34ODPS rev. D/1SCC390112M0204

Dual Power Source, ODPSE230C
Installation and operating instruction

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Introduction

ODPSE230C is used to provide power supply for motorized switches and breakers by using two lines, Line I and Line II.

Features:
The device is self supplied from the available lines.

- There is no need for an external power supply.

Isolation is provided between lines I and II.

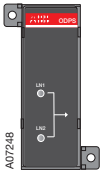
- The two asynchronous sources are always isolated from each other.

Status indication

A green LED light for Line I and Line II indicates that voltage is within the specified range. In case of anomaly the LEDs are switched OFF. Specified voltage range is 80% - 120% x rated AC voltage.

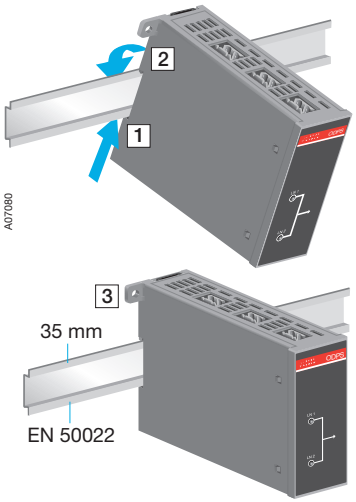
LINE I	LINE II	Output	LEDs
OK	NOT OK	LINE I	LINE I
NOT OK	OK	LINE II	LINE II
NOT OK	NOT OK	None	None
OK	OK	LINE I	LINE I + II

Table 1 Status indication of ODPS

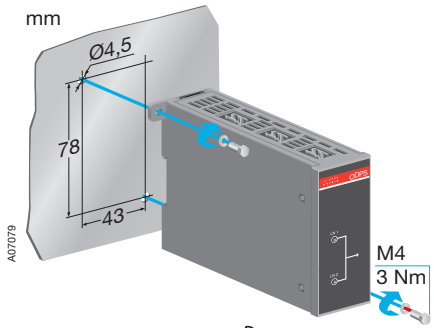


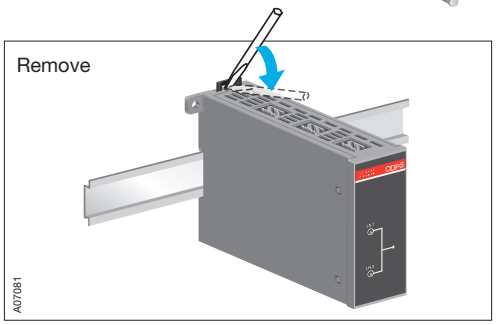
Picture 1. Front panel

Installation



Picture 2. DIN-rail mounting of ODPS





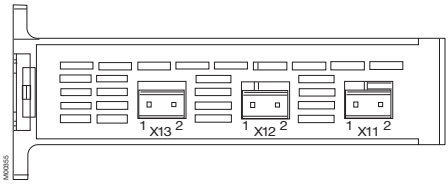
Picture 3. Drilling hole distances/screw mounting

Technical data

Voltage and current limits	
Rated operational voltage U [V]	220 ... 240 V AC +/-20%, 50/60 Hz +/-10%
F1, F2	Max. MCB 4 A
Nominal output current I_n [A]	4 A
Startup time	Max. 1.0 s (with 230 V AC)
Operating transfer time LN1- LN2 or LN2 - LN1	Max. 0.5 s (with 230 V AC)
Main circuit connections	
X11:1	Line I Phase
X11:2	Line I Neutral
X13:1	Line II Phase
X13:2	Line II Neutral
X12:1	Motor operator Phase
X12:2	Motor operator Neutral
Connection cables	
Supply side cables of the main circuit	0.2 ... 2.5 mm^2 / 0.6 Nm
Load side cables of the main circuit	0.2 ... 2.5 mm^2 / 0.6 Nm
Stripping length	7 mm
External transformer	
When ODPS230 is used in a network where N is not connected, an external transformer must be used to drop the voltage level. The transformer has to be a Main to Phase transformer and isolative. The effective value depends on the size of the motor operator. See Connection diagram.	
Dielectric properties	
Overvoltage category	III
IEC 60947- 1 Rated impulse withstand voltage (U_{imp}), basic insulation	4.0 kV
IEC 60947-1 Dielectric test	1.89 kV, 50 Hz, 5 s
IEC 60092-504 Insulation resistance measurement	> 100 MΩ, 500 V DC
Mechanical characteristics	
Material of enclosure	Self-extinguishing thermoplastic, UL 94 V-0
Degree of protection	IP 20
Environmental conditions	
Ambient air temperature	-25 ... +60 °C
Altitude of the site of installation	< 2000 m
IEC 60068-2-30 Humidity, relative	< 93%, T = -25 ... +60 °C
IEC 60947-1 Pollution degree	3
Mechanical tests	
IEC 60068-2-6 Vibration test	5 Hz to 13.2 Hz: +/-1 mm
	13.2 Hz to 100 Hz: +/- 0.7 g
	Q does not exceed 5
	Duration 90 min at 30 Hz or at each resonance frequency
IEC 60068-2-27 Shock test	Acceleration 100 m/s^2 peak (10 gn) and 150 m/s^2 peak (15 gn). Pulse duration: 11 ms
Transport and storage	
Ambient air temperature	-40 ... +70 °C
EMC characteristics	
IEC 61000-4-2 Electrostatic discharge immunity test	8 kV (Level 3) Air discharge
	4 kV (Level 2) Contact discharge
IEC 61000-4-3 Radiated, radio-frequency, electromagnetic field immunity test	Level 3
IEC 61000-4-4 Electrical fast transient/burst immunity test	Level 3
IEC 61000-4-5 Surge immunity test	2 kV Phase to Neutral
IEC 61000-4-6 Immunity to conducted disturbances, induced by radio-frequency fields	Level 3
IEC 61000-4-8 Power frequency magnetic field immunity test	Level 4
CISPR 11 Electromagnetic disturbance characteristics (emission)	Group 1 Class B

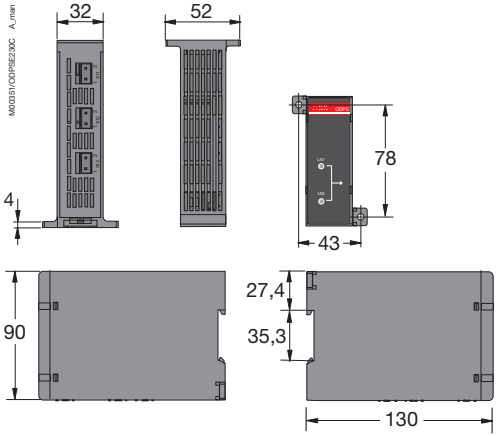
Table 2. Technical data

Connectors

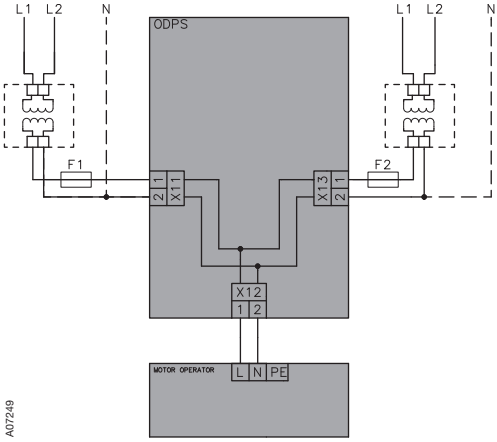


Picture 4. Connectors

Dimensions and connection diagram



Picture 5. Dimensions of the device



Picture 6. Connection diagram

BG	Внимание! Опасно напрежение! Да се монтира само от лице с електротехническа квалификация.
FR	Avertissement! Tension électrique dangereuse! Installation uniquement par des personnes qualifiées en électrotechnique.
MT	Twissija! Vultaġġ perikoluż! Għandu jiġi installat biss minn persuna b'kompetenza elettroteknika.
HR	Upozorenje! Opasan napon! Postavljati smije samo elektrotehnički stručnjak.
DE	Warnung! Gefährliche Spannung! Installation nur durch elektrotechnische Fachkraft.
PL	Ostrzeżenie! Niebezpieczne napięcie! Instalacji może dokonać wyłącznie osoba z fachową wiedzą w dziedzinie elektrotechniki.
CS	Varování! Nebezpečné napětí! Montáž smí provádět výhradně elektrotechnik!
EL	Προειδοποίηση! Υψηλή τάση! Η εγκατάσταση πρέπει να γίνεται μόνο από εξειδικευμένους ηλεκτροτεχνικούς.
PT	Aviso! Tensão perigosa! A instalação só deve ser realizada por um eletricista especializado.
DA	Advarsel! Farlig elektrisk spænding! Installation må kun foretages af personer med elektroteknisk ekspertise.
HU	Figyelmeztetés! Veszélyes feszültség! Csak elektrotechnikai tapasztalattal rendelkező szakember helyezheti üzembe.
RO	Avertizare! Tensiune periculoasă! Instalarea trebuie efectuată numai de către o persoană cu experienţă în electrotehnică.
NL	Waarschuwing! Gevaarlijke spanning! Mag alleen geïnstalleerd worden door een deskundige elektrotechnicus.
IE	Rabhadh! Voltas guaiseach! Ba chóir do dhuine ag a bhfuil saineolas leictriteicniúil, agus an té sin amháin, é seo a shuiteáil.
SK	Varovanie! Nebezpečné napätie! Montáž môže vykonávať iba skúsený elektrotechnik.
EN	Warning! Hazardous voltage! Installation by person with electrotechnical expertise only.
IT	Avvertenza! Tensione pericolosa! Fare installare solo da un elettricista qualificato.
SL	Opozorilo! Nevarna napetost! Vgradnjo lahko opravi le oseba z elektrotehničnim strokovnim znanjem.
ET	Hoiatus! Ohtlik pinge. Paigaldada võib ainult elektrotehnika-alane ekspert.
LV	Uzmanību! Bīstami - elektriba! Montāžas darbus drīkst veikt tikai personas, kurām ir atbilstošas elektrotehniskās zināšanas.
ES	¡Advertencia! ¡Tensión peligrosa! La instalación deberá ser realizada únicamente por electricistas especializados.
FI	Varoitus! Vaarallinen jännite! Asennuksen voi tehdä vain sähköalan ammattihenkilö.
LT	Dėmesio! Pavojinga įtampa! Dirbti leidžiama tik elektrotechniko patirties turintiems asmenims.
SE	Varning! Farlig spänning! Installation får endast utföras av en elektriker.
CN	警告！电压危险！只能由专业电工进行安装。
RU	Осторожно! Опасное напряжение! Монтаж должен выполняться только специалистом-электриком.

For more information please contact:
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P.O. Box 622, FI-65101 Vaasa, Finland
www.abb.com/lowvoltage

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