DECLARATION

We **IDEAL MAKİNA ENDÜSTRİ ÜRÜNLERİ SAN. VE TİC. A.Ş**., who are official manufacturers of Oxygen Generator System & accessories, IDEAL MAKİNA Company having factories at Emek, Ordu Cd. No:16, 34785 Dudullu Osb/Sancaktepe/İstanbul do hereby confirm that the parameters of the **Dalgakıran Inversys 22 Plus Variable Speed Direct Drive Screw Air Compressor** of the **IDEAL IM-GO 120 Oxygen Generator System** as the below listed specifications :

Brand / Model	**DALGAKIRAN / INVERSYS 22 Plus**	
Normal working pressure	≥ 8.5 bar	Yes, can be set ≥ 8.5 bar Nominal 9.5 bar - Max 10 bar (Working range can be set 4 -10bar)
Flow	≥ 2,1 m3/min. (130 m3/h)	Working range is **1.3-3.8 m3/min (78-228m3/h),** Yes can be set ≥2.1 (130 m3/h)
Power supply	380 V / 50 Hz	380 V / 50 Hz
With oil / without oil	according to the ISO 1217 or ISO 8573 standard or analogue	With oil / ISO 1217:2009, Annex E standard
Insulation class/motor protection degree	F / IP 55	F / IP 55
Electric motor efficiency	Min. IE3 according to IEC 60034-30	IE3
Soft Start or Variable Speed Compressor (VSD)	Yes	Yes, Variable Speed Compressor
Noise level	Max. 70dB(A)	Max. 70dB(A)
Noise attenuator to reduce the noise level, mounted on the discharge side of the oxygen generator	Yes	Yes, Noise Atenuator mounted on the discharge side of the oxygen generator
Operating temperature, with values between	+5°C to +45°C [± 5°C]	+2°C to.+43°C
Rotation control (protected against phase reversal)	Yes	Yes
Electro-pneumatic inlet valve: equivalent / analog	Yes	Yes
Compressor elements - motor overheating safety, alarm at 105°C, shutdown at 110°C	Yes	Yes
Automatic restart system in case of power failure	Yes	Yes
Electronic control system with display	Yes	Yes
Remote monitoring via computer, smartphone or tablet. Monitoring is carried out through TCP/IP protocols.	Yes	Yes
Indicators for: pressure and temperature	Yes	Yes
Counter for: total hours off and total hours charging	Yes	Yes
Ball valve at the compressor outlet	Yes	Yes

Alpaslan Tekin
General Manager
Dated on 16.02.2023

İDEAL MAKİNA END. ÜRÜN. SAN. VE TİC. A.Ş.
Esenkent Mh. Nato Yolu Cd. No:277/8 34776 Ümraniye-İST.
Sarıgazi V.D 470 097 1578 Tic Sic No: 530388
www.idealmakina.com

Digitally signed by Dimitrovici Olga
Date: 2023.02.20 18:47:05 EET
Reason: MoldSign Signature
Location: Moldova

CERTIFICATE No. : 19428938Rev01/IST/20

EC-ATTESTATION CERTIFICATE

AT-ONAY SERTİFİKASI

Date/Place of Issue *Sertifika Yayın Tarihi/Yer*	: 01.06.2021 (Rev01) / İstanbul
Valid Until *Sertifika Geçerlilik Tarihi*	: 03.06.2025
Name of Applicant *Başvuru Sahibi*	: DALGAKIRAN MAKİNA SAN. VE TİC. A.Ş. Makine İhtisas O.S.B. Demirciler Mah. 1 Cadde No:1 Dilovası – Kocaeli / Turkey
Name of Manufacturer *Üretici*	: DALGAKIRAN MAKİNA SAN. VE TİC. A.Ş. Makine İhtisas O.S.B. Demirciler Mah. 1 Cadde No:1 Dilovası – Kocaeli / Turkey
Description of Product *Ürün Tanımı*	: SCREW TYPE COMPRESSORS Vidalı Kompresör
Model(s) *Model(ler)*	: # INV+7P, INV+11P, INV+15P, INV+18P, INV+22P, INV+30P, INV+45P, INV+55P, INV+75P, INV+90P, INV+110P, INV+132P, INV+160P, INV+200P, INV+250P, INV+315P, TIDY 3, TIDY 4, TIDY 5, TIDY 7,TIDY 10, TIDY 15, TIDY 20, TIDY 20B, TIDY 25, TIDY 30, TIDY 40, TIDY 40B, TIDY 50, DVK 30D, DVK 40B D,DVK 50D, DVK 60, DVK 60B, DVK 60BD, DVK 75, DVK 75D, DVK 100, DVK 100D, DVK 100, DVK 125, DVK 125D, DVK 150, DVK 150D, DVK 180, DVK 180D, DVK 220, DVK 220D, DVK 270D, DVK 340D, DVK 430D, DVK 480D, DVK 600D, DPR D 18, DPR D 22, DPR D 30, DPR D 37, DPR D 45, DPR D 55, DPR D 75, DPR D 90, DPR D 110, DPR D 132, DPR D 160, DPR D 200, DPR D 250, DPR D 315, INVERSYS DPR 18, INVERSYS DPR 22, INVERSYS DPR 30, INVERSYS DPR 37, INVERSYS DPR 45, INVERSYS DPR 55, INVERSYS DPR 75, INVERSYS DPR 90, INVERSYS DPR 110, INVERSYS DPR 132, INVERSYS DPR 160, INVERSYS DPR 200, INVERSYS DPR 250, INVERSYS DPR 315, INVERSYS DPR 355P, INVERSYS DPR 450, DS1.5-S, DS2.2-S, DS3.7-S, DS5.5-S, DS7.5-S, DS7,5-D, DS11-D, DS15-D, DS11-T, DS16,5-T, DS22.5-T, DS15-Q, DS22-Q, DS30-Q, F2, F3, F4, F5, F7, F11, F15, F18, F22, F30, F37, F55, F75, AR 3, AR 4, AR 5, AR 7, AR 11, AR 15, AR 18, AR 22, AR 30, AR 37, AR 45, AR 55, AR77. #
Assessment Performed *Uygulanan Değerlendirme*	: Conformity to Annex I's Applicable Paragraphs of 2006/42/EC Machinery Directive & 2014/35/EU Low Voltage Directive.2006/42/AT Makina Emniyeti Yönetmeliği Ek-I Gerekliliklerine Uygunluk & 2014/35/AB Belirli Gerilim Sınırları İçin Tasarlanan Elektrikli Ekipman İle İlgili Yönetmeliği.
Standard(s) / Standart(lar)	: # EN 1012-1:2010, EN ISO 12100:2010, EN 60204-1:2018. #
Base of Assessment *Değerlendirme Dayanağı*	: In the opinion of SGS the submitted technical file TR-MD-19428938Rev01-1 satisfies the requirements of the Machinery Directive 2006/42/EC Annex-VII TR-MD-19428938Rev01-1 Numaralı Teknik Dosya, Makina Emniyeti Yönetmeliği Ek-VII Gerekliliklerini Karşıladığı SGS Tarafından Saptanmıştır.
Assessor ID No. / *Denetçi No*	: TR-EE-S01
Date/Place of Assessment *Değerlendirme Tarihi/Yer*	: 29.05.2020 / Kocaeli – Turkey

Test reports in technical file TR-MD-19428938Rev01-1 are reviewed and found to be acceptable. The certificate is valid as long as the relevant directives and harmonised standards written above are current. The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.
TR-MD-19428938Rev01-1 *numaralı Teknik Dosya içindeki test raporları incelenmiş ve uygun bulunmuştur. Bu sertifika referans alınan ilgili yönetmelikler ve standartlar güncel olduğu sürece geçerlidir. Üretici firmanın sorumluluğunda uygunluk beyanının düzenlenmesi ve ilgili tüm AB yönetmeliklerine uygunluğun sağlanması sonrası aşağıda gösterilen CE işareti kullanılabilir.*

CE

This EC-Attestation Certificate is only valid for the equipment and configuration described in conjunction with the data detailed above. It refers only to the sample submitted to SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş. for testing and certification. Any modifications made to the product shall immediately be reported to SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş. office in order to examine whether this certificate remains valid.
Bu Sertifika, SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.' ye sunulan örnek makina üzerinde yapılan değerlendirmeler referans alınarak düzenlenmiş olup, yukarıda bilgileri verilen ürünler için geçerlidir. Üretici tarafından ürün üzerinde yapılacak olan her türlü modifikasyon işlemleri mevcut sertifkanın geçerliliğini değerlendirmek adına SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.'ye bildirilmek zorundadır.

For and on behalf of
SGS Supervise Gözetme Etüd
Kontrol Servisleri A.Ş.

D.Cem BATUHAN

Tuğçe OKUMUŞ

SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.
Bağlar Mah. Osmanpaşa Cad. No.95
İş Istanbul Plaza, E Girişi
Güneşli 34209 Istanbul - TURKEY
t: 90.212.3684000 (Pbx)
f: 90.212.2964782-83
e: sgs_turkey@sgs.com

ybm BELGELENDİRME

SERTİFİKA
CERTIFICATE

DALGAKIRAN MAKİNA SAN. VE TİC. A.Ş.

MERKEZ: EYÜP SULTAN MAH. MÜMİNLER CAD. NO:70
SANCAKTEPE / İSTANBUL
ŞUBE: ORGANİZE SANAYİ BÖLGESİ MAHALLESİ 1 CAD. FABRİKA BİNASI APT. NO: 1/2
DİLOVASI / KOCAELİ

VİDALI, PİSTONLU HAVA KOMPRESÖRLERİ, BASINÇLI HAVA TANKLARI VE SEYYAR KOMPRESÖRLERİN TASARIMI, ÜRETİMİ, MONTAJI, SATIŞI VE SATIŞ SONRASI HİZMETLERİ, SEYYAR KOMPRESÖRLERİN RÖMORKLARININ MONTAJI İLE YURTİÇİ VE YURTDIŞI HER TÜRLÜ MAKİNA VE TEÇHİZAT, HAVA FİLTRESİ, SU KULESİ, SOĞUTUCU, POMPA, KURUTUCU, ALTERNATÖR, JENERATÖR VE GAZ JENERATÖRÜ ALIMI, SATIŞI, PAZARLAMASI VE SATIŞ SONRASI HİZMETLERİ İLE GÜMRÜK, DIŞ TİCARET, ÜRETİM, LOJİSTİK, YÖNETİM VE İDARİ ORGANİZASYON FAALİYETLERİ

DESIGN, PRODUCTION, INSTALLATION, SALES AND AFTER SALES SERVICES OF ROTARY SCREW AND RECIPROCATING AIR COMPRESSORS, COMPRESSED AIR RECEIVER AND PORTABLE AIR COMPRESSORS,INSTALLATION OF TRAILER OF PORTABLE AIR COMPRESSORS AND PRODUCTION, PURCHASING, SALES, SHIPPING, MANUFACTURING, AFTER SALES MANAGEMENT, ADMINISTRATIVE ORGANIZATION ACTIVITIES,ALL KINDS OF MACHINERY AND EQUIPMENTS, AIR FILTER, COOLING TOWER, DRY COOLER, PUMP, AIR DRYER, DIESEL AND GAS GENERATOR, ALTERNATOR

kapsamında
with a scope of

ISO 9001:2015

Uluslararası Kalite Yönetim Sistemi Standardına uygun bir sistem kurmuştur.
has established a system that is in compliance with the International Quality Management System Standard.

Y 1848	**22.10.2018**	**21.10.2023**
Sertifika No *Certificate No.*	İlk Yayın Tarihi *Initial Date*	Sertifika Geçerlilik tarihi *Certificate Expiry Date*
18, 29, 31	**27.09.2022/04**	**22.10.2021-21.10.2024**
EA Kodu *EA Code*	Sertifika Yayın Tarihi / Rev.No. *Date of This Certificate / Rev.No*	Belgelendirme Periyodu *Certification Period*

TÜRKAK BDS NO
YS-51EF-FE88

TÜRKAK
KALİTE YÖNETİM SİSTEMİ
TS EN ISO / IEC 17021
AB - 0051 - YS

Sertifika Doğrulama işlemi; mobil cihazlar aracılığıyla belge üzerindeki kare kod okutularak veya "TÜRKAK BDS No" ile https://tbds.turkak.org.tr belge doğrulama sisteminden yapılabilir.
The Certificate Validation process can be done with mobile devices, by scanning the QR Code on the document or by using the "TÜRKAK BDS No" and the https://tbds.turkak.org.tr document verification system.

Zühtü Özdemir
GENEL MÜDÜR
General Manager

F-184(0)

Bu belge YBM'nin belgelendirme kurallarına uyulması ve periyodik ara tetkiklerin başarıyla tamamlanması kaydıyla geçerlidir.
This certificate is effective if it is complied with the certification rules of YBM and periodic surveillance audits are completed successfully.

Yönetim Belgelendirme Merkezi Test ve Gözetim Hizmetleri Ltd. Şti.
Telsiz Mah. Gül Sok. No.:1-3 Kat: 1 D.4 Zeytinburnu / İstanbul
Tel: 0212 547 31 00 Faks: 0212 547 76 00 info@ybm.com.tr www.ybm.com.tr

ybm BELGELENDİRME

SERTİFİKA
CERTIFICATE

DALGAKIRAN MAKİNA SAN. VE TİC. A.Ş.

MERKEZ: EYÜP SULTAN MAH. MÜMİNLER CAD. NO:70
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kapsamında
with a scope of

ISO 14001:2015

Uluslararası Çevre Yönetim Sistemi Standardına uygun bir sistem kurmuştur.
has established a system that is in compliance with the International Environmental Management System Standard.

E 1198	**04.11.2018**	**03.11.2023**
Sertifika No *Certificate No.*	İlk Yayın Tarihi *Initial Date*	Sertifika Geçerlilik tarihi *Certificate Expiry Date*
18, 29	**27.09.2022/03**	**04.11.2021-03.11.2024**
EA Kodu *EA Code*	Sertifika Yayın Tarihi / Rev.No. *Date of This Certificate / Rev.No*	Belgelendirme Periyodu *Certification Period*

TÜRKAK BDS NO
YS-EEEC-C20E

Sertifika Doğrulama işlemi; mobil cihazlar aracılığıyla belge üzerindeki kare kod okutularak veya "TÜRKAK BDS No" ile https://tbds.turkak.org.tr belge doğrulama sisteminden yapılabilir.
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TÜRKAK
Çevre Yönetim Sistemi
TS EN ISO/IEC 17021
AB-0051-YS

Zühtü Özdemir
GENEL MÜDÜR
General Manager

F-184(0)

Bu belge YBM'nin belgelendirme kurallarına uyulması ve periyodik ara denetimlerin başarıyla tamamlanması kaydıyla geçerlidir. Daha fazla bilgi için lütfen bizi arayınız.
This certificate is effective if it is complied with the certification rules of YBM and periodic surveillance audits are completed successfully. Please call us for more information.

Yönetim Belgelendirme Merkezi Test ve Gözetim Hizmetleri Ltd. Şti.
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info@ybm.com.tr www.ybm.com.tr

DALGAKIRAN

INVERSYS PLUS SERIES
-ROTARY SCREW AIR COMPRESSORS

STANDARD EQUIPMENT

High quality components such as IP55 electric motors with the IE3 efficiency class, IP54 fan motors, star-delta motor starter system, electrical materials selected according to IEC, UL/cUL, CE standards as per the market requirements, high-efficiency screw blocks consuming less energy are provided as standard in all our products.

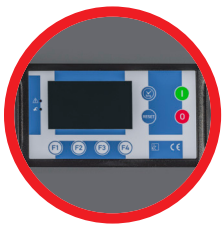
SERVICEABILITY

Service-friendly design implemented using a layout that provides instant access to all consumable items, with quick-release protective covers and easy-to-use controllers minimizes downtime and reduces maintenance costs.

GENERAL FEATURES

ELECTRONIC CONTROL

Dalgakıran rotary screw compressors are equipped with easy-to-use, robust and long-lasting microprocessor controllers with communication capabilities as per the product line to ensure smooth operation and uninterrupted production.



SCREW BLOCK

Patented and durable screw block that provides high-capacity of air, and that is specially selected for each model's capacity requirement

Production of air with high volumetric efficiency, thanks to the new rotor profiles, and lower torque requirements

New generation bearing design with increased load carrying capabilities

AIR OIL SEPARATOR

Spin-on or immersed type separator design depending on the product line

Immersed type separator
High performance separation with three-stage design
More efficient separation at lower volume with deeply wrapped, intertwined separation layers
Low amount of oil mist in outlet air ≤ 3 ppm

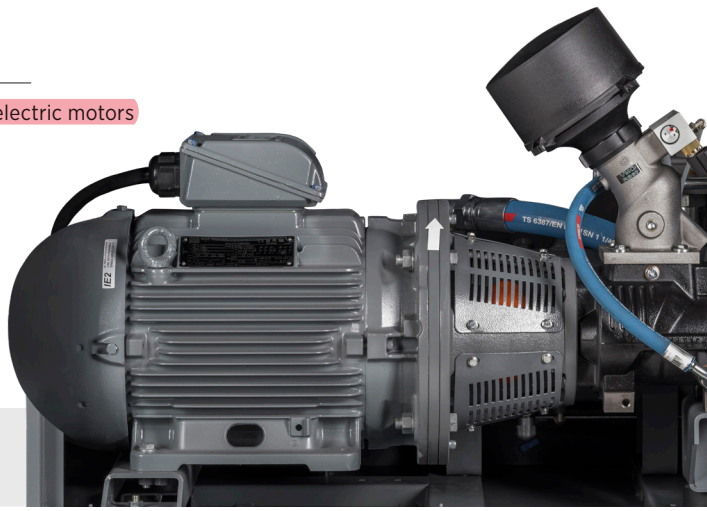
Spin-on separator
Easy replacement, ease of assembly and disassembly
Design that does not require a separator tank

MAIN MOTOR AND DRIVE SYSTEM

High efficiency 400V/3 phase/50Hz, IE3 IP55 electric motors with F Class insulation

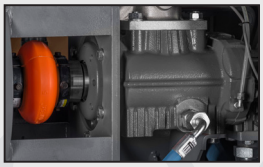
Star delta motor starting system
Easy of assembly and disassembly with bush pulleys on belt-pulley models

Direct coupled, long-lasting and efficient transfer system thanks to use of elastic couplings



INVERSYS PLUS SERIES
Rotary Screw Air Compressors

DALGAKIRAN INVERSYS PLUS series variable-speed compressors drive the motor with the frequency converter to adjust the compressor operation speed according to your requirements and save up to 35% energy. Thanks to its high-quality equipment and excellent engineering in its design, it provides a very efficient and flexible use as per requirements. Responds to all requirements between 5.5 and 315 KW.



ADVANTAGES

- Up to 35% energy saving*
- Operation at constant output pressure value
- Wide operating pressure range (5-14 bars)
- Soft & smooth start up
- Protection against the adverse effects of peak currents
- Effective production of pressurized air even in case of highly variable pressurized air requirements

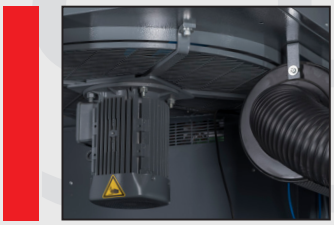
*When compared with compressors without an inverter for applications with variable requirements

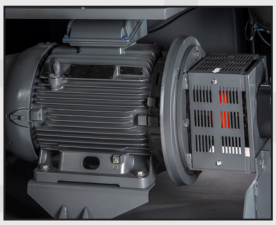
MAIN MOTOR AND DRIVE SYSTEM

- Directly coupled one on one **(1:1)** with the elastic coupling
- Variable-speed starting with frequency converter
- High temperature protection with motor bearings (INVERSYS 55-315 Plus)
- High speed premium efficiency electric motor

AIR/OIL SEPARATOR

- Easy-to-detach spin-on type separator (INVERSYS 5-37 Plus)
- High-efficiency immersion type separator with long service life (INVERSYS 45-315 Plus)





COOLING SYSTEM

- Temperature controlled fan (INVERSYS 5-30 Plus)
- Axial cooling fans controlled with secondary fan inverter (INVERSYS 30-315 Plus)

ADDITIONAL OPTIONS TO THE GENERAL OPTIONS LIST

- Model options with Tank, without Tank, with Tank dryer (INV 5-15 Plus)
- Automatic greasing system

TECHNICAL DATA

Model	Pressure		Capacity*				Motor Power	Connection Size	Receiver Volume/ Dryer Model	Dimensions (mm)			Weight	Noise**
	bar	psi	Minimum		Maximum									
			m³/min	cfm	m³/min	cfm	kW/HP			Length	Width	Height	kg	dB(A)
INVERSYS 5 PLUS	7,5 10 13	110 145 190	0,38 0,37 0,36	11 10 14	1,03 0,83 0,64	32 27 23	5,5/7,5	G 1/2"	200-250L HRD 30	1025	650	950	235	69
INVERSYS 7 PLUS	7,5 10 13	110 145 190	0,42 0,43 0,43	14 13 12	1,40 1,20 0,95	42 35 29	7,5/10	G 1/2"	200-250L HRD 40	1025	650	950	255	70
INVERSYS 11 PLUS	7,5 10 13	110 145 190	0,77 0,81 0,74	27 29 16	1,80 1,61 1,30	64 57 46	11/15	G 3/4"	500L HRD 40	1175	730	1000	305	69
INVERSYS 15 PLUS	7,5 10 13	110 145 190	0,99 0,97 0,99	35 34 35	2,85 2,33 2,07	101 82 73	15/20	G 3/4"	500L HRD 50	1175	730	1000	345	71
INVERSYS 18 PLUS	7,5 10 13	110 145 190	1,10 1,00 1,10	37 36 38	3,50 3,00 2,60	124 106 92	18,5/25	G 1"	-	1275	850	1465	465	71
INVERSYS 22 PLUS	7,5 10 13	110 145 190	1,30 1,30 1,20	32 32 29	4,20 3,80 3,00	140 124 99	22/30	G 1"	-	1275	850	1465	500	71
INVERSYS 30 PLUS	7,5 10 13	110 145 190	1,22 1,22 1,21	43 43 43	5,30 4,60 4,00	187 162 141	30/40	G 1 1/4"	-	1575	1030	1750	695	71
INVERSYS 37 PLUS	7,5 10 13	110 145 190	1,30 1,30 1,30	46 45 44	6,80 5,80 5,00	240 205 177	37/50	G 1 1/4"	-	1575	1030	1750	715	71
INVERSYS 45 PLUS	7,5 10 13	110 145 190	1,30 1,20 1,20	46 43 44	7,60 6,80 5,90	268 240 208	45/60	G 1 1/4"	-	1575	1030	1750	945	73
INVERSYS 55 PLUS	7,5 10 13	110 145 190	2,50 2,40 2,60	88 84 91	9,90 8,20 7,40	350 290 261	55/75	G 1 1/2"	-	2000	1200	1810	1290	75
INVERSYS 75 PLUS	7,5 10 13	110 145 190	2,60 2,50 2,50	91 88 88	12,90 10,90 9,60	456 385 339	75/100	G 1 1/2"	-	2000	1200	1810	1390	77
INVERSYS 90 PLUS	7,5 10 13	110 145 190	6,20 6,00 6,20	220 213 221	16,80 14,40 12,30	593 509 434	90/125	G 2"	-	2500	1400	2037	2020	78
INVERSYS 110 PLUS	7,5 10 13	110 145 190	6,63 7,11 7,04	234 251 249	20,10 17,30 15,00	710 611 530	110/150	G 2"	-	2500	1400	2037	2380	78
INVERSYS 132 PLUS	7,5 10 13	110 145 190	6,90 6,80 9,74	244 239 344	24,30 20,30 18,10	858 717 639	132/180	G 2 1/2"	-	2750	1805	2000	2555	78
INVERSYS 160 PLUS	7,5 10 13	110 145 190	6,80 7,13 8,50	239 252 299	28,20 24,60 21,70	996 869 766	160/220	G 2 1/2"	-	2750	1805	2000	2760	78
INVERSYS 200 PLUS	7,5 10 13	110 145 190	14,03 13,90 13,81	495 490 488	37,50 32,30 28,80	1324 1141 1017	200/270	DN80	-	3250	2250	2450	4460	79
INVERSYS 250 PLUS	7,5 10 13	110 145 190	13,60 13,51 13,50	479 477 475	45,20 38,50 33,50	1596 1360 1183	250/340	DN100	-	3250	2250	2450	5600	79
INVERSYS 315 PLUS	7,5 10 13	110 145 190	13,20 13,23 12,93	466 467 457	54,10 44,30 38,00	1911 1564 1342	315/430	DN100	-	3250	2250	2450	6000	79

- Unit performances measured in reference conditions which are 1 bar absolute air Pressure, %0 relative humidity, 20˚C inlet air temperature, 71˚C thermostatic valve set temperature and use of Smartoil.
- DALGAKIRAN compressors reserves its rights to make changes in its products and specifications without prior notice.

* Refers to free air delivery measured according to ISO 1217:2009, Annex E standard.

** Refers to sound Pressure level measured according to ISO 2151:2004 and ISO 9614/2 with ± 3 dB(A) tolerance.

DALGAKIRAN

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16.04.2021 Rev. No: 10		INVERSYS 22 PLUS	INVERSYS 22 PLUS-W	INVERSYS 22 PLUS-HC		DALGAKIRAN		
CAPACITY & POWER CONSUMPTION *KAPASİTE & GÜÇ TÜKETİMİ*		**Maximum Working Pressure** *Maksimum Çalışma Basıncı*			bar	7,5	10	13
		Maximum Capacity at Nominal Working Pressure (FAD / ISO 1217-Annex E) *Nominal Çalışma Basıncında Maksimum Kapasite*			m^3/min m^3/dak	4,2	3,8	3,0
		Minimum Capacity at Nominal Working Pressure (FAD / ISO 1217-Annex E) *Nominal Çalışma Basıncında Minimum Kapasite*			m^3/min m^3/dak	1,3	1,3	1,2
		Shaft Power at Nominal Working Pressure and %100 Nominal Capacity *%100 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*			kW	23,5	23,0	23,5
		Shaft Power at Nominal Working Pressure and %75 Nominal Capacity *%75 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*			kW	18	17	18
		Shaft Power at Nominal Working Pressure and %50 Nominal Capacity *%50 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*			kW	12	12	12
		Shaft Power at Nominal Working Pressure and Minimum Nominal Capacity *Minimum Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*			kW	7,1	7,8	9,2
		Nominal Working Pressure *Nominal Çalışma Basıncı*			bar	7,0	9,5	12,5
		Minimum Working Pressure *Minimum Çalışma Basıncı*			bar	4,0	4,0	4,0
		Air-End Male Rotor Speed at Maximum Capacity *Maksimum Kapasitede Vida Devri*			rpm	4920	4500	3600
		Maximum Package Power at Nominal Working Pressure *Nominal Çalışma Basıncındaki Maksimum Güç*	Fan(s) ON / ISO 1217-Annex E *Fan(lar) Devrede / ISO 1217-Ek E*		kW	25,8	25,3	25,8
			Water Cooled / ISO 1217-Annex E *Su Soğutmalı / ISO 1217-Ek E*			25,5	24,9	25,5
			Integrated with Dryer / ISO 1217-Annex E Entegre Kurutuculu / ISO 1217-Ek E			26,8	26,3	26,8
		Specific Energy Consumption *Özgül Enerji Tüketimi*	Fan(s) ON / ISO 1217-Annex E *Fan(lar) Devrede / ISO 1217-Ek E*		kW/m^3/min	6,14	6,65	8,60
			Water Cooled / ISO 1217-Annex E *Su Soğutmalı / ISO 1217-Ek E*			6,07	6,56	8,50
		Drive System *Tahrik Sistemi*				**Direct Drive** *Direkt-Akuple*		
COOLING *SOĞUTMA*	**GENERAL** *GENEL*	**Minimum Allowed Ambient Temp.** *Minimum Ortam Sıcaklığı*			ºC	+ 2	+ 2	+ 2
		Maximum Allowed Ambient Temp. *Maksimum Ortam Sıcaklığı*			ºC	+ 43	+ 43	+ 43
		Compressed Air Temp. Rise Over Suction Temp. *Emiş Sıcaklığına Bağlı Hava Çıkış Sıcaklık Artışı*			ºC	+ 10	+ 10	+ 10
		Heat Rejection to the Oil Cooler *Yağ Soğutucudaki Güç*			kW	19,98	19,55	19,98
		Heat Rejection to the After Cooler *Hava Soğutucudaki Güç*			kW	3,53	3,45	3,53
	AIR-COOLED *HAVA-SOĞUTMALI*	**Cooling Air Flow Rate (All Fans) [Q_a]** *Soğutma Havası Debisi (Tüm Fanlar)*			m^3/h m^3/saat	4500	4500	4500
		Dimension of Air Outlet(s) *Radyatör Hava Çıkış Kesit(ler)i*			mm	440x570	440x570	440x570
		Max.Cooling Air Pressure Drop *Soğutma Havasının Maksimum Basınç Kaybı*			Pa	150	150	150
		Cooling Air Temp Rise Over Ambient Temp. *Ortam Sıcaklığına Bağlı Soğutma Havası Sıcaklık Artışı*			ºC	10 - 15	10 - 15	10 - 15
	WATER-COOLED [W] *SU-SOĞUTMALI*	**Cooling Water Pressure Range** *Soğutma Suyunun Basınç Aralığı*			bar	2 - 8	2 - 8	2 - 8
		Cooling Water Flow Rate at ΔT 25°C [$Q_{w@25°C}$] **(Max. Permissible Inlet Water Temp [45°C]) *** *25°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@25°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [45°C]) ****			l/s	0,23	0,22	0,23
		Cooling Water Flow Rate at ΔT 30°C [$Q_{w@30°C}$] **(Max. Permissible Inlet Water Temp [40°C]) *** *30°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@30°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [40°C]) ****			l/s	0,19	0,18	0,19
		Cooling Water Flow Rate at ΔT 40°C [$Q_{w@40°C}$] **(Max. Permissible Inlet Water Temp [30°C]) *** *40°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@40°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [30°C]) ****			l/s	0,14	0,14	0,14
		Cooling Water Flow Rate at ΔT 50°C [$Q_{w@50°C}$] **(Max. Permissible Inlet Water Temp [20°C]) *** *50°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@50°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [20°C]) ****			l/s	0,11	0,11	0,11
	HYBRID COOLING (AIR-COOLING + WATER-COOLING) WITH HEAT-RECOVERY SYSTEM [HC] *HİBRİT SOĞUTMA (HAVA-SOĞUTMALI+SU SOĞUTMALI) İLE ISI KAZANIMLI VERSİYON*	**Cooling Water Pressure Range** *Soğutma Suyunun Basınç Aralığı*			bar	2 - 8	2 - 8	2 - 8
		Cooling Water Flow Rate at ΔT 25°C [$Q_{w@25°C}$] **(Max. Permissible Inlet Water Temp [45°C]) *** *25°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@25°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [45°C]) ****			l/s	0,19	0,19	0,19
		Cooling Water Flow Rate at ΔT 30°C [$Q_{w@30°C}$] **(Max. Permissible Inlet Water Temp [40°C]) *** *30°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@30°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [40°C]) ****			l/s	0,16	0,16	0,16
		Cooling Water Flow Rate at ΔT 40°C [$Q_{w@40°C}$] **(Max. Permissible Inlet Water Temp [30°C]) *** *40°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@40°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [30°C]) ****			l/s	0,12	0,12	0,12
		Cooling Water Flow Rate at ΔT 50°C [$Q_{w@50°C}$] **(Max. Permissible Inlet Water Temp [20°C]) *** *50°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@50°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [20°C]) ****			l/s	0,10	0,09	0,10

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INTEGRATED WITH DRYER *ENTEGRE KURUTUCULU*	**COMPRESSED AIR DRYER** *KURUTUCU*	**Standard Dryer Model (Can be changed by customer request according to ambient conditions such as temperature and humidity)** *Standart Kurutucu Modeli (Müşteri talebiyle ortam sıcaklığı ve neme göre değiştirilebilir)*				DAE283		
		Pressurized Dew Point Temperature *Basınçlı Çiğlenme Sıcaklığı*			°C	+ 3		
		Refrigerant Type *Soğutucu Tipi*				R134A		
		Maximum Air Inlet Temperature *Maksimum Hava Giriş Sıcaklığı*			°C	+ 60		
		Dryer Energy Consumption *Kurutucu Enerji Tüketimi*			kW	1,04		
		Maximum Working Pressure *Maksimum Çalışma Basıncı*			bar	16		
	COMPRESSED AIR FILTER *HAVA FİLTRESİ*	**General Purpose Grade** *Genel Kullanım Sınıfı*	GKO500 X	**Particle Removal** *Parçacık Ayrıştırma*	Micron	1		
				Max Oil Carry over at 21°C *21°C'de Maksimum Yağ Aktarımı*	mg/m³	0,5		
		Oil Removal Grade *Yağ Ayrıştırma Sınıfı*	GKO500Y	**Particle Removal** *Parçacık Ayrıştırma*	Micron	0,01		
				Max Oil Carry over at 21°C *21°C'de Maksimum Yağ Aktarımı*	mg/m³	0,01		
MAIN & FAN MOTORS DATA *ANA & FAN MOTOR VERİLERİ*	**MAIN MOTOR** *ANA MOTOR*	**Main Motor Rated Output Power** *Ana Motor Çıkış Gücü*			kW	22	22	22
		Main Motor Efficiency (Exceeding IE3 Efficiency Level) *Ana Motor Verimliliği (IE3 Seviyesi Üzeri Verimlilik)*			%	92,2	92,2	92,2
		Main Motor Mounting *Ana Motor Montajı*			IMB	B35T	B35T	B35T
		Main Motor Frame Size *Ana Motor Gövde*				160 L	160 L	160 L
		Main Motor Degree of Protection *Ana Motor Muhafaza Derecesi*			IP	IP55	IP55	IP55
		Main Motor Pole Number *Ana Motor Kutup Sayısı*			#P	2	2	2
		Main Motor Insulation Class *Ana Motor İzolasyon Sınıfı*				F	F	F
		Main Motor Temperature Rise Class *Ana Motor Sıcaklık Sınıfı*				B	B	B
	FAN MOTOR(S) ***Not Applicable to [W] Version*** *FAN MOTOR(LARI)* *[W] Versiyonlarda Uygulanamaz*	**Number of Fan(s)** *Fan Sayısı*			#	1	1	1
		Fan Motor(s) Rated Input Power (All Fans) *Fan Motor Giriş Gücü (Tüm Fanlar)*			kW	0	0	0
		Fan Motor(s) Degree of Protection *Fan Motor Muhafaza Derecesi*			IP	IP54	IP54	IP54
		Fan Motor(s) Pole Number *Fan Motor Kutup Sayısı*			#P	4	4	4
GENERAL TECHNICAL DATA *GENEL TEKNİK VERİLER*		**Oil Quantity** *Yağ Miktarı*			l	11	11	11
		Residual Oil Content in Compressed Air *Basınçlı Havada Kalan Yağ İçeriği*			mg/m³	≤ 3	≤ 3	≤ 3
		Compressed Air Outlet *Basınçlı Hava Çıkışı*			R	1"	1"	1"
		Compressor Package Inlet Power Cable Minimum Cross-Section Area (This recommended cross-section area is up to 25 m Power Cable) *Kompresöre Verilen Gücün Kablo Kesiti* *(Bu kablo kesiti 25 m güç kablosuna kadar geçerlidir)*			mm²	3 x 25 + 16	3 x 25 + 16	3 x 25 + 16
		Noise Level (ISO 2151, ± 3 dB (A)) *Ses Seviyesi*			dB (A)	71	71	70
		Compressor Weight (approx.) *Kompresör Ağırlığı (yaklaşık)*			kg	500		
		Compressor Weight (approx.) Integrated with Dryer *Kompresör Ağırlığı (yaklaşık) Entegre Kurutuculu*			kg	725		
		Compressor Dimensions (L x W x H) *Kompresör Boyutları (B x E x Y)*			mm	1276x850x1435		
		Compressor Dimensions (L x W x H) Integrated with Dryer *Kompresör Boyutları (B x E x Y) Entegre Kurutuculu*			mm	1900x850x1435		
ADDITIONAL FEATURES *EK ÖZELLİKLER*		**Oil-Heater** *Yağ-Isıtıcı*				Optional (Opsiyonlu)		
		Main Voltage / Frequency Rating Other Than Standard *Standart Dışı Ana Voltaj / Frekans*				Optional (Opsiyonlu)		
		Integrated with Dryer *Entegre Kurutucu*				Optional (Opsiyonlu)		
		Water Separator with Automatic Drain System *Otomatik Drenaj Sistemli Su Ayırıcı*				Standard (Standart)		
		Please Contact DALGAKIRAN KOMPRESOR for Lower / Higher Operating Pressures *Yüksek / Alçak Çalıştırma Basınçları için Lütfen DALGAKIRAN KOMPRESÖR'le İletişime Geçiniz*						
REFERENCE CONDITIONS *REFERANS KOŞULLARI*		**Absolute Inlet Pressure** / *Mutlak Giriş Basıncı*			1 bar(a)			
		Relative Air Humidity / *Bağıl Nem*			0%			
		Air Inlet Temperature / *Hava Giriş Sıcaklığı*			20 °C			
		Standard Oil Type ** / *Standart Yağ Tipi ***			Dalgakıran Smartoil			
		Set Point Thermostatic Valve / *Termostatik Valf Set Değeri*			71 °C			
		(*) +10°C / Minimum Water Inlet Temp. / *(*) +10°C / Minimum Su Giriş Sıcaklığı*						
		(**) Special lubricants for different applications are available, please contact DALGAKIRAN KOMPRESOR Sales Department *(**) Farklı uygulamalar için özel yağlar mevcuttur, lütfen DALGAKIRAN KOMPRESÖR Satış Departmanıyla iletişime geçiniz*						

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CAPACITY & POWER CONSUMPTION *KAPASİTE & GÜÇ TÜKETİMİ*	**Maximum Working Pressure** *Maksimum Çalışma Basıncı*			bar	7,5	10	13
	Maximum Capacity at Nominal Working Pressure (FAD / ISO 1217-Annex E) *Nominal Çalışma Basıncında Maksimum Kapasite*			m^3/min m^3/dak	7,6	6,8	5,9
	Minimum Capacity at Nominal Working Pressure (FAD / ISO 1217-Annex E) *Nominal Çalışma Basıncında Minimum Kapasite*			m^3/min m^3/dak	1,3	1,2	1,2
	Shaft Power at Nominal Working Pressure and %100 Nominal Capacity *%100 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*			kW	45,0	46,0	45,0
	Shaft Power at Nominal Working Pressure and %75 Nominal Capacity *%75 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*			kW	34	35	34
	Shaft Power at Nominal Working Pressure and %50 Nominal Capacity *%50 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*			kW	23	23	23
	Shaft Power at Nominal Working Pressure and Minimum Nominal Capacity *Minimum Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*			kW	7,7	8,3	9,5
	Nominal Working Pressure *Nominal Çalışma Basıncı*			bar	7,0	9,5	12,5
	Minimum Working Pressure *Minimum Çalışma Basıncı*			bar	5,5	5,5	5,5
	Air-End Male Rotor Speed at Maximum Capacity *Maksimum Kapasitede Vida Devri*			rpm	6000	5460	4800
	Maximum Package Power at Nominal Working Pressure *Nominal Çalışma Basıncındaki Maksimum Güç*	Fan(s) ON / ISO 1217-Annex E *Fan(lar) Devrede / ISO 1217-Ek E*		kW	48,6	49,7	48,6
		Water Cooled / ISO 1217-Annex E *Su Soğutmalı / ISO 1217-Ek E*			48,1	49,1	48,1
		Integrated with Dryer / ISO 1217-Annex E Entegre Kurutuculu / ISO 1217-Ek E			49,9	50,9	49,9
	Specific Energy Consumption *Özgül Enerji Tüketimi*	Fan(s) ON / ISO 1217-Annex E *Fan(lar) Devrede / ISO 1217-Ek E*		kW/m^3/min *kW/m^3/dak*	6,40	7,36	8,24
		Water Cooled / ISO 1217-Annex E *Su Soğutmalı / ISO 1217-Ek E*			6,33	7,28	8,15
		Integrated with Dryer / ISO 1217-Annex E Entegre Kurutuculu / ISO 1217-Ek E			6,56	7,55	8,45
	Drive System *Tahrik Sistemi*				**Direct Drive** ***Direkt-Akuple***		
COOLING *SOĞUTMA* — GENERAL *GENEL*	**Minimum Allowed Ambient Temp.** *Minimum Ortam Sıcaklığı*			°C	+ 2	+ 2	+ 2
	Maximum Allowed Ambient Temp. *Maksimum Ortam Sıcaklığı*			°C	+ 43	+ 43	+ 43
	Compressed Air Temp. Rise Over Suction Temp. *Emiş Sıcaklığına Bağlı Hava Çıkış Sıcaklık Artışı*			°C	+ 10	+ 10	+ 10
	Heat Rejection to the Oil Cooler (ΔT) *Yağ Soğutucudaki Güç*			kW	38,25	39,10	38,25
	Heat Rejection to the After Cooler (ΔT) *Hava Soğutucudaki Güç*			kW	6,75	6,90	6,75
AIR-COOLED *HAVA-SOĞUTMALI*	**Cooling Air Flow Rate (All Fans) [Q_a]** *Soğutma Havası Debisi (Tüm Fanlar)*			m^3/h m^3/saat	6000	6000	6000
	Dimension of Air Outlet(s) *Radyatör Hava Çıkış Kesit(ler)i*			mm	745x745	745x745	745x745
	Max.Cooling Air Pressure Drop *Soğutma Havasının Maksimum Basınç Kaybı*			Pa	150	150	150
	Cooling Air Temp Rise Over Ambient Temp. *Ortam Sıcaklığına Bağlı Soğutma Havası Sıcaklık Artışı*			°C	10 - 15	10 - 15	10 - 15
WATER-COOLED [W] *SU-SOĞUTMALI*	**Cooling Water Pressure Range** *Soğutma Suyunun Basınç Aralığı*			bar	2 - 8	2 - 8	2 - 8
	Cooling Water Flow Rate at ΔT 25°C [$Q_{w@25°C}$] (Max. Permissible Inlet Water Temp [45°C]) * *25°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@25°C}$] (Maksimum İzin verilen Giriş Su Sıcaklığı [45°C]) ****			l/s	0,43	0,44	0,43
	Cooling Water Flow Rate at ΔT 30°C [$Q_{w@30°C}$] (Max. Permissible Inlet Water Temp [40°C]) * *30°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@30°C}$] (Maksimum İzin verilen Giriş Su Sıcaklığı [40°C]) ****			l/s	0,36	0,37	0,36
	Cooling Water Flow Rate at ΔT 40°C [$Q_{w@40°C}$] (Max. Permissible Inlet Water Temp [30°C]) * *40°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@40°C}$] (Maksimum İzin verilen Giriş Su Sıcaklığı [30°C]) ****			l/s	0,27	0,28	0,27
	Cooling Water Flow Rate at ΔT 50°C [$Q_{w@50°C}$] (Max. Permissible Inlet Water Temp [20°C]) * *50°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@50°C}$] (Maksimum İzin verilen Giriş Su Sıcaklığı [20°C]) ****			l/s	0,22	0,22	0,22
HYBRID COOLING (AIR-COOLING + WATER-COOLING) WITH HEAT-RECOVERY SYSTEM [HC] *HİBRİT SOĞUTMA (HAVA-SOĞUTMALI+SU SOĞUTMALI) İLE ISI KAZANIMLI VERSİYON*	**Cooling Water Pressure Range** *Soğutma Suyunun Basınç Aralığı*			bar	2 - 8	2 - 8	2 - 8
	Cooling Water Flow Rate at ΔT 25°C [$Q_{w@25°C}$] (Max. Permissible Inlet Water Temp [45°C]) * *25°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@25°C}$] (Maksimum İzin verilen Giriş Su Sıcaklığı [45°C]) ****			l/s	0,37	0,38	0,37
	Cooling Water Flow Rate at ΔT 30°C [$Q_{w@30°C}$] (Max. Permissible Inlet Water Temp [40°C]) * *30°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@30°C}$] (Maksimum İzin verilen Giriş Su Sıcaklığı [40°C]) ****			l/s	0,31	0,31	0,31
	Cooling Water Flow Rate at ΔT 40°C [$Q_{w@40°C}$] (Max. Permissible Inlet Water Temp [30°C]) * *40°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@40°C}$] (Maksimum İzin verilen Giriş Su Sıcaklığı [30°C]) ****			l/s	0,23	0,23	0,23
	Cooling Water Flow Rate at ΔT 50°C [$Q_{w@50°C}$] (Max. Permissible Inlet Water Temp [20°C]) * *50°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@50°C}$] (Maksimum İzin verilen Giriş Su Sıcaklığı [20°C]) ****			l/s	0,18	0,19	0,18

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INTEGRATED WITH DRYER *ENTEGRE KURUTUCULU*	COMPRESSED AIR DRYER *KURUTUCU*	**Standard Dryer Model (Can be changed by customer request according to ambient conditions such as temperature and humidity)** *Standart Kurutucu Modeli (Müşteri talebiyle ortam sıcaklığı ve neme göre değiştirilebilir)*				DAE467		
		Pressurized Dew Point Temperature *Basınçlı Çiğlenme Sıcaklığı*			°C	+ 3		
		Refrigerant Type *Soğutucu Tipi*				R134A		
		Maximum Air Inlet Temperature *Maksimum Hava Giriş Sıcaklığı*			°C	+ 60		
		Dryer Energy Consumption *Kurutucu Enerji Tüketimi*			kW	1,23		
		Maximum Working Pressure *Maksimum Çalışma Basıncı*			bar	16		
	COMPRESSED AIR FILTER *HAVA FİLTRESİ*	**General Purpose Grade** *Genel Kullanım Sınıfı*	GKO851 X	**Particle Removal** *Parçacık Ayrıştırma*	Micron	1		
				Max Oil Carry over at 21°C *21°C'de Maksimum Yağ Aktarımı*	mg/m³	0,5		
		Oil Removal Grade *Yağ Ayrıştırma Sınıfı*	GKO851 Y	**Particle Removal** *Parçacık Ayrıştırma*	Micron	0,01		
				Max Oil Carry over at 21°C *21°C'de Maksimum Yağ Aktarımı*	mg/m³	0,01		
MAIN & FAN MOTORS DATA *ANA & FAN MOTOR VERİLERİ*	MAIN MOTOR *ANA MOTOR*	**Main Motor Rated Output Power** *Ana Motor Çıkış Gücü*			kW	45	45	45
		Main Motor Efficiency (Exceeding IE3 Efficiency Level) *Ana Motor Verimliliği (IE3 Seviyesi Üzeri Verimlilik)*			%	93,6	93,6	93,6
		Main Motor Mounting *Ana Motor Montajı*			IMB	B35T	B35T	B35T
		Main Motor Frame Size *Ana Motor Gövde*				200 L	200 L	200 L
		Main Motor Degree of Protection *Ana Motor Muhafaza Derecesi*			IP	IP55	IP55	IP55
		Main Motor Pole Number *Ana Motor Kutup Sayısı*			#P	2	2	2
		Main Motor Insulation Class *Ana Motor İzolasyon Sınıfı*				F	F	F
		Main Motor Temperature Rise Class *Ana Motor Sıcaklık Sınıfı*				B	B	B
	FAN MOTOR(S) *Not Applicable to [W] Version* *FAN MOTOR(LARI) [W] Versiyonlarda Uygulanamaz*	**Number of Fans** *Fan Sayısı*			#	1	1	1
		Fan Motor(s) Rated Input Power (All Fans) *Fan Motor Giriş Gücü (Tüm Fanlar)*			kW	0,56	0,56	0,56
		Fan Motor(s) Degree of Protection *Fan Motor Muhafaza Derecesi*			IP	IP54	IP54	IP54
		Fan Motor(s) Pole Number *Fan Motor Kutup Sayısı*			#P	4	4	4
GENERAL TECHNICAL DATA *GENEL TEKNİK VERİLER*		**Oil Quantity** *Yağ Miktarı*			l	22	22	22
		Residual Oil Content in Compressed Air *Basınçlı Havada Kalan Yağ İçeriği*			mg/m³	≤ 3	≤ 3	≤ 3
		Compressed Air Outlet *Basınçlı Hava Çıkışı*			R	1 1/4"	1 1/4"	1 1/4"
		Compressor Package Inlet Power Cable Minimum Cross-Section Area (This recommended cross-section area is up to 25m Power Cable) *Kompresöre Verilen Gücün Kablo Kesiti (Bu kablo kesiti 25m güç kablosuna kadar geçerlidir)*			mm²	3 x 50 +25	3 x 50 +25	3 x 50 +25
		Noise Level (ISO 2151, ± 3dB (A)) *Ses Seviyesi*			dB (A)	73	73	72
		Compressor Weight (approx.) *Kompresör Ağırlığı (yaklaşık)*			kg	945		
		Compressor Weight (approx.) Integrated with Dryer *Kompresör Ağırlığı (yaklaşık) Entegre Kurutuculu*			kg	1275		
		Compressor Dimensions (L x W x H) *Kompresör Boyutları (B x E x Y)*			mm	1605x1030x1755		
		Compressor Dimensions (L x W x H) Integrated with Dryer *Kompresör Boyutları (B x E x Y) Entegre Kurutuculu*			mm	2135x1030x1755		
ADDITIONAL FEATURES *EK ÖZELLİKLER*		**Oil-Heater** *Yağ-Isıtıcı*				Optional (Opsiyonlu)		
		Main Voltage / Frequency Rating Other Than Standard *Standart Dışı Ana Voltaj / Frekans*				Optional (Opsiyonlu)		
		Integrated with Dryer *Entegre Kurutucu*				Optional (Opsiyonlu)		
		Water Separator with Automatic Drain System *Otomatik Drenaj Sistemli Su Ayırıcı*				Standard (Standart)		
		Please Contact DALGAKIRAN KOMPRESOR for Lower / Higher Operating Pressures *Yüksek / Alçak Çalıştırma Basınçları için Lütfen DALGAKIRAN KOMPRESÖR'le İletişime Geçiniz*						
REFERENCE CONDITIONS *REFERANS KOŞULLARI*		**Absolute Inlet Pressure** / *Mutlak Giriş Basıncı*			1 bar(a)			
		Relative Air Humidity / *Bağıl Nem*			0%			
		Air Inlet Temperature / *Hava Giriş Sıcaklığı*			20°C			
		Standard Oil Type ** / *Standart Yağ Tipi ***			Dalgakıran Smartoil			
		Set Point Thermostatic Valve / *Termostatik Valf Set Değeri*			71°C			
		(*) +10°C / Minimum Water Inlet Temp. / *(*) +10°C / Minimum Su Giriş Sıcaklığı*						
		(**) Special lubricants for different applications are available, please contact DALGAKIRAN KOMPRESOR Sales Department *(**) Farklı uygulamalar için özel yağlar mevcuttur, lütfen DALGAKIRAN KOMPRESÖR Satış Departmanıyla iletişime geçiniz*						

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CAPACITY & POWER CONSUMPTION *KAPASİTE & GÜÇ TÜKETİMİ*	**Maximum Working Pressure** *Maksimum Çalışma Basıncı*		bar	7,5	10	13
	Maximum Capacity at Nominal Working Pressure (FAD / ISO 1217-Annex E) *Nominal Çalışma Basıncında Maksimum Kapasite*		m^3/min m^3/dak	9,9	8,2	7,4
	Minimum Capacity at Nominal Working Pressure (FAD / ISO 1217-Annex E) *Nominal Çalışma Basıncında Minimum Kapasite*		m^3/min m^3/dak	2,5	2,4	2,6
	Shaft Power at Nominal Working Pressure and %100 Nominal Capacity *%100 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*		kW	57,0	54,0	56,0
	Shaft Power at Nominal Working Pressure and %75 Nominal Capacity *%75 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*		kW	43	41	42
	Shaft Power at Nominal Working Pressure and %50 Nominal Capacity *%50 Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*		kW	29	27	28
	Shaft Power at Nominal Working Pressure and Minimum Nominal Capacity *Minimum Kapasiteyle Nominal Çalışma Basıncında Şaft Gücü*		kW	14,3	15,7	19,6
	Nominal Working Pressure *Nominal Çalışma Basıncı*		bar	7,0	9,5	12,5
	Minimum Working Pressure *Minimum Çalışma Basıncı*		bar	5,5	5,5	5,5
	Air-End Male Rotor Speed at Maximum Capacity *Maksimum Kapasitede Vida Devri*		rpm	3960	3420	2820
	Maximum Package Power at Nominal Working Pressure *Nominal Çalışma Basıncındaki Maksimum Güç*	Fan(s) ON / ISO 1217-Annex E *Fan(lar) Devrede / ISO 1217-Ek E*	kW	61,6	58,4	60,5
		Water Cooled / ISO 1217-Annex E *Su Soğutmalı / ISO 1217-Ek E*		60,7	57,5	59,6
		Integrated with Dryer / ISO 1217-Annex E Entegre Kurutuculu / ISO 1217-Ek E		62,9	59,7	61,8
	Specific Energy Consumption *Özgül Enerji Tüketimi*	Fan(s) ON / ISO 1217-Annex E *Fan(lar) Devrede / ISO 1217-Ek E*	kW/m^3/min kW/m^3/dak	6,22	7,12	8,22
		Water Cooled / ISO 1217-Annex E *Su Soğutmalı / ISO 1217-Ek E*		6,13	7,01	8,10
		Integrated with Dryer / ISO 1217-Annex E Entegre Kurutuculu / ISO 1217-Ek E		6,35	7,28	8,40
	Drive System *Tahrik Sistemi*			**Direct Drive** ***Direkt-Akuple***		
COOLING *SOĞUTMA* — GENERAL *GENEL*	**Minimum Allowed Ambient Temp.** *Minimum Ortam Sıcaklığı*		°C	+ 2	+ 2	+ 2
	Maximum Allowed Ambient Temp. *Maksimum Ortam Sıcaklığı*		°C	+ 43	+ 43	+ 43
	Compressed Air Temp. Rise Over Suction Temp. *Emiş Sıcaklığına Bağlı Hava Çıkış Sıcaklık Artışı*		°C	+ 10	+ 10	+ 10
	Heat Rejection to the Oil Cooler (ΔT) *Yağ Soğutucudaki Güç*		kW	48,45	45,90	47,60
	Heat Rejection to the After Cooler (ΔT) *Hava Soğutucudaki Güç*		kW	8,55	8,10	8,40
AIR-COOLED *HAVA-SOĞUTMALI*	**Cooling Air Flow Rate (All Fans) [Q_a]** *Soğutma Havası Debisi (Tüm Fanlar)*		m^3/h m^3/saat	9000	9000	9000
	Dimension of Air Outlet(s) *Radyatör Hava Çıkış Kesit(ler)i*		mm	745x745	745x745	745x745
	Max.Cooling Air Pressure Drop *Soğutma Havasının Maksimum Basınç Kaybı*		Pa	150	150	150
	Cooling Air Temp Rise Over Ambient Temp. *Ortam Sıcaklığına Bağlı Soğutma Havası Sıcaklık Artışı*		°C	10 - 15	10 - 15	10 - 15
WATER-COOLED [W] *SU-SOĞUTMALI*	**Cooling Water Pressure Range** *Soğutma Suyunun Basınç Aralığı*		bar	2 - 8	2 - 8	2 - 8
	Cooling Water Flow Rate at ΔT 25°C [$Q_{w@25°C}$] **(Max. Permissible Inlet Water Temp [45°C]) *** *25°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@25°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [45°C]) **		l/s	0,55	0,52	0,54
	Cooling Water Flow Rate at ΔT 30°C [$Q_{w@30°C}$] **(Max. Permissible Inlet Water Temp [40°C]) *** *30°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@30°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [40°C]) **		l/s	0,46	0,43	0,45
	Cooling Water Flow Rate at ΔT 40°C [$Q_{w@40°C}$] **(Max. Permissible Inlet Water Temp [30°C]) *** *40°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@40°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [30°C]) **		l/s	0,34	0,32	0,34
	Cooling Water Flow Rate at ΔT 50°C [$Q_{w@50°C}$] **(Max. Permissible Inlet Water Temp [20°C]) *** *50°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@50°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [20°C]) **		l/s	0,27	0,26	0,27
HYBRID COOLING (AIR-COOLING + WATER-COOLING) WITH HEAT-RECOVERY SYSTEM [HC] *HİBRİT SOĞUTMA (HAVA-SOĞUTMALI+SU SOĞUTMALI) İLE ISI KAZANIMLI VERSİYON*	**Cooling Water Pressure Range** *Soğutma Suyunun Basınç Aralığı*		bar	2 - 8	2 - 8	2 - 8
	Cooling Water Flow Rate at ΔT 25°C [$Q_{w@25°C}$] **(Max. Permissible Inlet Water Temp [45°C]) *** *25°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@25°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [45°C]) **		l/s	0,47	0,44	0,46
	Cooling Water Flow Rate at ΔT 30°C [$Q_{w@30°C}$] **(Max. Permissible Inlet Water Temp [40°C]) *** *30°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@30°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [40°C]) **		l/s	0,39	0,37	0,38
	Cooling Water Flow Rate at ΔT 40°C [$Q_{w@40°C}$] **(Max. Permissible Inlet Water Temp [30°C]) *** *40°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@40°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [30°C]) **		l/s	0,29	0,28	0,29
	Cooling Water Flow Rate at ΔT 50°C [$Q_{w@50°C}$] **(Max. Permissible Inlet Water Temp [20°C]) *** *50°C'lik (ΔT) Sıcaklık Artışına Göre Soğutma Suyu Debisi [$Q_{w@50°C}$]* *(Maksimum İzin verilen Giriş Su Sıcaklığı [20°C]) **		l/s	0,23	0,22	0,23

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INTEGRATED WITH DRYER *ENTEGRE KURUTUCULU*	**COMPRESSED AIR DRYER** *KURUTUCU*	**Standard Dryer Model (Can be changed by customer request according to ambient conditions such as temperature and humidity)** *Standart Kurutucu Modeli (Müşteri talebiyle ortam sıcaklığı ve neme göre değiştirilebilir)*				DAE588		
		Pressurized Dew Point Temperature *Basınçlı Çiğlenme Sıcaklığı*			°C	+ 3		
		Refrigerant Type *Soğutucu Tipi*				R134A		
		Maximum Air Inlet Temperature *Maksimum Hava Giriş Sıcaklığı*			°C	+ 60		
		Dryer Energy Consumption *Kurutucu Enerji Tüketimi*			kW	1,28		
		Maximum Working Pressure *Maksimum Çalışma Basıncı*			bar	16		
	COMPRESSED AIR FILTER *HAVA FİLTRESİ*	**General Purpose Grade** *Genel Kullanım Sınıfı*	GKO1210 X	**Particle Removal** *Parçacık Ayrıştırma*	Micron	1		
				Max Oil Carry over at 21°C *21°C'de Maksimum Yağ Aktarımı*	mg/m³	0,5		
		Oil Removal Grade *Yağ Ayrıştırma Sınıfı*	GKO1210 Y	**Particle Removal** *Parçacık Ayrıştırma*	Micron	0,01		
				Max Oil Carry over at 21°C *21°C'de Maksimum Yağ Aktarımı*	mg/m³	0,01		
MAIN & FAN MOTORS DATA *ANA & FAN MOTOR VERİLERİ*	**MAIN MOTOR** *ANA MOTOR*	**Main Motor Rated Output Power** *Ana Motor Çıkış Gücü*			kW	55	55	55
		Main Motor Efficiency (Exceeding IE3 Efficiency Level) *Ana Motor Verimliliği (IE3 Seviyesi Üzeri Verimlilik)*			%	93,9	93,9	93,9
		Main Motor Mounting *Ana Motor Montajı*			IMB	B35T	B35T	B35T
		Main Motor Frame Size *Ana Motor Gövde*				250 S/M	250 S/M	250 S/M
		Main Motor Degree of Protection *Ana Motor Muhafaza Derecesi*			IP	IP55	IP55	IP55
		Main Motor Pole Number *Ana Motor Kutup Sayısı*			#P	2	2	2
		Main Motor Insulation Class *Ana Motor İzolasyon Sınıfı*				F	F	F
		Main Motor Temperature Rise Class *Ana Motor Sıcaklık Sınıfı*				B	B	B
	FAN MOTOR(S) ***Not Applicable to [W] Version*** *FAN MOTOR(LARI) [W] Versiyonlarda Uygulanamaz*	**Number of Fans** *Fan Sayısı*			#	1	1	1
		Fan Motor(s) Rated Input Power (All Fans) *Fan Motor Giriş Gücü (Tüm Fanlar)*			kW	0,88	0,88	0,88
		Fan Motor(s) Degree of Protection *Fan Motor Muhafaza Derecesi*			IP	IP54	IP54	IP54
		Fan Motor(s) Pole Number *Fan Motor Kutup Sayısı*			#P	4	4	4
GENERAL TECHNICAL DATA *GENEL TEKNİK VERİLER*		**Oil Quantity** *Yağ Miktarı*			l	35	35	35
		Residual Oil Content in Compressed Air *Basınçlı Havada Kalan Yağ İçeriği*			mg/m³	≤ 3	≤ 3	≤ 3
		Compressed Air Outlet *Basınçlı Hava Çıkışı*			R	1 1/2"	1 1/2"	1 1/2"
		Compressor Package Inlet Power Cable Minimum Cross-Section Area (This recommended cross-section area is up to 25m Power Cable) *Kompresöre Verilen Gücün Kablo Kesiti (Bu kablo kesiti 25m güç kablosuna kadar geçerlidir)*			mm²	3 x 50 +25	3 x 50 +25	3 x 50 +25
		Noise Level (ISO 2151, ± 3dB (A)) *Ses Seviyesi*			dB (A)	75	75	74
		Compressor Weight (approx.) *Kompresör Ağırlığı (yaklaşık)*			kg	1290		
		Compressor Weight (approx.) Integrated with Dryer *Kompresör Ağırlığı (yaklaşık) Entegre Kurutuculu*			kg	1690		
		Compressor Dimensions (L x W x H) *Kompresör Boyutları (B x E x Y)*			mm	2065x1200x1810		
		Compressor Dimensions (L x W x H) Integrated with Dryer *Kompresör Boyutları (B x E x Y) Entegre Kurutuculu*			mm	2840x1200x1810		
ADDITIONAL FEATURES *EK ÖZELLİKLER*		**Oil-Heater** *Yağ-Isıtıcı*				Optional (Opsiyonlu)		
		Main Voltage / Frequency Rating Other Than Standard *Standart Dışı Ana Voltaj / Frekans*				Optional (Opsiyonlu)		
		Integrated with Dryer *Entegre Kurutucu*				Optional (Opsiyonlu)		
		Water Separator with Automatic Drain System *Otomatik Drenaj Sistemli Su Ayırıcı*				Standard (Standart)		
		Please Contact DALGAKIRAN KOMPRESOR for Lower / Higher Operating Pressures *Yüksek / Alçak Çalıştırma Basınçları için Lütfen DALGAKIRAN KOMPRESÖR'le İletişime Geçiniz*						
REFERENCE CONDITIONS *REFERANS KOŞULLARI*		**Absolute Inlet Pressure** / *Mutlak Giriş Basıncı*			1 bar(a)			
		Relative Air Humidity / *Bağıl Nem*			0%			
		Air Inlet Temperature / *Hava Giriş Sıcaklığı*			20°C			
		Standard Oil Type ** / *Standart Yağ Tipi ***			Dalgakıran Smartoil			
		Set Point Thermostatic Valve / *Termostatik Valf Set Değeri*			71°C			
		(*) +10°C / Minimum Water Inlet Temp. / *(*) +10°C / Minimum Su Giriş Sıcaklığı*						
		(**) Special lubricants for different applications are available, please contact DALGAKIRAN KOMPRESOR Sales Department *(**) Farklı uygulamalar için özel yağlar mevcuttur, lütfen DALGAKIRAN KOMPRESÖR Satış Departmanıyla iletişime geçiniz*						

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8.2 Failures, Reasons and Solutions

Table 14 *Failures and Solutions*

FAULT	CAUSE	REMEDY
Compressor does not operate.	No power.	Check the voltage at the main fuse input.
	Control and input fuse blown.	Check the fuses.
	Mains voltage low, imbalanced or the phases are reverse.	Check the warning message on the control panel.
	The compressor stopped for any failure.	Check the warning message on the control panel.
	The compressor is started without discharging the internal pressure.	the compressor does not start for 1 minute once it is stopped in order to release the internal pressure. Try to start the compressor again 1 minute later.
The compressor hardly operates	Insufficient section of the input feeder cable	This problem is observed in the installations where the cables of improper thickness are used. With the compressor being in STOP position, measure the input voltage while continuing measurement. If the voltage reduces to less than 5% (380>360) of the required voltage level, it means that the cable section is insufficient. Use cables of appropriate section for connection.
	Low voltage.	If the mains voltage is %5 or more less than the preset voltage setting of the compressor, it is understood that the problem is caused by the mains voltage or the installed power of your facility.
	Low ambient temperature.	If the ambient temperature is less than 0°C, the oil may be thickened, so the compressor is forced.
	Mechanical problem in the motor or screw	De-energize the compressor, and check if the coupling easily turns. If it turns abnormally difficult, it means that there is a mechanical failure in the motor or screw; call the authorized service station.
	Intake regulator failure.	The intake regulator clamp is closed at the time of start-up; it may remain open for a mechanical problem, so that the compressor tries to start against load, and therefore hardly starts up. With the compressor in STOP position with no internal pressure, check that the clam is fully closed. The clamp might be stuck in open position. Call the authorized service station.

FAULT	CAUSE	REMEDY
Compressor doesn't generate air.	Air filter clogged.	Check the air filter and replace if necessary.
	Compressor does not shift from star to triangle	The star-triangle setting may be changed. Check the setting (4-8 seconds). Turn on the compressor, and follow the contactors on the power board. It should release K3 contactor and pull K2 contactor at the end of the preset period of time. If not, the contactor coil terminals may be loose, or the coil may be burnt.
	Intake regulator failure.	The intake regulator clamp may be stuck in closed position. The intake regulator O-ring and seals may be defective.
	Minimum pressure valve fails	The minimum pressure valve O-ring and gaskets may be damaged, and therefore cannot hold the internal pressure. If the internal pressure does not rise, the intake regulator does not open, so that the compressor is not switched to the load position. Replace the gasket and O-rings.
	Intake regulator solenoid failure.	Check the control power supply to the solenoid valve (in loaded operating mode). If the power supply is normal; it means that the solenoid coil is burnt. Replace the coil.
	Rapid discharge solenoid valve failure.	Check the control power supply to the solenoid valve (during operation of the compressor). If the power supply is normal; it means that the solenoid coil is burnt. Replace the coil.
	There is leak in the air line connections.	Check the connections of the hoses and pipes for loose connections. Replace any damaged connections.
The pressure value of the compressor exceeds the set value.	Pressure setting changed.	Check the pressure settings.
	Intake regulator failure.	The intake regulator clamp may be stuck in opened position. Call the authorized service station.
	Intake regulator solenoid failure.	If the solenoid valve is energized normally, the solenoid valve might have been stuck. Call the authorized service station.

FAULT	CAUSE	REMEDY
Compressor cannot reach the maximum pressure.	The system air consumption is higher than the compressor capacity.	Close the tank outlet valve to see that the compressor can reach the maximum pressure; and observe that the pressure rises and the compressor STOPS at the set pressure value. If the pressure does not rise, there must be another failure. Call the authorized service station.
	There is leak in the air line connections.	Check your airline and connections.
	Excessive dirt in the air filter.	Stop the compressor and check the air filter, replace it if it is dirty.
	Intake regulator failure.	The intake regulator clamp may be stuck, and can open very less. Call the authorized service station.
	Screw unit failure.	If the screw unit is damaged, a loud working sound is heard. Call the authorized service station.
Compressor consumes excessive oil.	Scavenge orifice clogged.	While the compressor is running, check the oil flowing through the scavenger monitoring hose. If you cannot see the oil flowing, stop the compressor. Clean the scavenge orifice with a thin wire or compressed air. Start the compressor and check the oil flow; top up the oil if necessary.
	Separator element damaged	If you detect oil leaking from the air tank at the time of water discharge, replace the separator element.
	Oil leak in the compressor body.	Oil accumulation is seen on ground under the leaking part. Check and tighten the connections in the oil circuit. If the oil leak persists, call the service station.
	The compressor is exposed to excessive heat.	Where the ambient temperature is over +40 ^{0}C and the compressor unit is exposed to direct sunlight, the oil loss may increase since the expansion will increase and the oil will become thinner than usual.
	Recommended oil is not used.	Use of oil of a different type or with different specifications might result in damages in the course of time; use the recommended oil.

FAULT	CAUSE	REMEDY
Safety valve opens.	Operating pressure settings changed.	Check the pressure settings and/or the safety pressure switch settings
	Separator clogged.	Check the internal pressure gauge while the compressor is running at full load or a value close to it. If the internal-external pressure difference is close 1.5 Bar, then your separator is clogged. Replace the separator.
	Intake regulator failure.	The intake regulator clamp may be stuck in opened position. Call the authorized service station.
	Intake regulator solenoid failure.	Check the control power supply to the solenoid valve (in loaded operating mode). If the power supply is normal; it means that the solenoid coil is burnt. Replace the coil.
	Safety valve settings changed.	If the safety valve opens earlier than the set value although it is set properly, replace the valve.
The main motor thermal switch stops the compressor.	Thermal switch fails, or settings are wrong.	Use a clamp-on ammeter (with the compressor in full load) to check if the current passing through the thermal switch is balanced and in normal limits (current difference less than 10% between phases). If the thermal switch opens before the preset current value, it is faulty. Replace the switch.
	Low voltage.	If the mains voltage is 5% or less below the set voltage value, check the mains or facility installed power.
	Compressor passes over the pressure settings.	Take the measures mentioned above.
	Separator clogged.	Check the internal pressure gauge while the compressor is running at full load or a value close to it. If the internal-external pressure difference is close to 1.5 Bar, then your separator is clogged. Replace the separator.
	Screw unit failure.	It may be understood from extremely loud operation of the compressor. Call the authorized service station.
	Problem in the main motor.	In case of operating currents are higher than the normal limits, it is possible for the motor to be overloaded. With the covers open, start the compressor for a short time to listen the motor sound. Motor may be burnt or may have bearing problems. Call the authorized service station.

FAULT	CAUSE	REMEDY
The operation temperature increases when the compressor switches to idle.	Blockage in the oil filter or in the oil circuit.	If cloth or foreign material is slipped into the separator tank during maintenance, this will cause blockage in the oil circuit. Be careful about this during maintenance. As the structure of the filters other than the original oil filter can be different, it can resist to oil passages. If there is fine dust or abrasive gas in the environment, the oil, oil filter and separator will be affected adversely.
The compressor does not automatically STOP at idle	Idle waiting time setting was changed	Check the idle waiting time setting.
	The compressor switches to load again before the set duration.	If the idle duration of the compressor is shorter than the set waiting time, the compressor will not stop since it will switch to load again. This is normal.
The fan motor thermal switch stops the compressor.	Thermal switch fails, or settings are wrong.	Use a clamp-on ammeter (with the compressor in full load) to check if the current passing through the thermal switch is balanced and in normal limits (current difference less than 10% between phases). If the thermal switch opens before the preset current value, it is faulty. Replace the switch.
	The panel filter or radiator cores are clogged; hot air outlet is blocked.	Make sure that the compressor is healthily ventilated. Replace the clogged panel and the air filters. Use pressurized air to clean the radiator slices. Do not block the hot air outlet and do not narrow the outlet section if ducts are used.
	There is a problem in the fan motor.	In case of operating currents are higher than the normal limits, it is possible for the motor to be overloaded. With the covers open, start the compressor for a short time to listen the motor sound. Motor may be burnt or may have bearing problems. Call the authorized service station.

FAULT	CAUSE	REMEDY
Pressure safety switch stops the compressor.	Operating pressure settings changed.	Check the pressure settings.
	Separator clogged.	Check the internal pressure gauge while the compressor is running at full load or a value close to it. If the internal-external pressure difference is close to 1.5 Bar, then your separator is clogged. Replace the separator.
Compressor operating noise is higher than the normal limits.	Mechanical connections are loose	Check that all mechanical connections are properly tightened. (Tightness of motor, screw, coupling and fan connections is of great importance in terms of security.)
	There is a problem in the motor bearings.	Operate the compressor for some time with the bonnets open and listen to the sound of the motor. If there is an abnormal noise coming from the bearings, call the service station.
	Mechanical problem in the screw unit.	A loud noise is heard during operation, which is easily distinguishable. Call the authorized service station.
Compressor operating temperature is higher than the normal limits.	Low oil level.	Check the oil level, and complete if low.
	High ambient temperature.	Check the ambient temperature.
	Ventilation problem in the compressor room.	In a room with a smaller intake window than the compressor's intake area, the hot air output of the compressor can't be discharged outside the room efficiently. If the radiator is exposed to direct sunlight, or there is a high reverse wind blow or a handicap preventing air discharge. Take any necessary measures.
	Radiator slices or fan blades dirty/clogged.	Check and clean.
	Air filter dirty/clogged.	Check and replace.
	Mechanical problem in the screw unit.	It may be understood from extremely loud operation of the compressor. Call the authorized service station.

FAULT	CAUSE	REMEDY
The internal pressure does not decrease although the compressor is at idle.	Minimum pressure valve fails	The minimum pressure valve looses the air in the system. Replace the gasket and O-rings.
	Intake regulator failure.	Intake regulator is not fully shut. Call the authorized service station.
Oil degrades very quickly; separator clogged in a short time.	Failure in using the recommended oil, or the genuine separator.	Use the recommended oil and the genuine separator.
	Very high ambient humidity	Take measures for decreasing the humidity.
	Fine dust, gas etc. degrading the oil features in the working environment	In the sanding, casting, chemistry and paint / finishing facilities, the compressor rooms should be installed away from these factors.
	Compressor continuously works in high ambient temperature	Working temperature of the compressors that operate near the boiler room, generating set room or any other rooms of inadequate ventilation would adversely affect the separator life.
Contactor contacts are quickly worn (frequent sticking)	Low voltage.	If the mains voltage is %5 or more less than the preset voltage setting of the compressor, it is understood that the problem is caused by the mains voltage or the installed power of your facility.
	Very short star-triangle switchover	If the start-triangle switchover time is set very short, the motor is loaded before full cycle, so that the contactor contacts are exposed to current extremely higher than the normal limits. In such cases, the contacts may be stuck, and the motor be burnt. The star-triangle switchover time is 4-8 seconds (depending on the compressor type). don't set a shorter time. The old contact sets should always be replaced with genuine parts.
	Contact set used is not genuine.	Non-genuine contact sets have very low electrical strength. Call the service station for the supply of genuine spare parts.

FAULT	CAUSE	REMEDY
Compressor stops due to high temperature.	Temperature settings changed.	Check the temperature settings.
	High ambient temperature.	Check the ambient temperature in the compressor room, and take any necessary measures.
	Insufficient ventilation.	In a room with a smaller intake window than the compressor's intake area, the hot air generated by the compressor can't be discharged outside the room efficiently. If the radiator is exposed to direct sunlight, or there is a high reverse wind blow or a handicap preventing air discharge. Take any necessary measures.
	Low oil level.	Check the oil level, and complete if low.
	Oil filter clogged.	Replace the oil filter.
	Expired oil.	The oil with a darker color than usual means it has expired. Replace the oil. If you have to perform this task frequently check the operating conditions.
	Air filter dirty/clogged.	Replace the air filter.
	Panel filter dirty/clogged.	Check and clean or replace.
	Radiator slices and/or fan blades dirty/clogged.	Check and clean.
	Outlet vent is too long or gets narrow.	Take any necessary measures.
	Covers open.	Close the covers.
The compressor operates more noisily as it approaches the upper pressure	There is a problem in the motor bearings.	Check and replace the motor bearings.
	Mechanical problem in the screw.	It may be understood from extremely loud operation. Call the authorized service station.

AD OGNI COMPRESSORE IL SUO CONTROLLORE

Logika Control propone un'ampia gamma di controllori elettronici in grado di gestire compressori di qualsiasi marca e potenza, sia con funzionamento ON/OFF che inverter.

THE RIGHT CONTROLLER FOR EVERY COMPRESSOR

Logika Control offers a wide range of electronic controllers developed to manage compressors of any brand and power, both with ON/OFF and inverter operation.

LOGIK 9

- Studiato per compressori aria di bassa-media potenza con funzionameno ON/OFF
- LCD custom retroilluminato

- *Developed for low-medium size air compressors with ON/OFF functioning*
- *Backlit custom LCD*

LOGIK 19

- Studiato per compressori aria di media potenza sia con funzionamento ON/OFF che INVERTER
- LCD custom retroilluminato

- *Developed for medium size air compressors, both with ON/OFF and INVERTER functioning*
- *Backlit custom LCD*

Disponibile anche versione con pulsante di emergenza
Also available version with emergency stop button

LOGIK 26-S

- Studiato per compressori aria di media-grossa potenza sia con funzionamento ON/OFF che INVERTER
- LCD grafico retroilluminato

- *Developed for medium-big size air compressors, both with ON/OFF and INVERTER functioning*
- *Backlit graphic LCD*

LOGIK 33

- Studiato per compressori aria di grossa potenza sia con funzionamento ON/OFF che INVERTER
- Pannello di controllo TFT TOUCH 3.5" a colori

- *Developed for big size air compressors, both with ON/OFF and INVERTER functioning*
- *Control panel colour TFT TOUCH 3.5"*

PICCOLE E GRANDI SALE COMPRESSORI: TUTTO SOTTO CONTROLLO

Logika Control ha sviluppato gestori di sala innovativi che garantiscono la massima efficienza degli impianti per la produzione di aria compressa ad uso industriale.

SMALL AND BIG COMPRESSOR ROOMS: EVERYTHING IS UNDER CONTROL

Logika Control has developed innovative controllers for the management of compressor rooms, as a guarantee of maximum efficiency to compressed air production plants.

LOGIK 103

- Gestione di sale compressori composte da 2 a 4 unità con funzionamento ON/OFF
- LCD grafico retroilluminato

- *Management of compressor rooms composed by 2 to 4 units, with ON/OFF functioning*
- *Backlit graphic LCD*

LOGIK 200

- Gestione di sale compressori composte da 2 a 12 unità, sia con funzionamento ON/OFF che inverter
- Pannello di controllo TFT TOUCH 4.3" a colori

- *Management of compressor rooms composed by 2 to 12 units, both with ON/OFF and INVERTER functioning*
- *Control panel colour TFT TOUCH 4.3"*

WEB GATEWAY

L'interfaccia Logik Web Gateway rappresenta la soluzione ideale per monitorare in tempo reale lo stato di un impianto di produzione aria compressa da PC, smartphone e tablet.

Logik Web Gateway is the right solution to monitor the plant status in real time by any PC, smartphone and tablet.

LOGIK 33-S

Logik 33-S è un controllore elettronico industriale studiato per la gestione ottimale di compressori aria di grossa potenza. Le procedure di installazione e programmazione sono semplici e veloci. Il controllore è dotato di un ampio pannello di controllo TFT TOUCH 3.5" a colori (320x240 pixel) per la visualizzazione, in tempo reale, dello stato del compressore e di eventuali allarmi. Il Logik 33-S può gestire anche compressori con inverter sia via seriale (protocollo di comunicazione MODBUS) sia attraverso I/O analogici e digitali effettuando il calcolo PID necessario alla corretta regolazione della velocità, sulla base della differenza tra la pressione voluta e quella misurata. Grazie agli avanzati sistemi di sicurezza di cui è dotato, Logik 33-S arresta automaticamente il compressore in caso di anomalie.

Logik 33-S is an industrial electronic controller developed for the proper management of big size air compressors. Installation and programming procedures are simple and fast. The controller is equipped with a wide control panel colour TFT TOUCH 3.5" (320x240 pixels) for the visualization, in real time, of compressor status and any possible alarm. Logik 33-S can also control compressors equipped with inverter both via serial port (MODBUS communication protocol) and through analog and digital I/O by carrying out the PID calculation necessary to the correct speed control, on the basis of the difference between the desired pressure and the measured one. Thanks to its advanced safety systems, Logik 33-S automatically turns off the compressor in case of anomalies.

KEY POINTS

- **Pannello di controllo TFT TOUCH 3.5" a colori** (320x240 pixel)
- **Visualizzazione di:**
  - pressione
  - temperatura
  - stato del compressore
  - allarmi

  (disponibile traduzione in 9 lingue)
- **Modulo orologio interno** per la programmazione di 3 cicli di lavoro giornalieri in una settimana
- **Controllo inverter via seriale RS232 o RS485 e/o tramite I/O**
- **Gestione di compressori sia con funzionamento ON/OFF che INVERTER**
- **N. 2 RS485 per:**
  - funzionamento Master/Slave, Multiunit o monitoraggio remoto tramite LogikaCloud
  - gestione inverter

MONITORED BY LogikaCloud

KEY POINTS

- ***Control panel colour TFT TOUCH 3.5"*** *(320x240 pixels)*
- ***Visualization of:***
  - *pressure*
  - *temperature*
  - *compressor status*
  - *alarms*

  (translation available in 9 languages)
- ***Internal time keeper*** *to program 3 daily working cycles in a week*
- ***Inverter operation via serial port RS232 or RS485 and/or through I/O***
- ***Developed to manage compressors both with ON/OFF and INVERTER functioning***
- ***No. 2 RS485 for:***
  - *Master/Slave, Multiunit operation or remote monitoring through LogikaCloud*
  - *inverter operation*

CARATTERISTICHE TECNICHE

- Controllore elettronico industriale per la gestione di compressori a vite
- Conforme alle Direttive **CE** di riferimento:
  LVD 2014/35/UE
  EMC 2014/30/UE
  RHOS 2011/65/EU
- Conforme alla direttiva **UL 508 (FILE #: E316817)**
- Contenitore in ABS autoestinguente nero
- Ingressi e uscite tramite morsetti da circuito stampato con femmina a innesto rapido
- Temperatura di lavoro: 0°C (32°F) ÷ 55°C (132°F) con 90% UR (non condensante)
- Temperatura di stoccaggio: -20°C (-4°F) ÷ 70°C (158°F)

PANNELLO DI CONTROLLO:

- Visualizzazione tramite display TFT grafico retroilluminato da 3.5" (320x240 pixel) a colori
- Dispositivo di input TOUCH resistivo su display
- n. 2 pulsanti start/stop
- n. 1 porta seriale RS232 per collegamento con CPU
- n. 1 porta USB per collegamento Flash drive per aggiornamento firmware
- Messaggi selezionabili in 9 lingue: Italiano – Inglese – Francese – Tedesco – Spagnolo – Portoghese – Turco – Russo – Polacco

CPU:

- Alimentazione: 12Vac ± 10% 50 ÷ 60Hz
- n. 1 porta seriale RS232 per collegamento al pannello di controllo
- n. 1 ingresso per sonda di temperatura KTY
- n. 1 ingresso per sonda di temperatura KTY (configurabile come differenziale di temperatura o temperatura assoluta)
- n. 1 ingresso 4÷20mA per trasduttore di pressione
- n. 1 ingresso 4÷20mA per trasduttore di pressione (configurabile come differenziale di pressione o pressione assoluta)
- n. 1 ingresso da PTC o Klicson per protezione motore
- n. 6 ingressi digitali optoisolati dal 12/24Vac per rilevamento:
  - IN 1 = pulsante emergenza
  - IN 2 = termico motore
  - IN 3 = termico ventilatore
  - IN 4 = start/stop remoto
  - IN 5 = configurabile come porta quadro aperta, pressostato filtro aria o relè sequenza fasi
  - IN 6 = pressostato differenziale filtro separatore
- n. 3 ingressi digitali per collegamento con controllo fasi Logika
- n. 7 uscite tramite relè con contatti 1.5A AC1 250Vac:
  - RL1 = contattore linea
  - RL2 = contattore triangolo
  - RL3 = contattore stella
  - RL4 = elettrovalvola di carico
  - RL5 = contattore ventilatore
  - RL6 = configurabile come elettrovalvola scarico condensa o stato compressore
  - RL7 = allarme
- n. 1 modulo orologio con batteria tampone, vita elettrica di circa 10 anni
- n. 1 uscita seriale RS485 per funzionamento Master/Slave, Multiunit o collegamento a LogikaCloud tramite web gateway

SCHEDA INVERTER:

- Alimentazione: 24Vdc ± 10% proveniente dall'inverter

COLLEGAMENTO I/O:

- n. 1 ingresso digitale per rilevamento guasto inverter
- n. 2 uscite a transistor:
  - OUT 1 = marcia inverter
  - OUT 2 = marcia inverter a frequenza fissa
- n. 1 ingresso analogico 0 ÷ 10V e/o 4÷20mA per rilevamento frequenza di lavoro, corrente o potenza dell'inverter
- n. 2 uscite analogiche:
  - AN1 = uscita 4÷20mA e/o uscita 0 ÷ 10V per comunicazione pressione di lavoro
  - AN2= 0 ÷ 10V = per comunicazione set di lavoro

COLLEGAMENTO SERIALE:

- n. 1 uscita seriale RS232 (vedere manuale inverter per protocolli di comunicazione supportati)
- n. 1 uscita seriale RS485 (vedere manuale inverter per protocolli di comunicazione supportati)
- n. 1 ingresso digitale a 24Vdc per rilevamento guasto inverter

A CORREDO DEL LOGIK 33-S VIENE FORNITO:

- n. 1 cavo di collegamento pannello di controllo - CPU

ACCESSORI:

- n. 2 sonde di temperatura KTY 13.5, lunghezza 2.5 m, campo di lavoro –10°C (14°F) ÷ 130°C (266°F), risoluzione 1°C (33,8°F), per rilevamento temperatura vite
- n. 2 trasduttori di pressione 4÷20mA a 2 fili, membrana in acciaio inox AISI 316L, campo di lavoro 0 ÷ 15 bar, risoluzione 0,1 bar, precisione ± 0,1 bar, per controllo pressione di lavoro
- n. 1 Controllo fasi Logika per tensioni di alimentazione 230 ÷ 460Vac trifase

TECHNICAL FEATURES

- *Industrial electronic controller for the operation of screw compressors*
- *In accordance to **EC** Directives:*
  LVD 2014/35/UE
  EMC 2014/30/UE
  RHOS 2011/65/EU
- *In accordance to **UL 508** Directive*
  (FILE #: E316817)
- *Black self-extinguishing box in ABS*
- *Inputs and outputs via terminal-block board to wires*
- *Working temperature: 0°C (32°F) ÷ 55°C (132°F) 90% RH (non condensing)*
- *Storage temperature: -20°C (-4°F) ÷ 70°C (158°F)*

CONTROL PANEL:

- *Visualization through backlit graphic color TFT display 3.5" (320x240 pixels)*
- *Input resistive TOUCH on the display*
- *no. 2 start/stop buttons*
- *no. 1 serial port RS232 for connection to CPU*
- *no. 1 USB for connection to Flash drive - firmware upload*
- *Messagges selectable in 9 languages: Italian – English – French – German – Spanish – Portuguese – Turkish – Russian - Polish*

CPU:

- *Power supply: 12Vac ± 10% 50 ÷ 60 Hz*
- *no. 1 serial port RS232 for connection to control panel*
- *no. 1 input for temperature probe KTY*
- *no. 1 input for temperature probe KTY (settable as: temperature differential or absolute temperature)*
- *no. 1 input 4÷20mA for pressure transducer*
- *no. 1 input 4÷20mA for pressure transducer (settable as pressure differential or absolute pressure)*
- *no. 1 input from PTC or Klicson for motor protection*
- *no. 6 optoisolated digital inputs from 12/24Vac to detect:*
  - *IN 1 = emergency stop button*
  - *IN 2 = thermal motor*
  - *IN 3 = thermal fan*
  - *IN 4 = remote start/stop*
  - *IN 5 = settable as: door of electrical cabinet open, air filter pressure switch or control phase relay*
  - *IN 6 = separator filter differential pressure switch*
  - *no. 3 digital inputs for connection to Logika control phases unit*
- *no. 7 outputs via relay with contacts 1.5A AC1 250Vac:*
  - *RL1 = line contactor*
  - *RL2 = delta contactor*
  - *RL3 = star contactor*
  - *RL4 = load solenoid valve*
  - *RL5 = fan contactor*
  - *RL6 = settable as condensate drain or compressor status*
  - *RL7 = alarm*
- *no. 1 time-keeper with buffer battery, around 10 years electrical life*
- *no.1 serial output RS485 for Master/Slave, Multiunit operation or communication to LogikaCloud through web gateway*

INVERTER BOARD:

- *Power supply: 24Vdc ± 10% from inverter*

I /O CONNECTION:

- *no. 1 digital input to detect inverter failure*
- *no. 2 outputs via transistor:*
  - *OUT 1 = inverter run*
  - *OUT 2 = inverter run fixed frequency*
- *no. 1 analog input 0 ÷ 10V and/or 4÷20mA to detect inverter working frequency, current or power*
- *no. 2 analog outputs:*
  - *AN1 = 4÷20mA and/or 0 ÷ 10V for working pressure communication*
  - *AN2= 0 ÷ 10V for working set communication*

SERIAL CONNECTION:

- *no. 1 serial output RS232 (see inverter manual for communication protocols supported)*
- *no. 1 serial output RS485 (see inverter manual for communication protocols supported)*
- *no. 1 digital input from 24Vdc to detect inverter failure*

LOGIK 33-S IS PROVIDED WITH:

no. 1 connection cable control panel - CPU

ACCESSORIES:

- *no. 2 temperature probes KTY 13.5, length 2.5 m, working range –10°C (14°F) ÷ 130°C (266°F), resolution 1°C (33,8°F) for air end temperature detection*
- *no. 2 pressure transducers 4÷20mA, 2 wires, AISI 316L stainless steel membrane, working range 0 ÷ 15 bar, resolution 0,1 bar, precision ± 0,1 bar, for working pressure control*
- *no. 1 Logika control phases unit for power supply 230 ÷ 460Vac three phase*

LOGIK 26-S

Logik 26-S è un controllore elettronico industriale studiato per la gestione ottimale di compressori aria di media - grossa potenza. Le procedure di installazione e programmazione sono semplici e veloci. Il controllore è dotato di un ampio LCD grafico retro illuminato per la visualizzazione, in tempo reale, dello stato del compressore e di eventuali allarmi. Grazie agli avanzati sistemi di sicurezza di cui è dotato, Logik 26-S arresta automaticamente il compressore in caso di anomalie.

Logik 26-S is an industrial electronic controller developed for the proper management of medium-big size air compressors. Installation and programming procedures are simple and fast. The controller is equipped with a wide backlit graphic LCD for the real-time visualization of the compressor status and any possible alarm. Thanks to its advanced safety systems, Logik 26-S automatically turns off the compressor in case of anomalies.

KEY POINTS

- **LCD grafico retroilluminato** (128x256 pixel)
- **Visualizzazione di:**
  - pressione
  - temperatura
  - stato del compressore
  - allarmi

  (disponibile traduzione in 9 lingue)
- **Modulo orologio interno** per la programmazione di 3 cicli di lavoro giornalieri in una settimana
- **Gestione di compressori sia con funzionamento ON/OFF che INVERTER**
- **N. 2 RS485 per:**
  - funzionamento Master/Slave, Multiunit o monitoraggio remoto tramite LogikaCloud
  - gestione inverter

KEY POINTS

- ***Backlit graphic LCD*** *(128x256 pixels)*
- ***Visualization of:***
  - *pressure*
  - *temperature*
  - *compressor status*
  - *alarms*

  (translation available in 9 languages)
- ***Internal time keeper*** *to program 3 daily working cycles in a week*
- ***Developed to manage compressors both with ON/OFF and INVERTER functioning***
- ***No. 2 RS485 for:***
  - *Master/Slave, Multiunit operation or remote monitoring through LogikaCloud*
  - *inverter operation*

MONITORED BY LogikaCloud

CARATTERISTICHE TECNICHE

- Controllore elettronico industriale per la gestione di compressori a vite
- Conforme alle Direttive **CE** di riferimento:
  LVD 2014/35/UE
  EMC 2014/30/UE
  RHOS 2011/65/EU
- Conforme alla direttiva **UL 508**
  (FILE #: E316817)
- Contenitore in ABS autoestinguente nero
- Ingressi e uscite tramite morsetti da circuito stampato con femmina a innesto rapido
- Temperatura di lavoro: 0°C (32°F) ÷ 50°C (122°F) con 90% UR non condensante
- Temperatura di stoccaggio: -20°C (-4°F) ÷ 70°C (158°F)
- Alimentazione: 12Vac ± 10% 50 ÷ 60 Hz
- Visualizzazioni tramite LCD grafico retroilluminato (128x256 pixel)
- n. 1 led per segnalazione stato allarme
- Messaggi selezionabili in 9 lingue: Italiano – Inglese – Francese – Tedesco – Spagnolo – Portoghese – Turco – Russo – Polacco
- n. 6 tasti funzione
- n. 1 ingresso per sonda di temperatura KTY/NTC/PT1000
- n. 1 ingresso 4÷20mA per trasduttore di pressione
- n. 1 ingresso 4÷20mA per trasduttore di pressione ausiliario oppure per dato analogico da inverter
- n. 1 ingresso per PTC o Klicson per protezione motore
- n. 7 ingressi digitali optoisolati dal 12/24Vac per rilevamento:
  - IN 1 = pulsante emergenza
  - IN 2 = termico motore
  - IN 3 = termico ventilatore
  - IN 4 = start/stop remoto
  - IN 5 = pressostato filtro aria
  - IN 6 = pressostato differenziale filtro separatore
  - IN 7 = configurabile
- n. 3 ingressi digitali per connessione con controllo fasi Logika
- n. 7 uscite tramite relè con contatti da 1.5A AC1 250Vac:
  - RL1 = contattore linea
  - RL2 = contattore triangolo (configurabile)
  - RL3 = contattore stella
  - RL4 = elettrovalvola di carico
  - RL5 = contattore ventilatore (configurabile)
  - RL6 = scarico condensa (configurabile)
  - RL7 = allarme (configurabile)
- n. 1 modulo orologio con batteria tampone, vita elettrica di circa 10 anni
- n. 1 ingresso per alimentazione uscite PNP 24Vdc ±10%, max 100mA
- n. 1 ingresso da 24Vdc inverter per rilevazione guasto inverter
- n. 2 uscite digitali PNP per comando inverter
- n. 1 uscita in corrente 4÷20mA per comando inverter
- n. 2 uscite seriali RS485 per:
  - funzionamento Master/Slave, Multiunit o collegamento a LogikaCloud tramite web gateway
  - comunicazione con inverter
- Controllo minima e massima tensione di alimentazione
- Memoria non volatile per mantenimento dati di set, ore di lavoro, stato macchina, storico allarmi

ACCESSORI:

- n. 1 sonda di temperatura KTY 13.5, lunghezza 2.5 m, campo di lavoro -10°C (14°F) ÷ 130°C (266°F), risoluzione 1°C (33,8°F), per rilevamento temperatura vite
- n. 1 trasduttore di pressione 4÷20mA a 2 fili, membrana in acciaio inox AISI 316L, campo di lavoro 0÷15 bar, risoluzione 0,1 bar, precisione ± 0,1 bar, per controllo pressione di lavoro
- n. 1 controllo fasi Logika per tensioni di alimentazione 230 ÷ 460Vac trifase

DIMENSIONI:

largh. 160 mm x alt. 106 mm x prof. 60 mm
PESO: 470 g

TECHNICAL FEATURES

- *Industrial electronic controller for the operation of screw compressors*
- *In accordance to **EC** Directives:*
  LVD 2014/35/UE
  EMC 2014/30/UE
  RHOS 2011/65/EU
- *In accordance to **UL 508** Directive*
  (FILE #: E316817)
- *Black self-extinguishing box in ABS*
- *Inputs and outputs via terminal-block board to wires*
- *Working temperature: 0°C (32°F) ÷ 50°C (122°F) 90% RH (non-condensing)*
- *Storage temperature: -20°C (-4°F) ÷ 70°C (158°F)*
- *Power supply: 12Vac ± 10% 50 ÷ 60 Hz*
- *Visualization through backlit graphic LCD (128x256 pixels)*
- *no. 1 led for alarm status*
- *Messages selectable in 9 languages: Italian – English – French – German – Spanish – Portuguese – Turkish – Russian – Polish –*
- *no. 6 function keys*
- *no. 1 input for temperature probe KTY/NTC/PT1000*
- *no. 1 input 4÷20mA for pressure transducer*
- *no. 1 input 4÷20mAfor auxiliary pressure transducer or analog information from inverter*
- *no. 1 input for PTC or Klicson for motor protection*
- *no. 7 optoisolated digital inputs from 12/24Vac to detect:*
  - *IN 1 = emergency stop button*
  - *IN 2 = thermal motor*
  - *IN 3 = thermal fan*
  - *IN 4 = remote start/stop*
  - *IN 5 = air filter pressure switch*
  - *IN 6 = separator filter differential pressure switch*
  - *IN 7 = settable*
- *no. 3 digital inputs for connection to Logika control phases unit*
- *no. 7 outputs via relay with contacts 1.5A AC1 250Vac:*
  - *RL1 = line contactor*
  - *RL2 = delta contactor (settable)*
  - *RL3 = star contactor*
  - *RL4 = load solenoid valve*
  - *RL5 = fan contactor (settable)*
  - *RL6 = condensate drain (settable)*
  - *RL7 = alarm (settable)*
- *no. 1 time keeper with buffer battery, around 10 years electrical life*
- *no. 1 24Vdc ± 10% power supply input for PNP outputs*
- *no. 1 24Vdc input from inverter to detect inverter fault*
- *no. 2 PNP digital outputs to control the inverter*
- *no. 1 analog output 4÷20mA for inverter operation*
- *no. 2 serial outputs RS485 for:*
  - *Master/Slave, Multiunit operation or communication to LogikaCloud through web gateway*
  - *inverter communication*
- *Check min. and max. power supply to the controller*
- *Non-volatile memory to store setting data, working hours, compressor status, alarm list*

ACCESSORIES:

- *no. 1 temperature probe KTY 13.5, length 2.5 m, working range –10°C (14°F) ÷ 130°C (266°F), resolution 1°C, for air end temperature detection*
- *no. 1 pressure transducer 4÷20mA 2 wires, AISI 316L stainless steel membrane, working range 0 ÷ 15 bar, resolution 0,1bar, precision ± 0,1bar, for working pressure control*
- *no. 1 Logika control phases unit for power supply 230 ÷ 460Vac three phase*

DIMENSIONS:

height 106 mm x width 160 mm x depth 60 mm
WEIGHT: *470 g*

M1-5 PRESSURES

In this menu you can change the setting related to the working pressure.
Parameters, setting range, default and password level are reported in the table below:

Function	Description	Setting range	Default	Password level
WP1	Top range transducer	15 ÷60	15	3
WP2	High pressure alarm	(WP3+0,2) ÷ (WP1-0,5)	11,0 bar	3
WP3	Stop pressure	(WP4+0,2) ÷ (WP2-0,2)	8,8 bar	1
WP4	Start pressure	3 ÷ (WP3-0,2)	7,3 bar	1
WP5	Slave start pressure	2,0 ÷ (WP4-0.2)	6,5 bar	1
WP6	Offset	-2,0 ÷ +2,0	0 bar	2
AP1	Separator filter alarm	(AP2+0,2) ÷ (WP1-0,5)	1,7 bar	3
AP2	Separator filter warning	0,1 ÷ (AP1-0,2)	1,2 bar	3
AP3	Offset	-2,0 ÷ +2,0	0 bar	3
AP4	Max. aux. pressure on start	(WP1-0,5) ÷ 1,0	2,0 bar	3

NOTE: WP5 is visualized just in case the compressor has been set to Master/Slave operation (see menu 4 Compressor SETUP).
Parameters AP1..AP4 are visualized if the security transducer has been configured in COMPRESSOR SETUP and if the parameter C19 set 1 or 2, only.
AP4 is the max. internal pressure allowing to run the motor (see icon I13, page 11).

M1-6 TEMPERATURES

In this menu you can change the setting related to the temperature.
Parameters, setting range, default and password level are reported in the table below:

Function	Description	Setting range	Default	Password level
WT1	High T. alarm	(WT2+2°C) ÷ 125°C	105 °C	3
WT2	High T. warning	(WT3+2°C) ÷ (WT1-2°C)	100 °C	2
WT3	Start fan	30°C ÷ (WT2-2°C)	85 °C	2
WT4	ΔT fan stop	5°C ÷ 15°C	10 °C	2
WT5	Low T. alarm	-10°C ÷ +15°C	0 °C	2
WT6	Offset	-10°C ÷ +10°C	0 °C	3
WT7	PID Enable temp.	-10°C ÷ 100°C	0 °C	3

M1-7 TIMER

In this menu you can change the setting related to the temperature.
Parameters, setting range, default and password level are reported in the table below:

Function	Description	Setting range	Default	Password level
Wt1	Star	2 ÷ 20 sec	5 sec.	3
Wt2	Star/Delta	10 ÷ 50 m.s.	35 m.s.	3
Wt3	Delta	1 ÷ 900 sec.	2 sec.	3
Wt4	Unload	0 ÷ 30 min	3 min.	2
Wt5	Safety	0 ÷ 240 sec.	30 sec.	2
Wt6	RL6 On	1 ÷ 10 sec	2 sec	1
Wt7	RL6 Off	1 ÷ 10 min	3 min.	1

NOTE: changing the set value, the new one is loaded once the counting in progress is over.
NOTE Wt4: non stop motor mode when Wt4 set to max.

M1-10HOURS FILTERS/OIL

In this menu you can visualize the maintenance timer; if you enter by a password level over 1, you can enter into the sub-menu to change and/or reset.

Function	Description	Setting range	Counter	Reset	Default	Password level
CAF	Change air filter	100 ÷ 3.000 h.	xxxxxx h.	NO	2.000	2
COF	Change oil filter	100 ÷ 10.000 h	xxxxxx h.	NO	2.000	2
CSF	Change separator filter	100 ÷ 10.000 h	xxxxxx h.	NO	4.000	2
C--	Change oil	100 ÷ 10.000 h	xxxxxx h.	NO	8.000	2
C--h	Check compressor	100 ÷ 10.000 h	xxxxxx h.	NO	500	2
C-BL	Bearings lubrication	100 ÷ 29.999 h	xxxxxx h.	NO	29.999	2

The counting is related to the ON time of the line contactor (RL1) and goes on backward: when the counting reaches 0, the display shows the related message and goes on as negative counting.
The storage of the hours comes every 15 minutes; if the power goes off during the counting such 15 minutes are missed.
If parameter **C--h** is set 10.000, the alarm "**CHECK COMP.**" is not enabled.
If parameter **C-BL** is set 29.999, the alarm "**BEARING. LUB.**" is not enabled (bearing lubricating).
By changing the set value than the count in progress is re-calculated.
Example: CAF, set 2000h, the counter is 1600, it means 400h has passed from reset. If yu change the set, for example 3000, the counter will change into 2600.

M1-11MAINTENANCE LIST

Memory related to reset of the maintenance timer with related date.
In case of empty memory the display visualizes the message "Memory empty".
The memory keeps till 20 data, the twenty-first erases the first one and so on.
Once the maintenance requested has been carried out, you have to reset the related counter; if you don't reset the timer every 50 working minutes or every power on of the compressor the display visualized the related maintenance message.

M1-12ALARMS LIST

List of the alarm detected with related progressive number, date, time and cause.
For maintenance alarm the display shows the icon I04, while the icon I05 for shut-off alarm.
Memory capacity of 20 alarms: the twenty-first erases the first one and so on; if the memory is empty the display visualizes the message "Memory empty".

ALARMS

ALARMS WITH IMMEDIATE COMPRESSOR SHUT-OFF

Code	Description	Cause
01	EMERGENCY STOP	Emergency stop button open (IN1)
02	MOTOR OVERLOAD	Thermal motor open (IN2)
03	THERMAL FAN	Thermal fan open (IN3)
04	NO PHASE	One or more phase missed for over 300 m.s.
05	WRONG PHASE	Phase inverted
07	DOOR OPEN	IN7 open (set as come door micro-switch)
09	DRIVE FAULT	Input relay fault drive open/closed (alarm managed with input enabled only (C21=1/2))
11	HIGH PRESSURE	Working pressure over set WP2
12	T. PROBE FAILURE	Air end temperature probe failure
13	HIGH TEMP.	Air end temperature over set WT1
14	LOW TEMP.	Air end temperature lower than set WT5
15	SEPARATOR FILTER	Delta P (internal pressure – working pressure) over shut off set AP1 once the timer C19.1 is over and air end temperature is over 45°C (alarm managed when the aux pressure transducer is enabled into differential operation (C19=2))
18	POWER OFF	In case of power off and compressor set as manual restart
20	TEMP. MOTORE	PTC input open
21	INPUT POWER FAULT	Safety pressure switch open (missing power to all digital inputs)
22	INPUT IN7	Parameter C12 = 3 (generic alarm)
25	SEPARATOR FILTER	Separator filter differential pressure switch open (IN6)

ALARMS WITH COMPRESSOR SHUT-OFF AFTER 30 SECONDS UNLOAD RUNNING

Code	Description	Cause
26	PRESS. TRANSD. FAILURE	Working pressure transducer failure
27	AUX. TRANSD. FAILURE	Aux. Pressure transducer failure
28	LOW VOLTAGE	Power supply to the controller lower than 9,5Vac and reset accepted when the power goes over 10,6Vac. It is not visualized in case it has been disabled in menu 4 Compressor SETUP
29	SAFETY	Timer CAF elapsed: this alarm is detected if the parameter Safety is set YES
30	HIGH TEMP. WARNING	Air end temperature over set WT2. Reset once temperature is lower than WT2-5°C
32	CHECK COMPRESS.	Timer C—h elapsed: reset the related maintenance timer
33	RS 485 FAILURE	In case compressor start/stop is operated via RS232 and the watchdog function is enabled (see MODBUS protocol communication)
60	INVERTER FAILURE	In case of inverter via RS485, shut off alarm detected (managed by inverter connected via RS485 only (DR0>0))
62	COMMUNICATION INVERTER	No communication to inverter in case of connection via RS485 (managed by inverter vua RS485 only (DR0>0))

NOTE:
Every time a shut-off alarm is detected, both relay set as alarm led DL1 are activated; the alarm message is stored into the alarm list; once the cause of the alarm has been erased, push the button **R** to reset the message and start the compressor.

WARNINGS (VISUAL ALARMS)

Code	Description	Cause
30	HIGH TEMPERATURE WARNING	Air end temperature over set WT2. Reset while temperature below WT2-5°C
35	DATA LOST	Loading default data
36	AIR FILTER	Air filter pressure switch closed (IN5)
37	MULTIUNIT FAILURE	No communication or Master failure: each Slave works stand alone
38	SEPARATOR FILTER	Delta P (internal pressure – working pressure) over warning set AP2 when the timer C19.1 is over and the air end temperature is over 45°C (alarm managed by aux pressure transducer set into differential operation (C19=1)
39	LOW VOLTAGE	Power supply to the controller lower than 11.6Vac and automatic reset when the voltage rise over 12Vac
40	HIGH VOLTAGE	Power supply to the controller over 14.5Vac
41	CLOCK FAILURE	Try to switch off and switch on the controller: if the problem goes on contact the compressor manufacturer
42	RS485 FAILURE	Master/slave communication is gone: auto reset while communication restart properly
43	ORA LEGALE/SOLARE	Automatic change DLS/Summer time
47*	STARTS/HOUR	Starts/hour over set on parameter "Starts/hour" (menu 4). The compressor will not stop and keep on running loading/unloading according the pressure till the end of one hour time from the first starting in the same hour
61	ALLARME INVERTER	Inverter failure detected in case of inverter connected vua RS485 (managed in case of inverter communication via RS485 enabled (DR0>0))

NOTE:

- In case of warning the relay set as alarm output is activated with intermittency further to led DL1; the alarm message is stored into the alarms list.
- When the message is visualized (in case it has not automatic reset), by pushing the button **R** you can reset the message.

MESSAGES VISUALIZED INTO ALARM LIST ONLY

Code	Description	Cause
48	MAN RESTART	Restart changed from automatic into manual
49	AUTO RESTART	Restart changed from manual into automatic

MAINTENANCE MESSAGES

Code	Description	Cause
50	CHANGE AIR FILTER	Timer CAF in menu 10 elapsed
51	CACHANGE OIL FILTER	Timer COF in menu 10 elapsed
52	CHANGE SEP. FILTER	Timer in menu 10 elapsed
53	CHANGE OIL	Timer C— in menu 10 elapsed
54	CHECK COMPRESS.	Timer C-h in menu 10 elapsed
55	CONCHECK BEARINGS	Timer C-BL in menu 10 elapsed

The message is shown with the symbol and related code.
If you reset the alarm only, the icon remain in the left upper corner of the display until you reset the counter too.