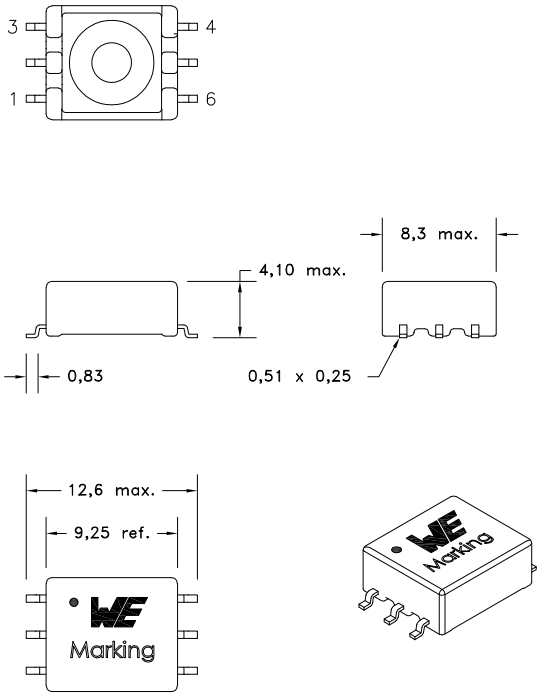
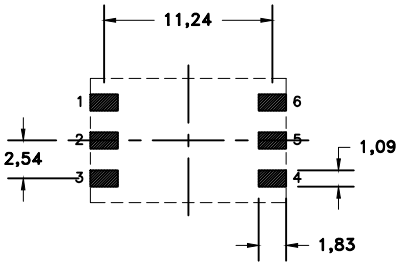
Dimensions: [mm]



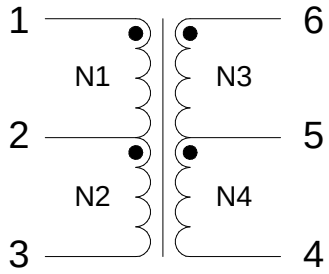
SCALE 2:1

Recommended Land Pattern: [mm]



SCALE 2:1

Schematic:



Electrical Properties:

Properties		Test conditions	Value	Unit	Tol.
Inductance	L	N1+N2/ 100 kHz/10 mVAC	72	µH	min.
Turns Ratio	n	N1+N2 : N3+N4	1:2.1		
DC Resistance 1	$R_{DC\,1}$	N1+N2/ 20 °C	0.1	Ω	max.
DC Resistance 2	$R_{DC\,2}$	N3+N4/ 20 °C	0.15	Ω	max.
Voltage-Time	∫Udt	N1/ bipolar waveform	8.9	Vµs	
Insulation Test Voltage	V_T	N1,2 => N3,4	2500	V (AC)	

Certification:

RoHS Approval	Compliant [2011/65/EU&2015/863]
REACh Approval	Conform or declared [(EC)1907/2006]
Component Qualification	AEC-Q200 Grade 1

General Information:

Operating Temperature	-40 up to +125 °C
Storage Conditions (in original packaging)	< 40 °C ; < 75 % RH
Storage Conditions (for single parts)	-20 up to +60 °C
Moisture Sensitivity Level (MSL)	1
Electrical Specifications @ 25°C unless otherwise noted	

Product Marking:

Pin 1	•
Marking	750316029 Lot and date code

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CHECKED	REVISION	DATE (YYYY-MM-DD)	GENERAL TOLERANCE	PROJECTION METHOD
IKK	004.001	2023-01-23	ISO 2768-1m	

DESCRIPTION
WE-PPTI Push-Pull Transformer

ORDER CODE
750316029

SIZE/TYPE	BUSINESS UNIT	STATUS	PAGE
1208	Midcom	Valid	1/7

Typical Application:

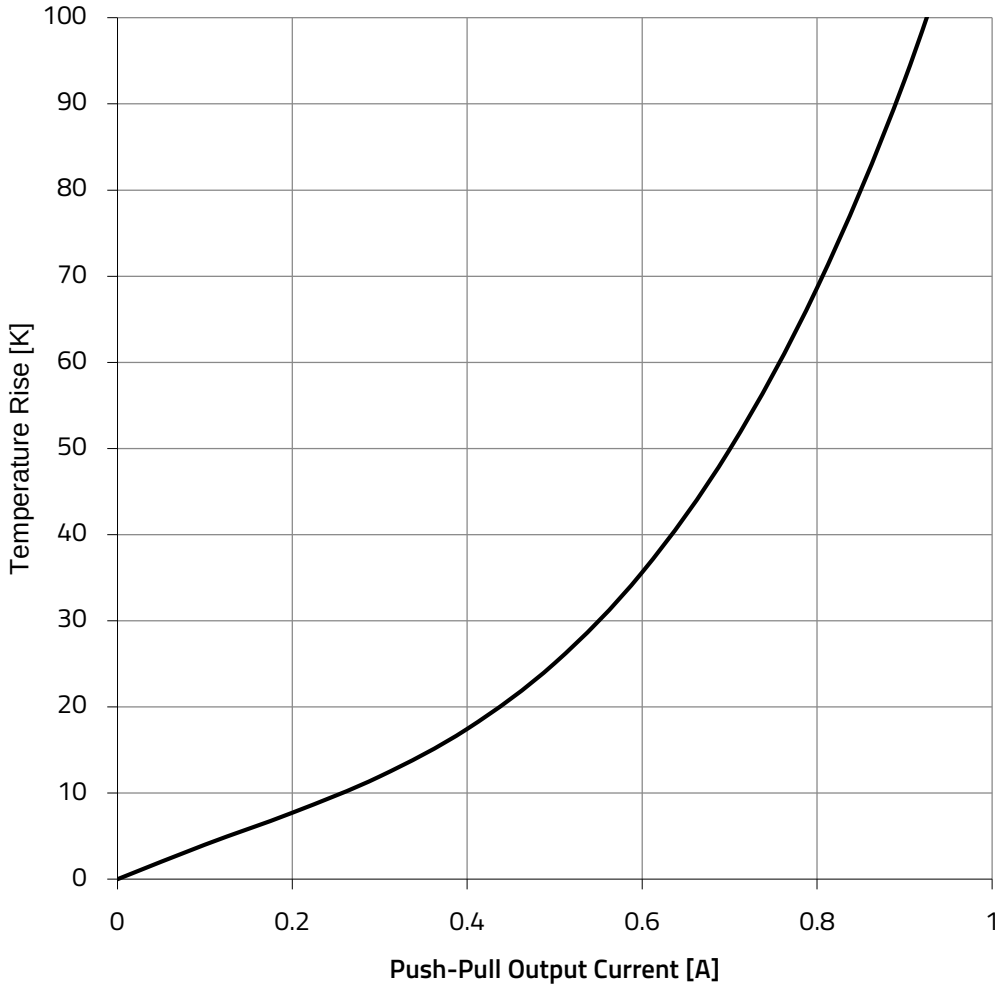
Properties		Value	Unit
Input Voltage	V_{in}	3.3	V (DC)
Output Voltage 1	V_{Out1}	5	V
Output Current 1	I_{Out1}	0.6	A
Switching Frequency	f_{switch}	400	kHz

Input: N1 / N2
Output 1: N3 / N4
Table shows a typical application. Values may vary by application.

Designed to Comply With:

Standard	Condition
IEC60950-1, EN60950-1, UL60950-1/CSA60950-1 and AS/NZS60950.1	Functional insulation for a primary circuit at a working voltage of 265Vrms, 400Vpeak, Overvoltage Category II.

Typical Temperature Rise vs. Current Characteristics:



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DESCRIPTION
WE-PPTI Push-Pull Transformer

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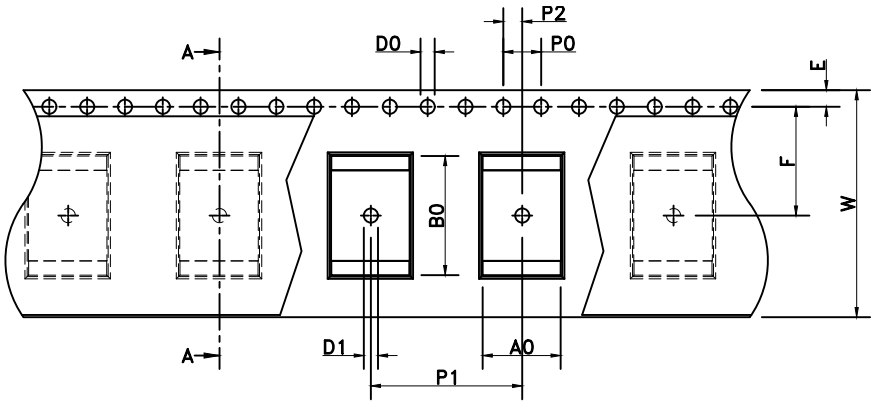
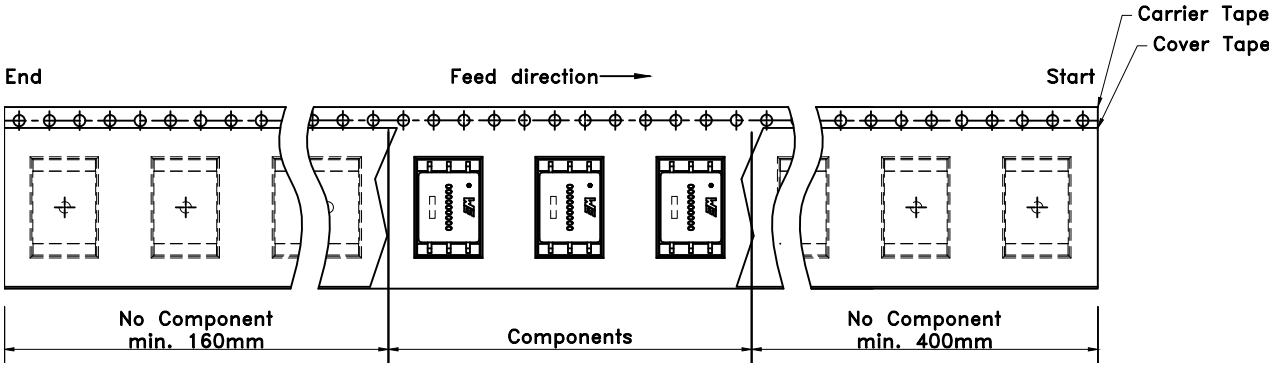
SIZE/TYPE	BUSINESS UNIT	STATUS	PAGE
1208	Midcom	Valid	2/7

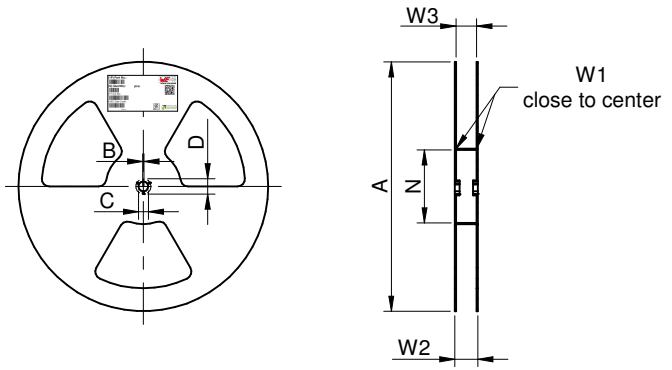
Packaging Specification - Tape: [mm]

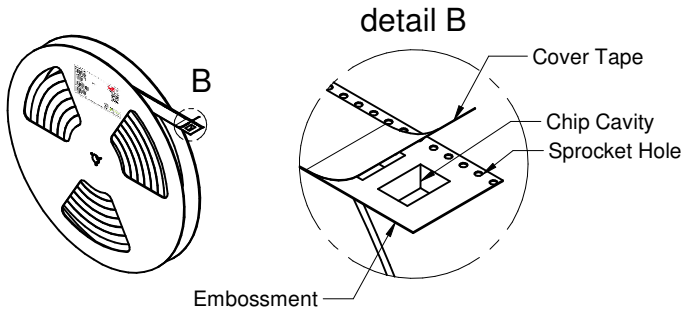




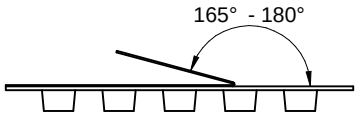
Tape Type	A0 (mm)	B0 (mm)	W (mm)	T (mm)	T1 (mm)	T2 (mm)	K0 (mm)	P0 (mm)	P1 (mm)	P2 (mm)	D0 (mm)	D1 (mm)	E (mm)	F (mm)	Material	Qty. (pcs.)
	typ.	typ.	+0,3/ -0,1	ref.	ref.	typ.	typ.	±0,1	±0,1	±0,1	+0,1/ -0,0	min.	±0,1	±0,1		
2a	8,30	12,60	24,00	0,40	0,05	4,50	4,10	4,00	16,00	2,00	1,50	1,50	1,75	11,50	Polystyrene	900

Packaging Specification - Reel: [mm]





A (mm)	B (mm)	C (mm)	D (mm)	N (mm)	W1 (mm)	W2 (mm)	W3 (mm)	W3 (mm)	Material
± 2,0	min.	min.	min.	ref.	+ 2,0	max.	min.	max.	
330,00	1,50	12,80	20,20	101,60	24,40	30,40	23,90	27,40	Polystyrene



	Pull-off force
Tape width 24 mm	0,1 N - 1,3 N

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IKK	004.001	2023-01-23	ISO 2768-1m	

DESCRIPTION
WE-PPTI Push-Pull Transformer

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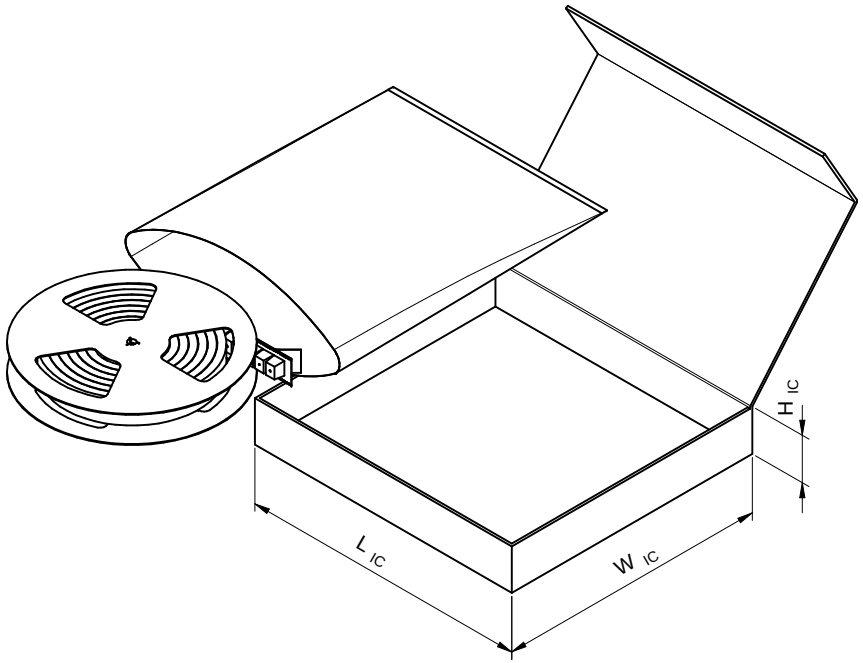
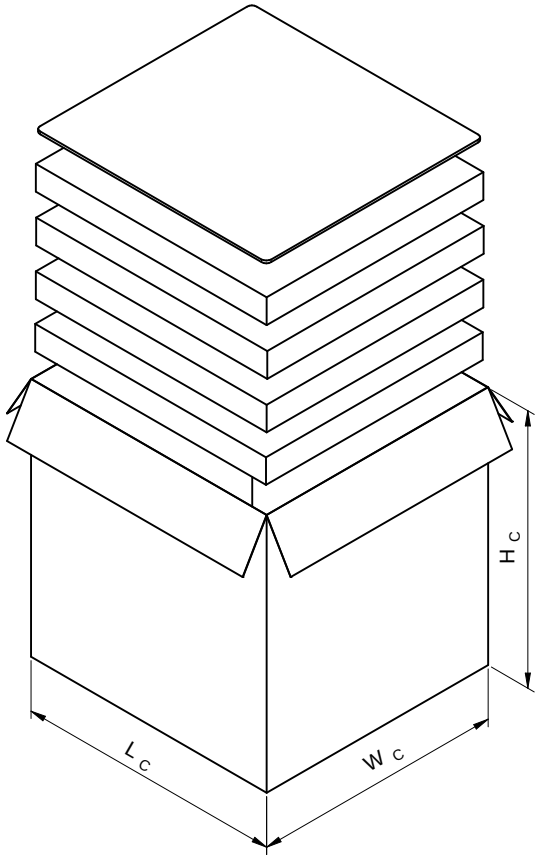
SIZE/TYPE	BUSINESS UNIT	STATUS	PAGE
1208	Midcom	Valid	3/7

Packaging Specification - Inner Carton: [mm]



	L_{IC} (mm)	W_{IC} (mm)	H_{IC} (mm)	Qty. (pcs.)	Material
Tolerance	typ.	typ.	typ.		
Value	339,00	362,00	54,00	900	Paper

Packaging Specification - Carton: [mm]



	L_C (mm)	W_C (mm)	H_C (mm)	No. of Inner Carton (pcs.)	Qty. (pcs.)	Material
Tolerance	typ.	typ.	typ.			
Value	365,12	342,90	215,90	4	3600	Paper

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DESCRIPTION
WE-PPTI Push-Pull Transformer

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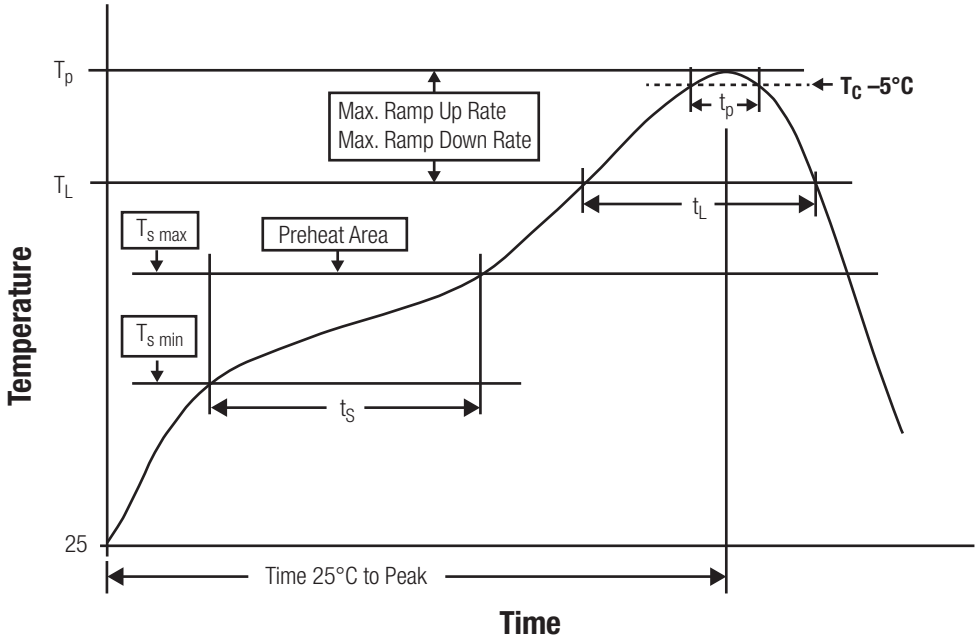
SIZE/TYPE	BUSINESS UNIT	STATUS	PAGE
1208	Midcom	Valid	4/7

Classification Reflow Profile for SMT components:



Classification Reflow Soldering Profile:

Profile Feature		Value
Preheat Temperature Min	$T_{s\ min}$	150 °C
Preheat Temperature Max	$T_{s\ max}$	200 °C
Preheat Time t_s from $T_{s\ min}$ to $T_{s\ max}$	t_s	60 - 120 seconds
Ramp-up Rate (T_L to T_P)		3 °C/ second max.
Liquidous Temperature	T_L	217 °C
Time t_L maintained above T_L	t_L	60 - 150 seconds
Peak package body temperature	T_p	$T_p \leq T_c$, see Table below
Time within 5°C of actual peak temperature	t_p	20 - 30 seconds
Ramp-down Rate (T_P to T_L)		6 °C/ second max.
Time 25°C to peak temperature		8 minutes max.

refer to IPC/ JEDEC J-STD-020E

Package Classification Reflow Temperature (T_C):

Properties	Volume mm³ <350	Volume mm³ 350-2000	Volume mm³ >2000
PB-Free Assembly I Package Thickness < 1.6 mm	260 °C	260 °C	260 °C
PB-Free Assembly I Package Thickness 1.6 mm - 2.5 mm	260 °C	250 °C	245 °C
PB-Free Assembly I Package Thickness > 2.5 mm	250 °C	245 °C	245 °C

refer to IPC/ JEDEC J-STD-020E

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DESCRIPTION: **WE-PPTI Push-Pull Transformer**

ORDER CODE: **750316029**

SIZE/TYPE	BUSINESS UNIT	STATUS	PAGE
1208	Midcom	Valid	5/7

Cautions & Warnings:

The following conditions apply to all goods within the product series of WE-PPTI of Würth Elektronik eiSos GmbH & Co. KG:

General:

- This electronic component is designed and manufactured for use in general electronic equipment.
- Würth Elektronik must be asked for written approval (following the PPAP procedure) before incorporating the components into any equipment in fields such as military, aerospace, aviation, nuclear control, submarine, transportation (automotive control, train control, ship control), transportation signal, disaster prevention, medical, public information network etc. where higher safety and reliability are especially required and/or if there is the possibility of direct damage or human injury.
- Electronic components that will be used in safety-critical or high-reliability applications, should be pre-evaluated by the customer.
- The component is designed and manufactured to be used within the datasheet specified values. If the usage and operation conditions specified in the datasheet are not met, the wire insulation may be damaged or dissolved.
- Do not drop or impact the components, the component may be damaged.
- Würth Elektronik products are qualified according to international standards, which are listed in each product reliability report. Würth Elektronik does not warrant any customer qualified product characteristics beyond Würth Elektroniks' specifications, for its validity and sustainability over time.
- The responsibility for the applicability of the customer specific products and use in a particular customer design is always within the authority of the customer. All technical specifications for standard products also apply to customer specific products.

Product specific:

Soldering:

- The solder profile must comply with the technical product specifications. All other profiles will void the warranty.
- All other soldering methods are at the customers' own risk.
- Strong forces which may affect the coplanarity of the components' electrical connection with the PCB (i.e. pins), can damage the part, resulting in avoid of the warranty.

Cleaning and Washing:

- Washing agents used during the production to clean the customer application might damage or change the characteristics of the wire insulation, marking or plating. Washing agents may have a negative effect on the long-term functionality of the product.
- Using a brush during the cleaning process may break the wire due to its small diameter. Therefore, we do not recommend using a brush during the PCB cleaning process.

Potting:

- If the product is potted in the customer application, the potting material might shrink or expand during and after hardening. Shrinking could lead to an incomplete seal, allowing contaminants into the core. Expansion could damage the component. We recommend a manual inspection after potting to avoid these effects.

Storage Conditions:

- A storage of Würth Elektronik products for longer than 12 months is not recommended. Within other effects, the terminals may suffer degradation, resulting in bad solderability. Therefore, all products shall be used within the period of 12 months based on the day of shipment.
- Do not expose the components to direct sunlight.
- The storage conditions in the original packaging are defined according to DIN EN 61760-2.
- The storage conditions stated in the original packaging apply to the storage time and not to the transportation time of the components.

Packaging:

- The packaging specifications apply only to purchase orders comprising whole packaging units. If the ordered quantity exceeds or is lower than the specified packaging unit, packaging in accordance with the packaging specifications cannot be ensured.

Handling:

- Violation of the technical product specifications such as exceeding the nominal rated current will void the warranty.
- Applying currents with audio-frequency signals may result in audible noise due to the magnetostrictive material properties.
- The temperature rise of the component must be taken into consideration. The operating temperature is comprised of ambient temperature and temperature rise of the component.The operating temperature of the component shall not exceed the maximum temperature specified.

These cautions and warnings comply with the state of the scientific and technical knowledge and are believed to be accurate and reliable. However, no responsibility is assumed for inaccuracies or incompleteness.

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SIZE/TYPE	BUSINESS UNIT	STATUS	PAGE
1208	Midcom	Valid	6/7