

Totally Focused. Totally Independent.

**TOTALLY COMMITTED TO** 

# SATISFYING YOUR PTO REQUIREMENTS

The world's largest independent producer of alternators 1 – 5,000kVA







# TOTALLY FOCUSED. TOTALLY INDEPENDENT.

We only make one kind of product. That's why we've been totally focused on producing high quality alternators since we were established in 1947. Today, we have factories or distribution centres in every continent and we're the world's largest independent producer of alternators. Our independence is very important to us... and to our customers because we never compete with any of them in the end market (we don't sell complete generator sets). We believe that we're a totally unique company because of the special combination of qualities that set us apart from our competitors. We offer the highest levels of global support to our customers and we put them at the forefront of every single decision we make, which continually spurs us on in terms of our continuous development, product innovation and constantly evolving product ranges.

# **TOTALLY COMMITTED TO GLOBAL PRODUCTION**

We manufacture the world's widest range of low voltage alternators 1 – 5,000kVA via our 'made for manufacturing' product design in Italy, the UK, China and India. Our network of factories is supported by wholly-owned subsidiaries across the globe who specialise locally in the sales, distribution and aftersales for all Mecc Alte products. This global support ensures that our customers get the assistance they need... wherever they are.

# **TOTALLY COMMITTED TO QUALITY**

We've reached the highest possible quality standards in every area of design, production and sales. At Mecc Alte, our constant pursuit of quality begins well before the actual production process with careful checks on semi-processed parts and sample testing of electrical components. We build over 1,400 alternators every day, over 450,000 a year. We have a complete range of products and our production process is totally integrated. This ensures that every production phase, from the design and selection of materials right through to manufacture and aftersales assistance, complies with the strictest international and organisational standards.

We employ over 1,200 unique people throughout the world. Every one of them is totally committed to the global support that we offer to our customers... and to ensuring that every single alternator we produce meets the world-class standards that Mecc Alte is renowned for.

# POWER TAKE-OFF ALTERNATOR UNITS

Since 1947, Mecc Alte has been specialising in one thing and one thing only producing the finest, highest quality, most reliable alternators for use across a multitude of applications. One such application is in the farming community, where constant power supply is often critical.

The PTO generator range is a tractor-driven power unit which includes an alternator with control box, an overgear with shaft guard and a three-point linkage support frame. These units are designed to provide reliable backup power in the event of a power failure.

Driven by a tractor's power take-off, they are equipped with a sturdy frame which connects by means of a three-point linkage. Characterised by proven high performance levels. robust construction with maximum reliability, they have an exceptional starting capacity for electric motors, ensuring they meet the harshest demands when power is needed most.

As an innovative and dynamic company, Mecc Alte is proud to be the largest independent producer of alternators, with the widest alternator selection of any manufacturer. It is this. which instead of that, gives Mecc Alte its greatest strength in offering an alternator that is proven and renowned worldwide for its reliability and outstanding performance.

We can assure peace of mind and a world-class product.

It is our proven experience and manufacturing capability, backed by world-class aftersales support and prestige brand, which makes Mecc Alte the number one partner to fulfil any alternator-driven power requirements.





# PTO SPECIFICATION, FEATURES AND BENEFITS

The heart of every PTO generator is the alternator; as the world's largest independent alternator manufacturer, Mecc Alte alternators are renowned worldwide for their high performance and world-class quality. The alternator is designed in one heavy duty rolled frame making it extra robust and able to withstand high vibration levels (up to 4G).

Alternator Type:	Mecc Alte					
Voltage/Phase:	415/230V 3 phase or 220V 1 phase (With other voltages on request)					
Alternator Speed/Hz:	1,500rpm 50Hz (4 pole) or 3,000rpm 50Hz (2 pole) (60Hz versions are also possible)					
Duty:	Industrial					
Features:	Type Mecc Alte, industrial, self-regulating, synchronous, with continuous ratings based on an ambient temperature of 40°C, ratings to Class H rise, and up to 1000 masl, Class H insulation. We offer both IP23 and IP45-rated machines depending on the customer's operating requirement. Interference suppression to VDE 0875 Class N & K.					
Standards:	EN 60034-1, EN 60204-1, EN 61000-6-2, EN 61000-6-3, EN 60072-1, EN 60085 and in accordance to the EMC security requirements of EEC 2006/42, EEC 2006/95, EEC 2004/108/CE directives					
2 Year Manufacturer's Global Warranty:	We appreciate that peace of mind is critical and whether you choose the 2 pole 3000rpm unit or the 1500rpm 4 pole type, the alternator has a fully backed 2 year manufacturer's warranty as we are confident in our product's capabilities. Extended warranty is available on request.					

Our compactly designed PTO generators are available in two distinct types, depending on the alternator control system:

Type C - compound control

Type E - electronic control

	Тур	e C	Туре Е	Тур	e B		
	PTO Type C2	PTO Type C4	PTO Type E4	PTO Type B2	PTO Type B4		
Alternator Speed/rpm	3000rpm	1500rpm	1500rpm	1500rpm			
Voltage Regulation	+/-	5%	+/- 1%	+/-	5 %		
Control System	Comp	ound	Electronic With Digital AVR	Comp	oound		
Alternator Maintenance	With B	rushes	Brushless (No Maintenance)	With Brushes			
Overload Capability	40	0%	300% 400%		0%		
Standby Rating		+10% 1 F	Hour in 6	+/- 10% 1 Hour in 12			
Insulation		Class H + E	G43 Tropical	Clas	ss H		
Alternator IP Rating		IP23 (IP45	on request)	IP	23		
Ratings			Continuous at 40°C Ambient				
Interference Suppression	VDE 0875 Class N & K						
Panel		Full F	Panel	Basic Control			
Frame		Heavy Du	uty Frame	Basic Frame			

# **GEARBOX**

Heavy-duty, high quality oil bath gearbox with protective plastic quard.

# CONTROL BOX

Rear-facing, providing easy monitoring from tractor, the control box is protected to IP54. Simple and reliable, the control box is available in 1 phase or 3 phase options. Both options contain either voltmeter, amperemeter and frequency meter plus hourmeter set for easy use. Fitted with two BS4343 external outlet sockets for simple connection whilst protecting the user from misuse. In addition, a 3 phase 30 milliamp differential switch and a double pole circuit breaker provide protection.



# **FRAME**

Black coating, mechanically welded frame with 3-point linkage system. Easy lifting points for simple transportation. Open access to gearbox for simple maintenance.

# **OVERLOAD CAPABILITY**

Class leading motor starting capacity with permissible overloads of up to 400% for 20 seconds, of 50% for 2 minutes on the Type C models and overloads of up to 300% for 20 seconds, of 50% for 2 minutes on all Type E versions.

Standby Power rating is also exceptional and machines can offer an additional 10% for 1 hour in every 6 hours of operation.

# **FLEXIBILITY AND OPTIONS**

Product is supplied worldwide into a range of applications mainly into the agricultural industries, however the generator is highly flexible and can be used anywhere power is needed and a tractor drive is available. Larger units are typically supplied for static installation, whereas the smaller units are highly portable and this mobility enables power wherever the tractor can reach.

In addition, a number of options are available to further enhance the durability of the product depending on its operating environment.

IP45 - Enhance ingress protection (output de-rate applies)



Anti-condensation Heater - Heaters used to warm the stator and dry out any moisture.

TOTAL+ Protection - A special black rubber compound applied to the main stator, making it impermeable and chemical-resistant.





Frame Upgrade – Zinc coating to add to the design appeal of the product and to further prevent rusting from extended exposure to the environment.



# **DIGITAL DISPLAY OPTION**

The PTO Genius is an advanced control module that controls the electrical parameters of the generator. H2, Vac, Amps, kVA can all be controlled and monitored. The display is large and easy to read in all conditions and guides the operator on safe use and running conditions. Running hours are logged ensuring maintenance schedules are easy to follow to further extend life cycle.



# **ACCESSORIES**

Accessories such as plugs, changeover transfer panels and Cardan drives are available upon request.

# OUR PTO PRODUCT RANGE

# 3 PHASE (TYPE C) ALTERNATOR, GEARBOX, GUARD, BLACK FRAME AND PANEL





# 3 PHASE (TYPE E) ALTERNATOR, GEARBOX, GUARD, BLACK FRAME AND PANEL

Industrial, self-regulating, synchronous, regulation electronic +/-1.0% voltage/phase:

400/230V / 3 phase + N Alternator, speed: 1,500rpm (4 poles) Hz: 50Hz duty:

industrial with high starting capacity for electric motors. IP23-rated protection

against items larger than 12mm diameter and protected against water spray falling





Industrial, self-regulating, synchronous, regulation compound +/-5.0% with constant speed voltage/phase: 400/230V / 3 phase + N, speed: 3,000rpm or 1,500rpm (2 poles or 4 poles) Hz: 50Hz duty: industrial with high starting capacity for electric motors. IP23-rated protection against items larger than 12mm diameter and protected against water spray falling at up to 60° from the vertical.

# ALTERNATORS COMPOUND CONTROLLED 400/230V

	50Hz (	Output				
Model	3ph + n kVA	RPM ALT	RPM Driven Shaft	Approximate Weight	Size L x W x H	Electrical Panel
3,000rpm						
PTO 10/2CV4.23	10	3000rpm	430rpm	100kg	1170 x 900 x 1050mm	16A
PTO 15/2CV4.23	15	3000rpm	430rpm	120kg	1170 x 900 x 1050mm	20A
PTO 19/2CV4.23	19	3000rpm	430rpm	135kg	1170 x 900 x 1050mm	25A
PTO 27/2CV4.23	27	3000rpm	430rpm	145kg	1170 x 900 x 1050mm	32A
PTO 30/2CV4.23	30	3000rpm	430rpm	155kg	1170 x 900 x 1050mm	40A
PTO 40/2CV4.23	40	3000rpm	430rpm	220kg	1170 x 900 x 1050mm	63A
1,500rpm						
PT0 15/4CV4.23	15	1500rpm	430rpm	135kg	1170 x 900 x 1050mm	20A
PTO 20/4CV4.23	20	1500rpm	430rpm	160kg	1170 x 900 x 1050mm	25A
PTO 25/4CV4.23	25	1500rpm	430rpm	200kg	1170 x 900 x 1050mm	32A
PT0 30/4CV4.23	30	1500rpm	430rpm	215kg	1170 x 900 x 1050mm	40A
PT0 37/4CV4.23	37	1500rpm	420rpm	268kg	1170 x 900 x 1050mm	50A

# ALTERNATORS AVR CONTROLLED 400/230V

at up to 60° from the vertical.

	50Hz 0	Output					
Model	3ph + n kVA	RPM ALT	RPM Driven Shaft	Approximate Weight	Size L x W x H	Electrical Panel	
1,500rpm							
PTO 20/4EV4.23	20	1500rpm	430rpm	193kg	1200 x 900 x 1050mm	25A	
PTO 25/4EV4.23	25	1500rpm	430rpm	210kg	1200 x 900 x 1050mm	32A	
PTO 30/4EV4.23	30	1500rpm	430rpm	235kg	1200 x 900 x 1050mm	40A	
PTO 35/4EV4.23	35	1500rpm	420rpm	300kg	1200 x 900 x 1100mm	50A	
PTO 42/4EV4.23	42,5	1500rpm	420rpm	320kg	1200 x 900 x 1100mm	63A	
PTO 50/4EV4.23	50	1500rpm	420rpm	360kg	1200 x 900 x 1100mm	80A	
PTO 63/4EV4.23	63	1500rpm	420rpm	398kg	1200 x 900 x 1100mm	80A	
PT0 75/4EV4.23	75	1500rpm	500rpm	410kg	1200 x 900 x 1100mm	100A	
PTO 80/4EV4.23	80	1500rpm	500rpm	430kg	1200 x 900 x 1100mm	100A	
PTO 85/4EV4.23	85	1500rpm	500rpm	630kg	1210 x 1100 x 1250mm	125A	
PTO 105/4EV4.23	105	1500rpm	500rpm	650kg	1210 x 1100 x 1250mm	160A	
PTO 130/4EV4.23	130	1500rpm	500rpm	680kg	1210 x 1100 x 1250mm	220A	

# 1 PHASE (TYPE C) ALTERNATOR, GEARBOX, GUARD, BLACK FRAME AND PANEL





Industrial, self-regulating, synchronous, regulation compound +/-5.0% with constant speed voltage/phase: 230V / 1 phase speed: 3,000rpm or 1,500rpm (2 poles or 4 poles) Hz: 50Hz duty: industrial with high starting capacity for electric motors. IP23-rated protection against items larger than 12mm diameter and protected against water spray falling at up to 60° from the vertical.

# ALTERNATORS COMPOUND CONTROLLED 230V 1 PHASE

Medal	50Hz Output		RPM	Approximate	Cincle with the	Electrical
Model	1ph + n kVA	RPM ALT	Driven Shaft	Weight	Size L x W x H	Panel
3,000rpm						
PTO 13/2CV4.2312	13	3000rpm	430rpm	135kg	1200 x 900 x 1050mm	50A
PTO 20/2CV4.2312	20	3000rpm	430rpm	155kg	1200 x 900 x 1050mm	80A
PTO 26/2CV4.2312	26	3000rpm	430rpm	220kg	1200 x 900 x 1050mm	100A
1,500rpm						
PTO 13/4CV4.2312	13	1500rpm	430rpm	160kg	1200 x 900 x 1050mm	50A
PTO 20/4CV4.2312	20	1500rpm	430rpm	215kg	1200 x 900 x 1050mm	80A
PTO 24/4CV4.2312	24.5	1500rpm	420rpm	268kg	1200 x 900 x 1050mm	100A

# 1 PHASE (TYPE E) ALTERNATOR, GEARBOX, GUARD, BLACK FRAME AND PANEL





Industrial, self-regulating, synchronous, regulation electronic +/-1.0% voltage/phase: 230V / 1 phase alternator, speed: 1,500rpm (4 poles) Hz: 50Hz duty: industrial with high starting capacity for electric motors. IP23-rated protection against items larger than 12mm diameter and protected against water spray falling at up to 60° from the vertical.

# ALTERNATORS AVR CONTROLLED 230V 1 PHASE

Model	50Hz Output		RPM	Approximate	Circl www.ll	Electrical
Model	1ph + n kVA	RPM ALT	Driven Shaft	Weight	Size L x W x H	Panel
1,500rpm						
PTO 13/4EV4.2312	13.5	1500rpm	430rpm	193kg	1200 x 900 x 1050mm	50A
PTO 16/4EV4.2312	16.5	1500rpm	430rpm	210kg	1200 x 900 x 1050mm	63A
PTO 19/4EV4.2312	19	1500rpm	430rpm	235kg	1200 x 900 x 1050mm	80A
PTO 23/4EV4.2312	23.5	1500rpm	420rpm	300kg	1200 x 900 x 1100mm	100A
PTO 28/4EV4.2312	28	1500rpm	420rpm	320kg	1200 x 900 x 1100mm	100A
PTO 34/4EV4.2312	34	1500rpm	420rpm	360kg	1200 x 900 x 1100mm	160A
PTO 39/4EV4.2312	39.5	1500rpm	420rpm	398kg	1200 x 900 x 1100mm	Special
PTO 50/4EV4.2312	50	1500rpm	500rpm	410kg	1200 x 900 x 1100mm	Special

# **3 PHASE (TYPE C)** IP45 ALTERNATOR, GEARBOX, GUARD, BLACK FRAME AND PANEL





Industrial, self-regulating, synchronous, regulation compound +/-5.0% with constant speed voltage/phase: 400/230V / 3 phase + N, speed: 3,000rpm or 1,500rpm (2 poles or 4 poles) Hz: 50Hz duty: industrial with high starting capacity for electric motors. IP45-rated protection against items larger than 1mm diameter and protected against low pressure water jets from any direction.

# IP45 ALTERNATORS COMPOUND CONTROLLED 400/230V

Model	50Hz Output		RPM	Approximate	Size L x W x H	Electrical
	3ph + n kVA	RPM ALT	Driven Shaft	Weight	Size L X W X H	Panel
3,000rpm						
PTO 22/2CV4.45	22	3000rpm	430rpm	175kg	1170 x 900 x 1050mm	32A
PTO 29/2CV4.45	29	3000rpm	430rpm	240kg	1170 x 900 x 1050mm	40A
1,500rpm						
PTO 17/4CV4.45	17	1500rpm	430rpm	213kg	1170 x 900 x 1050mm	25A
PTO 24/4CV4.45	24	1500rpm	430rpm	255kg	1170 x 900 x 1050mm	32A
PTO 30/4CV4.45	30	1500rpm	430rpm	288kg	1170 x 900 x 1050mm	50A

# **3 PHASE (TYPE E)** IP45 ALTERNATOR, GEARBOX, BLACK FRAME AND PANEL





Industrial, self-regulating, synchronous, regulation electronic +/-1.0% voltage/phase: 400/230V / 3 phase + N alternator, speed: 1,500rpm (4 poles) Hz: 50Hz duty: industrial with high starting capacity for electric motors. IP45-rated protection against items larger than 1mm diameter and protected against low pressure water jets from any direction.

# IP45 ALTERNATORS AVR CONTROLLED 400/230V

Madal	50Hz 0	Output	RPM	Approximate	a:	Electrical	
Model	3ph + n kVA	RPM ALT	Driven Shaft	Weight	Size L x W x H	Panel	
1,500rpm							
PTO 17/4EV4.45	17	1500rpm	430rpm	213kg	1170 x 900 x 1050mm	25A	
PTO 24/4EV4.45	24	1500rpm	430rpm	255kg	1170 x 900 x 1050mm	32A	
PTO 34/4EV4.45	34	1500rpm	420rpm	340kg	1170 x 900 x 1050mm	50A	
PTO 40/4EV4.45	40	1500rpm	420rpm	380kg	1170 x 900 x 1050mm	63A	
PTO 53/4EV4.45	53	1500rpm	420rpm	418kg	1170 x 900 x 1050mm	80A	
PTO 60/4EV4.45	60	1500rpm	500rpm	430kg	1170 x 900 x 1050mm	80A	

# **ADDITIONAL RANGES**

All PTO generators are hand-built in our European factory and are fully customisable. Special panels and voltages such as 230V 3 phase are available upon request. The product is highly flexible to suit the requirements from all countries worldwide. We even offer welded PTO.

# 3 PHASE (TYPE B) ALTERNATOR, GEARBOX, GUARD, BASIC FRAME AND BASIC PANEL

Industrial, self-regulating, synchronous, regulation compound +/-5.0% with constant speed voltage/phase: 400/230V / 3 phase + N, speed: 3,000rpm or 1,500rpm (2 poles or 4 poles) Hz: 50Hz duty: industrial with high starting capacity for electric motors. IP23-rated protection against items larger than 12mm diameter and protected against water spray falling at up to 60° from the vertical.

# ALTERNATORS COMPOUND CONTROLLED 400/230V

	kVA 50Hz 40°C		RPM	Approximate	Circl obtail	Electrical Panel
Model	3ph + n kVA	RPM ALT	Driven Shaft	Weight	Size L x W x H	Without Socket
3,000rpm						
PTOB 10/2CV4.23	10	3000rpm	430rpm	80kg	995 x 800 x 735mm	16A
PTOB 15/2CV4.23	15	3000rpm	430rpm	100kg	995 x 800 x 735mm	20A
PTOB 19/2CV4.23	19	3000rpm	430rpm	115kg	995 x 800 x 735mm	25A
PTOB 27/2CV4.23	27	3000rpm	430rpm	125kg	995 x 800 x 735mm	32A
PTOB 30/2CV4.23	30	3000rpm	430rpm	135kg	995 x 800 x 735mm	40A
PTOB 40/2CV4.23	40	3000rpm	430rpm	200kg	995 x 800 x 735mm	63A
1,500rpm						
PTOB 15/4CV4.23	15	1500rpm	430rpm	115g	995 x 800 x 735mm	20A
PTOB 20/4CV4.23	20	1500rpm	430rpm	140kg	995 x 800 x 735mm	25A
PT0B 25/4CV4.23	25	1500rpm	430rpm	180kg	995 x 800 x 735mm	32A
PTOB 30/4CV4.23	30	1500rpm	430rpm	195kg	995 x 800 x 735mm	40A
PTOB 37/4CV4.23	37	1500rpm	420rpm	248kg	995 x 800 x 735mm	50A



# WELDER PTO 3 PHASE OR 1 PHASE WELDER ALTERNATOR. GEARBOX, GUARD, BLACK FRAME AND PANEL

Industrial, self-regulating, speed: 1500rpm or 3000rpm. Welding capability and auxiliary power.

Model	50Hz Output			RPM	Approximate	Electrical	
	kVA	А	RPM ALT	Driven Shaft	Weight	Panel	
1,500/3,000rpm							
PTOW 2002HV4.2315	7	200AC	3000rpm	430rpm	100kg	UK Top Box	
PTOW 2202PV4.2315	5	220DC	3000rpm	430rpm	115kg	UK Top Box	
Special Build	(1ph or 3ph)	Up to 500A	On request				

# **INVERTER WELDER**

Optional inverter welding machine on series 28 and 32. Up to 140 Amp electrode from 1.6 to 4mm diameter with series 28 and 220 Amp electrode from 1.6 to 5mm diameter on series 32. Solder, grind, cut, drill, light with a single power source. A versatile PTO designed for your business.

Model	Hz	Absorbed Power 60%	Vacuum Voltage Peak	Welding Current	Walking Factor 35%	Electrode Min/Max
ECP 28	50/60	2.7kVA	100V	5-140A	140A	Ø 1.6/4
ECP 32	50/60	9kVA	90V	25-220A	220A	Ø 1.6/5



# OUR QUALITY, SERVICE AND AFTERSALES

We have reached the highest possible quality standards in every area of design, production and sales. With us, the pursuit of quality begins long before actual production, with checks on semi-processed parts and sample tests on electronic components.

These tests are performed with rapid aging methods by means of alternating exposure to extreme temperatures. Our quality is enhanced during the production process with computerised equipment making checks on electronic and electrical circuits. The high quality of our finished products is due to a perfect combination - high performance and maximum reliability. That quality is certified by international bodies such as the Canadian Standards Association (CSA), the Underwriters Laboratories (UL) and Det Norske Veritas (DNV) and Bureau Veritas, further supported by our ISO 9001 accreditation from Registro Italiano Navale (RINA).

Every quality mark is a guarantee of the rigorous assessment of prototypes and a commitment to continuous audits by external inspectors to monitor product consistency - and product quality.

This quality assurance allows us to be proud of our products. Our products are now globally recognised. This high market acceptance has originated from a combination of effective marketing through our sales and distribution facilities, established training plans for our many customers, and consistently great aftersales service. We are a professional and responsible company and understand that a good reputation breeds success.

We recognise that our reputation depends on continually delivering high standards of support - whenever and wherever it is required. With an extensive global service and aftersales network, you can be assured that your product will be supported anywhere in the world.

Our quality is certified by international bodies and is supported by our ISO 9001 accreditation across the whole group. This quality assurance allows us to be proud of our products and gives you peace of mind knowing our alternators are built with the highest possible quality standards.











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