

IEC61029_2_9A - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC61029-2-9 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Safety of transportable motor-operated electric tools – Part 2-9: Particular requirements for mitre saws	
Differences according to:	EN 61029-2-9:2012 + A11:2013 used in conjunction with EN 61029-1:2009 + A11:2010
Attachment Form No.:	EU_GD_IEC61029_2_9A_II
Attachment Originator	DEKRA Certification B.V.
Master Attachment	2014-02
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CENELEC COMMON MODIFICATIONS (EN)			
7	MARKING		
	Business name and address of the manufacturer and, where applicable, his authorised representative. Any address must be sufficient to ensure contact.....:	LEE YEONG INDUSTRIAL CO., LTD. No.2, Kejia Rd., Douliu City, Yunlin County 64057, Taiwan	P
	Designation of the tool	SLIDE COMPOUND MITER SAW	P
	Designation of series or type	GP255; GP255S; LY255; LY255S	P
	Year of manufacture	2013 and later	P
	Mitre saws shall also be marked with:		P
	- maximum and minimum saw blade diameter; (EN 61029-2-9:2012)	Ø 254 mm	P
	- indication of direction of rotation of the saw blade; (EN 61029-2-9:2012)		P
	- saw blade bore diameter. (EN 61029-2-9:2012)	Ø 30 mm	P
	Tool for star-delta connection clearly marked with the two voltages		N/A
	Rated input or current is the total maximum that can be on the circuit at the same time		N/A

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	In case of alternative components, the rated input is corresponding to the highest load		N/A
	Additional markings (e.g. motor markings) are allowed, provided that they do not give rise to misunderstanding	CE marking and WEEE symbol	P
7.3	Heating elements: marking according to EN60335-1		N/A
7.4	If the tool can be adjusted to suit different rated voltages or different rated inputs, the voltage or input to which the tool is adjusted is easily and clearly discernible.		N/A
	This requirement does not apply to tools for star-delta connection.		N/A
	For tools where frequent changes in voltage setting are not required, this requirement is deemed to be met if the rated voltage or the rated input to which the tool is adjusted, can be determined from a wiring diagram fixed to the tool; the wiring diagram may be on the inside of a cover which has to be removed to connect the supply conductors. This diagram may be on a card which is riveted to the cover or on a paper or similar label secured to the cover by an adhesive but it must not be on a label loosely attached to the tool.		N/A
7.6	<i>Addition:</i> The direction of rotation of the blade shall be indicated on a fixed part of the mitre saw in the vicinity of the spindle axis by an arrow raised or sunk, which is visible when changing the blade, or by any other means not less visible and indelible. (EN 61029-2-9:2012)		P
7.13	The words 'Original instructions' must appear on the language version(s) verified by the manufacturer or his authorised representative.		P
	Where no 'Original instructions' exist in the official language(s) of the country where the tool is to be used, a translation into that/those language(s) must be provided by the manufacturer or his authorised representative or by the person bringing the tool into the language area in question		P
	The translations must be bearing the words "Translation of the original instructions", and they must be accompanied by a copy of the "Original instructions".		P

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	- Instructions		P
	a) Installation instructions:		P
	- Setting-up or fixing tool in a stable position.		P
	- Information about disassembly and reassembly if applicable for transportation and/or use.		P
	b) Operating instructions:		P
	- Limits on size of work piece and type of material.		P
	- Indication of the correct operator's position.		P
	- Instruction on how to handle jammed accessories.		P
	- Information about lifting handles/similar, and instruction to use them for transportation.		P
	c) Safety precautions:		P
	- Precautions and use of PPE.		P
	- warning to not use saw blades which are damaged or deformed; (EN 61029-2-9:2012)		P
	- instruction to replace the table insert when worn; (EN 61029-2-9:2012)		P
	- instruction to use only saw blades recommended by the manufacturer; specified saw blades for wood working shall comply with EN 847-1; (EN 61029-2-9:2012)		P
	- warning to not use saw blades manufactured from high speed steel; (EN 61029-2-9:2012)		P
	- instruction to wear suitable personal protective equipment when necessary, this could include:: (EN 61029-2-9:2012)		P
	- Hearing protection, to reduce the risk of induced hearing loss, (EN 61029-2-9:2012)		P
	- Gloves, when handling core bits or rough materials, to reduce injuries by sharp edges, (EN 61029-2-9:2012)		P
	- eye protection, (EN 61029-2-9:2012)		P
	- respiratory protection to reduce the risk of inhalation of harmful dust, (EN 61029-2-9:2012)		P

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	- gloves for handling saw blades and rough material (recommendation that saw blades should be carried in a holder wherever practicable). (EN 61029-2-9:2012)		P
	instruction to connect the saw to a dust-collecting device when sawing wood; (EN 61029-2-9:2012)		P
	- General safety instructions. These must consist of the following text: "WARNING! When using electric tools basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following. Read all these instructions before attempting to operate this product and save these instructions".		P
	d) Maintenance and servicing:		P
	- Regular cleaning, maintenance and lubrication. (Including the warning "Remove the plug before carrying out any adjustment, servicing or maintenance").		P
	- Instruction, how to safely remove blockages of dust, chips or workpiece fragments.		P
	e) Safe operation:		P
	Keep work area clear - Cluttered areas and benches invite injuries.		P
	Consider work area environment - Do not expose tools to rain. - Do not use tools in damp or wet locations. - Keep work area well lit. - Do not use tools in the presence of flammable liquids or gases.		P
	Guard against electric shock - Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators).		P
	Keep other persons away - Do not let persons, especially children, not involved in the work touch the tool or the extension cord and keep them away from the work area.		P

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	<p>Store idle tools</p> <ul style="list-style-type: none"> - When not in use, tools should be stored in a dry locked-up place, out of reach of children. 		P
	<p>Do not force the tool</p> <ul style="list-style-type: none"> - It will do the job better and safer at the rate for which it was intended. 		P
	<p>Use the right tool</p> <ul style="list-style-type: none"> - Do not force small tools to do the job of a heavy duty tool. - Do not use tools for purposes not intended; for example do not use circular saws to cut tree limbs or logs. 		P
	<p>Dress properly</p> <ul style="list-style-type: none"> - Do not wear loose clothing or jewellery, they can be caught in moving parts. - Non-skid footwear is recommended when working outdoors. - Wear protective hair covering to contain long hair. 		P
	<p>Use protective equipment</p> <ul style="list-style-type: none"> - Use safety glasses. - Use face or dust mask if working operations create dust. 		P
	<p>Connect dust extraction equipment</p> <ul style="list-style-type: none"> - If the tool is provided for the connection of dust extraction and collecting equipment, ensure these are connected and properly used. 		P
	<p>Do not abuse the cord</p> <ul style="list-style-type: none"> - Never yank the cord to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges. 		P
	<p>Secure work</p> <ul style="list-style-type: none"> - Where possible use clamps or a vice to hold the work. It is safer than using your hand. 		P
	<p>Do not overreach</p> <ul style="list-style-type: none"> - Keep proper footing and balance at all times. 		P

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	<p>Maintain tools with care</p> <ul style="list-style-type: none"> - Keep cutting tools sharp and clean for better and safer performance. - Follow instruction for lubricating and changing accessories. - Inspect tool cords periodically and if damaged have them repaired by an authorized service facility. - Inspect extension cords periodically and replace if damaged. - Keep handles dry, clean and free from oil and grease. 		P
	<p>Disconnect tools</p> <ul style="list-style-type: none"> - When not in use, before servicing and when changing accessories such as blades, bits and cutters, disconnect tools from the power supply. 		P
	<p>Remove adjusting keys and wrenches</p> <ul style="list-style-type: none"> - Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on. 		P
	<p>Avoid unintentional starting</p> <ul style="list-style-type: none"> - Ensure switch is in "off" position when plugging in. 		P
	<p>Use outdoor extension leads</p> <ul style="list-style-type: none"> - When the tool is used outdoors, use only extension cords intended for outdoor use and so marked. 		P
	<p>Stay alert</p> <ul style="list-style-type: none"> - Watch what you are doing, use common sense and do not operate the tool when you are tired. 		P

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	<p>Check damaged parts</p> <ul style="list-style-type: none"> - Before further use of tool, it should be carefully checked to determine that it will operate properly and perform its intended function. - Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. - A guard or other part that is damaged should be properly repaired or replaced by an authorized service centre unless otherwise indicated in this instruction manual. - Have defective switches replaced by an authorized service centre. - Do not use the tool if the switch does not turn it on and off. 		P
	<p>Warning</p> <ul style="list-style-type: none"> - The use of any accessory or attachment other than one recommended in this instruction manual may present a risk of personal injury. 		P
	<p>Have your tool repaired by a qualified person</p> <ul style="list-style-type: none"> - This electric tool complies with the relevant safety rules. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user. 		P
	<ul style="list-style-type: none"> - instruction to select the correct saw blade for the material to be cut; (EN 61029-2-9:2012) 		P
	<ul style="list-style-type: none"> - warning to not use the saw to cut materials other than those specified; (EN 61029-2-9:2012) 		P
	<ul style="list-style-type: none"> - lifting and transportation information: Information shall include where to lift and support the mitre saw and when necessary a warning not to use guards for this purpose; (EN 61029-2-9:2012) 		P
	<ul style="list-style-type: none"> - instruction to only use the saw with guards in good working order and properly maintained, and in position; (EN 61029-2-9:2012) 		P
	<ul style="list-style-type: none"> - instruction to keep the floor area free of loose material e.g. chips and cut-offs; (EN 61029-2-9:2012) 		P
	<ul style="list-style-type: none"> - instruction to ensure the speed marked on the saw blade is at least equal to the speed marked on the saw; (EN 61029-2-9:2012) 		P
	<ul style="list-style-type: none"> - instruction to ensure that any spacers and spindle rings used are suitable for the purpose as stated by the manufacturer; (EN 61029-2-9:2012) 		P

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	- when fitted with a laser or LED: warning to not replace the laser or LED with a different type. Instruction that repairs shall only be carried out by the laser manufacturer or an authorised agent; (EN 61029-2-9:2012)		P
	- instruction how to correctly replace and reposition the blade; (EN 61029-2-9:2012)		P
	- warning to refrain from removing any cut-offs or other parts of the work piece from the cutting area whilst the machine is running with a unguarded saw blade; (EN 61029-2-9:2012)		P
	- instruction how to perform cuts correctly and safely; (EN 61029-2-9:2012)		P
	- always to clamp work pieces to the saw table, (EN 61029-2-9:2012)		P
	- to ensure before each cut that the machine is stable, (EN 61029-2-9:2012)		P
	- if needed, to fix the machine to a work bench or the like, (EN 61029-2-9:2012)		P
	- if needed, to support long work pieces with appropriate additional supports; (EN 61029-2-9:2012)		P
	- instruction how to clamp work pieces to the saw table; (EN 61029-2-9:2012)		P
	- instruction how to support long work pieces; (EN 61029-2-9:2012)		P
	- instruction how to fix the machine to a workbench or the like; (EN 61029-2-9:2012)		P
	- information about the minimum size of the work piece; (EN 61029-2-9:2012)		P
	- information about the maximum cross-section size of the work piece for cross-cutting. (EN 61029-2-9:2012)		P
	- information about the range of outside diameter, bore diameter and thickness of blades which may be used; (EN 61029-2-9:2012)		P
	- information about the maximum cutting depth; (EN 61029-2-9:2012)		P
	- information about the possible mitre and bevel angles and combinations thereof (EN 61029-2-9:2012)		P
Za)	Emissions		P
	1 The noise emission according to 13.2.		P
	2 Recommendation for the operator to wear hearing protection.		P
	3 The vibration emission according to 13.3.		N/A

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	Vibration emission < 2.5 m/s ² , stated in the instruction		N/A
	Vibration emission > 2.5 m/s ² value given in the instruction		N/A
	4 The following information:		N/A
	- that the declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another.		N/A
	- that the declared vibration total value may also be used in a preliminary assessment of exposure.		N/A
	5 A warning:		N/A
	- that the vibration emission during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used; and		N/A
	- of the need to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).		N/A
Zb)	Connection to water supply		N/A
	1 For tools intended to be connected to a water supply, instructions for the connection to the water supply, the use of the water and the use of attachments to comply with 14.5 in order to avoid affection of the tool by water, the inspection of hoses and other critical parts which could deteriorate and the maximum permitted pressure of the water supply.		N/A
	2 For tools intended to be connected to a water supply, the substance of the following Instructions, if applicable:		N/A

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	– for tools provided with a PRCD: Never use the tool without the PRCD delivered with the tool,		N/A
	– for tools provided with an isolating transformer: Never use the tool without the transformer delivered with the tool or of the type as specified in these instructions,		N/A
	– Replacement of the plug or the supply cord must always be carried out by the manufacturer of the tool or his service organisation,		N/A
	– Keep water clear off the electrical parts of the tool and away from persons in the working area.		N/A
	Following information is also given:		P
	- Business name and address of the manufacturer and, where applicable, his authorised representative. Any address is sufficient to ensure contact.		P
	- Designation of the tool and series or type as required by 7.1, including description of machine such as "bench grinder", "band saw" etc.		P
	- A repeat of the safety markings (e.g. maximum speed, capacity, etc.) that are to be marked on the tool;		P
	- An explanation of any symbols or pictograms marked on the tool;		P
	- The mass of the tool including detachable parts.		P
12	LEAKAGE CURRENT		P
	Tools with heating element tested according to EN 60335-1; 13.2		N/A
13	ENVIRONMENTAL REQUIREMENTS		P
13.1	Dust measurements:		N/A
13.2	Noise:		P
	Test according to sub clauses 13.2.1 – 13.2.6		P

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13.2.1	The most important sources of noise are: - the saw blade; - the gear; - the motor / the fan. - the work piece (EN 61029-2-9:2012)		P
13.2.4	Mitre saws are tested under load under the conditions shown in Table Z101.. (EN 61029-2-9:2012)		P
	Noise measurements :		P
13.2.7	Declaration and verification of noise emission values		P
	L_{pA} [dB(A)]: K_{pA} [dB(A)]:	See Report: 3192938.50A	P
	L_{WA} [dB(A)]: K_{WA} [dB(A)]:	See Report: 3192938.50A	P
	L_{pCpeak} (dB): K_{pCpeak} (dB):		N/A
13.3	Vibration:		N/A
	This clause is not applicable. (EN 61029-2-9:2012)		N/A
14	MOISTURE RESISTANCE		P
14.2	Tools with a higher degree than IPX0 comply with EN 60529 under working condition IP:		N/A
14.3	Insulation resistance after humidity treatment		P
14.5	Tools, except those of class III, intended to be connected to a water supply must be constructed so that the electrical insulation of the tool is not affected by water during recommended operation.		N/A
	Compliance is checked by the following test.		N/A
	The tool is connected to a water supply and operated at 1,06 times rated voltage for 5 min in the most unfavourable position in accordance with the manufacturer's instructions.		N/A

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	Throughout the test the leakage current between live parts and the enclosure as specified in 12.2 is monitored. The leakage current must not exceed the value specified in 12.2.		N/A
	Immediately after this treatment inspection must show that water has not entered the tool to any appreciable extent and that there is no trace of water on insulation for which creepage distances are specified in 27.1.		N/A
16	ENDURANCE		P
16.1	Operation of overload protection devices		N/A
17	ABNORMAL OPERATION		P
17.1	Mitre saws equipped with an induction motor are considered to be tools in which moving parts are liable to be jammed. (EN 61029-2-9:2012)		N/A
17.2	If the tool incorporates a device for limiting speed and should the electronic control device fail to operate, the tool is considered to have withstood the test when the said speed limiting device operates during the test.		N/A
18	MECHANICAL HAZARDS		P
18.1	Mitre saws shall be equipped with an adequate guarding system, which cannot be removed without the aid of a tool. (EN 61029-2-9:2012)		P
	The guarding system shall comply with the requirements of 18.1.101. (EN 61029-2-9:2012)		P
18.1.101.Z 1	Mitre saws shall be provided with a combination of fixed and self-closing guards.		P
	The area 1 shall have a fixed guard which as a minimum covers the periphery and both sides of the saw blade down at least to the root of the teeth, independent of the position of the saw unit. When the flange/clamping nut is not circular it shall be covered by a fixed guard. (EN 61029-2-9:2012)		P
	In the upper position, the area 2 shall be guarded by a combination of fixed and self-closing guards which as a minimum cover the periphery of the saw blade and both sides of the saw teeth down at least to the root of the teeth. See Figure Z101 for illustration. (EN 61029-2-9:2012)		P
	The guards shall comply with this requirement at any mitre and bevel position which is possible. (EN 61029-2-9:2012)		P

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	The self-closing guard shall comply with either a) or b): (EN 61029-2-9:2012)		-
	a) The guard shall be of a U-shaped construction (see Figure Z102). The guard shall enclose the teeth of the saw blade. For saws with linked action and with the saw unit in its upper position, the guard shall be in its completely closed position and both the guard and saw unit shall be locked. (EN 61029-2-9:2012)		P
	The saws unit and guard shall only be unlocked by manually operating the release device(s) and the guard shall pen by moving the saw unit down. It shall be possible to operate the release device(s) without releasing the grip on the handle. (EN 61029-2-9:2012)		P
	For saw units without linked action and with the saw unit in its upper position, the guard shall be locked. When moving down the saw unit from its upper position, the guard shall remain locked and closed in all positions of the saw unit and only be unlocked and opened by manually operating the release device. (EN 61029-2-9:2012)		N/A
	After manually operating the release device, the guard shall open by further pressing of the release device for an angle of maximum 60°. (EN 61029-2-9:2012)		N/A
	b) The guard shall be of an open guard construction (see Figure Z103) which covers both sides of the saw blade teeth as shown in Figure Z104 and which opens when it makes contact with the work piece or the fence. The guard shall lie on the work piece or on the fence during cutting to afford maximum protection. (EN 61029-2-9:2012)		N/A
	The guard shall be in its completely closed position and locked when the saw unit is in its rest position. (EN 61029-2-9:2012)		N/A
	It shall be possible for an operator to unlock the guard without releasing the grip on the handle. (EN 61029-2-9:2012)		N/A
18.1.101.Z 2	In cutting mode the front of the saw blade shall be guarded against inadvertent contact, see Figure Z108. (EN 61029-2-9:2012)		P
18.1.101.Z 3	For saws provided with a spring loaded guard the closing time of the self-closing guard from the fully open position to the fully closed position shall not exceed 0,3 s. (EN 61029-2-9:2012)		N/A
18.1.101.Z 4	All types of guard shall allow changing of the saw blade without removing the guard from the machine. (EN 61029-2-9:2012)		P
18.1.101.Z 5	When set for transportation the self-closing guard shall cover the teeth of the blade to the front of the machine (EN 61029-2-9:2012)		P

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18.1.101.Z 6	Saws shall be so guarded that the saw blade cannot be touched from below the table. (EN 61029-2-9:2012)		P
18.3	In any working position, the machine shall have sufficient stability. (EN 61029-2-9:2012)		P
	Tools shall be provided with the facility to fix the machine to a bench, e.g. by providing holes in the machine frame. (EN 61029-2-9:2012)		P
	Tools provided with wheels must have adequate stability during transportation.		N/A
18.Z101.1	The slot in the table for the saw blade shall be in accordance with the dimension given in Figure Z106. The area surrounding the saw blade where it passes through the table shall be of a material such as plastic, wood or aluminium. (EN 61029-2-9:2012)	d = 9,6 mm plastic	P
18.Z101.2	The table, or any work piece support, shall be so designed that it shall extend minimum $\frac{3}{4} D$, where D is the diameter of the saw blade, or at least 180 mm, whichever is greater, on each side of the cutting line when the saw blade is at 90° to the table and 0° mitre angle. (EN 61029-2-9:2012)	254 mm	P
18.Z101.3	Between movable and fixed parts of the table, the tolerance in height shall be ± 1 mm. (EN 61029-2-9:2012)		P
18.Z102	A fence shall be provided on each side of the saw blade which at least extends the minimum width of the table as required in 18.Z101.2. (EN 61029-2-9:2012)		P
	Where there is no interference of the fence(s) with the saw blade, flange, guard, motor housing or a workpiece support as illustrated in Figure Z110, as applicable, the fence shall have a minimum height of: $0,25 (\varnothing D - \varnothing d)$ with $\varnothing D$ being the maximum saw blade diameter and $\varnothing d$ being the outer flange diameter, see Figure Z107. (EN 61029-2-9:2012)	55 mm > 50.5 mm	P
	The remaining part of the fence may be lower to allow saw blade, flange, guard, motor housing and a workpiece support as illustrated in Figure Z110, as applicable, to pass under all cutting conditions. (EN 61029-2-9:2012)		-
	For the saw blade at 90° to the table and 0° mitre angle, at least one point of each fence shall have a distance from the cutting edge of the saw blade provided with the tool of less than		P
	– 20 mm, for designs where the saw blade guard passes through the fence or for designs with a workpiece support as illustrated in Figure Z110; (EN 61029-2-9:2012)		N/A

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	– 8 mm, for all other saws. (EN 61029-2-9:2012)	7,2/4.2 mm	P
	The distance shall be measured in the front plane of the fences and parallel to the table surface, see Figure Z109. (EN 61029-2-9:2012)		P
	The part of the fence adjacent to the saw blade shall be made from material that can easily be cut such as aluminium, plastic or wood. (EN 61029-2-9:2012)	aluminium	P
18.Z103	The outer diameter of the contact surface shall be not less than 0,2 times the rated blade diameter and at least one of the flanges shall be locked or keyed to the output spindle. The overlap of the clamping area of the two flanges shall be at least 1,5 mm wide, as specified in Figure Z107. (EN 61029-2-9:2012)	52 mm > 50,8 mm	P
18.Z104	Connection ports for external dust collection equipment, if any, shall be directed away from the operator. (EN 61029-2-9:2012)		P
18.Z105	The saw unit shall move automatically up from any intermediate position to its upper position when the handle is released. (EN 61029-2-9:2012)		P
	The return device of the saw unit shall withstand at least 100 000 cycles. Down and up is one cycle. (EN 61029-2-9:2012)		P
	<i>For each cycle, the saws unit is moved down to its lowest position and then moved upwards to its upper position. The time for each movement up or down shall be between 1 s and 2 s. (EN 61029-2-9:2012)</i>		-
	After completing the test above, the time needed for the back stroke from the lowest position of the saw unit to its upper position shall not exceed 2 s and the whole mechanical system shall show no damage and work correctly. (EN 61029-2-9:2012/A11:2013)	0,46 s	P

19	MECHANICAL STRENGTH		P								
19.1	Guards shall be manufactured from either a) or b) or c): (EN 61029-2-9:2012)		P								
	a) steel having the following characteristics:	Upper guard	P								
	<table border="1"> <thead> <tr> <th>Ultimate tensile strength</th> <th>Minimum thickness</th> </tr> <tr> <th>N/mm²</th> <th>mm</th> </tr> </thead> <tbody> <tr> <td>350</td> <td>1,50</td> </tr> <tr> <td>380</td> <td>1,25</td> </tr> </tbody> </table>	Ultimate tensile strength	Minimum thickness	N/mm ²	mm	350	1,50	380	1,25	>350 N/mm ² 1,53 mm	
Ultimate tensile strength	Minimum thickness										
N/mm ²	mm										
350	1,50										
380	1,25										
	(EN 61029-2-9:2012)										

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	<p>b) light alloy having the following characteristics:</p> <table border="1"> <thead> <tr> <th>Ultimate tensile strength</th> <th>Minimum thickness</th> </tr> <tr> <th>N/mm²</th> <th>mm</th> </tr> </thead> <tbody> <tr> <td>160</td> <td>2,5</td> </tr> <tr> <td>200</td> <td>2,0</td> </tr> </tbody> </table> <p>(EN 61029-2-9:2012)</p>	Ultimate tensile strength	Minimum thickness	N/mm ²	mm	160	2,5	200	2,0	<p>Lower Guard: >160 N/mm² 3,12 mm</p>	P
Ultimate tensile strength	Minimum thickness										
N/mm ²	mm										
160	2,5										
200	2,0										
	<p>c) polycarbonate with a wall thickness of at least 3 mm or other plastic material having an impact strength equal to or better than polycarbonate of at least 3 mm thickness. (EN 61029-2-9:2012)</p>	3,3 mm	P								

20	CONSTRUCTION		
20.8	Asbestos not used under any circumstances		P
20.18	The actuation of the mains switch or control device shall not be affected or restricted by the position of the table or by the work piece. (EN 61029-2-9:2012)		P
20.20	Mitre saws where the self-closing guard is of a U-shaped construction as specified in 18.1.101.Z1 a), may be equipped with a mains switch which can be locked in the "on" position. In this case the machine shall not start automatically after voltage recovery following interruption of the supply. (EN 61029-2-9:2012)		N/A
	All other saws shall be equipped with a mains switch that interrupts the supply automatically when the operating means is released. There shall be no means for locking the switch in the "on" position. (EN 61029-2-9:2012)		P
20.21	Tool provided with integral dust collection device, or		N/A
	external dust collection device		P
20.22	Tools intended to be connected to a water supply must either:		N/A
	- be of class III, or		N/A
	- be of class II or of class I for use in combination with an isolating transformer, or		N/A

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	- be of class II or of class I and provided with a PRCD. The PRCD must have a sensitivity of 10 mA or less. The PRCD must not be provided with a switch contact for the protective conductor, which opens, when the PRCD trips due to a residual current. The PRCD may be incorporated either		N/A
	- in the tool, or		
	- in the cord, or		N/A
	- in the plug, or		N/A
	- in a separate control box with one or more socket outlets in accordance with EN 60309-2 with the earthing contact position 1 h.		N/A
	PRCDs incorporated in the cord, in the plug or in a separate control box must have a degree of protection against the ingress of water of at least IPX4.		N/A
20.Z101	The run-down time shall not exceed 10 s. (EN 61029-2-9:2012)	1,1 s	P
20.Z102	The machine shall be provided with effective lifting or transportation positions, which are identified clearly on the machine. (EN 61029-2-9:2012)		P
20.Z103	Saws shall be equipped with at least one vertical work piece clamping device. (EN 61029-2-9:2012)		P
20.Z104	Saw blade(s) delivered with the machine shall comply with EN 847-1. (EN 61029-2-9:2012)		P
21	INTERNAL WIRING		
21.1	In case of doubt with regard to the insulation, an electric strength test must be carried out between the conductor and metal foil wrapped around the conductor insulation, a test voltage of 2000 V being applied for 15 min.		P
21.4	Insulating sleeves may be used to prevent such contact, provided that the sleeves withstand the tests specified for supplementary insulation and that the conductors or sleeves are not likely to be mislaid or lost during routine servicing and repair.		N/A
22	COMPONENTS		P

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22.1	Components must comply with the safety requirements specified in the relevant CENELEC standards as far as they reasonably apply.		P
22.2	Mains switches marked with individual ratings tested in accordance with EN 61058-1		P
22.5	Plugs and appliance inlets for safety extra-low voltage circuits or for frequencies other than 50 Hz of 60 Hz not interchangeable with plugs, connectors and appliance inlet complying with IEC 60083 or EN 60320-1.		N/A
22.9	Appliance couplers must comply with EN 60320-1.		N/A
23	SUPPLY CONNETION AND EXTERNAL FLEXIBLE CABLES AND CORDS		P
23.2	- polyvinyl chloride sheathed H05VV-F		P
	- rubber sheathed H05RR-F		N/A
	Supply cords of tools intended to be connected to a water supply must not be lighter than ordinary polychloroprene-sheathed flexible cord (code designation H05 RN-F).		N/A
23.3	Tools provided with plug complying with IEC 60083, EN 60309-1 and EN 60309-2		P
24	TERMINALS FOR EXTERNAL CONDUCTORS		P
24.1	For the purpose of the requirements for power supply cords		P
	- it is not to be expected that two independent fixings will become loose at the same time;		P
	- conductors connected by soldering are not considered to be adequately fixed, unless they are held in place near to the termination, independently of the solder, but "hooking in" before soldering is, in general, considered to be a suitable means for maintaining the conductors of a power supply cord in position, provided the hole through which the conductor is passed is not unduly large.		N/A
	The terminals of a component (e.g. a switch) built into the tool - on the assumption that they comply with the requirements of this clause - may be used as terminals intended for external conductors.		N/A

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	Switches having connecting leads (pig tails) are allowed if the connection point is within the handle or housing and the cord anchorage of the mains supply cable meets the requirements of 23.5.		N/A
30	If the machine is fitted with a laser to indicate the cutting line, the laser shall be of category 2M or lower according to EN 60825-1. (EN 61029-2-9:2012)		N/A
	If the machine is fitted with a LED, it shall meet the requirements of EN 62471. (EN 61029-2-9:2012)		N/A
C	ANNEX C		N/A

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		N/A
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ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N/A
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ZD	ANNEX ZD, NATIONAL DEVIATIONS (EN)		N/A
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