



Modicon Transformer

Single phase transformers
230 to 400 Vac, 25 to 2500 VA
Modicon ABT7, ABL6



Modicon

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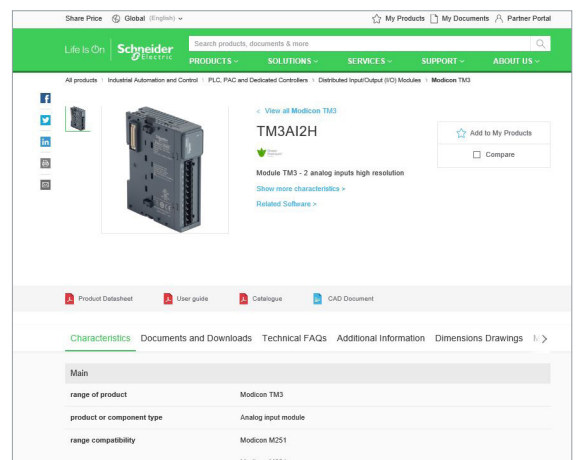
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References

Modicon TM3
I/O expansion modules for Modicon controllers
Analog I/O modules

Number and type of channels	Input range	Resolution	Input format (internal)	Reference	Weight (kg)
2 voltage/current inputs	-15...+15 VDC 0...20 mA A, 20 mA	16,000 or 10,000 1/2	16-bit 12-bit	TM3AI2H TM3AI2G	0.110 0.100
4 voltage/current inputs	-15...+15 VDC 0...20 mA A, 20 mA	12,000 or 10,000 1/2	12-bit 8-bit	TM3AI4 TM3AI4G	0.100 0.100
4 voltage/current or temperature inputs (T)	-15...+15 VDC 0...20 mA A, 20 mA	16,000 or 10,000 1/2	16-bit 12-bit	TM3AI4H TM3AI4G	0.110 0.100
4 differential temperature inputs (T)	-15...+15 VDC 0...20 mA A, 20 mA	16,000 or 10,000 1/2	16-bit 12-bit	TM3TI4 TM3TI4G	0.110 0.100
8 self-diagnosing	-15...+15 VDC	12,000 or 10,000 1/2	12-bit 8-bit	TM3I8 TM3I8G	0.110 0.100



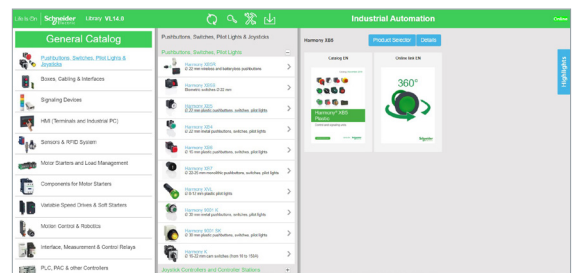
Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

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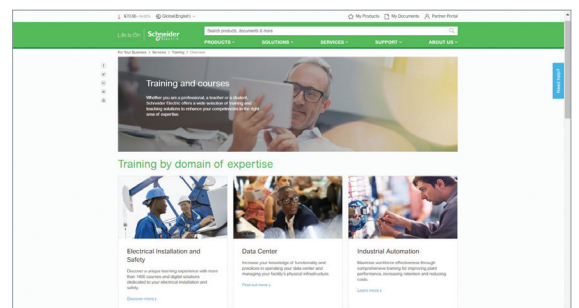


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Modicon ABT7, ABL6

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■ References

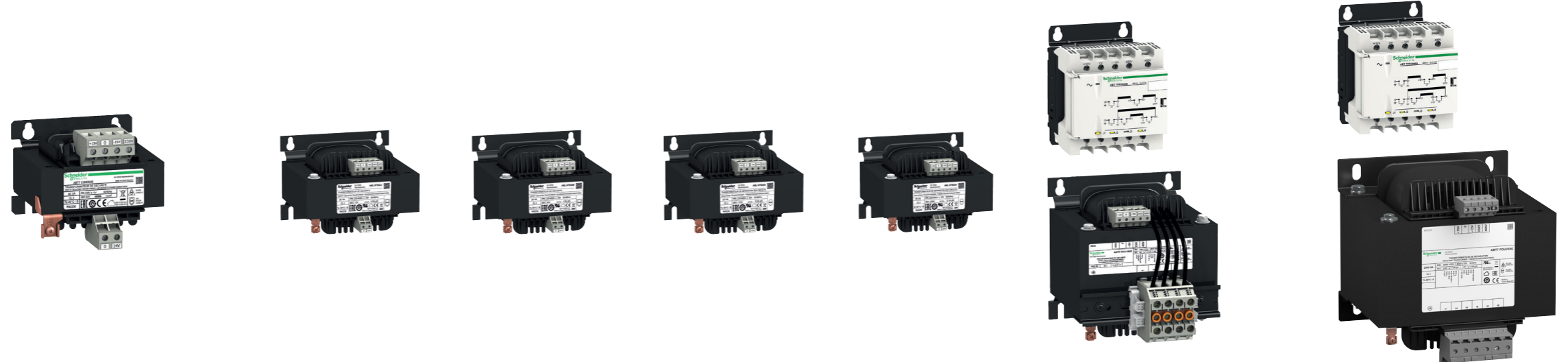
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Modicon Transformer

Single phase transformer 230 to 400 Vac,
25 to 2500 VA
Modicon ABT7, ABL6

Input voltage	230 Vac, ± 15 V	230 Vac and 400 Vac, ± 15 V				230 Vac and 400 Vac, ± 15 V	
Output voltage	24 Vac	12 Vac	24 Vac	115 Vac	230 Vac	2 x 24 Vac	2 x 115 Vac
Secondary winding	Single winding	Single winding				Double winding	



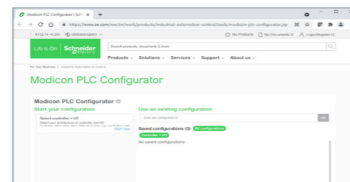
Connection to world-wide line supplies	United States: 120 V (in phase-to-neutral)	–	–	–	–	–
	United States: 240 V (in phase-to-phase)	–	2-phase (L1-L2) connection	–	–	2-phase (L1-L2) connection
	Europe: 230 V (in phase-to-neutral)	Single-phase (N-L1) connection	Single-phase (N-L1) connection	–	–	Single-phase (N-L1) connection
	Europe: 400 V (in phase-to-phase)	–	2-phase (L1-L2) connection	–	–	2-phase (L1-L2) connection
Applications	SELV transformer (Safety Extra Low Voltage)	SELV transformer (Safety Extra Low Voltage)	Isolation transformer	–	–	SELV transformer (Safety Extra Low Voltage) Isolation transformer
Secondary winding	Single winding	Single winding	–	–	–	Double winding
Signalling	–	–	–	–	–	Presence of input voltage by LED (up to 320 VA)
Certifications	- C _E marking - EAC - DNV-GL	- C _{UL} us - C _E marking - UL (506) - EAC - DNV-GL	–	–	–	- C _{UL} us - C _E marking - UL (506) - EAC - DNV-GL
	Conformity to standards (1)	- EN 61558-2-6 - EN 61558-1 - EN 62041	- EN 61558-2-6 - EN 61558-1 - EN 62041 - UL 506	- EN 61558-2-4 - EN 61558-1 - EN 62041	–	- EN 61558-2-6 - EN 61558-1 - EN 62041 - UL 506
Mounting	Fixing on panel (screw)	Fixing on panel (screw) or on omega rail (option depending on model)	–	–	–	Fixing on omega rail (depending on model) or panel (screw)

Transformer type	Range	ABT7ES Economic range	ABL6TS Optimized range				ABT7PDU Universal range
		Operating temperature	50 °C				60 °C
Nominal power	25 VA	–	ABL6TS02J	ABL6TS02B	ABL6TS02G	ABL6TS02U	–
	40 VA	ABT7ESM004B	ABL6TS04J	ABL6TS04B	ABL6TS04G	ABL6TS04U	ABT7PDU004B
	63 VA	ABT7ESM006B	ABL6TS06J	ABL6TS06B	ABL6TS06G	ABL6TS06U	ABT7PDU006B
	100 VA	ABT7ESM010B	ABL6TS10J	ABL6TS10B	ABL6TS10G	ABL6TS10U	ABT7PDU010B
	160 VA	ABT7ESM016B	ABL6TS16J	ABL6TS16B	ABL6TS16G	ABL6TS16U	ABT7PDU016B
	250 VA	ABT7ESM025B	ABL6TS25J	ABL6TS25B	ABL6TS25G	ABL6TS25U	ABT7PDU025B
	320 VA	ABT7ESM032B	–	–	–	–	ABT7PDU032B
	400 VA	ABT7ESM040B	–	ABL6TS40B	ABL6TS40G	ABL6TS40U	ABT7PDU040B
	630 VA	–	–	ABL6TS63B	ABL6TS63G	ABL6TS63U	ABT7PDU063B
	1 000 VA	–	–	ABL6TS100B	ABL6TS100G	ABL6TS100U	ABT7PDU100B
	1 600 VA	–	–	ABL6TS160B	ABL6TS160G	ABL6TS160U	ABT7PDU160B
	2 500 VA	–	–	ABL6TS250B	ABL6TS250G	ABL6TS250U	ABT7PDU250B

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(1) Consult detail on conformity to standards for each reference in the product data sheet, click on [product reference](#) to open it.

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 - I/O and power supply

Modicon Transformer

Single phase transformers 230 to 400 Vac,
25 to 2500 VA
Modicon ABT7, ABL6

Presentation

Modicon ABT7/ABL6 single-phase transformers are designed to supply control circuits in electrical equipment from a 230 Vac or 400 Vac supply (depending on the model) at 50 or 60 Hz. ± 15 V connectors at the primary ensure adaptation to the actual values of the supply networks to which they are connected. Modicon single-phase transformers are available in 3 ranges: **ABT7ES** Economic, **ABL6TS** Optimized, and **ABT7PDU** Universal.

ABT7ES Economic range

Transformers 230 V, Single winding

The single-winding transformers are primarily designed for repetitive applications and offers the following as standard:

- 230 Vac ± 15 V input voltage
- 24 Vac output voltage
- Panel mounting using 4 screws
- Operating temperature of 40°C (104°F)

ABL6TS Optimized range

Transformers 230/400 V, Single winding

The single-winding transformers are designed for standard applications:

- 230 V/400 Vac ± 15 V input voltage
- 12 V, 24 V, 115 V or 230 Vac output voltage
- Panel mounting, using 4 screws (or clip-on \perp rail-mounting option available depending on the model)
- Operating temperature of 50°C (122°F)
- cURus certifications

ABT7PDU Universal range

Transformers 230/400 V, Double winding

Transformers with double winding feature an innovative design and offer high-level characteristics (depending on the model) such as:

- 230 V/400 Vac ± 15 V input voltage
- 2 x 115 V or 2 x 24 Vac output voltage
- Clip-on \perp rail mounting (depending on the model) or panel mounting (using 4 screws)
- Series or parallel connection of secondary winding and grounding via internal jumpers
- LED indicator
- Operating temperature of 60°C (140°F)
- cURus certification

Those components are concealed behind a plastic cover making it easier to integrate the Modicon transformers in control cabinets.

Protection

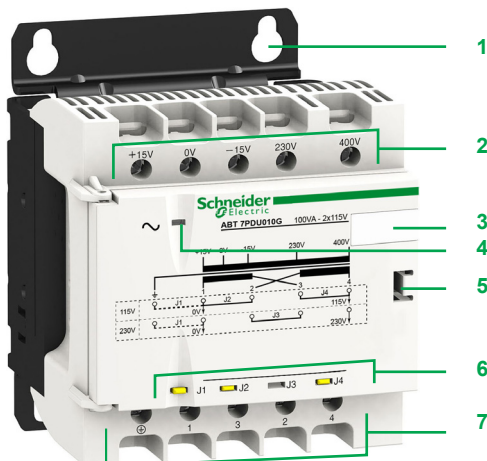
The transformers can be protected against short-circuits by means of fuses or thermal-magnetic circuit-breakers mounted on the secondary.

For operation in compliance with UL standards, short-circuit protection must be achieved using fuses (UL approved) mounted on the primary.

Where the control circuit is isolated from the ground (IT system), a leakage detector will indicate any accidental ground faults.

Description

- 1 Mounted using 4 screws or, depending on the model for ABT7PDU types (Universal range), by clipping on a 35 mm (1.37 in) 5 rail
- 2 Screw terminals with ± 15 V connectors for connection of the AC input voltage
- 3 Clip-on marker tag or self-adhesive marker tag holder AR1SB3
- 4 LED (green) indicating presence of input voltage (depending on ABT7PDU types)
- 5 Access to the jumpers for selecting the secondary connection (opened using a screwdriver)
- 6 Windows (depending on ABT7PDU types) for viewing the connection via jumpers of the:
 - 0 V to ground (J1 jumper)
 - Series connection, totally freeing up the “customer” secondary wiring capacity (J3 jumper)
 - Parallel connection, totally freeing up the “customer” secondary wiring capacity (J2 and J4 jumpers)
- 7 Screw terminals for connection of the AC output voltage



ABT7PDU002...7PDU032

Modicon Transformer

Single phase transformers 230 to 400 Vac,
25 to 2500 VA
Modicon ABT7, ABL6

Selection

Modicon ABT7/ABL6 transformers are characterized by the apparent nominal power they can supply continuously. However, they are also designed to supply, when necessary, significantly higher powers, such as contactor inrush peaks. Contactor inrush peaks can reach 10 to 20 times the required holding current. This leads to the transformer being oversized in relation to the continuous power it has to supply. The transformer must be sized so that the voltage drop at its terminals, caused by the inrush, remains within the permissible limits for the contactor to close properly.

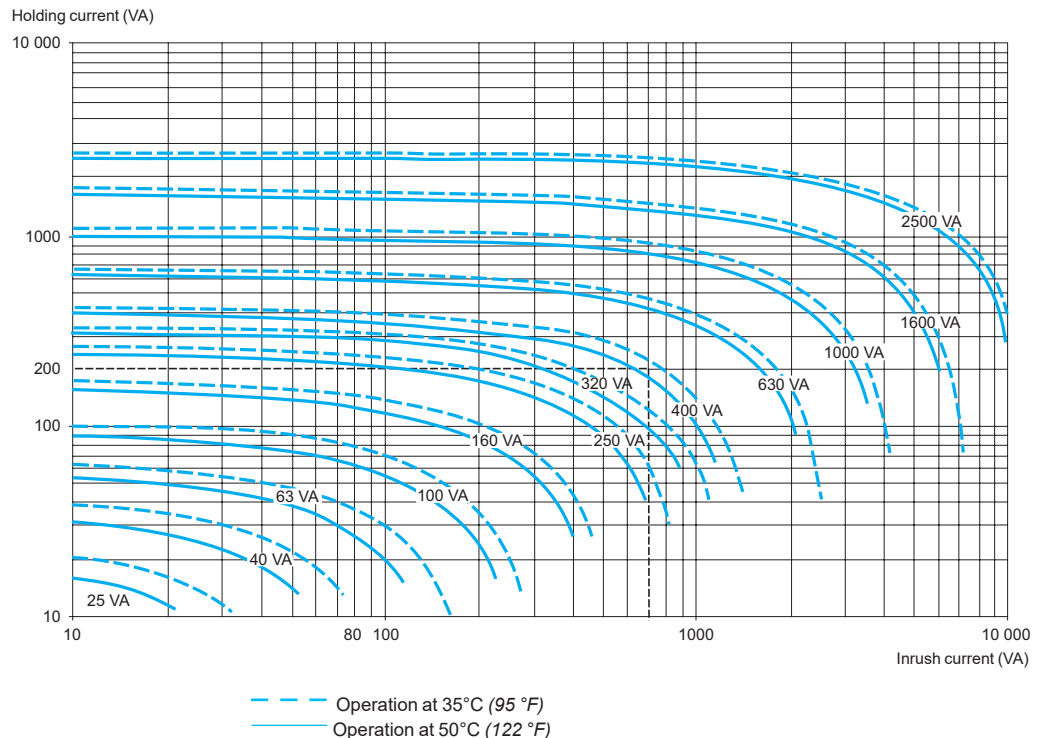
The two power values that need to be taken into account to determine which transformer rating to use are therefore:

- The continuous power the transformer has to supply
- The maximum inrush power it has to provide

In practice, only the sum of the holding currents and the contactor inrush current need to be considered.

For ABL6TS transformers (Optimized range), the graph below can be used to select the appropriate rating according to these two currents. This gives a maximum voltage drop of 5% at the moment of inrush, compatible with correct operation of the entire installation. However, these transformers have been designed for continuous operation at nominal load and at an ambient temperature of 50°C (122 °F). A reduction in the ambient temperature may uprate the transformer, which, in some cases, allows a lower rating to be used.

The graph below has been drawn up for ambient temperatures of 35...50°C (95...122 °F)



Example: A device with a total holding current of 200 VA and inrush current of the contactor of 700 VA can be supplied by a 630 VA transformer if it is used at an ambient temperature of 50°C (122 °F). A 400 VA transformer is sufficient if the ambient temperature is 35°C (95 °F).

Modicon Transformer

Single phase transformers 230 to 400 Vac,
25 to 2500 VA
Modicon ABT7, ABL6

ABT7ES Economic range

Recommended protection for the primary

Protection on the primary by fuse or thermal magnetic circuit breaker

Transformer		230 Vac single-phase input voltage			
Reference	Power	MDL fuses UL Listed (1)	aM fuses	TeSys GV2RT (2)	Acti9 IC60 (3)
ABT7ESM004B	40 VA	0.3 A	0.25 A	GV2RT03	0.5 A D curve (4)
ABT7ESM006B	63 VA	0.4 A	0.5 A	GV2RT03	0.5 A D curve (4)
ABT7ESM010B	100 VA	0.5 A	0.5 A	GV2RT04	0.5 A D curve
ABT7ESM016B	160 VA	1 A	1 A	GV2RT05	1 A D curve
ABT7ESM025B	250 VA	1.25 A	2 A	GV2RT06	2 A D curve (4)
ABT7ESM032B	320 VA	1.5 A	2 A	GV2RT06	2 A D curve (4)
ABT7ESM040B	400 VA	2 A	2 A	GV2RT07	3 A D curve (4)

Recommended protection for the secondary

Protection on the secondary by fuses of thermal circuit breaker

Transformer		24 Vac secondary			
Reference	Power	gG fuse (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)	Acti9 IC60 (3)
ABT7ESM004B	40 VA	1 A	1 A	GB2CD07	2 A C curve
ABT7ESM006B	63 VA	2 A	2 A	GB2CD08	3 A C curve
ABT7ESM010B	100 VA	4 A	4 A	GB2CD09	4 A C curve
ABT7ESM016B	160 VA	6 A	6 A	GB2CD12	6 A C curve
ABT7ESM025B	250 VA	10 A	10 A	GB2CD16	10 A C curve
ABT7ESM032B	320 VA	12 A	12 A	GB2CD20	16 A C curve
ABT7ESM040B	400 VA	16 A	16 A	GB2CD21	16 A C curve

(1) For operation in compliance with UL.

(2) More information on TeSys GV2 offer, consult our [website](#). More information on TeSys GB2 offer, consult our [website](#).

(3) Check on our [website](#) for the exact reference. For installation in North America, please select a UL489 compliant circuit breaker.

(4) Protection on the secondary is necessary.

ABL6TS Optimized range											
Recommended protection for the primary											
Protection on the primary by fuse or thermal magnetic circuit breaker											
Transformer		230 Vac single-phase input voltage					400 Vac single-phase input voltage				
Reference	Power	MDL fuses UL listed (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/ US) (2)	TeSys GV2RT (2)	Acti9 IC60 (3)	MDL fuses UL Listed (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/US) (2)	TeSys GV2RT (2) (3)	Acti9 IC60
ABL6TS02J	25 VA	0.18 A	0.16 A	–	–	–	0.25 A	0.16 A	–	–	–
ABL6TS04J	40 VA	0.25 A	0.25 A	GB2DB05	GV2RT03	0.5 AD curve (4)	0.25 A	0.16 A	–	–	–
ABL6TS06J	63 VA	0.37 A	0.5 A	GB2DB05	GV2RT03	0.5 AD curve (4)	0.25 A	0.25 A	–	–	–
ABL6TS10J	100 VA	0.5 A	0.5 A	GB2DB06	GV2RT04	1 AD curve (4)	0.3 A	0.5 A	GB2DB05	GV2RT03	0.5 AD curve
ABL6TS16J	160 VA	1 A	1 A	GB2DB07	GV2RT05	2 AD curve (4)	0.5 A	0.5 A	GB2DB06	GV2RT04	1 AD curve
ABL6TS25J	250 VA	1.25 A	2 A	GB2DB07	GV2RT06	2 AD curve (4)	0.75 A	1 A	GB2DB06	GV2RT05	1 AD curve
Recommended protection for the secondary											
Protection on the secondary by fuses of thermal circuit breaker											
Transformer		12 Vac secondary				Acti9 IC60 (3)					
Reference	Power	gG fuse (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)							
ABL6TS02J	25 VA	2 A	2 A	GB2CD07						2 A C curve	
ABL6TS04J	40 VA	4 A	4 A	GB2CD08						3 A C curve	
ABL6TS06J	63 VA	6 A	6 A	GB2CD10						6 A C curve	
ABL6TS10J	100 VA	8 A	8 A	GB2CD14						10 A C curve	
ABL6TS16J	160 VA	12 A	12 A	GB2CD20						16 A C curve	
ABL6TS25J	250 VA	20 A	20 A	GB2CD22						20 A C curve	
Recommended protection for the primary											
Protection on the primary by fuse or thermal magnetic circuit breaker											
Transformer		230 Vac single-phase input voltage					400 Vac single-phase input voltage				
Reference	Power	MDL fuses UL listed (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/ US) (2)	TeSys GV2RT (2)	Acti9 IC60 (3)	MDL fuses UL Listed (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/US) (2)	TeSys GV2RT (2) (3)	Acti9 IC60
ABL6TS02B	25 VA	0.18 A	0.16 A	–	–	–	0.25 A	0.16 A	–	–	–
ABL6TS04B	40 VA	0.25 A	0.25 A	GB2DB05	GV2RT03	0.5 AD curve (4)	0.25 A	0.16 A	–	–	–
ABL6TS06B	63 VA	0.37 A	0.5 A	GB2DB05	GV2RT03	0.5 AD curve (4)	0.25 A	0.25 A	–	–	–
ABL6TS10B	100 VA	0.5 A	0.5 A	GB2DB05	GV2RT04	1 AD curve (4)	0.3 A	0.5 A	GB2DB05	GV2RT03	0.5 AD curve
ABL6TS16B	160 VA	1 A	1 A	GB2DB06	GV2RT05	2 AD curve (4)	0.5 A	0.5 A	GB2DB06	GV2RT04	1 AD curve
ABL6TS25B	250 VA	1.25 A	2 A	GB2DB07	GV2RT06	2 AD curve (4)	0.75 A	1 A	GB2DB06	GV2RT05	1 AD curve
ABL6TS40B	400 VA	2 A	2 A	GB2DB09	GV2RT07	3 AD curve (4)	1.5 A	1 A	GB2DB07	GV2RT06	2 AD curve
ABL6TS63B	630 VA	3 A	4 A	GB2DB12	GV2RT08	6 AD curve (4)	2.5 A	2 A	GB2DB09	GV2RT07	3 AD curve
ABL6TS100B	1000 VA	5 A	6 A	GB2DB16	GV2RT10	10 AD curve (4)	3.5 A	4 A	GB2DB10	GV2RT08	6 AD curve
ABL6TS160B	1600 VA	8 A	8 A	GB2DB20	GV2RT14	16 AD curve (4)	5 A	4 A	GB2DB14	GV2RT10	10 AD curve
ABL6TS250B	2500 VA	–	12 A	GB2DB22	GV2RT16	20 AD curve (4)	7.5 A	8 A (4)	GB2DB20	GV2RT14	10 AD curve
Recommended protection for the secondary											
Protection on the secondary by fuses of thermal circuit breaker											
Transformer		24 Vac secondary				Acti9 IC60 (3)					
Reference	Power	gG fuse (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)							
ABL6TS02B	25 VA	1 A	1 A	GB2CD06						1 A C curve	
ABL6TS04B	40 VA	1 A	1 A	GB2CD07						2 A C curve	
ABL6TS06B	63 VA	2 A	2 A	GB2CD08						3 A C curve	
ABL6TS10B	100 VA	4 A	4 A	GB2CD09						4 A C curve	
ABL6TS16B	160 VA	6 A	6 A	GB2CD12						6 A C curve	
ABL6TS25B	250 VA	10 A	10 A	GB2CD16						10 A C curve	
ABL6TS40B	400 VA	16 A	16 A	GB2CD21						16 A C curve	
ABL6TS63B	630 VA	25 A	25 A	–						25 A C curve	
ABL6TS100B	1000 VA	40 A	40 A	–						40 A C curve	
ABL6TS160B	1600 VA	63 A	63 A	–						63 A C curve	
ABL6TS250B	2500 VA	100 A	100 A	–						–	

(1) For operation in compliance with UL.

(2) More information on TeSys GB2 offer, consult our [website](#), more information on TeSys GV2 offer, consult our [website](#).

(3) Check on our [website](#) for the exact reference. For installation in North America, please select a UL489 compliant circuit breaker.

(4) Protection on the secondary is necessary.

ABL6TS Optimized range

Recommended protection for the primary

Protection on the primary by fuse or thermal magnetic circuit breaker

Transformer Reference	Power	230 Vac single-phase input voltage					400 Vac single-phase input voltage				
		MDL fuses UL listed (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)	TeSys GV2RT (2)	Acti9 IC60 (3)	MDL fuses UL Listed (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)	TeSys GV2RT (2)	Acti9 IC60 (3)
ABL6TS02G	25 VA	0.18 A	0.16 A	–	–	–	0.25 A	0.16 A	–	–	–
ABL6TS04G	40 VA	0.25 A	0.25 A	GB2DB05	GV2RT03	0.5 AD curve (4)	0.25 A	0.16 A	–	–	–
ABL6TS06G	63 VA	0.37 A	0.5 A	GB2DB06	GV2RT03	0.5 AD curve (4)	0.25 A	0.25 A	–	–	–
ABL6TS10G	100 VA	0.5 A	0.5 A	GB2DB06	GV2RT04	1 AD curve (4)	0.3 A	0.5 A	GB2DB05	GV2RT03	0.5 AD curve
ABL6TS16G	160 VA	1 A	1 A	GB2DB07	GV2RT05	1 AD curve (4)	0.5 A	0.5 A	GB2DB06	GV2RT04	1 AD curve
ABL6TS25G	250 VA	1.25 A	2 A	GB2DB07	GV2RT06	2 AD curve (4)	0.75 A	1 A	GB2DB06	GV2RT05	1 AD curve
ABL6TS40G	400 VA	2 A	2 A	GB2DB09	GV2RT07	4 AD curve (4)	1.5 A	2 A (4)	GB2DB07	GV2RT06	2 AD curve
ABL6TS63G	630 VA	3 A	4 A	GB2DB12	GV2RT08	6 AD curve (4)	2.5 A	4 A (4)	GB2DB08	GV2RT07	3 AD curve
ABL6TS100G	1000 VA	5 A	6 A	GB2DB16	GV2RT10	10 AD curve (4)	3.5 A	4 A	GB2DB10	GV2RT08	6 AD curve
ABL6TS160G	1600 VA	8 A	8 A	GB2DB16	GV2RT14	10 AD curve (4)	5 A	4 A	GB2DB12	GV2RT10	6 AD curve
ABL6TS250G	2500 VA	–	25 A (4)	–	–	–	–	10 A (4)	GB2DB22	GV2RT16 (4)	–

Recommended protection for the secondary

Protection on the secondary by fuses of thermal circuit breaker

Transformer Reference	Power	115 Vac secondary			
		gG fuse (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)	Acti9 IC60 (4)
ABL6TS02G	25 VA	–	0.25 A	–	–
ABL6TS04G	40 VA	0.5 A	0.5 A	–	–
ABL6TS06G	63 VA	0.5 A	0.5 A	GB2CD05	0.5 A C curve
ABL6TS10G	100 VA	1 A	1 A	GB2CD06	1 A C curve
ABL6TS16G	160 VA	1 A	1 A	GB2CD07	2 A C curve
ABL6TS25G	250 VA	2 A	2 A	GB2CD07	2 A C curve
ABL6TS40G	400 VA	4 A	4 A	GB2CD09	4 A C curve
ABL6TS63G	630 VA	6 A	6 A	GB2CD12	6 A C curve
ABL6TS100G	1000 VA	8 A	8 A	GB2CD16	10 A C curve
ABL6TS160G	1600 VA	12 A	12 A	GB2CD21	16 A C curve
ABL6TS250G	2500 VA	20 A	20 A	GB2CD22	20 A C curve

Recommended protection for the primary

Protection on the primary by fuse or thermal magnetic circuit breaker

Transformer Reference	Power	230 Vac single-phase input voltage					400 Vac single-phase input voltage				
		MDL fuses UL listed (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)	TeSys GV2RT (2)	Acti9 IC60 (3)	MDL fuses UL Listed (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)	TeSys GV2RT (2)	Acti9 IC60 (3)
ABL6TS02U	25 VA	0.18 A	0.16 A	–	–	–	0.25 A	0.16 A	–	–	–
ABL6TS04U	40 VA	0.25 A	0.25 A	GB2DB05	GV2RT03	0.5 AD curve (4)	0.25 A	0.16 A	–	–	–
ABL6TS06U	63 VA	0.37 A	0.5 A	GB2DB05	GV2RT03	0.5 AD curve (4)	0.25 A	0.25 A	–	–	–
ABL6TS10U	100 VA	0.5 A	0.5 A	GB2DB05	GV2RT04	1 AD curve (4)	0.3 A	0.5 A	GB2DB05	GV2RT03	0.5 AD curve
ABL6TS16U	160 VA	1 A	1 A	GB2DB06	GV2RT05	2 AD curve (4)	0.5 A	0.5 A	GB2DB06	GV2RT04	1 AD curve
ABL6TS25U	250 VA	1.25 A	2 A	GB2DB07	GV2RT06	2 AD curve (4)	0.75 A	1 A	GB2DB06	GV2RT05	1 AD curve
ABL6TS40U	400 VA	2 A	2 A	GB2DB09	GV2RT07	3 AD curve (4)	1.5 A	2 A (4)	GB2DB07	GV2RT06	2 AD curve
ABL6TS63U	630 VA	3 A	4 A	GB2DB14	GV2RT10 (4)	10 AD curve (4)	2.5 A	4 A (4)	GB2DB10	GV2RT08 (4)	4 AD curve
ABL6TS100U	1000 VA	5 A	6 A	GB2DB20	GV2RT14 (4)	10 AD curve (4)	5 A (4)	4 A	GB2DB12	GV2RT10 (4)	6 AD curve
ABL6TS160U	1600 VA	8 A	8 A	GB2DB20	GV2RT14	16 AD curve (4)	5 A (4)	4 A	GB2DB14	GV2RT10	6 AD curve
ABL6TS250U	2500 VA	–	16 A (4)	–	–	–	–	10 A (4)	GB2DB22	GV2RT16 (4)	16 AD curve

Recommended protection for the secondary

Protection on the secondary by fuses of thermal circuit breaker

Transformer Reference	Power	230 Vac secondary			
		gG fuse (1)	aM fuses	TeSys GB2 (IEC/CSA-c/US) (2)	Acti9 IC60 (3)
ABL6TS02U	25 VA	–	0.16 A	–	–
ABL6TS04U	40 VA	–	0.16 A	–	–
ABL6TS06U	63 VA	–	0.25 A	–	–
ABL6TS10U	100 VA	0.5 A	0.5 A	GB2CD05	0.5 A C curve
ABL6TS16U	160 VA	0.5 A	0.5 A	GB2CD06	1 A C curve
ABL6TS25U	250 VA	1 A	1 A	GB2CD06	1 A C curve
ABL6TS40U	400 VA	2 A	2 A	GB2CD07	2 A C curve
ABL6TS63U	630 VA	2 A	2 A	GB2CD08	3 A C curve
ABL6TS100U	1000 VA	4 A	4 A	GB2CD09	4 A C curve
ABL6TS160U	1600 VA	6 A	6 A	GB2CD14	6 A C curve
ABL6TS250U	2500 VA	10 A	10 A	GB2CD16	10 A C curve

(1) For operation in compliance with UL.

(2) More information on TeSys GB2 offer, consult our [website](#), more information on TeSys GV2 offer, consult our [website](#).

(3) Check on our [website](#) for the exact reference. For installation in North America, please select a UL489 compliant circuit breaker.

(4) Protection on the secondary is necessary

ABT7PDU Universal range											
Recommended protection for the primary											
Protection on the primary by fuse or thermal magnetic circuit breaker											
Transformer		230 Vac single-phase					400 Vac single-phase				
Reference	Power	MDL fuses UL listed (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/US) (2)	TeSys GV2RT (2)	Acti9 IC60 (3)	MDL fuses UL Listed (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/US) (2)	TeSys GV2RT (2)	Acti9 IC60 (3)
ABT7PDU002G	25 VA	0.2 A	0.25 A	–	–	–	0.25 A	0.16 A	–	–	–
ABT7PDU004B/G	40 VA	0.3 A	0.25 A	GB2DB05	GV2RT03	0.5 AD curve (4)	0.25 A	0.16 A	–	–	–
ABT7PDU006B/G	63 VA	0.5 A	0.5 A	GB2DB06	GV2RT04	0.5 AD curve (4)	0.25 A	0.25 A	–	–	–
ABT7PDU010B/G	100 VA	0.5 A	0.5 A	GB2DB06	GV2RT04	1 AD curve (4)	0.3 A	0.5 A	GB2DB05	GV2RT03	0.5 AD curve
ABT7PDU016B/G	160 VA	1 A	1 A	GB2DB07	GV2RT05	1 AD curve (4)	0.5 A	0.5 A	GB2DB06	GV2RT04	1 AD curve
ABT7PDU025B/G	250 VA	1.25 A	2 A	GB2DB07	GV2RT06	2 AD curve (4)	0.75 A	1 A	GB2DB06	GV2RT05	1 AD curve
ABT7PDU032B/G	320 VA	1.5 A	2 A	GB2DB07	GV2RT07	2 AD curve	1 A	1 A	GB2DB06	GV2RT05	1 AD curve
ABT7PDU040B/G	400 VA	2 A	2 A	GB2DB09	GV2RT07	3 AD curve (4)	1.25 A	2 A (4)	GB2DB07	GV2RT06	2 AD curve
ABT7PDU063B/G	630 VA	3 A	4 A	GB2DB12 (4)	GV2RT08	6 AD curve (4)	2 A	2 A	GB2DB09 (4)	–	4 AD curve (4)
ABT7PDU100B/G	1000 VA	5 A	6 A	GB2DB16 (4)	GV2RT10	10 AD curve (4)	3 A	4 A (4)	GB2DB12 (4)	–	6 AD curve (4)
ABT7PDU160B/G	1600 VA	8 A	8 A	GB2DB21 (4)	GV2RT14	16 AD curve (4)	4 A	6 A (4)	GB2DB14 (4)	GV2RT10	10 AD curve (4)
ABT7PDU250B/G	2500 VA	–	12 A	–	–	25 AD curve (4)	7 A	8 A (4)	GB2DB21 (4)	GV2RT14	16 AD curve (4)

Recommended protection for the secondary									
Protection on the secondary by fuses of thermal circuit breaker									
Transformer		24 Vac secondary				48 Vac secondary			
Reference	Power	gG fuse (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/US) (2)	Acti9 IC60 (3)	gG fuse (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/US) (2)	Acti9 IC60 (3)
ABT7PDU004B	40 VA	2 A	2 A	GB2CD07	2 AC curve	1 A	1 A	GB2CD06	1 AC curve
ABT7PDU006B	63 VA	2 A	2 A	GB2CD08	3 AC curve	1 A	1 A	GB2CD06	1 AC curve
ABT7PDU010B	100 VA	4 A	4 A	GB2CD09	4 AC curve	2 A	2 A	GB2CD07	2 AC curve
ABT7PDU016B	160 VA	6 A	6 A	GB2CD12	6 AC curve	2 A	2 A	GB2CD08	3 AC curve
ABT7PDU025B	250 VA	10 A	10 A	GB2CD16	10 AC curve	4 A	4 A	GB2CD10	6 AC curve
ABT7PDU032B	320 VA	12 A	12 A	GB2CD20	16 AC curve	6 A	6 A	GB2CD12	10 AC curve
ABT7PDU040B	400 VA	16 A	16 A	GB2CD21	16 AC curve	8 A	8 A	GB2CD14	10 AC curve
ABT7TDU063B	630 VA	25 A	25 A	–	25 AC curve	12 A	12 A	GB2CD20	16 AC curve
ABT7TDU100B	1000 VA	40 A	40 A	–	40 AC curve	20 A	20 A	GB2CD22	20 AC curve
ABT7TDU160B	1600 VA	63 A	63 A	–	63 AC curve	32 A	32 A	–	32 AC curve
ABT7TDU250B	2500 VA	100 A	100 A	–	–	50 A	50 A	–	50 AC curve

Transformer		115 Vac secondary				230 Vac secondary			
Reference	Power	gG fuse (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/US) (2)	Acti9 IC60 (3)	gG fuse (1)	aM fuses	TeSys GB2 (IEC/ CSA-c/US) (2)	Acti9 IC60 (3)
ABT7PDU002G	25 VA	–	0.25 A	–	–	–	0.16 A	–	–
ABT7PDU004G	40 VA	0.5 A	0.5 A	GB2CD05	–	–	0.25 A	–	–
ABT7PDU006G	63 VA	0.5 A	0.5 A	GB2CD05	0.5 AC curve	–	0.25 A	–	–
ABT7PDU010G	100 VA	1 A	1 A	GB2CD05	1 AC curve	0.5 A	0.5 A	GB2CD06	0.5 AC curve
ABT7PDU016G	160 VA	1 A	1 A	GB2CD06	2 AC curve	0.5 A	0.5 A	GB2CD07	1 AC curve
ABT7PDU025G	250 VA	2 A	2 A	GB2CD06	2 AC curve	1 A	1 A	GB2CD07	1 AC curve
ABT7PDU032G	320 VA	2 A	2 A	GB2CD07	3 AC curve	1 A	1 A	GB2CD08	2 AC curve
ABT7PDU040G	400 VA	4 A	4 A	GB2CD07	4 AC curve	2 A	2 A	GB2CD08	2 AC curve
ABT7TDU063G	630 VA	4 A	4 A	GB2CD09	4 AC curve	2 A	2 A	GB2CD07	2 AC curve
ABT7TDU100G	1000 VA	8 A	8 A	GB2CD14	10 AC curve	4 A	4 A	GB2CD09	4 AC curve
ABT7TDU160G	1600 VA	12 A	12 A	GB2CD20	16 AC curve	6 A	6 A	GB2CD12	6 AC curve
ABT7TDU250G	2500 VA	20 A	20 A	GB2CD22	20 AC curve	10 A	10 A	GB2CD16	10 AC curve

(1) For operation in compliance with UL.

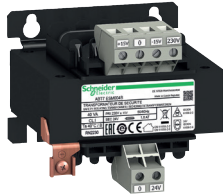
(2) More information on TeSys GB2 offer, consult our [website](#), more information on TeSys GV2 offer, consult our [website](#).

(3) Check on our [website](#) for the exact reference. For installation in North America, please select a UL489 compliant circuit breaker.

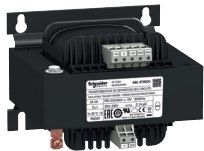
(4) Protection on the secondary is necessary.

Modicon Transformer

Single phase transformers 230 to 400 Vac,
25 to 2500 VA
Modicon ABT7, ABL6



ABT7ESM004B



ABL6TS002J

Transformers with single phase (N-L1) or phase-to-phase (L1-L2) connection

Input voltage	Secondary Type	Voltage	Nominal power	Reference	Weight kg/lb
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ABT7ES Economic range

Transformers 230 VAC, Single winding

230 Vac single phase, (N-L1) or phase to phase (L1-L2) connection ± 15 V	Single winding	24 V	40 VA	ABT7ESM004B	1.020/2.249
			63 VA	ABT7ESM006B	1.140/2.513
			100 VA	ABT7ESM010B	1.900/4.189
			160 VA	ABT7ESM016B	2.720/5.997
			250 VA	ABT7ESM025B	3.540/7.804
			320 VA	ABT7ESM032B	4.080/8.995
			400 VA	ABT7ESM040B	5.100/11.244

ABL6TS Optimized range

Transformers 230/400 VAC, Single winding

230 Vac single phase, (N-L1), 400 Vac phase to phase (L1-L2) ± 15 V	Single winding	12 V	25 VA	ABL6TS02J	0.700/1.543
			40 VA	ABL6TS04J	1.200/2.646
			63 VA	ABL6TS06J	1.600/3.527
			100 VA	ABL6TS10J	2.100/4.630
			160 VA	ABL6TS16J	3.200/7.055
			250 VA	ABL6TS25J	4.400/9.700
		24 V	25 VA	ABL6TS02B	0.700/1.543
			40 VA	ABL6TS04B	1.200/2.646
			63 VA	ABL6TS06B	1.600/3.527
			100 VA	ABL6TS10B	2.100/4.630
			160 VA	ABL6TS16B	3.200/7.055
			250 VA	ABL6TS25B	4.400/9.700
	115 V	2500 VA	400 VA	ABL6TS40B	6.500/14.330
			630 VA	ABL6TS63B	9.800/21.605
			1000 VA	ABL6TS100B	14.300/31.526
			1600 VA	ABL6TS160B	19.400/42.770
			2500 VA	ABL6TS250B	27.400/60.407
			25 VA	ABL6TS02G	0.700/1.543
		230 V	40 VA	ABL6TS04G	1.200/2.646
			63 VA	ABL6TS06G	1.600/3.527
			100 VA	ABL6TS10G	2.100/4.630
			160 VA	ABL6TS16G	3.200/7.055
			250 VA	ABL6TS25G	4.400/9.700
			400 VA	ABL6TS40G	6.500/14.330
230 V	2500 VA	630 VA	ABL6TS63G	9.800/21.605	
		1000 VA	ABL6TS100G	14.300/31.526	
		1600 VA	ABL6TS160G	19.400/42.770	
		2500 VA	ABL6TS250G	27.400/60.407	
		25 VA	ABL6TS02U	0.700/1.543	
		40 VA	ABL6TS04U	1.200/2.646	
	230 V	63 VA	ABL6TS06U	1.600/3.527	
		100 VA	ABL6TS10U	2.100/4.630	
		160 VA	ABL6TS16U	3.200/7.055	
		250 VA	ABL6TS25U	4.400/9.700	
		400 VA	ABL6TS40U	6.500/14.330	
		630 VA	ABL6TS63U	9.800/21.605	
230 V	1000 VA	ABL6TS100U	14.300/31.526		
	1600 VA	ABL6TS160U	19.400/42.770		
	2500 VA	ABL6TS250U	27.400/60.407		

Modicon Transformer

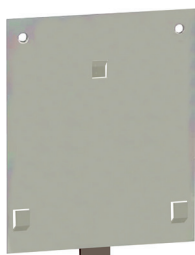
Single phase transformers 230 to 400 Vac,
25 to 2500 VA
Modicon ABT7, ABL6



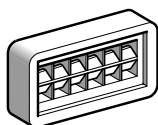
ABT7PDU002...032



ABT7PDU040...250



ABL6AM0



AR1SB3

Transformers with single phase (N-L1) or phase-to-phase (L1-L2) connection

Input voltage	Secondary		Nominal power	Reference	Weight kg/lb
	Type	Voltage			
ABT7PDU Universal range					
Transformers 230/400 V, Double winding					
With cover, connected by internal jumpers with LED indicators					
230 Vac single phase, (N-L1), 400 Vac phase to phase (L1-L2) ± 15 V	Double winding	2 x 24 V	40 VA	ABT7PDU004B	1.400/3.086
			63 VA	ABT7PDU006B	1.940/4.277
			100 VA	ABT7PDU010B	2.860/6.305
			160 VA	ABT7PDU016B	4.400/9.700
			250 VA	ABT7PDU025B	5.600/12.346
			320 VA	ABT7PDU032B	7.100/15.653
	2 x 115 V		25 VA	ABT7PDU002G	1.100/2.425
			40 VA	ABT7PDU004G	1.400/3.086
			63 VA	ABT7PDU006G	1.940/4.277
			100 VA	ABT7PDU010G	2.860/6.305
			160 VA	ABT7PDU016G	4.400/9.700
			250 VA	ABT7PDU025G	5.600/12.346
320 VA	ABT7PDU032G	7.100/15.653			

Without cover, connected by external jumpers

230 Vac single phase, (N-L1), 400 Vac phase to phase (L1-L2) ± 15 V	Double winding	2 x 24 V	400 VA	ABT7PDU040B	7.400/16.314
			630 VA	ABT7PDU063B	7.900/17.418
			1000 VA	ABT7PDU100B	14.000/30.865
			1600 VA	ABT7PDU160B	20.000/44.092
			2500 VA	ABT7PDU250B	28.000/61.729
			2 x 115 V		400 VA
630 VA	ABT7PDU063G	7.900/17.418			
1000 VA	ABT7PDU100G	14.000/30.865			
1600 VA	ABT7PDU160G	20.000/44.092			
2500 VA	ABT7PDU250G	28.000/61.729			

Separate parts for ABT7 and ABL6 transformers

Designation	Use on transformers	Order in multiples of	Unit reference	Weight kg/lb
Plates for mounting on rail	ABL6TS02J, ABL6TS02B, ABL6TS02G, ABL6TS02U	5	ABL6AM00	0.045/0.099
	ABT7ESM004B, ABT7ESM006B, ABL6TS04J, ABL6TS04B, ABL6TS04G, ABL6TS04U	5	ABL6AM01	0.050/0.110
	ABL6TS06J, ABL6TS06B, ABL6TS06G, ABL6TS06U	5	ABL6AM02	0.055/0.121
	ABT7ESM010B, ABL6TS10J, ABL6TS10B, ABL6TS10G, ABL6TS10U	5	ABL6AM03	0.065/0.143
	ABT7ESM016B	5	ABL6AM04	0.085/0.187
Self-adhesive marker tag holder 20 x 10 mm (0.78 x 0.39 in)	–	50	AR1SB3	0.001/0.002

Separate parts for ABT7 and ABL6 transformers

Designation	Use on	Reference	Weight kg/lb
Pack of 10 jumpers	ABT7PDU double-winding transformer (Universal range)	ABT7JMP01	0.010/0.022

Modicon Transformer

Single phase transformers 230 to 400 Vac,
25 to 2500 VA
Modicon ABT7, ABL6

A					
ABL6AM00	11	ABL6TS40B	7	ABT7PDU160B	11
ABL6AM01	11	ABL6TS40G	8	ABT7PDU160B/G	9
ABL6AM02	11		10	ABT7PDU160G	11
ABL6AM03	11	ABL6TS40U	8	ABT7PDU250B	11
ABL6AM04	11		10	ABT7PDU250B/G	9
ABL6TS02B	7	ABL6TS63B	7	ABT7PDU250G	11
	10		10	ABT7TDU063B	9
ABL6TS02G	8	ABL6TS63G	8	ABT7TDU063G	9
	10		10	ABT7TDU100B	9
ABL6TS02J	7	ABL6TS63U	8	ABT7TDU100G	9
	10		10	ABT7TDU160B	9
ABL6TS02U	8	ABT7ESM004B	6	ABT7TDU160G	9
	10		10	ABT7TDU250B	9
ABL6TS04B	7	ABT7ESM006B	6	ABT7TDU250G	9
	10		10	AR1SB3	11
ABL6TS04G	8	ABT7ESM010B	6	G	
	10		10	GB2CD05	8
ABL6TS04J	7	ABT7ESM016B	6		9
	10		10	GB2CD06	7
ABL6TS04U	8	ABT7ESM025B	6		9
	10		10	GB2CD06	7
ABL6TS06B	7	ABT7ESM032B	6		9
	10		10	GB2CD07	6
ABL6TS06G	8	ABT7ESM040B	6		7
	10		10		8
ABL6TS06J	7	ABT7JMP01	11		9
	10	ABT7PDU002G	9	GB2CD08	6
ABL6TS06U	8		11		7
	10	ABT7PDU004B	9		8
ABL6TS100B	7		11		9
	10	ABT7PDU004B/G	9	GB2CD09	6
ABL6TS100G	8	ABT7PDU004G	9		7
	10		11		8
ABL6TS100U	8	ABT7PDU006B	9		9
	10		11	GB2CD10	7
ABL6TS10B	7	ABT7PDU006B/G	9		9
	10	ABT7PDU006G	9	GB2CD12	6
ABL6TS10G	8		11		7
	10	ABT7PDU010B	9		8
ABL6TS10J	7		11		9
	10	ABT7PDU010B/G	9	GB2CD14	7
ABL6TS10U	8	ABT7PDU010G	9		8
	10		11		9
ABL6TS160B	7	ABT7PDU016B	9	GB2CD16	6
	10		11		7
ABL6TS160G	8	ABT7PDU016B/G	9		8
	10	ABT7PDU016G	9	GB2CD20	6
ABL6TS160U	8		11		7
	10	ABT7PDU025B	9		9
ABL6TS16B	7		11	GB2CD21	6
	10	ABT7PDU025B/G	9		7
ABL6TS16G	8	ABT7PDU025G	9		8
	10		11		9
ABL6TS16J	7	ABT7PDU032B	9	GB2CD22	7
	10		11		8
ABL6TS16U	8	ABT7PDU032B/G	9		9
	10	ABT7PDU032G	9	GB2DB05	7
ABL6TS250B	7		11		8
	10	ABT7PDU040B	9		9
ABL6TS250G	8		11	GB2DB06	7
	10	ABT7PDU040B/G	9		8
ABL6TS250U	8	ABT7PDU040G	9		9
	10		11	GB2DB07	7
ABL6TS25B	7	ABT7PDU063B	11		8
	10	ABT7PDU063B/G	9	GB2DB08	8
ABL6TS25G	8		11	GB2DB09	7
	10	ABT7PDU063G	11		8
ABL6TS25J	7	ABT7PDU100B	11		9
	10	ABT7PDU100B/G	9	GB2DB10	7
ABL6TS25U	8		11		8
	10	ABT7PDU100G	11		

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