03.11.2022

CUSTOMER OFFER NO.

**GENERAL** 

Product: 50 kVA 35/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 Max. Ambient Temp.: 40 °C

Service Type: Continuous Service

Cooling Method: ONAN

Oil: Mineral Oil as per IEC 60296

End Color: RAL 7033

**ELECTRICAL SPECIFICATIONS** 

Frequency: 50 Hz. SC Impedance (Uk%) 4.5%  $\pm$  10%

Connection Group: Yzn 11 Tap Changer Type: Off Load

Number of Phases: 3 No of Tappings: 5

HV Windings: Aluminium Tapping Range: +2 x %2,5 -2 x %2,5

LV Windings: Aluminium No-Load Losses: 230 W
Oil Temp. Rise: 60 K Load Losses: 1250 W
Windings Temp. Rise: 65 K Insulation Class: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV Lightning Impulse Withstand of HV/LV: 170/- kV

WEIGHTS and DIMENSIONS

Width: 560 Total Weight: 410 kg mm. 830 120 Oil Weight: Length: mm. kg Height: 1180 mm. Active Part Weight: 230 kg

**ACCESSORIES** 

+ HV Bushings Porcelain (DIN Type) + LV Bushings Porcelain + Lifting Lugs + Oil Filling/Drain Valve

+ Earthing Terminals + Oil Level Indicator
+ Tap Changer Dehydrating Breather

+ Thermometer Pocket Buchholz Relay
Multi Protection Relay Thermometer (With contact)

+ Pressure Relief Device Marshalling Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54)

LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

**NOTES** 

Losses are maximum without any positive tolerances. Dimensions and weights are approximate.

03.11.2022

**CUSTOMER** OFFER NO.

**GENERAL** 

Product: 50 kVA 35/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 40 °C Max. Ambient Temp.:

Service Type: Continuous Service

Cooling Method: ONAN

Mineral Oil as per IEC 60296 Oil:

End Color: RAL 7033

**ELECTRICAL SPECIFICATIONS** 

SC Impedance (Uk%) 4.5%  $\pm$ 10% Frequency: 50 Hz.

Connection Group: Tap Changer Type: Off Load Dyn 11

Number of Phases: 3 No of Tappings:

 $+2 \times \%2,5 -2 \times \%2,5$ HV Windings: Aluminium Tapping Range:

No-Load Losses: 160 LV Windings: Aluminium W Oil Temp. Rise: 60 K Load Losses: 1050 W Windings Temp. Rise: 65 K Insulation Class: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV 170/- kV Lightning Impulse Withstand of HV/LV:

WEIGHTS and DIMENSIONS

Width: 650 Total Weight: 560 mm. kg 1000 180 Length: mm. Oil Weight: kg 1190 Active Part Weight: 320 Height: mm. kg

**ACCESSORIES** 

+ HV Bushings Porcelain (DIN Type) + LV Bushings Porcelain

+ Lifting Lugs

+ Oil Filling/Drain Valve + Earthing Terminals Oil Level Indicator

+ Tap Changer

+ Thermometer Pocket Buchholz Relay Thermometer (With contact) Multi Protection Relay

+ Pressure Relief Device Marshallina Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54) LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

Dehydrating Breather

**NOTES** 

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

03.11.2022

CUSTOMER OFFER NO.

**GENERAL** 

Product: 100 kVA 35/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 Max. Ambient Temp.: 40 °C

Service Type: Continuous Service

Cooling Method: ONAN

Oil: Mineral Oil as per IEC 60296

End Color: RAL 7033

**ELECTRICAL SPECIFICATIONS** 

Frequency: 50 Hz. SC Impedance (Uk%) 4.5%  $\pm$  10%

Connection Group: Yzn 11 Tap Changer Type: Off Load

Number of Phases: 3 No of Tappings: 5

HV Windings: Aluminium Tapping Range: +2 x %2,5 -2 x %2,5

LV Windings: Aluminium No-Load Losses: 380 W
Oil Temp. Rise: 60 K Load Losses: 1950 W
Windings Temp. Rise: 65 K Insulation Class: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV Lightning Impulse Withstand of HV/LV: 170/- kV

WEIGHTS and DIMENSIONS

Width: 610 580 mm. Total Weight: kg 910 160 Lenath: mm. Oil Weight: ka 1220 Active Part Weight: 350 Height: mm. kg

**ACCESSORIES** 

+ HV Bushings Porcelain (DIN Type) + LV Bushings Porcelain + Lifting Lugs + Oil Filling/Drain Valve

+ Earthing Terminals + Oil Level Indicator
+ Tap Changer Dehydrating Breather

Thermometer Pocket

Multi Protection Relay

Buchholz Relay

Thermometer (With contact)

+ Pressure Relief Device Marshalling Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54)

LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

**NOTES** 

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

03.11.2022

CUSTOMER OFFER NO.

**GENERAL** 

Product: 100 kVA 35/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 Max. Ambient Temp.: 40 °C

Service Type: Continuous Service

Cooling Method: ONAN

Oil: Mineral Oil as per IEC 60296

End Color: RAL 7033

**ELECTRICAL SPECIFICATIONS** 

Frequency: 50 Hz. SC Impedance (Uk%) 4.5%  $\pm$  10%

Connection Group: Dyn 11 Tap Changer Type: Off Load

Number of Phases: 3 No of Tappings: 5

HV Windings: Aluminium Tapping Range: +2 x %2,5 -2 x %2,5

LV Windings: Aluminium No-Load Losses: 270 W
Oil Temp. Rise: 60 K Load Losses: 1650 W
Windings Temp. Rise: 65 K Insulation Class: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV Lightning Impulse Withstand of HV/LV: 170/- kV

**WEIGHTS and DIMENSIONS** 

Total Weight: 730 850 Width: mm. kg Length: 1130 Oil Weight: 260 mm. kg Active Part Weight: 520 1280 Height: mm. kg

**ACCESSORIES** 

+ HV Bushings Porcelain (DIN Type) + LV Bushings Porcelain + Oil Filling/Drain Valve

+ Earthing Terminals + Oil Level Indicator
+ Tap Changer + Thermometer Pocket Buchholz Relay

Multi Protection Relay Thermometer (With contact)

+ Pressure Relief Device Marshalling Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54)

LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

**NOTES** 

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

03.11.2022

CUSTOMER OFFER NO.

**GENERAL** 

Product: 160 kVA 35/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 Max. Ambient Temp.: 40 °C

Service Type: Continuous Service

Cooling Method: ONAN

Oil: Mineral Oil as per IEC 60296

End Color: RAL 7033

**ELECTRICAL SPECIFICATIONS** 

Frequency: 50 Hz. SC Impedance (Uk%) 4.5%  $\pm$  10%

Connection Group: Yzn 11 Tap Changer Type: Off Load

Number of Phases: 3 No of Tappings: 5

HV Windings: Aluminium Tapping Range: +2 x %2,5 -2 x %2,5

LV Windings: Aluminium No-Load Losses: 520 W
Oil Temp. Rise: 60 K Load Losses: 2550 W
Windings Temp. Rise: 65 K Insulation Class: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV Lightning Impulse Withstand of HV/LV: 170/- kV

**WEIGHTS and DIMENSIONS** 

650 Total Weight: 760 Width: mm. kg 990 Length: mm. Oil Weight: 200 kg Height: 1290 Active Part Weight: 470 mm. kg

**ACCESSORIES** 

+ HV Bushings Porcelain (DIN Type) + LV Bushings Porcelain

+ Lifting Lugs + Oil Filling/Drain Valve

+ Earthing Terminals+ Tap Changer+ Oil Level Indicator Dehydrating Breather

Thermometer Pocket
 Multi Protection Relay
 Buchholz Relay
 Thermometer (With contact)

+ Pressure Relief Device Marshalling Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54)

LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

NOTES

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

Form: 1-2 Rev: -

03.11.2022

**CUSTOMER** OFFER NO.

**GENERAL** 

Product: 160 kVA 33/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 40 °C Max. Ambient Temp.:

Continuous Service Service Type:

Cooling Method:

Mineral Oil as per IEC 60296 Oil:

End Color: **RAL 7033** 

**ELECTRICAL SPECIFICATIONS** 

50 Hz. SC Impedance (Uk%) 4.5%  $\pm$ 10% Frequency:

Connection Group: Yzn 11 Tap Changer Type: Off Load

Number of Phases: 3 No of Tappings:

+2 x %4,5454 -3 x %4,5454 HV Windings: Aluminium Tapping Range:

390 LV Windings: Aluminium No-Load Losses: W Oil Temp. Rise: 60 K Load Losses: 2150 W 65 K Insulation Class: Windings Temp. Rise: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV Lightning Impulse Withstand of HV/LV: 170/- kV

WEIGHTS and DIMENSIONS

Width: 710 Total Weight: 900 mm. kg 1030 Oil Weight: 230 Length: mm. kg 1290 Active Part Weight: 590 Height: mm. kg

**ACCESSORIES** 

Porcelain (DIN Type) + HV Bushings + LV Bushings Porcelain + Oil Filling/Drain Valve

+ Lifting Lugs

+ Earthing Terminals + Oil Level Indicator + Tap Changer Dehydrating Breather

+ Thermometer Pocket

Buchholz Relay Thermometer (With contact) Multi Protection Relay

+ Pressure Relief Device Marshallina Box

Thermometer (Without contact) Wheels

HV Cable Box (min IP54) LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

**NOTES** 

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

Form: 1-2 Rev: -

#### 03.11.2022

# TECHNICAL SPECIFICATIONS

CUSTOMER OFFER NO.

#### **GENERAL**

Product: 250 kVA 35/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 Max. Ambient Temp.: 40 °C

Service Type: Continuous Service

Cooling Method: ONAN

Oil: Mineral Oil as per IEC 60296

End Color: RAL 7033

#### **ELECTRICAL SPECIFICATIONS**

Frequency: 50 Hz. SC Impedance (Uk%) 4.5%  $\pm$  10%

Connection Group: Dyn 11 Tap Changer Type: Off Load

Number of Phases: 3 No of Tappings: 5

HV Windings: Aluminium Tapping Range: +2 x %2,5 -2 x %2,5

LV Windings: Aluminium No-Load Losses: 780 W
Oil Temp. Rise: 60 K Load Losses: 3500 W
Windings Temp. Rise: 65 K Insulation Class: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV Lightning Impulse Withstand of HV/LV: 170/- kV

#### WEIGHTS and DIMENSIONS

810 950 Width: Total Weight: mm. kg 1020 Length: mm. Oil Weight: 240 kg Height: 1330 mm. Active Part Weight: 590 kg

#### **ACCESSORIES**

+ HV Bushings Porcelain (DIN Type)
+ Lifting Lugs
+ Earthing Terminals
+ Tap Changer
+ LV Bushings Porcelain
+ Oil Filling/Drain Valve
+ Oil Level Indicator
Dehydrating Breather

+ Thermometer Pocket

Multi Protection Relay

Buchholz Relay

Thermometer (With contact)

+ Pressure Relief Device Marshalling Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54)

LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

#### **NOTES**

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

#### 03.11.2022

# TECHNICAL SPECIFICATIONS

CUSTOMER OFFER NO.

**GENERAL** 

Product: 250 kVA 35/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 Max. Ambient Temp.: 40 °C

Service Type: Continuous Service

Cooling Method: ONAN

Oil: Mineral Oil as per IEC 60296

End Color: RAL 7033

**ELECTRICAL SPECIFICATIONS** 

Frequency: 50 Hz. SC Impedance (Uk%) 4.5%  $\pm$  10%

Connection Group: Dyn 11 Tap Changer Type: Off Load

Number of Phases: 3 No of Tappings: 5

HV Windings: Aluminium Tapping Range: +2 x %2,5 -2 x %2,5

LV Windings: Aluminium No-Load Losses: 550 W
Oil Temp. Rise: 60 K Load Losses: 3000 W
Windings Temp. Rise: 65 K Insulation Class: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV Lightning Impulse Withstand of HV/LV: 170/- kV

WEIGHTS and DIMENSIONS

740 Width: Total Weight: 1040 mm. kg 1060 260 Oil Weight: Length: mm. kg Height: 1440 mm. Active Part Weight: 680 kg

**ACCESSORIES** 

+ HV Bushings Porcelain (DIN Type) + LV Bushings Porcelain

+ Lifting Lugs + Oil Filling/Drain Valve

+ Earthing Terminals+ Tap Changer+ Oil Level IndicatorDehydrating Breather

+ Thermometer Pocket

Multi Protection Relay

Buchholz Relay

Thermometer (With contact)

+ Pressure Relief Device Marshalling Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54)

LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

**NOTES** 

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

Form: 1-2 Rev: -

03.11.2022

CUSTOMER OFFER NO.

**GENERAL** 

Product: 400 kVA 35/0,4 kV Hermetically Sealed Transformer

Applicable Standarts: IEC 60076-1 Max. Ambient Temp.: 40 °C

Service Type: Continuous Service

Cooling Method: ONAN

Oil: Mineral Oil as per IEC 60296

End Color: RAL 7033

**ELECTRICAL SPECIFICATIONS** 

Frequency: 50 Hz. SC Impedance (Uk%) 4.5%  $\pm$  10%

Connection Group: Dyn 11 Tap Changer Type: Off Load

Number of Phases: 3 No of Tappings: 5

HV Windings: Aluminium Tapping Range: +2 x %2,5 -2 x %2,5

LV Windings: Aluminium No-Load Losses: 1120 W
Oil Temp. Rise: 60 K Load Losses: 4900 W
Windings Temp. Rise: 65 K Insulation Class: Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV Lightning Impulse Withstand of HV/LV: 170/- kV

WEIGHTS and DIMENSIONS

840 1270 Width: Total Weight: mm. kg 1100 Length: mm. Oil Weight: 300 kg Height: 1410 mm. Active Part Weight: 800 kg

**ACCESSORIES** 

+ HV Bushings Porcelain (DIN Type) + LV Bushings Porcelain

+ Lifting Lugs

+ Earthing Terminals

+ Tap Changer

+ Thermometer Pocket

Multi Protection Relay

Buchholz Relay

Thermometer (With contact)

+ Pressure Relief Device Marshalling Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54)

LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

+ Oil Filling/Drain Valve

Dehydrating Breather

+ Oil Level Indicator

NOTES

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

Form: 1-2 Rev: -

03.11.2022

**CUSTOMER** OFFER NO.

**GENERAL** 

400 kVA 35/0,4 kV Hermetically Sealed Transformer Product:

IEC 60076-1 Applicable Standarts: 40 °C Max. Ambient Temp.:

Service Type: Continuous Service

ONAN Cooling Method:

Oil: Mineral Oil as per IEC 60296

End Color: RAL 7033

**ELECTRICAL SPECIFICATIONS** 

SC Impedance (Uk%) 4.5%  $\pm$ 10% 50 Hz. Frequency:

Connection Group: Tap Changer Type: Off Load Dyn 11

3 Number of Phases: No of Tappings: 5

+2 x %2,5 -2 x %2,5 Tapping Range: HV Windings: Aluminium

Aluminium 790 LV Windings: No-Load Losses: W 60 K Load Losses: 4150 Oil Temp. Rise: W Insulation Class: Windings Temp. Rise: 65 K Class A

Short Circuit Withstand: 2 sec.

One Minute Power Frequecy Withstand of HV/LV: 70/3 kV 170/- kV Lightning Impulse Withstand of HV/LV:

**WEIGHTS and DIMENSIONS** 

950 1450 Width: Total Weight: mm. kg 1180 Oil Weight: Length: mm. 330 kg Height: 1430 mm. Active Part Weight: 980 kg

**ACCESSORIES** 

+ HV Bushings Porcelain (DIN Type) + LV Bushings Porcelain

+ Lifting Lugs

+ Oil Filling/Drain Valve + Earthing Terminals + Oil Level Indicator

+ Tap Changer Dehydrating Breather + Thermometer Pocket Buchholz Relay

Multi Protection Relay Thermometer (With contact)

+ Pressure Relief Device Marshalling Box

Wheels Thermometer (Without contact)

HV Cable Box (min IP54) LV Cable Box (min IP54)

Accessories marked as "+" sign are included with the offer

**NOTES** 

Losses are maximum without any positive tolerances.

Dimensions and weights are approximate.

Form: 1-2 Rev: -