

KHM 405 YS / YSX

Digitally controlled engine driven welding units made to weld MMA, TIG or MIG/MAG. For professional heavy duty repair, maintenance and assembly work

For professional work

The wide working range makes it possible to perform a large variety of work in environments where it is difficult, costly or impossible to connect to the mains supply. This chopper controlled compact and transportable unit gives you a combination of strong, high quality DC current for excellent MMA, TIG or MIG/MAG welding. The same unit also supplies up to 12kVA electric power while welding.

CC - MMA and TIG welding

With a welding current of up to 400 A this machine welds electrodes up to 6 mm. Using the Arc force control you can fine tune the characteristics of the machine and weld difficult electrodes, such as cellulosic, with excellent result. The low 10 A minimum current allows welding with very small electrodes and a wide range of TIG welding applications with scratch start.

CV - MIG/MAG welding

After fitting a connector kit the unit can be used with the wire feeders Origo™ Feed 304, M13 or Origo™ Feed 484, M13 for MIG/MAG welding.

Power generation – electric output

Electricity is often needed to carry out the complete job. Drilling, grinding, drying electrodes and lighting are a few examples. KHM 405 YS /YSX have a built in brushless, maintenance free, asynchronous generator that supplies up to 7 kVA single phase 230 V or 12 kVA three phase 400 V even when welding. A voltmeter shows the actual supply voltage. The units are equipped with earth fault protection for added safety.

Transport

The units are delivered as stationary. For transport within the worksite there is an optional site tow. KHM 405 YS /YSX have a central lifting eyelet for safe lifting.

Service support

Careful consideration was taken when choosing engine supplier. Since the engine is a large part of this unit, good service and spares backup is an important factor. If something should happen to the rest - ESAB has the best service network in the welding business.



Picture shows KHM 405 YSX

Diesel water cooled engine

KHM 405 YS /YSX are equipped with a powerful and efficient water cooled Yanmar Diesel engine with battery and electric start. The engine fulfils the EPA-EURO2 exhaust gas emission requirements. Engine protection shuts down the engine if the oil pressure is too low, temperature is too high, fuel level is low or if the battery charging does not work.

Other features

- Noise level below the limits of the 2000/14-CE standard
- Hour meter for correct servicing.
- Lockable covers over the engine and control panel.
- Machines with Auto idle, polarity change and spark arrestor are available.
- Sealed base prevents spilling of liquids on the ground.

Applications

- General fabrication and civil construction
- Repair and maintenance
- Power generation
- Pipeline welding

- Welds up to 6 mm coated electrodes and 1,6 mm MIG/MAG wire
- VRD (Voltage Reduction Device)
- Supplies 230V and 400V electric power for tools, lighting etc.
- Reliable and economical Yanmar engines

Technical data

DC welding Constant Current (CC) - MMA

Setting range, welding, A	10-400
Max welding output at 35% duty cycle, A	400
Max welding output at 60% duty cycle, A	350
Max welding output at 100% duty cycle, A	300
Open circuit voltage, V	65

DC welding Constant Voltage (CV) – MIG/MAG

Max welding output at 60% duty cycle, A	350
Max welding output at 100% duty cycle, A	300
Setting range of welding voltage, V	15-40

AC Power generation

Single Phase, Volts / kVA / A / Hz	230 / 7 / 30,4 / 50
Three Phase, Volts / kVA / A / Hz	400 / 12 / 17,3 / 50
Duty cycle, %	100
Isolation class	H

Engine

Engine type	Yanmar 3 TNV 76
Fuel / tank capacity, litres	Diesel / 45
Cooling	water
Power, kW (hp) / rpm	16,5 (22,3) / 3000
Start	electric

Total unit

Guaranteed acoustic power KHM 405 YS, LWA / dB(A) – 7 m	97 / 72
Guaranteed acoustic power KHM 405 YSX, LWA / dB(A) – 7 m	94 / 69
Weight, kg	535
Dimensions L x W x H mm	1610 x 720 x 1100
Approx. running time with full tank at 60% load, h	13
Protection class	IP 23

Ordering information

European versions

KHM 405 YS, 50 Hz	0794 020 880
KHM 405 YS, 50 Hz, with spark arrestor	0794 020 881
KHM 405 YS, 50 Hz, with polarity change	0794 020 882
KHM 405 YS, 50 Hz, w. spark arrestor and polarity change	0794 020 883

Delivery content: Machine complete with engine oil, coolant and charged battery (maintenance free).

Australian versions

KHM 405 YSX, 50 Hz	0794 020 890
KHM 405 YSX, 50 Hz, with spark arrestor	0794 020 891
KHM 405 YSX, 50 Hz, with polarity change	0794 020 892
KHM 405 YSX, 50 Hz, w. spark arrestor and polarity change	0794 020 893

Delivery content: Machine complete with engine oil, coolant and charged battery (maintenance free).

Accessories

Connector kit for Feed M13, 19 to 10-pole	0740 741 881
Remote control PHG1B	0794 008 882
Remote control PHG1B-PL (for polarity change versions)	0794 008 885
2 wheel site tow	0794 014 880
Earth spike	0794 017 880
Albatross 3000X welding helmet	0700 000 931

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10-400
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400 / 12 / 17,3 / 50
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Yanmar 3 TNV 76
Diesel / 45
water
16,5 (22,3) / 3000
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1610 x 720 x 1100
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Quality accessories for the quality welder
ESAB offers a wide range of accessories. The complete range, along with product information, is available at our local web-sites, look at www.esab.com or contact your local ESAB dealer.

Unrivalled service and support

Our commitment and ability to deliver the expected service and support starts immediately after the order is confirmed. We endeavour to offer our customers an After Sales service, which is second to none. A strong and skilful service organisation is prepared to offer service and maintenance, calibration, validation and upgrading of equipment and software.

The service organisation will offer standardised solutions for the reconditioning or modification of existing products.

Spare and wear parts are manufactured according to ESAB's quality plan. Exchange Printed Circuit Board (PCB), exchange modules and components are available for all our products in order to reduce downtime to an absolute minimum. ESAB is continuously upgrading authorised service partners for local service support. Customers who have their own service and maintenance personnel will always be offered a service-training package as part of a total ESAB offering. However, product and process training for end-users will form an additional part of the ESAB offering. Always ask your ESAB sales representative or distributor for a complete ESAB solution.

Albatross 3000X welding helmet,
both for welding and grinding.
The welding glass folds up and the inner glass protects you when grinding



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is certified
according to
ISO 14001 &
OHSAS 18001