



CAWANGAN KEJURUTERAAN ELEKTRIK  
JABATAN KERJA RAYA MALAYSIA

# SIJIL EMAL

Sijil Pendaftaran Bahan/Barangan Elektrik (**Electrical Material Approved List**) ini dikeluarkan kepada **pengilang/pembekal** :

Syarikat : **DELAB SCIENTIFIC SDN. BHD.**  
Alamat : NO. 22, JALAN TEMBAGA SD5/2D, BANDAR SRI DAMANSARA,  
52200 KUALA LUMPUR.

Bahan : **PROTECTION RELAY (COMBINED OVER CURRENT AND EARTH FAULT RELAY)**

Pendaftaran ini adalah seperti butiran di bawah dan tertakluk kepada Spesifikasi JKR dan **syarat-syarat di muka surat 2**. Sijil ini hendaklah dibaca bersama **Lampiran** (2 muka surat).

Pengilang	: DELAB SCIENTIFIC SDN. BHD.
Negara Pengilang	: MALAYSIA
Jenama	: DELAB
Model	: DP-34
Kadaran	: SEPERTI LAMPIRAN
No. Perakuan ST/No. Sijil/ Laporan Ujian Jenis	: LAPORAN UJIAN SIRIM : 2015RE632
Tarikh Tamat	: 15.06.2026
Rujukan Standard	i) SAFETY STANDARD : IEC 60255-27:2013 (10.6.4.2 IMPULSE VOLTAGE WITHSTAND & CLAUSE 10.6.4.3 DIELECTRIC TEST) ii) EMC STANDARD : IEC 60255-26:2013 (CLAUSE 5.1, 7.2.3, 7.2.4, 7.2.5, 7.2.6, 7.2.7, 7.2.8, 7.2.10 & 7.2.11)
Catatan	: i) COMMUNICATION INTERFACE : RS 485 (EXTERNAL MODULE IS REQUIRED) DAN SEPERTI LAMPIRAN



Tarikh dikeluarkan/diperbaharui : 7 Julai 2023

**Ir. HANIZAN BINTI SHAFFII**  
Pegarah Kanan  
Cawangan Kejuruteraan Elektrik  
b.p. Ketua Pegarah Kerja Raya  
JKR Malaysia

LAMPIRAN

<b>Perihal Barangan</b>	: <b>COMBINED OVER CURRENT AND EARTH FAULT RELAY</b>
<b>Nama Syarikat</b>	: <b>DELAB SCIENTIFIC SDN. BHD.</b>
<b>Alamat Syarikat</b>	: <b>NO. 22, JALAN TEMBAGA SD5/2D, BANDAR SRI DAMANSARA, 52200 KUALA LUMPUR.</b>
<b>No. Telefon</b>	: <b>03 – 6272 6506</b>
<b>No. Faksimile</b>	: <b>03 – 6272 6915</b>
<b>E-mel</b>	: <b>steven@delab.com.my</b>
<b>Nama Pengilang</b>	: <b>DELAB SCIENTIFIC SDN. BHD.</b>
<b>Negara Pengilang</b>	: <b>MALAYSIA</b>
<b>Jenama</b>	: <b>DELAB</b>
<b>No. Perakuan ST / No. Sijil / Laporan Ujian</b>	: <b>LAPORAN UJIAN SIRIM : 2015RE632</b>
<b>Tarikh Tamat</b>	: <b>15.06.2026</b>
<b>Rujukan Standard</b>	: <b>i) SAFETY STANDARD : IEC 60255-27:2013 (10.6.4.2 IMPULSE VOLTAGE WITHSTAND &amp; CLAUSE 10.6.4.3 DIELECTRIC TEST)          ii) EMC STANDARD : IEC 60255-26:2013 (CLAUSE 5.1, 7.2.3, 7.2.4, 7.2.5, 7.2.6, 7.2.7, 7.2.8, 7.2.10 &amp; 7.2.11)</b>
<b>Catatan</b>	: <b>i) COMMUNICATION INTERFACE : RS 485 (EXTERNAL MODULE IS REQUIRED)          ii) COMMUNICATION PROTOCOL : MODBUS RTU (EXTERNAL MODULE IS REQUIRED)          iii) COMMUNICATION DEVICE : PERSONAL COMPUTER (EXTERNAL MODULE IS REQUIRED)          iv) REMOTE REAL TIME MONITORING AND MANAGEMENT SYSTEM : YES (EXTERNAL MODULE IS REQUIRED)          v) AMBIENT TEMPERATURE : 0 °C TO 55 °C          vi) RELATIVE HUMIDITY : 93%          vii) DEGREE OF PROTECTION : IP 54 AT PANEL          viii) FAULT RECORD : YES          ix) EVENT RECORD : YES          x) BUILT-IN SELF-TEST/DIAGNOSTIC : YES (DEVICE FAILURE - DUF)          xi) EXTERNAL ALARM CONTACT FOR PROTECTION RELAY FAILURE/DEFECT : YES          xii) OTHER(S) : LATEST FIRMWARE REVISION : 2.06</b>
<b>Muka Surat</b>	: <b>1 daripada 2</b>

KETERANGAN

BIL	MODEL	POWER SUPPLY	MOUNTING TYPE	TIME DELAY SETTING RANGES	CURRENT SETTING RANGES
1	DP-34	65 ~ 275 VAC, 45 ~ 65 Hz OR 90 ~ 300 VDC	OVER CURRENT PROTECTION	a) LOW SET TIME DELAY SETTING (tp>): i) TMS FOR INVERSE TIME DELAY (TMS lp>): 0.05 TO 1 ii) DELAY FOR DEFINITE TIME: 0.03 s TO 20 s	a) LOW SET OVER CURRENT SETTING (lp>): 2% TO 200% OF In
				b) HIGH SET TIME DELAY SETTING (tp>>): 0 s OR 0.02 s TO 0.5 s	b) HIGH SET OVER CURRENT SETTING (lp>>): 20% TO 2000% OF In



LAMPIRAN

**Perihal Barangan** : **COMBINED OVER CURRENT AND EARTH FAULT RELAY**

**Nama Syarikat** : **DELAB SCIENTIFIC SDN. BHD.**

**Alamat Syarikat** : **NO. 22, JALAN TEMBAGA SD5/2D, BANDAR SRI DAMANSARA, 52200 KUALA LUMPUR.**

**No. Telefon** : **03 – 6272 6506**

**No. Faksimile** : **03 – 6272 6915**

**E-mel** : **steven@delab.com.my**

**Nama Pengilang** : **DELAB SCIENTIFIC SDN. BHD.**

**Negara Pengilang** : **MALAYSIA**

**Jenama** : **DELAB**

**No. Perakuan ST / No. Sijil / Laporan Ujian** : **LAPORAN UJIAN SIRIM : 2015RE632**

**Tarikh Tamat** : **15.06.2026**

**Rujukan Standard** : **i) SAFETY STANDARD : IEC 60255-27:2013 (10.6.4.2 IMPULSE VOLTAGE WITHSTAND & CLAUSE 10.6.4.3 DIELECTRIC TEST)**  
**ii) EMC STANDARD : IEC 60255-26:2013 (CLAUSE 5.1, 7.2.3, 7.2.4, 7.2.5, 7.2.6, 7.2.7, 7.2.8, 7.2.10 & 7.2.11)**

**Catatan** : **i) COMMUNICATION INTERFACE : RS 485 (EXTERNAL MODULE IS REQUIRED)**  
**ii) COMMUNICATION PROTOCOL : MODBUS RTU (EXTERNAL MODULE IS REQUIRED)**  
**iii) COMMUNICATION DEVICE : PERSONAL COMPUTER (EXTERNAL MODULE IS REQUIRED)**  
**iv) REMOTE REAL TIME MONITORING AND MANAGEMENT SYSTEM : YES (EXTERNAL MODULE IS REQUIRED)**  
**v) AMBIENT TEMPERATURE : 0 °C TO 55 °C**  
**vi) RELATIVE HUMIDITY : 93%**  
**vii) DEGREE OF PROTECTION : IP 54 AT PANEL**  
**viii) FAULT RECORD : YES**  
**ix) EVENT RECORD : YES**  
**x) BUILT-IN SELF-TEST/DIAGNOSTIC : YES (DEVICE FAILURE - DUF)**  
**xi) EXTERNAL ALARM CONTACT FOR PROTECTION RELAY FAILURE/DEFECT : YES**  
**xii) OTHER(S) : LATEST FIRMWARE REVISION : 2.06**

**Muka Surat** : **2 daripada 2**

KETERANGAN

BIL	MODEL	POWER SUPPLY	MOUNTING TYPE	TIME DELAY SETTING RANGES	CURRENT SETTING RANGES
1	DP-34	65 ~ 275 VAC, 45 ~ 65 Hz OR 90 ~ 300 VDC	EARTH FAULT PROTECTION	a) LOW SET TIME DELAY SETTING (te>): i) TMS FOR INVERSE TIME DELAY (TMS le>): 0.05 TO 1 ii) DELAY FOR DEFINITE TIME: 0.03 s TO 20 s	a) LOW SET EARTH FAULT SETTING (Ie>): 2% TO 100% OF In
				b) HIGH SET TIME DELAY SETTING (te>>): 0 s OR 0.02 s TO 0.5 s	b) HIGH SET EARTH FAULT SETTING (Ie>>): 20% TO 1000% OF In

