	Feeder cable for UNI Smartgrid cabinet. 6,5m long 3x2.5mm² double insulated cable in 7.5m plastic flexible conduit. Can be used up to and including 1000V.	PCS	
2836330	Feeder cable UNI-Led-85	Feeder cable for UNI Smartgrid cabinet. 8,5m long 3x2.5mm² double insulated cable in 7.5m plastic flexible conduit. Can be used up to and including 1000V.	PCS	
2857802	Module plate NSO-230IT-D	Module plate for grid monitoring of 230V IT-grid. With Kaifa MBUS dongle, prepared for power analyser. For installation inside transformer substations. Adapted to Kaifa smart meters.	PCS	
2836372	Module plate NSO-230IT-M	Module plate for grid monitoring of 230V IT-grid. With power analyser, prepared for MBUS dongle. For installation inside transformer substations. Adapted to Kaifa smart meters.	PCS	
2853910	Module plate NSO-230IT-MD	Module plate for grid monitoring of 230V IT-grid. With Kaifa MBUS dongle and power analyser. Detects earth faults by measuring phase-ground voltages. For installation inside transformer substations. Adapted to Kaifa smart meters.	PCS	

El-no	Name	Description	Unit	Picture
2836324	Mounting bar MSK35	Mounting rail for UNI cabinets. Includes screws. Rail DIN35, length 255mm.	PCS	
2857857	Mounting kit UNI-KIT-NSO-ND	Kit for retrofitting smartgrid cabinets with power analyser and Kaifa MBUS dongle	PCS	
2836370	Smartgrid cabinet UNI-SIG-1000IT-ISO	Smartgrid cabinet for network supervision 1000V IT. Detects earth fault by measuring insulation resistance. With antenna plug type MCX-m.	PCS	
2836859	Smartgrid cabinet UNI-SIG-1000IT-ISO-02	Smartgrid cabinet for network supervision 1000V IT. Detects earth fault by measuring insulation resistance. With antenna plug type SMB-f.	PCS	
2836371	Smartgrid cabinet UNI-SIG-1230IT-ISO	Smartgrid cabinet for network supervision of 230V and 1000V IT-grid. Detects earth faults by measuring phase-ground voltages on 230V and insulation resistance on 1000V.	PCS	
2837489	Smartgrid cabinet UNI-SIG-1230IT-ISO-02	Smartgrid cabinet for network supervision of 230V and 1000V IT-grid. Detects earth faults by measuring phase-ground voltages on 230V and insulation resistance on 1000V.	PCS	
2836384	Smartgrid cabinet UNI-SIG-230IT-01	Smartgrid cabinet for network supervision 230V IT-grid. With double mounting plate and antenna MCX-m. Connection for 2 CTs.	PCS	
2836385	Smartgrid cabinet UNI-SIG-230IT-03	Smartgrid cabinet for network supervision 230V IT-grid. With single mounting plate and antenna SMB-f. Connection for 2 CTs.	PCS	
2836381	Smartgrid cabinet UNI-SIG-230IT-05	Smartgrid cabinet for network supervision 230V IT-grid. With double mounting plate, antenna MCX-m and outside antenna terminal. Connection for 2 CTs.	PCS	
2836391	Smartgrid cabinet UNI-SIG-230IT-06	Smartgrid cabinet for network supervision 230V IT-grid. With double mounting plate and antenna MCX-m. Connection for 2 CTs. Nemo D4-Le instrument.	PCS	
2837490	Smartgrid cabinet UNI-SIG-230IT-07	Smartgrid cabinet for network supervision 230V IT-grid, adapted to SafeMon SensorHUB. With double mounting plate and antenna MCX-m. Connection for 3 CTs. Prepared for mounting of SensorHUB and associated power supply unit.	PCS	
2837493	Smartgrid cabinet UNI-SIG-230IT-08	Smartgrid cabinet for network supervision 230V IT-grid. Double mounting plate and antenna SMB-f. Connection for 3 CTs.	PCS	
2851778	Smartgrid cabinet UNI-SIG-230IT-09	Smartgrid cabinet for network supervision 230V IT-grid. With double mounting plate and antenna MCX-m. Connection for 2 CTs. Equipped with Kaifa MBUS dongle.	PCS	
2836386	Smartgrid cabinet UNI-SIG-230TT-01	Smartgrid cabinet for network supervision 230V TT-grid. With double mounting plate, antenna MCX-m and outside antenna terminal.	PCS	

El-no	Name	Description	Unit	Picture
2837491	Smartgrid cabinet UNI-SIG-230TT-02	Smartgrid cabinet for network supervision 230V IT-grid, adapted to SafeMon SensorHUB. With earth fault relay, power analyzer with connection for 3 CTs, double mounting plate and antenna MCX-m. Prepared for mounting of SensorHUB and associated power supply unit.	PCS	
2836387	Smartgrid cabinet UNI-SIG-400-01	Smartgrid cabinet for network supervision 400V IT-grid. With double mounting plate and antenna MCX-m.	PCS	
2836389	Smartgrid cabinet UNI-SIG-400-02	Smartgrid cabinet for network supervision 400V IT-grid. With single mounting plate and antenna SMB-f.	PCS	
2837492	Smartgrid cabinet UNI-SIG-400-03	Smartgrid cabinet for network supervision 400V NT-S-grid, adapted to SafeMon SensorHUB. With double mounting plate and antenna MCX-m. Connection for 3 CTs. Prepared for mounting of SensorHUB and associated power supply unit.	PCS	
2837488	Smartgrid cabinet UNI-SIG-690IT-ISO	Smartgrid cabinet for network supervision 690V IT. Detects earth fault by measuring insulation resistance.	PCS	
2836314	Smartgrid cabinet UNI-SIGJ-1000	Smartgrid cabinet for network supervision 1000V IT-grid. Detects earth fault by measuring phase-ground voltage.	PCS	

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Quality products made in Norway for rough climatic situations